



IQTISODIYOT & TARAQQIYOT

Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

GREEN ECONOMY AND DEVELOPMENT

Social, Economic, Technological, Scientific and Popular Science Journal

**2026-YIL / AVGUST / 8-SON,
I-QISM**



ISSN: 2992-8982

<https://yashil-iqtisodiyot-taraqqiyot.uz/>



IQTISODIYOT & TARAQQIYOT

Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

Bosh muharrir:

Sharipov Kongiratbay Avezimbetovich

*Elektron nashr. 2026-yil, avgust.
I-qism*

Bosh muharrir o'rinbosari:

Karimov Norboy G'aniyevich

Muharrir:

Qurbonov Sherzod Ismatillayevich

Tahrir hay'ati:

Salimov Oqil Umrzoqovich, O'zbekiston Fanlar akademiyasi akademigi
Abduraxmanov Kalandar Xodjayevich, O'zbekiston Fanlar akademiyasi akademigi
Sharipov Kongiratbay Avezimbetovich, texnika fanlari doktori (DSc), professor
Rae Kvon Chung, Janubiy Koreya, TDIU faxriy professori, "Nobel" mukofoti laureati
Osman Mesten, Turkiya parlamenti a'zosi, Turkiya – O'zbekiston do'stlik jamiyati rahbari
Axmedov Durbek Kudratillayevich, iqtisodiyot fanlari doktori (DSc), professor
Axmedov Sayfullo Normatovich, iqtisodiyot fanlari doktori (DSc), professor
Abduraxmanova Gulnora Kalandarovna, iqtisodiyot fanlari doktori (DSc), professor
Kalonov Muxiddin Baxritdinovich, iqtisodiyot fanlari doktori (DSc), professor
Siddiqova Sadoqat G'afforovna, pedagogika fanlari bo'yicha falsafa doktori (PhD)
Xudoyqulov Sadirdin Karimovich, iqtisodiyot fanlari doktori (DSc), professor
Maxmudov Nosir, iqtisodiyot fanlari doktori (DSc), professor
Yuldashev Mutallib Ibragimovich, iqtisodiyot fanlari doktori (DSc), professor
Samadov Asqarjon Nishonovich, iqtisodiyot fanlari nomzodi, professor
Slizovskiy Dimitriy Yegorovich, texnika fanlari doktori (DSc), professor
Mustafakulov Sherzod Igamberdiyevich, iqtisodiyot fanlari doktori (DSc), professor
Axmedov Ikrom Akramovich, iqtisodiyot fanlari doktori (DSc), professor
Eshtayev Alisher Abdug'aniyevich, iqtisodiyot fanlari doktori (DSc), professor
Xajiyev Baxtiyor Dushaboyevich, iqtisodiyot fanlari doktori (DSc), professor
Hakimov Nazar Hakimovich, falsafa fanlari doktori (DSc), professor
Musayeva Shoirazimovna, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), professor
Ali Konak (Ali Ko'nak), iqtisodiyot fanlari doktori (DSc), professor (Turkiya)
Cham Tat Huei, falsafa fanlari doktori (PhD), professor (Malayziya)
Foziljonov Ibrohimjon Sotvoldixo'ja o'g'li, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dots.
Faxridinov Zafarjon Faxridin o'g'li, O'zb. Res. Bosh prokuraturasi HIJQKD boshqarma boshlig'i
Utayev Uktam Choriyevich, Anijon viloyati prokurorining o'rinbosari
Ochilov Farkhod, O'zb. Res. Bosh prokuraturasi IJQK Departamentining Namangan viloyati boshqarmasi boshlig'i
Buzrukhonov Sarvarxon Munavvarxonovich, iqtisodiyot fanlari nomzodi, dotsent
Axmedov Javohir Jamolovich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)
Toxirov Jaloliddin Ochil o'g'li, texnika fanlari bo'yicha falsafa doktori (PhD), katta o'qituvchi
Bobobekov Ergash Abdumalikovich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), v.b. dots.
Djudi Smetana, pedagogika fanlari nomzodi, dotsent (AQSH)
Krissi Lyuis, pedagogika fanlari nomzodi, dotsent (AQSH)
Glazova Marina Viktorovna, Iqtisodiyot fanlari doktori (Moskva)
Nosirova Nargiza Jamoliddin qizi, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dotsent
Sevil Piriyeva Karaman, falsafa fanlari doktori (PhD) (Turkiya)
Mirzaliyev Sanjar Makhamatjon o'g'li, TDIU ITI departamenti rahbari
Ochilov Bobur Baxtiyor o'g'li, TDIU katta o'qituvchisi
Golisheva Yelena Vyacheslavovna, Iqtisodiyot fanlari nomzodi, dotsent.
Abdukarimova Dinara Rustamxonovna, bank-moliya akademiyasi professori, DSc., professor.
Ikramov Murod Akramovich, iqtisodiyot fanlari doktori (DSc), professor
Nazarova Ra'no Rustamovna, iqtisodiyot fanlari doktori (DSc), professor



IQTISODIYOT & TARAQQIYOT

Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

Editorial board:

Salimov Okil Umrzokovich, Academician of the Academy of Sciences of Uzbekistan
Abdurakhmanov Kalandar Khodjayevich, Academician of the Academy of Sciences of Uzbekistan
Sharipov Kongirاتبay Avezimbetovich, Doctor of Technical Sciences (DSc), Professor
Rae Kwon Chung, South Korea, Honorary Professor at TSUE, Nobel Prize Laureate
Osman Mesten, Member of the Turkish Parliament, Head of the Turkey–Uzbekistan Friendship Society
Akhmedov Durbek Kudratillayevich, Doctor of Economic Sciences (DSc), Professor
Akhmedov Sayfullo Normatovich, Doctor of Economic Sciences (DSc), Professor
Abdurakhmanova Gulnora Kalandarovna, Doctor of Economic Sciences (DSc), Professor
Kalonov Mukhiddin Bakhridinovich, Doctor of Economic Sciences (DSc), Professor
Siddikova Sadokat Gafforovna, Doctor of Philosophy (PhD) in Pedagogical Sciences
Khudoykulov Sadirdin Karimovich, Doctor of Economic Sciences (DSc), Professor
Makhmudov Nosir, Doctor of Economic Sciences (DSc), Professor
Yuldashev Mutallib Ibragimovich, Doctor of Economic Sciences (DSc), Professor
Samadov Askarjon Nishonovich, Candidate of Economic Sciences, Professor
Slizovskiy Dmitriy Yegorovich, Doctor of Technical Sciences (DSc), Professor
Mustafakulov Sherzod Igamberdiyevich, Doctor of Economic Sciences (DSc), Professor
Akhmedov Ikrom Akramovich, Doctor of Economic Sciences (DSc), Professor
Eshtayev Alisher Abduganiyevich, Doctor of Economic Sciences (DSc), Professor
Khajiyev Bakhtiyor Dushaboyevich, Doctor of Economic Sciences (DSc), Professor
Khakimov Nazar Khakimovich, Doctor of Philosophy (DSc), Professor
Musayeva Shoira Azimovna, Doctor of Philosophy (PhD) in Economic Sciences, Professor
Ali Konak, Doctor of Economic Sciences (DSc), Professor (Turkey)
Cham Tat Huei, Doctor of Philosophy (PhD), Professor (Malaysia)
Foziljonov Ibrokhimjon Sotvoldikhoja ugli, Doctor of Philosophy (PhD) in Economic Sciences, Associate Professor
Fakhridinov Zafarjon Fakhridin ogli, Head of the DCEC under the Prosecutor General's Office of the Rep. of Uzb.
Utayev Uktam Choriyevich, Deputy Prosecutor of Anijan Region
Ochilov Farkhod, Head of the Namangan Regional Department of the Department of Internal Affairs of Rep. of Uzb.
Buzrukkhonov Sarvarkhon Munavvarkhonovich, Candidate of Economic Sciences, Associate Professor
Akhmedov Javokhir Jamolovich, Doctor of Philosophy (PhD) in Economic Sciences
Tokhirov Jaloliddin Ochil ugli, Doctor of Philosophy (PhD) in Technical Sciences, Senior Lecturer
Bobobekov Ergash Abdumalikovich, Doctor of Philosophy (PhD) in Economic Sciences, Acting Associate Professor
Judi Smetana, Candidate of Pedagogical Sciences, Associate Professor (USA)
Chrissy Lewis, Candidate of Pedagogical Sciences, Associate Professor (USA)
Glazova Marina Victorovna, Doctor of Sciences in Economics (Moscow)
Nosirova Nargiza Jamoliddin kizi, Doctor of Philosophy (PhD) in Economic Sciences, Associate Professor
Sevil Piriyea Karaman, Doctor of Philosophy (PhD) (Turkey)
Mirzaliyev Sanjar Makhamatjon ugli, Head of the Department of Scientific Research and Innovations, TSUE
Ochilov Bobur Bakhtiyor ugli, Senior lecturer at TSUI
Golisheva Yelena Vyacheslavovna, Candidate of Economic Sciences, Associate Professor.
Abdukariyeva Dinara Rustamkhanovna, Doctor of Economic Sciences (DSc), Professor
Ikramov Murod Akramovich, Doctor of Economic Sciences (DSc), Professor
Nazarova Ra'no Rustamovna, Doctor of Economic Sciences (DSc), Professor

Ekspertlar kengashi:

Berkinov Bazarbay, iqtisodiyot fanlari doktori (DSc), professor
Po'latov Baxtiyor Alimovich, texnika fanlari doktori (DSc), professor
Aliyev Bekdavat Aliyevich, falsafa fanlari doktori (DSc), professor
Isakov Janabay Yakubbayevich, iqtisodiyot fanlari doktori (DSc), professor
Xalikov Suyun Ravshanovich, iqtisodiyot fanlari nomzodi, dotsent
Rustamov Ilhomiddin, iqtisodiyot fanlari nomzodi, dotsent
Hakimov Ziyodulla Ahmadovich, iqtisodiyot fanlari doktori, dotsent
Kamilova Iroda Xusniddinovna, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)
G'afurov Doniyor Orifovich, pedagogika fanlari bo'yicha falsafa doktori (PhD)
Fayziyev Oybek Raximovich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dotsent
Tuxtabayev Jamshid Sharafetdinovich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dotsent
Xamidova Faridaxon Abdulkarim qizi, iqtisodiyot fanlari doktori, dotsent
Yaxshiboyeva Laylo Abdisattorovna, katta o'qituvchi
Babayeva Zuhra Yuldashevna, mustaqil tadqiqotchi
Komilova Nilufar Karshiboyevna, Geografiya fanlari doktori, professori
Umirzoqov Ja'sur Artiqboy o'g'li, iqtisodiyot fanlari doktori (DSc), dotsent
Zebo Kuldasheva, iqtisodiyot fanlari doktori (DSc), dotsent

Board of Experts:

Berkinov Bazarbay, Doctor of Economic Sciences (DSc), Professor
Pulatov Bakhtiyor Alimovich, Doctor of Technical Sciences (DSc), Professor
Aliyev Bekdavat Aliyevich, Doctor of Philosophy (DSc), Professor
Isakov Janabay Yakubbayevich, Doctor of Economic Sciences (DSc), Professor
Khalikov Suyun Ravshanovich, Candidate of Economic Sciences, Associate Professor
Rustamov Ilhomiddin, Candidate of Economic Sciences, Associate Professor
Khakimov Ziyodulla Akhmadovich, Doctor of Economic Sciences, Associate Professor
Kamilova Iroda Xusniddinovna, Doctor of Philosophy (PhD) in Economics
Gafurov Doniyor Orifovich, Doctor of Philosophy (PhD) in Pedagogy
Fayziyev Oybek Raximovich, Doctor of Philosophy (PhD) in Economics, Associate Professor
Tukhtabayev Jamshid Sharafetdinovich, Doctor of Philosophy (PhD) in Economics, Associate Professor
Khamidova Faridaxon Abdulkarimovna, Doctor of Economic Sciences, Associate Professor
Yakhshiboyeva Laylo Abdisattorovna, Senior Lecturer
Babayeva Zuhra Yuldashevna, Independent Researcher
Komilova Nilufar Karshiboyevna, Doctor of Geographical Sciences, Professor
Umirzokov Jasur Artiqboy ugli, Doctor of Economic Sciences (DSc), Associate Professor
Zebo Kuldasheva, Doctor of Economic Sciences (DSc), Associate Professor

- 08.00.01 Iqtisodiyot nazariyasi
- 08.00.02 Makroiqtisodiyot
- 08.00.03 Sanoat iqtisodiyoti
- 08.00.04 Qishloq xo'jaligi iqtisodiyoti
- 08.00.05 Xizmat ko'rsatish tarmoqlari iqtisodiyoti
- 08.00.06 Ekonometrika va statistika
- 08.00.07 Moliya, pul muomalasi va kredit
- 08.00.08 Buxgalteriya hisobi, iqtisodiy tahlil va audit
- 08.00.09 Jahon iqtisodiyoti
- 08.00.10 Demografiya. Mehnat iqtisodiyoti
- 08.00.11 Marketing
- 08.00.12 Mintaqaviy iqtisodiyot
- 08.00.13 Menejment
- 08.00.14 Iqtisodiyotda axborot tizimlari va texnologiyalari
- 08.00.15 Tadbirkorlik va kichik biznes iqtisodiyoti
- 08.00.16 Raqamli iqtisodiyot va xalqaro raqamli integratsiya
- 08.00.17 Turizm va mehmonxona faoliyati

Muassis: "Ma'rifat-print-media" MChJ

Hamkorlarimiz: Toshkent davlat iqtisodiyot universiteti,
O'zbekiston Respublikasi Bosh prokuraturasi huzuridagi Iqtisodiy
jinoyatlarga qarshi kurashish departamenti

Jurnalning ilmiyligi:

“Yashil” iqtisodiyot va
taraqqiyot” jurnali

O'zbekiston Respublikasi
Oliy ta'lim, fan va innovatsiyalar
vazirligi huzuridagi Oliy
attestatsiya komissiyasi
rayosatining
2023-yil 1-apreldagi
336/3-sonli qarori bilan
ro'yxatdan o'tkazilgan.



MUNDARIJA

O'RTA DAROMADLI MAMLAKATLARDA INNOVATSION XARAJATLARNING EKSPORT DIVERSIFIKATSIYASIGA TA'SIRI	20
Karimova Xulkar Raxmanali qizi Jalg'ashova Nazira Umbet qizi	
MINTAQADA SANOAT SALOHİYATI SAMARADORLIGINI OSHIRISHNING HOZIRGI HOLATI TAHLILI	26
Mamedov Ko'palboy Masharipovich	
TA'LIM XIZMATLARINI BOSHQARISHDA XALQARO STANDARTLAR ASOSIDA SIFATNI TA'MINLASH	30
Umarov Ravshanjon Gafurovich	
SANOAT KORXONALARIDA INNOVATSION FAOLIYAT SAMARADORLIGINI BAHOLASH USULLARI	36
Mamurov Doniyor Eldorovich	
MINTAQAVIY IQTISODIY RIVOJLANISHDA YASHIL INVESTITSİYALARDAN FOYDALANISH TAMOIYILLARI VA USULLARI	43
Ro'zimov Doniyor Soporboy o'g'li	
TOSHKENT METROPOLITENI SANOATIDA MAHALLIYLASHTIRISH DARAJASINING DINAMIKASI VA UNI XALQARO TAJRIBA BILAN QIYOSIY BAHOLASH	49
Mansurov Xamrokul Ilxomovich	
ЦИФРОВАЯ САМООРГАНИЗАЦИЯ БУДУЩИХ МЕНЕДЖЕРОВ КАК ФАКТОР ЭФФЕКТИВНОСТИ САМОСТОЯТЕЛЬНОГО ОБУЧЕНИЯ	56
Мирвосикий Хилола Хабибулла кизи	
XORAZM VILOYATIDA AHOLI BANDLIGINI TA'MINLASHNING ILMIY-AMALIY TAHLILI	64
Z.Sh. Matniyozova	
DEVELOPMENT MECHANISMS OF EMBEDDED FINANCE SERVICES IN COMMERCIAL BANKS OF UZBEKISTAN BASED ON OPEN BANKING	69
Khurramova Fotima Bakhodir qizi	
IMPROVING THE PRACTICE OF FINANCING INVESTMENT PROJECTS THROUGH SYNDICATED LOANS PROVIDED BY COMMERCIAL BANKS	76
Xudaynazarov Davrbek Abdullayevich	
TASHQI SAVDO DINAMIKASI VA BANK MOLİYAVIY XAVFSIZLIGI: O'ZBEKISTON TIJORAT BANKLARI MISOLIDA AMALIY TAHLIL	83
Babadjanov Shuxrat Atxamovich	
GREEN LENDING PRACTICED AMONG UZBEK COMMERCIAL BANKS: SURVEY- BASED ASSESSMENT OF READINESS AND CONSTRAINTS	90
Avazov Azizbek Ashurali o'g'li	
"YANGI O'ZBEKISTON – 2030" STRATEGIYASI DOIRASIDA IQTISODIY O'ZGARISHLARNING ASOSIY YO'NALISHLARI VA ULARNING SAMARADORLIGI	96
Amirov Otabek Xudoyberdi o'g'li	
BARQAROR YASHIL INVESTITSİYALARNING QAYTA TIKLANUVCHI ENERGETIKA RIVOJIGA ROLINI VA HISSASINI TAHLIL QILISH: O'ZBEKISTON MISOLIDA	101
Zilola Kazakova	
HUDUD SANOATIDA KAPITAL VA MEHNAT RESURLARI SAMARADORLIGINI KOB-B-DUGLAS MODELİ YORDAMIDA BAHOLASH	113
Turayev Baxrom Ergashevich	



“MAHALLA BANKIRI” INSTITUTI DAVLATBANK HAMKORLIGINING OPERATSION BO‘G‘INI SIFATIDA: SAMARADORLIK MEZONLARI VA OPTIMAL YUKLAMA PARAMETRLARI	120
Nurmuratov Azamat Mamarizo o‘g‘li SHAHAR JAMOAT TRANSPORTI YO‘NALISHLARINING AHOLI EHTIYOJLARIGA MOSLIGINI TADQIQ ETISH (URGANCH SHAHRI MISOLIDA)	127
Abdullayeva Shahzodaxon Fazliddin qizi O‘ZBEKISTONDA QISHLOQ XO‘JALIGINI RO‘YXATGA OLISHNING AGRAR IQTISODIY O‘SISHNI TA‘MINLASHDAGI INSTITUTSIONAL ROLI	132
Shohujayeva Zebo Safoyevna Xolov Javlonbek Davronovich UZBEKISTAN KAK AKADEMIЧЕСКИЙ ХАБ ВЫСШЕГО ОБРАЗОВАНИЯ ЦЕНТРАЛЬНОЙ АЗИИ	138
Эргашева Шахло Тургуновна БУХГАЛТЕРСКИЙ УЧЕТ КАК ИНФОРМАЦИОННАЯ ОСНОВА ФИНАНСОВОГО КОНТРОЛЯ ПРЕДПРИЯТИЯ	146
Маннапова Раъно Абборовна YOSHLAR TADBIRKORLIGINI MOLIVAVIY, INSTITUTSIONAL VA RAQAMLI QO‘LLABQUVVATLASHNING INTEGRATSIYALASHGAN RAQAMLI MODELLARI: “3M-PLATFORMA” VA “SMART YOUTH BUSINESS ECOSYSTEM” KONSEPSIYALARI	154
Xojiyev Ma‘murjon Muxsinjon o‘g‘li RAQAMLI BANK XIZMATLARINING IQTISODIY VA INSTITUTSIONAL XUSUSIYATLARI	163
Begimqulova Sevara Nurmamatovna KICHIK TADBIRKORLIK SUBYEKTLARINING IQTISODIY SAMARADORLIGINI OSHIRISH OMILLARI	169
Yusupov Muxiddin Soatovich Normaxmatov Fazliddin Nuriddin o‘g‘li OLIY TA‘LIMDA INNOVATSION MENEJMENT IMKONIYATLARIDAN SAMARALI FOYDALANISH	177
Abdullayev Farhod Ozodovich “YASHIL MAKON” UMUMMILLIY LOYIHASINI AMALGA OSHIRISHNING TASHKILIY-AMALIY NATIJALARI	180
Jamshidbek Bobojonov QISHLOQ XO‘JALIGI MAHSULOTLARI EKSPORTI SAMARADORLIGINI OSHIRISHDA KLASTERLARNING AHAMIYATI	184
Radjabova Mavluda Ergash qizi STRENGTHENING MAHALLA ENTREPRENEURSHIP THROUGH AN INTEGRATED ECOSYSTEM: FUNCTIONAL LINKAGES, DIGITAL COORDINATION, AND REGIONAL EVIDENCE	189
Zafarjon Odiljonovich Tuxtasinov MINTAQANI BARQAROR RIVOJLANTIRISHDA GENERATIV SUN‘IY INTELLEKT INFRATUZILMASINING NAZARIY ASOSLARI	195
Saidov Jaloladdin Allaberganovich KORXONALARDA BOSHQARUV QARORLARINI QABUL QILISH MEXANIZMLARINI TAKOMILLASHTIRISH	202
Mamajonova Surayyoxon Maxmudjonovna PAXTA-TO‘QIMACHILIK KLASTERLARIDA INNOVATSION RIVOJLANISHNING HUDUDIIY XUSUSIYATLARINI BAHOLASH METODIKASI	207
Tojiyev Sa‘dulla Muhitdinovich INNOVATIONS IN TECHNOLOGY AND SCIENCE EDUCATION IMPROVING ECONOMIC INCENTIVE AND RESOURCE-ALLOCATION MECHANISMS AS A FACTOR IN INCREASING THE EFFICIENCY OF INDUSTRIAL ENTERPRISES: EVIDENCE FROM THE “TECHNOPARK” ENTERPRISE	213
Erkinova Umidakhon Ilhom qizi	



THE IMPACT OF ARTIFICIAL INTELLIGENCE-BASED RECRUITMENT SYSTEMS ON HIRING QUALITY	218
Mutalova Manzura Abdushukur qizi	
TOMORQA XO'JALIGI FAOLIYATI BILAN BOG'LIQ NOQISHLOQ XO'JALIGI FAOLIYATINING TA'SIRINI IQTISODIY BAHOLASH	224
U.U.Nurullayev	
SHAHAR HUDUDLARIDA EKOLOGIK MONITORING TIZIMINI RIVOJLANTIRISH MASALALARI	230
Asqarov Akmal Anvar o'g'li	
TIJORAT BANKLARI KREDIT PORTFELINI BOSHQARISHNING METODOLOGIK ASOSLARI	235
Ziyodullayev Sodiqjon Mamadillayevich	
AXBOROT-KOMMUNIKATSIYA TEXNOLOGIYALARI SOHASIDA MOLIVAVIY NATIJALAR AUDITI METODOLOGIYASINI TAKOMILLASHTIRISHNING YAXLIT TIZIMI	240
Bekchanov Faxriddin Atabekovich	
MAHALLIY TURIZMNI RIVOJLANLANTIRISHNING TASHKILIYIQTISODIY MEKANIZMINING ASOSIY FUNKSIYA VA PRINSIPLARI	246
Xayrullayev Elbek Xayrulla o'g'li	
ЛИЗИНГ КАК ИНСТРУМЕНТ ТЕХНОЛОГИЧЕСКОГО ОБНОВЛЕНИЯ ТЕКСТИЛЬНЫХ ПРЕДПРИЯТИЙ УЗБЕКИСТАНА: ФИНАНСОВЫЕ ВОЗМОЖНОСТИ И ОГРАНИЧЕНИЯ.....	250
Дадабоева Муштари Хамидиллаевна	
TIJORAT BANKLARIDA CHAKANA BANK XIZMATLARINI RIVOJLANTIRISHGA TA'SIR ETUVCHI OMILLARNI EKONOMETRIK BAHOLASH	261
Abdiraxmonov Farxod Arabboyevich	
HUDUDLAR IQTISODIY XAVFSIZLIGINI BOSHQARISH MEKANIZMLARINING NAZARIY MODELLARI	267
Jurayev Ismatulla Izzatullayevich	
FINANCIAL MODELS IN THE EDUCATION SECTOR: A COMPARATIVE INSTITUTIONAL ANALYSIS OF STATE, PRIVATE, AND MIXED FUNDING SYSTEMS	275
Imomov Inomiddin	
SANOAT KORXONALARIDA INVESTITSION JARAYONLARNI BOSHQARISHNING TASHKILIY-IQTISODIY MEKANIZMI.....	281
Siddiqov Abdusalom Abdumalikovich	
NOAN'ANAVIY PUL-KREDIT SIYOSATI INSTRUMENTLARINING IQTISODIY MOHIYATI VA MAZMUNI.....	292
Djumonov Dilshod Safarolievich	
URBANIZATSIYA SHAROITIDA EKOLOGIK BARQARORLIKNI TA'MINLASH MUAMMOLARI.....	302
Shodmonov Nurjaxon Shokir o'g'li	
QORAQALPOG'ISTON RESPUBLIKASIDA KICHIK VA O'RTA BIZNESNI QO'LLAB QUVVATLASHNING IQTISODIY OMILLARI VA RIVOJLANISH ISTIQBOLLARI.....	308
Reimbergenov Xurrambek Xushnudovich	
O'ZBEKISTONDA KO'CHMAS MULK BOZORI XIZMATLARINING HOZIRGI HOLATI VA ULARNING SAMARADORLIGINI OSHIRISH YO'NALISHLARI	314
Sadikova Dildora Abdulla qizi	
QORAQALPOG'ISTON RESPUBLIKASIDA AGROTURIZMNI RIVOJLANTIRISHNING STRATEGIK YO'NALISHLARI.....	321
Baxadir Adilchayev	
EKOLOGIK TA'LIMNI RIVOJLANTIRISH ORQALI BARQAROR RIVOJLANISHNI SHAKLLANTIRISHNING PEDAGOGIK ASOSLARI	327
Ergasheva Mohinurxon Odilxon qizi	



BANK OPERATSIYALARI BO'YICHA ICHKI AUDIT AMALLARINING MAZMUNIIY VA USLUBIY TAHLILI	331
Yuldashev Xurshidbek Mamirjonovich	
РАЗРАБОТКА И ПРИМЕНЕНИЕ МОДЕЛИ КОМПЕТЕНЦИЙ ДЛЯ ГОСУДАРСТВЕННЫХ СЛУЖАЩИХ	341
Гофурова Шахрибону Комол қизи	
INNOVATION-DRIVEN BUSINESS COMPETITIVENESS THROUGH DIGITAL TRANSFORMATION AND TECHNOLOGICAL CAPABILITY	349
Sarvinoz Asamova	
HUDUDIIY INVESTITSIIYA OQIMLARINI DIFFERENSIAL BAHOLASH ASOSIDA MINTAQAVIY IQTISODIY O'SISHNI MANZILLI RAG'BATLANTIRISH.....	359
Ismoilov Azizbek Rustamjon o'g'li	
XIZMAT KO'RSATISH SOHASINI RIVOJLANTIRISH ORQALI KAMBAG'ALLIKNI QISQARTIRISH YO'LLARI BO'YICHA XORIJ TAJRIBALARI.....	368
Samiyev Mirkamol Amriddin o'g'li	
ИНВЕСТИЦИОННАЯ ДЕЯТЕЛЬНОСТЬ В УСЛОВИЯХ СОВРЕМЕННОЙ РЫНОЧНОЙ ЭКОНОМИКИ: СУЩНОСТЬ, РОЛЬ И ОСНОВНЫЕ НАПРАВЛЕНИЯ РАЗВИТИЯ	372
Матчанов Умирзак Сейтжанович	
O'ZBEKISTONDA YASHIL LOGISTIKA TAMOIYILLARI ASOSIDA MULTIMODAL TRANSPORT-LOGISTIKA KORIDORLARINI RIVOJLANTIRISHNING TASHKILIY-IQTISODIY MEKANIZMLARINI TAKOMILLASHTIRISH	379
Islomjon Jamshedovich Jamshedov	
YASHIL INVESTITSIIYALARNING HUQUQIYINSTITUTSIONAL ASOSLARINING RIVOJLANISH BOSQICHLARI.....	389
Temirova Nozima Shuhrat qizi	
ELEKTRON SAVDO PLATFORMALARIDA MOLIVAVIY TAHLILNING ZAMONAVIY YONDASHUVLARI VA XALQARO TAJRIBA	395
Amanqulova Muxlisa Narsafar qizi	
MEHNAT UNUMDORLIGI VA MEHNAT RESURLARIDAN FOYDALANISH SAMARADORLIGI O'RTASIDAGI BOG'LIQLIKNI BAHOLASH.....	403
Rashidov Zuhridin Sanjar o'g'li	
MINTAQI IQTISODIYOTINI BARQAROR RIVOJLANTIRISHDA KLASSTERLASHNING ASOSIY TAMOIYILLARI VA KONSEPTUAL ASOSLARI	408
Movlonova Dilrabo Nomoz qizi	
HUDUD IQTISODIY TIZIMIDA INNOVATSION INFRATUZILMANING BARQAROR RIVOJLANISHGA TA'SIRINI BAHOLASH	412
Sapayev Sindor Qadamboy o'g'li	
KORPORATIV BOSHQARUV TIZIMDA KPINING AHAMIYATI VA UNI JORIY ETISHNING ILMIY-NAZARIY YONDOSHUVLARI.....	418
Botirjon Ergashov	
MO'YNA VA TRIKOTAJ MATERIALLARNI YOPISHTIRISH UCHUN SUVLI POLIMER YOPISHTIRUVCHI KOMPOZITSIIYA: TARKIBI, TAYYORLASH USULI VA XOSSALARI.....	424
Temirova Gulnoz Ibodovna	
Shodmonova Mijgona Salimovna	
SURXONDARYO VILOYATI TURIZM SALOHIIYATINI BAHOLASHNING KOMPLEKS MODELII.....	429
Mamatov Sardor Ilyosovich	
Rashidova Nargiza Orifjon qizi	
KICHIK BIZNES SUBYEKTLARIDA INTERNETMARKETING TEXNOLOGIYALARIDAN FOYDALANISH SAMARADORLIGINI BAHOLASHNING EKONOMETRIK TAHLILI VA EMPIRIK NATIJALAR	435
Pirmatov Oybek Shovkat o'g'li	



XIZMAT KO'RSATISH KORXONALARIDA INSON KAPITALINI SAMARALI BOSHQARISH YO'LLARI	442
Raxmonov Shuxrat Shavkatovich	
PAXTA YETISHTIRISHDA QO'LLANILADIGAN BARQAROR QISHLOQ XO'JALIK AMALIYOTLARI: XALQARO ILMIY ADABIYOTLARNING TIZIMLI TAHLILI	447
Rashitova Nilufar Xatambayevna	
Mirkasimov Baxrom Ravshanovich	
Karimov Komiljon Xamidovich	
Abduvaliyeva Nilufar Muxamadnosir qizi	
RAQAMLI BANKLAR VA KIBERXAVFSIZLIK: ZAMONAVIY TAHDIDLAR VA HIMOA USULLARI	465
Abrorov Azizjon Akobirovich	
HUDUDLAR RIVOJLANISHI SHAROITIDA SANOAT KORXONALARINING RAQOBATBARDOSHLIGINI OSHIRISH UCHUN XAVFSIZLIK MEXANIZMLARINI TAKOMILLASHTIRISH YONDASHUVLARI	470
Xalilov Nurullo Xamidillayevich	
HUDUDIY INVESTITSIYA OQIMLARINI DIFFERENSIAL BAHOLASH ASOSIDA MINTAQAVIY IQTISODIY O'SISHNI MANZILLI RAG'BATLANTIRISH.....	476
Ismoilov Azizbek Rustamjon o'g'li	
AKSIYADORLIK JAMIYATLARI INVESTITSIYA LOYIHALARINI MOLIYALASHTIRISH AMALIYOTINING TAHLILI.....	485
Jumaniyazova Feruza Rajabovna	
O'ZBEKISTONDA XALQARO EKOLOGIK MAJBURIYATLARNI AMALGA OSHIRISHDA DAVLAT SIYOSATI VA HUQUQIY JAVOBGARLIKNI TAKOMILLASHTIRISH MUAMMOLARI	491
G'ayratullayev Noxidxon Iqboljon o'g'li	
XIZMAT KO'RSATISH KORXONALARIDA RAQAMLASHTIRISH ORQALI TIJORAT RISKLARINI KAMAYTIRISH IMKONIYATLARI	495
Sharipova Gulmira Toxirovna	
MINTAQAVIY RIVOJLANISH TUSHUNCHASI, MAZMUNI VA TARKIBIY ELEMENTLARI.....	502
Rasuljonov Abu Bakr Abdumalik o'g'li	
SANOAT KORXONALARIDA INVESTITSION FAOLIYATNING IQTISODIY MOHIYATI VA INVESTITSION LOYIHALARNI SHAKLLANTIRISH ASOSLARI	507
Sarimsaqov Sherzod Xamidovich	
DAVLAT QIMMATLI QOG'OZLARI MUOMALASI VA ULARNING DAROMADLILIK XUSUSIYATLARINING MOLIYA BOZORI DINAMIKASIGA TA'SIRI.....	512
Xushvaqov Islombek Muxammadi o'g'li	
KICHIK BIZNESNI MOLIYAVIY QO'LLABQUVVATLASH TIZIMINI RIVOJLANTIRISH ORQALI TADBIRKORLIK FAOLLIGINI OSHIRISH.....	518
Kamoldinov Davronbek Ikromjon o'g'li	
O'ZBEKISTONDA TIBBIY TA'LIMNING RAQAMLI TRANSFORMATSIYASI: GORIZONTAL MODEL VA 2026-YILGACHA RIVOJLANISH PROGNOZI.....	522
Nazarov Baxrom Mustafayevich	
QURILISH XIZMATLARI BOZORINING IQTISODIY MOHIYATI, MAZMUNI VA XIZMATLAR IQTISODIYOTIDAGI O'RNI	529
Shakarov Davron Ulashboyevich	
QISHLOQ JOYLARDA "AQLLI AGROTURIZM" VA RAQAMLI GEOAXBOROT TEKNOLOGIYALARINI RIVOJLANTIRISHNING IQTISODIY-INNOVATSION MODELLARI	537
Eshimova Sevinch Baxtiyor qizi	
ATMOSFERA IFLOSLANISHINING QISHLOQ XO'JALIGI HOSILDORLIGIGA TA'SIRI: HUDUDIY STATISTIKA ASOSIDAGI PANEL TAHLILI VA METODOLOGIK MUAMMOLAR.....	542
Eshpulatov Dostonbek Boxodir o'g'li	



KORXONALARNING STRATEGIK RIVOJLANISHINI BOSHQARISHNING NAZARIY-USLUBIY ASOSLARINI TAKOMILLASHTIRISH	556
Rasulov Baxtiyor Bahodirovich	
OLIY TA'LIM TIZIMIDA PROFESSOR-O'QITUVCHILAR RESURSI TAQSIMOTI: TALABA-O'QITUVCHI NISBATINING TOIFAVIY TAHLILI VA DIFFERENSIAL TARTIBGA SOLISH MASALALARI	561
Mamajonova Mukhlisakhon Muzaffar qizi	
TO'QIMACHILIK SANOATI IQTISODIY SALOHİYATINING ASOSIY DETERMINANTLARI: XORIJIY TAJRIBA VA O'ZBEKISTON UCHUN USTUVOR YO'NALISHLAR.....	567
Yuldashev G'olibjon Turgunovich	
СТРАТЕГИЧЕСКИЕ МЕХАНИЗМЫ УПРАВЛЕНИЯ УСТОЙЧИВЫМ РАЗВИТИЕМ СОВРЕМЕННЫХ ОРГАНИЗАЦИЙ	576
Абдуллаева Одинахон Гайратжон қизи	
BO'LAJAK MUTAXASSISLARNI BOSHQARUV FAOLIYATIGA TAYYORLASH MUAMMOSINING ILMIY-NAZARIY TAHLILI.....	583
Akramov Izzat Ikromovich	
Rahmatov Shuxrat Axadovich	
ESG DISCLOSURE IN UZBEKISTAN'S STATE-OWNED ENTERPRISES: A REVIEW OF 2023 SUSTAINABILITY REPORTS.....	588
Zamira Ataniyazova	
TO'QIMACHILIK SANOATI KORXONALARIDA XODIMLARNING SHAXSIY BOSHQARUVINI TASHKIL ETISHNI TAKOMILLASHTIRISH	594
Djumaniyazova Jamila Davronovna	
SURXONDARYO VILOYATIDA TURIZM INFRATUZILMASIGA INVESTITSİYALARNI JALB ETISH HOLATI VA RIVOJLANISH TENDENSIYALARI.....	599
Omonova Nigora Bahodir qizi	
EKSPORTYOR SANOAT KORXONALARIDA MARKETING STRATEGIYASINI TAKOMILLASHTIRISHNING TASHKILIY-IQTISODIY MEXANIZMI	606
Shoxida Ibadullayeva	
TASHQI SAVDODA VALYUTA NAZORATINING AYRIM TALABLARINI TAKOMILLASHTIRISH ORQALI MAMLUKAT EKSPORT SALOHİYATINI OSHIRISH	612
Israilov Avazbek Rustam o'g'li	
NAMANGAN VILOYATI HUDUDLARINING IQTISODIY RIVOJLANISHINI BOSHQARISH SAMARADORLIGINI OSHIRISHNING INNOVATSION MEXANIZMLARI	624
Ibrogimov Sherzodbek Xalimjon o'g'li	
TRANSPORT SOHASIDA AYOLLAR BANDLIGINI TA'MINLASHNING INTEGRATSIYALASHGAN BOSHQARUV MODELINI TAKOMILLASHTIRISH HAMDA AYOLLARNING IQTISODIY HOLATIGA TA'SIRINI BAHOLASH: RIDE-HAILING (RAQAMLI PLATFORMALAR ORQALI YO'LOVCHI TASHISH) XIZMATLARI MISOLIDA.....	628
Abdukarimova Dilnozaxon Mamurjon qizi	
KICHIK BIZNESDA ISHLAB CHIQARISH RESURLARIDAN SAMARALI FOYDALANISHNING NAZARIY-METODOLOGIK ASOSLARI	635
Kaypnazarova Gulshad Xojamuratovna	
KOMMUNAL XO'JALIKLARNI SAMARALI BOSHQARISHNING IQTISODIYOT RIVOJIDAGI O'RNI.....	640
Mardanova Mohidil Otabek qizi	
INTENSIV BOG'DORCHILIKNI RIVOJLANTIRISHDA INNOVATSION AGROTEKNOLOGIYALARNING AHAMIYATI	645
Kahorov Erkin Azizjonovich	
Xolmuminov Shuxrat Shayzakovich	
OLIY TA'LIM MUASSASALARIDA RAQAMLI HR-MENEJMENT TIZIMINI JORIY ETISHNING TASHKILIY-IQTISODIY MEXANIZMLARI.....	653
Haqqulov Yunusjon Abdiravufovich	



MINTAQA IQTISODIYOTINI BARQAROR RIVOJLANTIRISHDA QAYTA TIKLANUVCHI ENERGIYA MANBALARIDAN FOYDALANISHNING ILMIY-NAZARIY JIHATLARI	658
Erdanayev Behzod Abdumalikovich	
SURXONDARYO VILOYATIDA YASHIL IQTISODIYOT ASOSIDA AHOLI FAROVONLIGINI OSHIRISH YO'LLARI	662
Choriyeva Muattar Sharafiddin qizi	
SURXONDARYO VILOYATIDA UY XO'JALIKLARINI MOLIYALASHTIRISHNING HOZIRGI HOLATI VA RIVOJLANISH TENDENSIYALARI.....	667
Odilov Umid Abduxalimovich	
TRADE OPENNESS AND ECONOMIC COMPETITIVENESS IN DEVELOPING ECONOMIES: A PANEL DATA ANALYSIS WITH POLICY IMPLICATIONS FOR UZBEKISTAN.....	672
Marjona Toshniyozova	



TRADE OPENNESS AND ECONOMIC COMPETITIVENESS IN DEVELOPING ECONOMIES: A PANEL DATA ANALYSIS WITH POLICY IMPLICATIONS FOR UZBEKISTAN

Marjona Toshniyozova

Master student, University of World Economy and Diplomacy

E-mail: marjonatoshniyozovaa@gmail.com

Supervisor: Bekmurodova F.A

PhD, University of world economy and diplomacy (UWED)

ORCID: 0009-0001-1843-9519

Abstract: This article presents the core empirical component of a broader research on trade policy and economic competitiveness, focusing on the causal relationship between trade policy instruments and manufacturing competitiveness in developing economies. Using a balanced panel of six countries (China, Turkey, Indonesia, India, Malaysia, and Vietnam) over 2004–2023 (119 observations), a Fixed Effects model with White cross-section (period cluster) robust standard errors is estimated, selected over a Random Effects alternative by the Hausman specification test ($\chi^2 = 1025.36$, $p < 0.001$). The robust model explains 91.78% of the variance in manufacturing value added ($F = 120.61$, $p < 0.001$). Trade openness is the strongest positive determinant ($\beta = 0.098$, $p < 0.01$), while GDP per capita is negatively significant ($\beta = -0.0003$, $p < 0.01$), consistent with structural transformation theory; tariff rates, FDI inflow, and tertiary school enrollment are statistically insignificant. Building on these findings and the comparative institutional experiences of China and Turkey, the article derives policy recommendations for Uzbekistan, emphasizing WTO accession, rationalized (rather than blanket) tariff protection, efficiency-seeking FDI, and targeted industrial upgrading.

Keywords: trade policy, manufacturing competitiveness, panel data, fixed effects, trade openness, global value chains, Uzbekistan.

Annotatsiya: Ushbu maqolada savdo siyosati va iqtisodiy raqobatbardoshlikka bag'ishlangan kengroq tadqiqotning eng muhim empirik qismi taqdim etiladi — rivojlanayotgan iqtisodiyotlarda savdo siyosati vositalari bilan ishlab chiqarish raqobatbardoshligi o'rtasidagi sabab-oqibat bog'liqligi tahlil qilinadi. 2004–2023-yillarni qamrab olgan olti mamlakat (Xitoy, Turkiya, Indoneziya, Hindiston, Malayziya va Vetnam) bo'yicha muvozanatlashgan panel ma'lumotlar (119 kuzatuv) asosida, Hausman spetsifikatsiya testi ($\chi^2 = 1025.36$, $p < 0.001$) natijalariga ko'ra Tasodifiy Ta'sirlar modeli o'rniga Doimiy Ta'sirlar (Fixed Effects) modeli tanlandi va u White kesim-davr klasterli mustahkam standart xatolar bilan qayta baholandi. Yakuniy model ishlab chiqarish qo'shilgan qiymatidagi o'zgaruvchanlikning 91,78 foizini tushuntiradi ($F = 120.61$, $p < 0.001$). Savdo ochiqqligi eng kuchli musbat omil bo'lib chiqdi ($\beta = 0.098$, $p < 0.01$), aholi jon boshiga YaIM esa manfiy va statistik ahamiyatli ko'rsatkichga ega ($\beta = -0.0003$, $p < 0.01$), bu tarkibiy transformatsiya nazariyasiga mos keladi; boj stavkalari, to'g'ridan-to'g'ri xorijiy investitsiyalar (TXI) va oliy ta'lim qamrovi statistik jihatdan ahamiyatsiz. Xitoy va Turkiyaning institutsional tajribasi asosida O'zbekiston uchun JSTga a'zo bo'lish, boj tariflarini oqilona tartibga solish, samaradorlikka yo'naltirilgan TXIni jalb qilish va maqsadli sanoat modernizatsiyasi bo'yicha tavsiyalar ishlab chiqiladi.

Kalit so'zlar: savdo siyosati, ishlab chiqarish raqobatbardoshligi, panel ma'lumotlar, doimiy ta'sirlar modeli, savdo ochiqqligi, global qiymat zanjirlari, O'zbekiston.

Аннотация: В данной статье представлена ключевая эмпирическая часть диссертационного исследования по торговой политике и экономической конкурентоспособности, посвящённая причинно-следственной связи между инструментами торговой политики и конкурентоспособностью обрабатывающей промышленности в развивающихся странах. На сбалансированной панели данных по шести странам (Китай, Турция, Индонезия, Индия, Малайзия и Вьетнам) за 2004–2023 гг. (119 наблюдений) была построена модель фиксированных эффектов с устойчивыми стандартными ошибками



White (кластеризация по периодам), выбранная по результатам теста Хаусмана ($\chi^2 = 1025.36$, $p < 0.001$) в качестве более состоятельной альтернативы модели случайных эффектов. Итоговая модель объясняет 91,78% вариации добавленной стоимости обрабатывающей промышленности ($F = 120.61$, $p < 0.001$). Открытость торговли выступает наиболее сильным положительным фактором ($\beta = 0.098$, $p < 0.01$), тогда как ВВП на душу населения оказывает статистически значимое отрицательное влияние ($\beta = -0.0003$, $p < 0.01$), что согласуется с теорией структурной трансформации; тарифные ставки, приток ПИИ и охват высшим образованием статистически незначимы. На основе полученных результатов и сравнительного институционального опыта Китая и Турции сформулированы рекомендации для Узбекистана, включая присоединение к ВТО, рационализацию таможенно-тарифной защиты, привлечение ПИИ, ориентированных на эффективность, и целевую модернизацию промышленности.

Ключевые слова: торговая политика, конкурентоспособность обрабатывающей промышленности, панельные данные, модель фиксированных эффектов, открытость торговли, глобальные цепочки создания стоимости, Узбекистан.

INTRODUCTION

Trade policy has become a central lever of national competitiveness rather than a peripheral instrument of border management. Countries that have strategically leveraged trade integration—China through export-led industrialization and Turkey through customs-union alignment with the European Union—have substantially upgraded their industrial and export competitiveness over the past three decades [1], [2], [3]. Yet the outcomes of trade liberalization across developing economies remain uneven: some countries diversified and upgraded their manufacturing base, while others remained locked into low-productivity, commodity-dependent production [5], [6].

This divergence raises a central empirical question: which trade-policy and structural variables actually drive manufacturing competitiveness, and which are merely correlated with it? Addressing this question is a prerequisite for evidence-based policy design in economies such as Uzbekistan, which is simultaneously liberalizing its trade regime and seeking WTO accession.

This article isolates and reports the empirical core of a larger research examining trade policy and competitiveness in China, Turkey, and Uzbekistan. It specifies and estimates a panel-data model of manufacturing value added across six developing economies, subjects it to full diagnostic testing, and translates the statistically robust findings into concrete policy directions for Uzbekistan.

REVIEW OF LITERATURE ON THE SUBJECT

Classical and endogenous growth theory holds that trade openness raises productivity through scale economies, competition, and technology spillovers [2]. Rodrik [1], [12] cautions that liberalization alone does not guarantee competitiveness gains and may instead trigger premature deindustrialization if not paired with industrial policy. Freund and Bolaky [3] find that trade openness raises income only in economies with flexible domestic regulation, implying that the effect of openness is conditional on complementary institutional capacity. Olson's collective-action theory [8] further explains why tariff protection persists politically even where its economic payoff is weak: protectionist rents are concentrated among a small, well-organized coalition of producers, while the costs are diffused across consumers. This study contributes to that literature by jointly estimating trade openness alongside tariffs, FDI, GDP per capita, and education in a rigorously diagnosed panel framework, rather than relying on any single indicator in isolation.

RESEARCH METHODOLOGY

The empirical analysis uses an unbalanced-free (balanced) panel of six developing economies—China, Turkey, Indonesia, India, Malaysia, and Vietnam—observed annually from 2004 to 2023 ($N=6$, $T=20$, 119 observations). Manufacturing Value Added as a percentage of GDP (MVA) is the dependent variable, proxying structural depth and the capacity to move beyond primary-commodity dependence. Table 1 defines the explanatory variables (Table 1).

Table 1. Definition of Model Variables¹

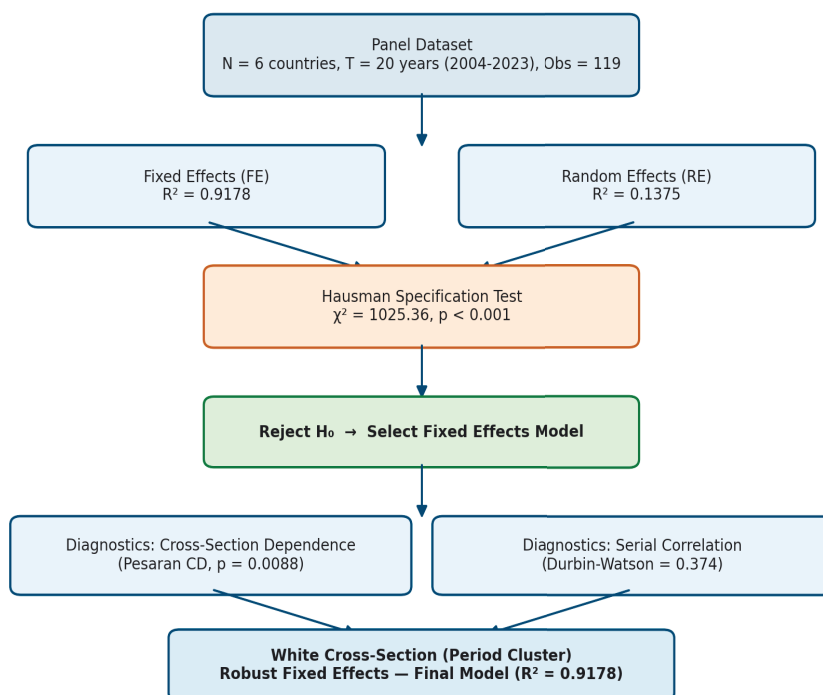
Variable	Symbol	Definition
Manufacturing value added (% GDP)	MVA	Dependent variable; proxy for manufacturing competitiveness
Trade openness	OPEN	(Exports + Imports) / GDP, %
Weighted mean tariff rate	TARIFF	Applied tariff rate, %
FDI inflow	FDI	Net FDI inflow, % of GDP
GDP per capita	GDPc	GDP per capita, constant US\$
Tertiary school enrollment	EDU	Gross tertiary enrollment ratio, %

The baseline specification is:

$$MVA_{it} = \beta_0 + \beta_1 GDPc_{it} + \beta_2 OPEN_{it} + \beta_3 EDU_{it} + \beta_4 FDI_{it} + \beta_5 TARIFF_{it} + \mu_{it},$$

where $\mu_{it} = \alpha_i + v_{it}$, with α_i the unobserved country-specific effect and v_{it} the idiosyncratic error. Both Fixed Effects (FE) and Random Effects (RE) estimators were computed in EViews 14, and the Hausman specification test was applied under $H_0: Cov(\alpha_i, X_{it})=0$ (i.e., RE is consistent and efficient). Figure 1 summarizes the full estimation pipeline, from raw panel data through model selection, diagnostic testing, and final robust re-estimation (Figure 1).

Fig. 1. Model Selection and Estimation Procedure

Figure 1. Model Selection and Estimation Procedure²

The Hausman test rejected H_0 decisively ($\chi^2=1025.36$, $p<0.001$), indicating that country-specific effects are correlated with the regressors and that RE is inconsistent; FE was therefore adopted. Post-estimation diagnostics on the FE residuals detected cross-sectional dependence (Pesaran CD=0.0088; Breusch–Pagan LM<0.0001) and positive first-order serial correlation (Durbin–Watson=0.374). Left uncorrected, these violations would compress standard errors and inflate t-statistics, producing spurious significance. The FE model was therefore re-estimated with White cross-section (period cluster) robust standard errors, which jointly correct for heteroskedasticity, cross-sectional dependence, and serial correlation.

¹ Source: Compiled by the author.

² Source: Compiled by the author.



ANALYSIS AND RESULTS

Table 2 contrasts the FE and RE estimates prior to model selection. The stark divergence in sign, significance, and explanatory power across estimators is itself evidence of the omitted-variable bias that the Hausman test formally detects (Table 2; Figure 2).

Table 2. Comparison of FE and RE Estimates (pre-selection)³

Variable	Fixed Effects (FE)	Random Effects (RE)
GDP per capita	Negative, significant	Positive, significant
Trade openness	Positive, significant	Insignificant
School enrollment	Insignificant	Negative, significant
FDI inflow	Negative, significant	Positive, significant
Tariff rate	Insignificant	Negative, significant
R-squared	0.9178	0.1375

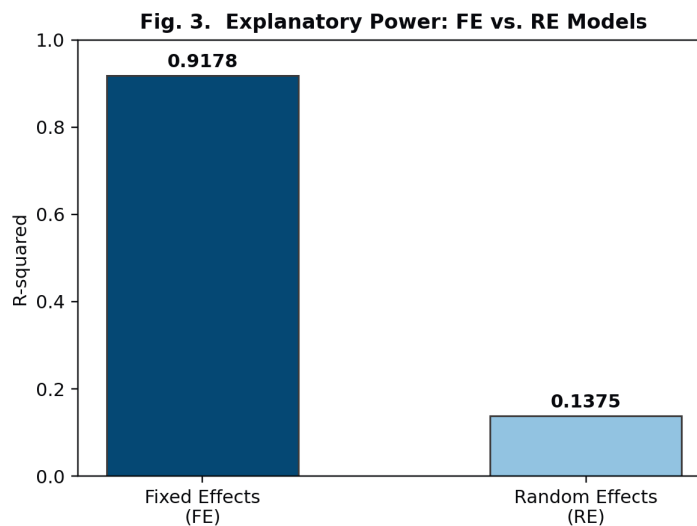


Figure 2. Explanatory Power: FE vs. RE Models⁴

Table 3 reports the final, diagnostic-corrected Robust Fixed Effects model, which is the specification carried forward into the policy analysis (Table 3; Figure 3).

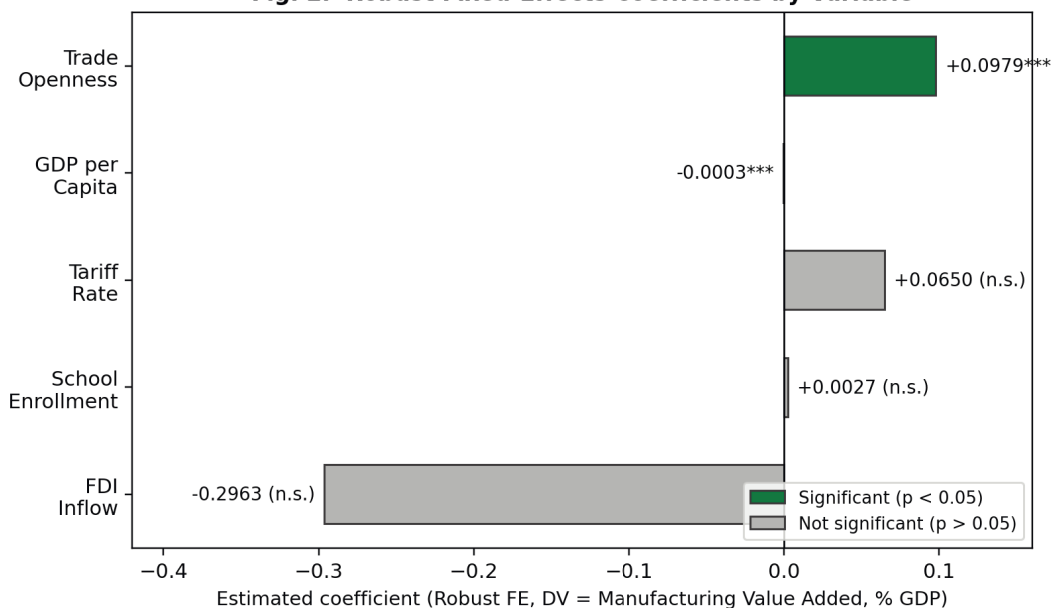
Table 3. Robust Fixed-Effects Regression Results (DV: Manufacturing Value Added, % GDP)⁵

Variable	Coeff.	Robust S.E.	t-Stat	p-value	Sig.
Constant	15.8881	1.1412	13.922	0.0000	***
GDP per capita	-0.000335	0.000058	-5.813	0.0000	***
Trade openness	0.097866	0.006867	14.253	0.0000	***
School enrollment	0.002710	0.009334	0.290	0.7747	n.s.
FDI inflow	-0.296282	0.186724	-1.587	0.1291	n.s.
Tariff rate	0.064957	0.045710	1.421	0.1715	n.s.

³ Source: Compiled by the author.

⁴ Source: Compiled by the author.

⁵ Source: Compiled by the author. Notes: *** p<0.01; n.s. = not significant at the 10% level. R²=0.9178; Adjusted R²=0.9102; F(5,113)=120.61, p<0.001.

**Fig. 2. Robust Fixed-Effects Coefficients by Variable****Figure 3. Robust FE Coefficients by Variable, with Significance⁶**

Two variables retain significance after robust correction. Trade openness has the largest and most robust positive effect ($\beta=0.0979$, $p<0.01$): a one-percentage-point increase in trade openness raises manufacturing value added by approximately 0.098 percentage points, holding other factors constant. GDP per capita is negative and significant ($\beta=-0.000335$, $p<0.01$). Tariff rate, FDI inflow, and school enrollment lose (or never attain) significance once cross-sectional dependence and serial correlation are properly accounted for.

The dominance of trade openness over tariff protection is consistent with the comparative institutional evidence from China and Turkey examined in the wider research. China's liberalized average tariff (2.05% in 2023) is paired with domestic credit-allocation and subsidy mechanisms that substitute for border protection, while Turkey's EU Customs Union membership eliminated industrial tariffs outright, shifting competitiveness policy toward investment incentives and export-credit support. In both cases, growth in manufacturing competitiveness tracks integration and market access rather than the tariff schedule itself—precisely the pattern the pooled regression captures across the six-country sample.

The negative GDP-per-capita coefficient reflects structural transformation: as income rises, factors of production migrate toward services, a pattern documented by Rodrik as 'premature deindustrialization' when it occurs before an economy has reached advanced-country income levels [12]. The insignificance of FDI is consistent with a large share of inflows in the sample being market-seeking or extractive rather than manufacturing-linked, so that raw FDI volume—absent conditions on local sourcing or technology transfer—does not reliably raise manufacturing value added. Similarly, the insignificance of tertiary enrollment suggests an institutional mismatch between the supply of general higher education and the specific technical skills that manufacturing employers demand.

Methodologically, the significant cross-sectional dependence detected in the panel ($p<0.05$) demonstrates that these six economies are not statistically independent units: common global shocks, shared supply chains, and regional spillovers transmit across borders. Any policy analysis—including one focused solely on Uzbekistan—must therefore treat external shock transmission as a structural feature of the environment, not a residual nuisance.

CONCLUSIONS AND SUGGESTIONS

Because trade openness is the most robust, policy-relevant determinant identified in the model, Uzbekistan's competitiveness strategy should prioritize deeper integration over defensive protection. Table 4 translates each statistically grounded finding into a concrete instrument and objective (Table 4).

⁶ Source: Compiled by the author.

Table 4. Empirical Findings Mapped to Policy Instruments for Uzbekistan⁷

Empirical Finding	Policy Instrument	Target Objective
Trade openness: +0.098, $p < 0.01$	WTO accession; customs digitization; reduced non-tariff barriers	Raise export-to-GDP ratio; lower transaction costs
GDP per capita: -0.0003, $p < 0.01$	Fiscal incentives for machinery, electronics, chemicals	Prevent premature deindustrialization
Tariff rate: $p > 0.10$ (n.s.)	Lower input tariffs on capital goods and technology	Modernize production lines instead of protecting incumbents
FDI inflow: $p > 0.10$ (n.s.)	Tie incentives to domestic sourcing and technology transfer	Convert FDI into backward linkages, not enclaves
Cross-section dependence: $p < 0.05$	Export-market diversification (EU GSP+, regional corridors)	Build resilience to transmitted external shocks

In practice, this implies: (i) completing WTO accession to lock in predictable, non-discriminatory market access; (ii) lowering input tariffs on intermediate and capital goods rather than defending finished-goods protection, since the tariff-rate coefficient is statistically indistinguishable from zero; (iii) redesigning FDI promotion around efficiency-seeking investors and conditioning incentives on local-sourcing and technology-transfer commitments, given the insignificant and potentially enclave-driven effect of undifferentiated FDI; (iv) reorienting tertiary and vocational education toward Industry 4.0 and dual-training models to close the skills-manufacturing mismatch implied by the insignificant education coefficient; and (v) diversifying export destinations to manage the cross-sectionally transmitted external risk documented in the diagnostics.

This article presented the empirical core of a research on trade policy and economic competitiveness, estimating a diagnostically corrected panel model across six developing economies over two decades. Trade openness—not tariff protection or undifferentiated FDI—emerges as the single most robust determinant of manufacturing competitiveness, while rising income is associated with structural drift away from manufacturing. For Uzbekistan, the evidence favors an offensive, integration-led competitiveness strategy: WTO accession, rationalized tariff structures, technology-linked FDI screening, and skills realignment, rather than reliance on border protection alone.

REFERENCES:

1. D. Rodrik, *One Economics, Many Recipes: Globalization, Institutions, and Economic Growth*. Princeton, NJ, USA: Princeton Univ. Press, 2007.
2. G. M. Grossman and E. Helpman, *Innovation and Growth in the Global Economy*. Cambridge, MA, USA: MIT Press, 1991.
3. C. Freund and B. Bolaky, "Trade, regulations, and income," *Journal of Development Economics*, vol. 87, no. 2, pp. 309–321, 2008.
4. World Bank, *World Development Report 2020: Trading for Development in the Age of Global Value Chains*. Washington, DC, USA: World Bank, 2020.
5. World Trade Organization, *World Trade Statistical Review 2023*. Geneva, Switzerland: WTO, 2023.
6. United Nations Conference on Trade and Development (UNCTAD), *Trade and Development Report 2023*. Geneva, Switzerland: United Nations, 2023.
7. OECD, *Trade Policy and Industrial Development*. Paris, France: OECD Publishing, 2019.
8. M. Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA, USA: Harvard Univ. Press, 1965.
9. J. A. Hausman, "Specification tests in econometrics," *Econometrica*, vol. 46, no. 6, pp. 1251–1271, Nov. 1978.
10. M. H. Pesaran, "General diagnostic tests for cross-section dependence in panels," *Cambridge Working Papers in Economics*, no. 0435, Univ. of Cambridge, Cambridge, U.K., 2004.
11. J. M. Wooldridge, *Econometric Analysis of Cross Section and Panel Data*, 2nd ed. Cambridge, MA, USA: MIT Press, 2010.
12. D. Rodrik, "Premature deindustrialization," *Journal of Economic Growth*, vol. 21, no. 1, pp. 1–33, 2016.

⁷ Source: Compiled by the author.



IQTISODIYOT & TARAQQIYOT

Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

Ingliz tili muharriri: Feruz HAKIMOV

Musahhih: Zokir ALIBEKOV

Sahifalovchi va dizayner: Hasan MAQSUDOV

2026. № 8/1

© Materiallar ko'chirib bosilganda "Yashil" iqtisodiyot va taraqqiyot" jurnali manba sifatida ko'rsatilishi shart. Jurnalda bosilgan material va reklamalardagi dalillarning aniqligiga mualliflar ma'sul. Tahririyat fikri har vaqt ham mualliflar fikriga mos kelamasligi mumkin. Tahririyatga yuborilgan materiallar qaytarilmaydi.

Mazkur jurnalda maqolalar chop etish uchun quyidagi havolalarga maqola, reklama, hikoya va boshqa ijodiy materiallar yuborishingiz mumkin.
Materiallar va reklamalar pullik asosda chop etiladi.

El.Pochta: sq143235@gmail.com

Bot: @iqtisodiyot_77

Tel.: 93 718 40 07

Jurnalga istalgan payt quyidagi rekvizitlar orqali obuna bo'lishingiz mumkin. Obuna bo'lgach, @iqtisodiyot_77 telegram sahifamizga to'lov haqidagi ma'lumotni skrinshot yoki foto shaklida jo'natishingizni so'raymiz. Shu asosda har oygi jurnal yangi sonini manzilingizga jo'natamiz.

"Yashil" iqtisodiyot va taraqqiyot" jurnali 03.11.2022-yildan O'zbekiston Respublikasi Prezidenti Adminstratsiyasi huzuridagi Axborot va ommaviy kommunikatsiyalar agentligi tomonidan №566955 reyestr raqami tartibi bo'yicha ro'yxatdan o'tkazilgan.

Litsenziya raqami: №046523. PNFL: 30407832680027

Manzilimiz: Toshkent shahar, Mirzo Ulug'bek tumani
Kumushkon ko'chasi, 26-uy.



Jurnal sayti: <https://yashil-iqtisodiyot-taraqqiyot.uz>