

ISSN 2518-1467 (Online),  
ISSN 1991-3494 (Print)



«ҚАЗАҚСТАН РЕСПУБЛИКАСЫ  
ҰЛТТЫҚ ҒЫЛЫМ

«ҚАЗАҚСТАН РЕСПУБЛИКАСЫ  
ҰЛТТЫҚ ҒЫЛЫМ АКАДЕМИЯСЫ» РҚБ

# Х А Б А Р Ш Ы С Ы

---

---

**ВЕСТНИК**

РОО «НАЦИОНАЛЬНОЙ  
АКАДЕМИИ НАУК  
РЕСПУБЛИКИ КАЗАХСТАН»

**THE BULLETIN**

OF THE ACADEMY OF SCIENCES  
OF THE REPUBLIC OF  
KAZAKHSTAN

PUBLISHED SINCE 1944

**1 (413)**

JANUARY – FEBRUARY 2025

---

ALMATY, NAS RK

---

## БАС РЕДАКТОР:

**ӘБЛҚАСЫМОВА Алма Есімбекқызы**, педагогика ғылымдарының докторы, профессор, ҚР ҰҒА академигі, Педагогикалық білім беруді дамыту орталығының директоры, Абай атындағы ҚазҰПУ математика, физика және информатиканы оқыту әдістемесі кафедрасының меңгерушісі (Алматы, Қазақстан), <https://www.scopus.com/authid/detail.uri?authorId=57191275199>, <https://www.webofscience.com/wos/author/record/2076124>.

## БАС РЕДАКТОРДЫҢ ОРЫНБАСАРЫ:

**СЕМБИЕВА Ләззат Мықтыбекқызы**, экономика ғылымдарының докторы, Л.Н.Гумилев атындағы Еуразия ұлттық университетінің профессоры (Астана, Қазақстан), <https://www.scopus.com/authid/detail.uri?authorId=57194226348>, <https://www.webofscience.com/wos/author/record/38875302>.

## РЕДАКЦИЯ АЛҚАСЫ:

**РИШЕЛЬ Мариновски**, білім беру саласындағы PhD, Летбридж университеті педагогика факультетінің профессоры, (Альберта, Канада), <https://www.scopus.com/authid/detail.uri?authorId=57070452800>, <https://www.webofscience.com/wos/author/record/16130920>.

**ШИШОВ Сергей Евгеньевич**, педагогика ғылымдарының докторы, профессор, К.Разумовский атындағы Мәскеу мемлекеттік технологиялар және басқару университетінің кәсіби білім беру педагогикасы және психологиясы кафедрасының меңгерушісі (Мәскеу, Ресей), <https://www.scopus.com/authid/detail.uri?authorId=57191518233>, <https://www.webofscience.com/wos/author/record/2443966>.

**ӘБЛДИНА Салтанат Қуатқызы**, педагогика ғылымдарының докторы, профессор, Е.А.Бөкетов атындағы Қарағанды университетінің педагогика кафедрасының меңгерушісі (Қарағанды, Қазақстан), <https://www.scopus.com/authid/detail.uri?authorId=56128026400>, <https://www.webofscience.com/wos/author/record/4131549>.

**РЫЖАКОВ Михаил Викторович**, педагогика ғылымдарының докторы, профессор, Ресей білім академиясының академигі, «Білім берудегі стандарттар мен мониторинг» журналының бас редакторы (Мәскеу, Ресей), <https://www.scopus.com/authid/detail.uri?authorId=6602245542>, <https://www.webofscience.com/wos/author/record/13675462>.

**БОЛАТБАЕВА Күлжанат Нұрымжанқызы**, педагогика ғылымдарының докторы, профессор, Б. Алтынсарин атындағы Ұлттық білім академиясының бас ғылыми қызметкері (Астана, Қазақстан), <https://www.scopus.com/authid/detail.uri?authorId=57202195074>, <https://www.webofscience.com/wos/author/record/40173122>.

**ПЕТР Хайек**, PhD, Юникорн университеті, Қаржы департаментінің қауымдастырылған профессоры (Чех Республикасы), <https://www.scopus.com/authid/detail.uri?authorId=35726855800>, <https://www.webofscience.com/wos/author/record/672404>.

**ЖҰМАН Жаппар**, экономика ғылымдарының докторы, профессор, Қазақстанның Еңбек сіңірген қайраткері, ҚР ҰҒА құрметті академигі, әл-Фараби атындағы Қазақ ұлттық университетінің Халықаралық қолданбалы зерттеулер орталығының директоры (Алматы, Қазақстан), <https://www.scopus.com/authid/detail.uri?authorId=59238481900>; <https://www.scopus.com/authid/detail.uri?authorId=56658765400>, <https://www.webofscience.com/wos/author/record/60977874>.

**ЛУКЬЯНЕНКО Ирина Григорьевна**, экономика ғылымдарының докторы, профессор, «Киево-Могилянская академия» ұлттық университеті кафедрасының меңгерушісі (Киев, Украина), <https://www.scopus.com/authid/detail.uri?authorId=57189348551>, <https://www.webofscience.com/wos/author/record/939510>.

**ЕСІМЖАНОВА Сайра Рафихқызы**, экономика ғылымдарының докторы, Халықаралық бизнес университетінің профессоры (Алматы, Қазақстан), <https://www.scopus.com/authid/detail.uri?authorId=56499485500>, <https://www.webofscience.com/wos/author/record/45951098>.

**«Қазақстан Республикасы Ұлттық ғылым академиясы РҚБ-нің Хабаршысы».**

**ISSN 2518-1467 (Online),**

**ISSN 1991-3494 (Print).**

Меншіктенуші: «Қазақстан Республикасының Ұлттық ғылым академиясы» РҚБ (Алматы қ.). Қазақстан Республикасының Ақпарат және коммуникациялар министрлігінің Ақпарат комитетінде 12.02.2018 ж. берілген

№ 16895-Ж мерзімдік басылым тіркеуіне қойылу туралы куәлік.

Тақырыптық бағыты: *«іргелі ғылым салалары бойынша жаңа жетістіктердің нәтижелерін жариялау»*

Мерзімділігі: жылына 6 рет.

Тиражы: 300 дана.

Редакцияның мекен-жайы: 050010, Алматы қ., Шевченко көш., 28, 219 бөл., тел.: 272-13-19

<http://www.bulletin-science.kz/index.php/en/>

© «Қазақстан Республикасының Ұлттық ғылым академиясы» РҚБ, 2025

## ГЛАВНЫЙ РЕДАКТОР:

**АБЫЛКАСЫМОВА Алма Есимбековна**, доктор педагогических наук, профессор, академик НАН РК, директор Центра развития педагогического образования, заведующая кафедрой методики преподавания математики, физики и информатики КазНПУ им. Абая (Алматы, Казахстан), <https://www.scopus.com/authid/detail.uri?authorId=57191275199>, <https://www.webofscience.com/wos/author/record/2076124>.

## ЗАМЕСТИТЕЛЬ ГЛАВНОГО РЕДАКТОРА:

**СЕМБИЕВА Ляззат Мыктыбековна**, доктор экономических наук, профессор Евразийского национального университета им. Л.Н. Гумилева (Астана, Казахстан), <https://www.scopus.com/authid/detail.uri?authorId=57194226348>, <https://www.webofscience.com/wos/author/record/38875302>.

## РЕДАКЦИОННАЯ КОЛЛЕГИЯ:

**РИШЕЛЬ Мариновски**, PhD в области образования, профессор факультета педагогики Летбриджского университета, (Альберта, Канада), <https://www.scopus.com/authid/detail.uri?authorId=57070452800>, <https://www.webofscience.com/wos/author/record/16130920>.

**ШИШОВ Сергей Евгеньевич**, доктор педагогических наук, профессор, заведующий кафедрой педагогики и психологии профессионального образования Московского государственного университета технологий и управления имени К. Разумовского (Москва, Россия), <https://www.scopus.com/authid/detail.uri?authorId=57191518233>, <https://www.webofscience.com/wos/author/record/2443966>.

**АБИЛЬДИНА Салтанат Куатовна**, доктор педагогических наук, профессор, заведующая кафедрой педагогики Карагандинского университета имени Е.А. Букетова (Караганда, Казахстан), <https://www.scopus.com/authid/detail.uri?authorId=56128026400>, <https://www.webofscience.com/wos/author/record/4131549>.

**РЫЖАКОВ Михаил Викторович**, доктор педагогических наук, профессор, академик Российской академии образования, главный редактор журнала «Стандарты и мониторинг в образовании» (Москва, Россия), <https://www.scopus.com/authid/detail.uri?authorId=6602245542>, <https://www.webofscience.com/wos/author/record/13675462>.

**БУЛАТБАЕВА Кулжанат Нурымжановна**, доктор педагогических наук, профессор, главный научный сотрудник Национальной академии образования имени Ы. Алтынсарина (Астана, Казахстан), <https://www.scopus.com/authid/detail.uri?authorId=57202195074>, <https://www.webofscience.com/wos/author/record/40173122>.

**ПЕТР Хайек**, PhD, университет Юникорн, ассоциированный профессор Департамента финансов, (Чешская Республика), <https://www.scopus.com/authid/detail.uri?authorId=35726855800>, <https://www.webofscience.com/wos/author/record/672404>.

**ЖУМАН Жаппар**, доктор экономических наук, профессор, заслуженный деятель Казахстана, почетный академик НАН РК, директор Центра Международных прикладных исследований Казахского национального университета им. аль-Фараби (Алматы, Казахстан) <https://www.scopus.com/authid/detail.uri?authorId=59238481900>; <https://www.scopus.com/authid/detail.uri?authorId=56658765400>, <https://www.webofscience.com/wos/author/record/60977874>.

**ЛУКЪЯНЕНКО Ирина Григорьевна**, доктор экономических наук, профессор, заведующая кафедрой Национального университета «Киево-Могилянская академия» (Киев, Украина), <https://www.scopus.com/authid/detail.uri?authorId=57189348551>, <https://www.webofscience.com/wos/author/record/939510>.

**ЕСИМЖАНОВА Сайра Рафихевна**, доктор экономических наук, профессор Университета международного бизнеса (Алматы, Казахстан), <https://www.scopus.com/authid/detail.uri?authorId=56499485500>, <https://www.webofscience.com/wos/author/record/45951098>.

«Вестник РОО «Национальной академии наук Республики Казахстан».

ISSN 2518-1467 (Online),

ISSN 1991-3494 (Print).

Собственник: РОО «Национальная академия наук Республики Казахстан» (г. Алматы). Свидетельство о постановке на учет периодического печатного издания в Комитете информации Министерства информации и коммуникаций и Республики Казахстан № 16895-Ж, выданное 12.02.2018 г.

Тематическая направленность: *«публикация результатов новых достижений в области фундаментальных наук».*

Периодичность: 6 раз в год.

Тираж: 300 экземпляров.

Адрес редакции: 050010, г. Алматы, ул. Шевченко, 28, ком. 219, тел. 272-13-19

<http://www.bulletin-science.kz/index.php/en/>

© РОО «Национальная академия наук Республики Казахстан», 2025

#### EDITOR-IN-CHIEF:

**ABYLKASSIMOVA Alma Yesimbekovna**, Doctor of Pedagogical Sciences, Professor, Academician of NAS RK, Director of the Center for the Development of Pedagogical Education, Head of the Department of Methods of Teaching Mathematics, Physics and Computer Science at Abai KazNPU (Almaty, Kazakhstan), <https://www.scopus.com/authid/detail.uri?authorId=57191275199>, <https://www.webofscience.com/wos/author/record/2076124>.

#### DEPUTY EDITOR-IN-CHIEF:

**SEMBIEVA Lyazzat Myktybekovna**, Doctor of Economics, Professor of the Eurasian National University (Astana, Kazakhstan), <https://www.scopus.com/authid/detail.uri?authorId=57194226348>, <https://www.webofscience.com/wos/author/record/38875302>.

#### EDITORIAL BOARD:

**RICHELLE Marynowski**, PhD in Education, Professor, Faculty of Education, University of Lethbridge, ( Alberta, Canada), <https://www.scopus.com/authid/detail.uri?authorId=57070452800>, <https://www.webofscience.com/wos/author/record/16130920>.

**SHISHOV Sergey Evgenievich**, Doctor of Pedagogical Sciences, Professor, Head of the Department of Pedagogy and Psychology of Professional Education, Moscow State University of Technology and Management named after K. Razumovsky (Moscow, Russia), <https://www.scopus.com/authid/detail.uri?authorId=57191518233>, <https://www.webofscience.com/wos/author/record/2443966>.

**ABILDINA Saltanat Kuatovna**, Doctor of Pedagogical Sciences, Professor, Head of the Department of Pedagogy, Karaganda University named after E.A. Buketov (Karaganda, Kazakhstan), <https://www.scopus.com/authid/detail.uri?authorId=56128026400>, <https://www.webofscience.com/wos/author/record/4131549>.

**RYZHAKOV Mikhail Viktorovich**, Doctor of Pedagogical Sciences, Professor, Academician of the Russian Academy of Education, Editor-in-Chief of the journal “Standards and Monitoring in Education” (Moscow, Russia), <https://www.scopus.com/authid/detail.uri?authorId=6602245542>, <https://www.webofscience.com/wos/author/record/13675462>.

**BULATBAEVA Kulzhanat Nurymzhanovna**, Doctor of Pedagogical Sciences, Professor, Chief Researcher of the National Academy of Education named after Y. Altynsarin (Astana, Kazakhstan), <https://www.scopus.com/authid/detail.uri?authorId=57202195074>, <https://www.webofscience.com/wos/author/record/40173122>.

**PETR Hájek**, PhD, Unicorn University, Associate Professor, Department of Finance, ( Czech Republic), <https://www.scopus.com/authid/detail.uri?authorId=35726855800>, <https://www.webofscience.com/wos/author/record/672404>.

**JUMAN Jappar**, Doctor of Economics, Professor, Honorary Academician of NAS RK, Honored Worker of Kazakhstan, Director of the Center for International Applied Research Al-Farabi Kazakh National University (Almaty, Kazakhstan) <https://www.scopus.com/authid/detail.uri?authorId=59238481900>; <https://www.scopus.com/authid/detail.uri?authorId=56658765400>, <https://www.webofscience.com/wos/author/record/60977874>.

**LUKYANENKO Irina Grigorievna**, Doctor of Economics, Professor, Head of Department of the National University of Kyiv-Mohyla Academy (Kyiv, Ukraine), <https://www.scopus.com/authid/detail.uri?authorId=57189348551>, <https://www.webofscience.com/wos/author/record/939510>.

**YESIMZHANOVA Saira Rafievna**, Doctor of Economics, Professor of the University of International Business (Almaty, Kazakhstan), <https://www.scopus.com/authid/detail.uri?authorId=56499485500>, <https://www.webofscience.com/wos/author/record/45951098>.

#### **Bulletin of the National Academy of Sciences of the Republic of Kazakhstan.**

**ISSN 2518-1467 (Online),**

**ISSN 1991-3494 (Print).**

Owner: RPA «National Academy of Sciences of the Republic of Kazakhstan» (Almaty). The

certificate of registration of

a periodical printed publication in the Committee of information of the Ministry of Information and Communications

of the Republic of Kazakhstan **No. 16895-Ж**, issued on 12.02.2018.

Thematic focus: *«publication of the results of new achievements in the field of fundamental sciences»*

Periodicity: 6 times a year.

Circulation: 300 copies.

Editorial address: 28, Shevchenko str., of. 220, Almaty, 050010, tel. 272-13-19

<http://www.bulletin-science.kz/index.php/en/>

© National Academy of Sciences of the Republic of Kazakhstan, 2025

BULLETIN OF NATIONAL ACADEMY OF SCIENCES  
OF THE REPUBLIC OF KAZAKHSTAN  
ISSN 1991-3494  
Volume 1. Number 413 (2025), 436–448

<https://doi.org/10.32014/2025.2518-1467.906>

UDC 338.24  
CICSTI 06.39.02

**N. Mazhitova\*, M. Umirzakova, A. Abdimomynova, 2025.**

Korkyt Ata Kyzylorda University, Kyzylorda, Kazakhstan.

\*E-mail: [nurziya\\_mazhitova@mail.ru](mailto:nurziya_mazhitova@mail.ru)

## **INTELLECTUAL CAPITAL AS A DRIVER OF ECONOMIC GROWTH**

**Mazhitova Nurzya** – Master of economics, Department of Foreign languages and translation of the Korkyt Ata Kyzylorda University, Kazakhstan, Kyzylorda, E-mail: [nurziya\\_mazhitova@mail.ru](mailto:nurziya_mazhitova@mail.ru), <https://www.orcid.org/0009-0003-3604-0880>;

**Umirzakova Meruyert** – Candidate of economics, Department of Economics and Management of the Korkyt Ata Kyzylorda University, Kazakhstan, Kyzylorda, E-mail: [umirzakova1972@mail.ru](mailto:umirzakova1972@mail.ru), <https://www.orcid.org/0000-0003-2339-1086>;

**Abdimomynova Almakul** – Candidate of economics, Department of Economics and Management of the Korkyt Ata Kyzylorda University, Kazakhstan, Kyzylorda, E-mail: [abdim.alma@mail.ru](mailto:abdim.alma@mail.ru), <https://www.orcid.org/0000-0002-2237-7699>.

**Abstract.** The article examines the role of intellectual capital as a key driver of economic growth in the context of the global knowledge economy. It explores the scientific aspects of the formation and utilization of intellectual capital, including human, structural, and market capital. Particular attention is paid to the relationship between the development of intellectual capital and the enhancement of economic competitiveness, as well as the impact of knowledge, innovations, and technological progress on economic processes. The relevance of the topic lies in the fact that the level of development of intellectual capital components varies across countries, and strengthening these components can ensure economic growth. The development of national welfare directly depends on the level of scientific and technological progress, new developments, as well as the adoption of technologies and the advancement of human capital. The development of the economy is determined by its innovative orientation. The aim of the article is to substantiate the role of intellectual capital as a key driver of economic growth and, based on scientific research, to determine its structure, functions, and significance for economic and innovative development. Drawing on scientific studies, the authors identified the main mechanisms for integrating intellectual capital into economic processes and emphasized its importance in ensuring sustainable development within the modern knowledge economy.

The results of the study confirm a direct correlation between the level of intellectual capital development and the pace of economic growth. It was also established that intellectual capital operates with varying efficiency in developed and developing countries. In developing countries, particular attention should be paid not only to ensuring access to education but also to improving its quality. Any efforts aimed at accelerating economic growth must be based on intellectual capital.

**Keywords:** intellectual capital, economic growth, innovative economy, human capital, education.

***Acknowledgements:** This research article has been supported by the Korkyt Ata of Kyzylorda University it was financed as part of a grant from the Chairman-rector for young scientists.*

**Н.Ә. Мәжитова\*, М.А. Умирзакова, А.Ш. Абдимомынова, 2025.**

Қорқыт Ата атындағы Қызылорда университеті, Қызылорда, Қазақстан.

\*E-mail: nurziya\_mazhitova@mail.ru

## **ЗИЯТКЕРЛІК КАПИТАЛ ЭКОНОМИКАЛЫҚ ӨСІМНІҢ ДРАЙВЕРІ РЕТІНДЕ**

**Мәжитова Нұрзия Әбдіқайырқызы** – э.ғ.м., Қорқыт Ата Қызылорда университеті Шетел тілдері және аударма кафедрасының оқытушысы, Қазақстан, Қызылорда, E-mail: nurziya\_mazhitova@mail.ru, <https://www.orcid.org/0009-0003-3604-0880>;

**Умирзакова Меруерт Абдуалиевна** – э.ғ.к., Қорқыт Ата Қызылорда университеті Экономика және басқару кафедрасының аға оқытушысы, Қазақстан, Қызылорда, E-mail: umirzakova1972@mail.ru, <https://www.orcid.org/0000-0003-2339-1086>;

**Абдимомынова Алмақұл Шакирбековна** – э.ғ.к., Қорқыт Ата Қызылорда университеті Экономика және басқару кафедрасының доценті, Қазақстан, Қызылорда, E-mail: abdim.alma@mail.ru, <https://www.orcid.org/0000-0002-2237-7699>.

**Аннотация.** Мақалада зияткерлік капиталдың ғаламдық білім экономикасы жағдайында экономикалық өсімнің негізгі драйвері ретіндегі рөлі зерттеледі. Зияткерлік капиталды, оның ішінде адами, құрылымдық және нарықтық капиталды қалыптастыру мен пайдаланудың ғылыми аспектілері қарастырылады. Зияткерлік капиталды дамыту мен экономиканың бәсекеге қабілеттілігін арттыру арасындағы өзара байланысқа, сондай-ақ білімнің, инновациялардың және технологиялық прогрестің экономикалық үдерістерге әсеріне ерекше назар аударылған. Тақырыптың өзектілігі – зияткерлік капиталдың компоненттерінің даму деңгейі әр елде әртүрлі болуымен және оларды күшейту арқылы экономикалық өсімді қамтамасыз етуге болатындығын дәлелдеуде. Ұлттық әл-ауқатты дамыту тікелей ғылыми-техникалық прогрестің, жаңа әзірлемелердің, сондай-ақ технологияларды енгізу мен адами капиталды дамытудың деңгейіне тәуелді. Экономиканың дамуы инновациялық бағытқа байланысты анықталады. Мақаланың мақсаты – зияткерлік капиталдың экономикалық өсімнің негізгі драйвері ретіндегі рөлін негіздеу, сондай-ақ

оның құрылымы, функциялары, экономикалық және инновациялық дамудағы маңызын ғылыми зерттеулерге сүйене отырып, тұжырымдау. Ғылыми зерттеулерге сүйене отырып, авторлар зияткерлік капиталды экономикалық үдерістерге біріктірудің негізгі механизмдерін анықтап, қазіргі білім экономикасы жағдайында тұрақты даму үшін оның маңыздылығын атап өтті. Зерттеу нәтижелері зияткерлік капиталдың даму деңгейі мен экономикалық өсім қарқыны арасындағы тікелей тәуелділікті растайды. Сондай-ақ, зияткерлік капитал дамыған және дамушы елдерде әртүрлі тиімділікпен жұмыс жасайды. Дамушы мемлекеттерде біліммен қамтудан бұрын білімнің сапасын арттыру маңыздылығына назар аудара отырып, экономикалық өсімнің қарқынын арттыруға бағытталған кез-келген күш-жігері зияткерлік капиталға сүйене отырып жүзеге асырылуы керек.

**Түйін сөздер:** зияткерлік капитал, экономикалық өсім, инновациялық экономика, адами капитал, білім.

**Н.А. Мажитова\*, М.А. Умирзакова, А.Ш. Абдимомынова, 2025.**

Кызылординский университет имени Коркыт Ата, Кызылорда, Казахстан.

\*E-mail: [nurziya\\_mazhitova@mail.ru](mailto:nurziya_mazhitova@mail.ru)

## **ИНТЕЛЛЕКТУАЛЬНЫЙ КАПИТАЛ КАК ДРАЙВЕР ЭКОНОМИЧЕСКОГО РОСТА**

**Мажитова Нурзия Абдикайырқызы** – м.э.н., преподаватель кафедры Иностранные языки и перевод Кызылординского университета имени Коркыт Ата, Кызылорда, Казахстан, E-mail: [nurziya\\_mazhitova@mail.ru](mailto:nurziya_mazhitova@mail.ru), <https://www.orcid.org/0009-0003-3604-0880>;

**Умирзакова Меруерт Абдуалиевна** – к.э.н., старший преподаватель кафедры экономики и управления Кызылординского университета имени Коркыт Ата, Кызылорда, Казахстан, E-mail: [umirzakova1972@mail.ru](mailto:umirzakova1972@mail.ru), <https://www.orcid.org/0000-0003-2339-1086>;

**Абдимомынова Алмакул Шакирбековна** – к.э.н., доцент кафедры экономики и управления Кызылординского университета имени Коркыт Ата, Кызылорда, Казахстан, E-mail: [abdima@mail.ru](mailto:abdima@mail.ru), <https://www.orcid.org/0000-0002-2237-7699>.

**Аннотация.** В статье исследуется роль интеллектуального капитала как основного драйвера экономического роста в условиях глобальной экономики знаний. Рассматриваются научные аспекты формирования и использования интеллектуального капитала, включая человеческий, структурный и рыночный капитал. Особое внимание уделяется взаимосвязи между развитием интеллектуального капитала и повышением конкурентоспособности экономики, а также влиянию знаний, инноваций и технологического прогресса на экономические процессы. Актуальность темы заключается в том, что уровень развития компонентов интеллектуального капитала различается в каждой стране, и его усиление может обеспечить экономический рост. Развитие национального благосостояния напрямую зависит от уровня научно-технического прогресса, новых разработок, а также внедрения технологий и развития человеческого капитала. Развитие экономики определяется

ее инновационной направленностью. Цель статьи - обосновать роль интеллектуального капитала как основного драйвера экономического роста, а также, опираясь на научные исследования, определить его структуру, функции и значение для экономического и инновационного развития. Опираясь на научные исследования ученых, авторы выявили основные механизмы интеграции интеллектуального капитала в экономические процессы и подчеркнули его значимость для обеспечения устойчивого развития в условиях современной экономики знаний. Результаты исследования подтверждают прямую зависимость между уровнем развития интеллектуального капитала и темпами экономического роста. Также установлено, что интеллектуальный капитал функционирует с разной эффективностью в развитых и развивающихся странах. В развивающихся странах особое внимание следует уделять не только обеспечению доступа к образованию, но и повышению его качества. Любые усилия, направленные на ускорение темпов экономического роста, должны основываться на интеллектуальном капитале.

**Ключевые слова:** интеллектуальный капитал, экономический рост, инновационная экономика, человеческий капитал, образование.

**Introduction.** Economic growth is characterized by the increase in the quantity and quality of goods and services that a country's national economy can produce, reflecting the extent of its economic development. This growth indicates the degree of progress within the economy and has a positive impact on improving the standard of living and quality of life for the population.

Two types of economic growth are recognized: extensive and intensive.

- Extensive economic growth involves an increase in the number of goods and services produced while maintaining the technical structure of production at a certain level.

- Intensive economic growth, on the other hand, is associated with qualitative improvements in production processes.

In today's world, it is challenging to find examples of growth driven solely by one of these types.

The factors influencing economic growth into three categories:

Supply factors: Including the quantity and quality of resources (natural, human, and capital) as well as technology.

Demand factors: The level of aggregate demand in the economy, which ensures full employment of resources.

Efficiency factors: The effective use of resources (McConnell, et al., 1992:36).

Numerous economic growth models analyze the interaction and influence of these and other factors, with several earning Nobel Prizes for their contributions.

In recent decades, education has been considered the primary driver of economic development, surpassing traditional factors such as land, labor, and capital. Consequently, the World Bank has posited that to achieve high developmental benchmarks, countries must construct knowledge-based economies. The World Bank identifies four pillars of the «knowledge economy»:



Economic incentives and institutional regime

Educated and skilled workers

Effective innovation systems

Information infrastructure

Investing in these areas is believed to foster the creation of a knowledge economy (Chen Derek, et al., 2006). Nations are encouraged to allocate resources to education, research and development and advanced technologies. By doing so, they can stimulate innovation, boost productivity, increase income levels, and improve living standards.

A knowledge-based economy is not merely a manifestation of economic growth but also a product of economic development, achieved through structural changes in a country's national economy.

**Endogenous Model of Economic Growth.** The endogenous model of economic growth provides a framework distinct from traditional neoclassical theories. It posits that economic growth stems from internal factors, such as human capital, technological advancements, and innovation accumulation. In this model, education and technology are regarded not as public goods but as «private goods» that individuals and firms can acquire. Policies that encourage the development of knowledge and innovation can lead to sustained economic growth.

A significant principle of endogenous growth theory is that increasing education and technological advancement drives higher income levels. The more abundant and accessible education and technology become, the greater their availability, creating a feedback loop where the system's outputs are reinvested as inputs.

Governments can amplify human capital potential by investing in education and generate new knowledge and technologies through research and development investment. As a result, intellectual capital incorporates the key endogenous factors of human capital and renewal capital.

### **Materials and methods**

Intellectual capital is the product of a knowledge-based economy. Since the late 1990s, it has been studied as a factor influencing economic indicators and wealth creation. This section will explore some of these studies, their metrics, methodologies, and findings, serving as a foundation for further research.

From this, we observe that intellectual capital encompasses significant endogenous factors, such as human capital and renewal capital, essential for economic growth.

**The First National Intellectual Capital Assessment: Sweden's Experience.** Sweden was the first country to evaluate its national intellectual capital, publishing a report titled «Welfare and Security» in 1999. This document included data on human, market, process, renewal, and development capital. In the same year, Israel also published a report on intellectual capital. These initiatives marked the beginning of comparative assessments among multiple countries. The studies relied on the Scandia Navigator Model, which posits that the synergistic interaction of various types of capital drives the growth of national wealth (Edvinsson, 2012).

C.Y. Lin and L. Edvinsson conducted an analysis of national intellectual capital

in 40 countries, using data spanning 1994 to 2005 (Lin, et al., 2014:16). Their assessment utilized 29 indicators grouped into five categories: human capital, market capital, process capital, renewal capital, and financial capital (Table 1). These indicators were selected through a two-round filtering process.

Table 1 - Indicators of National Intellectual Capital

Human Capital Index	Market Capital Index
Skilled labor force Employee training Literacy rate Access to higher education Student-to-teacher ratio Internet subscribers Budgetary allocation for education	Corporate taxes Cross-border ventures Cultural openness Globalization Transparency Country's image Export and import of services
Process Capital Index	Renewal Capital Index
Business environment Government efficiency Intellectual property protection Access to capital Computers per capita Ease of starting new businesses Mobile phone subscribers	Business R&D expenditure Fundamental research Share of R&D expenditure in GDP Number of R&D researchers Collaboration between universities and businesses Scientific publications Patents per capita (USPTO, EPO)
Financial Capital	
GDP per capita adjusted by purchasing power parity (logarithmic scale)	

The analysis revealed that Northern European countries had the highest levels of intellectual capital among the 40 nations evaluated. However, the development of specific components varied across countries.

For the five Northern European countries examined, financial capital ranked highest in terms of performance. In Germany, Iceland, Norway, and Sweden, human capital ranked second, followed by process capital in third and market capital in fourth. Sweden stood out, with renewal capital in third place, followed by process capital and market capital in fourth and fifth positions, respectively. In Finland, financial capital ranked first, followed by process capital, human capital, renewal capital, and market capital in that order. Resilience of Northern European Nations. Are Northern European countries prepared to overcome potential economic stagnation? Can their accumulated intangible assets sustain the region's competitive advantage? The study concluded that Northern Europe has a robust foundation for continued advancement.

#### Key Findings from the Analysis

The authors made the following observations:

Financial indicators do not clearly demonstrate the contribution of intellectual capital to national wealth growth.

Intellectual capital does not always translate into financial results.

A combination of human capital and renewal capital best characterizes intellectual capital.

These insights underline the importance of intellectual capital and its diverse components in driving economic progress.

P. Ståhle and A. Bounfour analyzed the dynamics of national intellectual capital using the 2005 World Competitiveness Report, which comprised 331 indicators (Ståhle, et al., 2008:76). The study classified countries into three groups: developed economies, transitional economies, and developing economies. The findings revealed the following:

#### Four Types of Impact on GDP Growth

**Sustained Effect:** Current indicator levels align with the present annual GDP growth.

**Accelerating Effect:** Current indicator levels correspond with GDP growth trends.

**Linear Growth Potential:** Indicator trends align with current GDP growth levels.

**Exponential Growth Potential:** Indicator trends align with GDP growth trends.

#### Limitations of Intellectual Capital's Impact

The study identified that the effectiveness of intellectual capital has limits:

- **Critical Components:** Some components of intellectual capital, such as education, may become pivotal for development. However, if these components are underdeveloped, production efficiency declines.

- **Contextual Relevance:** Intellectual capital components are context-dependent, with a limited lifespan. For instance, technological components require continual updates to remain effective.

#### Evaluation of Economic Indicators

The value and efficiency of intellectual capital cannot be assessed without considering its economic context. This makes intellectual capital a variable and context-sensitive parameter. Evaluation should account for its strategic environment and utilization potential.

#### Impact of Development Stages

The driving forces of intellectual capital vary across different stages of economic development:

- in developing economies, increasing the volume of intellectual capital components yields significant benefits.

- in developed economies, further increases in intellectual capital components show diminishing returns due to saturation.

For instance, in developing countries, primary education coverage may range from 20% to 50%, leaving room for improvement. In contrast, developed countries already achieve 90% to 100% coverage, limiting further enhancement. According to S. Bergenheim, enhancing education can increase per capita GDP by 10% (Bergheim, 2005).

Strengthening intellectual capital components positively affects economic growth. Developed countries benefit more from these components compared to developing countries. For example, research and development activities investments are particularly effective in developed economies, where their impact on GDP growth is more pronounced.

A. Navarro, L. José, R. López Ruiz, R. Victor, and D. Nevado Peña developed a formula to measure the national intellectual capital of EU countries in 2006:

$$IC_i = HC_i + SC_i + NEC_i \quad (1)$$

Where:

-  $IC_i$  - Intellectual capital of entity  $i$ ;

$HC_i$  - Human capital, including employee education, skills, motivation, training, and related factors such as compensation systems and contract policies that enable enterprises to maintain a qualified workforce;

-  $SC_i$  - Structural capital, defined as a combination of internal processes such as customer and supplier relations, marketing, research and development and innovations contributing to operational quality.

-  $NEC_i$  - Non-explicit capital, comprising components of human and structural capital that do not fit into the other categories. These are harder to quantify but remain important as a whole (Navarro, et al., 2011:109).

To evaluate intellectual capital, two types of metrics were used:

Absolute Indicators (AI): Measured in monetary units.

Efficiency Indicators (EI): Expressed as percentage indices.

The model for forming national or regional intellectual capital through human and structural capital is summarized as follows:

$$AI = \sum_{i=1}^N AI_i \quad (2)$$

$$EI = \sum_{i=1}^k w_{ji} EI_i \quad (3)$$

$$\text{con} \sum w_j = 1 \quad (4)$$

Where:

-  $N$  - Total number of absolute capital units.

-  $K$  - Efficiency metrics related to capital.

-  $w$  - Weights, ranging from 0 to 1, summing up to 1.

$$XC = \sum_{c=1}^m AI_c \times EI_c \quad (5)$$

-  $X$  - Capital comprising  $m$  generators.

Thus, by regulating and calculating numerous indicators, A.Navarro and others have drawn the following conclusions:

Northern European countries exhibit high intellectual capital potential, explaining their superior productivity and wealth. These countries also demonstrate high technological efficiency due to better management and application of new technologies.

Southern European countries display lower intellectual capital indicators compared to Northern Europe.

Eastern European countries have high efficiency in human capital but show average absolute indicator values compared to the European average. While these countries boast well-trained populations, they do not use technology as efficiently as Northern European nations.

**Results**

The 2016 study conducted by Lithuanian scientists can be specifically highlighted in determining the impact of intellectual capital on the economic growth of countries.

The study covered 25 countries of the European Union. The national intellectual capital model consists of four components: human capital, structural capital, social capital, and relational capital. The calculation methodology is based on the model developed by Macerinskienė and others (Mačerinskienė, et al., 2017:573).

The indicators of national intellectual capital (Table 2) are divided into three levels. Two aggregation methods were used to consolidate the values. First, the indicators were aggregated using a refined method for calculating factor values, considering standardized regression coefficients. Then, the values of the latent variables were aggregated using the SAW method. As a result, the level of national intellectual capital was calculated. For the second level, the SAW method was also applied with equal weights for the factors. For the third level, the factor weights were determined through expert evaluation.

Table 2- Indicators of National Intellectual Capital

1	Human Capital		Social Capital
2	Quality of education	Accessibility of education	
3	1. Student performance (PISA) 2. Advanced computer skills 3. Life-long learning 4. Satisfaction with education	1. Percentage of population with higher or secondary education 2. Youth participation in education 3. Advanced internet skills	1. Institutional levels 2. Satisfaction with government performance 3. Trust levels
1	Relational Capital		Structural Capital
2	1. Openness of the country 2. Intensity of foreign direct investments 3. Number of students studying in EU-27 (ISCED 5-6) 4. Flow of students (ISCED 5-6) 5. Immigration rate per capita 6. Emigration rate 7. Enterprises engaged in innovation partnerships with non-EU countries 8. Export of goods and services as a percentage of GDP	1. Intensity of technological transfers 2. Collaboration in innovation with non-EU countries	1. Applications to the European Patent Office 2. Applications to the U.S. Patent and Trademark Office 3. Applications for community trademarks 4. Share of innovative enterprises 5. Access to stable broadband 6. Households with internet access 7. Enterprises with internet access 8. Number of researchers and scientists

The authors conducted calculations based on indicators over a ten-year period and found that national intellectual capital positively impacts economic growth. Additionally:

- Among the four components, human capital was identified as having the most significant impact on economic development.

- In countries with a high level of economic development, the knowledge factor demonstrated a positive influence. In these countries, structural capital and relational capital also positively affect the level of economic growth, while the impact of social capital was found to be insignificant.

- In countries with a low level of economic development, the knowledge factor was found to have less significant influence. In such countries, only the quality of education positively impacts economic growth.

T. Stevanović, M. Ivanović-Đukić, T. Rađenović and O. Radović explored the effects of intellectual capital on economic growth in Southeast European countries (Stevanović, et al., 2018:777). They based their analysis on Al-Ali's theory of three intellectual capital management phases (Al-Ali, 2003:14):

Managing knowledge

Managing innovation

Managing intellectual property

To measure knowledge, the gross enrollment ratio in higher education was used as a key indicator.

### **Discussion**

The main hypothesis is that national intellectual capital is a significant determinant of economic growth in Southeast European countries. To confirm this hypothesis, correlation and regression analyses were applied.

The research results indicated that knowledge management and innovation management positively influence economic growth. However, problems in intellectual property management did not demonstrate a positive impact on economic growth.

The findings also revealed that the increase in high-tech exports, the growth in the number of research and development researchers, and the rise in mobile phone subscribers had a positive and significant impact on the economic growth of the 15 analyzed countries. Conversely, while the percentage of research and development activities expenditures relative to GDP and the gross enrollment ratio in higher education showed positive effects, their statistical significance was minimal. Additionally, the impact of patent applications was found to be negative.

The calculations revealed a correlation between national intellectual capital and economic development. A statistically strong positive correlation was observed between national intellectual capital, the Human Development Index ( $r=0.806$ ), and the Global Competitiveness Index ( $r=0.905$ ), with  $p<0.01$ . However, the positive correlation between national intellectual capital and GDP based on purchasing power parity was found to be statistically insignificant.

The study by Jednak S. et al. showed that intangible assets constitute 45% of global GDP, with this figure reaching 70% in the United States and 52% in the European Union. Northern European countries such as Denmark, Sweden, Finland,

Norway, and the Netherlands demonstrated the highest levels of national intellectual capital, Human Development Index, and Global Competitiveness Index.

Regarding developing countries, two key findings were identified:

a) A positive correlation between national intellectual capital and unemployment was observed, which was not evident in developed countries.

b) Although national intellectual capital is a driver of economic development, it is not the primary factor (Jednak, et al., 2018:77).

In general, scholars argue that the accumulation of intellectual capital at the national level plays a crucial role in supporting economic growth. Productivity increases when knowledge is applied to current tasks, while innovation occurs when knowledge is applied to new tasks.

### **Conclusion**

In this article, we reviewed studies that examine intellectual capital, particularly the impact of its components on economic growth, and considered the key conclusions from those studies for further investigation (Vo, et al., 2024:281).

We would like to emphasize that many studies have identified intellectual capital as a driving force for improving corporate efficiency (Ausat, et al., 2022:363), knowledge sharing (Li, et al., 2022:219), innovation (Al-Khatib, 2023:391) and enhancing innovation efficiency (Zhao, et al., 2022). Additionally, recent research has started exploring how intellectual capital is increasingly being supplemented by digital technologies.

Based on the brief review above, the following conclusions can be drawn:

- The development level of intellectual capital components varies significantly across countries. Strengthening these components can contribute to ensuring economic growth.

- Overall, intellectual capital has a positive impact on economic growth and development. However, quantifying its contribution in monetary terms is challenging, and it does not always translate into direct financial outcomes.

- Human capital and renewal capital (innovation capital) have the most significant influence on economic growth.

- Intellectual capital has limits to its development, which are defined by the development limits of its components, such as technology. For instance, technology must be continuously updated to remain effective.

- The efficiency of intellectual capital components depends on the conditions established within the country and the overall state of the economy (as shown in Figure 1). Furthermore, it is influenced by the competency to utilize these components effectively. For example, in post-socialist countries of Eastern Europe, despite a high level of professional education among the population, technologies are not used efficiently.

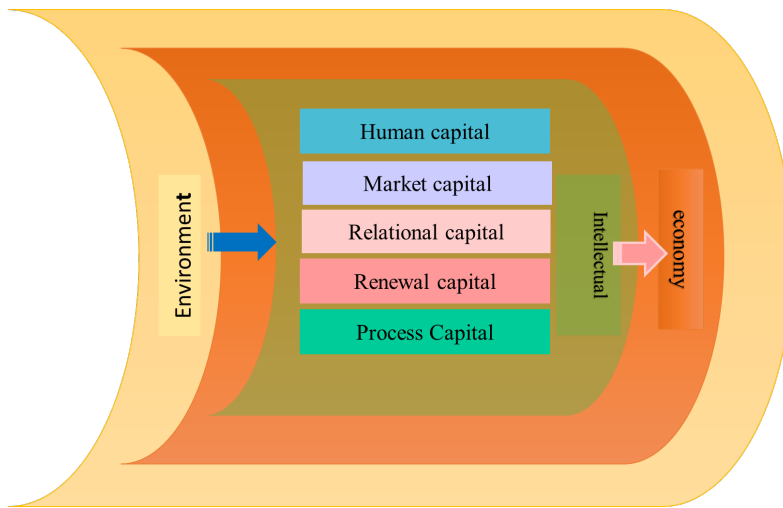


Figure 1 - Environment, economy and intellectual capital

- The increase in high-tech exports, the number of research and development researchers, and the number of mobile cellular subscriptions per 100 people positively impact the growth of GDP per capita.

- Knowledge management and innovation management have a positive effect on economic growth. However, the environment and regulations significantly influence the quality of knowledge. Therefore, in developing countries, improving the quality of education is more important than increasing access to it. Any efforts aimed at accelerating economic growth should be implemented based on intellectual capital.

For example, if government expenditures on education increase by 1%, GDP per capita decreases by 2.51% (assuming all other variables remain constant). One reason for this is that a significant portion of the funding is allocated to employee salaries rather than improving the quality of the educational process. Highly skilled workers contribute to the faster adoption of new technologies and production processes. In countries close to the technological frontier, a highly qualified workforce has a strong impact on growth. Intellectual capital functions with varying levels of efficiency in developed and developing countries. In developing countries, intellectual capital is not the primary driver of economic development. In low-income countries, market capital does not play a key role in economic growth, while the influence of renewal capital and development capital is also relatively insignificant.

#### References

Al-Ali N. (2003) *Comprehensive Intellectual Capital Management: Step-by-Step*. Hoboken: John Wiley & Sons, Inc. -14 p. (in English)

Al-Khatib A.W. (2023) Intellectual capital and innovation performance: the moderating role of big data analytics: evidence from the banking sector in Jordan. *EuroMed Journal of Business*. Vol. 17. No. 3. -391-423 p. DOI: 10.1108/EMJB-10-2021-0154 (in English)



Ausat A.M., Widayani A., Rachmawati I., Latifah N., Suherlan, S. (2022). The effect of intellectual capital and innovative work behavior on business performance. *Journal of Economics, Business, and Accountancy Ventura*. Vol. 24. No. 3. -363-378 p. DOI: <https://doi.org/10.14414/jebav.v24i3.2809> (in English)

Bergheim S. (2005) Human Capital. Deutsche Bank Research. [www.dbresearch.com](http://www.dbresearch.com). (in English)

Chen Derek H.C., Dahlman C.I.J. (2006). The knowledge economy, the KAM methodology and World Bank operations (English). Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/695211468153873436/The-knowledge-economy-the-KAM-methodology-and-World-Bank-operations>. (in English)

Edvinsson L. (2012) The Intellectual capital of nations. Handbook on Knowledge Management 1: Knowledge Matters, Spinners Science & Business media B.V. [https://link.springer.com/chapter/10.1007/978-3-540-24746-3\\_8](https://link.springer.com/chapter/10.1007/978-3-540-24746-3_8) (in English)

Jednak S., Dmitrovic V., Damjanovic V. (2018) Intellectual Capital as a Driver of Economic Development: Economic Review. *Journal of Economics and Business*. Vol. 15. Issue 2. -77-84 p. (in English)

Li C., He S., Tian Y., Sun S., Ning L. (2022) Does the bank's FinTech innovation reduce its risk-taking? Evidence from China's banking industry. *Journal of Innovation and Knowledge*. Vol. 7. No. 3, -219 p. DOI: 10.1016/j.jik.2022.100219 (in English)

Lin C.Y.Y., Edvinsson L., Chen J., Beding T. (2014) Navigating Intellectual Capital After the Financial Crisis. Chicago, IL, USA. DOI 10.1007/978-1-4939-1295-7. -16-28 p. (in English)

Mačerinskienė I., Aleknavičiūtė, R. (2017) National intellectual capital influence on economic growth in the European Union countries. *Equilibrium. Quarterly Journal of Economics and Economic Policy*. №12(4). -573–592 p. DOI: 10.24136/eq.v12i4.30 (in English)

McConnell C.R., Brue S.L. (1992) *Economics: Principles, problems and policies*. New York. -36-48 p. (in English)

Navarro A., José L., Lopez R., Victor R., Nevado pena D. (2011) Estimation of Intellectual Capital in the European Union Using a Knowledge Model. *Proceedings of Rijeka Faculty of Economics. Journal of Economics and Business*. Vol. 29. №1. -109-132 p. (in English)

Stahle P., Bounfour A. (2008) Understanding Dynamics of Intellectual Capital of Nations. *Journal of Intellectual Capital*. №9. -76-89 p. DOI:10.1108/14691930810870283 (in English)

Stevanović T., Ivanović-Đukić M., Radenović T., Radović O. (2018) The impact of national intellectual capital on the economic growth in the South-Eastern European Countries. *Zb. rad. Ekon. fak. Rij.* Vol. 36. № 2. -777-800 p. (in English)

Vo D.H., Warkentin M., Tran N.P. (2024) Examining the effects of national intellectual capital on economic growth: does digital services trade restrictiveness matter? *Journal of Knowledge Management*. Vol. 29. Issue 1. -281-300 p. <https://doi.org/10.1108/JKM-12-2023-1288> (in English)

Zhao J., Li X., Yu C.H., Chen S., Lee C.C. (2022) Riding the FinTech innovation wave: FinTech, patents and bank performance. *Journal of International Money and Finance*. DOI: 10.1016/j.jimonfin.2021.102552 (in English)

---

**CONTENTS**
**PEDAGOGY**

<b>P. Abdurazova, A. Ussenbay, M. Aldanazarova</b> ADVANCING INCLUSIVE EDUCATION: THE IMPACT AND POTENTIAL OF VIRTUAL LABORATORY SIMULATIONS FOR STUDENTS WITH DISABILITIES IN CHEMISTRY.....	5
<b>A.M. Abdykhalykova, A.K. Serdalina, G. Baigunissova</b> EFFECTIVENESS OF WEB 2.0 TESTING PROGRAMS IN TEACHING ENGLISH IN HIGHER EDUCATION INSTITUTIONS.....	23
<b>Zh.S. Assanova, Sh.M. Maigeldiyeva, Zh. Saparkyzy</b> POSSIBILITIES OF USING SMART TECHNOLOGIES IN THE TRAINING OF FUTURE TEACHERS.....	39
<b>A.E. Bitemirova, Sh.Zh. Mutalieva, K.Z. Kerimbaeva</b> STUDYING THE IMPORTANCE AND FEATURES OF USING VR IN CHEMISTRY LESSONS AT UNIVERSITIES.....	55
<b>Y. Gelişli, A. Kuralbayea, L. Kazykhankyzy</b> EXAMINING THE RELATIONSHIP BETWEEN UNDERGRADUATE STUDENTS' ATTITUDES TOWARDS THEIR LECTURERS AND ACADEMIC SELF-CONFIDENCE.....	68
<b>M.B. Dzhanaev, K.A. Baigutov</b> THEORETICAL PROBLEMS OF ETHNOAESTHETICS IN ART EDUCATION.....	79
<b>A. Duisembekova, A. Soltabayeva, A. Zhuravel, D. Kanayeva</b> INTEGRATION OF AN AGAR ART TO A RESEARCH-ORIENTED MICROBIOLOGY LABORATORY SYLLABUS.....	96
<b>M.M. Duisenova, A.N. Zhorabekova, T.A. Ainabekova</b> GAMIFICATION STRATEGIES IN PRIMARY SCHOOL ENGLISH CLASSES: ENHANCING MOTIVATION AND LANGUAGE ACQUISITION THROUGH DIGITAL GAMES.....	112
<b>D. Erdembekova, A. Issakyzy, B.K. Ospanova</b> THE INFLUENCE OF REGGIO PEDAGOGY ON THE DEVELOPMENT AND EDUCATION OF PRESCHOOL CHILDREN.....	129
<b>G.S. Yersultanova, R.K. Toleubekova, M.P. Asylbekova</b> FEATURES OF THE FORMATION OF PROFESSIONAL FUNCTIONS OF THE FUTURE SOCIAL PEDAGOGUE IN THE COURSE OF SCIENTIFIC AND PRACTICAL TRAINING.....	148

<b>N. Zhienbayeva, K. Zhumabay, A. Karabayeva</b> EFFECTIVE WAYS TO TEACH STUDENTS TO WRITE ESSAYS IN THE FORMATION OF READING AND WRITING LITERACY.....	170
<b>A.K. Kaldarova, M.A. Vasquez, T.A. Kulgildinova</b> IMPROVING ORAL PROFICIENCY IN STUDENTS THROUGH CASE STUDY-BASED PEDAGOGICAL APPROACHES.....	184
<b>B.S. Kapalbek, A.E. Kalenbekova</b> POSITIONS OF AKYMET BAITURSYNOV IN RELATION TO PRIMARY SCHOOL.....	196
<b>M.B. Kengessova, L. Demchenko</b> METAPHOR IN THE ASPECT OF SPEECH DEVELOPMENT OF SCHOOLCHILDREN IN GRADES 5-8.....	207
<b>Y.A. Kumarev, N.V. Mirza, Y. Gelişli</b> INSTAGRAM AS A TOOL FOR THE FORMATION AND DEVELOPMENT OF CRITICAL THINKING AMONG STUDENTS IN ENGLISH LESSONS.....	221
<b>G. Makharova</b> ENHANCING THE LINGUODIDACTIC POTENCIAL OF PRE-SERVICE PRIMARY SCHOOL TEACHERS THROUGH THE USE OF DIGITAL TOOLS.....	235
<b>A.Zh. Murzalinova, N.I. Pustovalova, N.T. Ualiyeva</b> THE PRACTICE OF INCLUSIVE EDUCATION IN THE INTEGRATION WITH CONTINUOUS PROFESSIONAL PROGRESS OF THE STUDENTS WITH SPECIAL EDUCATIONAL NEEDS.....	255
<b>S.K. Mussina, S.K. Mukanova, M.A. Serebryanikova</b> TEACHING FOREIGN LANGUAGE IN INCLUSIVE EDUCATIONAL ENVIRONMENT AT UNIVERSITY.....	271
<b>A. Tuzdybayeva1*, U. Kyakbayeva 1, Ayşe Dilek Öğretir Özçelik</b> THE PROBLEM OF DEVELOPING CRITICAL THINKING SKILLS IN PRESCHOOLERS.....	284
<b>N.Kh. Shadieva</b> EFFECTIVE METHODS OF ONLINE TEACHING KAZAKH LANGUAGE.....	297

## ECONOMICS

<b>Zh.M. Abuova, A.K. Akpanov, S.S. Abdildin</b> THE IMPACT OF FINANCIAL SUPPORT FOR ENTREPRENEURSHIP ON THE DEVELOPMENT OF SMALL AND MEDIUM-SIZED BUSINESSES IN KAZAKHSTAN.....	312
<b>Zh. Assylbekova, T. Apendiyev, Z. Aktamberdieva</b> RENEWAL AND REVIVAL OF NATIONAL INDUSTRIAL PERSONNEL OF KAZAKHSTAN (1991-2009).....	324
<b>K.T. Auyezova, A.A. Shametova, A.K. Yelemesov</b> SMALL BUSINESS AS A FACTOR IN THE DEVELOPMENT OF THE REGIONAL ECONOMY (USING THE EXAMPLE OF THE EAST KAZAKHSTAN REGION OF KAZAKHSTAN).....	344
<b>A.K. Bakenova, Dmitry V. Bakhteev</b> IMPROVING MECHANISMS OF MANAGERIAL DECISION-MAKING USING ARTIFICIAL INTELLIGENCE TECHNOLOGIES.....	363
<b>A.M. Yessirkepova, D.M. Makhmud, R.N. Serikova</b> STUDY OF NATURAL RESOURCES UTILIZATION IN AGRO- INDUSTRIAL COMPLEX WITHIN THE FRAMEWORK OF CHANGING CLIMATIC CONDITIONS.....	380
<b>N.N. Zhanakova, A.T. Кабиева, A.T. Karipova</b> REAL INCOMES OF THE POPULATION: CURRENT TRENDS AND CAUSES OF INEQUALITY.....	401
<b>A.T. Kokenova, J.S. Kazanbayeva, A.K. Kupesheva</b> RESEARCH OF THE DYNAMICS OF THE LIVESTOCK INDUSTRY DEVELOPMENT.....	414
<b>N. Mazhitova, M. Umirzakova, A. Abdimomynova</b> INTELLECTUAL CAPITAL AS A DRIVER OF ECONOMIC GROWTH.....	436
<b>L.M. Sembiyeva, A.A. Sharipbay, A.S. Turginbayeva</b> NEW TRENDS IN THE DEVELOPMENT OF FINANCIAL ANALYTICS OF AN EXCHANGE TRADER.....	449
<b>L. Taizhanov, Zh. Zhetibayev, A. Mutaliyeva</b> THE IMPACT OF ORGANIZATIONAL CULTURE ON EMPLOYEE MOTIVATION AND ITS ECONOMIC IMPLICATIONS FOR BUSINESS PERFORMANCE.....	460

**МАЗМҰНЫ**

**ПЕДАГОГИКА**

- П.А. Абдуразова, А.Ү. Үсенбай, М.Ш. Алданазарова**  
ИНКЛЮЗИВТІ БІЛІМ БЕРУДІ ІЛГЕРІЛЕТУ: МҮМКІНДІГІ ШЕКТЕУЛІ  
ОҚУШЫЛАРҒА АРНАЛҒАН ВИРТУАЛДЫ ХИМИЯ ЗЕРТХАНАСЫНЫҢ  
СИМУЛЯЦИЯСЫНЫҢ ӘСЕРІ МЕН ӘЛЕУЕТІ.....5
- А.М. Абдыхалыкова, А.К. Сердалина, Г. Байгунисова**  
ЖОҒАРЫ ОҚУ ОРЫНДАРЫНДА АҒЫЛШЫН ТІЛІН ОҚЫТУДА  
WEB 2.0 ТЕСТІЛЕУ БАҒДАРЛАМАЛАРЫНЫҢ ТИІМДІЛІГІ.....23
- Ж.С. Асанова, Ш.М. Майгельдиева, Ж. Сапарқызы**  
БОЛАШАҚ ПЕДАГОГТАРДЫ ДАЙЫНДАУДА СМАРТ  
ТЕХНОЛОГИЯЛАРДЫ ҚОЛДАНУ МҮМКІНДІКТЕРІ.....39
- А.Е. Битемирова, Ш.Ж. Мүталиева, К.З. Керимбаева**  
ЖОҒАРҒЫ ОҚУ ОРНЫНДА ХИМИЯ САБАҒЫНДА VR-ДЫ  
ҚОЛДАНУДЫҢ МАҢЫЗДЫЛЫҒЫН ЖӘНЕ ЕРЕКШЕЛІКТЕРІН  
ЗЕРТТЕУ.....55
- Ю. Гелишли, А. Күралбаева, Л. Қазыханқызы**  
БАКАЛАВРИАТ СТУДЕНТТЕРІНІҢ ӨЗ ОҚЫТУШЫЛАРЫНА ДЕГЕН  
КӨЗҚАРАСТАРЫ МЕН ӨЗІНЕ ДЕГЕН АКАДЕМИЯЛЫҚ СЕНІМДІЛІК  
АРАСЫНДАҒЫ БАЙЛАНЫСТЫ ЗЕРТТЕУ.....68
- М.Б. Джанаев, К.А. Байгутов**  
КӨРКЕМ БІЛІМДЕГІ ЭТНОЭСТЕТИКАНЫҢ ТЕОРИЯЛЫҚ  
МӘСЕЛЕЛЕРІ.....79
- А.Ж. Дүйсембекова, А.Д. Солтабаева, А. Журавель, Д.А. Канаева**  
АГАР АРТ-ТЫ МИКРОБИОЛОГИЯНЫ ЗЕРТТЕУГЕ БАҒЫТТАЛҒАН  
ЗЕРТХАНАЛЫҚ СИЛЛАБУСҚА ЕНГІЗУ.....96
- М.М. Дуйсенова, А.Н. Жорабекова, Т.А. Айнабекова**  
БАСТАУЫШ СЫНЫПТАРҒА АҒЫЛШЫН ТІЛІН ОҚЫТУДА  
ГЕЙМИФИКАЦИЯ СТРАТЕГИЯЛАРЫ: ЦИФРЛЫҚ ОЙЫНДАР АРҚЫЛЫ  
МОТИВАЦИЯ МЕН ТІЛДІ МЕНГЕРУДІ ЖЕТІЛДІРУ.....112
- Д.А. Ердембекова, А. Исақызы, Б.К. Оспанова**  
РЕДЖИО ПЕДАГОГИКАНЫҢ МЕКТЕП ЖАСЫНА ДЕЙІНГІ БАЛАНЫ  
ДАМУЫ МЕН ТӘРБИЕЛЕУГЕ ӘСЕРІ.....129

<b>Г.С. Ерсултанова, Р.К. Толеубекова, М.П. Асылбекова</b> ҒЫЛЫМИ-ПРАКТИКАЛЫҚ ДАЙЫНДЫҚ БАРЫСЫНДА БОЛАШАҚ ӘЛЕУМЕТТІК ПЕДАГОГТЫҢ КӘСІБИ ФУНКЦИЯЛАРЫН ҚАЛЫПТАСТЫРУ ЕРЕКШЕЛІКТЕРІ.....	148
<b>Н. Жиенбаева, К. Жұмабай, А. Карабаева</b> ОҚУШЫЛАРДЫҢ ОҚУ ЖӘНЕ ЖАЗУ САУАТТЫЛЫҚТАРЫН ҚАЛЫПТАСТЫРУДА ЭССЕ ЖАЗУҒА ҮЙРЕТУДІҢ ТИІМДІ ТӘСІЛДЕРІ.....	170
<b>А.К. Калдарова, М.А. Васкес, Т.А. Кульгильдинова</b> КЕЙС-СТАДИ ӘДІСІНЕ НЕГІЗДЕЛГЕН ПЕДАГОГИКАЛЫҚ ТӘСІЛДЕР АРҚЫЛЫ СТУДЕНТТЕРДІҢ АЙТЫЛЫМ ДАҒДЫЛАРЫНЫҢ ДЕҢГЕЙІН ЖЕТІЛДІРУ.....	184
<b>Б.С. Қапалбек, А.Е. Каленбекова</b> АҚЫМЕТ БАЙТҰРСЫНҰЛЫНЫҢ БАСТАУЫШ МЕКТЕПКЕ ҚАТЫСТЫ ҰСТАНЫМДАРЫ.....	196
<b>М.Б. Кеңесова, Л.Н. Демченко</b> 5-8-СЫНЫП ОҚУШЫЛАРЫНЫҢ СӨЙЛЕУІН ДАМУ АСПЕКТИСІНДЕГІ МЕТАФОРА.....	207
<b>Я.А. Кумарев, Н.В. Мирза, Ю. Гелишли</b> INSTAGRAMДЫ АҒЫЛШЫН ТІЛІ САБАҒЫНДА ОҚУШЫЛАРДЫҢ СЫНИ ОЙЛАУЫН ҚАЛЫПТАСТЫРУ ЖӘНЕ ДАМУ КҰРАЛЫ РЕТІНДЕ ПАЙДАЛАНУ.....	221
<b>Г.С. Махарова</b> ЦИФРЛЫҚ КҰРАЛДАРДЫ ПАЙДАЛАНУ АРҚЫЛЫ БОЛАШАҚ БАСТАУЫШ МЕКТЕП МҰҒАЛІМДЕРІНІҢ ЛИНГВОДИДАКТИКАЛЫҚ ӘЛЕУЕТІН АРТТЫРУ.....	235
<b>А.Ж. Мурзалинова, Н.И. Пустовалова, Н.Т. Уалиева</b> ЕРЕКШЕ БІЛІМ БЕРУ ҚАЖЕТТІЛІГІ БАР СТУДЕНТТЕРДІҢ ҮЗДІКСІЗ КӘСІБИ ДАМУЫН ИНКЛЮЗИВТІ БІЛІМ БЕРУМЕН ИНТЕГРАЦИЯЛАУ ТӘЖІРИБЕСІ.....	255
<b>С.Қ. Мусина, С.Қ. Мұқанова, М.А. Серебряникова</b> УНИВЕРСИТЕТТЕ ИНКЛЮЗИВТІ БІЛІМ БЕРУ ОРТАСЫНДА ШЕТ ТІЛІН ОҚЫТУ.....	271

**А.Т. Туздыбаева, У.Қ. Қыяқбаева, Ayşe Dilek Öğretir Özçelik**  
МЕКТЕП ЖАСЫНА ДЕЙІНГІ БАЛАЛАРДА СЫНИ ТҮРҒЫДАН  
ОЙЛАУ ДАҒДЫЛАРЫН ДАМУ МӘСЕЛЕСІ.....284

**Н.Х. Шадиева**  
ҚАЗАҚ ТІЛІН ОНЛАЙН ОҚЫТУДЫҢ ТИІМДІ ӘДІСТЕРІ.....297

### **ЭКОНОМИКА**

**Ж.М. Абуова, А.К. Акпанов, С.С. Абдильдин**  
ҚАЗАҚСТАНДА ШАҒЫН ЖӘНЕ ОРТА БИЗНЕСТІ ДАМУҒА  
КӘСІПКЕРЛІКТІ ҚАРЖЫЛЫҚ ҚОЛДАУДЫҢ ӘСЕРІ.....312

**Ж. Асылбекова, Т. Әпендиев, З. Ақтамбердиева**  
ҚАЗАҚСТАН ИНДУСТРИЯСЫНЫҢ ҰЛТТЫҚ КАДРЛАРЫН ЖАҒАРТУ  
ЖӘНЕ ҚАЙТА ЖАҒҒЫРТУ (1991-2009 жж.).....324

**К.Т. Ауезова, А.А. Шаметова, Ә.К. Елемесов**  
ШАҒЫН БИЗНЕС ӨНІРЛІК ЭКОНОМИКАНЫҢ ДАМУ ФАКТОРЫ  
РЕТІНДЕ (ШЫҒЫС ҚАЗАҚСТАН ОБЛЫСЫНЫҢ МЫСАЛЫНДА).....344

**А.К. Бакенова, Д.В. Бахтеев**  
ЖАСАНДЫ ИНТЕЛЛЕКТ ТЕХНОЛОГИЯЛАРЫН ПАЙДАЛАНА  
ОТЫРЫП БАСҚАРУШЫЛЫҚ ШЕШІМДЕР ҚАБЫЛДАУ ТЕТІКТЕРІН  
ЖЕТІЛДІРУ.....363

**А.М. Есиркепова, Д.М. Махмуд, Р.Н. Серикова**  
КЛИМАТТЫҚ ЖАҒДАЙЛАРДЫҢ ӨЗГЕРУІ ШЕҢБЕРІНДЕ  
АГРОӨНЕРКӘСІПТІК КЕШЕНДЕ ТАБИҒИ РЕСУРСАРДЫ  
ПАЙДАЛАНУДЫ ЗЕРТТЕУ.....380

**Н.Н. Жанакоева, А.Т. Кабиева, А.Т. Карипова**  
ХАЛЫҚТЫҢ НАҚТЫ КІРІСТЕРІ: ТЕҢСІЗДІКТІҢ ҚАЗІРГІ  
ТЕНДЕНЦИЯЛАРЫ МЕН СЕБЕПТЕРІ.....401

**А.Т. Көкенова, Ж.С. Казанбаева, А.К. Купешева**  
МАЛ ШАРУАШЫЛЫҒЫ САЛАСЫНЫҢ ДАМУ ДИНАМИКАСЫН  
ЗЕРТТЕУ.....414

**Н.Ә. Мәжитова, М.А. Умирзакова, А.Ш. Абдимомынов**  
ЗИЯТКЕРЛІК КАПИТАЛ ЭКОНОМИКАЛЫҚ ӨСІМНІҢ  
ДРАЙВЕРІ РЕТІНДЕ.....436

---

**Л.М. Сембиева, А.Ә. Шәріпбай, А.С. Тургинбаева**  
БИРЖАЛЫҚ ТРЕЙДЕРДІҢ ҚАРЖЫЛЫҚ АНАЛИТИКАСЫН  
ДАМУ ТУДАҢ ЖАҢА ТЕНДЕНЦИЯЛАРЫ.....449

**Л.Т. Тайжанов, Ж.К. Жетибаев, А.А.Мугалиева**  
ҰЙЫМДЫҚ МӘДЕНИЕТТІҢ ҚЫЗМЕТКЕРЛЕР МОТИВАЦИЯСЫНА  
ӘСЕРІ ЖӘНЕ БИЗНЕСТІҢ НӘТИЖЕЛІЛІГІ ҮШІН ЭКОНОМИКАЛЫҚ  
САЛДАРЫ.....460



**СОДЕРЖАНИЕ**

**ПЕДАГОГИКА**

- П.А. Абдуразова, А.У. Усенбай, М.Ш. Алданазарова**  
ПРОДВИЖЕНИЕ ИНКЛЮЗИВНОГО ОБРАЗОВАНИЯ: ВЛИЯНИЕ И  
ПОТЕНЦИАЛ ВИРТУАЛЬНЫХ ЛАБОРАТОРНЫХ СИМУЛЯЦИЙ ПО  
ХИМИИ ДЛЯ УЧАЩИХСЯ С ОГРАНИЧЕННЫМИ  
ВОЗМОЖНОСТЯМИ.....5
- А.М. Абдыхалыкова, А.К. Сердалина, Г. Байгунисова**  
ЭФФЕКТИВНОСТЬ ПРОГРАММ ТЕСТИРОВАНИЯ WEB 2.0 ПРИ  
ОБУЧЕНИИ АНГЛИЙСКОМУ ЯЗЫКУ В ВЫСШИХ УЧЕБНЫХ  
ЗАВЕДЕНИЯХ.....23
- Ж.С. Асанова, Ш.М. Майгельдиева, Ж. Сапаркызы**  
ВОЗМОЖНОСТИ ПРИМЕНЕНИЯ СМАРТ-ТЕХНОЛОГИЙ В  
ПОДГОТОВКЕ БУДУЩИХ ПЕДАГОГОВ.....39
- А.Е. Битемирова, Ш.Ж. Муталиева, К.З. Керимбаева**  
ИЗУЧЕНИЕ ВАЖНОСТИ И ОСОБЕННОСТЕЙ ИСПОЛЬЗОВАНИЯ VR  
НА УРОКАХ ХИМИИ В ВУЗАХ.....55
- Ю. Гелишли, А. Куралбаева, Л. Казыханкызы**  
ИЗУЧЕНИЕ ВЗАИМОСВЯЗИ МЕЖДУ ОТНОШЕНИЕМ СТУДЕНТОВ  
БАКАЛАВРИАТА К СВОИМ ПРЕПОДАВАТЕЛЯМ И АКАДЕМИЧЕСКОЙ  
УВЕРЕННОСТЬЮ В СЕБЕ.....68
- М.Б. Джанаев, К.А. Байгутов**  
ТЕОРЕТИЧЕСКИЕ ПРОБЛЕМЫ ЭТНОЭСТЕТИКИ В  
ХУДОЖЕСТВЕННОМ ОБРАЗОВАНИИ.....79
- А.Ж. Дуйсембекова, А.Д. Солтабаева, А. Журавель, Д.А. Канаева**  
ИНТЕГРАЦИЯ АГАР АРТ В СИЛЛАБУС В ИССЛЕДОВАТЕЛЬСКО-  
ОРИЕНТИРОВАННЫЕ ЛАБОРАТОРНЫЕ ЗАНЯТИЯ  
ПО МИКРОБИОЛОГИИ.....96
- М.М. Дуйсенова, А.Н. Жорабекова, Т.А. Айнабекова**  
СТРАТЕГИИ ГЕЙМИФИКАЦИИ НА УРОКАХ АНГЛИЙСКОГО ЯЗЫКА В  
НАЧАЛЬНОЙ ШКОЛЕ: ПОВЫШЕНИЕ МОТИВАЦИИ И  
ЭФФЕКТИВНОСТИ ОБУЧЕНИЯ С ПОМОЩЬЮ ЦИФРОВЫХ ИГР.....112
- Д.А. Ердембекова, А. Исакызы, Б.К. Оспанова**  
ВЛИЯНИЕ РЕДЖИО ПЕДАГОГИКИ НА РАЗВИТИЕ И ВОСПИТАНИЕ  
ДЕТЕЙ ДОШКОЛЬНОГО ВОЗРАСТА.....129

<b>Г.С. Ерсултанова, Р.К. Толеубекова, М.П. Асылбекова</b> ОСОБЕННОСТИ ФОРМИРОВАНИЯ ПРОФЕССИОНАЛЬНЫХ ФУНКЦИЙ БУДУЩЕГО СОЦИАЛЬНОГО ПЕДАГОГА В ХОДЕ НАУЧНО- ПРАКТИЧЕСКОЙ ПОДГОТОВКИ.....	148
<b>Н. Жиенбаева, К. Жумабай, А. Карабаева</b> ЭФФЕКТИВНЫЕ СПОСОБЫ ОБУЧЕНИЯ НАПИСАНИЮ ЭССЕ ПРИ ФОРМИРОВАНИИ ЧИТАТЕЛЬСКОЙ ГРАМОТНОСТИ И ПИСЬМЕННОЙ РЕЧИ УЧАЩИХСЯ.....	170
<b>А.К. Калдарова, М.А. Васкес, Т.А. Кульгильдинова</b> СОВЕРШЕНСТВОВАНИЕ РАЗГОВОРНЫХ НАВЫКОВ СТУДЕНТОВ С ПОМОЩЬЮ МЕТОДИЧЕСКИХ ПОДХОДОВ, ОСНОВАННЫХ НА КЕЙС-СТАДИ.....	184
<b>Б.С. Капалбек, А.Е. Каленбекова</b> ПОЗИЦИИ АКЫМЕТА БАЙТУРСЫНОВА ПО ОТНОШЕНИЮ К НАЧАЛЬНОЙ ШКОЛЕ.....	196
<b>М.Б. Кенесова, Л.Н. Демченко</b> МЕТАФОРА В АСПЕКТЕ РЕЧЕВОГО РАЗВИТИЯ ШКОЛЬНИКОВ 5-8 КЛАССОВ.....	207
<b>Я.А. Кумарев, Н.В. Мирза, Ю. Гелишли</b> INSTAGRAM КАК ИНСТРУМЕНТ ФОРМИРОВАНИЯ И РАЗВИТИЯ КРИТИЧЕСКОГО МЫШЛЕНИЯ У УЧАЩИХСЯ НА УРОКАХ АНГЛИЙСКОГО ЯЗЫКА.....	221
<b>Г.С. Махарова</b> ПОВЫШЕНИЕ ЛИНГВОДИДАКТИЧЕСКОГО ПОТЕНЦИАЛА БУДУЩИХ УЧИТЕЛЕЙ НАЧАЛЬНОЙ ШКОЛЫ ПУТЕМ ИСПОЛЬЗОВАНИЯ ЦИФРОВЫХ ИНСТРУМЕНТОВ.....	235
<b>А.Ж. Мурзалинова, Н.И. Пустовалова, Н.Т. Уалиева</b> ПРАКТИКА ИНКЛЮЗИВНОГО ОБРАЗОВАНИЯ В ИНТЕГРАЦИИ С НЕПРЕРЫВНЫМ ПРОФЕССИОНАЛЬНЫМ РАЗВИТИЕМ СТУДЕНТОВ С ОСОБЫМИ ОБРАЗОВАТЕЛЬНЫМИ ПОТРЕБНОСТЯМИ.....	255
<b>С.К. Мусина, С.К. Муканова, М.А. Серебряникова</b> ОБУЧЕНИЕ ИНОСТРАННОМУ ЯЗЫКУ В ИНКЛЮЗИВНОЙ ОБРАЗОВАТЕЛЬНОЙ СРЕДЕ УНИВЕРСИТЕТА.....	271

**А.Т. Туздыбаева, У.К. Кыякбаева, Ayşe Dilek Öğretir Özçelik**  
ПРОБЛЕМА РАЗВИТИЯ НАВЫКОВ КРИТИЧЕСКОГО МЫШЛЕНИЯ  
У ДОШКОЛЬНИКОВ.....284

**Н.Х. Шадиева**  
ЭФФЕКТИВНЫЕ МЕТОДЫ ОНЛАЙН-ОБУЧЕНИЯ КАЗАХСКОМУ  
ЯЗЫКУ.....297

### ЭКОНОМИКА

**Ж.М. Абуова, А.К. Акпанов, С.С. Абдильдин**  
ВЛИЯНИЕ ФИНАНСОВОЙ ПОДДЕРЖКИ ПРЕДПРИНИМАТЕЛЬСТВА  
НА РАЗВИТИЕ МАЛОГО И СРЕДНЕГО БИЗНЕСА  
В КАЗАХСТАНЕ .....312

**Ж. Асылбекова, Т. Апендиев, З. Ақтамбердиева**  
ОБНОВЛЕНИЕ И ВОЗРОЖДЕНИЕ НАЦИОНАЛЬНЫХ  
ИНДУСТРИАЛЬНЫХ КАДРОВ КАЗАХСТАНА (1991-2009 гг.) .....324

**К.Т. Ауезова, А.А. Шаметова, А.К. Елемесов**  
МАЛЫЙ БИЗНЕС КАК ФАКТОР РАЗВИТИЯ РЕГИОНАЛЬНОЙ  
ЭКОНОМИКИ (НА ПРИМЕРЕ ВОСТОЧНО-КАЗАХСТАНСКОЙ  
ОБЛАСТИ КАЗАХСТАНА).....344

**А.К. Бакенова, Д.В. Бахтеев**  
СОВЕРШЕНСТВОВАНИЕ МЕХАНИЗМОВ ПРИНЯТИЯ  
УПРАВЛЕНЧЕСКИХ РЕШЕНИЙ С ИСПОЛЬЗОВАНИЕМ ТЕХНОЛОГИЙ  
ИСКУССТВЕННОГО ИНТЕЛЛЕКТА.....363

**А.М. Есиркепова, Д.М. Махмуд, Р.Н. Серикова**  
ИССЛЕДОВАНИЕ ИСПОЛЬЗОВАНИЯ ПРИРОДНЫХ РЕСУРСОВ В  
АГРОПРОМЫШЛЕННОМ КОМПЛЕКСЕ В РАМКАХ ИЗМЕНЕНИЯ  
КЛИМАТИЧЕСКИХ УСЛОВИЙ.....380

**Н.Н. Жанакоева, А.Т. Кабиева, А.Т. Карипова**  
РЕАЛЬНЫЕ ДОХОДЫ НАСЕЛЕНИЯ: СОВРЕМЕННЫЕ ТЕНДЕНЦИИ  
И ПРИЧИНЫ НЕРАВЕНСТВА.....401

**А.Т. Кокенова, Ж.С. Казанбаева, А.К. Купешева**  
ИССЛЕДОВАНИЕ ДИНАМИКИ РАЗВИТИЯ ОТРАСЛИ  
ЖИВОТНОВОДСТВА.....414

---

<b>Н.А. Мажитова, М.А. Умирзакова, А.Ш. Абдимомынова</b> ИНТЕЛЛЕКТУАЛЬНЫЙ КАПИТАЛ КАК ДРАЙВЕР ЭКОНОМИЧЕСКОГО РОСТА.....	436
<b>Л.М. Сембиева, А.А. Шарипбай, А.С. Тургинбаева</b> НОВЫЕ ТЕНДЕНЦИИ РАЗВИТИЯ ФИНАНСОВОЙ АНАЛИТИКИ БИРЖЕВОГО ТРЭЙДЕРА.....	449
<b>Л.Т. Тайжанов, Ж.К. Жетибаев, А.А. Муталиева</b> ВЛИЯНИЕ ОРГАНИЗАЦИОННОЙ КУЛЬТУРЫ НА МОТИВАЦИЮ СОТРУДНИКОВ И ЕЕ ЭКОНОМИЧЕСКИЕ ПОСЛЕДСТВИЯ ДЛЯ ЭФФЕКТИВНОСТИ БИЗНЕСА.....	460

## **Publication Ethics and Publication Malpractice in the journals of the National Academy of Sciences of the Republic of Kazakhstan**

For information on Ethics in publishing and Ethical guidelines for journal publication see <http://www.elsevier.com/publishingethics> and <http://www.elsevier.com/journal-authors/ethics>.

Submission of an article to the National Academy of Sciences of the Republic of Kazakhstan implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see <http://www.elsevier.com/postingpolicy>), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. In particular, translations into English of papers already published in another language are not accepted.

No other forms of scientific misconduct are allowed, such as plagiarism, falsification, fraudulent data, incorrect interpretation of other works, incorrect citations, etc. The National Academy of Sciences of the Republic of Kazakhstan follows the Code of Conduct of the Committee on Publication Ethics (COPE), and follows the COPE Flowcharts for Resolving Cases of Suspected Misconduct ([http://publicationethics.org/files/u2/New\\_Code.pdf](http://publicationethics.org/files/u2/New_Code.pdf)). To verify originality, your article may be checked by the originality detection service Cross Check <http://www.elsevier.com/editors/plagdetect>.

The authors are obliged to participate in peer review process and be ready to provide corrections, clarifications, retractions and apologies when needed. All authors of a paper should have significantly contributed to the research.

The reviewers should provide objective judgments and should point out relevant published works which are not yet cited. Reviewed articles should be treated confidentially. The reviewers will be chosen in such a way that there is no conflict of interests with respect to the research, the authors and/or the research funders.

The editors have complete responsibility and authority to reject or accept a paper, and they will only accept a paper when reasonably certain. They will preserve anonymity of reviewers and promote publication of corrections, clarifications, retractions and apologies when needed. The acceptance of a paper automatically implies the copyright transfer to the National Academy of sciences of the Republic of Kazakhstan.

The Editorial Board of the National Academy of sciences of the Republic of Kazakhstan will monitor and safeguard publishing ethics.

Правила оформления статьи для публикации в журнале смотреть на сайте:

**[www: nauka-nanrk.kz](http://www.nauka-nanrk.kz)**

**ISSN 2518–1467 (Online),**

**ISSN 1991–3494 (Print)**

**<http://www.bulletin-science.kz/index.php/en>**

Директор отдела издания научных журналов НАН РК *А. Ботанқызы*

Редакторы: *Д.С. Аленов, Ж.Ш. Әден*

Верстка на компьютере *Г.Д. Жадыранова*

Подписано в печать 28.02.2025.

Формат 60x881/8. Бумага офсетная. Печать - ризограф.

41,0 п.л. Заказ 1.