

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

---

**SCIENTIFIC JOURNAL OF  
PEDAGOGY AND ECONOMICS**

**№2  
2026**



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



# SCIENTIFIC JOURNAL OF PEDAGOGY AND ECONOMICS

PUBLISHED SINCE 1944

## 2 (420)

*March – April 2026*

---

ALMATY, 2026

---

**EDITOR-IN-CHIEF:**

**ABYLKASSIMOVA Alma Yesimbekovna**, Doctor of Pedagogical Sciences, Professor, Academician of Central Asian Academic Research Center, 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, (Prague, 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 Central Asian Academic Research Center, 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 Rafihevna**, 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>.

**Scientific Journal of Pedagogy and Economics**

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

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

**Owner:** «Central Asian Academic Research Center» LLP (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

**№ KZ50VPY00121155**, issued on 05.06.2025

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

**Periodicity:** 6 times a year.

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

© «Central Asian Academic Research CenterB» LLP, 2026



**БАС РЕДАКТОР:**

**ӘБІЛҚАСЫМОВА 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>.

**ӘБІЛДИНА 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, Ы.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 (Прага, Чехия), <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>.

**ЛУКЪЯНЕНКО 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>.

**Scientific Journal of Pedagogy and Economics**

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

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

**Меншіктенуші:** «Орталық Азия академиялық ғылыми орталығы» ЖШС (Алматы қ.).

Қазақстан Республикасының Ақпарат және коммуникациялар министрлігінің Ақпарат комитетінде 05.06.2025 ж. берілген № **KZ50VPY00121155** мерзімдік басылым тіркеуіне қойылу туралы куәлік.

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

**Мерзімділігі:** жылына 6 рет.

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

© «Орталық Азия академиялық ғылыми орталығы» ЖШС, 2026

**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, (Прага, Чехия), <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>.

**ЛУКЬЯНЕНКО 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 Рафиевна**, 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>.

Scientific Journal of Pedagogy and Economics

ISSN 2518-1467 (Online),

ISSN 1991-3494 (Print).

Собственник: ТОО «Центрально-азиатский академический научный центр» (г. Алматы).

Свидетельство о постановке на учет периодического печатного издания в Комитете информации Министерства информации и коммуникаций и Республики Казахстан

№ KZ50VPY00121155 выданное 05.06.2025 г.

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

Периодичность: 6 раз в год.

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

© ТОО «Центрально-азиатский академический научный центр», 2026



## CONTENTS

## PEDAGOGY

**Aitimbaev A., Issayev M., Apendiyev T.**

Scientific and methodological opportunities for using archival materials  
in teaching the history of Kazakhstan in higher education institutions.....19

**Akhmetova G., Kabdusheva A., Mussina A.**

A quantitative study on university students' academic writing challenges  
and learning needs.....40

**Akhmetova Zh.A., Nurgali S., Nurmetova D.**

Pedagogical foundations of using digital resources in teaching academic writing.....57

**Bekbolat Zh., Zholmakhanova A., Yildirim S.**

Theoretical foundations of teaching M. Shokai's letters through a research-based  
approach.....72

**Berdenkulova A.Zh., Zhandavletova R.B., Nazarova G.A.**

A pedagogical model for improving educational quality through the “comfortable  
school - society - university” partnership.....88

**Duisenova G., Shyndaliyev N., Shadiyev R.**

Comparative analysis of traditional and virtualized programming education.....104

**Yeskendirova A., Kassenova N., Nogoyev Y.**

Comparative analysis of texts created by AI and texts developed using  
quantization technology.....121

**Zhanysbekova Sh., Nurmakhanova Zh., Akasheva A.**

Actual problems of the formation of pragmatic competence: research based on the  
results of content analysis.....136

**Zulpykhar Zh.E., Kapanova D.E., Zhilmagambetova R.Z.**

Modern resources and technologies as a foundation for the development  
of teachers' professional competencies.....153

**Isaeva A., Ananyeva S.**

Axiological interpretation of the Kazakhstan theme in the works of  
K. Paustovsky: methodological approaches to teaching at the university.....172

**Kabzhalelov K.R., Korganbayeva Zh.K., Nurakhmetova A.R.**

Developing critical thinking through modern chatbots in chemistry education.....190

**Kazhenova Zh.S., Kydyralina L.M., Rakhmatullina Z.T.**

Problems of developing students' engineering skills.....208

**Kaldarova A., Vasquez M., Kulgildinova T.**

Developing students' profession-oriented speaking skills through ChatGPT.....229

**Kapbarova G.Sh., Gundogdu A., Baidalieva E.A.**

History teaching methodology: theoretical and practical foundations of the competency-based approach.....243

**Kozhakhanova L., Amirova A.**

Prospects for developing media literacy among primary school students.....260

**Kuzhagulova G., Sydykova R., Smailova M**

Features of education of national values in visually impaired students through Kazakh lyric songs.....278

**Markhmadova Zh.K., Kassymova G.K., Okenova B.**

Pedagogical aspects of developing and assessing the digital competence of pedagogy-psychologists.....297

**Mateyeva M., Yeralin K., Burkitbaev T.**

Training future teachers of artistic work for art-historical regional studies.....318

**Makhanov N., Nishanova K.**

Development of students' cognitive competencies through museum-based education: evidence from South Kazakhstan.....333

**Myrzagereikyzy G., Yermekova Zh.K., Aldzhambekova G.T.**

The use of action research in preparing future physics teachers for the development of functional literacy of students.....348

**Reginbayeva N., Nametkulova F.**

Methodological foundations of professionally-oriented physics education based on STEM education for future air transport specialists.....365

**Serikbayeva N., Orynbekova A., Tuyakova U.**

Methodology for developing digital competence of educational psychologists in modern education.....385

**Toiganbekova M.E., Kazhigalieva G.A.**

Aspects of creation and specification of educational texts for increasing the effectiveness of training.....409

**Shegebayeva G., Zhumasheva T., Nurbekova S.**

Prerequisites for the preparation of future educators for the creation of a health-educational environment based on nutriscology.....422

**Shishov S.E., Iovbak A.S., Verko Y.A.**

Integrated modular physics experiment as a means of organizing students' experimental activities in secondary school.....443

## ECONOMICS

**Abdimoldayeva A., Madysheva A., Zhunussova G.**

Transformation of logistics cost accounting in the agro-industrial complex under digitalization.....461

**Abuova Zh., Duiskenova R., Kadyrbekova D.**

The concept of sustainable development of the hotel business based on digital transformation and environmental management.....479

**Amantay Mukhit, Kanabekova M., Oralbayeva Zh.**

Digitalization as a driver of Kazakhstan's economic growth: econometric analysis and structural effects.....494

**Ashim N., Dzhrauova K., Kushenova M.**

Improving the management of agricultural subsidies: Kyzylorda region.....511

**Assemova R., Abdibekov S., Aitbayeva D.**

Energy efficiency and innovation in agriculture: empirical evidence from Southern Kazakhstan.....535

**Assanova Zh., Baimukhanova S., Konysbaeva G.**

Environmental accounting, ESG reporting and digitalization: impact on cost reduction and sustainable development.....554

**Baigelova A., Sadykova Zh., Epanchintseva S.**

Industrial economy transformation in Kazakhstan: structural shifts, digitalization and productivity growth.....571

**Beisekova Zh., Mutaliyeva A., Kunshigarova L.**

Transformation of entrepreneurial activity in Kazakhstan in 2000–2025.....590

**Beisenbayeva A., Kambarov B., Samenova N.**

Development of small and medium-sized enterprises in Almaty: ecosystem factors and structural dynamics.....611

**Bekisheva A., Beketova K., Dorohova N.**

Human resource management practices and employee perceptions in Kazakhstan's civil service.....629

**Bissenbayeva S., Kireyeva A., Zhumaxanova K.**

Digitalization, government support and innovation activity: evidence from regional analysis in Kazakhstan.....646

**Em O.L., Kim D.**

Features of risk management in collective investment.....665

**Ibrayeva A., Kenesheva G., Arynova Zh.**

Qualification mismatch in the labour market of an industrial region: a conceptual model and measurement mechanism.....684

**Juman J., Mukhtarova K.S., Liao Z.**

The modern model of China's economic cooperation with Central Asian countries.....701

**Karakulova A., Bakirbekova A., Zhangirova R.**

Improving the efficiency of digital transformation of agricultural enterprises: an empirical analysis of Kostanay region.....718

**Kuralbayeva A.Sh., Issayeva G.K., Zhussipova E.E.**

Energy-saving technologies in irrigated agriculture of Southern Kazakhstan: economic and environmental effects.....734

**Naimanova Zh., Bakirbekova A., Kuralbayeva R.**

Digital inequality and agricultural productivity: evidence from Southern Kazakhstan....749

**Nartbayeva A., Dadabayeva D., Altuntas G.**

Economic resilience of single-industry towns in Kazakhstan: a dynamic analysis of socio-economic indicators.....767

**Nurlanuly A., Petrovčíková K., Shalbolova U.Zh.**

Comparative analysis of aviation market development models in Kazakhstan and Slovakia.....785

**Nyshanbayeva U., Moldashbayeva L., Urazbayeva Z.**

Accounting and valuation of investment projects in digital tourism: an integrated approach.....801

**Shegir G., Kerimova U., Kabi Sh.**

The transition of the agro-industrial complex of the Almaty region to the production of value-added products.....819

**Shiganbayeva N., Razakova D., Orlowska R.**

Trade turnover between China and Kazakhstan in the context of contemporary analytical studies: factors, challenges, and risks.....840

**Tuzubekova M., Zhunusova A., Kadirova N.**

Analysis of SME support incentives in the manufacturing industry of the Republic of Kazakhstan.....857

**Yeraliyeva Ya., Ruziyeva E., Alimbekova B.**

Trend and structure of research on digital financial literacy: bibliometric approach.....877

**Zhassan G., Taibek Zh., Imanova G.**

Climate risk management in the banking sector: ESG-based global and Kazakhstani experience.....891

## МАЗМҰНЫ

### ПЕДАГОГИКА

#### **Айтимбаев А.Т., Исаев М.С., Апендиев Т.А.**

Қазақстан тарихын жоғары оқу орындарында оқытуда архив материалдарын пайдаланудың ғылыми-әдістемелік мүмкіндіктері (1920–1950 жж. Оңтүстік Қазақстандағы саяси қуғын-сүргін құрбандары тағдырлары негізінде).....19

#### **Ахметова Г.С., Кабдушева А.Б., Мусина А.Б.**

Университет студенттерінің академиялық жазылымдағы қиындықтары мен оқу қажеттіліктеріне арналған сандық зерттеу.....40

#### **Ахметова Ж.А., Нұрғали С., Нурметова Д.**

Академиялық жазуды оқытуда сандық ресурстарды пайдаланудың педагогикалық негіздері..... 57

#### **Бекболат Ж.Н., Жолмаханова А.Б., Сейфуллах Йылдырым**

Мұстафа Шоқай хаттарын зерттеушілік әдіс арқылы оқытудың теориялық негіздері.....72

#### **Берденкулова А.Ж., Жандавлетова Р.Б., Назарова Г.А.**

«Жайлы мектеп – қоғам – университет» серіктестігі негізінде білім сапасын арттырудың педагогикалық моделі.....88

#### **Ескендірова А.А., Касенова Н.Б., Ногоев Ю.Я.**

ЖИ арқылы жасалған мәтіндер мен кванттау технологиясы арқылы әзірленген мәтіндердің салыстырмалы талдауы.....104

#### **Жанысбекова Ш., Нурмаханова Ж., Акашева Ә.**

Прагматикалық құзіреттілікті қалыптастырудың өзекті мәселелері: контент-анализ нәтижелері бойынша зерттеу.....121

#### **Дүйсенова Г.А., Шындалиев Н.Т., Шадиев Р.Н.**

Дәстүрлі және виртуалды бағдарламалау білімінің салыстырмалы талдауы.....136

#### **Зулпыхар Ж.Е., Капанова Д.Е., Жилмагамбетова Р.З.**

Педагогтердің кәсіби құзыреттілігін дамытудың негізі ретінде қазіргі заманғы ресурстар мен технологиялар.....153

#### **Исаева А.А., Ананьева С.В.**

К. Паустовский шығармашылығындағы Қазақстан тақырыбының аксиологиялық интерпретациясы: жоғары оқу орнында оқытудың әдіснамалық тәсілдері.....172

#### **Кабжалелов К.Р., Қорғанбаева Ж.Қ., Нурахметова А.Р.**

Химияны оқыту барысында заманауи чат-боттар арқылы сыни ойлауды дамыту.....190

|                                                                                                                                                                                       |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>Каженова Ж.С., Қыдыралина Л.М., Рахматулина З.Т.</b><br>Оқушылардың инженерлік дағдыларын дамыту мәселелері.....                                                                   | 208 |
| <b>Калдарова А.К., Васкез М.А., Кульгильдинова Т.А.</b><br>Студенттердің кәсіби-бағдарланған айтылым дағдыларын ChatGPT арқылы дамыту.....                                            | 229 |
| <b>Капбарова Г.Ш., Гюндогду А., Байдалиева Э.А.</b><br>Тарихты оқыту әдістемесі: құзыреттілікке негізделген тәсілді қолданудың теориялық және практикалық негіздері.....              | 243 |
| <b>Кожыханова Л., Амирова А.</b><br>Бастауыш сынып оқушыларының медиасауаттылығын дамыту перспективалары.....                                                                         | 260 |
| <b>Кужагулова Г.Е., Сыдыкова Р.Ш., Смаилова М.С.</b><br>Көру қабілеті бұзылған білім алушыларды қазақтың лирикалық әндері арқылы ұлттық құндылықтарға тәрбиелеудің ерекшеліктері..... | 278 |
| <b>Мархмадова Ж.Қ., Касымова Г.К., Өкенова Б.</b><br>Педагог-психологтың цифрлық құзыреттілігін қалыптастыру және бағалаудың педагогикалық аспектілері.....                           | 297 |
| <b>Матеева М.А., Ералин Қ., Буркитбаев Т.</b><br>Болашақ көркем еңбек мұғалімдерін өнертанымдық өлкетануға даярлау.....                                                               | 318 |
| <b>Маханов Н., Нишанова К.</b><br>Музейлік білім беру негізінде оқушылардың танымдық құзыреттіліктерін дамыту (Оңтүстік Қазақстан мысалында).....                                     | 333 |
| <b>Мырзагерейқызы Г., Ермакова Ж.К., Алджамбекова Г.Т.</b><br>Болашақ физика мұғалімдерін оқушылардың функционалдық сауаттылығын дамытуға даярлауда action research пайдалану.....    | 348 |
| <b>Регинбаева Н.А., Наметкулова Ф.Д.</b><br>Болашақ әуе транспорты мамандарына физиканы STEM білім беру негізінде кәсіби-бағдарлы оқытудың әдістемелік негіздері.....                 | 365 |
| <b>Серикбаева Н.Б., Орынбекова А.С., Туякова У.Ж.</b><br>Қазіргі білім беруде педагог-психологтардың цифрлық құзыреттілігін дамыту әдістемесі.....                                    | 385 |
| <b>Тойғанбекова М.Е., Қажигалиева Г.А.</b><br>Оқытудың тиімділігін арттыру үшін оқу мәтіндерін құру және нақтылау аспектілері.....                                                    | 409 |

**Шегебаева Г.У., Жумашева Т.С., Нурбекова С.М.**

Болашақ тәрбиешілерді нутрициология негізінде денсаулық сақтау-білім беру ортасын құруға дайындаудың алғышарттары.....422

**Шишов С.Е., Иовбак А.С., Верко Е.А.**

Орта мектепте оқушылардың эксперименталдық қызметін ұйымдастыру құралы ретінде интеграцияланған модульді физика эксперименті.....443

**ЭКОНОМИКА****Абдимолдаева А., Мадышева А., Жунусова Г.**

Цифрландыру жағдайында агроөнеркәсіптік кешендегі логистикалық шығындар есебін қайта құру.....461

**Абуова Ж., Дүйсеннова Р., Кадырбекова Д.**

Цифрлық трансформация және экологиялық басқару негізіндегі қонақ үй бизнесінің тұрақты даму тұжырымдамасы.....479

**Әшім Н., Джрауова К., Кушенова М.**

Ауылшаруашылығы субсидияларын басқаруды жетілдіру: Қызылорда облысы...494.

**Мұхит Амантай, Кенабекова М., Оралбаева Ж.**

Цифрландыру Қазақстанның экономикалық өсуінің драйвері ретінде: эконометрикалық талдау және құрылымдық әсерлер.....511

**Асенова Р., Абдибеков С., Айтбаева Д.**

Ауылшаруашылығындағы энергия тиімділігі және инновациялар: Оңтүстік Қазақстан бойынша эмпирикалық дәлелдер.....535

**Асанова Ж., Баймуханова С., Қонысбаева Г.**

Экологиялық есеп, ESG-есептілік және цифрландыру: шығындарды төмендетуге және орнықты дамуға әсері.....554

**Байгелова А., Садыкова Ж., Епанчинцева С.**

Қазақстандағы өнеркәсіп экономикасының трансформациясы: құрылымдық өзгерістер, цифрландыру және өнімділіктің өсуі.....571

**Бейсекова Ж., Муталиева А., Куншигарова Л.**

2000–2025 жылдары Қазақстандағы кәсіпкерлік қызметтің трансформациясы.....590

**Бейсенбаева А., Қамбаров Б., Саменова Н.**

Алматыда шағын және орта кәсіпкерлікті дамыту: экожүйелік факторлар және құрылымдық динамика.....611

**Бекишева А., Бекетова К., Дорохова Н.**

Қазақстанның мемлекеттік қызметіндегі адам ресурстарын басқару тәжірибелері және қызметкерлердің қабылдауы.....629

**Бисенбаева С., Киреева А., Жұмаксанова К.**

Цифрландыру, мемлекеттік қолдау және инновациялық белсенділік:

Қазақстан өңірлерінің талдауы.....646

**Эм О.Л., Ким Д.**

Ұжымдық инвестициялардағы тәуекелдерді басқарудың ерекшеліктері.....665

**Ибраева А., Кенешева Г., Арынова Ж.**

Өнеркәсіптік өңірдің еңбек нарығындағы біліктілік сәйкессіздігі:

тұжырымдамалық модель және өлшеу тетігі.....684

**Жұман Ж., Мұхтарова К.С., Ляо Чжан**

Қытайдың Орталық Азия елдерімен экономикалық ынтымақтастығының

заманауи моделі.....701

**Қарақұлова А., Бакирбекова А., Жангирова Р.**

Ауыл шаруашылығы кәсіпорындарының цифрлық трансформациясының

тиімділігін арттыру: Қостанай облысының эмпирикалық талдауы.....718

**Құралбаева А.Ш., Исаева Г.К., Жусипова Э.Е.**

Оңтүстік Қазақстанның суармалы ауыл шаруашылығындағы энергия үнемдеу

технологиялары: экономикалық және экологиялық тиімділік.....734

**Найманова Ж., Бакирбекова А., Құралбаева Р.**

Цифрлық теңсіздік және ауыл шаруашылығының өнімділігі:

Оңтүстік Қазақстан деректері.....749

**Нартбаева А., Дадабаева Д., Алтунташ Г.**

Қазақстан моноқалаларының экономикалық резилиенттілігі: әлеуметтік-

экономикалық көрсеткіштердің динамикалық талдауы.....767

**Нұрланұлы А., Петровчикова К., Шалболова У.Ж.**

Қазақстан мен Словакияның авиациялық нарықтарының даму модельдерін

салыстырмалы талдау.....785

**Нышанбаева Ұ., Молдашбаева Л., Уразбаева З.**

Цифрлық туризмдегі инвестициялық жобаларды есепке алу және бағалау:

интеграцияланған тәсіл.....801

**Шегір Г., Керимова У., Қаби Ш.**

Алматы облысының агроөнеркәсіптік кешенінің қосылған құны бар өнім

өндіруге көшуі.....819

**Шиганбаева Н., Разакова Д., Орловска Р.**

Қытай мен Қазақстан арасындағы тауар айналымы: факторлар, мәселелер

және тәуекелдер.....840

**Тузубекова М., Жунусова А., Кадирова Н.**

Қазақстан Республикасының өңдеу өнеркәсібіндегі шағын және орта бизнесті  
ынталандыруды талдау.....857

**Ералиева Я., Рузиева Э., Алимбекова Б.**

Цифрлық қаржылық сауаттылық бойынша зерттеулердің тенденциялары  
мен құрылымы: библиометриялық тәсіл.....877

**Жасан Г.Ж., Тайбек Ж.Қ., Иманова Г.А.**

Банк секторындағы климаттық тәуекелдерді басқару: ESG негізіндегі әлемдік  
және қазақстандық тәжірибе.....891

## СОДЕРЖАНИЕ

## ПЕДАГОГИКА

**Айтимбаев А.Т., Исаев М.С., Апендиев Т.А.**

Научно-методические возможности использования архивных материалов при преподавании истории Казахстана в высших учебных заведениях (на примере судеб жертв политических репрессий в Южном Казахстане в 1920–1950 гг.).....19

**Ахметова Г.С., Кабдушева А.Б., Мусина А.Б.**

Количественное исследование проблем академического письма и образовательных потребностей студентов университета.....40

**Ахметова Ж.А., Нургали С., Нурметова Д.**

Педагогические основы использования цифровых ресурсов в обучении академическому письму.....57

**Бекболат Ж.Н., Жолмаханова А.Б., Сейфуллах Йылдырым**

Теоретические основы обучения письмам М. Шокая исследовательским методом.....72

**Берденкулова А.Ж., Жандавлетова Р.Б., Назарова Г.А.**

Педагогическая модель повышения качества образования на основе партнёрства «комфортная школа – общество – университет».....88

**Дуйсенова Г.А., Шындалиев Н.Т., Шадиев Р.Н.**

Сравнительный анализ традиционного и виртуализированного обучения программированию.....104

**Ескендирова А.А., Касенова Н.Б., Ногоев Ю.Я.**

Сравнительный анализ текстов, созданных ИИ и текстов, разработанных с помощью технологии квантования.....121

**Жанысбекова Ш., Нурмаханова Ж., Акашева А.**

Актуальные проблемы формирования прагматической компетенции: исследование по результатам контент-анализа.....136

**Зулпыхар Ж.Е., Капанова Д.Е., Жилмагамбетова Р.З.**

Современные ресурсы и технологии как основа развития профессиональных компетенций педагогов.....153

**Исаева А.А., Ананьева С.В.**

Аксиологическая интерпретация казахстанской тематики в творчестве К. Паустовского: методологические подходы к преподаванию в вузе.....172

**Кабжалелов К.Р., Кормганбаева Ж.К., Нурахметова А.Р.**

Развитие критического мышления с помощью современных чат-ботов при обучении химии.....190

**Каженова Ж.С., Кыдыралина Л.М., Рахматуллина З.Т.**

Проблемы развития инженерных навыков учащихся.....208

**Калдарова А.К., Васкес М.А., Кульгильдинова Т.А.**

Развитие профессионально ориентированных навыков устной речи студентов с использованием ChatGPT.....229

**Капбарова Г.Ш., Гюндогду А., Байдалиева Э.А.**

Методика преподавания истории: теоретические и практические основы применения компетентностного подхода.....243

**Кожаханова Л., Амирова А.**

Перспективы развития медиаграмотности среди учащихся начальной школы.....260

**Кужагулова Г.Е., Сыдыкова Р.Ш., Смаилова М.С.**

Особенности воспитания национальных ценностей у слабовидящих обучающихся через казахские лирические песни.....278

**Мархмадова Ж.К., Касымова Г.К., Окенова Б.**

Педагогические аспекты формирования и оценки цифровой компетентности педагогов-психологов.....297

**Матеева М.А., Ералин К., Буркитбаев Т.**

Подготовка будущих учителей художественного труда к искусствоведческому краеведению.....318

**Маханов Н., Нишанова К.**

Развитие познавательных компетенций учащихся на основе музейного образования (на примере Южного Казахстана).....333

**Мырзагерейкызы Г., Ермакова Ж.К., Алджамбекова Г.Т.**

Использование action research в подготовке будущих учителей физики к развитию функциональной грамотности учащихся.....348

**Регинбаева Н.А., Наметкулова Ф.Д.**

Методические основы профессионально-ориентированного обучения физике на основе STEM образования для будущих специалистов воздушного транспорта.....365

**Серикбаева Н.Б., Орынбекова А.С., Туякова У.Ж.**

Методика развития цифровой компетентности педагогов-психологов в современном образовании.....385

**Тойганбекова М.Е., Кажигалиева Г.А.**

Аспекты создания и спецификации учебных текстов для повышения эффективности обучения.....409

**Шегебаева Г.У., Жумашева Т.С., Нурбекова С.М.**

Предпосылки подготовки будущих воспитателей к созданию здоровьесберегающей образовательной среды на основе нутрициологии.....422

**Шишов С.Е., Иовбак А.С., Верко Е.А.**

Интегрированный модульный физический эксперимент как средство организации экспериментальной деятельности учащихся в средней школе.....443

## ЭКОНОМИКА

**Абдимолдаева А., Мадышева А., Жунусова Г.**

Трансформация учета логистических затрат в агропромышленном комплексе в условиях цифровизации.....461

**Абуова Ж., Дуйскенова Р., Кадырбекова Д.**

Концепция устойчивого развития гостиничного бизнеса на основе цифровой трансформации и экологического менеджмента.....479

**Ашим Н., Джрауова К., Кушенова М.**

Совершенствование управления агросубсидиями: Кызылординская область.....494

**Мухит Амантай, Канабекова М., Оралбаева Ж.**

Цифровизация как драйвер экономического роста Казахстана: эконометрический анализ и структурные эффекты.....511

**Асимова Р., Абдибеков С., Айтбаева Д.**

Энергоэффективность и инновации в сельском хозяйстве: эмпирические данные Южного Казахстана.....535

**Асанова Ж., Баймуханова С., Конысбаева Г.**

Экологический учет, ESG-отчетность и цифровизация: влияние на снижение издержек и устойчивое развитие.....554

**Байгелова А., Садыкова Ж., Епанчинцева С.**

Трансформация промышленной экономики Казахстана: структурные сдвиги, цифровизация и рост производительности.....571

**Бейсекова Ж., Муталиева А., Куншигарова Л.**

Трансформация предпринимательской деятельности в Казахстане в 2000–2025 годах.....590

**Бейсенбаева А., Камбаров Б., Саменова Н.**

Развитие малого и среднего предпринимательства в Алматы: экосистемные факторы и структурная динамика.....611

**Бекишева А., Бекетова К., Дорохова Н.**

Практики управления человеческими ресурсами и восприятие сотрудников в государственной службе Казахстана.....629

**Бисенбаева С., Киреева А., Жумаксанова К.**

Цифровизация, государственная поддержка и инновационная активность: региональный анализ Казахстана.....646

**Эм О.Л., Ким Д.**

Особенности управления рисками в сфере коллективных инвестиций.....665

**Ибраева А., Кенешева Г., Арынова Ж.**

Несоответствие квалификации на рынке труда промышленного региона: концептуальная модель и механизм измерения.....684

**Жуман Ж., Мухтарова К.С., Ляо Чжан**

Современная модель экономического сотрудничества Китая со странами Центральной Азии.....701

**Каракулова А., Бакирбекова А., Жангирова Р.**

Повышение эффективности цифровой трансформации сельскохозяйственных предприятий: эмпирический анализ Костанайской области.....718

**Куралбаева А.Ш., Исаева Г.К., Жусипова Э.Е.**

Энергосберегающие технологии в орошаемом сельском хозяйстве Южного Казахстана: экономические и экологические эффекты.....734

**Найманова Ж., Бакирбекова А., Куралбаева Р.**

Цифровое неравенство и продуктивность сельского хозяйства: данные из Южного Казахстана.....749

**Нартбаева А., Дадабаева Д., Алтунташ Г.**

Экономическая резилиентность моногородов Казахстана: динамический анализ социально-экономических показателей.....767

**Нурланулы А., Петровчикова К., Шалболова У.Ж.**

Сравнительный анализ моделей развития авиационных рынков Казахстана и Словакии.....785

**Нышанбаева У., Молдашбаева Л., Уразбаева З.**

Учет и оценка инвестиционных проектов в цифровом туризме: интегрированный подход.....801

**Шегир Г., Керимова У., Каби Ш.**

Переход агропромышленного комплекса Алматинской области к производству продукции с добавленной стоимостью.....819

**Шиганбаева Н., Разакова Д., Орловская Р.**

Товарооборот Китая и Казахстана: факторы, проблемы и риски.....840

**Тузубекова М., Жунусова А., Кадирова Н.**

Анализ стимулирования малого и среднего бизнеса в обрабатывающей промышленности Республики Казахстан.....857

**Ералиева Я., Рузиева Э., Алимбекова Б.**

Тенденции и структура исследований цифровой финансовой грамотности: библиометрический подход.....877

**Жасан Г.Ж., Тайбек Ж.Қ., Иманова Г.А.**

Управление климатическими рисками в банковском секторе: стандарты ESG в мировом и казахстанском опыте.....891

SCIENTIFIC JOURNAL OF PEDAGOGY AND ECONOMICS

ISSN 1991-3494

Volume 2.

Number 420 (2026), 857-876

<https://doi.org/10.32014/2026.2518-1467.1191>

UDK: 45:334.7:330.34

IRSTI: 06.52.13

© **Tuzubekova M.K., Zhunusova A.Zh.\*, Kadirova N.K., 2026.**

Turan–Astana University, Astana, Kazakhstan.

E-mail: aselzhunusova88@gmail.com

## **ANALYSIS OF SME SUPPORT INCENTIVES IN THE MANUFACTURING INDUSTRY OF THE REPUBLIC OF KAZAKHSTAN**

**Tuzubekova Madina** — Candidate of Economic Sciences, Associate Professor, Turan–Astana University, Astana, Kazakhstan,

E-mail: t-madina@yandex.ru, ORCID: 0000-0001-7135-4402;

**Zhunusova Asel** — Doctor (Profile: Economics), Associate Professor, Head of Department, Turan–Astana University, Astana, Kazakhstan,

E-mail: aselzhunusova88@gmail.com, ORCID: 0000-0001-5538-1945;

**Kadirova Nurgul** — Master of Economic Sciences, Senior Lecturer, Turan–Astana University, Astana, Kazakhstan,

E-mail: kalkenovna4991@gmail.com, ORCID: 0009-0001-1453-720X.

**Abstract.** In the context of structural transformation of the economy of the Republic of Kazakhstan, the development of small and medium-sized businesses in the manufacturing industry is considered as a key factor in ensuring sustainable economic growth, diversifying the national economy and increasing its competitiveness. Of particular relevance is the study of mechanisms for state stimulation of entrepreneurial activity in the manufacturing sector, aimed at developing industrial potential, increasing the technological level of enterprises and expanding their export opportunities. The purpose of this study is to analyze the means of stimulating small and medium-sized businesses in the manufacturing industry of the Republic of Kazakhstan and evaluate the effectiveness of their implementation in modern economic conditions. The paper considers the main directions of state support for entrepreneurship, including financial mechanisms of subsidies, tax incentives, institutional support measures, as well as programs of industrial and innovative development. The methodological basis of the study is a systematic approach, methods of Comparative and economic-statistical analysis, as well as an analysis of regulatory and legal documents and state programs regulating the development of entrepreneurship. As a result of the study, the main trends in the development of small and medium-sized businesses in the manufacturing industry

of the Republic of Kazakhstan for 2020-2024 were identified, the main problems of implementing the state policy of stimulating entrepreneurship were identified, including limited access to long-term financing, technological backwardness of enterprises, institutional restrictions and insufficient effectiveness of certain means of state support. It has been established that the implemented incentive measures contribute to the growth of entrepreneurial activity and the development of industrial production, but require improving the mechanisms for implementing state policy and increasing its effectiveness. The scientific novelty of the study lies in a comprehensive assessment of the effectiveness of means of stimulating small and medium-sized businesses in the manufacturing industry of the Republic of Kazakhstan. The practical significance of the work is determined by the development of recommendations for improving the state policy of supporting entrepreneurship aimed at increasing the competitiveness of the national economy and sustainable development of the industrial sector.

**Keywords.** Small and medium-sized businesses, manufacturing industry, government support, industrial policy, entrepreneurship promotion, industrial development, Republic of Kazakhstan

*For citations: Tuzubekova M.K., Zhunusova A.Zh., Kadirova N.K. Analysis of sme support incentives in the manufacturing industry of the Republic of Kazakhstan. Scientific journal of pedagogy and economics, 2026. — No.2. — P. 857-876. DOI: <https://doi.org/10.32014/2026.2518-1467.1191>*

© Тузубекова М.К., Жунусова А.Ж.\*, Кадирова Н.К., 2026.

«Тұран-Астана» университеті, Астана, Қазақстан.

E-mail: aselzhunusova88@gmail.com

## ҚАЗАҚСТАН РЕСПУБЛИКАСЫНЫҢ ӨНДЕУ ӨНЕРКӘСІБІНДЕГІ ШАҒЫН ЖӘНЕ ОРТА БИЗНЕСТІ ҢЫТАЛАНДЫРУДЫ ТАЛДАУ

**Тузубекова Мадина** — экономика ғылымдарының кандидаты, доцент, «Тұран-Астана» университеті, Астана, Қазақстан,

E-mail: t-madina@yandex.ru, ORCID: 0000-0001-7135-4402;

**Жунусова Асель** — экономика бейіні бойынша доктор, доцент, кафедра меңгерушісі, «Тұран-Астана» университеті, Астана, Қазақстан,

E-mail: aselzhunusova88@gmail.com, ORCID: 0000-0001-5538-1945;

**Кадирова Нургуль** — магистр, сеньор-лектор, «Тұран-Астана» университеті, Астана, Қазақстан,

E-mail: kalkenovna4991@gmail.com, ORCID: 0009-0001-1453-720X.

**Аннотация.** Қазақстан Республикасы экономикасының құрылымдық трансформациясы жағдайында өндеуші өнеркәсіпте шағын және орта бизнесті дамыту орнықты экономикалық өсуді қамтамасыз етудің, ұлттық экономиканы әртараптандырудың және оның бәсекеге қабілеттілігін арттырудың негізгі факторы ретінде қарастырылады. Өнеркәсіптік әлеуетті

дамытуға, кәсіпорындардың технологиялық деңгейін арттыруға және олардың экспорттық мүмкіндіктерін кеңейтуге бағытталған өндірістік сектордағы кәсіпкерлік белсенділікті мемлекеттік ынталандыру тетіктерін зерттеу ерекше өзекті болып отыр. Осы зерттеудің мақсаты Қазақстан Республикасының Өңдеу өнеркәсібіндегі шағын және орта бизнесті ынталандыру құралдарын талдау және оларды қазіргі экономикалық жағдайларда іске асырудың тиімділігін бағалау болып табылады. Жұмыста субсидиялаудың қаржылық тетіктерін, салықтық ынталандыруларды, институционалдық қолдау шараларын, сондай-ақ индустриялық-инновациялық даму бағдарламаларын қоса алғанда, кәсіпкерлікті мемлекеттік қолдаудың негізгі бағыттары қарастырылады. Зерттеудің әдіснамалық негізін жүйелі тәсіл, салыстырмалы және экономикалық-статистикалық талдау әдістері, сондай-ақ кәсіпкерлікті дамытуды реттейтін нормативтік-құқықтық құжаттар мен мемлекеттік бағдарламаларды талдау құрайды. Зерттеу нәтижесінде Қазақстан Республикасының Өңдеу өнеркәсібіндегі шағын және орта бизнесті дамытудың 2020-2024 жылдардағы негізгі тенденциялары анықталды, ұзақ мерзімді қаржыландыруға қолжетімділіктің шектелуін, кәсіпорындардың технологиялық артта қалуын, институционалдық шектеулерді және мемлекеттік қолдаудың жекелеген құралдарының тиімділігінің жеткіліксіздігін қоса алғанда, кәсіпкерлікті ынталандырудың мемлекеттік саясатын іске асырудың негізгі проблемалары айқындалды. Іске асырылып жатқан ынталандыру шаралары кәсіпкерлік белсенділіктің өсуіне және өнеркәсіптік өндірістің дамуына ықпал ететіні анықталды, алайда мемлекеттік саясатты іске асыру тетіктерін жетілдіруді және оның нәтижелілігін арттыруды талап етеді. Зерттеудің ғылыми жаңалығы Қазақстан Республикасының Өңдеу өнеркәсібіндегі шағын және орта бизнесті ынталандыру құралдарының тиімділігін кешенді бағалауда жатыр. Жұмыстың практикалық маңыздылығы ұлттық экономиканың бәсекеге қабілеттілігін арттыруға және өнеркәсіп секторын орнықты дамытуға бағытталған кәсіпкерлікті қолдаудың мемлекеттік саясатын жетілдіру бойынша ұсынымдар әзірлеумен айқындалады.

**Түйін сөздер.** шағын және орта бизнес, өңдеу өнеркәсібі, мемлекеттік қолдау, индустриялық саясат, кәсіпкерлікті ынталандыру, өнеркәсіптік даму, Қазақстан Республикасы

© Тузубекова М.К., Жунусова А.Ж.\*, Кадилова Н.К., 2026.

Университет «Туран-Астана», Астана, Республика Казахстан.

E-mail: aselzhunusova88@gmail.com

## **АНАЛИЗ СТИМУЛИРОВАНИЯ МАЛОГО И СРЕДНЕГО БИЗНЕСА В ОБРАБАТЫВАЮЩЕЙ ПРОМЫШЛЕННОСТИ РЕСПУБЛИКИ КАЗАХСТАН**

**Тузубекова Мадина** — кандидат экономических наук, доцент, Университет «Туран-Астана», Астана, Казахстан,

E-mail: t-madina@yandex.ru, ORCID: 0000-0001-7135-4402;

**Жунусова Асель** — доктор по профилю «Экономика», доцент, заведующая кафедрой, Университет «Туран-Астана», Астана, Казахстан,

E-mail: aselzhunusova88@gmail.com, ORCID: 0000-0001-5538-1945;

**Кадирова Нургуль** — магистр, старший преподаватель, Университет «Туран-Астана», Астана, Казахстан,

E-mail: kalkenovna4991@gmail.com, ORCID: 0009-0001-1453-720X.

**Аннотация.** В условиях структурной трансформации экономики Республики Казахстан развитие малого и среднего бизнеса в обрабатывающей промышленности рассматривается как ключевой фактор обеспечения устойчивого экономического роста, диверсификации национальной экономики и повышения ее конкурентоспособности. Особую актуальность приобретает исследование механизмов государственного стимулирования предпринимательской активности в производственном секторе, направленных на развитие промышленного потенциала, повышение технологического уровня предприятий и расширение их экспортных возможностей. Целью настоящего исследования является анализ инструментов стимулирования малого и среднего бизнеса в обрабатывающей промышленности Республики Казахстан и оценка эффективности их реализации в современных экономических условиях. В работе рассматриваются основные направления государственной поддержки предпринимательства, включая финансовые механизмы субсидирования, налоговые стимулы, институциональные меры поддержки, а также программы индустриально-инновационного развития. Методологическую основу исследования составляют системный подход, методы сравнительного и экономико-статистического анализа, а также анализ нормативно-правовых документов и государственных программ, регулирующих развитие предпринимательства. В результате исследования выявлены ключевые тенденции развития малого и среднего бизнеса в обрабатывающей промышленности Республики Казахстан за 2020–2024 годы, определены основные проблемы реализации государственной политики стимулирования предпринимательства, включая ограниченный доступ к долгосрочному финансированию, технологическое отставание предприятий, институциональные ограничения и недостаточную эффективность отдельных инструментов государственной поддержки. Установлено, что реализуемые меры стимулирования способствуют росту предпринимательской активности и развитию промышленного производства, однако требуют совершенствования механизмов реализации и повышения результативности государственной политики. Научная новизна исследования заключается в комплексной оценке эффективности инструментов стимулирования малого и среднего бизнеса в обрабатывающей промышленности Республики Казахстан. Практическая значимость работы определяется разработкой рекомендаций по совершенствованию государственной политики поддержки предпринимательства, направленных на повышение конкурентоспособности национальной экономики и устойчивое развитие промышленного сектора.

**Ключевые слова:** малый и средний бизнес, обрабатывающая промышленность, государственная поддержка, индустриальная политика, стимулирование предпринимательства, промышленное развитие, Республика Казахстан

**Introduction.** The development of small and medium-sized businesses is one of the priorities of the state economic policy of the Republic of Kazakhstan aimed at diversifying the economy and reducing dependence on the raw materials sector. In modern conditions of global economic competition, it is of particular importance to stimulate entrepreneurial activity in the manufacturing industry, which ensures the creation of high added value, technological development and an increase in the country's export potential.

The manufacturing industry is a strategically important sector of the economy, forming the basis of the industrial and innovative development of the state. In this regard, the state policy of the Republic of Kazakhstan is focused on creating favorable conditions for the functioning of small and medium-sized businesses, including the provision of financial support, tax incentives, institutional assistance and the development of business infrastructure.

Despite the government support measures being implemented, the development of small and medium-sized businesses in the manufacturing industry faces a number of structural and institutional problems, including limited access to long-term financing, insufficient technological development of enterprises, high administrative barriers and low innovative activity of business entities. This necessitates a comprehensive analysis of existing incentive mechanisms and an assessment of their effectiveness.

The purpose of this study is to analyze the tools for stimulating small and medium-sized businesses in the manufacturing industry of the Republic of Kazakhstan, identify key problems in their implementation and develop recommendations for improving government policy in this area.

**Literature review.** The development of small and medium-sized businesses (SMEs) in the industrial sector is considered in the scientific literature as an important factor in the structural transformation of the economy, increasing innovation activity and ensuring sustainable economic growth. According to research by the Organization for Economic Co-operation and Development, small and medium-sized enterprises play a key role in creating a competitive environment, increasing productivity and promoting technological innovation, especially in the manufacturing industry (OECD, 2023). However, a number of researchers note that the contribution of SMEs to economic growth significantly depends on institutional conditions and the effectiveness of government incentive policies (Acs et al., 2017).

In the theoretical aspect, government incentives for entrepreneurship are justified by the need to overcome market dysfunctions, including information asymmetry, limited access to finance and a high level of investment risks (Rodrik, 2018). At the same time, modern research points to the ambiguity of the impact

of government support on the development of entrepreneurship. In particular, excessive government intervention can lead to a distortion of market incentives, a decrease in the efficiency of resource allocation, and the formation of business dependence on government support (Lerner, 2009).

Recent studies have focused on evaluating the effectiveness of government support tools for industrial entrepreneurship. According to UNIDO data (2022), subsidized interest rates, tax incentives, and technological modernization programs contribute to increased enterprise productivity and innovation. However, the effectiveness of these tools varies significantly depending on the institutional environment, the level of development of the financial system and the quality of public administration (OECD, 2023).

A separate research area is devoted to the analysis of government policies to support SMEs in emerging economies. The World Bank (2020) highlights that access to financial resources, the development of entrepreneurial infrastructure, and the reduction of administrative barriers are key factors in the growth of industrial entrepreneurship. At the same time, the researchers note that many government support programs are characterized by low efficiency due to insufficient coordination of development institutions and weak mechanisms for monitoring results.

In the Kazakh scientific literature, the development of small and medium-sized businesses is mainly considered in the context of economic diversification and the implementation of industrial and innovation policy of the state. Domestic researchers note that state support for entrepreneurship in the Republic of Kazakhstan is aimed at stimulating production activity, increasing export potential and reducing the dependence of the economy on raw materials (Ashimbayev, 2021; Kusainov, 2022). At the same time, the focus is mainly on institutional support mechanisms, including subsidizing credit rates, developing business infrastructure, and implementing government programs for industrial development.

At the same time, the analysis of domestic research shows a number of methodological limitations. First, most of the work is descriptive and does not quantify the effectiveness of government support tools. Secondly, limited attention is paid to the analysis of the effectiveness of individual mechanisms for stimulating entrepreneurship in the manufacturing industry. Thirdly, the institutional barriers affecting the effectiveness of the government's SME support policy have not been sufficiently investigated (Nazarbayev University, 2023). Modern research also points to the need to move from direct forms of government support to tools to stimulate innovation and technological modernization of enterprises (Cirera et al., 2020). However, in relation to Kazakhstan, these issues remain insufficiently studied, especially in the context of the development of the manufacturing industry and increasing the technological competitiveness of enterprises.

Thus, the analysis of scientific literature shows the existence of a scientific gap associated with the lack of a comprehensive assessment of the effectiveness of incentive tools for small and medium-sized businesses in the manufacturing industry of the Republic of Kazakhstan, taking into account institutional factors

and modern economic conditions. This makes it necessary to conduct a systematic analysis of the state policy of stimulating entrepreneurship and assessing its impact on the development of the country's industrial sector.

**Materials and methods.** The methodological basis of the study is based on the provisions of institutional economics, the theory of state regulation of entrepreneurship and the concept of industrial policy, which consider state support for small and medium-sized businesses as a tool for structural transformation of the economy and increasing industrial competitiveness (Rodrik, 2018; Acs et al., 2017). The research is based on a systematic approach that allows us to consider the mechanisms of stimulating entrepreneurship as a set of interrelated economic, institutional and organizational instruments of public policy.

The research uses a set of quantitative and qualitative methods of scientific analysis. The system analysis was used to study the structure and mechanisms of state support for small and medium-sized businesses in the manufacturing industry of the Republic of Kazakhstan, including financial, institutional and organizational tools to stimulate entrepreneurship. Economic and statistical analysis was used to assess the dynamics of the development of small and medium-sized businesses in the manufacturing industry, to analyze the indicators of production, employment, investment and entrepreneurial activity. This method made it possible to identify the main trends in the development of the industrial sector and assess the impact of government support measures on the development of entrepreneurship.

The comparative analysis was used to compare the national experience of stimulating small and medium-sized businesses with the international practice of state support for industrial entrepreneurship, presented in the studies of the Organization for Economic Co-operation and Development, the World Bank and UNIDO (OECD, 2023; UNIDO, 2022). The content analysis of regulatory documents was used to study the state policy of supporting entrepreneurship, including strategic documents for industrial development, government programs to support small and medium-sized businesses, as well as institutional mechanisms to stimulate entrepreneurial activity.

The information base of the study was made up of official statistical data from the Bureau of National Statistics of the Republic of Kazakhstan, analytical reports from the Ministry of National Economy of the Republic of Kazakhstan, materials from state programs for industrial and innovative development, as well as international analytical reviews of the development of small and medium-sized businesses.

The empirical basis of the study was statistical indicators of the development of small and medium-sized businesses in the manufacturing industry of the Republic of Kazakhstan for the period 2020-2024, including indicators of output, the number of active business entities, investment in fixed assets, employment and productivity of enterprises.

To process statistical data, methods of dynamic analysis, structural analysis and analysis of relative indicators were used to identify changes in the structure

of industrial production and evaluate the effectiveness of state support tools for entrepreneurship.

The Pearson linear correlation coefficient was used to assess the relationship between the objects of state financial support for small and medium-sized businesses and indicators of the development of the industrial sector.

The correlation coefficient is calculated as follows:

$$r = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \cdot \sum (y_i - \bar{y})^2}}$$

where:

- $x_i$  – values of the explanatory variable (government support for SMEs);
- $y_i$  – values of the dependent variable (industrial output, investment, or SME share in GDP);
- $\bar{x}, \bar{y}$  – mean values of the variables;
- $r$  – Pearson correlation coefficient.

The calculations are based on statistical data presented in Table 4.

The use of an integrated methodological approach made it possible to ensure the objectivity of the research results and to conduct a systematic assessment of the effectiveness of incentive mechanisms for small and medium-sized businesses in the manufacturing industry of the Republic of Kazakhstan.

**Results.** The results of the correlation analysis indicate that there is a stable positive relationship between the volume of state financial support for small and medium-sized businesses and the indicators of the development of the industrial sector of the Republic of Kazakhstan. The revealed dependencies allow us to conclude that the instruments of state support have a significant impact on the development of entrepreneurial activity, investment processes and industrial production. The high degree of correlation between the volume of government support and the volume of manufacturing industry production confirms that financial instruments to stimulate entrepreneurship contribute to the expansion of production activity and modernization of the industrial sector. The increase in interest rate subsidies and the expansion of credit support mechanisms create favorable conditions for the implementation of investment projects, which is especially important for capital-intensive manufacturing industries.

A similar trend is observed with regard to investments in fixed assets in industry. The revealed high positive relationship between the volume of government support and the investment activity of enterprises indicates the stimulating effect of financial instruments on the renewal of production facilities and the development of industrial infrastructure. This result is consistent with the conclusions of international studies, according to which government entrepreneurship support programs contribute to increased investment activity and technological modernization of enterprises (Organization for Economic Co-operation and Development, 2023). However,

the revealed results require a critical interpretation. Despite the high values of the correlation coefficients, the obtained dependences do not allow us to unequivocally assert the existence of a direct causal relationship between the volume of government support and the development of the industrial sector. According to World Bank research, the effectiveness of government support is determined not only by the scale of financing, but also by the quality of the institutional environment, the effectiveness of resource allocation mechanisms, and the level of technological development of enterprises (World Bank, 2020).

In addition, an earlier analysis showed that, despite the increase in government support, the share of small and medium-sized businesses in the manufacturing industry remains relatively low. This indicates the presence of structural constraints on the development of industrial entrepreneurship, including the high capital intensity of industrial production, limited access of enterprises to long-term financing and insufficient technological equipment of enterprises.

It should also be borne in mind that the growth of government support may be accompanied by the formation of institutional dependence of business entities on government resources, which potentially reduces incentives to increase the efficiency of economic activity. The scientific literature notes that the excessive dependence of businesses on government support can lead to a decrease in the competitiveness of enterprises and a distortion of market incentives (Acs et al., 2017).

Thus, the results of the analysis confirm the positive impact of financial instruments of state support on the development of small and medium-sized businesses and industrial production in the Republic of Kazakhstan, however, their effectiveness is limited by a number of institutional and structural factors. This necessitates the improvement of state support mechanisms, increasing their targeting and orientation towards the development of industrial entrepreneurship and technological modernization of enterprises. The results obtained form the basis for further analysis of institutional instruments of state support and assessment of their role in creating a favorable business environment and improving the effectiveness of state economic policy.

The development of small and medium-sized businesses (SMEs) is one of the key directions of the economic policy of the Republic of Kazakhstan aimed at diversifying the economy and reducing dependence on the raw materials sector. According to the Bureau of National Statistics of the Republic of Kazakhstan, in recent years there has been a steady increase in the contribution of SMEs to gross domestic product and employment (BNS RK, 2024). The share of small and medium-sized businesses in Kazakhstan's gross domestic product increased from 31.7% in 2020 to about 36.7% in 2023, indicating an expansion of entrepreneurial activity (BNS RK, 2024). At the same time, the number of people employed in the SME sector is also showing positive dynamics, exceeding 4 million people in 2024 (Ministry of National Economy of the Republic of Kazakhstan, 2023).

The manufacturing industry occupies an important place in the structure of

the country's industrial production. According to the Bureau of National Statistics of the Republic of Kazakhstan, the volume of manufacturing industry output increased from 15.9 trillion tenge in 2020 to about 25 trillion tenge in 2024, while the industrial production index in the industry shows steady growth (BNS RK, 2024). At the same time, the contribution of small and medium-sized businesses to the manufacturing industry remains relatively limited. According to the Damu Entrepreneurship Development Fund, the share of the manufacturing industry in the output of SMEs is about 12-13%, which indicates a structural imbalance in the development of entrepreneurship in favor of the service sector (Damu, 2024).

Table 1 — Key indicators of the development of SMEs and the manufacturing industry of the Republic of Kazakhstan (2020-2024)

| Indicator                                                                                                                                                        | 2020 | 2021  | 2022  | 2023  | 2024  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|-------|-------|-------|
| The share of SMEs in GDP, %                                                                                                                                      | 31,7 | 33,5  | 35,2  | 36,7  | 37,0* |
| Number of employees in SMEs, million people                                                                                                                      | 3,3  | 3,6   | 3,8   | 4,0   | 4,1   |
| The volume of manufacturing industry output, trillion tenge                                                                                                      | 15,9 | 18,4  | 21,0  | 23,2  | 25,0  |
| Manufacturing industry production index, %                                                                                                                       | 96,3 | 105,5 | 103,4 | 104,1 | 106,9 |
| Share of manufacturing industry in SME output, %                                                                                                                 | 10,2 | 11,1  | 11,7  | 12,0  | 12,3  |
| Note: compiled by the author according to the source (BTS RK (2024), Ministry of National Economy of the Republic of Kazakhstan (2023), Damu Foundation (2024).) |      |       |       |       |       |

The data presented in Table 1 indicate a positive trend in the development of small and medium-sized businesses in the Republic of Kazakhstan during the study period. There has been a steady increase in the contribution of the SME sector to the country's gross domestic product, reflecting the expansion of entrepreneurial activity and the increasing role of the private sector in the structure of the national economy. The increase in the share of SMEs in GDP from 31.7% in 2020 to about 37% in 2024 indicates the gradual strengthening of the business sector and the effectiveness of the implemented state policy of business support (Bureau of National Statistics of the Republic of Kazakhstan, 2024).

At the same time, there is an increase in employment in the small and medium-sized business sector, which confirms its significant socio-economic role. The increase in the number of employees from 3.3 million in 2020 to more than 4 million in 2024 indicates an expansion of entrepreneurial activity and an increase in the contribution of SMEs to the formation of the labor market (Ministry of National Economy of the Republic of Kazakhstan, 2023).

The analysis of the dynamics of the manufacturing industry also shows a steady growth trend. The volume of production in the industry increased by more than 1.5 times during the period under review, which indicates the intensification of industrial production and the implementation of industrial development policies. The positive dynamics of the industrial production index confirms the expansion of production activity and the modernization of certain industries (Bureau of National Statistics of the Republic of Kazakhstan, 2024).

At the same time, an analysis of the output structure of small and medium-sized businesses shows the presence of structural imbalances. Despite the overall increase in business activity, the share of the manufacturing industry in SME output remains relatively low and is increasing at an insignificant rate - from 10.2% in 2020 to about 12.3% in 2024. This indicates the predominance of the service sector and trade in the structure of entrepreneurship and the limited participation of SMEs in the manufacturing sector of the economy (Damu Entrepreneurship Development Fund, 2024).

The current structure of entrepreneurship is determined by a number of factors, including higher capital intensity of industrial production, long payback periods, technological barriers and limited access of enterprises to long-term financing. According to research by the Organization for Economic Co-operation and Development, small and medium-sized enterprises are characterized by higher financial constraints when implementing production projects, which reduces their participation in capital-intensive sectors of the economy (OECD, 2023).

In addition, the revealed dynamics indicates that existing government support measures contribute more to the quantitative growth of business entities than to the structural transformation of the economy and the development of the manufacturing sector. This trend is typical for many emerging economies, where business support programs are primarily focused on expanding entrepreneurial activity without sufficient incentives for technological modernization and increased productivity (UNIDO, 2022).

Thus, the analysis shows that, despite the positive dynamics of the development of small and medium-sized businesses and the manufacturing industry, there remains a structural imbalance between the growth of the total number of business entities and the level of their participation in the manufacturing sector. This indicates the need to improve state support tools aimed at stimulating industrial entrepreneurship, developing the technological potential of enterprises and increasing their competitiveness.

The identified trends in the development of small and medium-sized businesses and the manufacturing industry of the Republic of Kazakhstan indicate the presence of structural limitations on the participation of business entities in the manufacturing sector of the economy. Despite the positive dynamics of the main macroeconomic indicators, the contribution of small and medium-sized businesses to the manufacturing industry remains relatively low, which necessitates a more detailed analysis of the factors influencing the development of industrial entrepreneurship.

One of the key factors for the development of small and medium-sized businesses in the manufacturing industry is the access of enterprises to financial resources. The scientific literature emphasizes that limited access to finance is one of the main barriers to the development of industrial entrepreneurship, especially in capital-intensive industries (OECD, 2023). Small and medium-sized enterprises are

characterized by high credit risks, insufficient equity and limited opportunities to attract long-term investments, which reduces their ability to implement investment and innovation projects (Acs et al., 2017).

In this regard, the state policy of the Republic of Kazakhstan provides for the implementation of a set of financial instruments to stimulate entrepreneurial activity aimed at increasing the availability of credit resources, reducing the cost of borrowed capital and minimizing investment risks of small and medium-sized businesses. The main areas of financial support are subsidizing interest rates on loans, providing state guarantees, concessional lending and grant financing implemented through state development institutions, including the Damu Entrepreneurship Development Fund (Damu Foundation, 2024).

The analysis of the effectiveness of these tools is of particular scientific interest, since financial support is one of the key mechanisms for stimulating production activity, technological modernization of enterprises and expanding the participation of small and medium-sized businesses in the manufacturing industry.

In this regard, the analysis of financial instruments of state support for small and medium-sized businesses in the Republic of Kazakhstan, their scale, dynamics of implementation and impact on the development of entrepreneurial activity in the manufacturing sector of the economy is further conducted. Financial instruments of state support are a key mechanism for stimulating the development of small and medium-sized businesses (SMEs) in the manufacturing industry of the Republic of Kazakhstan. They are aimed at increasing the availability of financial resources, reducing the cost of borrowed capital and compensating for part of the costs of business entities.

In the Republic of Kazakhstan, financial support for entrepreneurship is implemented within the framework of the state Business Roadmap programs, the Unified Comprehensive Entrepreneurship Support Program, as well as preferential lending programs operated by the Damu Entrepreneurship Development Fund (Damu Foundation, 2024). The main instruments of financial incentives are subsidizing interest rates on loans, providing government grants, guaranteeing loans and reimbursing part of the costs of enterprises. The government's business support policy is characterized by a steady increase in financing. According to the Damu Foundation, the total amount of financial support for small and medium-sized businesses has more than doubled over the period 2020-2024, reflecting the increased role of the state in stimulating entrepreneurial activity and developing the manufacturing sector of the economy (Table 2).

Table 2 — Volume of financial state support for SMEs by main instruments, billion tenge

| Support Tools                | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------|------|------|------|------|------|
| Subsidizing interest rates   | 93   | 112  | 138  | 175  | 215  |
| Government grants            | 18   | 22   | 25   | 29   | 35   |
| Cost recovery (compensation) | 21   | 26   | 31   | 37   | 42   |
| Loan guarantees              | 120  | 145  | 168  | 210  | 298  |

|                                                                                                                                                                                                                             |     |     |     |     |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|
| Total amount of support                                                                                                                                                                                                     | 252 | 305 | 362 | 451 | 590 |
| Note: compiled by the author according to the source (Damu Entrepreneurship Development Fund (2021-2024), Ministry of National Economy of the Republic of Kazakhstan (2023), Baiterek National Managing Holding JSC (2024)) |     |     |     |     |     |

As can be seen from table 2, the total amount of state support for entrepreneurship increased from 252 billion tenge in 2020 to 590 billion tenge in 2024, which indicates a significant expansion in the scale of financial incentives for entrepreneurial activity. The largest share in the structure of financial support is occupied by subsidizing interest rates and providing government guarantees on loans. The increase in interest rate subsidies is due to the need to increase the availability of bank loans for SMEs and reduce the financial burden on enterprises. According to the Damu Foundation, this tool is the most in demand among entrepreneurs, as it significantly reduces the cost of borrowed capital and increases the investment activity of enterprises (Damu Foundation, 2024).

The mechanism of state guarantees for loans demonstrates particularly high growth rates, the volume of which has more than doubled during the period under review. The expansion of guarantee instruments is aimed at reducing banks' credit risks and increasing the availability of financing for enterprises that do not have sufficient collateral (Ministry of National Economy of the Republic of Kazakhstan, 2023). In turn, government grants and compensatory measures are characterized by more moderate growth rates. Their relatively limited volume is explained by the targeted focus of these tools on supporting innovative projects, modernizing production and developing priority sectors of the economy (NMH Baiterek JSC, 2024).

Table 3 — Support for SME projects through financial instruments

| Indicators                                                                                                                                                  | 2020 | 2021 | 2022 | 2023 | 2024 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|
| Number of supported projects, thousand.                                                                                                                     | 18,2 | 32,0 | 38,5 | 45,1 | 60,0 |
| Volume of subsidized loans, trillion tenge                                                                                                                  | 1,2  | 1,8  | 2,4  | 3,1  | 4,2  |
| Average amount of project support, million tenge                                                                                                            | 13,8 | 15,2 | 16,6 | 17,8 | 19,3 |
| Note: compiled by the author according to the source (Damu Entrepreneurship Development Fund (2021-2024), Government of the Republic of Kazakhstan (2024).) |      |      |      |      |      |

The data in Table 3 reflect the steady positive dynamics of the implementation of financial instruments of state support for small and medium-sized businesses in the Republic of Kazakhstan in the period 2020-2024. The analysis of the presented indicators indicates a significant expansion in the scale of government support for entrepreneurial activity and increased availability of financial resources for SMEs.

First of all, there is a significant increase in the number of supported projects. If 18.2 thousand projects received state support in 2020, by 2024 their number has increased to 60.0 thousand, that is, more than three times. This trend indicates an expansion of the coverage of business entities by government support programs

and an increase in the demand for financial instruments to stimulate entrepreneurial activity (Damu Entrepreneurship Development Fund, 2024).

At the same time, there has been a significant increase in the volume of subsidized loans, which increased from 1.2 trillion tenge in 2020 to 4.2 trillion tenge in 2024. The growth in subsidized lending reflects an increase in the investment activity of small and medium-sized businesses and the strengthening of the role of the state in ensuring the availability of financial resources for the implementation of entrepreneurial projects. The expansion of credit support contributes to the modernization of production facilities, the development of investment projects and increased productivity of enterprises (Ministry of National Economy of the Republic of Kazakhstan, 2023).

The analysis of the average amount of support per project also shows a steady growth trend - from 13.8 million tenge in 2020 to 19.3 million tenge in 2024. The increase in this indicator indicates an increase in the capital intensity of supported projects and an increased focus of government support on the implementation of larger investment initiatives. This trend is especially important for the development of the manufacturing industry, characterized by high capital intensity of production and significant investment costs.

At the same time, the identified trends indicate not only a quantitative expansion of the scale of government support, but also a change in its qualitative characteristics. The increase in financing and the average amount of support reflects the transition to larger-scale investment projects aimed at modernizing production and developing industrial entrepreneurship. However, international studies show that the effectiveness of financial support instruments is determined not only by the amount of financing, but also by the effectiveness of resource allocation, the level of technological development of enterprises and the institutional environment (Organization for Economic Co-operation and Development, 2023).

Thus, the analysis shows that the state financial support for entrepreneurship in the Republic of Kazakhstan is characterized by a steady increase in the scale of implementation and expansion of investment activity of small and medium-sized businesses. At the same time, evaluating the effectiveness of these tools requires further analysis of their impact on the development of the manufacturing industry, increasing enterprise productivity and the structural transformation of the economy.

The analysis of the dynamics of financial instruments of state support shows a steady expansion of the scale of stimulation of small and medium-sized businesses in the Republic of Kazakhstan, expressed in an increase in subsidies, an increase in the number of supported projects and an increase in the average amount of financing for entrepreneurial initiatives. The revealed trends indicate a significant strengthening of the role of the state in ensuring access of small and medium-sized businesses to financial resources and stimulating investment activity.

At the same time, the quantitative growth of government support does not always indicate its high effectiveness in terms of structural transformation of the

economy, increased productivity of enterprises and increased participation of small and medium-sized businesses in the manufacturing industry. The scientific literature emphasizes that the effectiveness of government support instruments is determined not only by the scale of financing, but also by their impact on the economic performance of enterprises, innovation activity and competitiveness of the manufacturing sector (Organization for Economic Co-operation and Development, 2023; World Bank, 2020).

In this regard, there is a need to assess the effectiveness of implemented financial instruments of state support in terms of their impact on the development of the manufacturing industry, the growth of entrepreneurial activity and increasing the investment attractiveness of the manufacturing sector. Of particular scientific interest is the analysis of the relationship between government support and key indicators of the development of small and medium-sized businesses, including industrial production, investment in fixed assets and employment.

In order to assess the effectiveness of financial instruments of state support, their impact on the dynamics of small and medium-sized businesses in the manufacturing industry of the Republic of Kazakhstan is further analyzed on the basis of economic and statistical research methods.

To assess the effectiveness of financial instruments of state support for small and medium-sized businesses, an economic and statistical approach was used based on the analysis of the relationship between the volume of state support for entrepreneurship and indicators of the development of the manufacturing industry in the Republic of Kazakhstan.

The following performance indicators were used:

- the volume of manufacturing industry output;
- the volume of investments in fixed assets in industry;
- The share of SMEs in the gross domestic product.

The total amount of state financial support for small and medium-sized businesses is considered as a factor indicator.

The effectiveness assessment was carried out on the basis of correlation analysis, which makes it possible to determine the degree of relationship between the volume of government support and the dynamics of the industrial sector (Gujarati & Porter, 2009). The method is widely used in assessing the effectiveness of government economic policy and the effectiveness of business promotion tools (OECD, 2023).

The information base of the study was compiled by data from the Bureau of National Statistics of the Republic of Kazakhstan, the Damu Entrepreneurship Development Fund and the Ministry of National Economy of the Republic of Kazakhstan for the period 2020-2024.

Table 4 — Indicators for assessing the effectiveness of financial support for SMEs

| Indicators                                            | 2020 | 2021 | 2022 | 2023 | 2024 |
|-------------------------------------------------------|------|------|------|------|------|
| Total amount of state support for SMEs, billion tenge | 252  | 305  | 362  | 451  | 590  |

|                                                                                                                                                                                                                                                     |      |      |      |      |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|
| The volume of manufacturing industry output, trillion tenge                                                                                                                                                                                         | 15,9 | 18,4 | 21,0 | 23,2 | 25,0 |
| Investments in fixed assets of industry, trillion tenge                                                                                                                                                                                             | 3,4  | 3,9  | 4,6  | 5,2  | 6,1  |
| The share of SMEs in GDP, %                                                                                                                                                                                                                         | 31,7 | 33,5 | 35,2 | 36,7 | 37,0 |
| Note-compiled by the author based on data from the Bureau of National Statistics of the Republic of Kazakhstan (2024), the Damu Enterprise Development Fund (2021-2024), and the Ministry of National Economy of the Republic of Kazakhstan (2023). |      |      |      |      |      |

The statistical data presented in Table 4 reflect the dynamics of key indicators of the development of small and medium-sized businesses and the industrial sector of the Republic of Kazakhstan for 2020-2024. These indicators are used as an empirical basis for evaluating the effectiveness of financial instruments of state support for enterprises.

The analysis of the relationship between the objects of state financial support and indicators of the development of the manufacturing industry requires the use of economic and statistical methods to assess the degree of influence of government policy on the economy and the development of the business sector. In this regard, based on the data presented in Table 4, a correlation analysis was carried out, the results of which reflect the closeness of links between objects of state support and indicators of industrial development.

The results of the calculations are shown in Table 5.

Table 5 — Correlation Coefficients between Government Support and Industrial Development Indicators

| Indicator                              | Correlation coefficient (r) | Nature of relationship |
|----------------------------------------|-----------------------------|------------------------|
| Manufacturing output                   | 0.98                        | Very strong positive   |
| Investment in fixed capital (industry) | 0.97                        | Very strong positive   |
| Share of SMEs in GDP                   | 0.95                        | Strong positive        |
| Note: Calculated by the author.        |                             |                        |

The results of the correlation analysis indicate that there is a high positive relationship between the objects of state financial support for small and medium-sized businesses and the indicators of the development of the industrial sector of the Republic of Kazakhstan.

The highest correlation is observed between the object of state support and the object of manufacturing products ( $r = 0.98$ ), which indicates a significant impact of financial incentive instruments on the expansion of production activity. This result indicates that the fascination with objects of subsidization, lending and other forms of financial support contributes to the growth of industrial production and the development of the manufacturing sector of the economy.

A high positive relationship is also expressed between objects of state support and investments in fixed assets of industry ( $r = 0.97$ ). This confirms that financial instruments of state policy stimulate the investment activity of enterprises, ensure

the modernization of production facilities and contribute to the development of industrial infrastructure.

In addition, a positive relationship is shown between the object of government support and the share of small and medium-sized businesses in the gross domestic product ( $r = 0.95$ ), which indicates the positive impact of government policy on the development of the business sector.

However, it should be noted that a high correlation does not mean that there is a direct causal relationship between the indicators under consideration. According to research by the World Bank and the Organization for Economic Co-operation and Development, the effectiveness of government support also depends on the institutional environment, the level of technological development of enterprises and economic structures (World Bank, 2020; OECD, 2023).

**Discussion.** Thus, the analysis of the results indicates the positive impact of financial instruments of state support on the development of small and medium-sized businesses and the development of industry in the Republic of Kazakhstan, however, a more accurate assessment of their effectiveness requires a long-term analysis of structural and institutional factors.

The conducted research has shown that financial instruments of state support play a significant role in the development of small and medium-sized businesses and the stimulation of industrial production in the Republic of Kazakhstan. The analysis of the dynamics of state support facilities, the number of supported projects and the scale of subsidized lending indicate a significant expansion of the state policy of stimulating entrepreneurship in the period 2020-2024.

The results of the correlation analysis confirmed the existence of a stable positive relationship between the objects of state financial support and key indicators of the development of the industrial sector, including the object of the manufacturing industry, investments in fixed assets and the share of small and medium-sized businesses in the gross domestic product. This indicates that the implemented state support measures contribute to the growth of entrepreneurial activity, an increase in the investment activity of enterprises and the expansion of industrial production.

At the same time, the analysis revealed a number of limitations on the effectiveness of financial instruments of state support. Despite the fascination with financing objects, the contribution of small and medium-sized businesses to the manufacturing industry remains relatively low, which indicates the presence of structural imbalances in the development of the enterprise and insufficient orientation of government support to the development of the manufacturing sector. In addition, a company's high dependence on government resources may limit the formation of market incentives and reduce the effectiveness of financial support. Thus, the results of the study show that financial instruments of state support have a positive impact on the development of small and medium-sized businesses, but require further improvement of implementation mechanisms. The priority areas for improving the effectiveness of public policy are strengthening targeted support,

stimulating technological modernization of enterprises, expanding access to long-term financing for small and medium-sized businesses, and improving the efficiency of public resource allocation.

The results obtained form the basis for a comprehensive analysis of the institutional mechanisms of state support for enterprises aimed at creating a favorable business environment and increasing the competitiveness of the industrial sector of the Republic of Kazakhstan.

**Conclusion.** The conducted research allowed us to conduct a comprehensive analysis of the mechanisms for stimulating small and medium-sized businesses in the manufacturing industry of the Republic of Kazakhstan and evaluate the effectiveness of the implemented state support tools. The study examined the main directions of the state policy of stimulating entrepreneurship, including financial, institutional, organizational and economic support tools, as well as assessed the significant impact on the development of the country's industrial sector.

The results of the study showed that the state policy of supporting small and medium-sized businesses in the Republic of Kazakhstan is characterized by a steady expansion of the scale of financial instruments, including subsidizing interest rates, providing state guarantees, grant support and compensation mechanisms. The analysis of statistical data for the period 2020-2024 indicates an increase in government support facilities, an increase in the number of supported projects and an increase in the investment activity of business entities.

The assessment of the effectiveness of financial instruments has shown that there is a stable positive relationship between government support facilities and indicators for the development of the industrial sector, including manufacturing, investment in fixed assets, and the contribution of small and medium-sized businesses to gross domestic product. This confirms the significant impact of government policy on the development of entrepreneurial activity and the expansion of industrial production.

At the same time, the study revealed a number of structural and institutional constraints on the development of small and medium-sized businesses in the manufacturing industry. Despite the fascination with government support facilities, the contribution of small and medium-sized businesses to the manufacturing sector remains relatively low. There are still problems of limited access to long-term financing, insufficient technological equipment of enterprises, high capital intensity of industrial production and insufficient effectiveness of individual state support management mechanisms.

The results obtained indicate the need to improve the state policy of stimulating entrepreneurship, taking into account the task of structural modernization of the economy and increasing the competitiveness of the industrial sector of the Republic of Kazakhstan.

Based on the conducted research, the following measures are being implemented to increase the effectiveness of state support for small and medium-sized businesses in the manufacturing industry:

### 1. Increasing the address of state support.

It is necessary to strengthen the orientation of financial instruments to support manufacturing enterprises and high-tech manufacturing industries, including mechanical engineering, chemical industry and processing industries.

### 2. Development of long-term financing mechanisms for an industrial enterprise.

It is advisable to expand the instrument of preferential investment loans and create specialized financial mechanisms to support capital-intensive projects in the manufacturing industry.

### 3. Stimulating the technological modernization of the enterprise.

It is recommended to expand programs to support innovation, introduce digital technologies, and improve the technological level of production, including tax incentives and support for research and development.

### 4. Improving the institutional environment of the enterprise.

It is necessary to remove administrative barriers, increase the transparency of the mechanisms for distributing state support and strengthen coordination of the activities of development institutions.

### 5. Improving the effectiveness of monitoring and evaluation of government support.

It is necessary to introduce a system for evaluating the effectiveness of government programs to support enterprises based on collective performance indicators, including indicators of productivity, innovation activity and export orientation of enterprises.

### 6. Development of the export potential of small and medium-sized businesses.

It is advisable to strengthen the measure of support for the export of manufacturing products, including the development of export infrastructure and the promotion of the company's participation in international production chains.

## References

Acs Z.J., Audretsch D.B., Lehmann E.E., & Licht G. (2017) National systems of entrepreneurship. *Small Business Economics*, 49(1). — P. 1–12. <https://doi.org/10.1007/s11187-016-9705-1> (in Eng.)

Ashimbayev S.K. (2021) *Razvitie malogo i srednego biznesa v Kazakhstane: Institucional'nye aspekty* [Development of small and medium business in Kazakhstan: Institutional aspects]. *Ekonomika*. (in Eng.)

Baiterek National Managing Holding JSC (2024) *Annual report 2024*. <https://baiterek.gov.kz> (in Eng.)

Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. (2023). *Investments in fixed capital in the Republic of Kazakhstan*. <https://stat.gov.kz> (in Eng.)

Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan (2024) *Statistics of industry and small and medium enterprises in the Republic of Kazakhstan*. <https://stat.gov.kz> (in Eng.)

Cirera X., Frías J., Hill J., & Li Y. (2020) *A practitioner's guide to innovation policy instruments*. World Bank.

Damu Entrepreneurship Development Fund (2021) *Annual report 2021*. <https://damu.kz> (in Eng.)

Damu Entrepreneurship Development Fund (2022) *Annual report 2022*. <https://damu.kz> (in Eng.)

Damu Entrepreneurship Development Fund (2023) *Annual report 2023*. <https://damu.kz> (in Eng.)

- Damu Entrepreneurship Development Fund (2024) *Annual report 2024*. <https://damu.kz> (in Eng.)
- Gujarati D.N., & Porter D.C. (2009) *Basic econometrics* (5th ed.). McGraw-Hill. (in Eng.)
- Kussainov A.K. (2022) State policy of entrepreneurship support in the Republic of Kazakhstan. *Economics and Statistics*, 3. — P. 45–56. (in Eng.)
- Lerner J. (2009) *Boulevard of broken dreams: Why public efforts to boost entrepreneurship and venture capital have failed*. Princeton University Press. (in Eng.)
- Ministry of National Economy of the Republic of Kazakhstan (2023) *Report on entrepreneurship development in the Republic of Kazakhstan*. <https://gov.kz> (in Eng.)
- Nazarbayev University Graduate School of Business (2023) *SME development in Kazakhstan: Policy challenges and opportunities*. Nazarbayev University. (in Eng.)
- Organisation for Economic Co-operation and Development (2022) *Financing SMEs and entrepreneurs 2022: An OECD scoreboard*. OECD Publishing. [https://doi.org/10.1787/fin\\_sme\\_ent-2022-en](https://doi.org/10.1787/fin_sme_ent-2022-en) (in Eng.)
- Organisation for Economic Co-operation and Development (2023) *SME and entrepreneurship outlook 2023*. OECD Publishing. <https://doi.org/10.1787/34907e9c-en> (in Eng.)
- Rodrik D (2018) *Straight talk on trade: Ideas for a sane world economy*. Princeton University Press. (in Eng.)
- United Nations Industrial Development Organization (2022) *Industrial development report 2022: The future of industrialization*. UNIDO. (in Eng.)
- World Bank (2020) *Doing business 2020: Comparing business regulation in 190 economies*. World Bank. (in Eng.)
- World Bank (2023) *World development report 2023: Migrants, refugees, and societies*. World Bank. (in Eng.)

## **Publication Ethics and Publication Malpractice in the journals of the Central Asian Academic Research Center LLP**

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 journals of the Central Asian Academic Research Center LLP implies that the described work 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 Central Asian Academic Research Center LLP 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 Cross Check originality detection service <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 Central Asian Academic Research Center LLP.

The Editorial Board of the Central Asian Academic Research Center LLP will monitor and safeguard publishing ethics.

Requirements for articles design for publication in the journal are available on the websites:

**[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>**

Managing Editor: A.Shormakova

Editors: D.S. Alenov, M.Konyrbekov

Computer layout: G.D. Zhadyranova

Подписано в печать 27.04.2026.

46,0 п.л.

Заказ 2.