

INNOVATION SCIENCE AND TECHNOLOGY

ISSUE 10, PART I / OCTOBER 2026

 **Acceptance of papers**



**Acceptance of
papers**

Published monthly



Topics

economics,
technology, social
sciences



EDITOR-IN-CHIEF:

Mirzaliyev Sanjar Makhamatjon 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.

Editorial board:



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 Simplicie
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)



Xoliyorova Shoxista Qahramon qizi
PhD in Economics, Assistant Lecturer at the Department TSUE

Nasiba G'anijon qizi Sattorova
PhD, Senior Lecturer at the Department of Banking

CONTENTS

IMPLEMENTATION OF THE IMPROVED METHODOLOGY IN PRACTICE AND ASSESSMENT OF ITS ECONOMIC EFFICIENCY	8
Eshniyazova Yulduz Yuldashbayevna	
EXPERIMENTAL OPTIMIZATION OF DESIGN AND ENERGY PARAMETERS OF A GARLAND-TURBINE MOBILE MICRO HYDROPOWER PLANT FOR FREE-FLOWING WATER	13
Sultonov Sanjarbe, Zokirov Islomjon, Nurillaev Ahadullo, Abdullaev Shavkat	
METHODOLOGY FOR INCREASING THE EFFICIENCY OF CREDIT OPERATIONS IN COMMERCIAL BANKS	19
Djumaniyazov Ikram Karimbaevich	
COMPARATIVE ANALYSIS OF A COMPACT RESIDUAL CONVOLUTIONAL MODEL AND LINEAR REGRESSION FOR IMAGE SUPER-RESOLUTION	27
Husan Arziqulov Normurod o'g'li	
COMPARATIVE EVALUATION OF MACHINE LEARNING ALGORITHMS AND CLASS IMBALANCE HANDLING STRATEGIES FOR CREDIT CARD FRAUD DETECTION	33
Mahmudova Dilnoza Avaz qizi	
DIGITAL TRANSFORMATION OF FINANCIAL RESOURCE MANAGEMENT IN PUBLIC SOCIAL SECTOR INSTITUTIONS	39
Khasanov Tulkin Axmatovich	
WAYS TO ENSURE THE STABILITY OF THE CAPITAL BASE OF COMMERCIAL BANKS	45
Isakov Isobek Janabay's son	
CROSS-DAY EXPERIMENTAL EVIDENCE OF THERMAL-LOAD SHIFTING IN A SOLAR-DRIVEN HYDRONIC RADIANT FLOOR WITH MACROENCAPSULATED RT52 PHASE CHANGE MATERIAL	50
Jurabek Kamolov, Sokhib Temirov, Marjona Makhmudova	
STUDY OF THE TRACTION DYNAMICS OF AN AGGREGATE CONSISTING OF A FRUIT-HARVESTING MACHINE AND ITS TWO-AXLE CONTAINER-CARRYING TRAILER PLATFORM	59
Norchayev Davron, Sardor Nigmatjonov, Norchayev Jaloliddin, Norchayev Rustam	
PRIORITY DIRECTIONS FOR STRENGTHENING THE FINANCIAL STABILITY OF AGRICULTURAL ENTERPRISES	67
Kulmatov Zafar Jumanazarovich	
METHODOLOGICAL APPROACHES TO DEVELOPING UNIVERSITY STUDENTS' DIGITAL COMMUNICATIVE COMPETENCE BASED ON EMOTIONAL INTELLIGENCE	73
Malikakhon Kamiljanova	
SIMULTANEOUS REMOVAL CHARACTERISTICS OF OIL AND HEAVY METAL IONS BY BIOFLOCCULANTS BASED ON THE CELLULOSE-DMAEMA/PEPA COMPOSITE	80
Xayitboeva Dilshoda, Ibragimov Nasrilla, Jumaev Anvarbek	
ECONOMIC ANALYSIS AND DEVELOPMENT STRATEGY OF THE WOOD-POLYMER COMPOSITES MARKET	84
Abdumalikova Zarnigor, Ayubova Indira, Jumaev Anvarbek	
ENERGY UTILIZATION ANALYSIS OF AGRICULTURAL DRYING BASED ON INTEGRATED SOLAR THERMAL AND PHOTOVOLTAIC ENERGY SUPPLY	89
Ibragimov Umidjon, Mirzayarova Sevara, Khujayorova Aziza	
RECENT ADVANCES IN THE SYNTHESIS OF NANOSTRUCTURED MATERIALS FOR ZINC-ION BATTERIES	96
Diyorbek Absattorov, Dilnoza Erimbatova, Murodjon Samadiy	
ENTHALPY-MODEL SELECTION AND PRACTICAL IDENTIFIABILITY OF A MACROENCAPSULATED RT52 RADIANT FLOOR UNDER UNCERTAIN BRANCH FLOW	101
Jurabek Kamolov, Sokhib Temirov, Marjona Makhmudova	
ENTHALPY-MODEL SELECTION AND PRACTICAL IDENTIFIABILITY OF A MACROENCAPSULATED RT52 RADIANT FLOOR UNDER UNCERTAIN BRANCH FLOW	101
Jurabek Kamolov, Sokhib Temirov, Marjona Makhmudova	

THE IMPORTANCE OF THERMAL ENERGY STORAGE SYSTEMS IN ENHANCING THE EFFICIENCY OF SOLAR DRYERS	110
B. A. Hikmatov, M. S. Mirzaev,	
METHODOLOGY AND PRINCIPLES FOR THE APPLICATION OF ARTIFICIAL INTELLIGENCE IN ADAPTIVE ECONOMIC MODELS OF HIGHER EDUCATION.....	117
O'lmasxo'jayev Zoirxo'ja Abbos o'g'li	
FORECASTING ECONOMIC EFFECTS OF GREEN INNOVATION IN MINING THROUGH COST REDUCTION, ENERGY SAVINGS AND LONG-TERM COMPETITIVENESS.....	122
Kurbanova Mehriniso Nematjanovna	
AN INTELLECTUAL HYBRID MODEL AND FEATURE SPACE FOR NAMED ENTITY RECOGNITION IN KARAKALPAK TEXTS	127
Kalmuratov Bekbosin Kushkinbaevich, Uzakbaev Jangeldi Sabit-uli, Rzambetova Suliwxan Baxtiyarovna	
COMPARATIVE ANALYSIS OF EXISTING METHODOLOGIES FOR ASSESSING THE EFFICIENCY OF LENDING PRACTICE	133
Turdiyev Eralijon Muxtarovich	
STRATEGIC MANAGEMENT OF SERVICE QUALITY: ADAPTING THE GAP MODEL TO SERVICE ENTERPRISES.....	140
Tuxliyev Baxtiyor Maxmaziyayevich	
ORGANISATIONAL AND LEGAL FOUNDATIONS FOR THE DEVELOPMENT OF ISLAMIC FINANCE IN UZBEKISTAN	145
Khodjaev Aziz Shovkatovich	
REGIONAL TRANSMISSION OF MACROECONOMIC SHOCKS AND THE DYNAMICS OF ECONOMIC CONVERGENCE	153
Elyor Nazarov	
PRIORITY DIRECTIONS FOR INCREASING SECTORAL DIVERSIFICATION IN THE ECONOMY OF UZBEKISTAN'S REGIONS	159
Mamarasulov Nozimjon Mamajonovich	
THE ROLE OF STATE STRATEGIC RESERVES IN ENSURING FOOD SECURITY: POLICY EVOLUTION AND REASSESSMENT OF THE MILITARY SUPPLY SYSTEM IN THE CASE OF UZBEKISTAN.....	165
Bazarov Nazirjon Sobirovich	
LOCAL ADAPTATION OF MRA-FW FOR CARDIOVASCULAR RISK ASSESSMENT IN ARAL SEA REGION INPATIENTS.....	170
Uteuliev Niyetbay, Saytov Aralbek, Saytov Kamiljan	
GREEN FINANCE IN UZBEKISTAN: FROM SOVEREIGN BONDS TO FOREIGN DIRECT INVESTMENT IN RENEWABLE ENERGY (2021–2026).....	176
Temirova Nozima Shuhrat qizi	
IMPROVING THE ACCOUNTING OF REVENUE, EXPENSES AND FINANCIAL RESULTS IN PRIVATE HIGHER EDUCATION INSTITUTIONS	182
Saidova Kamolat Farhodovna	
THE IMPACT OF DIGITAL TRANSFORMATION ON SERVICE DELIVERY EFFICIENCY IN LOCAL HIGHER EDUCATION INSTITUTIONS.....	187
Masaidova Marguba Muratovna	
INVESTIGATION OF METAL REFINING DURING ELECTRIC ARC WELDING.....	195
Ermatov Ziyadulla, Rakhmatullaeva Nozima, Galperin Leonid	
STATE AND INSTITUTIONAL SUPPORT FOR THE EXPORT ACTIVITIES OF CONSTRUCTION ENTERPRISES.....	200
Mirzayeva Khulkar Abduladjon kizi	
ECONOMIC DIPLOMACY AS THE EXTERNAL TIER OF INVESTMENT GOVERNANCE: INSTITUTIONAL DESIGN AND IMPLEMENTATION GAPS IN UZBEKISTAN.....	207
Imamov Javokhir	

ECONOMIC DIPLOMACY AS THE EXTERNAL TIER OF INVESTMENT GOVERNANCE: INSTITUTIONAL DESIGN AND IMPLEMENTATION GAPS IN UZBEKISTAN

Imamov Javokhir

Ministry of Investment, Industry and Trade of the Republic of Uzbekistan

E-mail: imamovjavoxir@gmail.com

Abstract. Trade and economic counsellors at embassies, trade representations abroad, and deputy ministers responsible for groups of countries constitute the external tier of trade and investment governance in Uzbekistan. This tier facilitates investment agreements and export opportunities, while their implementation depends on coordination with regional and sectoral governance tiers. The study aims to analyse the institutional structure of the external tier and assess the relationship between investment agreements and their implementation. The research employs documentary analysis of legal acts and official records covering 2017–2026, comparative analysis of trade and investment promotion systems in the Republic of Korea and Ireland, and quantitative assessment using implementation indicators derived from official statistics. The findings indicate that the external tier has evolved through successive institutional stages and that trade and economic counsellors are accountable to at least four supervisory authorities. Agreements concluded during 52 high-level visits encompass 1,617 projects valued at USD 213 billion, representing approximately 1.7 times the total foreign investment and credits recorded during 2017–2025. Even under the most favourable assumption, the estimated implementation ratio does not exceed 58%. The study proposes assigning a single responsible authority to each country portfolio, introducing project-pipeline-based performance indicators for counsellors, and strengthening institutional coordination between diplomatic missions and regional authorities.

Keywords: economic diplomacy; commercial diplomacy; trade and economic counsellor; investment promotion; export promotion; roadmap; principal–agent relationships; Uzbekistan.

Annotatsiya. O'zbekistonda savdo va investitsiyalarni boshqarishning tashqi bo'g'ini, jumladan, elchixonalardagi savdo-iqtisodiy masalalar bo'yicha maslahatchilar, xorijdagi savdo vakolatxonalari hamda mamlakatlar guruhlariga birlashtirilgan vazir o'rinbosarlarining institutsional faoliyati tahlil qilingan. Tadqiqotda 2017–2026-yillarga oid normativ-huquqiy hujjatlar va rasmiy ma'lumotlarning hujjatli tahlili, Koreya Respublikasi hamda Irlandiyaning savdo va investitsiyalarni rag'batlantirish tizimlarini qiyosiy o'rganish, shuningdek, rasmiy statistik ma'lumotlarga asoslangan amalga oshirish ko'rsatkichlarini baholash usullaridan foydalanilgan. Natijalar tashqi boshqaruv bo'g'ini bosqichma-bosqich shakllanganini va savdo-iqtisodiy maslahatchilar kamida to'rtta rahbarlik instansiyasi oldida hisobdor ekanini ko'rsatadi. Oliy darajadagi 52 ta tashrif davomida umumiy qiymati 213 mlrd AQSH dollariga teng bo'lgan 1 617 ta loyiha yuzasidan kelishuvlarga erishilgan. Mazkur qiymat 2017–2025-yillarda qayd etilgan jami xorijiy investitsiyalar va kreditlar hajmidan qariyb 1,7 barobar yuqori bo'lib, eng qulay hisoblash sharoitida ham amalga oshirish koeffitsiyenti 58 foizdan oshmasligi baholangan. Har bir mamlakat bo'yicha investitsiya loyihalari portfeli uchun yagona mas'ulni belgilash, maslahatchilar faoliyatini loyihalar portfelining shakllanishi va amalga oshirilishiga asoslangan ko'rsatkichlar orqali baholash hamda diplomatik vakolatxonalar bilan hududiy boshqaruv organlari o'rtasidagi institutsional muvofiqlashtirishni kuchaytirish taklif etilgan.

Kalit so'zlar: iqtisodiy diplomatiya, tijorat diplomatiyasi, savdo-iqtisodiy maslahatchi, investitsiyalarni rag'batlantirish, eksportni qo'llab-quvvatlash, yo'l xaritasi, prinsipial–agent munosabatlari, O'zbekiston.

Аннотация. Институциональная структура внешнего уровня управления торговлей и инвестициями в Узбекистане, включающая советников по торгово-экономическим вопросам при посольствах, торговые представительства за рубежом и заместителей министров, ответственных за группы стран, исследована с позиции координации инвестиционных соглашений и их реализации. Методология исследования основана на документальном анализе нормативно-правовых актов и официальных материалов за 2017–2026 годы, сравнительном изучении систем продвижения торговли и инвестиций Республики Корея и Ирландии, а также количественной оценке показателей реализации соглашений на основе официальных статистических данных. Установлено, что внешний уровень управления формировался последовательно, а советники по торгово-экономическим вопросам подотчётны как минимум четырём руководящим инстанциям. В ходе 52 визитов на высшем уровне достигнуты договорённости по 1 617 проектам общей стоимостью 213 млрд долларов США, что приблизительно в 1,7 раза превышает совокупный объём иностранных инвестиций и кредитов, зарегистрированных за 2017–2025 годы. Даже при наиболее благоприятных допущениях расчётный коэффициент реализации не превышает 58%. Предложены закрепление единого ответственного за инвестиционный портфель каждой страны, внедрение показателей

эффективности работы советников на основе формирования и реализации проектного портфеля, а также укрепление институциональной координации между дипломатическими представительствами и региональными органами управления.

Ключевые слова: экономическая дипломатия, коммерческая дипломатия, торгово-экономический советник, привлечение инвестиций, продвижение экспорта, дорожная карта, принципал-агентские отношения, Узбекистан.

INTRODUCTION

Economic diplomacy has become one of the main channels through which Uzbekistan attracts investment and opens markets. According to official data, agreements on 1,617 investment projects worth USD 213 billion were reached during 52 high-level visits in recent years, and their roadmaps have been placed under the supervision of the Accounts Chamber and the Ministry of Foreign Affairs [1]. In July 2026, the Head of State instructed the Prime Minister to review project implementation weekly, country by country, together with sectoral heads, khokims, and ambassadors, and tasked the Presidential Administration with reviewing the performance of diplomatic missions in economic diplomacy, investment, and exports [1].

LITERATURE REVIEW

The international literature supports the view that diplomatic and promotion networks play an important role in trade and investment. Rose found that the presence of embassies and consulates is associated with higher exports to host countries [2]. A meta-analysis by Moons and van Bergeijk concluded that economic diplomacy has, on average, a positive effect on trade and investment, although estimates vary considerably across instruments and studies [3]. Investment promotion agencies contribute to increasing foreign direct investment, especially where information asymmetries are high [4], while export promotion agencies contribute to export growth [5; 6]. At the same time, Head and Ries found no statistically significant lasting effect of Canadian trade missions on trade [7], suggesting that the form of diplomatic activity, rather than merely its presence, influences outcomes. The literature on commercial diplomacy emphasises the organisational choices of governments, including which institutions employ economic staff abroad and to whom these employees report [8].

Most empirical studies estimate the effects of the presence of diplomatic missions, while relatively fewer examine how the external tier is governed and how it is linked to domestic institutions responsible for implementing projects. For Uzbekistan, where the external tier has developed rapidly, this issue is of particular practical importance. The purpose of this article is to analyse the institutional design of the external tier of trade and investment governance in Uzbekistan and to assess the relationship between agreements and their implementation. The tasks are to map the actors and their reporting lines, estimate the scale of the implementation gap using official data, compare the institutional design with international practices, and formulate practical proposals.

RESEARCH METHODOLOGY

The study is based on documentary analysis of legal acts published in the National Database of Legislation, particularly Decree No. DP-111¹ of 21 July 2023 and Resolution No. RP-5026² of 15 March 2021 [9; 10], as well as official records of presidential meetings on investment and exports published on president.uz during 2017–2026 [1; 11; 12; 13]. Reporting lines were mapped using a principal–agent framework, in which the number of principals to whom an agent is accountable is considered a factor that may weaken incentives [14]. Statistical data on foreign investment were obtained from official sources [15]. To compare the value of agreements with actual inflows, a realisation indicator was calculated using the value of agreed projects and cumulative foreign investment and credits recorded during 2017–2025. Because the periods and coverage of the two values do not fully coincide, the indicator is used as an upper-bound estimate. For comparative purposes, the institutional arrangements of the Korea Trade-Investment Promotion Agency (KOTRA) and IDA Ireland were examined using their official publications [16; 17; 18]. The study does not use mission-level performance data, as these data are not publicly available.

ANALYSIS AND RESULTS

Composition of the External Tier. Table 1 presents the main actors of the external tier and their legal bases.

1 <https://lex.uz/docs/6991671>

2 <https://lex.uz/docs/7575108>

Table 1. Actors of the External Tier of Trade and Investment Governance in Uzbekistan³

Actor	Main function	Legal basis and reporting	Actor
Trade and economic counsellors at embassies	Investor identification, market information, support for exporters and bilateral agreements	Staff members of diplomatic missions of the Ministry of Foreign Affairs; activities coordinated by MIIT [9]	Trade and economic counsellors at embassies
Trade Representation of Uzbekistan in the Russian Federation	Investment, exports, industrial cooperation, and logistics in a key market	Established under PQ-5026 (2021); renamed by UP-111 [9; 10]	Trade Representation of Uzbekistan in the Russian Federation
Deputy ministers of MIIT assigned to groups of countries	Cooperation with investors from assigned countries	Five deputy ministers responsible for five groups of countries, UP-111, Annex 9 [9]	Deputy ministers of MIIT assigned to groups of countries
Permanent representatives at international financial institutions	Attraction of resources from international financial institutions (IFIs)	Activities coordinated by MIIT [9]	Permanent representatives at international financial institutions

Evolution of Reporting Lines

The reporting lines of the external tier have evolved through successive stages of reform. In 2017, trade and economic counsellors were included in the nomenclature of the newly established State Committee for Investments and reported to it [11]. In January 2019, ambassadors were assigned to regions, the Prime Minister began reviewing investment utilisation with ambassadors, and the Ministry of Foreign Affairs and ambassadors were tasked with attracting foreign investors to projects listed in a unified online database [12]. Decree UP-111 of 2023 entrusted MIIT with coordinating the activities of staff members of Uzbek institutions abroad engaged in foreign economic activities and assigned deputy ministers to groups of countries [9]. In 2026, weekly country-specific reviews chaired by the Prime Minister, performance reviews of diplomatic missions by the Presidential Administration, and monitoring of roadmaps by the Accounts Chamber and the Ministry of Foreign Affairs were introduced [1].

Consequently, a trade and economic counsellor is currently accountable to at least four supervisory entities: the head of the diplomatic mission, MIIT as the coordinating ministry, the deputy minister responsible for the relevant country group, and the weekly country review mechanism chaired by the Prime Minister, with additional external monitoring of roadmaps by the Accounts Chamber. Each supervisory entity has legitimate institutional responsibilities; however, a unified document establishing the counsellor's objectives and performance indicators across these entities has not been identified.

Realisation of Agreements

The value of agreements reached during high-level visits can be compared with recorded foreign investment inflows (Table 2).

Table 2. Value of Agreed Projects and Recorded Foreign Inflows⁴

Indicator	Value	Source
Projects agreed during 52 high-level visits, USD billion	213.0	[1]
Number of agreed projects	1,617	[1]
Average value of an agreed project, USD million	131.7	Author's calculation
Foreign investment and credits, cumulative 2017–2025, USD billion	123.9	[15]
Of which foreign direct investment, USD billion	56.1	[15]
Ratio of agreed value to total foreign investment and credits	1.72	Author's calculation
Maximum possible realisation share of agreed value, %	58	Author's calculation

The conclusion of new agreements continues. At the Tashkent International Investment Forum in 2025 alone, trade and investment agreements worth USD 30.5 billion were signed [13]. The agreed value of projects associated with high-level visits is 1.7 times the total foreign investment and credits recorded since 2017 and 3.8 times cumulative foreign direct investment. Under the stated assumptions, the ratio of cumulative

³ Source: Compiled by the author based on [9; 10].

⁴ Source: Compiled and calculated by the author.

recorded foreign investment and credits to the value of agreed projects is approximately 58 percent; however, this ratio does not directly measure the actual implementation rate of the agreements. As recorded inflows may include investments unrelated to high-level visits, project-level data are required to determine the actual share attributable to these agreements. The implementation process also involves non-financial dimensions. Of the 509 export-oriented production facilities launched over three years, 208 (40.9 percent) had not commenced export activities by mid-2026, while 29 of the 47 special economic zones recorded no exports since the beginning of the year [1].

International Comparison

Table 3 compares the institutional design of the external tier with two international systems frequently used as benchmarks.

Table 3. Institutional Design of the External Tier: Republic of Korea, Ireland, and Uzbekistan⁵

Feature	Republic of Korea (KOTRA)	Ireland (IDA Ireland)	Uzbekistan
Management of the overseas network	A single agency under the ministry responsible for trade and industry	A single investment promotion agency	Shared responsibilities among MFA diplomatic missions, MIIT coordination mechanisms, and deputy ministers
Scope	Trade and investment promotion through a unified network: 131 overseas offices in 85 countries [16]	Inward investment promotion through overseas offices and regional teams [17; 18]	Trade, investment, and IFI relations distributed among several institutional actors
Link to regions	Domestic support centres within the same agency [16]	Regional investment target: 550 regional investments during 2025–2029; 57% of investments were regional in 2025 [17; 18]	Ambassadors assigned to regions (2019); no published regional target identified for the external tier
Performance indicators	Agency-level results covering trade and investment	Number of investments, jobs created, and regional investment share	Value of agreements and investment utilisation

The comparison highlights two institutional differences. In the Republic of Korea and Ireland, the investment promotion networks examined in this study are managed through designated agencies, whereas Uzbekistan's external investment governance involves several coordinating institutions. In Ireland, the national investment promotion agency has an explicit regional investment target, facilitating coordination between the external and territorial tiers. In Uzbekistan, a comparable published regional target for the external tier has not been identified.

The findings are consistent with principal–agent theory, according to which incentives may become less effective when an agent is accountable to several principals with different objectives [14]. The expansion of coordination and monitoring mechanisms during 2019–2026 reflects the importance attached to economic diplomacy. At the same time, establishing a unified set of objectives could further strengthen the relationship between reporting procedures and practical results. The difference between the value of agreements and recorded investment inflows also highlights the importance of monitoring implementation. Assessing the external tier through the value of signed agreements provides information about the agreement stage, while complementary indicators can reflect implementation outcomes involving sectoral and territorial governance tiers.

Evidence from the literature supports this interpretation. Positive effects of diplomatic networks have been identified in relation to continuous institutional presence and information services [2; 3], while one-off activities, such as trade missions, have demonstrated limited lasting effects in some studies [7]. For Uzbekistan, these findings suggest the importance of complementing indicators based on the number and value of agreements with measures reflecting their conversion into implemented projects and exports.

Three proposals follow. First, a single responsible entity for each country portfolio should be designated, supported by a joint MIIT and Ministry of Foreign Affairs plan that establishes the objectives of the ambassador, counsellor, and responsible deputy minister in a unified document. Second, project-pipeline-based performance indicators should be introduced for counsellors, including qualified investor leads entered into the unified project

⁵ Source: Compiled by the author based on [12; 16; 17; 18].

database, the share converted into signed agreements, the share of agreements progressing to implementation, and the value of export contracts facilitated. Third, diplomatic missions should be linked to regions and sectors through published targets, building on the 2019 practice of assigning ambassadors to regions [12] and the Irish experience of regional investment targets [17].

The study has several methodological limitations. The realisation indicator compares values that differ in their reference periods and coverage and is therefore interpreted as an upper-bound estimate. Mission-level data on investor leads and agreements are not publicly available. Further research should estimate a gravity model of Uzbekistan's trade and investment relations with partner countries, incorporating variables reflecting the presence of trade and economic counsellors and trade representations, to assess the contribution of the external tier more precisely.

CONCLUSION AND RECOMMENDATIONS

The external tier of Uzbekistan's trade and investment governance has expanded considerably and now includes trade and economic counsellors at embassies, a trade representation, deputy ministers assigned to groups of countries, and project offices. Its reporting structure has evolved, with counsellors accountable to at least four supervisory entities, highlighting the importance of establishing a unified framework of objectives. The value of agreed projects exceeds cumulative recorded investment inflows, while the ratio of recorded foreign investment and credits to the agreed project value is approximately 58 percent under the stated assumptions. Assigning a single responsible entity to each country portfolio, introducing project-pipeline-based performance indicators, and strengthening coordination between diplomatic missions and regions would enhance institutional accountability and facilitate cooperation between the external and domestic tiers responsible for project implementation.

Based on the findings, the following practical recommendations are proposed:

Unified coordination: Designate a single responsible entity for each country portfolio to ensure coordinated investment and export promotion activities.

Performance assessment: Introduce project-pipeline-based indicators to evaluate the effectiveness of trade and economic counsellors.

Regional cooperation: Strengthen institutional cooperation between diplomatic missions and regional authorities to facilitate investment project implementation.

Implementation monitoring: Establish a unified monitoring mechanism to track the progress of investment agreements and their practical implementation.

Institutional transparency: Develop common reporting standards to improve information exchange and coordination among the institutions involved.

REFERENCES

1. Press Service of the President of the Republic of Uzbekistan. Priority tasks to ensure high economic growth and improve living standards defined [Electronic resource]. – 21 July 2026. – URL: <https://president.uz/oz/lists/view/9426>
2. Rose, A. K. The foreign service and foreign trade: Embassies as export promotion / A. K. Rose // *The World Economy*. – 2007. – Vol. 30, No. 1. – P. 22–38.
3. Moons, S. J. V. Does economic diplomacy work? A meta-analysis of its impact on trade and investment / S. J. V. Moons, P. A. G. van Bergeijk // *The World Economy*. – 2017. – Vol. 40, No. 2. – P. 336–368.
4. Harding, T. Roll out the red carpet and they will come: Investment promotion and FDI inflows / T. Harding, B. S. Javorcik // *The Economic Journal*. – 2011. – Vol. 121, No. 557. – P. 1445–1476.
5. Lederman, D. Export promotion agencies: Do they work? / D. Lederman, M. Olarreaga, L. Payton // *Journal of Development Economics*. – 2010. – Vol. 91, No. 2. – P. 257–265.
6. Volpe Martincus, C. Is export promotion effective in developing countries? Firm-level evidence on the intensive and the extensive margins of exports / C. Volpe Martincus, J. Carballo // *Journal of International Economics*. – 2008. – Vol. 76, No. 1. – P. 89–106.
7. Head, K. Do trade missions increase trade? / K. Head, J. Ries // *Canadian Journal of Economics*. – 2010. – Vol. 43, No. 3. – P. 754–775.
8. Kostecki, M. *Commercial Diplomacy and International Business* / M. Kostecki, O. Naray. – The Hague : Netherlands Institute of International Relations "Clingendael", 2007. – (Discussion Papers in Diplomacy ; No. 107).
9. Decree of the President of the Republic of Uzbekistan No. UP-111 of 21 July 2023 "On measures to effectively organise public administration in the field of investment, industry and trade within the framework of administrative reforms" [Electronic resource]. – URL: <https://lex.uz/docs/-6540957>
10. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 463 of 26 July 2021 "On measures to organise the activity of the Representation of the Ministry of Investments and Foreign Trade in the Russian Federation" (adopted pursuant to Resolution of the President No. PQ-5026 of 15 March 2021) [Electronic resource]. – URL: https://www.norma.uz/oz/qonunchilikda_yangi/itsvning_rossiyadagi_vakolathonasining_vazifalari_belgilandi

11. Press Service of the President of the Republic of Uzbekistan. Decree on the establishment of the State Committee for Investments [Electronic resource]. – 2017. – URL: <https://president.uz/oz/lists/view/366>.
12. Press Service of the President of the Republic of Uzbekistan. Key tasks for developing and implementing investment projects defined [Electronic resource]. – 8 January 2019. – URL: <https://president.uz/oz/lists/view/2233>
13. Press Service of the President of the Republic of Uzbekistan. Results of reforms and work in the regions analysed [Electronic resource]. – 16 June 2025. – URL: <https://president.uz/oz/lists/view/8225>
14. Dixit, A. Power of incentives in private versus public organizations / A. Dixit // American Economic Review. – 1997. – Vol. 87, No. 2. – P. 378–382.
15. Uza. Dynamics of foreign investment attracted to Uzbekistan in 2017–2025 [Electronic resource]. – 2026. – URL: https://uza.uz/ar/posts/2017-2025-yillarda-ozbekistonga-jalb-qilingan-xorijiy-investitsiyalarning-osish-dinamikasi-video_876059
16. KOTRA. KOTRA Company Profile [Electronic resource]. – URL: <https://www.kotra.or.kr/english/subList/41000045001>.
17. IDA Ireland. Adapt Intelligently: A Strategy for Sustainable Growth and Innovation 2025–2029. – Dublin : IDA Ireland, 2025.
18. IDA Ireland. Annual Report 2025 [Electronic resource]. – 2026. – URL: <https://www.idaireland.com/annual-reports/annual-report-2025>.

Proofreader: Zokir ALIBEKOV

Layout and Designer: Oloviddin Sobir ugli

2026. № 10

© 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>