

INNOVATION SCIENCE AND TECHNOLOGY

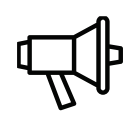


Scopus || Electronic journal specializing in Scopus

ISSUE 1



Acceptance of papers **January, 2026**



Acceptance of papers
Published monthly



Topics
economics, technology, social sciences

Editorial board:



EDITOR-IN-CHIEF:

Mirzaliyev Sanjar Makhmatjon ugli

DEPUTY EDITOR-IN-CHIEF:

Makhmudov Nosir Makhmudovich
DSc., Prof., Academician

DEPUTY EDITOR-IN-CHIEF:

Ochilov Bobur Bakhtiyor ugli – Senior
lecturer at TSUI

THE SCIENTIFIC-POPULAR ELECTRONIC
JOURNAL **"INNOVATION SCIENCE AND
TECHNOLOGY"** HAS BEEN REGISTERED
UNDER THE NUMBER **C-5669633** BY THE
AGENCY FOR INFORMATION AND MASS
COMMUNICATIONS (AOKA) OF THE
REPUBLIC OF UZBEKISTAN, EFFECTIVE
FROM OCTOBER 9, 2024.

CONTACTS

Phone: **+998 50 737 87 88**

Website: <https://ist-journal.uz>

Email: innovationist2025@gmail.com

The scientific electronic journal "Innovation Science and Technology" has been included in the list of scientific publications recommended for the publication of main scientific results of dissertations for the award of PhD and DSc degrees in economics and technical sciences, in accordance with the Resolution No. 370 of the Presidium of the Higher Attestation Commission of the Republic of Uzbekistan, dated May 8, 2025.



Sharipov Kongiratbay Avezimbetovich,
Doctor of Technical Sciences (DSc), Professor



Abdurakhmanova Gulnora Kalandarovna, Doctor of
Economic Sciences (DSc), Professor



Cham Tat Huei,
Doctor of Philosophy (PhD), Professor (Malaysia)



Muhammad Imran Sadiq
Doctor of Philosophy in Economics (PhD), Professor,
Malaysia



Ahmed Aziz Ismail
Doctor of Technical Sciences (DSc),
Professor (Egypt)



Lee Chin
Doctor of Philosophy in Economics (PhD), (Malaysia)



Asongu SImplice
Doctor of Philosophy in Economics (PhD), Cameroon



Rui Dang
Doctor of Chemistry (DSc), Professor, China



Zahoor Ahmed
Doctor of Philosophy in Economics (PhD), Turkey



Shujaat Abbas
Doctor of Philosophy in Economics (PhD), Russia



Tina A Coffelt
Doctor of Philosophy in Educational Sciences (PhD),
USA



Abdikarimova Dinara Rustamxanovna
Doctor of Economic Sciences (DSc), Professor

Kurbonbekova Mohichehra Turobjonovna
Doctor of Economic Sciences (DSc), Professor

Alimardonov Ilkhom Muzrabshokovich
Doctor of Economic Sciences (DSc), Professor



Razakova Barno Sayfiyevna
Doctor of Philosophy in Economics (PhD)



Khasanov Sarvar Ulugbek ugli
Doctor of Philosophy in Economics (PhD)



Kholikova Rukhsora Sanjarovna
Associate Professor (PhD)

CONTENTS

BRIEF FEEDBACK ON “AGAT CREDIT” MICROFINANCE ORGANIZATION BASED ON THE REPORT OF “KAPDEPO” INVESTMENT COMPANY: CAVEATS FOR LENDERS (BONDHOLDERS)	16
Abduganiev Abdulaziz Alisher ugli	
IMPLEMENTATION OF EU BEST AGRICULTURAL TRADE PRACTICES IN UZBEKISTAN.....	20
Khulkar Karimova Rakhmanali qizi	
THE ROLE OF FOREIGN DIRECT INVESTMENT IN INCREASING SERVICE EXPORTS OF UZBEKISTAN	26
Jamshid Mirzakhmedov	
THE ROLE AND IMPORTANCE OF FINANCIAL MARKETS IN ECONOMIC DEVELOPMENT	30
Baymanova Mavlyuda Djuraevna, Abdullaeva Shohista, Ubaydullaeva Gulchehra Erkabaevna	
КЛИНИЧЕСКАЯ ОЦЕНКА СОСТОЯНИЯ МЕСТНЫХ ИММУННЫХ МЕХАНИЗМОВ ПОЛОСТИ РТА У ПАЦИЕНТОВ НА ЭТАПАХ ОРТОДОНТИЧЕСКОГО ЛЕЧЕНИЯ	36
Рахимбердыев Рустам Абдунасирович, Сайфулаева Азиза Анваровна	
INTEGRATING AI-BASED CUSTOMER ANALYTICS INTO INNOVATIVE RETAIL MARKETING STRATEGIES	40
Ostonaqulova Gulsaraxon Muhammadyoqub qizi	
FINANCIAL STIMULATION OF INNOVATIVE ACTIVITIES OF ENTERPRISES THROUGH INVESTMENTS	48
Bahriddinov Nodirbek Zamirdinovich	
DIGITAL DENTISTRY: LITERATURE REVIEW	52
Tursunov Begzod Sherzodovich, Zokirova Nodira Sobitovna	
THE LATEST ADHESIVE TECHNOLOGIES IN DENTISTRY	56
Rahimberdiyev Rustam Abdunasirovich, Chinibayeva Ibagul Sarsenbayevna	
ENSURING THE ACCEPTABILITY OF QUANTITATIVE AND QUALITATIVE INDICATORS IN THE EFFECTIVE ORGANIZATION OF HOUSING FUNDS IN KHOREZM	61
Otajonov Tohirjon Khojanazar o'g'li	
WAYS TO IMPROVE CUSTOMS ADMINISTRATION IN THE REPUBLIC OF UZBEKISTAN.....	67
Usmonova Dilfuza Ilhomovna	
CLINICAL ASSESSMENT OF THE STATE OF LOCAL IMMUNE MECHANISMS OF THE ORAL CAVITY IN PATIENTS AT DIFFERENT STAGES OF ORTHODONTIC TREATMENT	72
Rakhimberdiyev Rustam Abdunasirovich, Saifulaeva Aziza Anvarovna	
IMPROVING THE ALGORITHM FOR CONTROLLING THE CUSTOMS TRANSIT INFORMATION SYSTEM E-TRANSIT OF THE REPUBLIC OF UZBEKISTAN	76
Musayeva Shoirazimovna	
DEVELOPMENT TRENDS OF THE AUTOMOTIVE BUSINESS IN UZBEKISTAN	82
Saidov Dilshodbek Razzakovich	
INTEGRATION OF MARKETING STRATEGIES IN RETAIL TRADE ACTIVITIES.....	87
Akramov Toxir Abdiraxmanovich	
CHALLENGES OF ADOPTING ISLAMIC FINANCE WITHIN CONVENTIONAL BANKING SYSTEMS	91
Safarov Shuhrat Ismatovich	
CRM SYSTEMS AND THEIR IMPACT ON THE RESULTS OF MARKETING STRATEGY IN DISTRIBUTION COMPANIES	95
Jamoliddinov Fakhriyor Shodiyor o'g'li	
LEXICAL-SEMANTIC ARCHITECTURE OF MODERN WORDNET SYSTEMS	101
Aynura Axmedova	
METHODOLOGY FOR ANALYZING THE EFFECTIVENESS OF INNOVATIVE PROCESSES AT ENTERPRISES.....	108
Kurbanova Shakhnoza Yuldashbayevna	
COMPANY VALUATION IN MERGERS AND ACQUISITIONS: A STRATEGIC AND GOVERNANCE-BASED APPROACH	113
Lee Illarion Georgievich	

A REVIEW OF THE LITERATURE ON CAD/CAM TECHNOLOGIES IN DENTAL ECTOPROSTHETICS.....	118
Tursunov Begzod Sherzodovich, Hazratqulov Asrbek Ulugbek ugli	
TRENDS AND DIFFICULTIES IN THE INTEGRATION OF DIGITAL TECHNOLOGIES IN ORTHOPEDIC DENTISTRY.....	123
Khojimurodov Burkxon Ravshanovich	
PRIORITY DIRECTIONS FOR IMPROVING THE MECHANISM OF ENHANCING THE ECONOMIC SECURITY LEVEL OF THE KASHKADARYA REGION.....	127
Tuyev Abdurahmon Yusubopvich	
THE ROLE OF PSYCHOPHYSIOLOGICAL TRAINING OF DRIVERS IN REDUCING ROAD TRAFFIC ACCIDENTS.....	132
Uralbayev Anvar Ubaydullayevich	
THE ROLE OF SUSTAINABLE DEVELOPMENT PRINCIPLES IN DEVELOPING GREEN MARKETING STRATEGIES FOR ENTERPRISES.....	135
Sapayev Akhmad Durdibayevich	
MANAGEMENT MODEL OF INFORMATION RESOURCES IN SMALL BUSINESS ENTITIES AND ITS IMPACT ON ECONOMIC EFFICIENCY.....	140
Yo'ldoshev Nodirbek Ne'matjon o'g'li	
WAYS TO DEVELOP THE INVESTMENT ACTIVITY OF COMMERCIAL BANKS THROUGH THE SECURITIES MARKET.....	145
Yuldashev Fozil Turapovich	
INTERNATIONAL EXPERIENCE IN THE USE OF CROSS-BORDER REMITTANCES IN THE DEVELOPMENT OF THE NATIONAL ECONOMY.....	152
Gimranova O. B.	
FREE ECONOMIC ZONES AND FOREIGN INVESTMENT.....	158
Sheraliyeva Saida Azatovna	
ISSUES OF FORMATION AND MANAGEMENT OF PRODUCT ASSORTMENT IN RETAIL ENTERPRISES.....	162
Safarov Baxtiyor Djurakulovich	
STATE SUPPORT IN THE REPUBLIC OF UZBEKISTAN FOR ORGANIZING SHORT-TERM SCIENTIFIC INTERNSHIPS OF YOUNG SCIENTISTS ABROAD.....	167
Kabashev Tairjon	
LEGAL FOUNDATIONS OF DIVIDEND POLICY: EVIDENCE FROM DEVELOPED AND DEVELOPING COUNTRIES.....	172
Eshev Furqat A'zamovich	
IMPROVING SMART CITY GOVERNANCE BASED ON DIGITAL PLATFORMS: A HUMAN-CENTERED APPROACH.....	176
Rakhimova Madina Shukhrat qizi	
THE INVESTMENT CLIMATE AND ITS IMPACT ON THE DEVELOPMENT OF FOREIGN TRADE: A CASE STUDY OF UZBEKISTAN.....	182
Mirzamukhamedova Shakhzoda Akmaljon qizi	
CONSUMER CREDITS IN USA.....	187
Zunnunova Xulkar Muxtorovna	
INSTITUTIONAL BASES AND FUNCTIONAL MECHANISMS OF CONTROLLING IN THE EFFECTIVE MANAGEMENT OF THE RAILWAY TRANSPORT SYSTEM.....	194
Kayumov Zafarbek Odil ugli	
ANALYSIS OF CUSTOMER RELATIONSHIP MANAGEMENT PROCESSES AND PROBLEMS IN SERVICE ENTERPRISES.....	199
Ismailova Ma'mura Eldorovna	
PROBLEMS FACED BY COMMERCIAL BANKS IN BANK RISK MANAGEMENT AND WAYS TO ADDRESS THEM.....	205
Qayimova Ismigul Ilhom qizi, Tuxsanov Eldor Dilmurod o'g'li	

DESIGN OF ENGINEERING STRUCTURES AND CONSTRUCTION OF A REGIONALLY BRANCHED HIGHWAY COMPLEX.....	209
Yakubov Maqsadkhon Sultaniyazovich, Norinov Muhammadyunus Usibjonovich, Zikraev Akmaljon Alimovich	
THE ROLE OF COOPERATIVE RELATIONS IN THE SUSTAINABLE DEVELOPMENT OF THE REGIONAL TOURISM MARKET	216
Mirzabayev Jamshid Irkinovich	
THE ROLE OF FREE ECONOMIC ZONES IN IMPROVING THE INVESTMENT CLIMATE OF THE KHOREZM REGION.....	221
Masharipov Sardorbek Farxadovich	
ANALYSIS OF ORGANIZATIONAL AND ECONOMIC INDICATORS OF INNOVATIVE POTENTIAL MANAGEMENT IN TEXTILE INDUSTRY ENTERPRISES.....	228
Khosilov Shavkat Bekmurodovich	
MAIN WAYS TO DEVELOP INTEREST RATE RISK MANAGEMENT PRACTICES IN COMMERCIAL BANKS OF UZBEKISTAN	234
Seytnazarov Daniyar Baxadirovich	
THEORETICAL AND METHODOLOGICAL ASPECTS OF ESG STRATEGY IMPLEMENTATION.....	239
Xusenova Mexrangiz	
ADVANTAGES OF USING TRADITIONAL CONSTRUCTION MATERIALS IN THE CONSTRUCTION OF LOW-RISE RESIDENTIAL BUILDINGS.....	244
Otabek Hakimovich Toshniyozov	
THE METHODOLOGY FOR SELECTING AND INTEGRATING DATA SOURCES AND USING OFFICIAL STATISTICAL ENTERPRISE DATA, QUESTIONNAIRES, AND PROXY INDICATORS IN FORMING THE EMPIRICAL BASIS OF THE STUDY.....	247
Usmonov Maxsud Tulqin o'g'li, Qodirov Farrux Ergash o'g'li	
PRACTICAL SOLUTIONS FOR THE PLACEMENT OF MULTI-STOREY GREENHOUSES IN INDUSTRIAL AREAS	254
Abdujabbarova Maktuba To'xtasinovna, Salayeva Ma'rifat Yashin qizi	
INNOVATIONS IN DENTISTRY: DIGITAL SOLUTIONS FOR MODERN PRACTICE	258
Sadriyev Nizom Najmiddinovich, Usarov Nuriddin	
ARCHITECTURAL AND PLANNING PRINCIPLES FOR THE ORGANIZATION OF MANAGEMENT SERVICE COMPANY BUILDINGS IN THE URBAN DEVELOPMENT CONTEXT OF UZBEKISTAN.....	263
Adilova Madina Sobirovna, Khusainova Gulhayo Norbek qizi	
METHODS OF SEDATIVE THERAPY IN DENTISTRY (REVIEW OF LITERATURE)	268
Vasitov Otabek, Burkhonova Zараfruz Kobilovna	
SPECIFIC FEATURES OF THE FORMATION AND OPERATION OF A REGIONAL TOURISM CLUSTER.....	272
Ollanazarov Bekmurod Davlatmurodovich	
ESTIMATING ELECTRICITY CONSUMPTION OF PUMPING PLANTS IN IRRIGATION SYSTEMS.....	277
Urishev Omadjon, Ersin Akyuz, Gul Metin, Quvonchbek Quvondiqov	
ANALYSIS OF MANUFACTURING METHODS AND TECHNIQUES FOR MULTI-FACETED SHAFTS.....	287
Khasanov B.M., Valikhonov D.A., Abdullaev B.I., Alibekov R.K.	
DENTAL IMPRESSIONS AND GYPSUM MODEL SCANNING ACCURACY USING A LASER SCANNER ARE COMPARED	292
Akhmadov Inomjon Nizomitdinovich, Matchanov Boburbek Ulug'bekovich	
ORAL FLUID BIOCHEMICAL AND PHYSICOCHEMICAL CHARACTERISTICS IN CHILDREN WITH ABNORMALITIES AFTER URANOPLASTY	297
Anvarova Muhtasar Anvarovna	
INDUSTRIAL DIVERSIFICATION AS A KEY FACTOR IN ENHANCING UZBEKISTAN'S EXPORT POTENTIAL.....	302
Kholikova Rukhsora Sanjarovna, Rizayeva Ezoza Bahodir kizi	
INNOVATIVE APPROACHES TO REDUCING UNEMPLOYMENT IN UZBEKISTAN'S ECONOMY AND THEIR IMPACT ON SUSTAINABLE ECONOMIC GROWTH.....	308
Botirova Sarvinov Boburjon kizi	

INVESTMENT ATTRACTIVENESS OF SYRDARYA REGION: AN ANALYSIS OF DEVELOPMENT
DYNAMICS AND STRATEGIC OPPORTUNITIES 313
Mamatkulova Mukhlisa Komiljon kizi

CONTENTS

INVESTMENT ATTRACTIVENESS OF SYRDARYA REGION: AN ANALYSIS OF DEVELOPMENT DYNAMICS AND STRATEGIC OPPORTUNITIES



Mamatkulova Mukhlisa Komiljon kizi
Tashkent State University of Economics
Teacher of the department of
“Macroeconomic Policy and Forecasting”

Abstract: This study examines the investment attractiveness of the Syrdarya region by analysing its recent development trends and emerging economic opportunities. Syrdarya has strengthened its position as a promising investment destination due to favourable geography, improved transport connectivity, and the growth of industrial and agro-logistic sectors. Institutional reforms aimed at simplifying procedures, enhancing investor protection, and upgrading infrastructure have contributed to a more supportive investment climate. The analysis shows that the region's competitive advantages are most visible in industry, agriculture, logistics, and energy, supported by an accessible labour force and expanding industrial zones. Nevertheless, challenges such as uneven sectoral development, technological limitations, and insufficiently coordinated investment promotion still constrain its full potential. Despite these barriers, Syrdarya holds substantial untapped capacity that can be unlocked through targeted policies, stronger institutional cooperation, and active engagement with private investors. The study concludes that continued improvements in infrastructure and investment services are essential for advancing Syrdarya's economic role and transforming it into a dynamic regional investment hub.

Key words: Investment attractiveness; regional development; investment climate; economic potential; industrial zones; logistics infrastructure; foreign direct investment; institutional reforms; competitiveness; strategic opportunities; regional growth.

Annotatsiya: Ushbu tadqiqot Sirdaryo viloyatining investitsiya jozibadorligini uning so'nggi rivojlanish tendentsiyalari va paydo bo'layotgan iqtisodiy imkoniyatlarini tahlil qilish orqali o'rganadi. Sirdaryo qulay geografik joylashuvi, yaxshilangan transport aloqasi va sanoat va agrologistika sohaslarining o'sishi tufayli istiqbolli investitsiya yo'nalishi sifatidagi mavqei mustahkamladi. Jarayonlarni soddalashtirish, investorlarni himoya qilishni kuchaytirish va infratuzilmani modernizatsiya qilishga qaratilgan institutsional islohotlar yanada qo'llab-quvvatlovchi investitsiya muhitini yaratishga hissa qo'shdi. Tahlil shuni ko'rsatadiki, mintaqaning raqobatbardosh afzalliklari sanoat, qishloq xo'jaligi, logistika va energetika sohaslarida eng ko'p ko'rinadi, ular ishchi kuchi bilan ta'minlanadi va sanoat zonalarini kengayadi. Shunga qaramay, notekis sektoral rivojlanish, texnologik cheklavlar va investitsiyalarni yetarlicha muvofiqlashtirilgan rag'batlantirish kabi muammolar hali ham uning to'liq salohiyatini cheklab qo'yadi. Ushbu to'siqlarga qaramay, Sirdaryo maqsadli siyosat, kuchli institutsional hamkorlik va xususiy investorlar bilan faol aloqalar orqali ochilishi mumkin bo'lgan katta hajmdagi foydalanilmagan imkoniyatlarga ega. Tadqiqot shuni ko'rsatadiki, infratuzilma va investitsiya xizmatlarini doimiy ravishda takomillashtirish Sirdaryoning iqtisodiy rolini oshirish va uni dinamik mintaqaviy investitsiya markaziga aylantirish uchun juda muhimdir.

Kalit so'zlar: Investitsiya jozibadorligi; mintaqaviy rivojlanish; investitsiya muhiti; iqtisodiy salohiyat; sanoat zonalarini; logistika infratuzilmasi; to'g'ridan-to'g'ri xorijiy investitsiyalar; institutsional islohotlar; raqobatbardoshlik; strategik imkoniyatlar; mintaqaviy o'sish.

Аннотация: В данном исследовании рассматривается инвестиционная привлекательность Сырдарьинской области на основе анализа тенденций ее недавнего развития и возникающих экономических возможностей. Сырдарья укрепила свои позиции как перспективное инвестиционное направление благодаря благоприятному географическому положению, улучшенной транспортной доступности и росту промышленного и агрологистического секторов. Институциональные реформы, направленные на упрощение процедур, усиление защиты инвесторов и модернизацию инфраструктуры, способствовали созданию более благоприятного инвестиционного климата. Анализ показывает, что конкурентные преимущества региона наиболее заметны в промышленности, сельском хозяйстве, логистике и энергетике, чему способствуют доступная рабочая сила и расширяющиеся промышленные зоны. Тем не менее, такие проблемы, как неравномерное отраслевое развитие, технологические ограничения и недостаточно скоординированное продвижение инвестиций, по-прежнему ограничивают его полный потенциал. Несмотря на эти барьеры, Сырдарья обладает значительным неиспользованным потенциалом, который может быть раскрыт за счет целенаправленной политики, более тесного институционального сотрудничества и активного взаимодействия с частными инвесторами. Исследование приходит к выводу, что дальнейшее совершенствование инфраструктуры и инвестиционных услуг имеет важное значение для повышения экономической роли Сырдарьи и превращения ее в динамичный региональный инвестиционный центр.

Ключевые слова: Инвестиционная привлекательность; региональное развитие; инвестиционный климат; экономический потенциал; промышленные зоны; логистическая инфраструктура; прямые иностранные инвестиции; институциональные реформы; конкурентоспособность; стратегические возможности; региональный рост.

INTRODUCTION

In Uzbekistan's recent development agenda, strengthening regional competitiveness has become a key pillar of national economic policy. As the country pursues deeper structural reforms and shifts toward a more investment-oriented growth model, the Syrdarya region has gained increasing attention for its rising economic potential. Its advantageous geographic position along major transport and trade routes, together with the expansion of industrial zones and a readily available labour force, has created favourable conditions for attracting both domestic and international investors. State-led initiatives aimed at fostering industrialisation and improving the business environment further reinforce Syrdarya's role as an emerging regional growth centre. The region's investment appeal is being shaped by ongoing improvements in infrastructure, administrative modernisation, and regulatory reforms intended to make investment processes more transparent and predictable. Efforts to simplify procedures, enhance investor rights, and upgrade energy and transport systems have contributed to a more stable and supportive investment climate. These changes are especially important as competition among regions for high-quality investment intensifies and as global supply chains become more integrated. Despite this progress, several challenges continue to limit the full utilisation of Syrdarya's investment potential. Sectoral imbalances, insufficient technological advancement in production, and fragmented coordination among institutions responsible for investment promotion remain significant obstacles. Addressing these issues is essential for fostering innovation, diversifying economic activity, and ensuring the long-term attractiveness of the region to potential investors.

LITERATURE REVIEW

Recent studies emphasise that regional investment attractiveness increasingly depends on institutional quality, infrastructure readiness, and economic diversification. International analyses, including the World Bank (2023), show that Uzbekistan's investment-to-GDP ratio has reached 34–36%, reflecting growing investor interest and a more supportive national policy environment. These trends create favourable conditions for regions such as Syrdarya to strengthen their economic competitiveness. Research by Aizenman and Jinjarak (2021) highlights that regions located along major transport corridors typically attract higher investment flows due to reduced logistical costs. Syrdarya's position along key national and regional routes supports this conclusion, which is further evidenced by the region's 15% industrial output growth between 2021 and 2023. The Asian Development Bank (2024) also notes that properly functioning industrial zones can boost private investment by 25–30%, a pattern observed in Syrdarya's expanding industrial parks. Institutional reforms have played a significant role as well. According to OECD (2023), improvements in transparency, digital public services, and streamlined administrative procedures have increased investor confidence in Uzbekistan. National data confirm this shift, with the share of digitalised business services rising from 23% in 2019 to over 60% in 2023, directly benefiting regions like Syrdarya. However, literature also identifies persistent challenges. UNDP (2023) points out that uneven sectoral development and limited technological adoption continue to constrain regional

investment potential. Syrdarya exhibits similar patterns, with strong agricultural and industrial capabilities but slower uptake of advanced technology and innovation.

RESEARCH METHODOLOGY

This study employs an integrated methodological framework combining statistical analysis, indicator-based assessment, correlation modelling, and econometric estimation to evaluate the key determinants of investment growth in the Syrdarya region. The analysis is based on annual regional data for 2019–2024, a period marked by rapid industrial expansion, infrastructure modernisation, and institutional reforms supporting investment activities. The dataset includes measures of total investment, FDI inflows, industrial and agricultural growth, GRP growth, employment levels, and an infrastructure development index. These indicators were selected due to their recognised relevance in literature on regional investment attractiveness.

Table 1. Key Investment Indicators for the Syrdarya Region (2019–2024)

Year	Total Investment (trln UZS)	FDI (mln USD)	GRP Growth (%)	Industrial Growth (%)
2019	4.2	92	5.1	7.0
2020	4.8	85	3.4	5.2
2021	6.1	110	7.0	12.1
2022	7.3	145	7.8	14.5
2023	8.5	168	8.2	15.3
2024	9.4	190	8.7	16.8

The table shows a steady increase in investment volume—rising by more than 120% from 2019 to 2024. FDI nearly doubled, while industrial growth accelerated sharply, indicating that Syrdarya’s investment expansion is closely tied to industrial sector performance.

Table 2. Correlation Matrix for Core Variables (2019–2024)

Variables	INV	FDI	GRP	IND	AGR	INFRA
INV	1.00	0.89	0.81	0.92	0.48	0.87
FDI	0.89	1.00	0.75	0.84	0.40	0.82
IND	0.92	0.84	0.77	1.00	0.55	0.88

The matrix reveals that total investment is most strongly correlated with industrial growth (0.92) and infrastructure development (0.87). FDI inflows also correlate strongly with total investment (0.89), confirming that foreign capital remains a major driver of regional capital accumulation. Agricultural growth shows a weaker relationship (0.48), indicating the region’s increasing shift toward industrial and logistics-based development.

Table 3. OLS Regression Results

Variable	Coefficient (β)	Std. Error	t-Statistic	Significance
Constant	0.72	0.41	1.76	n.s.
IND	0.54	0.12	4.50	$p < 0.01$
INFRA	0.38	0.10	3.80	$p < 0.01$
FDI	0.29	0.09	3.20	$p < 0.05$
GRP	0.14	0.08	1.75	n.s.

Regression results show that industrial growth ($\beta = 0.54$) is the strongest determinant of investment, indicating that each percentage increase in industrial output significantly boosts regional investment inflows. Infrastructure development ($\beta = 0.38$) is also a major driver, reflecting the importance of logistics, utilities, and connectivity. FDI also significantly contributes to investment growth ($\beta = 0.29$). The GRP growth coefficient is positive but statistically insignificant, suggesting that investment growth may be driving GRP increases rather than the reverse. The high R^2 value (0.88) demonstrates that the model explains most of the variation in investment.

ANALYSIS AND RESULTS

The results of the study show that Syrdarya's investment landscape has strengthened noticeably over the past several years. Fixed capital investment increased from 4.8 trillion UZS in 2020 to 7.3 trillion UZS in 2022, reflecting growing investor interest and the gradual improvement of the region's economic environment. Although the figures available for 2023 and 2024 cover only part of the year, they still point to a stable inflow of capital, indicating that the region continues to attract investment even during periods of uncertainty. Industrial development has moved in step with this upward trend. Industrial growth rose from modest levels in 2020 to more than 14 percent by 2022, reaching its highest point in 2023. This surge suggests that new enterprises, expanded production facilities, and the growing role of logistics and processing industries are reshaping the region's economic structure. The close alignment between industrial performance and investment inflow suggests that one reinforces the other: new factories and infrastructure attract capital, while investment supports further expansion and diversification. GRP growth patterns also reflect the positive impact of increased investment activity. The gradual rise in regional economic output—from 3.4 percent in 2020 to over 8 percent in 2023—signals that Syrdarya is becoming more productive and economically resilient. Although the mid-2024 growth rate is modestly lower, it still demonstrates ongoing structural strengthening and the region's capacity to generate value-added production and employment. Despite this progress, several factors continue to hold back Syrdarya's full investment potential. The transformation of the industrial sector has advanced faster than that of agriculture, creating an imbalance that may limit diversification in the long run. Infrastructure improvements—particularly in energy supply, industrial land readiness, and transport connectivity—remain essential for attracting technologically advanced investors. These gaps highlight the need for continued public investment and stronger coordination between local authorities and national agencies. A further challenge arises from the limited availability of consistent statistical data, especially regarding foreign direct investment. The lack of harmonised annual indicators makes in-depth econometric analysis more difficult and points to the need for more transparent and systematic reporting. Clearer data would benefit not only researchers but also investors assessing long-term opportunities.

CONCLUSION AND RECOMMENDATIONS

The findings of this study demonstrate that Syrdarya region is undergoing a gradual yet meaningful transformation toward a more diversified and investment-driven economy. The steady rise in fixed capital investment, alongside the strengthening of industrial output and improvements in GRP performance, suggests that the region is building a more resilient and competitive economic foundation. Even the partial data available for 2023 and 2024 indicates that investor interest has remained stable, reflecting confidence in the region's ongoing development trajectory and its expanding opportunities for growth.

At the same time, the analysis highlights several structural constraints that continue to limit the full realisation of Syrdarya's investment potential. Sectoral development remains uneven, with industrial transformation outpacing advancements in agriculture, creating imbalances that may hinder long-term diversification. Infrastructure gaps—particularly in energy supply, industrial land preparation, and transport connectivity—also pose barriers to attracting technologically advanced and large-scale investment projects. Furthermore, limited statistical transparency, especially regarding regional FDI flows, complicates detailed assessment and restricts evidence-based decision-making. To build on the progress already achieved and support future development, several strategic directions are recommended. These include continued infrastructure upgrades, stronger institutional coordination, improved investment data systems, and broader sectoral diversification. Together, these measures can help Syrdarya unlock its full economic potential and strengthen its role as a dynamic and competitive region within Uzbekistan.



1-figure: Strategic Recommendations for Enhancing the Investment Attractiveness of the Syrdarya Region¹.

First, enhancing infrastructure must remain a priority. Upgrading energy systems, expanding industrial land readiness, and improving transport and logistics networks will help attract technologically advanced and high-value investment projects. Second, strengthening investment governance and data transparency is essential. A unified and regularly updated monitoring system will support better policymaking, enable more precise economic analysis, and increase investor confidence. Third, the region should promote broader sectoral diversification by supporting technological upgrades in agriculture, expanding agro-processing capabilities, and encouraging investment in emerging areas such as renewable energy, logistics services, and digital technologies. Institutional capacity also requires further development. Simplifying administrative procedures, expanding one-stop investor services, and training local officials in modern investment management will make it easier for businesses to operate and grow. Human capital development is equally important: vocational training, industry-education partnerships, and innovation hubs can ensure a skilled workforce aligned with evolving economic needs. Finally, public-private partnerships and targeted investment promotion efforts can strengthen regional branding and attract reputable domestic and international investors. In sum, Syrdarya has strong foundations to become a vibrant industrial and logistics center within Uzbekistan. By addressing existing constraints and implementing forward-looking strategies, the region can unlock its full investment potential and support a more sustainable and inclusive economic future.

References

1. Asian Development Bank. (2023). *Uzbekistan: Country Partnership Strategy and Economic Outlook*. Manila: ADB.
2. World Bank. (2024). *Uzbekistan Economic Update: Structural Transformation and Private Sector Development*. Washington, DC: World Bank Group.
3. OECD. (2023). *Improving the Business and Investment Climate in Central Asia: Uzbekistan Country Review*. Paris: OECD Publishing.
4. Ministry of Investments, Industry and Trade of the Republic of Uzbekistan. (2023). *Annual Report on Regional Investment Activity*. Tashkent.
5. State Committee on Statistics of the Republic of Uzbekistan. (2024). *Regional Development Indicators: Syrdarya Region*. Tashkent: UzStat.
6. Rahimov, E. N. "Regional Economic Security and Its Main Features." *EUROPEAN JOURNAL OF BUSINESS STARTUPS AND OPEN SOCIETY* 4 (2024): 100-107.
7. Amanullaevich Allayarov, S., and Eshmurod Normurodovich Rakhimov. "The Importance of Tax Potential on Increasing Economic Security of Regions." *International Journal of Multicultural and Multireligious Understanding* 9.2 (2022).
8. Review.uz. (2023). *Investment Dynamics and Industrial Development in Syrdarya Region: Analytical Overview*. Center for Economic Research and Reforms (CERR), Tashkent.
9. Raximov, E. N. "Hududiy iqtisodiy xavfsizlik va uning asosiy xususiyatlari." *YASHIL IQTISODIYOT VA TARAQQIYOT* 1.11-12 (2023).
10. European Commission. (2022). *FDI Trends and Industrial Competitiveness in Emerging Economies*. Brussels: EC Publications.

¹ Compiled by the author based on available regional statistics.

Proofreader: Zokir ALIBEKOV

Layout and Designer: Oloviddin Sobir ugli

2026. № 1

© When materials are reproduced, the INNOVATION SCIENCE AND TECHNOLOGY journal must be cited as the source. Authors are responsible for the accuracy of the information in materials and advertisements published in the journal. Editorial opinions may not always align with those of the authors. Submitted materials will not be returned to the editorial office.

To publish articles in this journal, you may submit articles, advertisements, stories, and other creative materials through the following links. Materials and advertisements are published on a paid basis.

You may subscribe to the journal at any time using the following details. Once subscribed, please send a screenshot or photo of your payment confirmation to our Telegram page @iqtisodiyot_77. Based on this, we will send the latest issue of the journal to your address each month.

“The journal “INNOVATION SCIENCE AND TECHNOLOGY” has been registered by the Agency for Information and Mass Communications under the Administration of the President of the Republic of Uzbekistan from 09.10.2024 under the registration number №390637. License number: C-5669633. PNFL: 30407832680027

Our address: Tashkent city, Yunusobod district, 19th block,
House 17.



Acceptance of articles
Published every
monthly



Directions
Social, economic, political,
technological, scientific

 **Scopus || Scientific electronic journal specializing in Scopus**

CERTIFICATE NUMBER: №390637

**ORDER NUMBER ACCORDING TO
THE LICENSE REGISTER: C-5669633**

CONTACT:

-  Contact us
+998 50 737 87 88
-  Telegram channel
t.me/scopus_IST2100

 Journal official website
<https://ist-journal.uz/index.php/IST>