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TASHKENT STATE UNIVERSITY OF ECONOMICS

2030 | «UZBEKISTAN» STRATEGY

GLOBAL VA MILLIY IQTISODIYOT TRENDLARI: "O'ZBEKISTON - 2030" STRATEGIYASI

CONFERENCE "GLOBAL AND NATIONAL ECONOMIC TRENDS: 'UZBEKISTAN-2030' STRATEGY"

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## RAQAMLI IQTISODIYOT VA AXBOROT TEKNOLOGIYALARI

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## RAQAMLI BIZNES MOLIYAVIY BOSHQARUVIDA «YASHIL» KORPORATIV HISOBLARNI QABUL QILISHNING ASOSIY AFZALLIKLARI



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**Annotatsiya:** ushbu maqolada raqamli biznes operatsiyalari doirasida ekologik barqaror amaliyotlarni korporativ buxgalteriya hisobiga kiritishning nazariy va amaliy afzalliklari atroflicha o'rganiladi. «Yashil» buxgalteriya kompaniyaning ekologik muammolarini kamaytirib, moliyaviy shaffoflikni kuchaytirishga va uzoq muddatli iqtisodiy barqarorlikka erishishga yordam beradi. Maqolada ekologik javobgarlikni korporativ hisobot tizimiga integratsiyalash orqali raqamli biznes faoliyatida innovatsion strategiyalarni qo'llash imkoniyatlari tahlil qilinadi. Shuningdek, raqamli texnologiyalar yordamida moliyaviy hisobotlarning ekologik barqarorlikka ta'siri va uning global amaliyotlar doirasidagi rolga alohida e'tibor qaratiladi.

**Kalit so'zlar:** raqamli biznes, ekologik barqarorlik, «yashil» buxgalteriya, moliyaviy shaffoflik, uzoq muddatli iqtisodiy samaradorlik, korporativ hisobot, ekologik iz, raqamli transformatsiya, innovatsion strategiyalar.

### KIRISH

Atrof-muhit barqarorligi tobora muhim ahamiyat kasb etayotgan bir davrda korxonalar ekologik boshqaruvga mos keladigan amaliyotlarni qabul qilish bosimiga duch kelmoqda. Atrof-muhitni hisobga olishni moliyaviy amaliyotga kiritishga qaratilgan «yashil» korporativ buxgalteriya kompaniyalarga moliyaviy boshqaruvni optimallashtirishda ushbu talablarni qondirish yo'lini taklif qiladi.

Hozirgi kunda raqamli iqtisodiyot va barqaror rivojlanish g'oyalari dunyo miqyosida keng tarqalmoqda. Korxonalar o'z faoliyatida nafaqat iqtisodiy samaradorlikka, balki ekologik mas'uliyatga ham e'tibor qaratishlari zarur bo'lmoqda. Shu nuqtai nazardan, «yashil» korporativ hisoblar tushunchasi raqamli biznesning moliyaviy boshqaruvi jarayonlarida muhim ahamiyat kasb etmoqda. «Yashil» hisoblar orqali korxonalar nafaqat moliyaviy ko'rsatkichlarini yaxshilaydi, balki atrof-muhitga ta'sirini ham nazorat qiladi va kamaytiradi.

### MAVZUGA OID ADABIYOTLAR SHARHI

So'nggi yillarda raqamli iqtisodiyotda «yashil» korporativ hisoblar jadal rivojlanmoqda, chunki barqaror rivojlanish va ekologik masalalarga e'tibor ortib bormoqda. Raqamli biznesda moliyaviy boshqaruvga «yashil» hisoblarni integratsiya qilish tashkilotlarga nafaqat moliyaviy samaradorlikni oshirish, balki ekologik mas'uliyatni ta'minlash imkonini ham beradi.

«Yashil» korporativ hisoblar atrof-muhitga ta'sirni baholash va ekologik jihatlarni hisobga olgan holda moliyaviy hisobotlarni shakllantirishni o'z ichiga oladi. «Yashil» korporativ hisobi tadqiqotlarida «yashil» hisoblarning iqtisodiy va ekologik foydalari tahlil qilingan bo'lib, moliyaviy boshqaruvda «yashil»

amaliyotlarni joriy qilish barqarorlik strategiyalarini yanada samarali qilishini ta'kidlaydi. Shuningdek, Davidoff va Hill «yashil» hisoblar orqali korxonalar atrof-muhitga ta'sirini kamaytirib, investorlar uchun jozibadorligini oshirishi mumkinligini qayd etadilar.

Raqamli biznesda «yashil» hisoblarni qabul qilish korxonalarining moliyaviy boshqaruvini soddalashtiradi va resurslardan samarali foydalanishni ta'minlaydi. Smits va Johnson tadqiqotlariga ko'ra, raqamli texnologiyalar yordamida ekologik ko'rsatkichlarni hisobga olish va monitoring qilish jarayoni osonlashadi, bu esa korxonalarining ekologik izini kamaytirishga yordam beradi. «Yashil» hisoblar, xususan, raqamli biznes modellarida moliyaviy va ekologik barqarorlikni ta'minlashda muhim ahamiyat kasb etadi.

«Yashil» buxgalteriya hisobining nazariy asoslarini xorijlik olimlar Pirs va Atkinson (1993) va El Serafi (1989) o'z tadqiqotlarida muhokama qilganlar. Ularning ishlardagi asosiy tanqidi shunda ediki, yalpi ichki mahsulot (YaIM) kabi an'anaviy makroiqtisodiy ko'rsatkichlar atrof-muhitning degradatsiyasi va tabiiy resurslarning yo'qolishini inobatga olmaydi. Bu esa mamlakatning iqtisodiy barqarorligi haqida noto'g'ri yoki cheklangan ma'lumot taqdim etishga olib keladi.

Pirs va Atkinson (1993) tomonidan taklif qilingan «Barqaror daromad» konsepsiyasi ana shu muammoni hal qilishga qaratilgan. Unda iqtisodiy o'sish darajasi shunday baholanadiki, tabiiy va ekologik resurslar zaxirasini kamaytirmasdan iste'mol qilish mumkin bo'lgan darajada bo'ladi. Bu konsepsiya zamonaviy iqtisodiy tahlillarda muhim bo'lgan «ekologik iz» (ecological footprint) va «atrof-muhit ko'rsatkichlari» (environmental indicators) kabi barqarorlik ko'rsatkichlariga asos bo'lib xizmat qiladi.

El Serafi (1989) esa «Foydalanuvchi xarajatlari» (user cost approach) deb nomlangan usulni taklif qilgan. Ushbu yondashuv tabiiy resurslar tugashining iqtisodiy qiymatini aniqlashga qaratilgan bo'lib, milliy daromad hisoblaridan tabiiy resurslar yo'qolish qiymatini chegirib tashlashni nazarda tutadi. Bu usul «ekologik tuzatilgan yalpi milliy mahsulot» (green-adjusted gross national product) ko'rsatkichini shakllantirishga imkon beradi va iqtisodiy faoliyatning atrof-muhitga va tabiiy resurslarga bo'lgan ta'sirini yaxshiroq baholash imkonini yaratadi.

Bundan tashqari, «yashil» buxgalteriya konsepsiyasini rivojlantirishda «ekologik kapital» (natural capital) va «ekologik tuzatilgan buxgalteriya» (environmentally adjusted accounting) kabi tushunchalar ham muhim ahamiyatga ega. Ular atrof-muhit va tabiiy resurslarning saqlanishi va samarali boshqarilishini inobatga olgan holda to'laqonli va barqaror iqtisodiy tahlillar olib borish imkonini yaratadi. Bunday yondashuvlar mamlakatlarning uzoq muddatli iqtisodiy barqarorligini ta'minlash uchun muhim vosita sifatida xizmat qiladi.

Yangi O'zbekiston islohotlarida sohaga barqaror rivojlanish siyosati doirasidagi muhim masala sifatida qaralmoqda. Xususan, «yashil» hisoblarning O'zbekiston korxonalaridagi ahamiyati va uni joriy qilish zarurati o'rganilmoqda. Jumladan, raqamli biznesda «yashil» hisoblarni kiritish nafaqat ichki bozor uchun, balki xalqaro standartlarga muvofiqlikni ta'minlashda ham muhim ahamiyatga egaligi tadqiq etilmoqda.

«Yashil» korporativ hisoblarni raqamli biznesning moliyaviy boshqaruviga integratsiya qilish nafaqat moliyaviy samaradorlikni oshirishga, balki ekologik mas'uliyatni ta'minlashga xizmat qiladi. «Yashil» hisoblar orqali korxonalar atrof-muhitga kamroq zarar etkazib, barqaror rivojlanishga hissa qo'shadilar. Bu esa, o'z navbatida, moliyaviy boshqaruvning raqamli biznesda ekologik izlanishlar bilan uyg'unlashgan holda rivojlanishiga olib keladi.

## **TADQIQOT METODOLOGIYASI**

Ushbu tadqiqot ishlarini amalga oshirishda ilmiy tadqiqot metodologiyasida keng qo'llaniladigan usullardan foydalanildi. Mavzuni o'rganishda umumiylikdan individuallikka va aksincha, deduksion yoki induksion usullardan foydalanish samara bergan bo'lsa, abstrakt-mantiqiy fikrlash usuli jarayonni tizimli tahlil qilishda muhim ahamiyat kasb etdi. Ilmiy tahlil jarayonida kuzatish, umumlashtirish, guruhlash va taqqoslash kabi usullar qo'llanilib, tahlil qilish jarayonida esa sintez va tahlil usullaridan keng foydalanildi.

## **TAHLIL VA NATIJALAR**

Raqamli texnologiyalar rivojlanishda davom etar ekan, ular barqaror amaliyotlarni kundalik biznes operatsiyalariga integratsiya qilish uchun yangi imkoniyatlar yaratmoqda. Ushbu maqolada raqamli biznes moliyaviy boshqaruvida «yashil» korporativ buxgalteriya hisobini qo'llashning asosiy afzalliklari ko'rib chiqilib, bu integratsiya qanday qilib ekologik va iqtisodiy natijalarni yaxshilashi mumkinligi yoritiladi.

Bugungi kunda butun dunyo mamlakatlari «yashil» iqtisodiyotga o'tish istiqbollarini belgilab, shunga mos ravishda strategik davlat dasturlarini qabul qilmoqda. «Yashil» iqtisodiyotga o'tishning o'ziga xos jihatlari mavjud bo'lib, ularning eng muhimi «yashil» menejment hisoblanadi. Shu boisdan iqtisodiyotning

barcha jabhalarini «yashil» boshqaruv asosida tashkil qilish va raqamli biznesning moliyaviy boshqaruviga bu tamoyillarni tatbiq etish zaruratga aylanmoqda.

- **Kengaytirilgan brend obro‘si va bozordagi farqlanish**

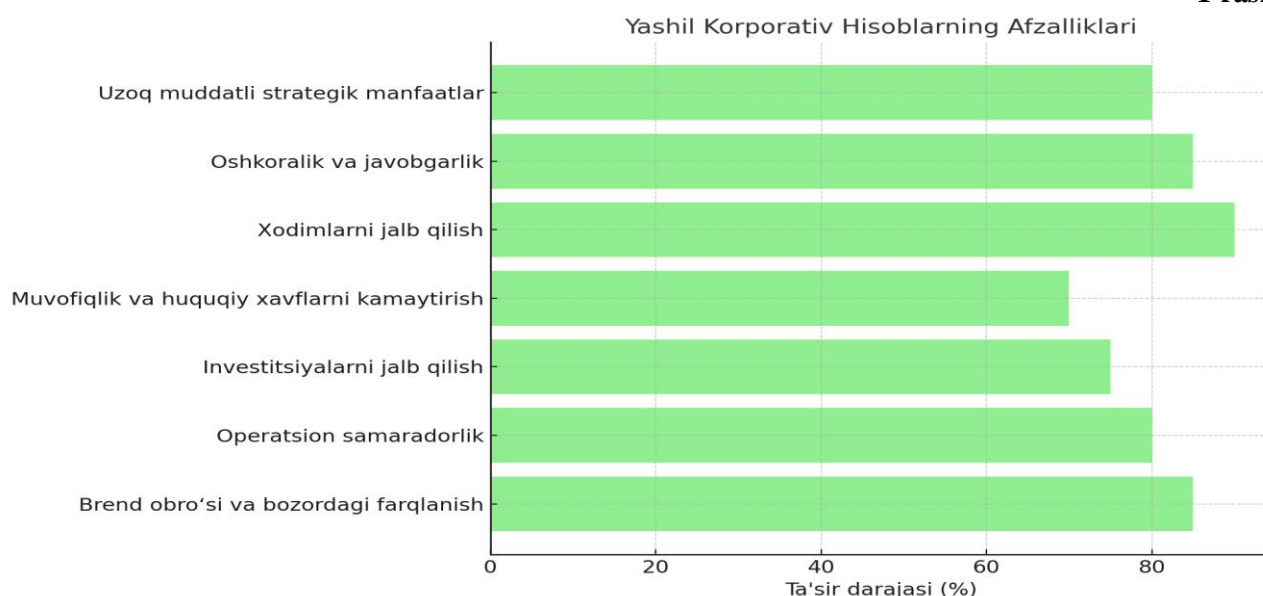
«Yashil» korporativ hisoblarni qabul qilish atrof-muhit barqarorligiga sodiqligini namoyish etish orqali biznesning brend obro‘cini sezilarli darajada oshirishi mumkin.

Bu kompaniyani raqobatbardosh bozorda farqlashi mumkin. Yaxshilangan brend imidji atrof-muhitga e’tiborli iste’molchilar va mijozlarni jalb qilishi, sodiqlikni oshirishi va bozor imkoniyatlarini kengaytirishi mumkin.

- **Operatsion samaradorlik**

«Yashil» korporativ hisoblar korxonalariga energiya samaradorligini oshirish, chiqindilarni kamaytirish va resurslardan optimal foydalanish orqali xarajatlarni kamaytirish imkoniyatini beradi. Energiya tejankor texnologiyalar va barqaror amaliyotlarga investitsiyalar kiritish natijasida nafaqat kommunal to‘lovlar qisqaradi, balki umumiy operatsion xarajatlar ham sezilarli darajada kamayadi. Bu uzoq muddatda korxonalarining moliyaviy samaradorligini oshiradi. Shuningdek, uzoq muddatli tejaslar moliyaviy ko‘rsatkichlarni yaxshilash bilan birga «yashil» texnologiyalarga dastlabki investitsiyalarni qoplashga ham yordam beradi (1-rasm):

1-rasm



- **Investitsiyalar va moliyalashtirishni jalb qilish**

Barqarorlik uchun kuchli ma’lumotlarga ega bo‘lgan korxonalar «yashil» fondlar va ijtimoiy mas’uliyatli investorlardan investitsiyalarni jalb qilish ehtimoli yuqori. «Yashil» korporativ hisoblar atrof-muhitga ta’sir bo’yicha hisobot berishda shaffoflik va javobgarlikni oshiradi, bu esa ishonchni kuchaytiradi. Shu bilan birga, «yashil» moliyalashtirish va investitsiya imkoniyatlariga kirish biznes o‘rnatishini rag‘batlantirishi va innovatsiyalarni qo‘llab-quvvatlashi mumkin.

- «Yashil» korporativ hisoblar atrof-muhitni muhofaza qilish qoidalari va standartlariga rioya qilishni engillashtiradi hamda jarimalar va huquqiy muammolar xavfini kamaytiradi. «Yashil» amaliyotlarni qo‘llaydigan korxonalar me’yoriy o‘zgarishlarga yaxshiroq moslashadi. Kengaytirilgan muvofiqlik huquqiy xavflarni minimallashtirishi va operatsion jarayonlarning uzluksizligini ta’minlashga yordam beradi.

- **Xodimlarni jalb qilish va ishga qabul qilishga ijobiy ta’sir**

Xodimlar barqarorlikni birinchi o‘ringa qo‘yadigan kompaniyalarda ishlash orqali tobora ko‘proq rag‘batlantirilmoqda. «Yashil» korporativ hisoblar xodimlarning ma’naviyatini oshirishi va atrof-muhitga javobgarlikni qadrlaydigan iste’dodlarni jalb qilishda muhim rol o‘ynaydi. Bu esa yanada samarali va sodiq ishchi kuchiga hissa qo‘shib, xodimlarni jalb qilish va yollash jarayonini yaxshilashga imkon beradi.

- **Kengaytirilgan oshkoralik va javobgarlik**

«Yashil» korporativ hisoblar batafsil hisobot berish va javobgarlik choralari orqali atrof-muhitga oid faoliyatning shaffofligini ta’minlaydi. Bu esa manfaatdor tomonlar va mijozlar o‘rtasida ishonchni

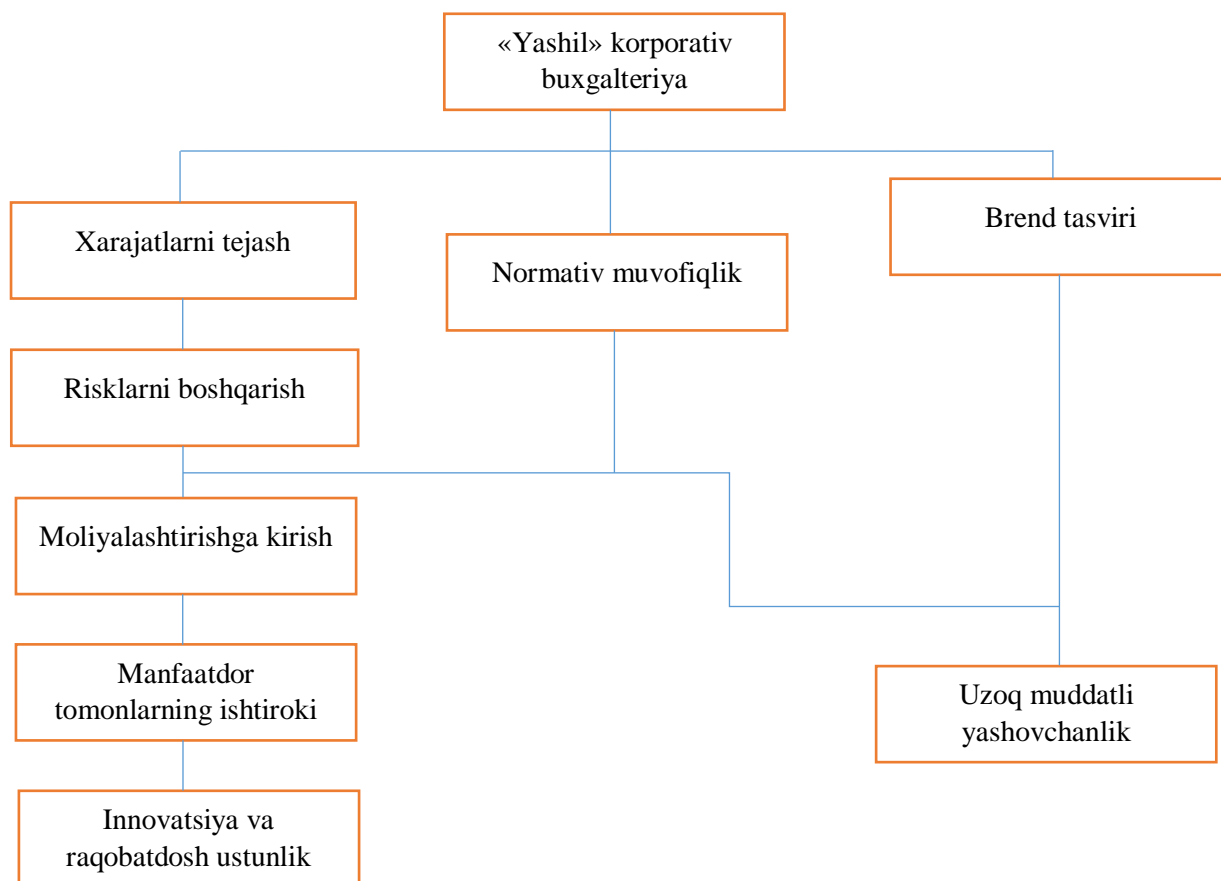
mustahkamlashga xizmat qiladi. Shaffof amaliyotlar nafaqat manfaatdor tomonlar bilan munosabatlarni mustahkamlaydi, balki umumiy ishonchni ham oshiradi, bu esa kompaniyaning barqarorlik maqsadlariga erishishida muhim omil bo'ladi.

• **Uzoq muddatli strategik manfaatlar**

• «Yashil» amaliyotlarni moliyaviy menejmentga integratsiyalash global barqarorlik tendensiyalari va iste'molchilarning taxminlariga moslashish orqali biznesni uzoq muddatli muvaffaqiyatga olib kelishi mumkin [5]. Barqaror amaliyotlar o'zgaruvchan bozor landshaftida biznesning barqarorligi va moslashuvchanligiga hissa qo'shadi. [3]

• **Raqamli biznesni moliyaviy boshqaruvida «yashil» korporativ hisoblarni qabul qilishning afzalliklari** quyidagilarni o'z ichiga oladi.

Umumiy qilib aytganda, «yashil» korporativ hisoblarni quyidagicha ifodalash mumkin(2-rasm)[2]:



**2-rasm. «Yashil» korporativ hisoblarni tasniflashi.**

• Raqamli biznesni moliyaviy boshqaruvida «yashil» korporativ hisoblarni qabul qilishning kamchiliklari:

❖ **Yuqori boshlang'ich xarajatlar va investitsiyalar**

❖ «Yashil» korporativ hisoblarni amalga oshirish ko'pincha texnologiyalar, infratuzilma va o'qitishga sezilarli darajada investitsiyalarni talab qiladi. Ushbu xarajatlar, ayniqsa, kichik va o'rta korxonalar uchun to'siq bo'lishi mumkin. Yuqori boshlang'ich xarajatlar ba'zi korxonalarni qisqa muddatli moliyaviy natijalarga ta'sir qiluvchi «yashil» amaliyotlarni qo'llashdan to'xtatib qo'yishi mumkin.

❖ **Murakkablik va ma'muriy yuk**

«Yashil» korporativ hisoblar moliyaviy boshqaruv va hisobot berishda qo'shimcha murakkablikni keltirib chiqarishi mumkin. Korxonalar o'zlarining buxgalteriya tizimlari va jarayonlarini ekologik ko'rsatkichlarga moslashtirish uchun moslashtirishlari kerak bo'lishi mumkin. Ma'muriy yukning ortishi resurslarni qiyinlashtirishi va maxsus tajriba talab qilishi mumkin.

❖ **«Yashil» moliyaviy mahsulotlarning cheklanganligi**



❖ «Yashil» moliyalashtirish va investitsiya mahsulotlarining mavjudligi cheklangan bo'lishi mumkin, ayniqsa rivojlanayotgan bozorlarda. Korxonalar barqarorlik maqsadlari uchun mos moliyaviy mahsulotlarga kirishda qiyinchiliklarga duch kelishlari mumkin. Cheklangan moliyaviy imkoniyatlar korxonalarining «yashil» tashabbuslarni samarali moliyalashtirish qobiliyatini cheklashi mumkin.

❖ **Normativ va standartlarning noaniqligi**

«Yashil» buxgalteriya hisobi uchun normativ-huquqiy baza va standartlar hali ham rivojlanmoqda. Korxonalar me'yoriy hujjatlarda noaniqlik va nomuvofiqliklarga duch kelishi mumkin, bu esa rioya qilish va hisobot berishni qiyinlashtirishi mumkin. Noaniq yoki o'zgaruvchan qoidalar chalkashliklarni keltirib chiqarishi va amaliyotlarga doimiy tuzatishlar kiritishni talab qilishi mumkin.

❖ **«Yashil» yuvish uchun potensial**

❖ «Yashil» yuvish xavfi mavjud bo'lib, korxonalar sezilarli o'zgarishlar kiritmasdan «yashil» amaliyotlarni qabul qilganday tuyulishi mumkin. Agar manfaatdor tomonlar sa'y-harakatlarni nosamimiy deb bilishsa, bu ishonch va ishonchni yo'qotishi mumkin 666. «Yashil» amaliyotlarning haqiqiy va samarali amalga oshirilishini ta'minlash obro'ga putur etkazmaslik uchun juda muhimdir.

❖ **Ixtisoslashgan ekspertiza zarurati**

❖ «Yashil» korporativ hisoblarni amalga oshirish va boshqarish ko'pincha ekologik hisob va barqarorlik amaliyotida maxsus bilim va tajribani talab qiladi. Korxonalar o'qitishga sarmoya kiritishi yoki mutaxassislarni yollashi kerak bo'lishi mumkin, bu esa xarajatlar va murakkablikni oshirishi mumkin.

❖ **Investitsiyalarning noaniq daromadliliigi**

«Yashil» korporativ hisoblarning moliyaviy foydalari darhol ko'rinmasligi mumkin. Ayniqsa, yangi yoki tasdiqlanmagan «yashil» texnologiyalar uchun investitsiyalarning daromadliliigi noaniq bo'lishi mumkin. Korxonalar potensial uzoq muddatli foydani qisqa muddatli moliyaviy daromadlarning noaniqligi bilan muvozanatlashi kerak.

«Yashil» korporativ buxgalteriya hisobini qabul qilish raqamli biznes muhitida tobora ko'proq strategik ustunlik sifatida qaralmoqda. Raqamli vositalar va texnologiyalar ushbu o'tishda hal qiluvchi rol o'ynaydi, bu esa kompaniyalarga atrof-muhitga ta'sirini yanada samaraliroq kuzatish va boshqarish imkonini beruvchi real vaqtda ma'lumotlarni taqdim etadi. Misol uchun, ilg'or dasturiy ta'minot resurslardan foydalanish, uglerod chiqindilari va chiqindilarni ishlab chiqarishni kuzatishi mumkin, bu esa yanada barqaror biznes amaliyotlarini boshqaradigan tushunchalarni taqdim etadi [7].

Bundan tashqari, raqamli platformalar shaffof barqarorlik hisobotini osonlashtiradi, bu nafaqat tartibga soluvchi talablarni qondirishga yordam beradi, balki manfaatdor tomonlar bilan ishonchni mustahkamlaydi.

## **XULOSA VA TAKLIFLAR**

«Yashil» korporativ hisoblar iqtisodiy samaradorlikni oshirish, tartibga solish talablariga rioya qilishni yaxshilash va investitsiyalarni jalb qilish orqali raqamli biznes uchun muhim afzalliklarni taqdim etadi. Ushbu amaliyotlarning integratsiyasi barqaror rivojlanishni qo'llab-quvvatlaydi va moliyaviy natijalarni yaxshilashga yordam beradi. «Yashil» korporativ hisoblardan foydalangan holda raqamli biznes moliyaviy boshqaruvining afzalliklari brend obro'sini oshirish, xarajatlarni tejash, investitsiyalarni jalb qilish, tartibga rioya qilish, xodimlarga ijobiy ta'sir, shaffoflik va uzoq muddatli strategik imtiyozlarni o'z ichiga oladi [8].

Shu bilan birga, yuqori boshlang'ich xarajatlar, murakkablik, cheklangan moliyaviy mahsulotlar, tartibga soluvchi noaniqlik, potensial «yashil» yuvish, ixtisoslashtirilgan ekspertiza zarurati va investitsiyalarning noaniq daromadliliigi kabi kamchiliklarni ham hisobga olish kerak.

Foydalarni maksimal darajada oshirish va muammolarni yumshatish uchun korxonalar o'zlarining «yashil» korporativ buxgalteriya strategiyalarini diqqat bilan rejalashtirishlari, mutaxassislardan maslahat olishlari va haqiqiy va samarali barqarorlik amaliyotlarini ta'minlash uchun manfaatdor tomonlar bilan hamkorlik qilishlari kerak.

Raqamli korxonalar barqarorlik maqsadlariga erishish va moliyaviy samaradorlikni oshirish uchun «yashil» korporativ hisoblarni joriy etishlari kerak. Tavsiyalar orasida energiya tejamkor texnologiyalarni qabul qilish, me'yoriy hujjatlarga rioya qilish jarayonlarini tartibga solish va atrof-muhitga ongli investorlar bilan hamkorlik qilish kiradi [9]. Raqamli biznes barqarorlik muammolarini hal qilar ekan, «yashil» korporativ hisoblar moliyaviy menejmentni atrof-muhit maqsadlariga moslashtirish uchun qimmatli vositani taqdim etadi. Ushbu amaliyotlarni qo'llash orqali korxonalar rentabellik va ekologik javobgarlik o'rtasidagi muvozanatga erishishlari mumkin.

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## MEHNAT MIGRATSIYASI JARAYONLARINI TARTIBGA SOLISH TIZIMINI TAKOMILLASHTIRISH



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**Annotatsiya.** Ushbu maqolada mehnat migratsiyasi jarayonlarini tartibga solish, fuqarolarni chet elga tartibli va xavfsiz jo'natish, tashqi mehnat bozoridagi ish beruvchilarning ehtiyojlari asosida maqsadli kadrlar tayyorlash, fuqarolarning mehnat va yashash sharoitlarini hamda mehnat migratsiyasidan qaytgan shaxslarning bandligini ta'minlash bo'yicha mavjud muammolar va ularning echimlari keltirilgan. Shuningdek, mehnat migratsiyasi tizimini takomillashtirish bo'yicha takliflar ishlab chiqilgan.

**Kalit so'zlar:** Mehnat bozori, ichki va tashqi mehnat bozori, Xalqaro Mehnat Tashkiloti, Xalqaro migratsiya tashkiloti, Birlashgan Millatlar tashkiloti, konventsiya.

### KIRISH

Dunyoda jadal globalizatsiya jarayoni davom etayotgan bir vaqtda mamlakatimizda ham ijtimoiy-iqtisodiy hayotning barcha sohalarida ko'plab islohotlar amalga oshirilmoqda. Jumladan, Davlatimiz rahbari tomonidan 2017 yildan boshlab tashqi siyosatda ochiqlik va yaxshi qo'shniçilik hamda iqtisodiy hamkorlikni rivojlantirish orqali migratsiya jarayonlarini ham tartibga solish va fuqarolarni xalqaro mehnat bozorida kafolatlangan tartibli qonuniy mehnat migratsiyasiga jalb qilish tizimi takomillashtirildi.

Dastaval migratsiya tushunchasiga to'xtaladigan bo'lsak "Migratsiya" so'zi lotincha "migratio" so'zidan olingan bo'lib, "ko'chish" ma'nosini anglatadi. Migratsiya - insoniya t tamaddunidan buyon mavjud bo'lgan muqarrar hodisa hisoblanadi. Xalqaro migratsiya tashkilotining ta'rifiga ko'ra, o'zining huquqiy maqomi, ixtiyoriy ko'chishi, ko'chish sabablar yoki biror davlatda qolish muddatidan qat'iy nazar o'z yashash joyini o'zgartirgan fuqarolar migrant hisoblanadi.

Bugungi kunda insonlar, yashash, ishlash, dunyoni ko'rish, sayohat qilish, o'qish va moddiy ahvolini yaxshilash kabi maqsadlarda doimo turli hududlar, turli davlat bo'ylab harakat qiladilar. Birlashgan Millatlar Tashkilotining ta'rificha, o'z mamlakati hududidan tashqari bir mamlakatda bir yildan ortiq istiqomat qilgan fuqarolar migrant bo'la oladi. Davlatni tark etish sababi muhim ahamiyat kasb etmaydi. O'z xohishi bilanmi, xohishidan tashqarimi, buning ahamiyati yo'q.

Jahon iqtisodiyotining turli sohalarida avj olayotgan globallashuv jarayonlari davlatlar o'rtasidagi o'zaro bog'liqlikning ortishiga, alohida faoliyat ko'rsatayogan bozorlarni erkinlashishiga va ularni xalqaro mehnat bozoriga integratsiyalashuviga xizmat qilmoqda. Bugungi kunda dunyoning 200 ta mamlakati xalqaro mehnat bozorida faol ishtirok etmoqda.

XXI asr boshlariga kelib dunyo davlatlarida migratsiya jarayonlari kuchaydi. Mutaxassislar tomonidan bu jarayonda ishtirok etayotgan fuqarolarni oltita guruhga ajratganlar:

1. Oilaviy sabablarga ko'ra, doimiy yashash maqsadida bir davlatdan ikkinchi davlatga ketgan emmigrantlar.
2. Migrant - mehnatkashlar.

3. Noqonuniy immigratlar.
4. Qochoqlar.
5. Talabalar, stajyor-tadqiqotchilar, ilmiy xodimlar va professor-o'qituvchilar.
6. Turli maqsadda ko'chib yuruvchilar-turistlar, dam oluvchilar, anjumanlarga qatnashuvchilar.<sup>1</sup>

Bugungi kunda migratsiya jarayonlarini tahlil qiladigan bo'lsak mamlakatlarda migratsiyaga sabab bo'layotgan eng katta faktor bu iqtisodiy vaziyatdir. Ko'pchilik fuqarolar yaxshi hayot ilinjida o'z mamlakatini tark etadi. Ular mehnat qilish, yaxshi daromad topish va farovon hayot kechirish maqsadida borayotgan davlati va o'z mamlakati taraqqiyotiga ulkan hissa qo'shadi.

Mamlakatimizda ham tashqi mehnat migratsiyasi jarayonlarini tartibga solish masalasiga jiddiy e'tibor berilmoqda. Jumladan, davlat noqonuniy mehnat migratsiyasiga qarshi kurashmoqda, fuqarolarni horijga uyushgan holda ishga joylashtirish uchun tegishli ishlar amalga oshirilmoqda. Shu bilan birga, O'zbekistonga qaytgan mehnat migrantlarni reintegratsiya qilish jarayonlariga ham e'tibor berilmoqda. Birgina misol 2024-yil 4-aprel kuni Davlatimiz rahbari tomonidan "Mehnat migratsiyasi jarayonlarini takomillashtirish hamda xorijda vaqtincha mehnat faoliyatini amalga oshirayotgan shaxslarni qo'llab quvvatlashga doir qo'shimcha chora-tadbirlari to'g'risida"gi Farmoni imzolandi.

Mazkur Farmon bilan xorijda mehnat faoliyatini amalga oshirish istagida bo'lgan fuqarolarga qulay shart-sharoitlar yaratish, mehnat migratsiyasidan qaytib kelgan shaxslarni reintegratsiya qilish, shu jumladan ularning bandligini ta'minlash, kasbiy malakasini oshirish va tadbirkorlik tashabbuslarini rag'batlantirish bo'yicha ustuvor vazifalar belgilandi.

### MAVZUGA OID ADABIYOTLAR SHARHI

Migratsiya muammosi so'nggi yillarda jahon jamoatchiligini keng tashvishga solayotgan dolzarb muammolardan biri sanaladi. Shunga ko'ra, uni ilmiy jihatdan tahlil etish va ilgari surilayotgan yondashuvlardagi umumiylikni aniqlash hamda yakuniy xulosalar chiqarish muhim hisoblanadi.

Migratsiya nazariyasining asoschisi Buyuk Britaniya lik geograf E.Ravenshtayn hisoblanadi. U XIX asr oxirida "Migratsiya qonuni" yaratgan hamda migratsiya bo'yicha bir qator nazariy tadqiqot ishlarini olib borgan. E.Ravenshtayn tomonidan Buyuk Britaniya va Shimoliy Amerikadagi migratsion jarayonlarni tadqiq etib, o'n bir nafar migratsion qonunlarni shakllantirgan.

Rus olimi O.D.Vorobyov o'z asarlarida aholi migratsiyasi masalasiga to'xtalib, bunda aholining ichki va tashqi ma'muriy-hududiy birliklar chegarasidan kechib o'tib, doimiy yashash joyini o'zgartirish yoki yetaklovchi va jalb qiluvchi omillarning ta'siridan qat'iy nazar ta'lim olish va mehnat faoliyati bilan shug'ullanish maqsadida amalga oshirilgan har qanday hududiy ko'chishni aholi migratsiyasi sifatida ta'riflaydi.<sup>2</sup>

E.V.Vinogradova migratsiyani zamonaviy yondashuvlar orqali tahlil qilib mehnat resurslarining harakatchanligiga oid quyidagi yondashuvlarni ilgari suradi:

mehnat resurslarining ish o'rinlari o'rtasidagi joylashish jarayoni;

ko'chishga tayyorgarlik;

iqtisodiyotda band aholining hududiy nisbatlarini boshqarishning iqtisodiy mexanizmiga asoslanganligi.<sup>3</sup>

N.M.Preobrajenskaya deyarli barcha davlatlar nafaqat migratsiya jarayonlarida ishtirok etadilar balki ularning iqtisodiy va siyosiy ahvoli, madaniy hayoti migratsiyaga bog'liqdir deb ta'kidlaydi.<sup>4</sup>

Rus iqtisodchisi Yu.A.Yanovskiy migratsiya jarayonlarini quyidagicha tavsiflaydi: u o'zini va oilasini moddiy jihatdan ta'minlaydi, demak, mamlakat boyiydi, sohasi bo'yicha o'zini malakali deb hisoblaydi yoki mehnat bozorida (o'z yurtida va xorijda) talab qilinadigan u yoki bu mutaxassislik bo'yicha qayta tayyorlovdan o'tadi, mamlakatning soliqqa tortiladigan bazasini kengaytiradi.<sup>5</sup>

<sup>1</sup> К.Абдурахмонов - "Меҳнат иқтисодиёти" назария ва амалиёт. Ўзбекистон Республикаси Фанлар Академияси Фан нашриёти. Тошкент -2019 йил.

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<sup>4</sup> Н.М. Преображенская Миграция в условиях глобализации // Автореферат. М. 2007. 12 с.

<sup>5</sup> Яновский Ю.А. Международный Конгресс «Евразия: занятость в XXI веке» Международный семинар по трудовой миграции. М:2001.

G.Abduraxmonova, E.Muhitdinovlarning Respublikamizning xalqaro ishchi kuchi migratsiyasi jarayonlarida faol ishtirok etishi uning jahon hamjamiyatiga integratsiyalashuvi va boshqa bir qancha iqtisodiy afzalliklarga ega bo'lishiga imkoniyat yaratishini ta'kidlashgan<sup>6</sup>.

Oxirgi yillarda mamlakatimizda mehnat migratsiyasi sohasini tartibga solish bo'yicha huquqiy tamoyil va normalar ishlab chiqildi va tasdiqlandi. 2018-yilda O'zbekiston Respublikasi Xalqaro Migratsiya tashkilotiga a'zo bo'ldi va XMT Konstitutsiyasini ratifiqatsiya qildi. "Xorijda yashovchi va mehnat qilayotgan vatandoshlar bilan hamkorlik qilish bo'yicha davlat siyosati konsepsiyasi" hamda O'zbekiston Respublikasi bilan hamkorlikni rivojlantirish bo'yicha ustuvor chora-tadbirlar dasturi qabul qilindi.<sup>7</sup>

So'ngi besh yilda 10 dan ortiq migratsiya sohasida normativ-huquqiy hujjatlar qabul qilindi. Jumladan, O'zbekiston Respublikasining "Aholi bandligi to'g'risida"gi, "Xususiy bandlik agentliklari to'g'risida"gi Qonun va "Xorijda vaqtinchalik mehnat faoliyatini amalga oshirayotgan O'zbekiston Respublikasi fuqarolari va ularning oila a'zolarini himoya qilish kafolatlarini yanada kuchaytirish choralari to'g'risida"gi hamda "Mehnat migratsiyasi jarayonlarini takomillashtirish hamda xorijda vaqtincha mehnat faoliyatini amalga oshirayotgan shaxslarni qo'llab-quvvatlashga doir qo'shimcha chora-tadbirlar to'g'risida"gi O'zbekiston Respublikasi Prezidenti Farmon va qarorlari qabul qilindi<sup>8</sup>.

Mazkur Farmon va qarorlarda O'zbekiston fuqarolarining shaxsiy xavfsizligi va ularning ijtimoiy himoyasini ta'minlash, noqonuniy mehnat migratsiyasini tartibga solish bo'yicha ustuvor vazifalar belgilab berilgan. Bizning fikrimizcha, mamlakatimizda migratsiyani tartibga solishni samarali tashkil etish uchun uning tashkillashtirilgan yoki rasmiy migratsiyani rag'batlantirish yo'li orqali amalga oshirish maqsadga muvofiq hisoblanadi.

## **TADQIQOT METODOLOGIYASI**

Mazkur tadqiqot ishida mamlakatimiz hamda xorijiy rivojlangan davlatlar iqtisodchi olimlarining mehnat migratsiyasi bo'yicha ilmiy tadqiqot ishlari, olimlarning qarashlari hamda fikr va mulohazalari tahlil etilgan. Maqolada empirik, tasviriy statistika, guruhlashtirish, qiyosiy va dinamik tahlil tadqiqot usullaridan foydalanilgan.

## **TAHLIL VA NATIJALAR MUHOKAMASI**

Jahon hamjamiyatining integratsiyalashuvi barobarida migratsiya jarayonlari ham globallashti. Tashqi migratsiya jarayonlari bugungi kunga kelib turli mintaqa va mamlakatlarni o'z doirasida qamrab olmoqda.

Xalqaro migratsiya jarayonlarining kengayishiga dunyoning turli nuqtalarida yuz berayotgan urushlar, qurolli to'qnashuvlar, davlatlardagi siyosiy va iqtisodiy inqirozlar, har xil tabiiy ofatlar, suv toshqinlari, shuningdek dunyoda keng tarqalayotgan yuqumli kasalliklarning tarqalishi hamda iqlim o'zgarishi kabi salbiy o'zgarishlar sabab bo'lmoqda.

Xalqaro migratsiya tashkilotining ma'lumotlariga ko'ra bugungi kunda dunyoda migrantlar soni 281 millionni tashkil etadi. Bu esa dunyo aholisining 3,6 foiziga to'g'ri keladi. Ularning 135 millioni ayollar, 146 millionini erkaklar hisoblanadi.

Birlashgan Millatlar Tashkiloti tomonidan taqdim etilgan ma'lumotlarga ko'ra, ayni paytda sayyoramiz aholisining har 7 nafaridan birini aynan migrantlar tashkil etmoqda. Ularning yillik pul o'tkazmalarining umumiy aylanmasi esa, 350 milliard dollarga teng bo'lib, mazkur ko'rsatkich, rivojlanayotgan davlatlarga moddiy ko'mak berishga yo'naltirilgan sarf-xarajatlardan sezilarli darajada yuqori hisoblanadi.<sup>9</sup>

Taqqoslash uchun, 1970-yilda dunyoda 84 millionga yaqin migrant bo'lgan bo'lsa, 1990-yilda 153 millionga etgan, 2013-yilda 230 millionni, 2023-yilga kelib bu ko'rsatkich 281 millionga etdi. Aholining katta qismi ishsizlik, iqtisodiy muammolar va ta'lim kabi sabablarga ko'ra migratsiya qilishga majbur bo'lmoqda. Ba'zilar harbiy to'qnashuvlar, ta'qiblar, tabiiy ofatlar yoki boshqa fojiali hodisalar tufayli o'z mamlakatini tark etishga majbur bo'lishmoqda.

Xorijga ishlash maqsadida chiqib ketgan fuqarolar nafaqat mehnat qilish uchun borgan davlati, balki o'zi tug'ilib o'sgan va istiqomat qiladigan mamlakat iqtisodiyoti rivojlanishiga ham katta hissa qo'sha oladi. Shu munosabat bilan, mehnat migrantlari va ularning oila a'zolarini qo'llab-quvvatlashning samarali tizimini shakllantirish, davlat tomonidan ularning mamlakat hududida ham, uning tashqarisida ham ishonchli ijtimoiy

<sup>6</sup> "Иқтисодиёт ва инновацион технологиялар" илмий электрон журнали 4-сон. Тошкент 2018 йил июл-август.

<sup>7</sup> Д.К.Исраилова – "Ташқи меҳнат миграциясини тартибга солишнинг институционал механизмларини такомиллаштириш" "Меҳнат иқтисодиёти ва инсон капитали" илмий электрон журнали, 2023 йил 4-сон.

<sup>8</sup> <https://lex.uz/uz/docs>.

<sup>9</sup> Д.Мадаминава - "Яқин Шарқ Араб давлатларида миграцион жараёнларнинг замонавий ҳолати". Oriental Journal Of History Politics and law.

va huquqiy himoya kafolatlarini kuchaytirish maqsadida mehnat migrantlarini ijtimoiy himoya qilish barcha davlatning kun tartibidagi asosiy masalaga aylanishi lozim.

Mehnat migratsiyasini tartibga solish bo'yicha Birlashgan Millatlar Tashkiloti(BMT) va Xalqaro Mehnat Tashkiloti(XMT) tomonidan mehnat migrantlarining ijtimoiy-iqtisodiy holatini va mehnat qilish sharoitlarini yaxshilash bo'yicha bir qancha Konvensiyalar va tavsiyalar ishlab chiqilgan. Jumladan,

Xalqaro Mehnat Tashkiloti tomonidan 188 ga yaqin Konvensiya va 200 ta tavsiyalar qabul qilingan. XMT o'z faoliyati davomida mehnat migratsiyasi jarayonlari va mehnat migrantlari huquqlari himoyasi masalalariga alohida e'tibor qaratadi. Bu borada tashkilot tomonidan 3 ta Konvensiya qabul qilingan. Bular, **“Mehnat migrantlarining huquqlari to'g'risida”**gi XMTning 1949-yildagi 97-sonli, **“Migratsiya sohasidagi suiste'moliklarni bartaraf etish va mehnat migrantlariga imkoniyat va munosabatlarda tenglikni ta'minlash to'g'risida”**gi XMTning 143-sonli va **“Barcha mehnat migrantlari va ularning oila a'zolari huquqlarini himoya qilish to'g'risida”**gi 1990-yildagi Konvensiyalar.

Mazkur uchta Konvensiya **“Migratsiya to'g'risidagi xalqaro xartiya”**, deb nomlanadi va migrantlarning huquqlarini belgilaydigan keng huquqiy asos bo'lib xizmat qiladi. Ushbu Konvensiyalar migratsiya jarayonlarini tartibga solish bo'yicha ham, xalqaro hamkorlik uchun hamda halqaro ishchi kuchini hisobga olgan holda milliy maqroiqtisodiy siyosatni ishlab chiqish uchun asos bo'lib xizmat qiladi.

Bundan tashqari, 1951-yilda xalqaro mehnat migratsiyasini tartibga solish maqsadida Xalqaro Migratsiyasi Tashkiloti tashkil topgan bo'lib, bugungi kunga qadar tashkilotga 183 mamlakat a'zo bo'lgan. Tashkilotning asosiy maqsadi migratsiya jarayonlarini boshqarish, insonlar manfaatini himoya qilish va odam savdosiga qarshi kurashish va uni oldini olish hisoblanadi.<sup>10</sup>

Respublikamizda migratsiya jarayonlarini tartibga soluvchi organ Tashqi mehnat migratsiyasi agentligi hisoblanadi. Agentlik mehnat migratsiyasi jarayonlarini tartibga soladi va fuqarolarni xorijga tashkillashtirilgan holda yuboradi hamda chet el fuqarolarining respublikamiz hududidagi mehnat faoliyatini tartibga soladi.

Bundan tashqari, fuqarolarini vaqtincha xorijda mehnat faoliyatini amalga oshirish uchun tashqi mehnat bozorida kadrlarga bo'lgan ehtiyojni o'rganadi hamda xorijiy ish beruvchilar va rekruting agentliklar bilan shartnomalar tuzadi. Shu bilan birga, fuqarolarning mehnat huquqlarini ta'minlash jarayonlarini tartibga solishga doir masalalar yuzasidan xorijiy davlatlarning vakolatli organlari bilan hamkorlik qiladi.<sup>11</sup>

Agentlik 2023-yilda 24 ta xorijiy davlatlarning 398 ta yirik ish beruvchi va rekruting agentliklari bilan muzokaralar olib borgan bo'lsa, bu ko'rsatkich 2022-yilda 354 tani tashkil etgan.

Shuningdek, xorijiy ish beruvchilar va rekruting agentliklari bilan hamkorlikda O'zbekistondan ishchi kuchini jalb qilish bo'yicha 118 ta shartnomalar imzolangan hamda kelishuvlar soni 268 taga, hamkorlik o'rnatilgan davlatlar soni 28 taga etkazilgan.

Buning natijasida, 16 ta xorijiy, shundan, 10 ta iqtisodiyoti rivojlangan davlatlarda 117 mingga yaqin bo'sh ish o'rinlari aniqlandi va 66,4 ming ish o'rniga dastlabki talabnomalar shakllantirildi.

Tashqi mehnat migratsiyasi agentligi tomonidan 2022-yilda 35,8 ming nafar fuqarolar xorijiy davlatlarga ishlash uchun yuborilgan bo'lsa 2023-yilda bu ko'rsatkich 38,4 ming nafarga etgan. Shundan, 12 271 nafari Tashqi mehnat migratsiyasi agentligi tomonidan, 113 nafari Xususiy bandlik agentliklari tomonidan tashkiliy tartibda, 24 340 nafari manzilli tarzda va 1 677 nafar fuqarolar xorijda ishsiz bo'lib qolganda ishga joylashtirildi.

Tashqi mehnat migratsiyasi agentligi tomonidan manzilli ishga joylashgan fuqarolarni ro'yxati, ish beruvchilari va borish manzillari to'g'risidagi ma'lumotlari **“labor-migration”** dasturiy majmuasi orqali amalga oshirib kelinmoqda. Mazkur elektron dastur orqali xorijga ishlash maqsadida chiqib ketayotgan fuqarolarning hayoti va sog'lig'i sug'urta qilinadi hamda ularga tegishli mikroqarzarlar ajratiladi. Xorijda ishsiz kolgan fuqarolar vakolatxonalar tomonidan Agentlik bilan shartnomaga ega va boshqa korxonalariga ishga ishga joylashtirilmoqda. Shuningdek, fuqarolarga qulayliklar yaratish maqsadida **“labor-migration”** elektron platformasi orqali xorijiy ish beruvchilar va rekruting kompaniya larini bo'sh ish o'rinlari doimiy ravishda yangilab kelinmoqda.

Tashqi mehnat migratsiyasi agentligi tomonidan ishlab chiqilgan **“labor-migration”** dasturiy majmuasi xorijda ishlashni rejalashtirayotgan fuqarolarga katta qulayliklar yaratmoqda. Ushbu tizim orqali fuqarolar manzilli ravishda xorijiy ish beruvchilar bilan bog'lanish imkoniga ega bo'lib, o'zlariga mos ish joyini topishlari osonlashadi. Bu jarayonni tezlashtirish va qulay qilish maqsadida tizimda xorijiy ish beruvchilar

<sup>10</sup> З.А.Қодирова - “Глобаллашув шароитида Ўзбекистоннинг халқаро меҳнат бозорига интеграциялашуви”. Монография. - Т. Иқтисодиёт, 2016 йил.

<sup>11</sup> Ўзбекистон Республикаси Вазирлар Маҳкамасининг 2018 йил 12 сентябрдаги “Ўзбекистон Республикаси фуқароларани хорижда уюшган ҳолда ишга жойлаштириш тизимини янада такомиллаштириш тизимини янада такомиллаштириш ва тубдан қайта кўриб чиқиш чора-тадбирлари тўғрисида” 725-сон қарори. <https://lex.uz>.

tomonidan taklif etilgan bo‘sh ish o‘rinlari doimiy yangilanib boriladi. Shu tariqa, fuqarolar o‘zlari uchun eng maqbul bo‘lgan ish sharoitlarini tanlab, ishga joylashish imkoniyatini oshiradilar.

2022-yilda Agentlik orqali tashkiliy tartibda xorijiy davlatga ishga joylashtirilgan 12,2 ming nafar fuqaroning 41 foizi rivojlangan va ish haqi yuqori bo‘lgan (1,2 – 2,5 ming AQSh doll.) davlatlarga yuborilgan bo‘lsa, 2023-yilda bu ko‘rsatkich 62 foizga oshirilgan.

2023-yil xorijda vaqtinchalik mehnat faoliyatini olib borish istagida bo‘lgan 58,2 ming (2022-yil 55,3 ming) nafardan ortiq fuqarolar kasb-hunarga (56,7 ming) va chet tillariga (1,5 ming) o‘qishga jalb qilingan.

Nomzodlarni kasb-hunar va xorijiy tillarga o‘qitish jarayonlari professional ta’lim muassasalari, “Ishga marhamat” monomarkazlari va kasb-hunarga o‘qitish markazlarida tashkil qilinmoqda.

Shu bilan birga, 2023-yil xorijiy davlatlardagi 226,2 ming nafar mehnat migrantiga huquqiy, moddiy va ijtimoiy yordamlar hamda axborot-maslahat xizmatlari ko‘rsatildi. Shundan:

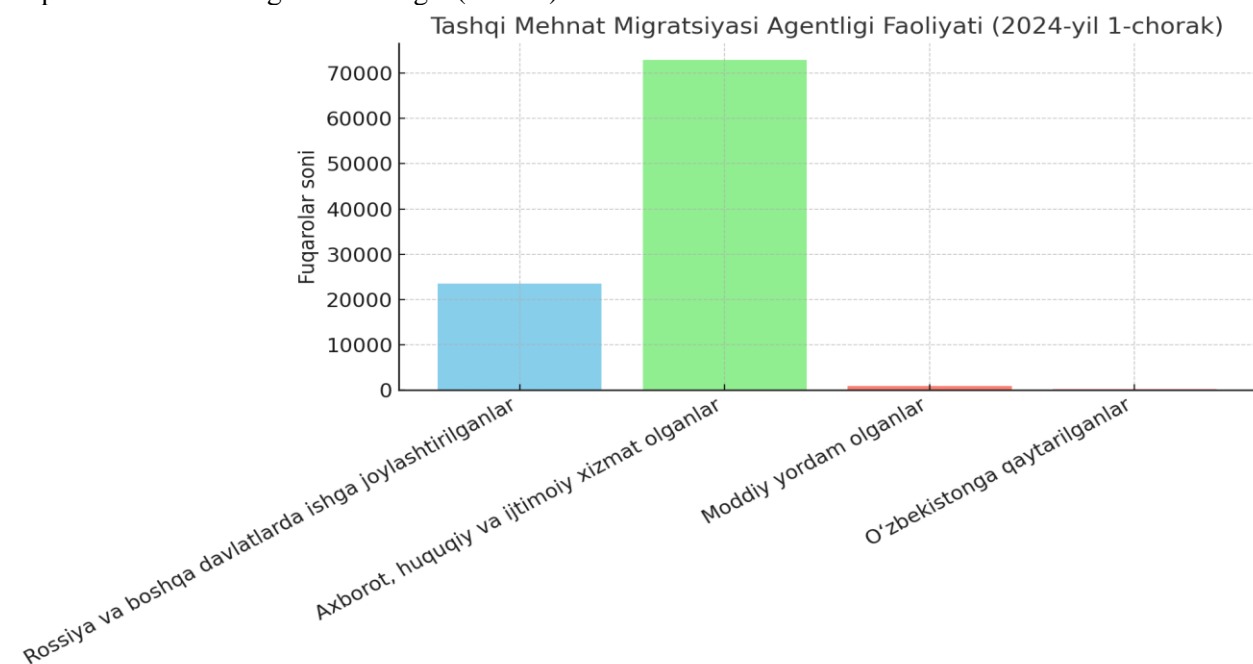
1 499 nafariga 79,4 ming AQSh dollari miqdorida bir martalik moddiy yordam berildi (BHM 2 baravari);

707 nafar og‘ir ahvolga tushib qolgan fuqaro, 618 nafar vafot etgan fuqaroning jasadi O‘zbekistonga qaytarildi;

12,8 ming nafar fuqaroga huquqiy, 13,4 ming nafar fuqaroga ijtimoiy yordamlar ko‘rsatildi; ish beruvchilaridan mehnat migrantlarining 1 737,5 ming AQSh dollari miqdoridagi ish haqlari, kompensatsiya va sug‘urta pullari undirib berildi;

197 ming nafar fuqaroga “Call-markaz”, Agentlik, uning filiallari va vakolatxonalari, diplomatik muassasalar tomonidan axborot va maslahat xizmatlari ko‘rsatildi.

Tashqi mehnat migratsiyasi agentligi tomonidan 2024-yilning birinchi choragida 23 535 nafar fuqarolarga Rossiya, Turkiya, Qozog‘iston, Janubiy Koreya, Buyuk Britaniya, BAA, Germaniya, Latviya, Belarus, Litva, Yaponiya, Polsha va boshqa davlatlarda tashkiliy va manzilli tartibda ishga joylashishiga ko‘maklashildi. Shuningdek, 73 mindan ortiq fuqarolarga turli axborot, huquqiy va ijtimoiy xizmatlar ko‘rsatildi hamda 827 nafar fuqarolarga moddiy yordam berildi. Og‘ir ahvolga tushib qolgan 197 nafar fuqarolar O‘zbekistonga olib kelingan(1-rasm).



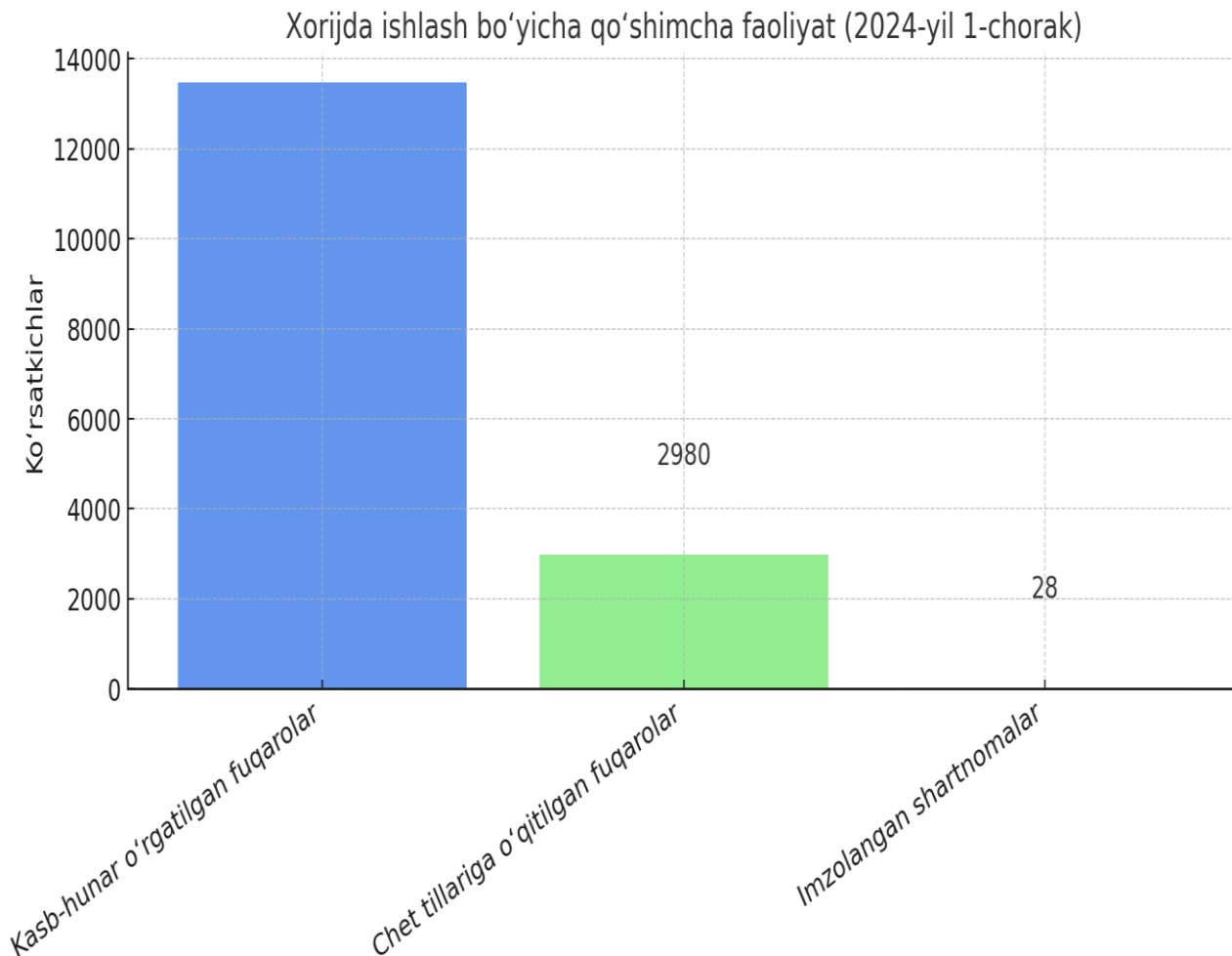
**1-rasm. Tashqi mehnat migratsiyasi agentligi tomonidan rivojlangan davlatlardagi ish beruvchilar va rekruting agentliklari bilan hamkorlik o‘rnatilgan davlatlar bo‘yicha ma’lumot**

Bundan tashqari, kasblar miqyosida ko‘radigan bo‘lsak yuk avtomobil haydovchisi kasbiga - 12,3 ming, payvandlash - 11,3 ming, elektrikga - 3,3 ming, IT mutaxassiga - 6,7 mingtani tashkil etgan.

Xorijdagi vakolatxonalari aralashuvi bilan fuqarolarning ish beruvchilaridan 186 ming AQSh dollariga yaqin ish haqlari undirib berildi.

Bundan tashqari, xorijda ishlash istagida bo'lgan 13 476 nafar fuqaroga 30 ta turdagi kasblarni o'rgatishga va 2 980 nafar fuqarolar nemis, ingliz, koreys, yapon va boshqa chet tillariga o'qishga jalb qilindi. Rivojlangan xorijiy davlatlarning ish beruvchilari va rekruting agentliklari bilan O'zbekistondan ishchi kuchini jalb qilish bo'yicha 28 ta shartnoma imzolandi.<sup>12</sup>

Bugungi kunda hukumat tomonidan xorijda ishlayotgan fuqarolarga nisbatan munosabat tubdan o'zgarib, mehnat migrantlari bilan muloqot o'rnatildi, ularning muammo va ehtiyojlarini o'rganish hamda hal qilish bo'yicha yangi tizim joriy qilindi. Shuningdek, xorijda mehnat faoliyatini amalga oshiruvchi shaxslarni qo'llab-quvvatlash hamda ularning huquq va manfaatlarini himoya qilish jamg'armasi tashkil etildi, mehnat migrantlarining hayoti va sog'lig'ini sug'urtalash, ularning oila a'zolari uchun ipoteka kreditlarini ajratish amaliyoti joriy qilindi(2-rasm).



**2-rasm. 2023-yilda Xorijiy davlatlarning ish beruvchilari tomonidan taqdim etilgan bo'sh ish o'rinlari to'g'risidagi talabnomalar.**

Shu bilan birga, O'zbekistonga qaytan mehnat migrantlarining bandligini ta'minlash, ijtimoiy himoyaga muhtoj bo'lganlarga moddiy yordam ko'rsatish tizimi yo'lga qo'yildi. Tashqi mehnat migratsiyasini qonuniy asoslarda tashkil qilish, davlatlarning ushbu sohada samarali hamkorlikni amalga oshirish hamda migratsiya bo'yicha xalqaro standartlarga amal qilish mehnat migrantlari huquqlari ta'minlanishining asosiy shartlaridan hisoblanadi.

Shuningdek tashqi mehnat bozori ehtiyoji asosida kadrlar tayyorlash tizimini tubdan qayta ko'rib chiqilmoqda. Bunda yoshlarni zamonaviy kasb va mutaxassislik bo'yicha bilim va ko'nikmalarini shakllantirish hamda xorijiy tillarni o'qitish tizimini takomillashtirish bo'yicha zarur chora-tadbirlar belgilanmoqda.

Ta'lim muassasalarda tayyorlanayotgan kadrlarning salohiyati tashqi mehnat bozoridagi ish beruvchilarni qoniqtirmaydi. Mehnat bozoriga har yili o'rtacha 700-750 mingga yaqin yangi ishchi kuchi kirib kelishi O'zbekistonning tashqi mehnat bozoridagi faol ishtirokini ta'minlash imkonini bermoqda.

<sup>12</sup> Ташқи меҳнат миграцияси агентлиги ва Статистика агентлигининг расмий веб-сайтларидан олинган маълумотлардан фойдаланилди.



Tadqiqotlar natijasida mehnat migratsiyasida ishtirok etayotgan fuqarolarning kasbiy malakasi va chet tilini bilish darajasi yuqori bo'lishi ilg'or texnika va texnologiyaga asoslangan, yuqori ish haqiga ega bo'lgan ish o'rinlarida mehnat faoliyatini amalga oshirish imkonini beradi. Shu munosabat bilan, tashqi mehnat bozori ehtiyoji asosida malakali kadrlar tayyorlash tizimining sifat jihatdan takomillashtirish bo'yicha 5 ta bosqichdan iborat quyidagi mexanizmni amalga oshirish maqsadga muvofiq. Jumladan:

**Birinchi bosqich:** har bitta hududdan bittadan professional ta'lim muassasalari (ko'p tarmoqli texnikumlar) Tashqi mehnat migratsiyasi agentligiga biriktiriladi. Agentlik tomonidan mazkur professional ta'lim muassasalariga xorijiy ish beruvchilar va rekruting kompaniya lari ehtiyoji asosida o'rtab bo'g'in kadrlar tayyorlash.

**Ikkinchi bosqich:** Ish beruvchilarning talablari asosida o'quv dasturlarini ishlab chiqish.

**Uchinchi bosqich:** Bitiruvchilarni xorijiy til bo'yicha bilimlarini xalqaro tan olingan uslublar asosida baholash. (IELTS, TOEFL va Goethe-Zertifikat, CEFR).

**To'rtinchi bosqich:** Bitiruvchilarni yakuniy imtihonlari bevosita xorijiy ish beruvchilar va rekruting kompaniya lari vakillari tomonidan baholash.

**Beshinchi bosqich:** Tashqi mehnat migratsiyasi agentligi tomonidan kamida B2 darajadagi xalqaro tan olingan xorijiy til sertifikatiga olgan bitiruvchilarni to'g'ridan-to'g'ri ishga yuborish, V1 darajadagi xalqaro tan olingan xorijiy til sertifikatiga olgan bitiruvchilarni "Ausbildung" (dual ta'lim shakli) asosida yuborishni tashkillashtirish.

Yuqorida keltirib o'tilgan mexanizm orqali tashqi mehnat bozori ehtiyoji asosida maqsadli kadrlar tayyorlash tizimi joriy etiladi.

## XULOSA VA TAKLIFLAR

**Xulosa qilib aytish mumkinki, mehnat migratsiyasi jarayonlari o'sishdan to'xtamaydigan jarayon hisoblanadi. Shu munosabat bilan fuqarolar uchun xalqaro mehnat bozorida munosib mehnat qilish uchun sharoit yaratish hamda mehnat migratsiyasi jarayonlarini tartibga solish tizimini takomillashtirish maqsadida "Tashqi mehnat migratsiyasi" to'g'risidagi Qonunni qabul qilish lozim.** Shu o'rinda mehnat migratsiyasi jarayonlarini tartibga solish tizimini takomillashtirish bo'yicha quyidagilar taklif etiladi:

- Tashqi mehnat bozorida talab va taklifni muvofiqlashtirish uchun bugun va istiqbolda qanday mutaxassislarni qancha miqdorda tayyorlash hamda ular qanday kasbiy bilim va ko'nikmalarga ega bo'lishlari kerakligini aniqlash mexanizmlarini ishlab chiqish;

- Tashqi mehnat migratsiyasi agentligi faoliyatini to'liq qayta ko'rib chiqib, Kambag'allikni qisqartirish va bandlik vazirligi huzuridan Vazirlar Mahkamasi huzuriga o'tkazish. Bunda Agentlik xorijiy ish beruvchilar va rekruting kompaniyalari bilan, shuningdek manfaatdor vazirlik va idoralar bilan to'g'ridan-to'g'ri ishlash imkoniyati yaratiladi;

- O'zbekiston uchun mehnat migratsiyasi geografiasini kengaytirish maqsadida Yevropa davlatlari, AQSh, Buyuk Britaniya, Kanada, Turkiya, Arab davlatlari, Koreya va Yaponiya davlatlari bilan uyushgan migratsiyani rivojlantirish maqsadida mazkur rivojlangan davlatlarning ish beruvchilari va rekruting kompaniyalari o'rtasida O'zbekistonning mehnat migratsiyasi tizimi qulayligini targ'ib qilish. Bunda: Xorijiy rivojlangan davlatlarning ish beruvchilari va rekruting kompaniyalarini jalb qilgan holda O'zbekistonning mehnat resurslari potentsiali mavzusida forumlar tashkil qilish. O'zbekiston uchun mehnat migratsiyasi geografiasini kengaytirish juda muhim. Bu bir necha sabablarga ko'ra:

1. Iqtisodiy xavflarni yumshatadi va mamlakatning iqtisodiy inqirozlarga bardoshlilikini oshiradi.
2. Mamlakat iqtisodiyoti uchun xorijdan yuboriladigan pul o'tkazmalarini kengaytiradi.
3. Rivojlangan davlatlarda mehnat qilish fuqarolarga yangi zamonaviy texnologiyalarda ishlash hamda kasbiy salohiyatini rivojlantirish imkoniyatini beradi.

4. Rivojlangan va rivojlanayotgan davlatlarda ishlash mehnat bozoridagi diversifikatsiyani oshiradi, bu esa xalqaro iqtisodiyotdagi o'zgarishlarga moslashuvchanlikni kuchaytiradi.

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## BUSINESS INTELLIGENCE SYSTEMS AND BRAND EQUITY MANAGEMENT IN HIGHER EDUCATION: A CRITICAL ASSESSMENT THROUGH THE ETHICAL LENS



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**Abstract:** This paper critically assesses the role of business intelligence (BI) systems in managing brand equity in higher education through an ethical lens. It explores how BI systems enhance data-driven decision-making and improve brand equity by offering insights into student performance, operational efficiency, and institutional reputation. The study also highlights the ethical challenges that arise from the use of BI, including issues related to privacy, data security, and fairness. Furthermore, the paper addresses the potential risks of commercializing education, where brand equity may be prioritized over academic integrity. Ultimately, the study emphasizes the need for responsible and ethical use of BI systems to maintain institutional integrity and equity in higher education.

**Keywords:** Business intelligence, brand equity, higher education, ethics, data privacy, institutional integrity.

### INTRODUCTION

Business Intelligence (BI) systems have become increasingly popular in Higher Education Institutions (HEIs) for managing brand equity. However, the ethical implications of implementing these systems in brand equity management within HEIs have not been fully explored. The purpose of this paper is to provide a critical assessment of the ethical concerns associated with using BI systems in brand equity management within the context of HEIs.

Brand equity, which refers to the value that a brand adds to the product or service it represents, has been a focal point in marketing literature. BI systems, when applied to HEIs, offer decision-makers valuable insights into the institution's brand equity by collecting and analyzing data on reputation, student satisfaction, faculty performance, and other factors. These systems help in optimizing strategies to improve brand positioning. However, the ethical considerations associated with the implementation of such systems have not been thoroughly examined.

In particular, questions arise regarding the privacy of student and faculty data, the potential misuse of information, transparency in how data is collected and interpreted, and the overall impact of these systems on institutional integrity. A deeper exploration of these ethical concerns is necessary to ensure that the use of BI systems in brand equity management aligns with the core values of HEIs, such as academic freedom, fairness, and inclusivity[1].

The research gap addressed in this paper is that it focuses on exploring the ethical implications of implementing BI systems in brand equity management within HEIs. Specifically, it investigates the potential ethical concerns related to data privacy, surveillance, and academic freedom. With the proliferation of data, privacy concerns have become increasingly relevant [2]. Similarly, the use of BI systems in HEIs raises questions about academic freedom and the potential impact on faculty and student autonomy [3].

This paper proposes an ethical framework for managing brand equity in Higher Education Institutions (HEIs) using Business Intelligence (BI) systems. The framework takes into account both the potential risks and benefits of implementing BI systems, ensuring that decision-makers have a practical tool that aligns with ethical considerations while safeguarding individual rights and institutional values.

In conclusion, examining the ethical implications of BI systems in brand equity management within HEIs is a crucial area of research that demands further investigation. This paper addresses a gap in the literature by presenting an ethical framework to guide decision-makers in using BI systems effectively and responsibly.

The paper is structured as follows: first, a comprehensive literature review on BI systems in brand equity management within HEIs, highlighting potential benefits, risks, and ethical concerns. Next, the methodology section outlines the research design, data collection, and analysis used to develop the ethical framework. Following this, the proposed ethical framework is introduced, emphasizing principles like transparency, accountability, and stakeholder participation, and explaining its application in decision-making. Finally, the paper concludes with a summary of findings, key contributions, and suggestions for future research.

## **REVIEW OF LITERATURE ON THE SUBJECT**

The integration of business intelligence (BI) systems in higher education has become increasingly significant for enhancing institutional effectiveness and managing brand equity. BI systems enable educational institutions to collect, analyze, and utilize data to guide strategic decision-making, optimize operations, and improve student engagement. According to Chugh and Ruhi, the implementation of BI tools in higher education can yield deeper insights into student performance, operational efficiency, and market positioning, all of which contribute to the institution's overall brand value.

Brand equity management in higher education is critical as institutions face heightened competition in attracting students, faculty, and funding. Kotler and Fox emphasize that maintaining strong brand equity requires institutions to uphold promises of academic excellence and student success. BI systems play a pivotal role in brand equity management by allowing universities to monitor their reputation, track alumni outcomes, and evaluate faculty performance—key factors that define brand equity.

However, ethical concerns arise with the increased sophistication of BI systems, particularly in how they collect and use data. Drachsler and Greller underscore the importance of establishing ethical guidelines to ensure student data is handled responsibly and that BI-driven decision-making is transparent and impartial. Misusing data could lead to biased decisions, disproportionately affecting certain student groups, which in turn could damage institutional integrity and brand reputation.

Ethical considerations also pertain to how brand equity is managed in higher education. Watters warns that the commercialization of higher education, driven by metrics related to brand equity, can create ethical dilemmas, such as prioritizing profitability over academic integrity. As institutions leverage BI systems to enhance their competitiveness, they must strike a balance between pursuing financial success and maintaining their ethical responsibility to provide equitable, high-quality education.

In conclusion, while the literature highlights the significant advantages of using BI systems in managing brand equity in higher education, it also underscores the need to address critical ethical concerns. Institutions must ensure responsible data use and remain committed to academic integrity and fairness as they harness the power of BI systems without compromising their ethical values.

## **RESEARCH METHODOLOGY**

In carrying out these research works, well-established methods in scientific research methodology were applied. The use of deductive or inductive approaches, moving from general to specific concepts or vice versa, proved to be effective in studying the subject matter. Additionally, the method of abstract-logical thinking played a key role in systematically analyzing the research process. Throughout the analysis, various scientific methods such as observation, generalization, grouping, comparison, analysis, and synthesis were widely employed to ensure a comprehensive and methodical approach to understanding and interpreting the findings.

## **ANALYSIS AND RESULTS**

The research design employed in this study is qualitative, focusing on an in-depth exploration of the ethical implications of using Business Intelligence (BI) systems for managing brand equity in Higher Education Institutions (HEIs). The study is grounded in the interpretive paradigm, which emphasizes the importance of understanding how individuals construct meaning and interpret their environment. This

approach allows for a comprehensive examination of the ethical concerns involved in using BI systems within this context.

To develop the ethical framework, we conducted a comprehensive literature review to identify potential ethical concerns related to the use of BI systems in brand equity management within HEIs. We also examined existing frameworks and guidelines for ethical data use in higher education to extract relevant principles and best practices. The literature review was supplemented by interviews with experts in the field of BI systems and brand equity management, allowing us to incorporate expert insights into the ethical dimensions of these technologies.

Data were collected through a combination of a literature review and semi-structured interviews. The literature review was conducted using online academic databases such as Google Scholar, Scopus, and Web of Science. The search terms included "Business Intelligence," "Brand Equity," "Higher Education Institutions," "Data Privacy," "Surveillance," "Academic Freedom," and "Ethical Framework." These terms helped identify relevant academic studies and guidelines on the subject.

In addition, semi-structured interviews were carried out with ten experts in BI systems and brand equity management, each lasting approximately 60 minutes. The interviews were conducted virtually via Zoom, where participants were asked open-ended questions regarding the ethical implications of BI systems in the context of managing brand equity in HEIs. All interviews were recorded and transcribed verbatim for subsequent analysis.

Thematic analysis was used to analyze the data collected from the literature review and interviews. This qualitative data analysis method involved identifying patterns and themes within the data. The analysis was conducted in several stages. Initially, the data were coded using a set of preliminary codes derived from the research questions and relevant literature. These initial codes were grouped into categories based on similarities, and then refined and merged into overarching themes that represented the key ethical concerns related to BI systems in HEIs.

The identified themes were reviewed and refined in collaboration with the co-authors to ensure accuracy in reflecting the data and addressing the research questions. These themes then formed the foundation of the ethical principles that underpin the proposed ethical framework.

This research adhered to ethical guidelines for studies involving human participants. Informed consent was obtained from all participants, ensuring their anonymity and confidentiality throughout the study. The Ethics Committee of Tashkent State University of Economics approved the study, and all procedures complied with the Declaration of Helsinki's ethical standards.

To address the ethical concerns that may arise in managing brand equity using BI systems in HEIs, we propose an ethical framework based on three core principles: transparency, accountability, and stakeholder participation.

- **Transparency** is essential in the ethical use of BI systems. HEIs must be open about how data is collected, analyzed, and used for decision-making in brand management. This includes ensuring that stakeholders are aware of both the potential risks and benefits. Transparency fosters trust and credibility with stakeholders.

- **Accountability** requires that HEIs take responsibility for decisions made using BI systems in brand equity management. Clear lines of responsibility should be established, and mechanisms for monitoring and evaluating BI systems should be implemented to address any ethical concerns that may emerge.

- **Stakeholder participation** emphasizes the need to involve stakeholders in the decision-making process. This includes incorporating their input in the design and implementation of BI systems and ensuring that their perspectives are considered throughout the process. By engaging stakeholders, HEIs can align decisions with their values and interests.

This framework provides a guide for ethical decision-making in managing brand equity in HEIs, ensuring that the use of BI systems is responsible and aligned with institutional and societal values.

To effectively implement the ethical framework for managing brand equity using Business Intelligence (BI) systems in Higher Education Institutions (HEIs), decision-makers should reflect on the following questions:

- **Is the use of BI systems in managing brand equity transparent?**
- **Are decision-makers held accountable for their actions and decisions?**
- **Are stakeholders involved in the decision-making process, and are their voices heard?**

If any of these questions receive a negative response, it is imperative for decision-makers to take proactive steps to address the ethical concerns identified and ensure compliance with the ethical framework.

In conclusion, the ethical framework proposed in this section serves as a guiding tool for decision-making in managing brand equity with BI systems in HEIs. By adhering to the principles of transparency, accountability, and stakeholder participation, HEIs can foster ethical practices and build trust with their stakeholders, ultimately enhancing their reputation and integrity.

## CONCLUSION AND SUGGESTIONS

This paper aimed to investigate the use of Business Intelligence (BI) systems in managing brand equity within Higher Education Institutions (HEIs) and to propose an ethical framework to guide decision-making in this context. The literature review and case studies indicated that BI systems can significantly enhance HEIs' brand image, reputation, and competitiveness by facilitating data-driven decision-making, monitoring brand performance, and addressing stakeholders' needs and expectations. However, the implementation of BI systems also raises ethical concerns related to privacy, security, bias, and accountability, which necessitate an ethical framework based on the principles of transparency, accountability, and stakeholder participation.

The proposed ethical framework consists of five steps:

1. **Defining the Purpose and Scope:** Clearly outline the objectives of BI systems in managing brand equity.
2. **Identifying Stakeholders:** Determine the various stakeholders involved and understand their interests and expectations.
3. **Assessing Risks and Benefits:** Evaluate the potential risks and benefits associated with BI systems for each stakeholder group.
4. **Developing Policies and Procedures:** Create guidelines for data collection, storage, analysis, and dissemination, grounded in ethical principles and standards.
5. **Monitoring and Evaluating Impact:** Continuously assess the effects of BI systems on brand equity and stakeholder satisfaction and trust.

The contributions of this paper include a thorough review of existing literature on BI systems and brand equity in HEIs, the identification of ethical issues and challenges arising from the use of BI systems, and the development of a comprehensive ethical framework to inform decision-making in brand equity management.

However, this paper has limitations that suggest avenues for future research. First, the proposed ethical framework requires validation through empirical research methods, such as case studies, surveys, and interviews with stakeholders in HEIs. Second, the framework could be applicable to contexts beyond HEIs, such as healthcare, government, and business sectors. Third, integrating this framework with other ethical decision-making models, such as the Responsible Research and Innovation (RRI) framework, the ethical decision-making model, and stakeholder theory, could enhance its robustness. Fourth, applying the framework to specific cases of BI systems in brand equity management—such as recruitment, retention, fundraising, and accreditation—could provide practical insights. Finally, the framework could be utilized to guide the design and development of BI systems that embed ethical principles from the outset, rather than retrofitting these considerations post-implementation.

Overall, this paper contributes to the ongoing discourse on the ethical use of BI systems in higher education and serves as a foundation for further research and practical application in this evolving field.

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# MATHEMATICAL MODELING OF CORRUPTION DYNAMICS USING NUMERICAL METHODS

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**Abstract:** This paper explores the use of mathematical modeling to analyze the dynamics of corruption through numerical methods. By incorporating variables such as institutional strength, enforcement mechanisms, and economic incentives, the study models how corruption evolves and spreads over time. Various numerical techniques, including differential equations and Monte Carlo simulations, are employed to predict the outcomes of anti-corruption policies. The paper highlights the significance of using computational tools in developing effective strategies to mitigate corruption, offering insights into the complex interplay between social, economic, and institutional factors.

**Keywords:** Corruption dynamics, mathematical modeling, numerical methods, anti-corruption policies, computational tools.

## INTRODUCTION

Corruption (from Latin *corrumpere*—to break) refers to the abuse of entrusted powers by officials for personal gain, often violating legal and ethical standards. Common manifestations include bribery, nepotism, and extortion, particularly in the public sector.

At this point, let's define nepotism: it is the act of favoring relatives or friends in professional settings, which can occur in various fields such as business, politics, academia, entertainment, sports, religion, and healthcare. The term originated from the historical practice of assigning positions to nephews, sons, or other family members.

## REVIEW OF LITERATURE ON THE SUBJECT

Mathematical modeling has increasingly become a crucial tool for understanding and analyzing corruption dynamics, enabling the development of theoretical frameworks and simulations that provide insights into the causes, proliferation, and control of corruption. The application of numerical methods in these models is essential for solving complex equations and simulating various scenarios, thereby assisting policymakers and researchers in comprehending how corruption evolves over time and how it can be mitigated.

One of the earliest contributions to this field was made by Andvig and Moene (1990), who developed a dynamic model of corruption influenced by economic incentives. Their work demonstrated how corrupt behavior could be swayed by changes in law enforcement and the probability of detection. This foundational model paved the way for subsequent studies exploring the equilibrium dynamics of corruption and its social and economic impacts.

In the realm of computational approaches, Banerjee and Mitra (2017) introduced agent-based modeling to simulate corruption as a complex adaptive system. Their method employs numerical techniques to simulate interactions among various agents (individuals, firms, and government officials) and predict the long-term effects of anti-corruption policies. Computational models facilitate the simulation of extensive corruption dynamics, providing a platform to experiment with diverse control strategies, including enhanced transparency, law enforcement reforms, and incentives for ethical behavior.

Finally, Marjit and Shi (1998) utilized numerical methods to model the relationship between corruption and economic growth. Their research revealed that corruption can hinder growth but may, in specific contexts, inadvertently facilitate it, depending on institutional frameworks. By solving nonlinear equations using numerical techniques, they illustrated that different forms of corruption (e.g., petty versus grand corruption) exert varying effects on economic development, thereby underscoring the need for targeted anti-corruption policies.



In conclusion, the literature on mathematical modeling of corruption dynamics emphasizes the significance of numerical methods in comprehending and predicting corruption behavior over time. Models that integrate economic, social, and institutional variables provide valuable insights for designing effective anti-corruption strategies. As the field progresses, the incorporation of more sophisticated numerical techniques and computational tools is likely to play an increasingly vital role in refining our understanding of corruption and its control.

### RESEARCH METHODOLOGY

In the implementation of these research works, widely used methods in scientific research methodology were employed. The use of deductive or inductive methods, moving from generality to individuality and vice versa, is effective in studying the subject. Additionally, the method of abstract-logical thinking is crucial for systematic analysis of the process. Throughout the scientific analysis, various research methods were extensively applied, particularly observation, generalization, grouping, comparison, and the methods of analysis and synthesis.

### ANALYSIS AND RESULTS

The total population  $N(t)$  is divided into five compartments. Those who are susceptible to corruption are susceptible individuals  $S(t)$ , those who are performing corruption are corrupted individuals  $C(t)$ , those who stopped doing corruption are recovered individuals  $R(t)$ , and those who know the badness of corruption and do not perform it permanently are honest individuals  $H(t)$  at time  $t \geq 0$ . Assume that there is a positive recruitment  $\Pi$  into the susceptible class by birth or immigration.

In the following table, there are illustrated a definition of the parameters involved in the mathematical model: (the value of the parameters was calculated in Uzbekistan based on statistics from 2019-2022) [22]

Parameters	Description	Value
$\alpha$	Rate of change of corruption due to Mass education	0.0095 [assumed]
$\varphi$	Rate of change of corruption due to religious teaching	0.25
$\psi$	Legal culture and legal consciousness	0.1
$\kappa$	The parameter of corruption due to greed-driven	0.000597
$\nu$	The parameter of corruption due to need-driven	0.135
$\eta$	Nepotism	0.23 [assumed]
$\varepsilon$	Percentage of individuals who are not born immune	0.416328
$\Pi$	Recruitment number	400
$\mu$	Natural death rate	0.004942
$\tau$	Rate at which reformed individuals become honest (enlightened)	0.06 [6]

Table 1. Definition and value of parameters.

The model system of differential equations is induced as follows:

$$\begin{aligned}
 \frac{dS}{dt} &= \Pi \varepsilon + (1 - \tau)R - \left( \frac{\kappa + \nu + \eta}{N} \right) SC - (\alpha + \varphi)S - \mu S \\
 \frac{dC}{dt} &= \left( \frac{\kappa + \nu + \eta}{N} \right) SC - \mu C - (\alpha + \varphi + \psi)C \\
 \frac{dR}{dt} &= (\alpha + \varphi + \psi)C + (\mu + 1)R \\
 \frac{dH}{dt} &= \Pi(1 - \varepsilon) + (\alpha + \varphi)S + \tau R - \mu H
 \end{aligned}
 \tag{1}$$

With the following initial conditions:

$$\begin{aligned}
S(0) &= S_0 \geq 0 \\
C(0) &= E_0 \geq 0 \\
R(0) &= R_0 \geq 0 \\
H(0) &= H_0 \geq 0.
\end{aligned}$$

**Model analysis. Positivity and boundness of the solution.** The positiveness of all its state variables and associated parameters for respect to time. This will be established by the following theorem:

**Theorem 1.** Let,  $\Omega = \{(S, C, R, H) \in R_+^4 : S(0) > 0, C(0) > 0, R(0) > 0, H(0) > 0\}$ . Then the solution set of system (1) is positive and bounded for all  $t \geq 0$ .

Adding the model equations to verify that the solution of the model system is bounded, we get:

$$\frac{dN(t)}{dt} = \Pi - \mu(S + C + R + H)$$

$N(t) = S(t) + C(t) + R(t) + H(t)$  simplifying that,  $\frac{dN(t)}{dt} = \Pi - \mu N$  we evaluate this equality,

$$\omega = \left\{ (S, C, R, I) \in R_+^4 : N(t) \text{ if } N(0) \leq \frac{\Pi}{\mu} \right\}.$$

**Corruption Free Equilibrium point (CFE).** To come to possession of CFE, we get the right side of the system of (1) differential equations to zero, in which case we achieve a non-corruption equilibrium state [9]. Thus,  $S \neq 0, H \neq 0, C = R = 0$

$$CFE = \{S, C, R, I\} = \left( \frac{\varepsilon \Pi}{\alpha + \varphi + \mu}, 0, 0, \frac{\Pi(1 - \varepsilon)(\alpha + \varphi + \mu) + (\alpha + \varphi)\varepsilon \Pi}{\mu(\alpha + \varphi + \mu)} \right) \quad (3).$$

**Basic reproduction number ( $R_0$ ).** The basic reproduction number ( $R_0$ ) measures the expected number of secondary infections that result from one newly infected individual introduced into a susceptible population. The calculation was provided ( $R_0$ ) of the model using the next-generation matrix method as described in [19]. The first step to get ( $R_0$ ) is rewriting the model equations starting with second infective classes from the system of differential equations (1):

$$\frac{dC}{dt} = \left( \frac{\kappa + \nu + \eta}{N} \right) SC - \mu C - (\alpha + \varphi + \psi) C.$$

We define the first term as  $f$  the remaining term  $v$ ,

$$f = \left( \frac{\kappa + \nu + \eta}{S + C + R + H} \right) SC \quad v = (\mu + \alpha + \varphi + \psi) C$$

since  $N(t) = S(t) + C(t) + R(t) + H(t)$ . If partial derivate respect to  $C$ ,

$$F = \frac{\partial f}{\partial C} = \frac{(\kappa + \nu + \eta)}{S + C + R + H} S \quad \text{and} \quad V = \frac{\partial v}{\partial C} = \mu + \alpha + \varphi + \psi$$

from Corruption free equilibrium (CFE)  $S \neq 0, H \neq 0, C = R = 0$ , from (3)

$$S = \frac{\varepsilon \Pi}{\alpha + \varphi + \mu} \quad \text{and} \quad H = \frac{\Pi(1 - \varepsilon)(\alpha + \varphi + \mu) + (\alpha + \varphi)\varepsilon \Pi}{\mu(\alpha + \varphi + \mu)}. \quad \text{Therefore}$$

$$F = \frac{(\kappa + \nu + \eta)}{S + H} S = \frac{\varepsilon \mu (\kappa + \nu + \eta)}{\varepsilon \mu + (1 - \varepsilon)(\alpha + \varphi) + \mu(1 - \varepsilon) + (\alpha + \varphi)\varepsilon} = \frac{\varepsilon \mu (\kappa + \nu + \eta)}{\alpha + \varphi + \mu}.$$

$$V^{-1} = \frac{1}{\alpha + \varphi + \psi + \mu}$$

$$\text{Therefore, } R_0 = \frac{\varepsilon\mu(\kappa+\nu+\eta)}{(\alpha+\varphi+\psi+\mu)(\alpha+\varphi+\mu)} \quad (4)$$

**Local stability of Corruption free equilibrium (CFE) point.**

To check for local stability of equilibrium points we take into consideration all model equations and find the Jacobian matrix that will be used to evaluate whether the equilibrium point is stable or not depending on the sign of the eigenvalues. Therefore, we linearize the model system (1) by computing the Jacobian matrix in the system with respect to the state variable  $S, C, R, H$ . If all eigenvalues are negative, then the equilibrium points are stable, otherwise it is unstable. Here we use Jacobian matrix to determine local stability of (CFE) which is obtained by first letting the given four equations as functions  $f, g, h$  and  $z$  as follows:

$$\begin{aligned} f(S, C, R, I) &= \Pi\varepsilon + (1-\tau)R - \left(\frac{\kappa+\nu+\eta}{N}\right)SC - (\alpha+\varphi)S - \mu S = 0 \\ g(S, C, R, I) &= \left(\frac{\kappa+\nu+\eta}{N}\right)SC - \mu C - (\alpha+\varphi+\psi)C \\ h(S, C, R, I) &= (\alpha+\varphi+\psi)C + (\mu+1)R \\ z(S, C, R, I) &= \Pi(1-\varepsilon) + (\alpha+\varphi)S + \tau R - \mu H \end{aligned} \quad (5)$$

where  $N(t) = S(t) + C(t) + R(t) + H(t)$ , then its Jacobian Matrix (J) at corruption free equilibrium (CFE) is given by:

$$J_{CFE} = \begin{pmatrix} \frac{\partial f}{\partial S} & \frac{\partial f}{\partial C} & \frac{\partial f}{\partial R} & \frac{\partial f}{\partial H} \\ \frac{\partial g}{\partial S} & \frac{\partial g}{\partial C} & \frac{\partial g}{\partial R} & \frac{\partial g}{\partial H} \\ \frac{\partial h}{\partial S} & \frac{\partial h}{\partial C} & \frac{\partial h}{\partial R} & \frac{\partial h}{\partial H} \\ \frac{\partial z}{\partial S} & \frac{\partial z}{\partial C} & \frac{\partial z}{\partial R} & \frac{\partial z}{\partial H} \end{pmatrix} \quad \text{and}$$

$$J_{CFE} = \begin{pmatrix} -(\mu+\alpha+\varphi) & -(\kappa+\nu+\eta) & (1-\tau) & 0 \\ 0 & (\kappa+\nu+\eta) - (\alpha+\varphi+\psi+\mu) & 0 & 0 \\ 0 & (\alpha+\varphi+\psi) & -(\mu+1) & 0 \\ (\alpha+\varphi) & 0 & \tau & -\mu \end{pmatrix}$$

The first eigenvalue  $\lambda_1 = -\mu < 0$ , therefore, the reduced Jacobian matrix at CFE is given by:

$$J_{CFE}^1 = \begin{pmatrix} -(\mu+\alpha+\varphi) & -(\kappa+\nu+\eta) & (1-\tau) \\ 0 & (\kappa+\nu+\eta) - (\alpha+\varphi+\psi+\mu) & 0 \\ 0 & (\alpha+\varphi+\psi) & -(\mu+1) \end{pmatrix}$$

Also, by observation the second eigenvalue is  $\lambda_2 = -(\mu+\alpha+\varphi) < 0$ , and reduced Jacobian matrix at CFE is given below:

$$J_{CFE}^2 = \begin{pmatrix} (\kappa+\nu+\eta) - (\alpha+\varphi+\psi+\mu) & 0 \\ (\alpha+\varphi+\psi) & -(\mu+1) \end{pmatrix}$$

Again, by observation the third eigenvalue is  $\lambda_3 = -(\mu+1) < 0$ , and hence the fourth eigenvalue is  $\lambda_4 = (\kappa+\nu+\eta) - (\alpha+\varphi+\psi+\mu)$ .

By considering  $\lambda_4$  we find that the CFE will be asymptotically stable only if  $\lambda_4 < 0$ , which  $(\kappa + \nu + \eta) < (\alpha + \varphi + \psi + \mu)$  must hold true for stability of CFE point.[19-22]

**Global stability of CFE point.**

**Theorem 2.** The corruption free equilibrium point of model (1) is global asymptotically stable if  $R_0 < 1$

**The Corruption Endemic Equilibrium (CEE) point.** The endemic equilibrium point denoted by  $E^* = (S^*, C^*, R^*, I^*)$  is the steady state solution where corruption persists in the population. It can be obtained by equating each equation in (1) to zero:

$$\begin{aligned} \Pi \varepsilon + (1 - \tau)R - \left(\frac{\kappa + \nu + \eta}{N}\right)SC - (\alpha + \varphi)S - \mu S &= 0 \\ \left(\frac{\kappa + \nu + \eta}{N}\right)SC - \mu C - (\alpha + \varphi + \psi)C &= 0 \end{aligned} \tag{8}$$

$$(\alpha + \varphi + \psi)C + (\mu + 1)R = 0$$

$$\Pi(1 - \varepsilon) + (\alpha + \varphi)S + \tau R - \mu H = 0$$

Then, we obtain

$$\begin{aligned} S^* &= \frac{\mu + (\alpha + \varphi + \psi)}{B} \\ C^* &= \frac{(\mu + 1)R}{(\alpha + \varphi + \psi)} \end{aligned} \tag{9}$$

$$R^* = \frac{M((M + \mu)(\alpha + \beta) + \mu(M + \mu))}{B(M - M\gamma - (M + \mu)(\mu + 1))} - \varepsilon \Pi$$

$$H^* = \frac{1}{\mu} \left( \Pi(1 - \varepsilon) + (\alpha + \varphi) \frac{\mu + (\alpha + \varphi + \psi)}{B} + \tau \left( \frac{M((M + \mu)(\alpha + \varphi) + \mu(M + \mu))}{B(M - M\gamma - (M + \mu)(\mu + 1))} - \varepsilon \Pi \right) \right)$$

where  $B = \frac{\kappa + \nu + \eta}{N}$  and  $M = (\alpha + \varphi + \psi)$ .

**Global stability of Corruption Free Equilibrium (CEE) point.**

**Theorem 4.** If  $R_0 > 1$  therefore CEE,  $E^*$  of system of equation (1) is globally asymptotically stable in  $\mathcal{O}$  when  $\frac{S}{S^*} = \frac{C}{C^*}$ .

**The sensitivity analysis.** In order to see the relative effect of each parameter to the corruption transmission, we performed sensitivity analysis. To go through, we followed the approach defined by [11] as done in [12-16] which used the definition of normalized forward sensitivity index defined as a variable,  $R_0$ , that depends differentiable on a parameter  $l$ , defined as

$$T_l^{R_0} = \frac{\partial R_0}{\partial l} \cdot \frac{l}{R_0}$$

for  $l$  represents all the basic parameters to [17].

From the derivative of  $R_0$  with respect to model parameter it is demonstrated that there are some values of the derivative of  $R_0$  which are less than 0 and other values are greater than 0. Analytically it indicates that all values of  $R_0$  which are less than 0 are the important factors for controlling corruption in the country. Therefore, increasing these parameters becomes the most control strategy of corruption in the country.

Considering the most negative sensitivity indices which are  $\alpha$ ,  $\varphi$  and  $\psi$ . Table 2 below shows the sensitive parameter values and its graph respectively.

Parameter symbol	Sensitivity indices
$\alpha$	-0.0596
$\varphi$	-1.56
$\mu$	1
$\eta$	0.7156
$\psi$	-1.1379
$\varepsilon$	1.000
$\kappa$	0.0018
$\nu$	0.42

Table 2. Sensitivity index table.

From Table 2 it is illustrated that parameters  $\alpha$ ,  $\varphi$  and  $\psi$  are most negative sensitive to the fight of corruption in the country this indicates that the more increase in these parameters leads to more control in the corruption of the country. Moreover the parameters  $\varphi$  and  $\psi$  are the most positive influential of corruption in the country, therefore for achieving a decrease in the level of corruption the attention should be paid on these parameters, as they continue to rise the reproduction number also increases sharply which can be cause to high prevalence of corruption in the country. Therefore  $\varphi$  and  $\psi$  must be fully controlled.

Numerical simulation.

Influence of mass education against corruption dynamics.

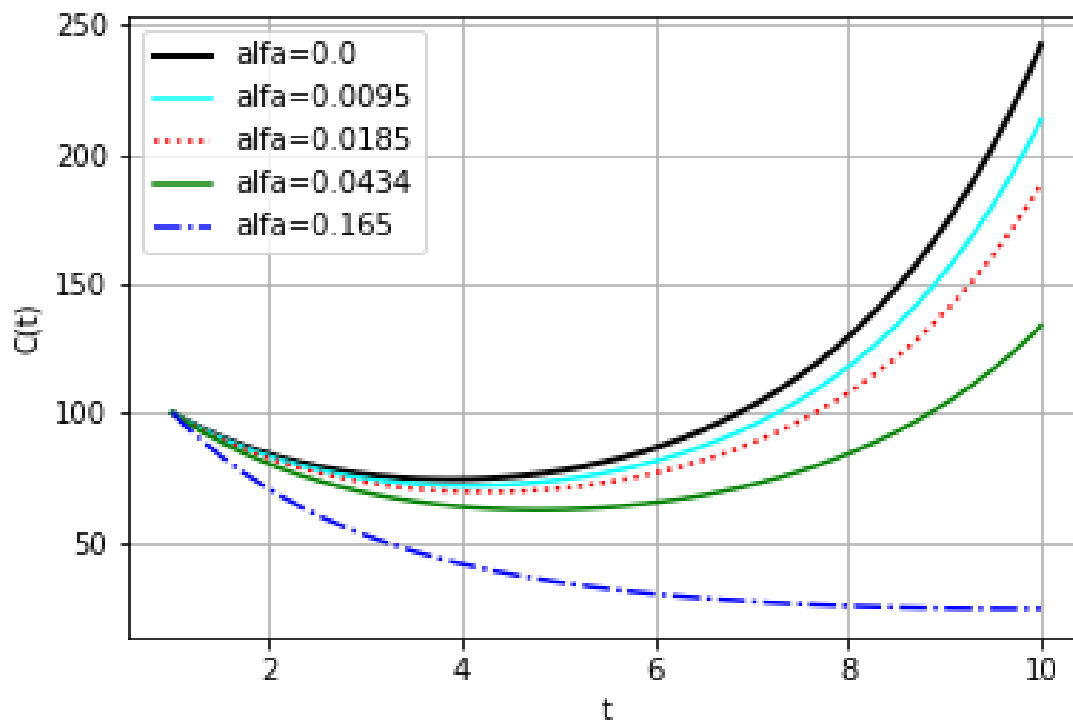
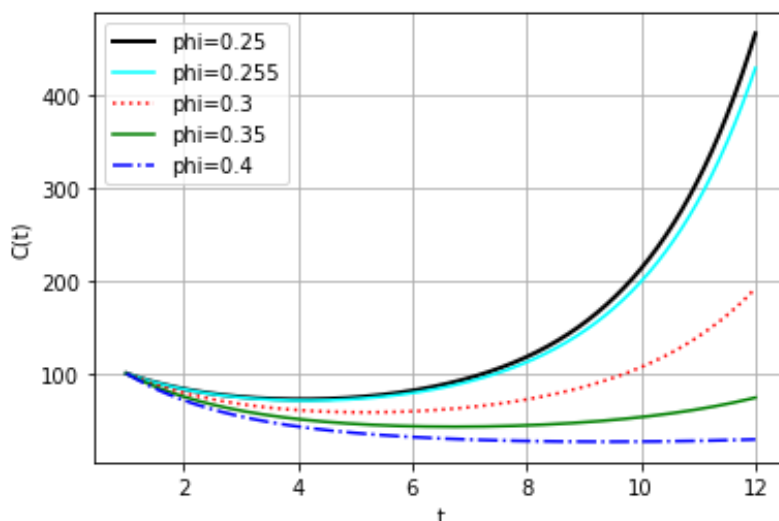


Figure-2. Change in the number of corrupt individuals with variation rate of mass education.

A significant decrease in corruption can be seen from Figure 2 because of the provision of public education, in society, in the neighborhood, in the family, as well as an increase in the value of the change parameter of corruption through conscientious awakening. When  $t = 10$  months comes to the deadline, with the increase in the implementing the proper education, the rate of corruption came down.

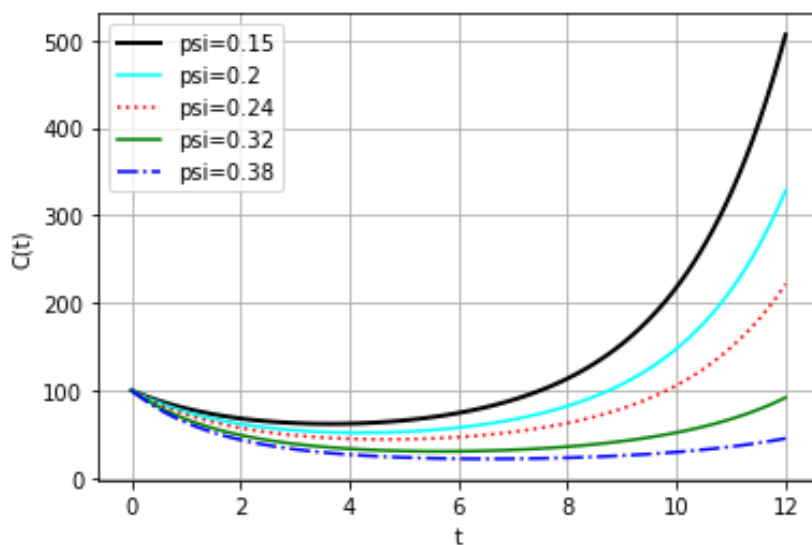
The influence of religious teaching against corruption.



**Figure 3. The change in the number of corrupt individuals influenced by religious doctrine.**

The figure 3 shows that religious leaders' introduction of the corruption as the defect of society from religious point of view can effect positively to their followers. Furthermore, religious mentors prefer to being involved in fighting corruption, as it can abolish the wrong concept of young generations about how government solves the social problems and how society mechanism works.

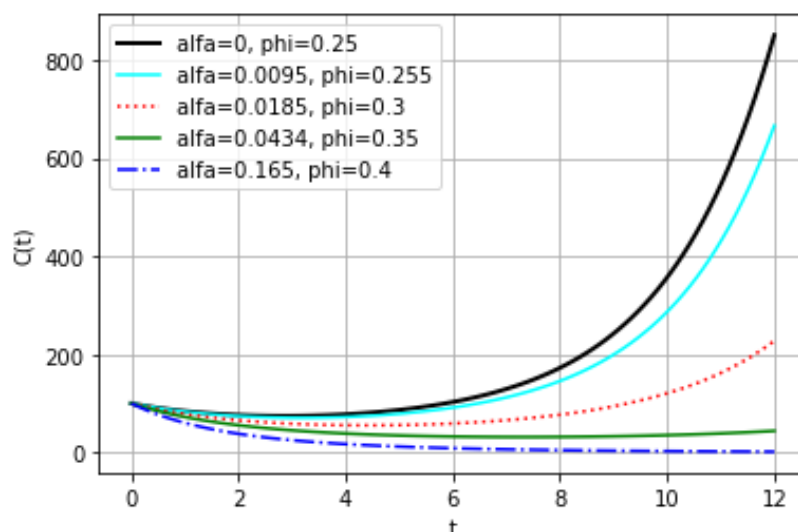
Legal culture, the importance of legal consciousness in the fight against corruption.



**Figure 4. Change in the number of corrupt individuals with varying rate of legal culture**

Ignorance of the laws of individuals in society, on their own, leads to the development of bribery among some individuals because a legal culture is not formed properly. Hence, the increase in subjects related to the development of legal consciousness in educational institutions and the good delivery of concepts about it to students can lead to a reduce in corrupt people.[19]

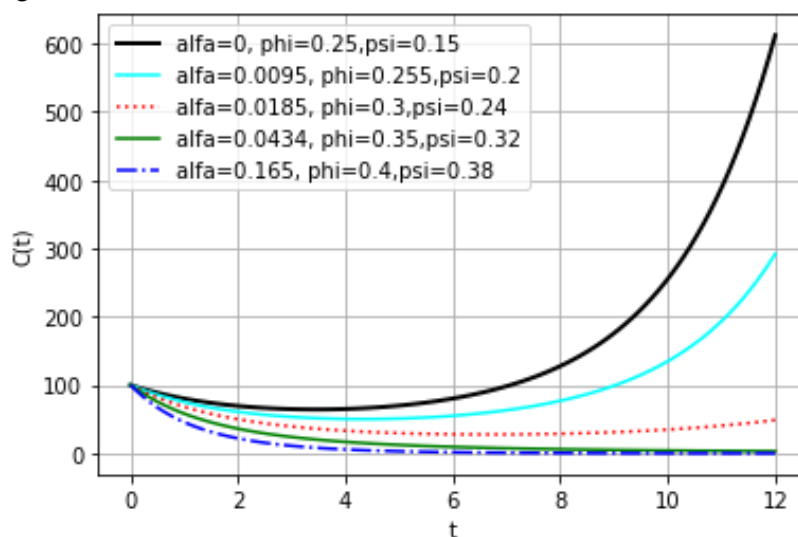
**Public education and the influence of religious teaching in combating against corruption.**



**Figure 5. Mass education is a change in the number of corrupt individuals influenced by upbringing and religious teaching.**

Public education indicates a short-term decline in numbers as a result of upbringing and the transformation of corruption through conscientious awakening, as well as its connecting with religious teaching.

Public education is the influence of education, religious teaching and the influence in combating corruption through legal culture.



**Figure 6. Mass education is a change in the number of corrupt individuals influenced by the influence of upbringing, religious teaching and legal culture.**

The three most influential parameters – mass education upbringing, as a result of explanatory work in society, neighborhood, family, as well as the change parameter of corruption through conscientious awakening, - the change parameter of corruption due to religious teaching - the joint change of parameters of legal culture, psychology and legal consciousness, we can see from Figure 6 that it is effective. [20]

### CONCLUSIONS AND SUGGESTIONS

In this paper, a mathematical model for the transmission dynamics of corruption in a population was formulated. The basic reproduction number  $R_0$  was computed, and the stability of equilibrium points was investigated. Through Lyapunov's theory, the corruption-free equilibrium point is globally asymptotically stable whenever  $R_0 < 1$  was proven. The global stability of the unique endemic equilibrium whenever  $R_0 > 1$

was demonstrated. Using the definition of normalized forward sensitivity, the sensitivity parameters were determined.

Whereas if parameters  $\alpha$ ,  $\varphi$  and  $\psi$  which represent mass education, religious teaching and legal culture, psychology and legal consciousness respectively such that when these parameters increases while other parameters remain constant the basic reproduction number will be less than 1 as a result there will be a control of corruption in the community. For these results it suggests that there is a need to invest more efforts in mass education to the population and increase more emphasize to religious leaders to teach their followers effectively about corruption as it is against their faith and doctrines.

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## XALQARO INTELLEKTUAL MIGRATSIYA SOHASIDAGI ZAMONAVIY TENDENSIYALAR

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**Annotatsiya:** Ushbu maqolada xalqaro intellektual migratsiya jarayonlarining zamonaviy tendensiyalari tahlil qilinadi. Intellektual migratsiya — bu yuqori malakali mutaxassislar, olimlar va ijodiy shaxslarning bir davlatdan boshqa davlatga ko'chishi bo'lib, u global iqtisodiyot va ilm-fan rivojlanishida katta ahamiyat kasb etadi. Maqolada ushbu jarayonning iqtisodiy va ijtimoiy oqibatlari, shuningdek, davlatlar o'rtasidagi innovatsion va texnologik almashinuvlarga ta'siri tahlil etilgan.

**Kalit so'zlar:** global iqtidorlar taqchilligi, global tadqiqotchilar, IT mutaxassislari, raqamlashtirish, xalqaro migratsiya masalalari, intellektual migratsiya.

### KIRISH

Intellektual migratsiya zamonaviy globallashtirish jarayonlarining eng dolzarb masalalaridan biri hisoblanadi. Yuqori malakali mutaxassislar, olimlar va tadqiqotchilarning bir mamlakatdan boshqa mamlakatga ko'chishi global iqtisodiyot va ilm-fan rivojlanishiga sezilarli ta'sir ko'rsatadi. Ushbu jarayon davlatlar o'rtasida bilim almashinuvini tezlashtirish bilan birga, iqtisodiy o'sish, innovatsiyalarning keng tarqalishi va texnologik taraqqiyotni ham jadallashtiradi.

Globallashtirishning davom etishi, texnologik rivojlanish va demografik o'zgarishlar dunyo miqyosida yuqori malakali mutaxassislarga bo'lgan talabning keskin oshishiga olib kelmoqda. Ilm-fan va texnologiyaga sarmoya kiritayotgan davlatlar tadqiqotchilar va olimlar uchun qulay sharoitlar yaratib, bilimlar almashinuvini va innovatsiyalarni rag'batlantirishga ko'maklashmoqda. Shu bilan birga, yuqori turmush darajasi, raqobatbardosh ish haqi, ilg'or infratuzilma va kasbiy rivojlanish imkoniyatlari kabi omillar yuqori malakali kadrlarning boshqa mamlakatga ko'chib o'tish qarorlariga ta'sir ko'rsatishda davom etmoqda.

### MAVZUGA OID ADABIYOTLAR SHARHI

Xalqaro intellektual migratsiya zamonaviy iqtisodiy va ijtimoiy jarayonlarning ajralmas qismiga aylanib bormoqda. Bu sohada tadqiqotlar iqtisodiy o'sish, globallashtirish va ta'lim bilan chambarchas bog'liqdir. Ushbu jarayonlarni tushunish uchun turli ilmiy adabiyotlar muhim ahamiyatga ega.

Xalqaro intellektual migratsiyani tadqiq etuvchi olimlardan biri R. Zamoniyo'z ishida migratsiyaning iqtisodiy va ijtimoiy jihatlariga e'tibor qaratgan. Uning fikricha, intellektual migratsiya bilim va innovatsiyalarning global taqsimotiga yordam beradi. Xususan, texnologik rivojlanishning tezlashishi bilan mutaxassislar va olimlarning migratsiyasi tobora kuchayib bormoqda.

Olimlar A. Jo'raev va M. Karimovlar intellektual migratsiyani iqtisodiy o'sishning muhim omillaridan biri sifatida ta'kidlaydilar. Ularning tadqiqotlariga ko'ra, yuqori malakali kadrlarning mamlakatlar o'rtasida erkin harakatlanishi texnologik va ilmiy taraqqiyotni tezlashtirishga hissa qo'shadi.

Bundan tashqari, J. Bernard va Ye. Smitning ishlari intellektual migratsiyaning sog'liqni saqlash, ta'lim va ilmiy tadqiqotlar sohalaridagi rolini ochib beradi. Ular xalqaro hamkorlikni kuchaytirish va intellektual resurslardan samarali foydalanish orqali innovatsiya jarayonlarini yaxshilash imkoniyatini o'rganganlar.

Shuningdek, O‘zbekistonlik olimlardan biri S. Rahimov o‘z ishida mamlakatimizdagi intellektual migratsiyaning ahamiyatiga e‘tibor qaratgan. Uning tadqiqotlari intellektual resurslarning davlat taraqqiyotiga qo‘shgan hissasini ko‘rsatadi.

Jami, intellektual migratsiya zamonaviy global iqtisodiyotning muhim qismi bo‘lib, uning zamonaviy tendensiyalarini tushunish uchun xalqaro va mahalliy tadqiqotlarga asoslangan ilmiy ishlar muhim ahamiyat kasb etadi.

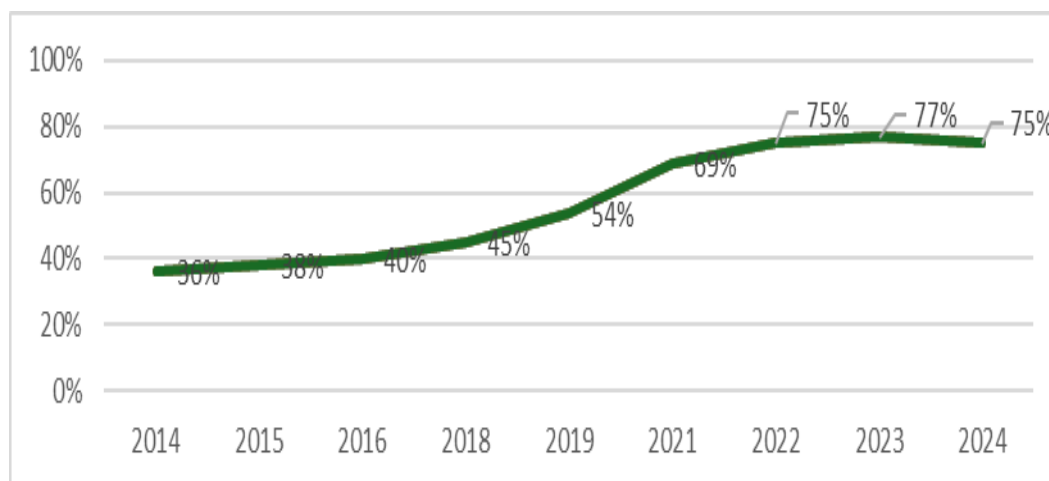
### TADQIQOT METODOLOGIYASI

Ushbu tadqiqot ishlarini amalga oshirishda ilmiy tadqiqot metodologiyasida keng qo‘llaniladigan usullardan foydalanildi. Mavzuni o‘rganishda umumiylikdan individuallikka va aksincha tartibda deduksion yoki induksion usullardan foydalanish samarali bo‘lsa, abstrakt-mantiqiy fikrlash usuli jarayonni tizimli tahlil qilishda ahamiyatlidir. Ilmiy tahlil jarayonida ana shu ilmiy tadqiqot usullaridan, xususan, kuzatish, umumlashtirish, guruhlash, taqqoslash, tahlil qilishda esa sintez va tahlil usullaridan keng foydalanildi.

### TAHLIL VA NATIJALAR

Hozirgi iqtisodiy rivojlanish sharoitida xalqaro intellektual migratsiya sohasida quyidagi tendensiyalar kuzatilmoqda:

**Yuqori malakali mutaxassislarga bo‘lgan talabning ortishi.** Bugungi kunda dunyo bo‘ylab 75% ish beruvchilar o‘zlari uchun zarur bo‘lgan iqtidor egalarini topishda qiyinchiliklarga uchrarmoqdalar (2.1-rasm). Xususan, bu ko‘rsatkich Yaponiyada 85%, Hindistonda 81%, Buyuk Britaniya, Fransiya va Kanadada 80%, Singapur va Gonkongda 79%, Avstraliyada 78%, AQShda 70%, Xitoyda esa 69%ni tashkil etmoqda.<sup>13</sup>



1-rasm. Global iqtidorlar taqchilligi<sup>14</sup>

Texnologik taraqqiyot va raqamli iqtisodiyotga o‘tish sharoitida ayniqsa AKT, tibbiyot, muhandislik va tadqiqot sohasidagi yuqori malakali mutaxassislarga bo‘lgan talab ortib bormoqda. Global iqtidorlar taqchilligi 2024 hisobotida tarmoq va geografik joylashuvidan qat’iy nazar IT va Data Science (ma’lumotlarga oid fanlar) ko‘nikmalariga ega iqtidorli mutaxassislarni topish eng qiyin soha bo‘lib qolmoqda<sup>15</sup>. Shuningdek, 2024-yil holatiga ko‘ra, IT kohada ish beruvchilarining 76 foizi iqtidorli mutaxassislarni izlash muammosiga uchraganliklari ma’lum bo‘lgan<sup>16</sup>.

Xususan, dunyo bo‘ylab malakali IT mutaxassislarga bo‘lgan talab bugungi kunda 40 million kishini tashkil etadi, 2026-yilga kelib bu ko‘rsatkich 85,2 million kishiga etishi kutilmoqda. Xususan, yiliga 400 ming nafar IT mutaxassis bitiruvchiga ega bo‘ladigan AQShda 2020-yilning oxirida 1,4 million nafar IT mutaxassis taqchilligi kuzatilgan<sup>17</sup>. AQShda 2010-yilda 6,4 million, 2020-yilda 8 million IT mutaxassis zarur bo‘lgan

<sup>13</sup> Global 2024 Talent Shortage//

[https://go.manpowergroup.com/hubfs/Talent%20Shortage/Talent%20Shortage%202024/MPG\\_TS\\_2024\\_GLOBAL\\_Infographic.pdf](https://go.manpowergroup.com/hubfs/Talent%20Shortage/Talent%20Shortage%202024/MPG_TS_2024_GLOBAL_Infographic.pdf)

<sup>14</sup> Global 2024 Talent Shortage//

[https://go.manpowergroup.com/hubfs/Talent%20Shortage/Talent%20Shortage%202024/MPG\\_TS\\_2024\\_GLOBAL\\_Infographic.pdf](https://go.manpowergroup.com/hubfs/Talent%20Shortage/Talent%20Shortage%202024/MPG_TS_2024_GLOBAL_Infographic.pdf)

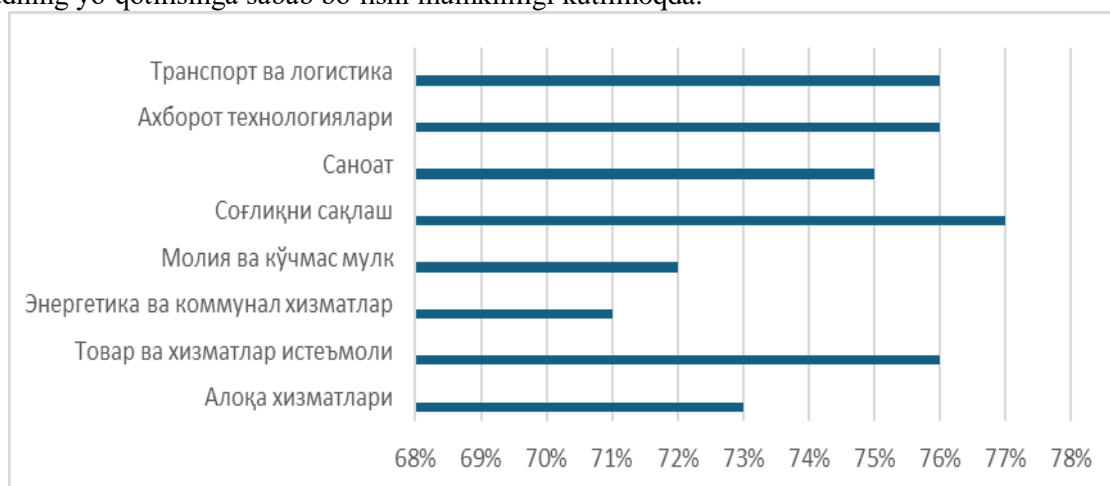
<sup>15</sup> Уша жойда

<sup>16</sup> ManpowerGroup Employment Outlook Survey 2024.Q2.2024. Global findings //

[https://go.manpowergroup.com/hubfs/MPG\\_GLOBAL\\_EN\\_MEOS\\_Report\\_2Q24.pdf](https://go.manpowergroup.com/hubfs/MPG_GLOBAL_EN_MEOS_Report_2Q24.pdf)

<sup>17</sup> A.Kidron. The IT Talent Gap: Regions Under The Risk// <https://www.elinext.com/blog/worldwide-it-talent-gap-in-2022/>

bo'lsa, 2030-yilda bu talab 9 million kishiga etishi<sup>18</sup>, muhandislarga bo'lgan talab 2026-yilga kelib 1,2 million kishini tashkil qilishi hamda mamlakatdagi IT mutaxassislar taqchilligi 162 milliard AQSh dollari miqdoridagi daromadning yo'qotilishiga sabab bo'lishi mumkinligi kutilmoqda.



2-Rasm. Tarmoqlar bo'yicha iqtidorlar taqchilligi<sup>19</sup>

Buni Yevropaning Silikon vodiysi nomini olgan hamda Skype, Spotify, Electrolux, Ericsson va boshqa texnologik gigantlarga ega bo'lgan Shveysiyada 2022-yilda 70 ming nafar, Finlyandiyada so'nggi o'n yillikda 130 ming nafar, Germaniyada 2017-2020-yillar davomida 55 ming nafardan 124 ming nafargacha, Shveysariyada 117 ming 900 nafar, Singapurda keyingi uch yilda 60 ming nafar, Avstraliyada 2026-yilga kelib, 520 ming nafar malakali IT mutaxassislar taqchilligi yuzaga kelgani bilan ham izohlash mumkin<sup>20</sup>.

Yevropa mamlakatlarida IT mutaxassislar soni 2012–2022-yillar mobaynida 57,8% ortib, 9 million kishiga etgan<sup>21</sup> bo'lishiga qaramay, 2030-yilga kelib ularning sonini 20 million kishiga etkazish rejalashtirilgan. Yuqoridagi holatlar va 2030-yilga kelib Yevropa mamlakatlaridagi korxonalarining 75 foizi Cloud, AI va Big Datalardan foydalanishini hisobga olsak, yuqori texnologik jaryonlarni boshdan kechirayotgan mamlakatlarda IT mutaxassislarga bo'lgan talab barqaror o'sishda davom etishini bashorat qilishimiz mumkin<sup>22</sup>.

Shu o'rinda texnologik sohaning mehnat bozoriga ta'siri masalasiga e'tibor qaratgan CompTIA Cyberstates hisobotlarida IT sohasida yaratilgan har bir bo'sh ish o'rni yana yangi 4,8 ta ish o'rnini yaratishni taqazo etishi ta'kidlangan. Bu holat yuqorida AQSh va Yevropa mamlakatlarida ta'kidlangan IT soha mutaxassisiga bo'lgan talabning qondirilishi yana qo'shimcha ravishda 4,8 barobarga ko'p bo'lgan soha mutaxassisiga bo'lgan talabning yuzaga kelishini anglatadi.

Texnologik soha boshqa sohalardan ko'ra barqaror bandlik xususiyatini, ya'ni quyi ishsizlik va istiqbolda ish bilan ta'minlanish imkoniyatining yuqoriligini namoyon etadi. 2024-yilda sohadagi ish o'rinlarining yaratilishi 2023-yilga nisbatan 34%ga ortiq bo'lishi bashorat qilingan. Kelajakda texnologiya sohasidagi bandlik AQShdagi bandlikka nisbatan ikki barobar ko'proq o'sishi bashorat qilinmoqda.

*“Aqliy salohiyat oqimi” siyosati va uning oqibatlarini.* Transport va aloqa xizmatlarining rivojlanishi, raqamlashtirish sharoitida texnologik marakazlar tomonidan IT sohasidagi mutaxassislarga bo'lgan talabning ortishi va ularning jozibador immigratsiya siyosati, ta'lim va sog'liqni saqlash sohasi vakillarining nafaqat yuqori turmush darajasi va ish haqi, balki zamonaviy ilmiy tadqiqot imkoniyatlari evaziga professional o'sishga bo'lgan intilishlari, dunyoning etakchi universitetlari tomonidan taqdim etilgan maxsus stipendiyalar evaziga ta'lim olgan iqtidorli talabalarning aksariyatini o'z Vatanga qaytmasliklari hamda siyosiy beqarorlik kabi omillar zamonaviy “aqliy salohiyat oqimi” muammosining xususiyatlarini namoyon etmoqda. Yuzaga kelgan iqtisodiy, texnologik va ijtimoiy omillar sharoitida yuqori malakali mutaxassislarni yo'qotib, “aqliy salohiyat oqimi” muammosiga uchrayotgan mamlakatlarning iqtisodiy va ilmiy salohiyaga putur etmoqda.

<sup>18</sup> IT industry outlook 2022. Research report// <https://connect.comptia.org/content/research/it-industry-trends-analysis-2022>

<sup>19</sup> ManpowerGroup Employment Outlook Survey 2024.Global findings// [https://go.manpowergroup.com/hubfs/MPG\\_GLOBAL\\_EN\\_MEOS\\_Report\\_2Q24.pdf](https://go.manpowergroup.com/hubfs/MPG_GLOBAL_EN_MEOS_Report_2Q24.pdf)

<sup>20</sup> A.Kidron. The IT Talent Gap: Regions Under The Risk// <https://www.elinext.com/blog/worldwide-it-talent-gap-in-2022/>

<sup>21</sup> ICT specialists in employment. Statistics Explained.P.1,2.// <https://ec.europa.eu/eurostat/statistics-explained/SEPDF/cache/47162.pdf>

<sup>22</sup> Europe's Digital Decade: digital targets for 2030// [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030\\_en#documents](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en#documents)

Olimlar va tadqiqotchilar ilmiy tadqiqot ishlari ko'proq moliyalashtiriladigan va tadqiqot infratuzilmasi yaxshiroq rivojlangan mamlakatlarga tomon yo'nalmoqdalar. Birgina AQSh, Kanada, Buyuk Britaniya va Avstraliyada jami oliy ma'lumotli migrantlarning 50%dan ortig'i to'plangan<sup>23</sup>. Bugungi kunda global tadqiqotchilarning 92%dan ortiq qismi yuqori va o'rtachadan yuqori daromadli mamlakatlarda to'plangan bo'lib, ularning Global GERD (Global Gross expenditures on research and development- jami tadqiqot va rivojlanish xarajatlari)dagi ulushi ham qariyb 95%ga teng. Xususan, tadqiqotchilarning 55 foizi Amerika va Yevropa, 37,6 foizi Janubiy va Janubiy Sharqiy Osiyo (8 foizi Yaponiya, 5 foizi Koreya Respublikasi, 21 foizi Xitoy) mintaqasiga to'g'ri keladi. O'z navbatida o'rtachadan quyi va quyi daromadli mamlakatlarning Global GERDda 4,5% ulushga ega bo'lishi, mamlakat YaIMda GERDning ulushi Afrika, Markaziy va Janubiy Osiyo mintaqalarida hamda Osiyoning arab mamlakatlarida atigi 0,6%ni tashkil qilishi, mazkur mintaqalarda dunyo aholisining qariyb 45 foizini yashashiga qaramay ularga jami tadqiqotchilarning 8 foizi ham to'g'ri kelmasligi "aqliy salohiyat" vakillarining yuqori daromadli mamlakatlar tomon mobillashuviga turtki bermoqda<sup>24</sup>. Xususan, Afrikaning Janubiy Saxro mamlakatlaridan chiqqan olimlarning 28 foizi Iqtisodiy hamkorlik va taraqqiyot tashkiloti mamlakatlarida faoliyat ko'rsatishi ham buning yaqqol namunasidir. Shu o'rinda Afrikaning Sub Saxro mintaqasi, Karib xavzasi va Tinch okeani mintaqasi mamlakatlaridagi oliy ma'lumotli kishilar nisbatan past malakali kishilarga nisbatan 30 baravarga ko'proq immigratsiya qilishlari "aqliy salohiya oqimi" muammosining kengayish ehtimoli nechog'lik yuqori ekanligini ko'rsatadi<sup>25</sup>.

Shuningdek, bugungi kunda xorijlik tibbiyot xodimlarining ulushi AQShda 17%ni, Buyuk Britaniyada 12%ni, Fors ko'rfazi arab mamlakatlarida esa, 79%ni tashkil qiladi<sup>26</sup>. Jahon sog'liqni saqlash tashkiloti ma'lumotlariga ko'ra, vrachlarning aholiga nisbati idel ko'rinishda 1 ta vrachga ming kishi to'g'ri kelishi bilan izohlanaadi. Bu borada Afrikada eng quyi ko'rsatkich ya'ni 1:5000 nisbat kuzatiladi. 211 million aholiga ega bo'lgan Nigeriyada 75 ming nafar vrach mavjud bo'lib, ko'plab nigeriyalik vrachlarni o'ziga jalb qilgan 68 million aholiga ega bo'lgan Buyuk Britaniyada 370 ming nafar vrach faoliyat ko'rsatadi<sup>27</sup>. 2006-2018-yillarda davomida mamlakatga haftasiga kamida 12 ta nigeriyalik vrachni jalb qilgan qilingan bo'lib, bu muddatda Buyuk Britaniyadagi nigeriyalik vrachlar soni 2692 tadan 5250 nafarga etgan<sup>28</sup>. Shuningdek, 2015 yildagi tadqiqotlarning ko'rsatishicha, AQShdagi tibbiyot sohasidagi afrikalik bitiruvchilarning 86 foizi Misr, Nigeriya, Janubiy Afrika va Ganadan tashrif buyurgan<sup>29</sup>. Shuningdek, AQShdagi diplomga ega bo'lgan xamshiralarning 24 foizi, quyi darajali xamshiralarning 20 foizi va parvarish sohasidagi mutaxassislarining 16 foizi afrikaliklar hisoblanadi. Xorijlik tibbiyot mutaxassislari orasida afrikalikliklarni katta miqdorda jalb qiluvchi mamlakatlar qatoriga Kanada, Avstraliya, BAA va Saudiya Arabistonini ham kiritish mumkin. Yuzaga kelgan bunday holatni dunyo aholisining 16 foiziga ega bo'lgan mintaqaga dunyo bo'ylab sog'liqni saqlash sohasiga ajratilgan jami xarajatlarning 1%dan kam qismi ajratilishi, jon boshiga hisoblaganda qolgan yirik respient mamlakatlarda 10 baravariga ko'p mablag' ajratilishi bilan izohlash mumkin<sup>30</sup>. Natijada Nyu Djersidagi jarroxlarning o'rtacha yillik daromadi 210 ming AQSh dollari bo'lib turgan bir paytda, ularning xamkasblari Zambiyada 24 ming AQSh dollari, Keniyada esa, 6 ming AQSh dollari evaziga ishlashga majbur bo'lmoqdalar. Shu tariqa ko'plab yirik respient mamlakatlar afrikalik vrachlarning "aqlar oqimi" hisobiga millionlab dollar mablag'ni tejashga, donor mamlakatlar esa, sarflagan imkoniyatlarini yo'qotishga erishmoqdalar<sup>31</sup>.

<sup>23</sup> World Development Report 2023: Migrants, Refugees, and Societies. Washington. World Bank. 2023.P.7.

<sup>24</sup> UNESCO Science Report: the Race Against Time for Smarter Development. S. Schneegans, T. Straza and J. Lewis (eds). UNESCO. Paris.2021. P.72- 74.// <file:///C:/Users/kadir/Downloads/377433eng.pdf>

<sup>25</sup> World Development Report 2023: Migrants, Refugees, and Societies. Washington. World Bank. 2023.P.9.

<sup>26</sup> World Development Report 2023: Migrants, Refugees, and Societies. Washington. World Bank. 2023.P.7.

<sup>27</sup> [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/medical-doctors-\(number\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/medical-doctors-(number))

<sup>28</sup> K. Obiejesi. At least 12 Nigerian doctors employed in the UK every week, report reveals// <https://www.icirigeria.org/at-least-12-nigerian-doctors-employed-in-the-uk-every-week-report-reveals/>

<sup>29</sup> Robbert J. Duvivier, Vanessa C. Burch, John R. Boulet. A comparison of physician emigration from Africa to the United States of America between 2005 and 2015// *Human Resources for Health*. 2017. volume 15, (41)// <https://human-resources-health.biomedcentral.com/articles/10.1186/s12960-017-0217-0#citeas>

<sup>30</sup> O. Ogbuoji, I.Bharali, N. Emery, K. Kennedy. Closing Africa's health financing gap// <https://www.brookings.edu/articles/closing-africas-health-financing-gap/>

<sup>31</sup> O. Akinfenwa. Africa's loss, their gain: How the US and UK benefit from medical brain drain

By 2035, the deficit is expected to reach 4.3 million physicians// <https://globalvoices.org/2021/07/19/africas-loss-their-gain-how-the-us-and-uk-benefit-from-medical-brain-drain/>

Global tadqiqotchilar va tadqiqot xarajatlari<sup>32</sup>

	Global tadqiqotchilar ulushi, %	Xar million kishiga to'g'ri keladigan tadqiqotchilar soni	Global GERD ulushi, %	YaIMda GERD ulushi%
<b>Dunyo</b>	100	1368	100	1,8
<b>Yuqori daromad. mam.</b>	60,2	4 301	64,3	2,4
<b>O'rtachadan yuqori daromad. mam.</b>	31,2	1 142	31,2	1,5
<b>O'rtachadan quyi daromad. mam.</b>	8,3	312	4,3	0,4
<b>Quyi daromad. mam</b>	0,21	45	0,10	0,2
<b>Amerika</b>	22	2 136	30	2,12
<b>Evropa</b>	31	3 372	22	1,78
<b>Afrika</b>	2,5	326	1,01	0,6
<b>Sub Saxro</b>	0,6	123	0,5	0,51
<b>Afrikadagi arab mam.</b>	1,8	866	0,6	0,65
<b>Osiyo</b>	44,5	969	45,7	1,7
<b>Markaziy Osiyo</b>	0,31	545	0,05	0,12
<b>Osiyodagi arab mam.</b>	0,46	458	0,58	0,53
<b>G'arbiy Osiyo</b>	1,43	1 494	1,4	1,37
<b>Janubiy Osiyo</b>	4,6	262	3,2	0,60
<b>Janubiy va Janubi-Sharqiy Osiyo</b>	37,6	1 475	40,3	2,13

Manba: Yunesko statistika instituti

Siyosiy beqarorlik va quyi xavfsizlik, urushlar, jinoyatchilik, zo'ravonlik, inson huquqlarining etarlicha himoya qilinmasligi ham aqliy salohiyat vakillarining emigratsiyasiga turtki beradi. Bunga Ukraina, G'azo, Suriya kabi mamlakatlarni tark etayotgan migrantlar orasida aqliy salohiyat egalarining ham mavjudligi yaqqol namuna bo'la oladi. Bunga suriyalik qochoqlarning 2 ming nafari universitet professionallari<sup>33</sup> ekanligi, tibbiyot xodimlarining 50 foizidan ortig'i mamlakatni tark etgani<sup>34</sup> kabi holatlar misol bo'la oladi. Yuzaga kelgan malakali mutaxassislar taqchilligini xukumat o'qituvchilarning nafaqa yoshini 60 yoshdan 70 yoshga ko'tarish, nafaqadagi o'qituvchilarni ishga qaytarish hamda etarli malakaga ega bo'lmagan o'qituvchilar va administrativ xodimlarni yollash kabi mavjud imkoniyatlar hisobiga o'nglashga intilmoqda. Shuningdek, Rossiyaning Urkainaga xujumi ikkinchi jahon urushidan beri insoniyat ko'chishining eng katta oqimini yuzaga keltirdi. Bugungi kunda 5,7 million nafar aholisi vatanini tark etishga majbur bo'lgan Ukraina qochoqlar soni bo'yicha Suriya (6,5 million)dan keyingi ikkinchi mamlakatga aylandi<sup>35</sup>. Ukrainalik qochoqlarning aksariyati yuqori malakali lavozimlarda faoliyat ko'rsatadilar. O'tkazilgan so'rovlarni natijasiga ko'ra, ularning 5 tasidan kamida 2 tasi 2020-yilda Ukrainada egallagan lavozimlaridan ko'ra muhojirlikda yuqoriroq malakali lavozimda ishlayotganlarini, kamida yarmi esa, Irlandiya va Shveysariyada xuddi shunday lavozimda ishlayotganliklarini, aksariyati ual va ilmiy tadqiqot, xususan ta'lim va sog'liqni saqlash sohasida faoliyat

<sup>32</sup> UNESCO Science Report: the Race Against Time for Smarter Development. S. Schneegans, T. Straza and J. Lewis (eds). UNESCO. Paris, 2021. P.72- 74.// <file:///C:/Users/kadir/Downloads/377433eng.pdf>

<sup>33</sup> June Kelly. Syrian universities weakened by 'brain-drain', says report. BBC// <https://www.bbc.com/news/education-48664331>

<sup>34</sup> The Syrian Healthcare Crisis: 'Brain Drain' and Attack on Healthcare Workers. The Healthcare Review at Cornell University// <https://www.cornellhealthcarereview.org/post/the-syrian-healthcare-crisis-brain-drain-and-attack-on-healthcare-workers>

<sup>35</sup> International migration report 202.P.42.

ko'rsatishlarini ma'lum qilganlar. Xususan, ro'yxatdan o'tgan har o'ninchi qochoq, UNHCR ma'lumotlariga ko'ra, esa, ukrain qochoqlarining 17 foizi avval Ukrainada ta'lim sohasida ishlagani, shuningdek, Buyuk Britaniyaga qochib kelgan ukrainlarning 13 foizi ta'lim, 8 foizi sog'liqni saqlash sohasida ishlab kelayotgani ma'lum bo'lgan. Bunga javoban ukrain qochoqlari uchun Germaniya va Avstriya ta'lim sohasida, tibbiy xodimlari taqchilliga mavjud bo'lgan Polsha, Italiya, Ispaniya va Slovakiyada esa, tibbiyot sohasida milliy mehnat bozoriga kirish imkoniyatlari engillashtirilmoqda. Norvegiya, Chexiya, Avstriya, Vengriya, Ispaniya va Portugaliyada esa, Ukraina diplomlari va sertifikatlarini tan olish chora-tadbirlari keng qo'llanilmoqda<sup>36</sup>. Shu o'rinda respicient mamlakat uchun zarur bo'lgan malaka va ko'nikmaga ega bo'lgan qochoqlar mazkur mamlakat uchun ixtiyoriy migrantlardek foyda keltirishi mumkin. Bunga Turkiyadagi suriyalik tadbirkor qochoqlarni misol qilish mumkin.

Shuningdek intellektual migrantlarning konservativ ijtimoiy normalarga asoslangan jamiyatdan ko'ra nisbatan madaniy xilma-xil va ijtimoiy liberal muhitda yashashni afzal ko'rishlari, professional va karera imkoniyatlari cheklangan sharoitlarda kasbiy o'sish ehtimoli yuqori bo'lgan mamlakatlar tomon intilish, zamonaviy infratuzilmalardan foydalanish hohishi, aholining qarishi kuzatilayotgan jamiyatlarda yoshlarning rivojlanish uchun nisbatan qulay hududlarga ko'chib o'tishga majbur bo'lishi kabi omillar "aqliy salohiyat oqimi" muammosini chuqurlashtirmoqda.

*Globallashuv va raqamlashtirish jarayonlarining chuqurlashuvi.* Globallashuv va raqamlashuv jarayonlari dunyo bo'ylab bilim va ma'lumotlarni almashish imkoniyatlarini kengaytirib, xalqaro intellektual migratsiya jarayonlarining faollashuviga turtki bermoqda. Globallashuv sharoitida turli xil stipendiyalar va grantlar evaziga iqtidorli mutaxassislar va olimlarni hamda yoshlarni jalb qilishga qaratilgan xalqaro dasturlar intellektual migratsiya jarayonlarini stimullashtirmoqda. Bu borada 2021-2027 yillar uchun 28,4 milliard evro byudjetga ega bo'lgan Erasmus+ dasturi Yel mamlakatlarida 4 milliarddan ortiq talabalarni qo'llab-quvvatlagan holda xalqaro mobillik va bilimlar almashuviga xizmat qilmoqda. Mazkur dastur doirasida birgina Rossiya Federatsiyasi bilan hamkorlik uchun 20 million evro ajratilgan bo'lib, 2015 yildan beri Rossiyaning 23 mingdan ortiq talabarlari va professor-o'qituvchilari akademik mobillik loyihalarida ishtirok etimoqdalar<sup>37</sup>. Mazkur dastur ishtirokchilarning bilim va ko'nikmalarini hamda ularning ishga joylashish imkoniyatlarini oshirish va xalqaro hamkorlik hamda innovatsiyalarni rivojlantirish evaziga Yevropa mamlakatlariga yuqori malakali mutaxassislarni kirib kelishi uchun imkoniyatlarni kengaytirmoqda va mintaqaning raqobatbardoshligini oshirmoqda. Shu o'rinda mazkur dastur ishtirokchilarning o'z mamlakatlariga yangi bilimlar va aloqalarga ega bo'lib qaytishlari evaziga "aqliy salohiyat oqimi" muammosi yumshatilib "aqlar sirkulatsiyasi" kengaymoqda.

Aynan globallashuv va raqamlashuv sharoitida yirik xalqaro ilmiy va texnologik markazlarning yuzaga kelishi xam intellektual migratsiya jarayonlarini faollashtirmoqda. Bunga misol sifatida Apple, Google, Facebook, Tesla kabi 200dan ortiq texnologik kompaniyalardan iborat bo'lgan va dunyodagi eng yaxshi iqtidor egalarini yuqori ish haqi va innovatsion muhit evaziga o'ziga jalb qilgan Kremniy vodiysini keltirish mumkin. Jahon standartidagi eng etakchi Stenford va Kaliforniya kabi universitetlar yaqinida joylashgan mazkur xab uchun suniy intellekt, biotexnologiya va IT kabi sohalardagi iqtidorli bitiruvchilar va tadqiqotchilar oqimi ta'minlangan. Yuqori malakali kadrlar immigratsiyasini qo'llab-quvvatlovchi mazkur markaz Xindiston va Xitoylik malakali mutaxassislariga H-1B vizani taqdim etuvchi yirik homiy hisobalanadi. O'z navbatida malakali mutaxassislar hisobiga innovatsiya va maxsuldorlikning ortishi Kremniy vodiysining barqaror iqtisodiy o'sishiga turtki berib kelmoqda. Mazkur markazdagi texnologik soha mutaxassislarining 71 foizini hamda fan va muhandislik sohasida akademik darajaga ega bo'lganlarning qariyb 45 foizini Osiyoliklar tashkil qiladi<sup>38</sup>.

Shuningdek, globallashuv va raqamlashtirish sharoitida *ta'lim platformalari bilan birga turli kasbiy platformalar va ijtimoiy tarmoqlarning* ham rivojlanishi turli mamlakatlardagi intellektual migrantlarni va ish beruvchilarni yaqinlashtirmoqda. Xususan, yirik kompaniyalar tomonidan yuqori malakali kadrlarni yollash borasida LinkedIn kabi platformalardan faol foydalaniladi. Mazkur platforma ish beruvchi va ishchini

<sup>36</sup> What we know about the skills and early labour market outcomes of refugees from Ukraine// <https://www.oecd.org/ukraine-hub/policy-responses/what-we-know-about-the-skills-and-early-labour-market-outcomes-of-refugees-from-ukraine-c7e694aa/#figure-d1e1295>

<sup>37</sup> Программа Erasmus+ предлагает возможности студентам, преподавателям, стажерам и волонтерам из стран ЕС и всего мира  
//[https://www.eeas.europa.eu/eeas/%D0%BF%D1%83%D0%B1%D0%BB%D0%B8%D0%BA%D0%B0%D1%86%D0%B8%D0%B8\\_ru?%5B0%5D=publication\\_site%3ARussia&s=177](https://www.eeas.europa.eu/eeas/%D0%BF%D1%83%D0%B1%D0%BB%D0%B8%D0%BA%D0%B0%D1%86%D0%B8%D0%B8_ru?%5B0%5D=publication_site%3ARussia&s=177)

<sup>38</sup> science & engineering degrees.Silicon valley indicators// <https://siliconvalleyindicators.org/data/people/talent-flows-diversity/science-engineering-degrees/>

uchrashirish bilan birga ta'lim xizmatlarini ko'rsatish, xalqaro mehnat bozoridagi vakansiyalar va ish haqi holati bo'yicha tahlillar o'tkazish, platforma foydalanuvchilariga xorijlik hamkorlardan tavsiyanomalar olib berish, hamfikrlarning manfiatlaridan kelib chiqqan holda ularni guruxlash va ularga professional tajriba almashuv imkoniyatini yaratish kabi xizmatlarni ko'rsatish evaziga intellektual kadrlarning xalqaro migratsiyasiga turtki bermoqda va unga etaklovchi bosqichlarni engillashtirmoqda. Bugungi kunda 1 millirdan ortiq kishi mazkur tarmoqda ro'yxatdan o'tgan, ularning 875 million nafari foydalanadi. 67 milliondan ortiq kompaniya ro'yxatdan o'tgan ushbu platformada har daqiqada 6 kishi ishga yollanadi. Uning eng faol foydalanuvchilari AQSh, Xindiston, Braziliya, Xitoy va Indoneziyada joylashgan. Google esa, 23,3 million nafar obunachilari bilan LinkedInning eng yirik kompaniyasi hisoblanadi<sup>39</sup>.

*Mamlakatlarning jozibador immigratsiya siyosati.* Globallashuv jarayonlari mamlakatlar o'rtasida iqtidor egalarigp bo'lgan talab borasida tobora raqobatning kuchayishiga olib kelmoqda. Iqtisodiy jihatdan rivojlangan AQSh, Kanada, Avtraliya va YeI mamlakatlari tomonidan iqtidorli kishilarni jalb qilish bo'yicha maxsus immigratsiya dasturlari ishlab chiqilmoqda. Bunga amerika kompaniyalariga xorijlik yuqori malakalilarni ayniqsa texnologik sohalarga ishga yollashga qaratilgan AQShning H-1B viza dasturi, xorijlik yuqori malakali mutaxassislarga yashash ruxsatnomasi yoki fuqarolik, integratsiyaga moyil mehnat bozorida ishlash hamda ijtimoiy xizmatlardan foydalanish kabi imkoniyatlari uchun ishlab chiqilgan Kanadaning "Ekspress kirish tizimi", oilalar birlashuvi, YeI mamlakatlari orasidagi erkin mobillik, mazkur mamlakatlarda yashash va ishlash imkoniyati kabi qulayliklarni beruvchi YeIning "moviy kartasi", mamlakatda yashash xuquqi yoki fuqarolikni da'vo qilish imkonini beruvchi Avstraliyaning "malakali migratsiya dasturi", ijtimoiy fanlar, texnika, raqamli texnologiyalar, tibbiyot, san'at va madaniyat sohasidagi xorijlik iqtidorli mutaxassislar va liderlarni mamlakatga kirib kelishini osonlashtirishga qaratilgan Buyuk Britaniyaning "global talant viza"larini misol qilish mumkin. Xususan, 65 foizi IT mutaxassislar bo'lgan AQShning H-1B vizasiga 2023-yilda 386 ming nafar mutaxassisga taqdim etilib, ularning 34 foizi bakalavr, 22, foizi magistr, 8 foizi doktorlik, 4%professional va 32 foizi noma'lum darajali, o'rtacha ish haqi yiliga 118 ming AQSh dollariga teng bo'lgan mutaxassislar bo'lgan. Mazkur viza egalarining 72,3 foizi xindistonliklar va 11,7 foizi xitoyliklar bo'lgan<sup>40</sup>. Kanadaning Express Entry system dasturi esa, 2024-yilda 110 ming 700 kishiga mamlakatda yashash va ishlash imkoniyatini berishni rejalashtirgan, bu avvalgi yilga nisbatan 30 mingtaga ko'p<sup>41</sup>. YeIning "moviy kartasi" esa, 2022-yilda 82 ming nafar YeIdan tashqari mamlakat fuqarolariga taqdim etilgan bo'lib, ularning chorak qismi hindistonliklar, deyarli 10 foizi rossiyaliklar, 7 foizi belorusiyaliklar va 6,5 foizi turkiyaliklardan iborat bo'lgan<sup>42</sup>. O'z navbatida fan, ta'lim, texnologiyalar va ilmiy tadqiqot sohasi mutaxassislariga taqdim etilgan Buyuk Britaniyaning "Global Talent" vizasi egalarining aksariyati ushby mamlakatda karera qilish va professional faoliyati borasidagi keng imkoniyatlardan foydalanishni maqsad qilgan.

*Sovid-19 pademiyasining ta'siri.* Pandemiya sharoitidagi vaqtinchalik cheklovlar va chegaralarning yopilishi xalqaro migratsiya jarayonlarini sekinlashtirsada, ammmo intellektual migrantlarning masofadan turib ishlash imkoniyatlarini kengaytirdi va bu o'z navbatida yuqori malakali kadrlarni jalb qilish va ularni ushlab turishga bo'lgan munosabatlarning o'zgarishiga olib keldi. Sovid-19 pademiyasi mutaxassislarga jismoniy shaklda ko'chib o'tmasdan turib, dunyoning turli chekkalarida turib ishlash imkoniyatlarini yaratmoqda. Bugungi kunda 12,7 % ishchilar va 16% korxonalar masofaviy shaklda, 28,2% kishilar esa, gibrid shaklda faoliyat ko'rsatmoqdalar. Pandemiya qadar Amerikaning 16,8 million mehnat resurslari masofaviy ishlagan bo'lsa, 2025-yilga kelib esa, ikki baravarga oshib, 36,2 million kishiga etadi<sup>43</sup>. Ishchilarning ta'lim

<sup>39</sup> LinkedIn Statistics 2024 | Monthly Active Users Stats, Facts//

<https://www.theglobalstatistics.com/linkedin-usage-statistics/#:~:text=Every%20week%2C%20a%20substantial%2061%20million%20individuals%20utilize,LinkedIn%20as%20a%20powerful%20tool%20for%20job%20searching.>

<sup>40</sup> Characteristics of H-1B Specialty Occupation Workers Fiscal Year 2023 Annual Report to Congress October 1, 2022 – September 30, 2023 March 6, 2024. P. 9, 13. // [https://www.uscis.gov/sites/default/files/document/reports/OLA\\_Signed\\_H-1B\\_Characteristics\\_Congressional\\_Report\\_FY2023.pdf](https://www.uscis.gov/sites/default/files/document/reports/OLA_Signed_H-1B_Characteristics_Congressional_Report_FY2023.pdf)

<sup>41</sup> How Do Express Entry Draws In 2024 Compare To 2023?// <https://immigtoronto.com/how-do-express-entry-draws-in-2024-compare-to-2023/#:~:text=According%20to%20the%20plan%2C%20Express%20Entry%20will%20be,when%20it%20was%20allocated%20a%20target%20of%2082%2C800.>

<sup>42</sup> Residence permits – statistics on authorisations to reside and work. Eurostat statistics explained//

[https://ec.europa.eu/eurostat/statistics-explained/index.php?oldid=539496#EU\\_Blue\\_Cards\\_issued\\_to\\_highly\\_qualified\\_non-EU\\_citizens](https://ec.europa.eu/eurostat/statistics-explained/index.php?oldid=539496#EU_Blue_Cards_issued_to_highly_qualified_non-EU_citizens)

<sup>43</sup> Upwork Study Finds 22% of American Workforce Will Be Remote by 2025// <https://www.upwork.com/press/releases/upwork-study-finds-22-of-american-workforce-will-be-remote-by-2025>

darajasi qanchalik yuqori bo'lsa, ularning masofaviy ishlash imkoniyatlari shunchalik kengaymoqda. Shu o'rinda bakalavr darajasiga ega bo'lganlarning 40 foizi to'liq va 26 foizi qisman, undan yuqori darajaga ega bo'lganlarning 45 foizi to'liq va 31 foizi qisman masofaviy shaklda ishlayotganliklari yuqori malakali kadrlar uchun masofaviy faoliyat sharoitida imkoniyatlar keng ekanligini anglatadi. Masofaviy ishlovchilarning o'rtacha daromadi uydan turib ishlovchilarning o'rtacha daromadidan ko'ra, 19 ming AQSh dollariga ko'proq. O'z navbatida masofaviy ishlashga o'tgan ish beruvchilar har bir ishchidan 11 ming AQSh dollari tejashlari ma'lum bo'lgan. Shuningdek, on-layn ishlayotganlarning 35 foizi masofaviy ishlash ish maxsuldorligini oshirishga xizmat qilayotganini, 57 foizi esa masofaviy ishlash taklifi to'xtatilsa boshqa ish qidirishlarini ta'kidlaganlar<sup>44</sup>. O'z navbatida Manpower Group Outlook tomonidan 42 ta mamlakat bo'ylab 40 mingdan ortiq ish beruvchilar bilan o'tkazilgan so'rovnoma natijalariga ko'ra, 37% korxonalar gibril ish soatlari iqtidorlilarni saqlab qolish va ularning safini kengaytirishga xizmat qilganini ma'lum qilganlar<sup>45</sup>.

## XULOSA VA TAKLIFLAR

Sovid-19 pandemiyasi sharoitida masofaviy ishlashga o'tilishi mehnat bozorining restruktirizatsiyasiga olib keldi. Pandemiya sharoitidagi masofaviy ishga o'tilishi va raqamlashtirish jarayonlari etakchi universitetlarning on-layn kurslari, ma'ruzalari va ta'lim dasturlaridan foydalanish imkoniyatlarini yaratishi iqtidorli kishilarning mustaqil ravishda ta'lim olib, malaka oshirishlariga va o'z navbatida ularning kareralarni davom ettirish maqsadida rivojlangan mamlakatlarga migratsiyasiga turtki bermoqda. Bu borada Coursera, LinkedIn Learning kabi ta'limga asoslangan platoformalar tomonidan suniy intellekt, ma'lumotlar bazasi (data science), dasturiy ta'minot va biznes boshqaruv singari talab yuqori bo'lgan sohalarida bilim olgan va turli mamlakatlarda tan olinadigan sertifikatlar bilan ta'minlangan mutaxassislarning mazkur sohada ishchi kuchi tanqisligiga uchragan ish beruvchilar uchun jozibadorligi ortmoqda. Bunday masofaviy ta'lim platformalari bir tomondan sifatli ta'lim olish imkoniyatlari cheklangan mamlakatdagi potensial mutaxassislar uchun, boshqa tomondan esa, platformalar taqdim etgan sertifikatlar tan olinadigan mamlakatlarda yuqori malakali mutaxassislarning immigratsion rasmiylashtirish bosqichlarini engillashtirmoqda. Xususan, platformada ro'yxatgan o'tganlar soni 2016-yildagi 26 million kishidan 2021-yilda 92 million kishiga, kurs tinlovchilari esa, 26 million kishidan 189 million nafarga etgan. Geografik tarkibga e'tibor qaratsak, eng ko'p tinglovchilar Osiyo Tinch okenani mintaqasidan bo'lib, ularning soni 26 million nafarni, tinlangan kurslar soni esa, 68 million nafarni tashkil qilgan<sup>46</sup>.

*Biznes xalqarolashuvi.* Ko'plab xalqaro korporatsiyalar va startaplarning xorij mamlakatlarida o'z filiallarini tashkil etishlari mutaxassislar migratsiyasiga turtki bermoqda. Transmilliy korporatsiyalarning ta'lim, professional rivojlanish va karera qilish kabi imkoniyatlarni taqdim etish bilan yuqori malakali kadrlarga turli xil mamlakatlarda ishlash va xorij tajribasini o'zlashtirish imkoniyatini yaratmoqdalar. Ayniqsa IT infratuzilmaning masofaviy ishlash imkoniyatlarini kengaytirishi kompaniyalar va ularning ishchilari o'rtasidagi hamkorlikni kengaytirish bilan birga yuqori malakalilarni o'z vatanlarini tark etmasdan turib xorij kompaniyalarida ishlash imkoniyatlarini yaratmoqda. Shuningdek, transmilliy korporatsiyalarning universitetlar va ilmiy tadqiqot markazlariga investitsiyalar kiritish evaziga ilmiy tadqiqotlar va innovatsiyalarni rivojlanishiga hissa qo'shmoqda. Bu esa, xorij mamlakatlaridagi iqtidorli kishilarni qiziqitirib, ularning xalqaro ilmiy tadqiqot xamjamiyatlariga integratsiyalashuviga sabab bo'lmoqda. Biznesning xalqarolashuvi ayniqsa respient mamlakatlarga intellektual migrantlar hisobiga iqtisodiy o'sish, yangi ish o'rinlarini yaratish, soliqlarni kengayishi, infratuzilmaning rivojlanishi kabi imkoniyatlarni yaratmoqda. O'z navbatida jamoaning internatsional xarakterga ega bo'lishi turli xil bilim, g'oya va tajribalarning uyg'unlashuviga zamin yaratadi. O'z navbatida xukumatlar tomonidan transmilliy korporatsiyalarning soliq imtiyozlari va subsidiyalar kabilar hisobiga qo'llab-quvvatlashi yangi investitsiyalar va yuqori malakali mutaxassislarning kirib kelishini stimullashtirmoqda.

Mazkur tendensiyalar xalqaro intellektual migratsiya jarayonlari murakkab va ko'p qirrali jarayon bo'lib, uning global taraqqiyot va hamkorlikdagi o'rni va roli muhim ahamiyatga ega ekanligini namoyon etadi.

<sup>44</sup> K.Han. Remote Work Statistics And Trends In 2024// <https://www.forbes.com/advisor/business/remote-work-statistics/>

<sup>45</sup> ManpowerGroup Employment Outlook Survey 2024.Q2.2024.Global findings. // [https://go.manpowergroup.com/hubfs/MPG\\_GLOBAL\\_EN\\_MEOS\\_Report\\_2Q24.pdf](https://go.manpowergroup.com/hubfs/MPG_GLOBAL_EN_MEOS_Report_2Q24.pdf)

<sup>46</sup> These 3 charts show the global growth in online learning. World economic Forum// <https://www.weforum.org/agenda/2022/01/online-learning-courses-reskill-skills-gap/#:~:text=Online%20learning%20platform%20Coursera%20has%20released%20its%202021,predates%20the%20pandemic%20but%20has%20since%20gained%20momentum.>



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# ОЦЕНКА ВЛИЯНИЯ КИБЕРБЕЗОПАСНОСТИ НА ФИНАНСОВУЮ УСТОЙЧИВОСТЬ ОРГАНИЗАЦИЙ: АДАПТАЦИЯ К РАСТУЩИМ УГРОЗАМ В СОВРЕМЕННОЙ ЭКОНОМИКЕ

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**Аннотация:** В условиях современных интересов в гео-финансовой политике, подверженной сети цифровых технологий, образующих систему международного влияния, кибербезопасность становится неотъемлемым элементом, играющим ключевую роль в обеспечении финансовой устойчивости реальных и финансовых секторов экономики, поддерживающих интеграционные процессы. Настоящее исследование направлено на оценку влияния кибербезопасности на финансовую устойчивость организаций и их адаптацию к растущим киберугрозам. Проанализированы современные методы защиты информации и их эффективность в предотвращении финансовых потерь. Исследование основывается на данных 100 крупных международных компаний, подвергшихся кибератакам в период с 2018 по 2023 годы. Используются количественные методы анализа данных, включая статистический анализ и эконометрическое моделирование. Результаты показали, что компании, инвестирующие в современные системы кибербезопасности, смогли значительно снизить финансовые потери, в среднем на 30%, по сравнению с теми, кто не предпринимал таких мер. Данное исследование подчеркивает важность развития культуры кибербезопасности внутри компаний и интеграции кибербезопасности в общую стратегию управления рисками. В заключение предлагаются рекомендации по улучшению киберзащиты и повышению финансовой устойчивости организаций. Полученные результаты могут быть использованы как руководство для организаций в разработке стратегий по снижению киберрисков и обеспечению их долгосрочной финансовой устойчивости.

**Ключевые слова:** кибербезопасность, финансовая устойчивость, киберугрозы, гео-финансовая политика, директивы кибербезопасности, эконометрические индикаторы и моделирование.

## ВВЕДЕНИЕ

**Актуальность темы** связана с тем, что в современных условиях стремительной цифровизации и глобализации экономики вопросы кибербезопасности становятся критически важными для обеспечения финансовой устойчивости организаций. С развитием технологий и увеличением объема данных, передаваемых и хранящихся в электронном виде, кибератаки становятся всё более сложными и изощрёнными. Эти угрозы могут привести к значительным финансовым потерям, подрыву репутации и даже банкротству компаний. Важно отметить, что кибербезопасность касается не только ИТ-сектора, но и реальных и финансовых секторов экономики, что делает её ключевым элементом интеграционных процессов.

В 2023 году резиденты IT Park Uzbekistan впервые достигли отметки в \$1 млрд в оказании услуг, а объём экспорта цифровых услуг возрос в 2,4 раза, превысив \$340 млн. Согласно прогнозам, в текущем году объём экспорта ИТ-услуг достигнет \$1 млрд, а к 2030 году ожидается увеличение этого показателя до \$5 млрд. Поэтому изучение влияния кибербезопасности на финансовую устойчивость организаций помогает разработать эффективные стратегии защиты и минимизации рисков, что, в свою очередь, способствует стабильности и развитию бизнеса.

**Проблематика** сфокусирована на текущих проблемах в области кибербезопасности и финансовой устойчивости организаций. Одна из основных проблем — недостаточная подго-

товленность компаний к растущим киберугрозам. Многие организации не имеют чётко разработанных стратегий и политик по кибербезопасности, что делает их уязвимыми для атак. Финансовые потери от таких инцидентов могут быть значительными, включая прямые убытки от утечек данных и кражи средств, а также косвенные потери, связанные с репутационными рисками и снижением доверия клиентов и инвесторов. Кроме того, существует проблема недостаточной осведомлённости и обучения персонала в области кибербезопасности, что также увеличивает риски.

В связи с этим в 2023 году было создано IT Community of Uzbekistan, объединяющее IT-специалистов, студентов, предпринимателей, компании и организации, занимающиеся разработкой и применением информационных технологий. Сообщество нацелено на продвижение и популяризацию IT, повышение качества продуктов, образование в области IT и создание среды кибер-финансовой безопасности.

## ОБЗОР ЛИТЕРАТУРЫ

Для охвата полного спектра литературы по теме кибербезопасности и киберрисков были использованы различные базы данных соответствующих статей в нескольких источниках. Исследование было ограничено четырьмя базами данных: IEEE Xplore, Scopus, SpringerLink и Web of Science. В частности, влияние кибербезопасности на финансовую устойчивость организаций является важной темой, привлекающей внимание таких исследователей, как Fabio Natalucci, Mahvash S. Qureshi и Felix Suntheim (2024). Они показали, что кибератаки приводят к значительным финансовым потерям и репутационным рискам, увеличившись более чем в четыре раза с 2017 года и достигнув \$2,5 миллиарда. Также они подчеркнули, что непрямые убытки, такие как репутационные потери и затраты на улучшение безопасности, существенно выше.

Исследования показали, что банки, активно инвестирующие в киберзащиту, демонстрируют более высокую устойчивость к финансовым шокам. Anderson et al. (2018) проанализировали, как киберугрозы влияют на финансовые институты, и выявили, что банки, инвестирующие в передовые системы кибербезопасности, значительно лучше справляются с финансовыми шоками, чем те, кто этого не делает.

Основой данного исследования являются теории управления рисками и кибербезопасности. Классические работы в области риск-менеджмента, такие как исследование Kaplan и Garrick (1981), рассматривают киберриски как интегральную часть системы управления рисками.

Важное дополнение к этим теориям составляют мои (И. Сулейманов) научные труды «Теория финансовых рисков», опубликованная в 2019 году в Ташкенте, Республика Узбекистан, а также докторская диссертация на тему «Пути усиления интеграции банковского и реального секторов экономики», которая акцентирует внимание на финансовых аспектах обеспечения устойчивости организаций финансового и реального секторов экономики.

Модель защиты информации, предложенная Whitman и Mattord (2013), описывает ключевые принципы кибербезопасности, включая конфиденциальность, целостность и доступность данных. Эти теории подчеркивают необходимость интеграции кибербезопасности в общую стратегию управления организацией, выявляя при этом основные факторы, влияющие на финансовую устойчивость в условиях нарастающих киберугроз.

Несмотря на значительное количество исследований, остаются пробелы. Во-первых, влияние кибербезопасности на малые и средние предприятия недостаточно изучено. Во-вторых, большинство исследований фокусируется на количественной оценке финансовых потерь, игнорируя качественные аспекты, такие как влияние на репутацию. Также мало внимания уделяется региональным и отраслевым особенностям, что указывает на необходимость адаптации международных стратегий кибербезопасности к реалиям Узбекистана на период до 2035 года.

Обзор литературы показывает, что кибербезопасность критически важна для финансовой устойчивости организаций финансового и реального секторов экономики на основе интеграционной взаимозависимости. Существующие исследования подчеркивают необходимость инвестиций в киберзащиту и развитие культуры безопасности. Тем самым остаются пробелы, требующие дальнейшего изучения. Теоретические основы исследования позволяют создать комплексную модель, объединяющую экономические и управленческие аспекты кибербезопасности.

## МЕТОДОЛОГИЯ

В данном исследовании использованы как количественные, так и качественные методы анализа данных. Количественные методы включают статистический анализ и эконометрическое моделирование, которые позволяют выявить закономерности и количественно оценить влияние кибербезопасности на финансовую устойчивость организаций. Качественные методы, такие как контент-анализ и экспертные интервью, применялись для углубленного изучения факторов, не поддающихся количественной оценке, таких как организационные культуры кибербезопасности и стратегии управления рисками.

Выборка включает данные о 10 крупных международных компаниях, подвергшихся кибератакам в период с 2018 по 2023 годы. Эти компании были выбраны на основе их отчетности о киберинцидентах и доступности данных о финансовых показателях. Выборка включает компании из различных отраслей, таких как финансы, технологии, здравоохранение и розничная торговля, что позволяет получить обобщенные результаты и сделать выводы, применимые к широкому спектру организаций.

Данные были собраны из открытых источников, таких как финансовые отчеты компаний, отчеты о киберинцидентах, базы данных о кибератаках и специализированные исследования в области кибербезопасности. Дополнительно использовались данные из информационных систем, таких как Bloomberg и Reuters, для получения финансовых показателей компаний.

Собранные данные были структурированы и нормализованы для обеспечения их сопоставимости. Были удалены пропущенные значения и аномальные данные, которые могли бы исказить результаты анализа. На первом этапе использовался описательный концептуальный анализ для получения общей картины. Затем применялся регрессионный анализ для выявления взаимосвязей между инвестициями в кибербезопасность и финансовыми показателями компаний.

Экспертные интервью проводились 1 мая 2024 года во время форума Британского университета менеджмента в Ташкенте, посвященного актуальному направлению «Финансовые технологии и кибербезопасность в бизнесе и банковском деле», с представителями компаний и специалистами в области кибербезопасности, такими как: Дмитрий Самко – заместитель руководителя департамента управления делами АКБ «Ипак Йули банк»; Аскар Закиров — руководитель отдела развития сферы оборота криптоактивов НАПП (Национального агентства перспективных проектов) Узбекистана; Ника Курдиани — CEO TBC Group Uzbekistan; Андрей Шишкин — директор департамента обеспечения информационной безопасности UZCARD; Наргис Дустматова — председатель финтех-ассоциации в Узбекистане; Джахонгир Усмонов — генеральный директор Zoodpay; Тимур Умаров — профессор компьютерных наук Ph.D Computer Science, King's College London; Дана Ессентай — старший консультант группы кибербезопасности KPMG Caucasus and Central Asia; Бехрузбек Очилов — директор по инвестиционному банкингу Alkes Research, для получения качественной информации о стратегиях и подходах к управлению киберрисками. Контент-анализ использовался для анализа текстовых данных и выявления ключевых тем и трендов в области кибербезопасности.

Полученные результаты были интерпретированы в контексте существующих теорий и исследований, что позволило сделать выводы о значимости кибербезопасности для финансовой устойчивости организаций. Используемый методологический подход позволил комплексно оценить влияние кибербезопасности на финансовую устойчивость организаций, сочетая количественные и качественные методы анализа данных.

**Таблица 1. Основные финансовые показатели компаний до и после внедрения систем кибербезопасности**

Показатель	До внедрения кибербезопасности	После внедрения кибербезопасности	Изменение (%)
Средние финансовые потери	\$5,000,000	\$3,500,000	-30%
Количество киберинцидентов	15	10	-33%
Репутационные потери	Высокие	Средние	-

**Исследование данных в контексте гипотез подтвердило следующие выводы:** Во-первых, внедрение современных методов кибербезопасности приводит к снижению финансовых потерь организаций, что подтверждено результатами, показывающими значительное сокращение убытков у

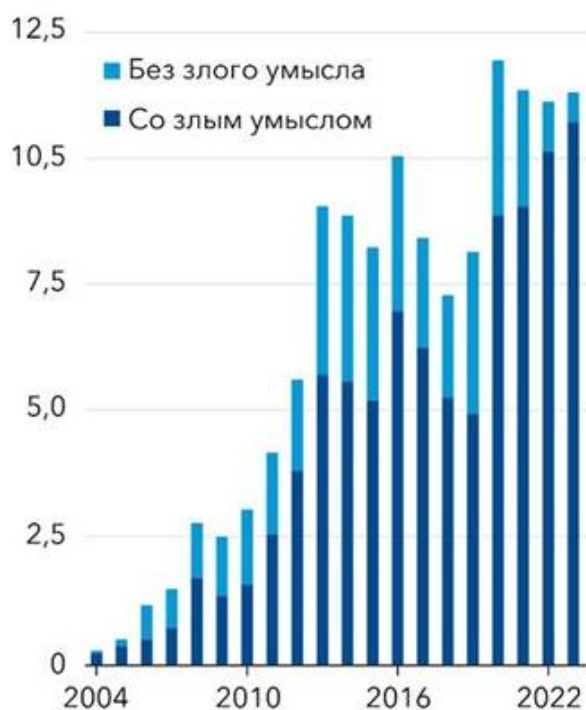
компаний, инвестирующих в киберзащиту. Во-вторых, компании с развитыми системами кибербезопасности демонстрируют более высокую финансовую устойчивость, успешно справляясь с кибератаками и минимизируя связанные с ними риски. В-третьих, развитие культуры кибербезопасности внутри компании положительно влияет на общую стратегию управления рисками, способствуя долгосрочной финансовой стабильности и снижая не только финансовые, но и репутационные потери.

**Таблица 2. Влияние кибербезопасности на различные отрасли**

Отрасль	Средние финансовые потери	Среднее количество киберинцидентов	Средние репутационные потери
Финансовая	\$6,000,000	20	Высокие
Технологическая	\$4,500,000	15	Средние
Здравоохранение	\$3,000,000	10	Высокие
Розничная торговля	\$2,500,000	8	Низкие

Полученные результаты подтверждают важность интеграции кибербезопасности в стратегию управления организацией. В условиях растущих киберугроз компании должны уделять внимание не только техническим аспектам защиты, но и развитию культуры кибербезопасности, включая обучение и повышение осведомленности сотрудников.

### Киберинциденты (В тысячах)



**Обсуждение.** Как отмечено в апрельском «Докладе по вопросам глобальной финансовой стабильности» 2024 года, риск экстремальных потерь, связанных с инцидентами в киберсфере, существенно возрастает. Такие потери могут вызвать значительные проблемы с финансированием для компаний и даже угрожать их платежеспособности. С 2017 года размер таких экстремальных потерь увеличился более чем в четыре раза, достигнув 2,5 миллиарда долларов США. Между тем, косвенные потери, такие как репутационный ущерб или затраты на обновление систем безопасности, значительно превышают прямые финансовые убытки.

Финансовый сектор особенно подвержен киберугрозам. Финансовые компании, обрабатывающие большие объемы конфиденциальных данных и осуществляющие значительные объемы операций, часто становятся целями для преступников, стремящихся похитить деньги или destabilize экономическую деятельность. Атаки на финансовые компании составляют почти пятую часть от общего числа кибератак, при этом банки являются наиболее уязвимыми среди них.

### Киберинциденты в финансовом секторе

(Число случаев, 2004–2023 годы)



### Убытки в результате киберинцидентов

(В млрд долл. США, 2004–2023 годы)



Анализ данных, представленных в таблицах и диаграммах, демонстрирует важность кибербезопасности для снижения финансовых и репутационных рисков компаний. Внедрение систем кибербезопасности привело к значительному снижению финансовых потерь, которые сократились с 5 до 3,5 миллионов долларов, что свидетельствует о снижении убытков на 30%. Количество киберинцидентов также уменьшилось на 33%, что указывает на позитивное воздействие защитных мер. Кроме того, репутационные потери компаний, которые до внедрения оценивались как высокие, уменьшились до среднего уровня. Это подтверждает, что внедрение кибербезопасности помогает не только избежать прямых финансовых потерь, но и улучшает репутацию компаний на рынке.

Данные о влиянии кибербезопасности на различные отрасли показывают, что финансовый сектор является наиболее уязвимым перед киберугрозами. В этой отрасли наблюдаются самые высокие потери и частота инцидентов, особенно в банковской сфере, страховых компаниях и компаниях по управлению активами. Важность защиты данных и предотвращения атак становится очевидной в технологическом секторе и здравоохранении, где финансовые потери и репутационные риски также остаются высокими. В розничной торговле, несмотря на более низкий уровень угроз, внедрение кибербезопасности остается важным для предотвращения мошенничества и кражи данных.

Графики подтверждают рост числа киберинцидентов с 2004 по 2023 годы, особенно со злыми умыслами. Финансовый сектор продолжает сталкиваться с многочисленными кибератаками, при этом наибольшие убытки наблюдаются в банковском секторе. В то же время убытки в других сегментах, таких как страховые компании и компании по управлению активами, также значительны. Несмотря на рост числа инцидентов, внедрение кибербезопасности остается ключевым фактором, способствующим снижению рисков и потерь для компаний всех отраслей.

В целом, несмотря на то что киберугрозы продолжают набирать силу, внедрение систем безопасности позволяет существенно минимизировать как финансовые потери, так и репутационные риски.

Результаты данного исследования подтверждают и расширяют существующие знания в области кибербезопасности и её влияния на финансовую устойчивость организаций. В соответствии с классическими теориями управления рисками (Kaplan & Garrick, 1981), киберриски рассматриваются как значительная часть общей системы управления рисками. Наши данные подтверждают, что компании, инвестирующие в современные системы кибербезопасности, могут значительно снижать финансовые потери и улучшать устойчивость к киберинцидентам, что согласуется с выводами Smith et al. (2020).

Модель защиты информации, предложенная Whitman и Mattord (2013), описывает основные принципы кибербезопасности, такие как конфиденциальность, целостность и доступность данных, которые подтверждаются нашими результатами. Компании, внедряющие эти принципы, показали более высокую устойчивость к кибератакам и минимизацию финансовых потерь, что также

подтверждает важность интеграции кибербезопасности в стратегию управления рисками.

Результаты исследования имеют несколько практических применений. Во-первых, они позволяют компаниям разрабатывать более эффективные стратегии кибербезопасности, уделяя особое внимание многоуровневым системам защиты и регулярному обучению сотрудников. Во-вторых, подтверждается необходимость значительных инвестиций в кибербезопасность, чтобы снизить финансовые потери и повысить устойчивость к киберинцидентам. В-третьих, развитие внутренней культуры кибербезопасности, включая повышение осведомленности и обучение персонала, является ключевым фактором для минимизации рисков и обеспечения долгосрочной финансовой стабильности организаций.

Исследование имеет несколько ограничений, которые следует учитывать при интерпретации результатов. Во-первых, выборка включала только крупные международные компании, что может ограничивать применимость выводов для малых и средних предприятий. Во-вторых, региональные особенности могли повлиять на результаты, так как исследование охватывало компании, работающие в различных регионах с различными законодательными и экономическими условиями. В-третьих, временные рамки исследования, охватывающие период с 2018 по 2023 годы, могут не отражать долгосрочные тенденции и изменения в сфере кибербезопасности.

Для более глубокого понимания влияния кибербезопасности на финансовую устойчивость организаций будущие исследования могут быть направлены на несколько ключевых аспектов. Во-первых, фокус на малых и средних предприятиях поможет выявить специфические риски и стратегии защиты, которые характерны для этих компаний. Во-вторых, региональные исследования позволят более детально изучить влияние кибербезопасности в контексте конкретных стран и регионов, что поможет адаптировать стратегии защиты к местным особенностям. В-третьих, долгосрочные исследования, охватывающие более продолжительные периоды, позволят выявить устойчивые тенденции и изменения в области кибербезопасности и её влияние на финансовую стабильность организаций. Таким образом, данное исследование подчеркивает критическую важность кибербезопасности для обеспечения финансовой устойчивости организаций и предлагает конкретные направления для повышения эффективности защиты и управления рисками в условиях быстро меняющегося цифрового мира.

## **ЗАКЛЮЧЕНИЕ**

В результате исследования были сделаны следующие ключевые выводы. Во-первых, активные инвестиции в системы кибербезопасности позволили компаниям снизить финансовые потери от кибератак в среднем на 30% по сравнению с теми, кто не предпринимает подобных мер. Во-вторых, организации, развивающие культуру кибербезопасности, включая регулярное обучение персонала и использование передовых технологий, показали более высокую устойчивость к кибератакам и минимизировали не только финансовые, но и репутационные риски. В-третьих, наиболее эффективными стратегиями киберзащиты оказались многоуровневая защита, использование искусственного интеллекта для обнаружения и предотвращения угроз, а также интеграция кибербезопасности в общую стратегию управления организацией.

Для повышения уровня кибербезопасности и укрепления финансовой устойчивости организациям рекомендуется предпринять следующие шаги. Во-первых, инвестировать в современные технологии, такие как многоуровневые системы защиты и искусственный интеллект для выявления и предотвращения угроз. Во-вторых, развивать культуру кибербезопасности путем внедрения программ регулярного обучения сотрудников и повышения их осведомленности о киберугрозах, что способствует созданию культуры безопасности внутри компании. В-третьих, интегрировать кибербезопасность в общую стратегию управления рисками, что позволит минимизировать финансовые и репутационные потери. В-четвертых, регулярно проводить аудиты систем безопасности и своевременно обновлять их для защиты от новых угроз. В-пятых, сотрудничать с внешними экспертами для оценки текущего состояния кибербезопасности и разработки эффективных стратегий защиты. Эти меры помогут организациям эффективнее управлять рисками и обеспечивать долгосрочную стабильность и безопасность в условиях увеличивающихся цифровых угроз.

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**Annotatsiya.** Ushbu maqola jamiyatni rivojlanishida yoshlarni innovatsion faoliyatga jalb qilishning ahamiyati haqida yozilgan bo'lib, unda "innovatsiya", "innovatsion faoliyat", "innovatsion jamoa", "innovatsion salohiyat" tushunchalariga ilmiy ta'riflar berilgan. Bundan tashqari, sotsiologik so'rov natijalariga asoslanib, yoshlarni innovatsion faoliyatga jalb qilish bo'yicha bir nechta taklif va tavsiyalar berilgan.

**Kalit so'zlar:** yoshlar, innovatsiya, faoliyat, ilm-fan, texnika, texnologiya, taraqqiyot, tafakkur.

## KIRISH

O'zbekistonda yoshlarning iqtisodiy, siyosiy va ma'naviy sohalarida faol ishtirokini ta'minlashga muhim vazifa sifatida e'tibor qaratilmoqda. Ayniqsa, ular mentalitetidagi yangilikka moyillik, intiluvchanlik va hayotga nisbatan jo'shqinlik, mamlakatimizda amalga oshirilayotgan islohotlarga kuch va ruhiyat bag'ishlaydi. Bugun yoshlar manfaatlarini amalga oshirish ishlari davlat siyosatidagi ustuvor vazifalardan biri sifatida belgilandi. «Yosh avlodning fuqarolik pozitsiyasi va faolligini kuchaytirish, farzandlarimizni mustaqil fikrlaydigan, zamonaviy bilim va kasb-hunarlarini puxta egallab, xalqaro maydonda raqobatga kira oladigan barkamol shaxslar, etuk mutaxassislar etib tarbiyalash bo'yicha keng ko'lamli ishlarni olib bormoqdamiz» [1]. Yangi O'zbekiston yoshlarining innovatsion jarayonlardagi ishtirokini oshirish muhim ahamiyat kasb etadi.

## MAVZUGA OID ADABIYOTLAR TAHLILI

Yoshlar masalalari insoniyat ijtimoiy-intellektual taraqqiyotining barcha bosqichlarida dolzarb mavzu bo'lib kelgan. Chunki, mamlakatlar qaysi darajada taraqqiy etmasin, ularning istiqboli yoshlar ijtimoiy guruhlarining yaratib chiqarish, bunyodkorlik va ularning istiqbol yo'li uchun belgilangan vazifalarni amalga oshirishdagi faolligiga bog'liq. Shuning uchun ham yoshlar va ularning barcha sohalaridagi faoliyati, jamiyat hayotidagi roli va xulq-atvori masalalari ilmiy tadqiqotlarda turli yo'nalishlarda va har xil sotsiologik rakurslarda tadqiq qilingan.

Xorijiy klassik sotsiologlar vakillaridan E.Dyurkgeym, T.Parsons, R.Merton, M.Veber, S.Eyzenshtadt, K.Manxeymlarning tadqiqotlarida yoshlarning jamiyatdagi o'rni va unda kechayotgan jarayonlardagi ishtiroki xususida tadqiqotlar olib borilgan. Xususan, yoshlarning jamiyatdagi xatti-harakatlarini ifodalash maqsadida "anomiya" (ijtimoiy me'yorlar va institutlarning tartibsizligi, inson faoliyatining noaniqligi va beqarorligi) tushunchasi qo'llanilgan; yoshlar xulq-atvori bilan ehtiyojlari o'rtasidagi munosabatlarni tahlil qilib, ular o'rtasidagi tafovutlar mavjudligi sabablari ko'rsatilgan; zamonaviy yoshlar hayotning mazmun-mohiyatini fandan foydalanish orqali izlashga emas, balki amaliy masalalarni hal etishga intiladilar, "ularda pragmatik harakatlar ustuvordir"; yoshlar muammolarini o'rganishda tuzilmaviy-funksional yondashuv ilgari surilgan hamda yoshlik bu – bolalikdan katta hayotga o'tish bosqichi sifatida ko'rilgan; "yoshlar madaniyatining o'rni va funksiyasi bu – yoshlarni jamiyatga integratsiyasini ta'minlash" yoshlar haqida fikr yuritilib, ularni voyaga etishi emas, balki avlodlar tushunchasida o'z ifodasini topishi g'oyasi ilgari surilgan. Albatta, yuqoridagi olimlar ilgari surgan konsepsiyalari va qarashlari yoshlar muammolarini o'rganishda metodologik ahamiyatga ega.

Shuningdek, mazkur muammoni o'rgangan xorijiy tadqiqotchilar qatoriga Howard Williamson, Ron Johnston, Bastien Sheri, Holmarsdottir Halla, Daniele Morciano, Maurizio Merico, Anne-Marie Peatrik, Winthrop Rebecca, Dominic Rushe, Lauren Aratani and Amanda Holpuch, A.A.Rean, Jaime Marks, Lam Chun Bun, and Susan M. McHale, Sara Gasior, Cheryl Forchuk, Sandra Regan, Natalie Ross kabi olimlarni kiritish mumkin. Xususan, rivojlangan G'arb mamlakatlari olimlari tadqiqotlarida innovatsion jarayonlarning yoshlar ijtimoiylashuviga pragmatik ta'siri, bu jarayonlarning individual ehtiyojlar hamda anglangan manfaatlarining kuchayishi barqaror tendensiyaga aylanayotganligiga e'tibor qaratadilar. Ular yoshlarni

mustaqil ijtimoiy guruh sifatidagi maqomiga emas, balki soha, kasb, muayyan qiziqishlar doirasida ijtimoiylashgan shaxs maqomidagi rivoji, shuningdek, ularning oila muhitidagi ahvoli, ish bilan ta'minlashdagi muammolar, innovatsiyaga jalb qilish, ta'lim olishdagi qiyinchiliklar, oiladagi ajralishlarning yoshlar hayotiga ta'siri kabi masalalarni tadqiq etganlar. MDH olimlaridan O.I.Beliy, N.B.Gorbacheva, V.V.Davnis, S.O.Elishev, I.M.Ilinskiy, V.A.Lukov, A.I.Kovaleva, I.S.Kon, A.F.Radchenko, V.I.Chuprov, Yu.A.Zubok, K.Uilmas tadqiqotlarida asosan yoshlarning ijtimoiy guruh sifatidagi maqomlarini aniqlash hamda jamiyat hayotidagi o'rni bilan bog'liq masalalar, yoshlar hayotida transformatsion jarayonlarda institutsional omillar ustuvorligiga e'tibor qaratganlar. Ammo, transformatsion jarayonlarda institutlashgan omillar, ya'ni ota-ona, referent guruhlar, alohida shaxslar (xarizmatik shaxslar)ning roli kam o'rganilgan.

O'zbekiston olimlaridan M.Bekmurodov, A.Saidov, A.Umarov, A.Kholbekov, T.Matibaev, R.Ubaydullaeva, M.Ganiyeva, Q.Abduraxmanov, Sh.Sodiqova, O.Abdurazimov, A.Norbekov, A.Qahhorov, T.Narbaeva, B.Farfiev, N.Latipova, A.Seyitov, A.Yunusovlar o'z tadqiqotlarida o'sib kelayotgan avlodni yosh jihatidan guruhga ajratib, ularni demografik guruh sifatidagi "maqomlar"da tahlil etganlar.

## **TADQIQOT METODOLOGIYASI**

Tadqiqotda sotsiologiyaning biografik, kuzatish, anketa so'rovi, intervyu, tahlil usullaridan foydalanildi. Umumiy ilmiy tadqiqot metodologiyasi sifatida muallif zamonaviy sotsiologiya, uning usullari va tizimli hamda funksional yondashuvlardan foydalanib fikrlash va tadqiqotning kategoriya apparatlariga tayangan. Maxsus sotsiologik usullar sifatida sotsiologik so'rov, ma'lumotlar sintezi, intervyu, kuzatuv va ekspert xulosalari tahlili ishlatilgan.

Tahlil va natijalar "Innovatsiya" tushunchasi o'zbek ilmiy adabiyotlarida qo'llanila boshlaganiga ko'p vaqt bo'lmadi. Ushbu tushunchaga tadqiqotchilar tomonidan bir qator ta'riflar berilgan bo'lib, zamonaviy jamiyatda uning dolzarbligi yanada oshib bormoqda. "Innovatsiya" tushunchasi sodda va osongina tuyulsa-da, amalda ko'p qirralik va murakkabdir. Bu, bir tomondan, inson faoliyatining barcha sohalari bilan bog'liqligida namoyon bo'lsa, ikkinchi tomondan, uni ishlab chiqarish, yaratish, amaliyotga tatbiq qilish va undan keladigan samara natijalarning real hayotda o'z ifodasini topishi bilan belgilanadi. Bizning fikrimizcha, "innovatsiya" – ilm, fan, texnika, texnologiya, jamiyatning ijtimoiy-iqtisodiy, ijtimoiy-siyosiy va ma'naviy-ma'rifiy sohalarida ilgari mavjud bo'lmagan, bugun insoniyatning intellektual salohiyatini amaliy natija sifatida yaratib, amaliyotga tatbiq etilgan yangiliklar, ixtirolar va ularning amaliyotga joriy etilishi jarayonidir.

Innovatsiyalar inson hayotining sifat darajasini oshirishga xizmat qiladi. Masalan, sanoatda jismoniy ish o'rniga texnika yoki uskunalarning joriy etilishi ish samaradorligini oshiradi va sanoat sohasining rivojlanishiga olib keladi. Innovatsiyalar intellektual, ishlab chiqarish, xizmat ko'rsatish va boshqa sohalarda namoyon bo'ladi.

Innovatsion faoliyat – inson faoliyatining turli sohalarida uning samaradorligini oshiradigan yangi elementlarni kiritishdir. XXI asrda har qanday zamonaviy jamiyatni rivojlantirishning ijtimoiy zarurati faol innovatsion faoliyat hisoblanadi. O'tgan 5 yil davomida ilmiy va innovatsion faoliyat sohalarida O'zbekistonda bir necha qonun va dasturlar qabul qilindi. Xususan, "Innovatsion faoliyat to'g'risida" (2020 y., №O'RQ-630), "Ilm-fan va ilmiy faoliyat to'g'risida" (2019-y., №O'RQ-576) O'zbekiston Respublikasi qonunlari hamda "Ilm-fanni 2030 yilgacha rivojlantirish" konsepsiyasi (2020-y., PF-6097-sonli) qabul qilingan.

2021-yil holatiga ko'ra mamlakatimizning ilm-fan sektori 100 dan ortiq akademik va tarmoq ilmiy muassasalaridan iborat bo'lib, hozirgi kunda 65 ta ilmiy-tadqiqot instituti, 31 ta ilmiy markaz (shundan 14 ta ixtisoslashgan ilmiy-amaliy markaz) va 8 ta boshqa turdagi ilmiy tashkilot faoliyat ko'rsatmoqda. Bundan tashqari, oliy ta'lim muassasalari va ularning filiallarida ham ilmiy-tadqiqot ishlari amalga oshirilmoqda.

Innovatsion faoliyat yangi ijtimoiy ehtiyojlarni qondirish istagi bilan tavsiflanib, uning amalga oshirilishi bunday faoliyatga qodir odamlarning mavjudligiga bog'liq bo'ladi. Dunyo bo'ylab ijodiy salohiyatga ega ko'plab odamlar bor. 100 kishidan uchdan bir qismidan ko'prog'i ijodiy faoliyatni namoyon qilishi mumkin. Shu bilan birga, ijodiy salohiyatga ega har bir kishi innovator bo'la olmaydi. Shu munosabat bilan mamlakatning innovatsion rivojlanishining eng muhim yo'nalishi yoshlarning, birinchi navbatda, talabalarining innovatsion ijodiy faoliyatini rag'batlantirish hisoblanadi.

Talaba yoshlarning salohiyatini ijodiy va ilmiy rivojlantirish, ularning biznes g'oyalarini tijoratlashtirish uchun juda ko'p turli xil imkoniyatlar mavjud. Masalan, Innovatsion rivojlanish va novatorlik g'oyalarini qo'llab-quvvatlash jamg'armasi, Ilmiy va ilmiy-texnik faoliyat natijalarini tijoratlashtirish Prezident jamg'armasi va Yoshlar akademiyasining iqtidorli yoshlarni qo'llab-quvvatlash jamg'armasi tashkil etilgan.

Bu chora-tadbirlar yoshlarning innovatsion loyihalarini tijoratlashtirishga va shu orqali o'z ilmiy-intellektual salohiyatlarini oshirishga imkon beradi. Shuningdek, yuqorida aytilgan qonun va qarorlar, tashkil etilgan jamg'armalar yoshlarni innovatsion faoliyat atrofida birlashtirish, ularga qiziqish uyg'otish va jalb qilish uchun samarali vosita hisoblanadi.

So'nggi yillarda oliy o'quv yurtlarida katta o'zgarishlar yuz berdi. Shu qatori, endilikda oliy ta'limda nafaqat ta'lim va tadqiqot bilan, balki tadbirkorlik bilan ham shug'ullanish mumkin. Chunki, oliy o'quv yurtlarining asosiy vazifasi talabalariga sifatli ta'lim berish, ularni mehnat bozorida raqobatbardosh qilishdan iboratgina bo'lmay, balki ular uchun uzluksiz innovatsion ta'lim tizimini yaratish, turli darajadagi ilmiy loyihalar va dasturlarda ishtirok etishlarini ta'minlash, professor-o'qituvchilar va olimlarni har tomonlama qo'llab-quvvatlash orqali iqtidorli yoshlarni ilm-fanga va innovatsion faoliyatga jalb etishdan iboratdir.

Innovatsion faoliyat bilan shug'ullanish va natijaga erishish uchun, birinchidan, innovatsion jamoa, ikkinchidan, turli xil resurslar majmuasi (intellektual, moddiy, moliyaviy, kadrlar, infratuzilma va boshqalar) bo'lishi kerak.

Ushbu tushunchalarga ta'rif berib o'tamiz. Innovatsion jamoa – bu yangi g'oyalarni yaratadigan, ularni tanqidiy baholaydigan, rivojlantiradigan va amalda qo'llaydigan talaba yoshlar guruhi. Innovatsion salohiyat – bu ijodiy shaxsning innovatsiyalarni ilgari surish, ularning xohishi, qat'iyati va ishonchini mustahkamlash qobiliyati.

Davlatning kelajagi ijodiy shaxsning qobiliyatiga, uning faoliyatiga, jamiyat rivojlanishi sharoitida jiddiy muammolarni hal qilish uchun kuch, imkoniyat va istaklarni topa oladigan ijodiy shaxslarning soni va sinergetik o'zaro ta'siriga bog'liqdir.

Shuni ta'kidlash kerakki, innovatsion potentsialning mavjudligi ilmiy-texnik faoliyat natijalarini samarali tijoratlashtirish va innovatsion strategiyalarni amalga oshirish uchun zarur shartdir. O'zbekistonni rivojlangan davlatlar bilan taqqoslaganda tadqiqotchilar soni va innovatsiyalarga ajratilayotgan mablag'lar o'rtasida farq bor.

YUNESKO Statistika institutining ma'lumotlariga ko'ra, O'zbekistonda har 1 million aholiga to'g'ri keladigan tadqiqotchilar soni 980,3 nafarga teng. Biroq, shu manbaga ko'ra, Janubiy Koreyada 10 047,9, Germaniyada – 7 538,6, Fransiyada – 6 418,9 va AQShda – 4 412,4 tadqiqotchi to'g'ri keladi.

Mamlakatda innovatsiyalar rivojiga ta'sir etuvchi muhim omillardan yana biri fanni moliyalashtirishdir. O'zbekistonda ilm-fanni moliyalashtirishning asosiy manbai an'anaviy ravishda byudjet mablag'lari bo'lib qolmoqda. Tahlil natijalari shuni ko'rsatadiki, tadqiqot va ishlanmalar uchun ajratilgan mablag'larning yalpi ichki mahsulotga nisbatan ulushi O'zbekistonda 0,14%, Gruziyada – 0,3%, AQShda – 2,8%, Germaniyada – 3,1%, Yaponiyada – 3,3% va Janubiy Koreyada – 4,5% ni tashkil etadi. Bu vaziyatning eng muhim sababi – ilmiy tadqiqotlar va innovatsiyalarni amalga oshirish sohasida nodavlat sektorning etarli darajada ishtirok etmasligi hisoblanadi. 2020 yilda ilmiy-tadqiqot va ishlanmalar uchun 824,7 milliard so'm ajratilgan bo'lib, shundan 67 foizi davlat byudjeti va byudjetdan tashqari mablag'lar, qolgan 33 foizi esa korxonalar va tashkilotlarning o'z mablag'lari, mijozlar va xorijiy investorlarning mablag'lari hisobidan amalga oshirilgan.

O'zbekiston korxonalari va tashkilotlari tomonidan innovatsiyalarni amalga oshirishdagi kamchiliklardan yana biri – bu ilmiy-tadqiqot institutlari va oliy o'quv yurtlari o'rtasidagi o'zaro hamkorlikning past darajasi. Xususan, bunga misol sifatida 2020 yilda tashkilotlar tomonidan 4 290 ta innovatsiya joriy etilgan bo'lsa, shulardan 65 tasi ilmiy-tadqiqot institutlari bilan hamkorlikda, 20 tasi oliy o'quv yurtlari bilan birgalikda ishlab chiqilgan. Bu juda past ko'rsatkich hisoblanadi. Mamlakat innovatsion rivojlanishining raqobatbardoshligi uchun korxonalar va ilmiy muassasalar o'rtasidagi hamkorlikni yanada mustahkamlash talab etiladi.

Ushbu jadvaldan xulosa sifatida, milliy innovatsion tizimni yaratishda davlat asosiy ishtirokchilardan biri bo'lishi lozimligi ko'rinib turibdi. 2023-yilda Global innovatsiyalar indeksi bo'yicha birinchi o'rinni egallagan Shveysariya 2017 yilda YaIMning 3,07 foizini ilmiy-tadqiqot va ishlanmalarga yo'naltirgan bo'lsa, ushbu tashabbusni yildan yilga ko'tarib, 2021-yilda qariyb 3,4 % ga etkazgan.

Mazkur 10 davlat ichida Yalpi ichki mahsulotning eng ko'p ulushini ilmiy-tadqiqot va ishlanmalarga ajratgan davlat Janubiy Koreya hisoblanadi. Janubiy Koreya 2017 yilda Yalpi ichki mahsulotning 4,3 foizini ilmiy-tadqiqot va ishlanmalarga yo'naltirgan bo'lsa, 2021-yilda ushbu ko'rsatkich qariyb 5,0 foizga ko'tarilgan.

Ushbu jadvalda Singapurda Yalpi ichki mahsulotning eng kam qismini ilmiy-tadqiqot va ishlanmalarga yo'naltirgan bo'lsada, lekin ushbu davlat innovatsion xalqaro startaplarni jalb qilish uchun qulay muhit yaratishda muvaffaqiyat qozonmoqda.

Shuni ta'kidlash kerakki, O'zbekistonda innovatsiyalarni joriy etishda korxonalar va tashkilotlarning mablag'lari ham etarli emas. Davlat statistika qo'mitasi tomonidan o'tkazilgan namunaviy so'rovlar natijalariga ko'ra, 2020 yildagi statistik ma'lumotlarga asosan, respondentlarning 21,9 foizi innovatsiyalar uchun moliyaviy resurslarning etishmaganligi haqida, 15,3% - ilgari kiritilgan innovatsiyalar tufayli innovatsiyalarga ehtiyojning yo'qligini va 14,2% - innovatsiyalarga harajatlar yuqoriligini qayd etganlar [8]. Iqtisodiy hamkorlik va taraqqiyot tashkilotining hisobotiga ko'ra, hukumat ilmiy-tadqiqot va ilmiy ishlanmalarga sarflagan har 1 dollar uchun biznesdan 1,7 dollar foyda keladi [10].

### 10 ta eng ilg'or innovasion mamlakatlarning 2017-2021-yillarda ilmiy-tadqiqot va ishlanmalarga Yalpi ichki harajatlari (foizda) to'g'risida ma'lumot

№	Davlat	2017 yil	2018-yil	2019 yil	2020 yil	2021-yil
1	Shveysariya	3.077		3.197		3.359
2	Shvesiya	3.363	3.321	3.388	3.490	3.402
3	AQSh	2.904	3.010	3.170 3	3.468	3.457
4	Buyuk Britaniya	2.323	2.705 2	2.666	2.931	2.915
5	Singapur	1.899	1.814	1.897	2.217	
6	Finlyandiya	2.728	2.757	2.800	2.912	2.985
7	Gollandiya	2.179	2.139	2.184	2.322	2.269
8	Germaniya	3.047	3.110	3.167	3.131	3.129
9	Daniya	2.931	2.966	2.897	2.973	2.761
10	Janubiy Koreya	4.292 4	4.516	4.627	4.796	4.930

Innovasion faoliyatning muhim elementi sifatida innovasion infratuzilmani rivojlantirishning yangi shakllarini izlash zarur va yaratilgan infratuzilmadan samarali foydalanish uchun yosh avlodni innovasion faoliyatga maqsadli tayyorlash, shu jumladan, talaba yoshlarni innovasion faoliyatga jalb qilish mexanizmini ishlab chiqish zarur. Ushbu mexanizm, birinchi navbatda, quyidagi yo'nalishlarda ishlarni amalga oshirishni talab qiladi:

- Oliy o'quv yurtlarda o'qish davrida talaba yoshlarni innovasion faoliyatga jalb qilish;
- talaba yoshlarni kompaniya lardagi amalga oshirilayotgan faoliyatga moslashtirish;
- talaba yoshlarning kasbiy vazifalarini bajarish salohiyati va martabasini rivojlantirish uchun shart-sharoitlarni takomillashtirish;
- talabalarni tadqiqot ishlarini nashr etish;
- talabalar konferensiyalarda, talabalar loyihalari tanlovlarida, davra suhbatlarida, universitetlararo seminarlarda, munozaralarda ishtirok etishini ta'minlash;
- xalqaro yoshlar hamkorligini rivojlantirish.

Ushbu jarayonda innovatsiyalar yoshlarning inson kapitali sifatida namoyon bo'lishining asosiy vositasi hisoblanadi. 1911-yilda innovatsiyalar nazariyasining asoschisi Y.Shumpeter tomonidan nashr etilgan "Iqtisodiy rivojlanish nazariyasi" asarida innovatsiyani (yangi kombinatsiyalar) foyda olish uchun tadbirkorlik vositasi sifatida ko'rib chiqadi. Keyinchalik, 30-yillarda, Y.Shumpeter iqtisodiy rivojlanishdagi beshta odatiy o'zgarishlarni aniqlaydi: yangi texnologiyalardan foydalanish, yangi texnologik jarayonlar yoki ishlab chiqarishning yangi bozor ta'minotini joriy etish (sotib olish va sotish); yangi xususiyatlarga ega mahsulotlarni yaratish; yangi xom ashyolardan foydalanish; ishlab chiqarishni tashkil etish va uning moddiy-texnik ta'minotida o'zgarishlarni kiritish; yangi bozorlarni paydo qilish.

Yoshlarning innovasion jarayonlarda faol ishtirokiga erishmasdan turib, taraqqiyotimiz oldida turgan vazifalarni ijobiy echib bo'lmaydi. Fikrimizcha bunday vazifalar qatoriga: a) yoshlarda innovasion tafakkurni shakllantirish; b) ularning intellektual salohiyatini zamon talablari darajasida rivojlantirish; v) jamiyatda ijtimoiylashuviga erishish, ya'ni yagona maqsad yo'lida turli ijtimoiy guruhlar va tabaqalar bilan hamkorligini mustahkamlash; g) innovasion g'oyalarning moddiy jihatdan aniq ta'minlanishiga erishish; d) yaratilgan innovasion g'oyalarning amaliyotga tatbiq qilinishini tashkil qilish masalasi turadi.

Yoshlarning «Innovatsiya» tushunchasiga munosabatlari va unda qay darajada ishtirok qilayotganligini aniqlash maqsadida 2021-yilda sotsiologik so'rovnoma o'tkazganmiz. Sotsiologik so'rovda jami 1605 nafar respondent ishtirok etgan [11]. Respondentlarga, O'zbekistonda innovatsiyaning qay darajada rivojlanganligiga yoshlarning munosabatlarini aniqlash maqsadida, «Sizning fikringizcha O'zbekistonda innovatsiya qanday rivojlanmoqda?» degan savol berildi. So'rovda qatnashganlarning 403 nafari (25,1 %) –

«juda sust», 163 nafari (10,2 %) – «rivojlanyapti», 890 nafari (55,4 %) – «oʻrta darajada», 117 nafari (7,3 %) – «juda jadal», 32 nafari (2 %) esa «umuman rivojlanmayapti» deb javob berishgan.

Innovatsiya rivojlanish darajasini baholanishda aksariyat yoshlar oʻrta darajada (55,4%), juda sust (25,1) degan fikr bildirishgan. Demak, yoshlarning kuzatishi yoki shaxsiy tajribasi bu masalada davlat tomonidan yaratilgan qonuniy asoslar hayotda etarli darajada amalga oshirilmaganligini koʻrsatadi. Lekin innovatsiya rivojlanyotganligi (10,2%) yoki juda jadal rivojlanayotganligini (7,3%) belgilaganlar mavjudligi, bu masalada oʻzgarish boʻlayotganligini koʻrsatadi va natijalar endi namoyon boʻlishini bildiradi. Chunki barcha sohalarni innovasion asosda rivojlantirish uchun vaqt va mablagʻ talab etilishi hammaga tushunarli boʻlsa kerak.

Yoshlar oʻrtasida oʻtkazilgan sotsiologik soʻrovda [12] respondentlarga «Qaysi sohalar innovatsiyalarni keng joriy etish zarur?» (bir ishtirokchi bir necha variant belgilaganligi hisobiga 2 972 ta javob belgilangan), degan savol berilganda, respondentlar quyidagi fikrlarni bildirishdi: iqtisodiy – 663 ta (22,3 %); ijtimoiy – 448 ta (15,1 %); informasion-kommunikasion – 473 ta (16 %); ilm, fan, taʼlim, texnika va texnologiya – 770 ta (26 %); maʼnaviy-maʼrifiy – 87 ta (3 %); siyosiy – 85 ta (2,7 %); tarbiyaviy (ota-ona, oila, mahalla, shu masalalar bilan ishlaydigan nodavlat tashkilotlari faoliyatini kuchaytirishga) – 353 ta (11,8 %); boshqa sohalariga – 93 ta (3,1 %) keng joriy etish kerak.

Bu maʼlumotdan koʻrinib turibdiki, respondentlarning aksariyat qismi ilm, fan, taʼlim, texnika va texnologiya, iqtisodiy, ijtimoiy va informasion-kommunikatsion sohalariga innovatsiyalarni joriy etish zarurligini taʼkidlaganlar. Bu tabiiy, albatta, chunki ana shu sohalar mamlakatdagi barcha sohalarning rivojlanishiga oʻzining taʼsirini oʻtkazadi. Eng asosiysi, yosh respondentlar tomonidan muhim masalaning mazmun-mohiyatini toʻgʻri anglab etilganligidir.

Mamlakatimiz yoshlarida shaxsiy manfaatlarini Vatan manfaatlarini bilan uygʻunlashtirish ruhiyati va amaliyoti rivojlanib bormoqda. Tadqiqot doirasida yoshlarning qaysi sohalariga qiziqishlari oshib borayotganligini va nimaga ehtiyoji mavjudligini aniqlash maqsadida «Hayotingizdagi yumushlarni engillashtirish uchun nima qilgansiz yoki qilmoqchisiz?», degan savol berilgan [12]. Respondentlarning 618 nafari (38,5%) ish (oʻqish) joyi boʻyicha faoliyatni engillashtirish uchun taklif bildirgan; 384 nafari (24%) yashash joyidagi mahalla, boshqaruv kompaniya (JEK) kommunal xizmatlarni yaxshilash yuzasidan takliflar bildirgan; 356 nafari (22,1%) davlat tashkiloti, idoralar va hokimliklar faoliyatini yaxshilash yuzasidan; 247 nafari (15,4%) boshqa takliflarni bildirganligi eʼtirof etilgan.

Keltirilgan maʼlumotlardan maʼlum boʻldiki, soʻrovda qatnashganlar (1605 nafar respondentlar, 100%) dan 1358 nafari (84,5%) oʻz hayotlaridagi mavjud muammolarni aniq bilishlarini hamda ularni hal etishga oʻzlarining amaliy takliflarini bildirganlar. Bu koʻrsatkichga ijobiy qaragan holda, ularning aksariyati faqat taklif sifatida qolib ketayotganligini eʼtirof etganlar.

Bu koʻrsatkichga aniqlik kiritish maqsadida respondentlarga «Sizning fikringizcha oʻqish (ish) joyingizda nimanidir oʻzgartirish kerakmi?» – degan savol berilgan [12]. Javob quyidagicha boʻlgan: «Ha, oʻzgartirish kerak» – 991 nafar (61,7 %); «Yoʻq, oʻzgartirish kerak emas» – 353 nafar (22 %); «bilmayman» – 261 nafar (16,3 %).

Bu keltirilgan maʼlumotlar: yoshlarimizning mamlakat hayotida kechayotgan modernizatsiyalashtirish jarayonlariga monand qarashlari oʻzgarib borayotganligini (991 nafar (61,7 %) toʻgʻri anglab etayotganligini) va ayni paytda ularning bir qismida (614 nafari (38,3) modernizatsiyalashtirish ehtiyojlarini toʻliq anglab etmayotganliklarini koʻrsatmoqda.

Respondentlarning barcha bildirgan fikr va takliflaridan quyidagi xulosalarni chiqarish mumkin, deb hisoblaymiz: birinchidan, yoshlar mamlakatda amalga oshirilayotgan modernizatsiyalashtirish jarayonlariga befarq emaslar va unda oʻzlari ham ishtirok qilmoqdalar. Bu, ularning yuqorida koʻrsatib oʻtilgan tashkilotlarda ijobiy oʻzgarishlarga ehtiyoj borligi haqida bildirgan takliflaridan koʻrinib turibdi; ikkinchidan, ular orasida mamlakatda kechayotgan jarayonlarga etarlicha qatnashmayotganlari yoki qiziqishi yoʻqlari, yohud beparvo boʻlganlari ham borligini eʼtirof etish lozim.

Shu bilan birga yoshlarda ohirgi bir necha yilda umumiy dunyoqarashi va siyosiy ongi oʻsganligini koʻzga tashlashimiz mumkin. Ular Yangi Oʻzbekistonda amalga oshirilayotgan barcha sohalaridagi islohotlarda faol ishtirok etmoqda va ularning shijoati va taʼsiri sezilmoqda va oʻsib bormoqda.

## **XULOSA VA TAKLIFLAR**

Yuqoridagilardan kelib chiqib quyidagi masalalarni hal etishga eʼtibor berish zarur deb hisoblaymiz:

1. Yoshlarning innovasion faolligini oshirishda fan, texnika va texnologiya sohalarida yangilik, ixtiro hamda kashfiyotlarni amalga oshirish bilan bir qatorda, ularni raqobatbardoshligini taʼminlash zarurdir. Bu

maqsadlarga erishishda ta'lim tizimi islohotini takomillashtirish, xususan, oliy ta'lim muassasalarining xalqaro xamkorligini kuchaytirish, ularga xorijiy yuqori malakali mutahassislarni jalb etish, ta'lim va fan-ilm uyg'unligini ta'minlash, iqtidorli talaba yoshlarni ilm-fan sohasiga jalb etish va bunda moddiy va ma'naviy rag'batlantirish mexanizmlardan samarali foydalanish. Talaba yoshlarni ilmiy-tadqiqot ishlarini chop etish, amaliyot darslarini kupaytirish va iqtidorli talabalarni xalqaro bozordagi raqobatbardosh kompaniya larga ishga joylashtirish kabi vazifalar Oliy o'quv yurtlarning eng muhim vazifalardan biriga aylantirish zarur.

2. Yoshlarning moddiy va ma'naviy ehtiyojlarini qondirish uchun ularning innovasion faolligini oshirish ehtiyojlarning ortib borishiga uyg'un holda rivojlantirish hamda zamonaviy ilm, fan, texnika va texnologiyalar yutuqlarini yoshlar o'rtasida ommalashtirishga hamda ularni egallashga bo'lgan qiziqishlari oshib borishi bilan bog'liq tadbirlarni amalga oshirish va yoshlarni bunga keng jalb etish kerak.

3. Jamiyatni modernizatsiyalashtirish jarayonida ta'lim va tarbiya tizimini tubdan o'zgartirish, ularni boshqarishda demokratik uslublarni joriy etish, yoshlarning o'qishi, ilm olishi, fan, texnika va texnologiyaga bo'ladigan qiziqish va harakatlarini davlat tomonidan qo'llab-quvvatlanishi hamda yoshlar ongi, dunyoqarashi va tafakkurini modernizatsiyalashtirish talablari asosida yangilash hamda faoliyatlarini yangilik, kashfiyot va ixtirolar yaratishga yo'naltirish muhim amaliy ahamiyatga ega bo'lib qoladi.

Ushbu masalalarni hal etishda davlat tashkilotlari bilan birga nodavlat notijorat tashkilotlari, tadbirkorlar va ijtimoiy faol aholimiz birgalikda harakat qilishsa ko'zlangan maqsadlarga erishiladi.

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## СИСТЕМА КЛЮЧЕВЫХ ПОКАЗАТЕЛЕЙ ЭФФЕКТИВНОСТИ ТРУДА: РАЗРАБОТКА И ВНЕДРЕНИЕ КРІ НА ПРЕДПРИЯТИЯХ

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**Аннотация:** В статье проведен теоретический и практический анализ направлений и перспектив совершенствования системы оценки ключевых показателей эффективности труда (КПЭ) на предприятиях. Исследованы материальные и нематериальные стимулы, влияющие на систему оценки эффективности трудовой деятельности работников, а также вопросы обучения и переподготовки сотрудников на основе результатов социального опроса.

**Ключевые слова:** Ключевые показатели эффективности (КПЭ), Оценка труда, Эффективность трудовой деятельности, Материальные стимулы, Нематериальные стимулы, Обучение сотрудников.

### ВВЕДЕНИЕ

Оценка эффективности работы сотрудников на предприятии, измерение эффективности и ее оценка являются необходимым условием успешной работы системы управления персоналом. В настоящее время многие компании оценивают деловую активность своих сотрудников по системе «Ключевые показатели эффективности» (КРІ). Ключевые показатели эффективности (КПЭ) — это система оценки, которая помогает определить достижение стратегических и тактических целей в обеспечении эффективности деятельности предприятий и организаций. Их использование дает возможность организации оценить свое положение и помогает оценить реализацию стратегии.

### АНАЛИЗ ЛИТЕРАТУРЫ

Измерение эффективности и оценка важных показателей проходят длительные стадии эволюционного развития.

Первые концепции ключевых показателей эффективности (КРІ) начали формироваться в 1950-х годах благодаря идее «Управления по целям» Питера Друкера.

По мнению П. Друкера, «чтобы достичь эффективности, необходимо заниматься показателями эффективности отдельно, причем необходимо заниматься показателями, которые эффективны для того, чтобы менеджеры могли работать в направлении установленных приоритетов и главной цели, а не нагружать их повседневной работой»<sup>47</sup>.

В 1990-е годы показатели эффективности приобрели популярность в различных отраслях, особенно в правительстве. Не все внедрения систем управления эффективностью проходили гладко, и иногда они приносили больше вреда, чем пользы. Тем не менее, хороший и плохой опыт помог принять более обоснованные решения об использовании мер посредством изучения практики.

Куда приведет нас эта история? Практика привела к появлению концепций управления, а не наоборот. Использование показателей эффективности со временем эволюционировало органично.<sup>48</sup>

<sup>47</sup> Ф.Ахатов. КРІ нима ва унинг иш самарадорлигига қандай таъсири бор? <https://zarnews.uz/post/kpi-nima-va-uning-ish-samaradorligiga-qanday-tasiri-bor>

<sup>48</sup>A.Brudan. Learning from practice – A brief history of performance measurement. URL: <https://www.performancemagazine.org/learning-from-practice-a-brief-history-of-performance-measurement/>



Следует подчеркнуть, что до сегодняшнего дня исследователи не почувствовали необходимости выработки единого подхода к определению понятия «ключевые показатели эффективности» (KPI). На основе изучения различных определений этого понятия можно выделить две сложившиеся в отечественной науке точки зрения на природу и сферу применения важных показателей эффективности. Согласно первой, ключевые показатели эффективности рассматриваются как инструмент управления стратегическими предприятиями. Согласно второй, использование ключевых показателей эффективности ограничивается только сферой управления персоналом. На наш взгляд, основные показатели, используемые для оценки эффективности работы сотрудников, являются элементом стратегического управления, если они подчинены решению задач, стоящих перед предприятием.

В процессе рассмотрения составляющих системы ключевых показателей эффективности Р. Каплан и Д. Нортон предложили среди многих аналитических показателей выделить основные, которые трудно воспринимаются. Классическая система показателей состоит из четырех блоков:

- первый блок – миссия и стратегия компании;
- второй блок – внутренние бизнес-процессы;
- третий блок – подготовка и повышение квалификации персонала;
- четвертый блок – потребители продукции или услуг<sup>49</sup>.

В свою очередь, каждый из блоков включает в себя цели, показатели, задачи и мероприятия. В нашей стране основоположниками школы экономики труда и зрелыми учеными науки был освещен ряд работ, посвященных проблемам эффективности труда в производственной экономике. В частности, большое внимание анализу этой проблемы уделяли К.Х. Абдурахманов и другие. К.Х. Абдурахманов так характеризует производительный характер эффективности труда: «Эффективность труда является показателем конечного экономического результата трудовой деятельности. Он измеряется количеством произведенной продукции или оказанных услуг по отношению к стоимости рабочей силы, то есть продукции, произведенной за счет единицы стоимости рабочей силы. Развитие общества и уровень благосостояния всех его членов зависит от уровня эффективности и роста трудовой деятельности»<sup>50</sup>.

При разработке стандартных критериев эффективности необходимо соблюдать определенные требования:

- они должны быть определены с точки зрения поведения;
- они должны относиться к устойчивым повторяющимся формам поведения;
- они должны отражать количественные и качественные критерии выполнения работы, не связанные с содержанием деятельности в конкретной области;
- они должны находиться под непосредственным контролем соответствующего ведомства.

Также в этой системе цели на всех уровнях предприятия должны соответствовать принципу SMART, то есть предполагается, что они будут следующими:

- **“specific”** — уникальный;
- **“measurable”** – измеряемый;
- **“achievable”** – достижимый (реалистичный);
- **“relevant”** – подходящий для деятельности, актуален;
- **“time-bound (time-based)”** – ограничен временем.

Третий тип: система управления эффективностью (см. «Управление эффективностью») — усовершенствованный и переработанный тип системы управления целями, при которой анализ эффективности работы сотрудника раз в год или раз в полгода (Performance Review) является обязательным и строго проводится. В этой системе она отличается наличием возрастающей стадии. На этом этапе оценивается выполнение поставленных перед предприятием целей и задач, важные показатели эффективности и один из важнейших критериев – квалификация сотрудников.

Четвертый тип: сбалансированная система показателей (BSC). Эта система была разработана профессором Фонда Бейкера Гарвардской школы бизнеса Дэвидом Нортон и основателем и президентом компании Balanced Scorecard Collaborative Робертом Капланом. Она основана на четырех структурах, которые тесно связаны с целью, видением и стратегией предприятия.

<sup>49</sup> Каплан Р., Нортон Д. Сбалансированная система показателей. От стратегии к действию. – М.: Олимп-Бизнес, 2005.

<sup>50</sup> Қ.Абдурахмонов. Меҳнат иқтисодиёти: Назария ва амалиёт / Дарслик. Қайта ишланган ва тўлдирилган 3-нашри. -Т.: Ўзбекистон Республикаси Фанлар академияси «FAN» нашриёт давлат корхонаси, Т.: 2019. – 592 б. 193-б.

## МЕТОДОЛОГИЯ ИССЛЕДОВАНИЯ

В исследовании использовались системный анализ, сравнительный анализ, корреляционно-регрессионный анализ и методы прогнозирования.

В исследовании использованы данные опроса 1130 работников промышленных предприятий, таких как Акционерное общество “Shaxrisabz VAOT”, Акционерное общество “DON – XALQ RIZQI”, ООО “OQ SAROY TEXTILE” и ООО “SADO”, действующих в Кашкадаринской области.

Предполагаемые взаимосвязи оценивались с использованием моделирования структурными уравнениями наименьших квадратов.

Результаты показали, что финансовое стимулирование, а также обучение и развитие сотрудников положительно связаны с системой KPI, что, в свою очередь, отрицательно связано с неудовлетворенностью сотрудников. Косвенное влияние стимулирования на неудовлетворенность сотрудников поддержано только в отношении материального стимулирования и обучения и повышения квалификации сотрудников, поскольку правильно организованный труд и справедливое управление, а также нематериальные стимулы могут не иметь существенного отношения к системе KPI.

## АНАЛИЗ И ОБСУЖДЕНИЕ РЕЗУЛЬТАТОВ

На основании деятельности промышленных предприятий, рассматриваемых как объект исследования, можно выделить три важных аспекта эффективности: индивидуальный, ведомственный и общепредпринятый. Определенная при этом основная задача менеджеров включает повышение эффективности индивидуального и коллективного труда, что, в свою очередь, способствует достижению конечного результата на основе общей эффективности в организации (рис. 1).

Важными показателями индивидуальной эффективности являются система показателей, отражающих, насколько требования и обязанности должности соответствуют результатам работы работника, а также своевременность, качество и эффективность выполнения задач.

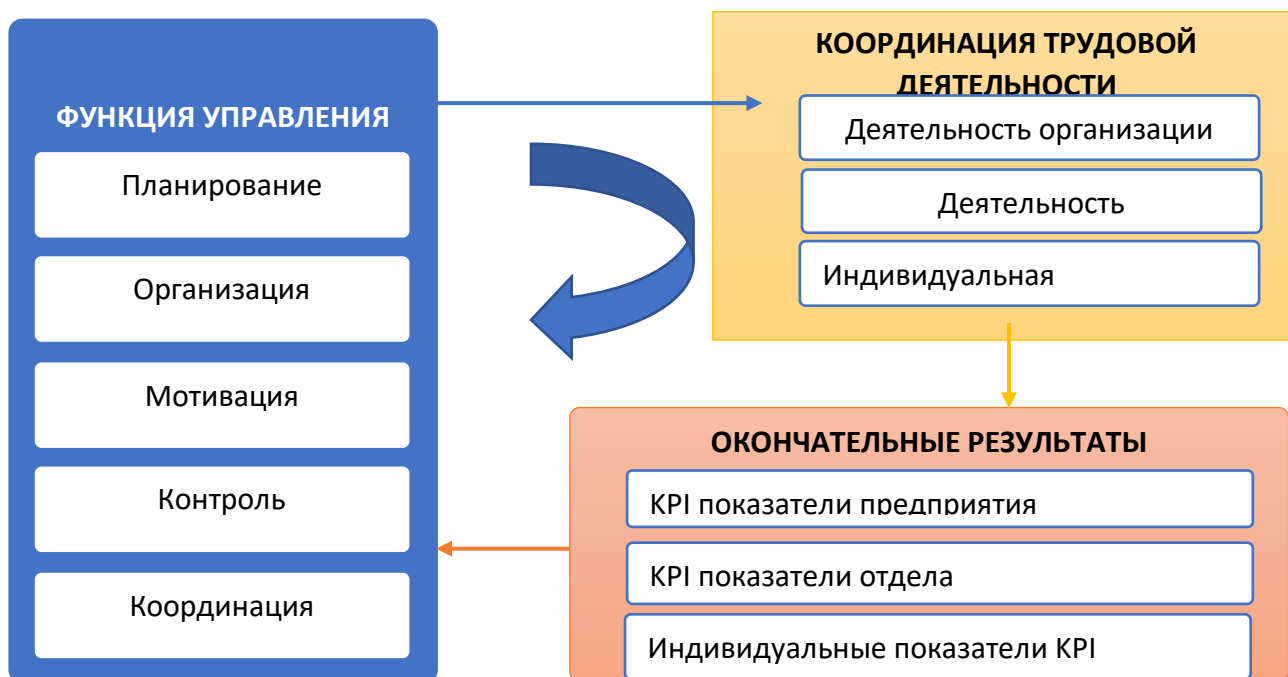


Рисунок 1. Влияние руководителей на достижение эффективности на предприятии<sup>51</sup>

На наш взгляд, оценка ключевых показателей эффективности (КПЭ или KPI) сотрудников организации может быть признана ключевым элементом системы управления организацией. Однако существует ряд рисков, которые препятствуют внедрению на предприятии системы оценки ключевых показателей эффективности работы сотрудников (KPI) и непрерывному анализу деятельности на ее основе. Своевременное устранение этих рисков при правильном анализе должно стать программой предприятия.

<sup>51</sup> Разработано автором

Риски оказывают негативное влияние не только на систему оценки ключевых показателей эффективности (KPI) сотрудников предприятия, но и на всю деятельность предприятия. В связи с этим в ходе исследования возможные риски, влияющие на систему оценки ключевых показателей эффективности (KPI), и возможности их устранения были отражены в следующем отдельном перечне:

Прежде всего, самым большим риском при внедрении системы важных показателей эффективности труда является отсутствие точного измерения поставленных целей. Принуждение сотрудников работать на результат и согласование личных целей сотрудников с целями компании не обязательно принесет положительные конечные результаты для компании.

Важно сосредоточиться на том, что именно будет улучшено в результате любых изменений, внесенных в систему KPI, и как это будет измеряться. Если у предприятия нет четко измеримых целей, любая система оценки эффективности не будет успешной. Основная причина этого заключается в том, что постановка расплывчатых целей не мотивирует управленческий персонал и бизнес-команду, что приводит к неэффективным затратам и инвестициям.

Чтобы поставить какую-либо цель, обеспечивающую эффективность деятельности компании, необходимо проанализировать проблемы, возникающие в деятельности, и выявить наиболее важные искусственные ограничения в работе сотрудников.

В деятельности ООО «Sado» и ООО «Oq Saroy Tekstile» Кашкадаринской области было предложено обратить особое внимание на следующие вопросы, направленные на устранение существующих ограничений, а также основанные на глубоком понимании существующих проблем при внедрении системы оценки важных показателей эффективности трудовой деятельности:

- сокращение сроков поставки производимого трикотажа и другой продукции покупателям в 2 раза;
- в 1,5 раза больше дохода от основной деятельности.

Эти целевые планы связаны с наиболее важными бизнес-целями, включают критерии успеха, а результаты их реализации считаются измеримыми.

Во-вторых, одним из основных рисков является отсутствие определения пределов внедрения системы оценки важных показателей трудовой деятельности на предприятии. Сегодня компании стараются разработать и внедрить систему оценки (систему KPI) для всех подразделений и всех сотрудников. В этом случае предприятия не дают ожидаемых результатов из-за отсутствия или недостаточности ресурсов и других ограничений.

Фактически внедрить систему оценки важных показателей эффективности труда для всех подразделений и сотрудников предприятия можно, но она не дает больших возможностей для достижения результатов. Прежде чем внедрять систему оценки важных показателей трудовой деятельности работников, целесообразным считается апробировать ее на практике в одном или двух подразделениях. После разработки всех критериев системы оценки, в результате устранения недостатков, достигнув успеха, ее можно внедрять и в других подразделениях.

В-третьих, это также риск того, что внедрение системы оценки важных показателей эффективности работы сотрудников на предприятии рассматривается как техническая задача. На многих предприятиях и организациях задача внедрения системы оценки важных показателей трудовой деятельности возлагается на работников, занимающихся финансовыми вопросами на предприятии, или специалистов среднего звена, которым можно поручить эту задачу. Однако эти специалисты, не обладая полным стратегическим видением деятельности компании и полномочиями на внесение изменений в руководство, не будут иметь возможности своевременно решить организационные вопросы, так как они не имеют веса ни в руководстве, ни в политике предприятия.

Обычно в перечень задач организации деятельности входит внедрение системы оценки важных показателей эффективности работы сотрудников предприятия. Некорректно поручать реализацию этой задачи доверенным лицам или специалистам среднего звена, так как эта задача — прерогатива топ-менеджмента. В этом случае соответствующие технические задачи должны выполняться сотрудниками, занимающимися финансовыми вопросами, или специалистами среднего звена, которым можно поручить эту задачу.

В-четвертых, риском для деятельности также считается отсутствие участия всех работников в процессе внедрения системы оценки важных показателей эффективности работы. В ходе исследования сотрудники предприятия узнают о внедрении системы оценки важных для них показателей эффективности только на заключительном этапе ее внедрения или при установлении новых правил и показателей оценки. Эти изменения создают конфликты между сотрудниками и руководством.

Рекомендуется с самого начала предвидеть потенциальные конфликты, связанные с любыми изменениями в корпоративной политике, и привлекать все заинтересованные стороны к любым предлагаемым проектам. Неспособность должным образом организовать управление системой оценки важных показателей эффективности также является риском для эффективности деятельности предприятия.



**Рисунок-2. Возможности хорошей организации системы ключевых показателей эффективности (KPI) в работе сотрудников предприятия**<sup>52</sup>

Чтобы организовать систему ключевых показателей эффективности (KPI) в работе сотрудников предприятия, необходимо сосредоточить внимание на следующем (рисунок 2):

1. Ограничения реального времени для процессов деятельности.
2. Основной план, определяющий все этапы процесса деятельности.
3. Руководитель с хорошим опытом своей деятельности.
4. Мотивированная команда с оперативными навыками.
5. Наличие необходимых ресурсов для деятельности.
6. Коллективный договор и процедуры, строго соблюдаемые членами команды.
7. Отчет, предоставляющий информацию об эффективности деятельности за отчетные периоды.
8. Регулярный критический обзор и анализ результатов деятельности.
9. Выявление проблем в деятельности и постоянное управление рисками.

<sup>52</sup> Разработано автором

Если в системе КРІ четко не определены этапы и сроки, результаты оценки не пересматриваются регулярно, а проблемы не анализируются, прогресс предприятия не может быть оценен должным образом. В результате не хватает ресурсов, и исполнители могут постоянно отвлекаться на другие задачи. В таких условиях система оценки ключевых показателей эффективности (КРІ) сотрудников сохранится, но постепенно утратит свои особенности и функции.

Международный опыт показывает, что руководители рассчитывают повысить мотивацию подчиненных за счет внедрения системы ключевых показателей эффективности (КРІ). Однако это не дает желаемых результатов, и они становятся свидетелями обратного результата – снижения мотивации. Система ключевых показателей эффективности (КРІ) не является инструментом мотивации сотрудников! Многие лидеры могут осознавать это, а могут и не осознавать.

Результаты исследования показали, что если руководитель предприятия видит, что мотивация его сотрудников низкая, ему следует в первую очередь начать изучать причины этого. Во многих случаях основными причинами этого могут быть, например: то, что руководство большинства предприятий не обращает внимания на условия труда своих подчиненных; грубое обращение руководителей с подчиненными; сотрудники не видят смысла и цели в деятельности предприятия и своего подразделения, результаты не разглашаются; трудовые процессы на предприятии не организованы, ситуации вызывают стресс у сотрудников и т. д.

В этих случаях, чтобы система ключевых показателей эффективности (КРІ) на предприятии имела смысл, необходимо выявить и проанализировать наиболее острые факторы демотивации и незамедлительно устранить их влияние.

Вышеуказанные риски препятствуют внедрению и эффективности системы ключевых показателей эффективности (КРІ) на любом предприятии. Чтобы не попасть под влияние рисков, необходимо постоянно анализировать систему ключевых показателей эффективности (КРІ) и влияющие на нее факторы на предприятии.

Разработка мер по постоянному снижению этих рисков и включение их в программы считается очень важным для каждого предприятия.

## **ВЫВОДЫ И ПРЕДЛОЖЕНИЯ**

На основе деятельности промышленных предприятий, рассматриваемых как объект исследования, можно выделить три важных аспекта эффективности: индивидуальный, ведомственный и общепредпринимательский. Основная задача лидеров заключается в повышении эффективности индивидуальной и коллективной работы, что в свою очередь способствует достижению конечных результатов на основе общей эффективности в организации.

На наш взгляд, оценка ключевых показателей эффективности (КРІ) сотрудников организации может быть признана ключевым элементом системы управления организацией. Одним из направлений, которое следует учитывать при совершенствовании системы оценки ключевых показателей эффективности труда работников (КРІ) на предприятиях, являются основные этапы определения индивидуальных показателей сотрудников. Если эти этапы организованы правильно и разумно, проблем в системе оценки эффективности не возникнет. Выделяют четыре основных этапа определения индивидуальных показателей работников: этап подготовки системы оценки ключевых показателей эффективности труда (КРІ), этап формирования показателей для среднего и нижнего уровней деятельности предприятия, тестирование системы оценки ключевых показателей эффективности труда (КРІ) и заключительный этап, на котором завершится внедрение системы КРІ.

Международные стандарты и зарубежный опыт рекомендуют, прежде чем выбрать конкретные приоритеты в деятельности предприятия, сначала проанализировать каждую должность на предприятии, исходя из концепции необходимости, а затем разработать ключевые показатели на основе должностных обязанностей для каждой позиции, после чего приступить к систематическому регулированию всех процессов в деятельности.

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# CORRELATION ANALYSIS OF THE RELATIONSHIP BETWEEN INDICATORS OF STABILITY OF THE BANKING SECTOR AND MACROECONOMIC INDICATORS

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**Abstract:** This paper analyzes the correlation between the stability of the banking sector and key macroeconomic indicators. The study examines how factors such as capital adequacy, liquidity ratios, and non-performing loans correlate with macroeconomic variables like GDP growth, inflation, and unemployment. It highlights the significance of these relationships in maintaining financial stability and mitigating the risks posed by economic downturns. The paper also discusses the role of regulatory frameworks and risk management strategies in safeguarding the banking sector against macroeconomic shocks.

**Keywords:** Banking sector stability, macroeconomic indicators, capital adequacy, non-performing loans, financial stability.

## INTRODUCTION

One of the main directions of the strategy for reforming the banking system of the Republic of Uzbekistan is to enhance the financial stability of banks by improving corporate governance according to international standards and best practices. This includes ensuring moderate credit growth, improving the quality of the loan portfolio, and developing a robust system of banking control and risk management within banks.

In line with these objectives, studying the interaction between the stability indicators of the banking system and macroeconomic indicators will be crucial. This analysis will form the foundation for identifying forecast indicators, which will help establish priorities that need to be addressed in this sector moving forward. By aligning these priorities with macroeconomic trends, Uzbekistan can strengthen its banking system and promote sustainable economic growth.

## REVIEW OF LITERATURE ON THE SUBJECT

The stability of the banking sector is a crucial component of macroeconomic stability, significantly influencing overall economic performance, growth, and resilience. Numerous studies have investigated the relationship between banking sector indicators—such as capital adequacy, liquidity ratios, and non-performing loans—and broader macroeconomic indicators, including GDP growth, inflation, and unemployment rates.

Research conducted by economists from various countries, including the International Monetary Fund (Matias Costa Navajas and Aaron Thegeya), Russia (Grigorieva Kristina Vladimirovna), Ukraine (Svitlana Khalatur, Liudmyla Velychko, Olena Pavlenko, Oleksandr Karamushka, Mariia Huba), and Uzbekistan (Sattarov Odiljon Berdimuratovich), has confirmed the existence of key indicators that determine the financial stability of banks and established a strong correlation between the main banking system indicators and macroeconomic indicators. This correlation assists in forecasting the gross domestic product.

For instance, Matias Costa Navajas and Aaron Thegeya conducted an analysis demonstrating that indicators such as the ratio of assets at risk to regulatory capital (CAR) and return on equity (ROE) are strongly correlated with banking crises. Similarly, Kristina Grigorieva, through an analysis of the Russian banking system, developed a model correlating indicators like the equity adequacy ratio, the share of problem loans in the loan portfolio, return on capital, and the ratio of liquid assets to short-term liabilities with bank defaults. Additionally, Sattarov Odiljon Berdimuratovich, utilizing simple linear regression analysis, concluded that real domestic product positively impacts the stability index of the banking system in Uzbekistan.

In conclusion, the literature highlights a strong correlation between banking sector stability and macroeconomic indicators. The interplay between these factors is complex, necessitating continuous monitoring of both banking and macroeconomic data to ensure financial stability. Policymakers and regulators

should prioritize the creation of robust frameworks that take into account both domestic and global economic conditions to protect the banking sector from future vulnerabilities.

### RESEARCH METHODOLOGY

In the implementation of these research works, widely used methods in scientific research methodology were employed. The application of deductive or inductive methods, moving from generality to individuality and vice versa, is effective in studying the subject matter. Additionally, the method of abstract-logical thinking plays a crucial role in the systematic analysis of the process. Throughout the scientific analysis, various research methods were utilized, including observation, generalization, grouping, comparison, and both analysis and synthesis. These methodologies collectively contributed to a comprehensive understanding of the research topic.

### RESULTS AND ANALYSIS

In a time of significant volatility in the modern global economy, studying the financial stability of banks has become increasingly relevant. Ensuring the financial stability of banks requires constant monitoring and analysis of various risks within the financial system, using macroeconomic indicators to inform appropriate response measures. By utilizing indicators that define the financial stability of banks, a correlation analysis can be conducted based on a comprehensive dataset to forecast Uzbekistan's gross domestic product (GDP).

In this study, we will conduct an econometric analysis of the relationships between key banking indicators and macroeconomic indicators that determine the financial stability of Uzbekistan's banking system. The data for this analysis has been compiled using a seven-year dataset covering the dynamics of essential indicators affecting financial stability and GDP at current prices for the period from 2016 to 2023. This data has been published by the Central Bank of the Republic of Uzbekistan and the Statistics Committee.

Examining the impact of financial stability indicators on the national economy is considered essential. Such analysis is vital for shaping future tasks and strategies from the perspective of these financial stability indicators.

During the course of the study, econometric methods were employed to analyze the problem loan ratio (NPL) within the national economy, the net stable funding ratio, and the impact of the quick liquidity ratio. Using the official data provided by the Central Bank of the Republic of Uzbekistan, we explored how indicators like the problem loan ratio (NPL), net stable funding ratio, and quick liquidity ratio influence changes in the country's GDP. Based on these analyses, relevant forecasts were developed to guide future financial strategies.

**In this case, the following indicators are obtained:**

Y	GDP, billion soums
X1	The problem loan ratio (NPL), percent
X2	Net stable funding ratio, percent
X3	The quick liquidity ratio, percent

Table-1

**Dynamics of GDP and financial stability indicators<sup>53</sup>**

Years	Y	X1	X2	X3
2016	255 421,9	0,74	102,6	40,1
2017	317 476,4	1,2	110,6	40,1
2018	426 641,0	2	107,9	30,9
2019	532 712,5	2,3	112,8	47,8
2020	605 514,9	2,1	109,9	67,4
2021	738 425,2	5,2	115,4	99,3
2022	888 341,7	3,6	115,6	110,1

Table-2

**The correlation between indicators of financial stability and GDP<sup>54</sup>**

Correlation dependency				
Probability	GDP	The problem loan ratio (NPL)	Net stable funding ratio	The quick liquidity ratio
ЯИМ	1.0000			

<sup>53</sup> Compiled by the author based on information from the sites stat.uz and cbu.uz.

<sup>54</sup> The calculations were carried out by the author in the Gretl program.



Correlation dependency				
The problem loan ratio (NPL) (X1)	0,8460	1.0000		
Net stable funding ratio (X2)	0,8415	0,8165	1.0000	
The quick liquidity ratio (X3)	0,9231	0,8356	0,7530	1.0000

Table-3

Regression statistical analysis of GDP and factors affecting it (Model 1)

Dependent Variable: GDP				
Method: Least Squares				
Sample (adjusted): 2016–2023 ears				
Included observations: 7				
Variables	Ratio	The standard error	t-statistics	Probability
C	-1,50968e+06	913602	-1,652	0,1970
The problem loan ratio (NPL) (X1)	7718,02	51892,8	0,1487	0,8912
Net stable funding ratio (X2)	15707,2	8891,31	1,767	1,767
The quick liquidity ratio (X3)	4659,29	1419,10	3,283	0,0463
R-square	0,902252	The standard deviation of the dependent variable		226707,4
The sum of the squares of the residuals	3,01e+10	The standard error of the model		100238,5
F(4, 6)	41,81575	Adapted R-square		0,804504
Proximity to logarithmic reality	-87,57418	Prob(F-statistic)		0,006017
The Schwartz criterion	182,9320	The Akaike Criterion		183,1484
Parameter rho	-0,248914	The Hannah-Quinn Criterion		180,4742
Probability (F-index) The average value of the dependent variable	537790,5	Durbin-Watson statistics		2,361792

$$y = -1,50968e + 06 + 7\,718,02 * x_1 + 1\,5707,2 * x_2 + 4\,659,29 * x_3 + \varepsilon$$

From the factors of this regression, it can be concluded that the problem loan ratio (NPL) (0.8912>0.05), as well as net stable funding ratio (1.767>0.05) do not have a 5% significance level. An increase in the quick liquidity ratio by 1% increased GDP by \$4,65929 billion soums.

In this table, we determine the repeated correlation and form a model by subtracting the problem loan ratio (NPL) (X1) from the model due to insufficient statistical significance.

Table-4

Regression statistical analysis of GDP and factors influencing it (Model 2)

Dependent Variable: GDP				
Method: Least Squares				
Sample (adjusted): 2016–2023 ears				
Included observations: 7				
Variables	Ratio	The standard error	t-statistics	Probability
C	-1,62528e+06	494345	-3,288	0,0303
Net stable funding ratio (X2)	16815,3	4836,53	3,477	0,0254
The quick liquidity ratio (X3)	4849,63	878,051	5,523	0,0052
R-square	0,901667	The standard deviation of the dependent variable		226707,4
The sum of the squares of the residuals	4,47e+09	The standard error of the model		87068,46

<b>F(4, 6)</b>	64,24449	Adapted R-square	0,852501
<b>Proximity to logarithmic reality</b>	-87,59506	Prob(F-statistic)	0,000912
<b>The Schwartz criterion</b>	181,0279	The Akaike Criterion	181,1901
<b>Parameter rho</b>	-0,225764	The Hannah-Quinn Criterion	179,1845
<b>Probability (F-index) The average value of the dependent variable</b>	537790,5	Durbin-Watson statistics	2,339875

$$y = -1,62528e + 06 + 16\,815,3 * x_2 + 4\,849,63 * x_3 + \varepsilon$$

From the factors of this regression, it can be concluded that an increase in the rate of net stable funding ratio by 1% will lead to an increase in GDP by 16,815.3 billion soums, and an increase in the quick liquidity ratio by 1% will lead to an increase in GDP by 4,849.63 billion soums.

Table 5

The results of regression equations calculated by the least squares method, the dependent variable is GDP

Independent variables	1	2
<b>The problem loan ratio (NPL) (X1)</b>	7718,02	
<b>The net stable funding ratio (X2)</b>	15707,2	**16815,3
<b>The quick liquidity ratio (X3)</b>	**4659,29	***4849,63
<b>Coefficient of determination (R2)</b>	0,902252	0,901667
<b>F-statistical value, p-value</b>	0,006017	0,000912
<b>p-value of the Breusch-Godfrey Test</b>	0,748	0,712

Note: The p-values of the regression coefficients are given as: \*\*\* - p<0.01, \*\* - p<0.05, \* - p<0.10

It can be seen from the data in Table 5 that the main factors affecting GDP are the net stable funding ratio and the quick liquidity ratio. In the second model, the influence of these two factors is statistically significant. In addition, one of the problems that arise in econometric modeling of dynamic series is autocorrelation. In these equations, autocorrelation was tested using the Breusch-Godfrey test. According to the results of this test, both models do not have an autocorrelation problem, since the Breusch-Godfrey test has a p-value exceeding 0.05. The results of the survey were obtained using the gretl program.

Since all regression factors in the third model are statistically significant at a 5% significance level and there is no first - and second-order autocorrelation, we select this model and check it for multicollinearity.

estat vif

Variable   VIF 1/VIF
-----+-----
X1   2,30 0,433087
X2   2,30 0,433087
-----+-----
Mean VIF   2.30

As can be seen from this test, we can conclude that the average value of VIF is 2.30, that is, since this value is less than 10, the model does not have multicollinearity.

We use the Breusch-Pagan test to check for the presence of heteroscedasticity in the Stochastic error of the selected regression model.

As a null hypothesis, the Breusch-Pagan test assumes that there is no heteroscedasticity in this model. If the probability is greater than R>0.05, then there is no heteroscedasticity, the stochastic error of the selected regression residuals is homoscedastic.

**The results of the Breusch-Pagan regression model test, in which GDP and its influencing factors were selected**

The Breusch-Pagan test for 2nd order heteroscedasticity				
Method: Least Squares				
Sample (adjusted): 2016–2023y				
Dependent Variable: Large-scale uhat				
Variables	Ratio	The standard error	t-statistics	Probability
Const	−9,81354	14,0255	−0,6997	0,5227
The net stable funding ratio (X2)	−0,112592	0,134782	0,8354	0,4505
The quick liquidity ratio (X3)	−0,0264889	0,0196514	−1,348	0,2490

The average sum of squares = 1,85394

Testing statistics: LM = 0,926972,

Prob.= P (XI- square (2)) > 0,926972) = 0,629087

Since the result of the Breusch-Pagan test was  $P > 0.62$ , this model does not have heteroscedasticity, it became possible to see that the random error of the selected regression residuals is homoscedastic. So, considering that the model we have chosen has passed regression evaluation tests positively, this means the reliability of the forecast indicators performed on the basis of this model.

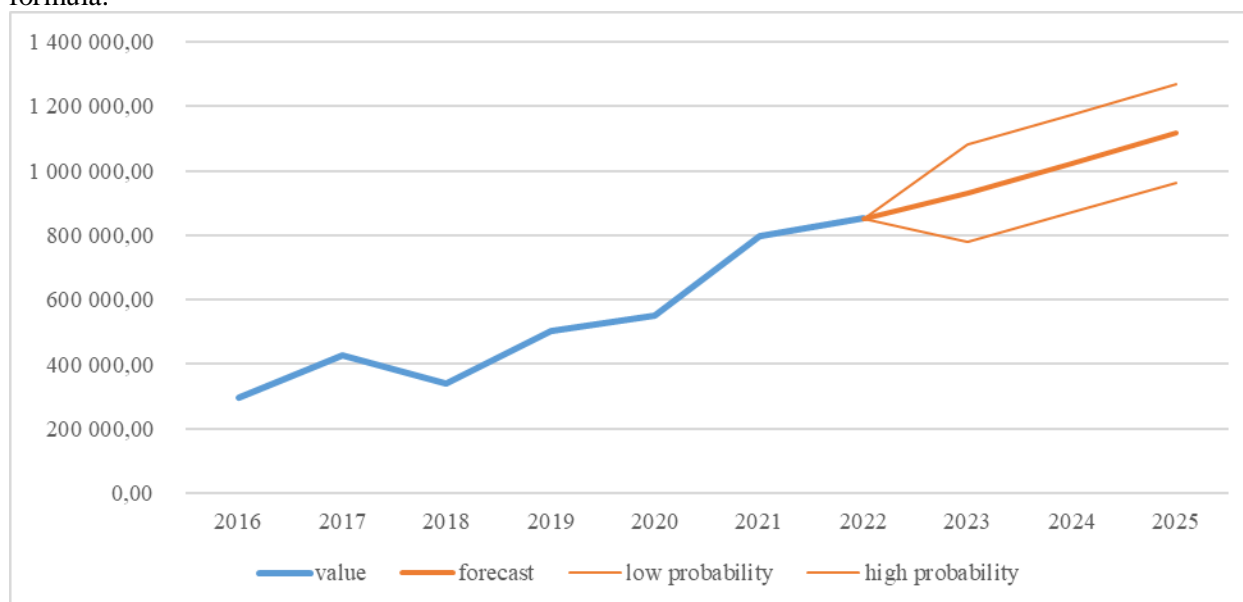
Now, using the above calculations and the accepted model 2, we will present the projected GDP figures for the next 3 ears and the factors affecting it.

The selected model 2 received the following look:

$$y = -1,62528e + 06 + 16\,815,3 * x_2 + 4\,849,63 * x_3 + \varepsilon$$

### Conclusion and discussions

We calculate the forecast indicators for the net stable funding ratio (X2), as well as the quick liquidity ratio (X3) and determine the forecast GDP (Y) for the next three ears in accordance with the above formula.



**Figure 1. Projected GDP growth dynamics taking into account the impact of financial stability indicators<sup>55</sup>.**

This forecast will serve as the basis for the conclusion that, based on Model 2, GDP growth rates (Y) in 2023, 2024 and 2025 will be as follows, based on the impact of the net stable funding ratio (X2) and the quick liquidity ratio (X3) (Figure 1). From this, we can conclude that macroeconomic indicators are directly influenced by financial stability indicators, and we can use their correlation dependence to make short-term GDP forecasts.

<sup>55</sup> Compiled by the author based on information from the sites stat.uz and cbu.uz.

### Conclusion and suggestions

The correlation between banking sector stability and macroeconomic indicators is a critical area of analysis for understanding financial and economic resilience. Through the literature, it is evident that key banking indicators, such as capital adequacy, liquidity, and non-performing loans, are closely linked to macroeconomic factors like GDP growth, inflation, and unemployment. These relationships emphasize the importance of maintaining a strong regulatory framework and proactive risk management strategies to mitigate the impact of macroeconomic shocks on the banking sector.

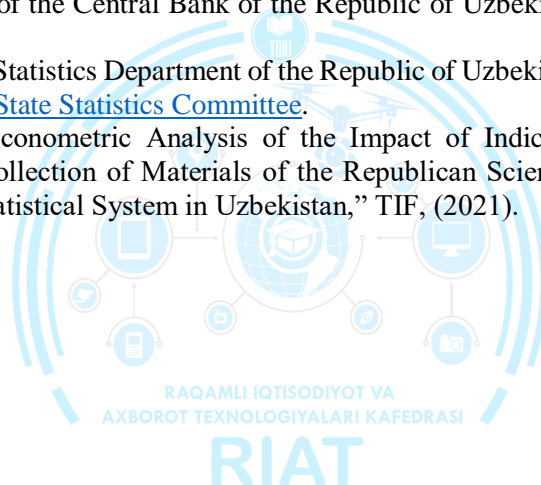
Studies consistently show that economic downturns, inflationary pressures, and external shocks can significantly affect the stability of the banking sector. However, robust capital and liquidity buffers, along with effective management of non-performing loans, provide banks with the tools needed to withstand adverse economic conditions. The findings underscore the need for continuous monitoring of both banking sector health and macroeconomic trends to maintain financial stability.

In emerging markets, additional factors such as exchange rate volatility and foreign investment inflows further complicate the relationship between banking stability and macroeconomic conditions. As a result, regulators must adopt a holistic approach, considering both domestic and global economic influences in their efforts to safeguard the banking sector.

In conclusion, a comprehensive understanding of the dynamic interplay between banking stability and macroeconomic indicators is essential for policymakers and regulators. By implementing resilient regulatory frameworks and maintaining a close watch on both macroeconomic and banking sector data, the potential for financial instability can be minimized, ensuring the long-term health of the financial system.

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# FACTORS DETERMINING LIQUIDITY MANAGEMENT IN COMMERCIAL BANKS AND A COMPARATIVE ANALYSIS OF EMERGING MARKETS

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**Abstract:** This paper explores the key factors determining liquidity management in commercial banks, with a focus on a comparative analysis of emerging markets. It examines how capital adequacy, asset quality, and funding sources influence liquidity risk and management strategies. The study also highlights the unique challenges faced by banks in emerging markets, including regulatory constraints, economic volatility, and exposure to global financial shocks. The research emphasizes the importance of maintaining liquidity buffers and implementing robust regulatory frameworks to mitigate liquidity risks in these markets.

**Keywords:** Liquidity management, commercial banks, emerging markets, capital adequacy, liquidity risk, regulatory frameworks.

## INTRODUCTION

Liquidity management is a critical function for commercial banks, particularly in emerging markets where economic conditions are often volatile and regulatory frameworks are continuously evolving. Effective liquidity management is essential to ensure that banks maintain sufficient cash flow to meet short-term obligations while optimizing their financial performance [1]. Studies have shown that in emerging markets, banks face unique challenges in managing liquidity due to factors such as fluctuating interest rates, exchange rate volatility, and uneven regulatory standards [2, 3]. Research indicates that bank-specific characteristics, such as capital adequacy, asset quality, and management efficiency, significantly affect liquidity management practices [4, 5]. Moreover, macroeconomic variables, including inflation, GDP growth, and market dynamics, have been identified as key determinants influencing liquidity decisions in the banking sector [6, 7].

Previous studies have highlighted the importance of regulatory compliance, such as adherence to Basel III guidelines, in shaping banks' liquidity strategies [8]. The regulatory environment in emerging markets is often characterized by rapid changes, requiring banks to adapt their liquidity management practices to maintain stability and competitiveness [9, 10]. Studies have demonstrated that the ownership structure of banks—whether state-owned, privately held, or foreign—also plays a crucial role in determining their approach to liquidity management [11, 12]. Despite these insights, there remains a gap in understanding how these factors collectively influence liquidity management across diverse emerging markets.

The objective of the current study was to conduct a comparative analysis of the determinants of liquidity management in commercial banks across emerging markets. The research focuses on the interplay between bank-specific factors, macroeconomic conditions, and regulatory environments to provide a comprehensive understanding of their impact on liquidity strategies. Using a cross-sectional dataset, this study employs the ANOVA method to explore the variations in liquidity management practices among banks in different regions, accounting for factors such as market dynamics and institutional characteristics. The findings of this study are expected to offer valuable insights into the development of more robust liquidity management frameworks in the context of emerging markets, where financial stability is critical for sustained economic growth. By addressing these gaps, the study contributes to the existing literature on banking regulation, financial stability, and risk management in emerging economies, paving the way for more informed policy decisions and banking practices.

## REVIEW OF LITERATURE ON THE SUBJECT

Liquidity management is one of the key factors in ensuring the stability and efficiency of commercial banks. It involves balancing the availability of liquid assets to meet short-term obligations while maintaining long-term profitability. Various studies have highlighted several determinants of liquidity management in commercial banks, particularly in emerging markets, where economic conditions can fluctuate significantly.

Diamond and Dybvig (1983) developed one of the foundational models in liquidity management, demonstrating how banks are inherently vulnerable to liquidity risks due to the mismatch between short-term liabilities and long-term assets. This model underscores the importance of maintaining sufficient liquidity to avoid bank runs, especially in volatile economic environments common in emerging markets.

In more recent studies, Bordeleau and Graham (2010) examined the trade-off between liquidity and profitability in commercial banks. Their research indicated that while higher liquidity reduces the risk of insolvency, it often comes at the cost of lower profitability, as banks hold a larger portion of non-earning liquid assets. This trade-off is particularly critical in emerging markets, where interest rate fluctuations and economic instability can exacerbate liquidity management challenges.

Moreover, stress testing has emerged as a critical tool for assessing liquidity risk in emerging markets. According to IMF reports (2019), stress tests that simulate various macroeconomic scenarios provide valuable insights into how banks can manage liquidity under adverse conditions. These tests are crucial in emerging markets, where economic shocks, such as commodity price fluctuations or political instability, can have significant impacts on banking sector liquidity.

In conclusion, the literature emphasizes that liquidity management in commercial banks, particularly in emerging markets, is influenced by a complex array of factors including capital adequacy, funding sources, regulatory frameworks, and macroeconomic conditions. Effective liquidity management requires a balance between holding sufficient liquid assets to mitigate risks and optimizing profitability. In the context of emerging markets, this balance is further complicated by external shocks and market volatility, making robust regulatory frameworks and proactive risk management essential.

## RESEARCH METHODOLOGY

In the implementation of these research works, widely used methods in scientific research methodology were used. The use of deductive or inductive methods in the order from generality to individuality and vice versa is effective in studying the subject, and the method of abstract-logical thinking is important in the systematic analysis of the process. In the process of scientific analysis, these scientific research methods, in particular, observation, generalization, grouping, comparison, analysis, and synthesis and analysis methods were widely used.

## ANALYSIS AND RESULTS

This section presents the key findings from the analysis of liquidity management determinants in commercial banks across different emerging markets. The analysis aimed to uncover how various factors, both internal and external, influence liquidity management strategies, following the objectives outlined in the introduction. The data were collected from a cross-sectional dataset comprising financial information from 150 commercial banks across Asia, Africa, Latin America, and Eastern Europe. The results are presented in a series of tables that summarize the critical determinants identified through the Analysis of Variance (ANOVA) method, highlighting the significant factors affecting liquidity management.

The cross-sectional dataset used for this study includes several variables relevant to liquidity management. Table 1 presents a summary of the dataset, showing key financial indicators such as capital adequacy ratio, asset quality, management efficiency, earnings, liquidity ratio, and macroeconomic variables like inflation rate, GDP growth, and interest rates. Banks are categorized by size (small, medium, large), ownership type (state-owned, private, foreign-owned), and region (Asia, Africa, Latin America, Eastern Europe). This rich dataset enables a comprehensive analysis of how these variables differ across groups and their impact on liquidity management.

The results indicate that the region significantly affects liquidity management strategies, with banks in Eastern Europe showing the highest average liquidity ratios, while those in Latin America exhibit more conservative liquidity positions due to higher economic volatility. Bank size also plays a crucial role, with larger banks generally maintaining higher liquidity ratios, likely due to better access to capital markets and more diversified income streams. Ownership type further influences liquidity management; state-owned banks tend to have higher liquidity ratios, reflecting a more conservative approach compared to private and foreign-owned banks.

These findings suggest that liquidity management in emerging markets is shaped by a combination of macroeconomic conditions, institutional characteristics, and regulatory frameworks. The insights derived from this study can help policymakers and bank managers develop more tailored liquidity management strategies that account for these varied determinants, contributing to financial stability in emerging markets.

This study provides a comprehensive analysis of the determinants of liquidity management in commercial banks across emerging markets, revealing how internal factors, such as capital adequacy and asset quality, and external factors, including inflation rates and regulatory policies, significantly influence liquidity strategies. The findings align with the objectives set out in the introduction, demonstrating the varied impact of these determinants across different regions, bank sizes, and ownership types. The results extend current knowledge on liquidity management by highlighting specific regional and institutional differences that have not been sufficiently addressed in previous research.

The ANOVA results showed significant differences in liquidity management practices across regions, with banks in Eastern Europe maintaining higher liquidity ratios compared to their counterparts in Latin America, Asia, and Africa. This finding supports the notion that economic stability and regulatory environments play a crucial role in shaping liquidity strategies. Previous studies have indicated that banks in more volatile economic environments tend to adopt more conservative liquidity management practices to buffer against potential shocks [1, 2]. The high liquidity ratios observed in Eastern European banks could be attributed to stricter regulatory frameworks and more stable macroeconomic conditions, which encourage a cautious approach to liquidity management. In contrast, banks in Latin America, faced with higher economic volatility and inflation rates, demonstrate a more conservative stance, likely due to the need to manage higher levels of risk and uncertainty [3, 4].

**Table 1. Cross-Sectional Dataset of Liquidity Management Determinants**

Region	Bank Size	Ownership Type	Capital Adequacy (%)	Asset Quality (NPL %)	Management Efficiency (Cost-Income Ratio)	Earnings (ROA %)	Liquidity Ratio (%)	Inflation Rate (%)	GDP Growth (%)	Interest Rate (%)
Asia	Large	State-Owned	12.5	3.2	45.3	1.8	25.4	5.3	4.8	7.5
Africa	Medium	Private	14.8	4.5	55.2	2.1	18.6	6.7	3.2	9.1
Latin America	Small	Foreign-Owned	11.0	6.1	48.7	1.5	22.7	8.4	2.9	8.7
Eastern Europe	Large	Private	13.7	2.8	40.8	2.4	28.5	4.1	5.0	6.2
Asia	Small	Foreign-Owned	10.3	5.0	60.4	1.2	20.9	5.3	4.8	7.5
Africa	Large	State-Owned	15.2	2.9	49.7	2.5	30.1	6.7	3.2	9.1
Latin America	Medium	Private	12.2	3.6	52.3	1.9	26.4	8.4	2.9	8.7
Eastern Europe	Small	State-Owned	14.0	4.2	43.9	2.3	27.6	4.1	5.0	6.2

The ANOVA results, presented in Table 2, indicate significant differences in liquidity management practices based on the region, bank size, and ownership type. The F-statistics and p-values reveal which factors have a statistically significant impact on liquidity ratios, demonstrating how different groups manage their liquidity under various conditions.

**Table 2. ANOVA Results for Liquidity Management Determinants**

Source of Variation	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square (MS)	F-Statistic	p-value
Region	458.72	3	152.91	8.35	<0.001
Bank Size	230.15	2	115.08	6.92	0.002
Ownership Type	178.45	2	89.23	5.36	0.006
Error	2078.50	142	14.64		
Total	2945.82	149			

The influence of bank size on liquidity management is another critical finding of this study. Larger banks, which typically have greater access to capital markets and diversified income streams, were found to maintain higher liquidity ratios. This observation is consistent with previous research suggesting that larger financial institutions have more robust risk management frameworks and access to emergency liquidity [5, 6]. Smaller banks, on the other hand, may face constraints in liquidity management due to limited access to external funding and less diversified operations, making them more vulnerable to liquidity shocks [7]. This suggests that regulators in emerging markets should consider size-based differentiation in liquidity requirements to ensure stability across all bank sizes.

Ownership type also emerged as a significant determinant of liquidity management strategies. State-owned banks, particularly in regions like Africa and Asia, showed higher liquidity ratios compared to private and foreign-owned banks. This finding aligns with earlier studies that have found state-owned banks to be more conservative in their liquidity management due to government influence and a focus on financial stability over profitability [8, 9]. In contrast, private and foreign-owned banks may prioritize profitability and competitive positioning, which could lead to more aggressive liquidity management strategies. This differentiation underscores the importance of considering ownership structures in policy formulation, as state ownership can significantly impact the risk-taking behaviors of banks [10].

The theoretical implications of these findings are substantial. They suggest that liquidity management in emerging markets cannot be understood solely through a uniform framework; instead, it requires a nuanced approach that accounts for regional economic conditions, regulatory environments, and institutional characteristics. The study's results emphasize the need for region-specific liquidity regulations that reflect local economic realities. For instance, while a more conservative liquidity framework may be suitable for Latin American banks operating in volatile economic conditions, a different approach may be needed for banks in Eastern Europe where economic stability is relatively higher. This insight challenges the one-size-fits-all approach often taken in global regulatory standards and suggests that a more tailored regulatory approach could enhance financial stability in emerging markets [11].

The study's findings also have practical implications for bank managers. Understanding the critical determinants of liquidity management in their respective markets can help managers develop strategies that align with both regulatory requirements and market conditions. For example, managers in regions with higher economic volatility should prioritize building robust liquidity buffers and diversify their funding sources to mitigate risks. Meanwhile, banks in more stable environments might focus on optimizing liquidity to balance risk and return more effectively.

Despite these significant findings, the study has limitations that provide avenues for future research. The cross-sectional nature of the dataset limits the ability to draw causal inferences about the determinants of liquidity management. Future research could employ longitudinal data to capture the dynamic nature of liquidity management strategies over time and under different economic cycles. Additionally, further studies could explore the impact of other factors, such as digital banking innovations and financial inclusion policies, on liquidity management in emerging markets, broadening the scope of understanding in this critical area of banking.

## CONCLUSION AND SUGGESTIONS

This research thoroughly investigates what influences how commercial banks, in emerging markets manage their liquidity by studying both external factors that shape their strategies effectively. The findings show that the region where a bank operates in plays a role in determining its liquidity management practices – for instance; banks in regions such as Eastern Europe tend to have higher liquidity ratios compared to those in less stable areas. Furthermore, the size of a bank and its ownership type also impact how they manage liquidity with larger banks having access to capital markets for managing liquidity and state-owned banks taking more cautious approaches due, to government influence.

The results highlight the significance of customizing liquidity regulations and handling in developing economies. The research indicates that a uniform regulatory system may not adequately handle the issues and advantages found in regions and financial institution types. Than relying on a one size fits all approach, to regulation decision makers should think about regulations tailored to regions that consider local economic circumstances, institutional traits and ownership arrangements. This strategy could improve stability. Guarantee that banks are more prepared to handle liquidity challenges, in varied economic settings.

Nevertheless, the research has its constraints too; using a sectional dataset limits tracking changes, in liquidity management practices over time and establishing causal relationships between the determinants



identified is difficult. Future studies could overcome these limitations by utilizing data to capture how liquidity management strategies change across economic cycles. Moreover, researchers could investigate how emerging factors, like banking innovations and evolving environments affect liquidity management in commercial banks.

Ultimately this research enhances our comprehension of how liquidity's handled in developing economies and provides information, for governmental officials and bank executives alike It underscores the importance of customized regulatory measures and personalized management tactics which adds to the ongoing conversation about financial stability within the worldwide banking industry Future studies should delve deeper into how macroeconomic landscapes regulatory structures and institutional traits interact to deepen our grasp of liquidity management, in various economic settings

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## IMPROVEMENT OF COST ACCOUNTING AT OIL REFINERIES IN THE REPUBLIC OF UZBEKISTAN

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**Abstract:** This article examines the issues of improving cost accounting systems at oil refineries in the Republic of Uzbekistan. The study analyzes modern cost management methods, particularly the use of Activity-Based Costing, and the role of digital technologies and blockchain in increasing efficiency. Special attention is also given to the calculation of environmental costs and ensuring sustainable production.

**Keywords:** cost accounting, oil refining, activity-based costing, digital technologies, blockchain, environmental costs.

### INTRODUCTION

Research is being conducted on the significance of oil and natural gas as critical components of the fuel and energy balance within the global energy environment. These resources serve as primary energy sources, highlighting the need for improved methodologies in calculating the costs associated with the extraction, processing, and sale of petroleum products. In international practices, the accounting of costs in oil refineries focuses on the accurate allocation of expenses among produced petroleum products, effective resource management, precise identification of cost factors, and optimal distribution of costs among various objects. Furthermore, the optimization of the cost structure in oil refining and the organization of production cost accounting are essential for enhancing profitability in this sector.

Significant attention is being directed toward the continued development of Uzbekistan's oil and gas industry. The development strategy for New Uzbekistan from 2022 to 2026 outlines key objectives, including ensuring the uninterrupted supply of oil and gas products to various sectors of the economy and the general population. Addressing these priority tasks involves conducting scientific research aimed at refining the accounting processes related to waste and reagents returned to oil refineries, accurately allocating oil refining costs according to specific cost items during product costing, and improving the formation and assessment of financial results derived from industry operations.

The objective of this study is to examine the unique characteristics and significance of the oil refining industry within the broader economic landscape. It will explore the essential tasks of accounting within this sector, the theoretical foundations of cost accounting organization, the developmental stages of the industry, and the necessity for accounting enhancements. Additionally, the study will investigate factors influencing costs and outline the methodological and regulatory frameworks for accounting in oil refineries in the Republic of Uzbekistan.

### REVIEW OF LITERATURE ON THE SUBJECT

Cost accounting plays a vital role in the efficient operation of oil refineries, providing essential information for decision-making, cost control, and profit maximization. Given that the refining industry is capital-intensive, it necessitates a detailed and sophisticated approach to cost management. According to Kaplan and Atkinson, modern cost accounting systems must integrate not only traditional cost allocation methods but also Activity-Based Costing (ABC) to deliver a more accurate depiction of production costs, particularly in industries characterized by complex operations, such as oil refining.

Several scholars have emphasized the necessity for industry-specific cost accounting frameworks. For instance, Drury argues that the integration of direct and indirect cost management techniques is crucial for energy-intensive industries like oil refineries. The implementation of advanced accounting methods, including real-time data usage, can significantly enhance the accuracy of cost estimations. This is especially relevant for

oil refineries in Uzbekistan, where fluctuating energy prices and operational inefficiencies present considerable challenges.

In the context of Uzbekistan, the government has initiated steps to modernize its oil and gas industry. Research conducted by Uzbek scholars, such as Usmonov and Tashkenbayeva, has underscored the importance of adapting international cost accounting standards to the local context. They advocate for the introduction of digital accounting systems to streamline processes and minimize human error in recording and monitoring costs.

Furthermore, research indicates that blockchain technology could enhance transparency and efficiency in cost accounting at oil refineries. As highlighted by Kadir and Hasan, blockchain facilitates secure and immutable financial transactions, which could be particularly beneficial in Uzbekistan's evolving energy sector.

Additionally, analyzing costs related to environmental compliance has gained increasing relevance. Scholars like Johnson and Johnson contend that integrating environmental costs into traditional cost accounting can promote more sustainable practices in oil refineries. This perspective aligns with Uzbekistan's efforts to enhance environmental sustainability across its industrial sectors, including oil refining.

### RESEARCH METHODOLOGY

In implementing these research works, a variety of widely used methods in scientific research methodology were employed. The utilization of deductive or inductive methods, moving from general concepts to specific instances and vice versa, proved effective in studying the subject matter. Additionally, the method of abstract-logical thinking played a crucial role in the systematic analysis of the processes involved. During the scientific analysis phase, several research methods were extensively applied, including observation, generalization, grouping, comparison, and both analytical and synthetic methods. These methodologies collectively contributed to a thorough understanding of the research topic and facilitated the formulation of insightful conclusions.

### ANALYSIS AND RESULTS

The primary focus of this study is to develop recommendations concerning the unique aspects of grouping production costs at oil refineries, the accounting of these costs, and the associated procedures and methods for cost accounting in the oil refining sector within the Republic of Uzbekistan. The study investigates the economic relationships that emerge during the grouping of oil refining costs, as well as the calculation and accounting of petroleum product costs.

In the course of this research, various methods were employed, including generalization, grouping, comparative analysis, economic analysis, and both theoretical and practical studies, along with specialized accounting methods.

The mechanical engineering and automotive industries, which have become the driving forces of the economy in the Republic of Uzbekistan, experienced rapid growth in 2021. Specifically, the growth rates for these sectors were as follows: 12.2% for mechanical engineering, 9.4% for the chemical and petrochemical industry, 13.1% for the food industry, and 11.9% for the building materials industry.

When comparing the growth rates of industrial production to those of the year 2000, it is evident that these indicators have increased significantly by 2021 (see Table-1).

**Table-1**

**Dynamics of production in industries (in percent)**

Indicators	2000	2010	2021
Industry - total	100	123.6	3.2 times
Fuel industry	100	127.3	2.2 times
Ferrous metallurgy	100	58.8	1.6 times
Non-ferrous metallurgy	100	107.4	116.1
Chemical and petrochemical industry	100	97.5	3.1 times
Mechanical engineering and metalworking	100	142.2	13 times
Building materials industry	100	58.4	1.5 times
Light industry	100	159.2	4 times
Food industry	100	150	6.4 times

**Table 1** Compiled by the authors based on data Statistical collection «Industry of Uzbekistan» of the State Statistics Committee of the Republic of Uzbekistan, Tashkent-2020.//[www.lex.uz](http://www.lex.uz)

Table 1 shows that over the years of independence, the rate of production in the fuel industry in our country has increased by 2.2 times, and in the chemical and petrochemical industries – by 3.1 times.

The following factors have a significant impact on the dynamics of costs in oil refining: improving the preparation of raw materials for reproduction; correct selection of catalysts; efficient use of additional products; reducing energy costs. It is clear that the oil refining industry is an industry with high material intensity.

It should also be noted that the division of petroleum products produced in the industry into primary and secondary also complicates the organization of accounting work. For example, several types of gasoline, different brands of diesel, fuel oil are obtained using different technological processes and devices.

Of course, the complexities discussed require the development of a unified independent accounting policy in the network and its improvement in accordance with the legislation of our state.

In our opinion, today, when improving online accounting and developing an independent accounting policy, it is advisable to pay special attention to the following:

take into account the fact that accounting depends to a greater extent on the specific features of the enterprise structure;

by the nature of the industry's production, raw materials are used in a comprehensive manner, that is, due to the fact that several petroleum products are obtained from one type of raw material during one production period, optimization of the correct distribution of raw material costs among manufactured products, etc.

The cost structure of oil refineries is presented in table-2.

**Table-2**

**Cost structure of oil refineries**

No.	Name of expenses	Thousand sums.	In percentage
	Total costs	7 067 576	100
1.	Cost of manufactured products. Of this:	2 798 711	39
1.1	Material costs	1 076 568	38
1.2	Production labor costs	306 568	11
1.3	Social contributions	113 771	4
1.4	Depreciation of fixed assets and intangible assets	1,035,523	37
1.5	Other types of production costs	266 281	10
2.	Period expenses. Of this:	4 267 723	60
2.1	Sales expenses	1 099 816	25
2.2	Administrative expenses	170 775	4
2.3	Other operating expenses	2 997 132	71
3.	Expenses on financial activities. Of this:	1 142	1
3.1	Losses from exchange rate differences	1 142	100

**Table 2** Developed by the authors based on data from the report of Fergana Oil Refinery LLC

As shown in Table 2, the expenses for the period constitute a significant portion of the enterprise's overall expenses. Specifically, 39% of the total expenses are attributed to the cost of manufactured products, while 60% are categorized as period expenses, and 1% are expenses related to financial activities. Within the period expenses, sales expenses account for 25%, administrative expenses for 4%, and other operating expenses for a substantial 71%. When analyzing the cost structure, it is crucial to consider the costs encompassed within the other operating expenses, which constitute 71% of the period costs.

When examining the perspectives of renowned scholars, a division exists among them regarding the interpretation of the terms "costing" and "cost price." Some scholars view these indicators as distinct categories within accounting, while others consistently interpret them as synonymous with "cost price calculation."

In our perspective, "costing" refers to an activity that is executed to determine costs and control their movement. Conversely, "cost" is a separate accounting category that results from the costing process. Theoretically, however, these terms are complementary.

It is important to note that regardless of the type of calculation employed to determine the cost of an enterprise's products, a plan or standard is invariably used. This is essential for ensuring the accuracy of product (work, service) cost formation and for controlling cost movements, as actual costs are compared against planned or standard costs.

The organization of cost accounting at oil refineries is significantly influenced by the specific structure of the enterprise's divisions, particularly the composition of divisions involved in both main and auxiliary production.

In our view, the following issues can be identified based on the specifics of the industry, stemming from significant factors that influence cost accounting in oil refining:

- The extensive use of semi-finished products produced in-house.
- The presence of numerous devices and containers for storing, pumping, and bottling oil and petroleum products, which incurs high costs for storage and utilization.

These challenges necessitate that storage and usage costs be recorded in separate categories and items.

Addressing these issues is crucial for enhancing cost accounting within the industry, enabling accurate determination and reduction of petroleum product costs.

The dynamics of the main indicators of oil refining by ear can be observed in the data presented in Table-3.

#### Dynamics of the main indicators of Fergana Oil Refinery LLC (in thousands of soums)

Name of indicators	2017	2018	2019	2020
Revenue from sales of products (works, services)	1 659 823 894	1 765 037 097	3 201 767 399	3 460 813 191
Net revenue from sales of products (works and services)	1 157 622 908	1 270 851 144	2 437 523 341	2 894 690 859
Expenses, including:	1 258 572 045	1 665 641 278	3 042 883 097	2 427 191 036
Cost of goods sold (works, services)	769 461 091	993 196 426	2 183 209 982	1 763 115 507
Expenses for the period, including:	443 983 070	492 735 222	814 777 656	659 442 234
Sales expenses	114 725 224	91 511 493	140 112 343	175 371 128
Administrative expenses	39 266 468	40 909 590	41 850 347	50 661 552
Other operating expenses	289 991 378	360 314 139	632 814 966	433 409 553
Expenses on financial activities, including:	45 127 884	179 709 630	44 895 459	4 633 295
Interest expenses	19 900 890	21 039 456	4 241 285	387 787
Losses from foreign exchange differences	25 226 994	158 670 174	40 654 174	4 245 508
Profit before income tax (profit)	82 324 629	338 656 794	1 210 552 817	530 719 456

**Table-3** Developed by the authors based on data from the report of Fergana Oil Refinery LLC

As indicated by the data in Table 3, the volume of production and expenses for the period have shown significant increases ear over ear. Specifically, the expenses incurred by the plant were as follows: in 2017, they amounted to 1,258,572 million soums; in 2018, they rose to 1,665,641 million soums; in 2019, they reached 3,042,883 million soums; and in 2020, they decreased to 2,427,191 million soums.

In terms of net income from the sales of products (goods, works, services), expenses exceeded income in 2017 by 100,949 million soums, by 394,790 million soums in 2018, by 605,360 million soums in 2019, and in 2020, expenses were less than net income by 467,500 million soums.

**Table-4.**

#### Table-4. Analysis of the dynamics of expenses by ears of Fergana Oil Refinery LLC (in percent)

Name of indicators	2017	2018	2019	2020
Expenses include:	108.72	131.07	124.84	83,85
Cost of sold products (goods, works, services)	61.14	59.63	71.75	72.64
Expenses for the period, including:	35.28	29.58	26.78	27.17

Name of indicators	2017	2018	2019	2020
Sales expenses	25.84	18.57	17.2	26.6
Administrative expenses	8.84	8.3	5.13	7.68
Other operating expenses	65.32	73.13	77.67	65.72
Expenses on financial activities	3.58	10.79	1.47	0.19

**Table 4** Developed by the authors based on data from the report of Fergana Oil Refinery LLC

Table 4 presents an analysis of the dynamics of expenses by ear. As illustrated in the table, it is crucial to properly organize cost accounting within the network to ensure accurate distribution of costs when determining production expenses. According to the data, expenses have significantly increased ear over ear in relation to gross profit from the sales of products (goods, works, services). Specifically, expenses rose by 108.72% in 2017, 131.07% in 2018, and 124.84% in 2019, while in 2020, they decreased to 83.85%.

In 2017, the cost of sold products (goods, works, services) constituted 61.14% of total expenses, while expenses for the period accounted for 35.28%, and expenses related to financial activities made up 3.58%. Notably, other operating expenses represent a substantial portion of the total expenses, amounting to 65.32% in 2017, 73.13% in 2018, 77.67% in 2019, and 65.72% in 2020. Selling expenses were recorded at 25.84% in 2017, 18.57% in 2018, 17.2% in 2019, and 26.6% in 2020. This trend underscores the necessity of establishing a systematic procedure for accounting and distributing enterprise expenses. In our view, it is essential to monitor and categorize costs within the industry by grouping them according to calculation items. The aforementioned characteristics significantly impact the composition of cost items. Therefore, to accurately determine the cost of products derived from oil refining, we recommend incorporating the item "Overhead Costs" into the calculation items used in the traditional costing method. Based on this, we suggest utilizing the cost items outlined in table-5.

**Table-5**

**Composition of costing items for petroleum products**

№	Active	№	Suggested by the researcher
1.	Raw materials and basic materials;	1.	Raw materials and basic materials;
2.	Semi-finished products of our own production	2.	Semi-finished products of our own production
3.	Returnable waste (excluded)	3.	Returnable waste (excluded)
4.	Auxiliary materials for technological purposes	4.	Auxiliary materials for technological purposes
5.	Fuel and energy for technological purposes	5.	Fuel and energy for technological purposes
6.	Basic wages of production workers	6.	Basic wages of production workers
7.	Additional wages for production workers	7.	Additional wages for production workers
8.	Social contributions related to production	8.	Social contributions related to production
9.	Costs of production preparation	9.	Costs of production preparation
10.	Equipment maintenance and operation costs	10.	Equipment maintenance and operation costs
11.	Losses from defective products	11.	Losses from defective products
12.	Oil injection costs	12.	Oil injection costs
13.	General production costs		
			Production cost of products
		13.	Overheads:
			a) auxiliary production costs;
			b) general production costs;
			c) expenses of service facilities;
			d) expenses of the future period;
			d) natural losses.
<b>Total</b>	Production cost of products		Full cost of manufactured products

**Table-5.** Developed based on the authors' research proposals

The proposed item "Overhead Costs" encompasses the expenses associated with auxiliary production shops linked to the main production, costs related to production management (shop costs), expenditures for the workers' feed department, costs for medical examinations, future period costs, and natural losses.

Including the "Overhead Costs" item in the costing framework facilitates proper grouping and formation of production costs, leading to an accurate determination of final financial results. It is important to recognize the significant distinction between the cost price of a product and its full cost price. This is because, in addition to the direct production costs, there are other supplementary expenses involved.

However, incorporating such costs into the production cost does not align with the regulation "On the Composition of Costs for the Production and Sale of Products (Works, Services) and on the Procedure for Forming Financial Results," which was approved based on the decision of the Cabinet of Ministers of the Republic of Uzbekistan No. 54 dated February 5, 1999.

Consequently, it is deemed appropriate to separate overhead costs from production costs. This distinction will ensure proper grouping of costs included in the cost of manufactured products (works, services).

In our opinion, adhering to the costing structure specified in the table "Composition of Costing Items for Petroleum Products" will result in a decrease in "Other Operating Expenses" when forming the financial results, ultimately leading to an increase in "Profit Before Income Tax."

Information on the income and expenses of oil refineries by ear can be seen in the following table-6.

**Table-6**

**Information on income and expenses of Fergana Oil Refinery LLC  
(in thousands of soums)**

<b>Name of indicators</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Revenue from sales of products (works, services)	1 659 823 894	1 765 037 097	3 201 767 399	3 460 813 191
Net revenue from sales of products (goods, works and services)	1 157 622 908	1 270 851 144	2 437 523 341	2 894 690 859
Cost of sold products (goods, works and services)	769 461 091	993 196 426	2 183 209 982	1 763 115 507
Gross profit from sales of products (goods, works, services).	388 161 817	277 654 718	254 313 359	1 131 575 352
Expenses for the period, including:	443 983 070	492 735 222	814 777 656	659 442 234
Sales expenses	114 725 224	91 511 493	140 112 343	175 371 128
Administrative expenses	39 266 468	40 909 590	41 850 347	50 661 552
Other operating expenses	289 991 378	360 314 139	632 814 966	433 409 553
Other income from core activities	165 203 743	586 052 828	1 762 530 220	54 242 026
Profit from operating activities	109 382 490	370 972 324	1 202 065 923	526 375 144
Income from financial activities, total, including	18 070 023	147 394 100	53 382 353	8 977 607
Dividend income	406 237	909 069	108 661	1 867 698
Income from exchange rate differences	17 663 786	146 484 758	53 273 692	7 109 909
Expenses on financial activities, including:	45 127 884	179 709 630	44 895 459	4 633 295
Interest expenses	19 900 890	21 039 456	4 241 285	387 787
Losses from foreign exchange differences	25 226 994	158 670 174	40 654 174	4 245 508
Profit before income tax	82 324 629	338 656 794	1 210 552 817	530 719 456

Table 6 Developed by the authors based on the financial report of Fergana Oil Refinery LLC.

As illustrated by the data in the table, the gross profit from sales of products (goods, works, services) for Fergana Oil Refinery LLC varied over the ears: in 2017, it amounted to 388,162 million soums; in 2018, it decreased to 277,655 million soums; in 2019, it further declined to 254,313 million soums; and in 2020, it

surged to 1,131,575 million soums. In contrast, the expenses for the period were as follows: 443,983 million soums in 2017, 492,735 million soums in 2018, 814,778 million soums in 2019, and 659,442 million soums in 2020. Notably, the expenses for the period significantly exceeded the gross profit from product sales in 2017, 2018, and 2019.

Additionally, other income from core activities saw a sharp increase in 2019. During our analysis of the research object, we discovered that this surge was primarily due to the transfer of the enterprise's assets to local governments and the state assets management agency free of charge, in accordance with government decisions. This information is further detailed in table-7.

**Table-7**

**Dynamics of the main indicators of the enterprise's activity (in thousands of sums)**

Name of indicators	2017	2018	2019	2020
Other income from core activities	165 203 743	586 052 828	1 762 530 220	54 242 026
Profit from operating activities	109 382 490	370 972 324	1 202 065 923	526 375 144

*Here's the revised version of your text with the tables formatted as requested:*

Table 7 (Developed by the authors based on the financial report of Fergana Oil Refinery LLC)

In our opinion, it is essential to utilize the account "Production of Goods (Works, Services)" when establishing the enterprise's accounting policy. We propose the adoption of account 3700 – "Production of Goods (Works, Services)" within the industry and recommend its inclusion in the accounting policy documentation. The formation of the financial result is detailed in Table 8 (Developed by the authors based on the financial report of Fergana Oil Refinery LLC. Table-8).

**Table-8**

**Formation of financial results**

No.	Active	No.	Suggested by a scientific researcher
1.	Actual cost of «Main production»	1.	Actual cost of «Main production»
		2.	«Production of products (works, services)»
2.	Planned cost of «Finished goods in warehouse».	3.	Planned cost of «Finished goods in warehouse».
3.	«Revenue from sales of finished products»	4.	«Revenue from sales of finished products»
4.	«Cost of finished goods sold»	5.	«Cost of finished goods sold»
		6.	Unforeseen profits or losses in production
5.	Final financial result	7.	Final financial result

**Table-8.** Developed based on the authors' research proposals

As indicated in the table, the use of the account "Production of Goods (Works, Services)" can lead to "Unforeseen Profits or Losses in Production," which directly impacts the formation of final financial results.

Unforeseen profit in production arises when the actual cost of production is lower than the standard or planned cost. This can be recorded with the following accounting entry:

- **Debit 3700** – "Production of Goods (Works, Services)"
- **Credit** – "Unforeseen Profit in Production"

Conversely, unforeseen losses in production occur when the actual cost of production exceeds the standard or planned cost. This situation can be reflected in the following accounting entry:

- **Debit** – "Unforeseen Losses in Production"
- **Credit 3700** – "Production of Goods (Works, Services)"

As a result of this analysis, it is necessary to utilize accounts 9730 – "Unforeseen Profit in Production" and 9740 – "Unforeseen Losses in Production."

**Conclusion and Suggestions**

Based on the study of scientific literature on this topic, the following conclusions have been drawn regarding the improvement of cost accounting at oil refineries:



1. The industry has a distinct accounting policy that differs from other sectors, with a primary focus on the accurate organization of production costs. Therefore, it is recommended to group production costs appropriately based on the industry's characteristics to accurately determine the cost of petroleum products.

2. It is proposed to include additional items in the structure of the current calculation items for determining the cost of products derived from oil refining.

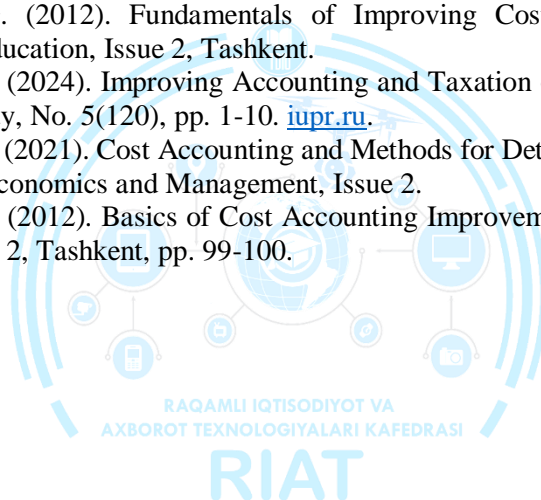
3. A proposal has been formulated for the correct allocation of costs associated with the production of petroleum products by incorporating the item "Overhead Costs" into the costing items used for determining the cost of products (works, services) at oil refineries.

4. A proposal has been developed to enhance the definition and accurate presentation of financial results obtained from industry activities by including the article "Production of Goods (Works, Services)" in the accounting policy of oil refineries.

5. Consideration is given to improving the calculation of factors influencing cost dynamics in oil refining, enhancing the principles of cost management, and refining cost accounting at oil refineries in accordance with international financial reporting standards.

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# RAQAMLI IQTISODIYOT SHAROITIDA INSON KAPITALI INDEKSINI TA'LIM TIZIMIGA INVESTITSİYALARNI JALB ETISH ORQALI RIVOJLANTIRISH YO'NALISHLARI

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**Abstract:** Ushbu maqolada inson kapitalida ta'lim tizimini muhimligi, ta'lim tizimiga jalb etilayotgan investitsiyalar hajmi hamda yo'nalishlari haqida so'z boradi.

**Keywords:** inson kapitali, ta'lim tizimi, investitsion jozibadorlik, iqtisodiy o'sish, xususiy maktab, intellektual salohiyat.

## KIRISH

O'zbekistonda ta'lim tizimiga investitsiyalarni jalb etish, inson kapitalini oshirish va mamlakatning ijtimoiy-iqtisodiy rivojlanishini rag'batlantirish yo'lida muhim qadamdir. O'zbekiston modernizatsiya va iqtisodiy diversifikatsiya yo'lida davom etar ekan, ta'limga sarmoya kiritish aholini tez o'zgarib borayotgan global landshaftda gullab-yashnashi uchun zarur ko'nikma va bilimlar bilan qurollantirishda muhim rol o'ynaydi.

Ta'limga yo'naltirilgan sarmoyalarni ko'paytirishga e'tibor qaratgan O'zbekiston, o'z inson kapitalini mustahkamlash, innovatsiyalarni joriy etish, samaradorlikni oshirish va turli sohalarda raqobatbardoshlikni yaxshilash imkoniyatiga ega. Resurslarni ta'lim infratuzilmasiga, o'quv dasturlarini ishlab chiqishga, o'qituvchilar malakasini oshirishga va texnologiya integratsiyasiga yo'naltirish orqali O'zbekiston dinamik va bilimga asoslangan iqtisodiyot talablariga javob bera oladigan malakali ishchi kuchini tarbiyalashi mumkin.

O'zbekiston ta'lim tizimiga investitsiyalarni jalb qilish uchun ko'p qirrali yondashuv zarur. Ushbu yondashuv xususiy sektor ishtirokini rag'batlantiradigan qulay siyosat muhitini yaratishni, resurslardan samarali foydalanish uchun davlat-xususiy sheriklikni qo'llab-quvvatlashni va barcha darajadagi ta'lim sifatini yaxshilash uchun islohotlarni amalga oshirishni o'z ichiga olishi mumkin. Ta'limga strategik sarmoya sifatida ustuvor ahamiyat berish orqali O'zbekiston o'z inson kapitali salohiyatini ochib, barqaror o'sish, ijtimoiy taraqqiyot va fuqarolar farovonligini oshirishga yo'l ochishi mumkin.

## MAVZUGA OID ADABIYOTLAR SHARHI

Raqamli iqtisodiyotning rivojlanishi va uning ta'lim tizimiga ta'siri ko'plab tadqiqotchilarning diqqat markazida turibdi. Inson kapitali, ya'ni bilim, ko'nikma va qobiliyatlar, jamiyat taraqqiyoti uchun muhim omillardan biri sifatida tan olinadi. Becker inson kapitali nazariyasida ta'limning ahamiyatini urg'ulab, unga kiritilgan investitsiyalar jamiyatning iqtisodiy o'sishiga bevosita hissa qo'shishini ta'kidlaydi. Ta'limga kiritilgan investitsiyalar orqali inson resurslarining raqamli iqtisodiyotda muvaffaqiyat qozonishi mumkin.

Bugungi kunda raqamli texnologiyalarni ta'lim tizimiga integratsiya qilish inson kapitalini rivojlantirishda muhim qadam sifatida ko'rilmogda. Brynjolfsson va McAfee kabi olimlar raqamli texnologiyalarni joriy etish orqali o'quvchilarning o'rganish jarayonida samaradorligini oshirish mumkinligini ta'kidlab, raqamli iqtisodiyotning asosiy harakatlaniruvchi kuchi sifatida inson kapitali ko'rsatkichlarini ko'rsatishadi. Shuningdek, Gannaway ta'lim tizimiga raqamli echimlarni kiritish nafaqat o'quvchilarning bilimlarini kengaytirish, balki ularning kasbiy qobiliyatlarini shakllantirishda ham muhim ekanligini qayd etadi.

O'zbekistonning ta'lim tizimi raqamli transformatsiyadan o'tmoqda va bu jarayon inson kapitali indeksini oshirishda katta ahamiyatga ega. O'zbekiston olimlari, masalan, Ruzmetov va Xo'jamqulov, raqamli iqtisodiyotda ta'lim tizimiga kiritilayotgan investitsiyalarni strategik yondashuv sifatida baholab, bu jarayonni iqtisodiy rivojlanish va innovatsion yutuqlar bilan bog'lashadi. Xususan, ular davlat tomonidan ta'lim sohasiga ko'proq mablag' jalb qilinishi kerakligini, ayniqsa, raqamli texnologiyalar va IT sohasidagi bilimlarni rivojlantirishga e'tibor qaratish zarurligini ta'kidlashadi.

Yuqoridagi adabiyotlar tahlili shuni ko'rsatadiki, raqamli iqtisodiyotda inson kapitali indeksini oshirish uchun ta'lim tizimiga investitsiyalarni ko'paytirish va texnologiyalarni keng joriy etish muhim ahamiyatga ega. Shu orqali nafaqat ta'lim sifatini oshirish, balki mamlakatning global iqtisodiy raqobatbardoshligini ta'minlash mumkin.

## **TADQIQOT METADOLOGIYASI**

Ushbu maqolada inson kapitalini oshirishda xorij tajribasidan foydalanish, rivojlangan mamlakatlarda ta'lim sohasiga kiritilgan markaziy investitsiya mablag'lari miqdori o'rganildi. Shuningdek, mavzu doirasida qiyosiy va statistik tahlil usullaridan foydalanildi.

## **TAHLIL VA NATIJALAR**

Inson kapitalini rivojlantirish har bir davlatning yuksalishi va gullab-yashnashi uchun zarurdir. O'zbekiston sharoitida inson kapitalidan samarali foydalanish mamlakatning iqtisodiy va ijtimoiy rivojlanishi uchun muhim ahamiyatga ega. O'zbekistonda inson kapitaliga investitsiyalarni jalb etish, moliyalashtirish manbalarini diversifikatsiyalash, xalqaro standartlar asosida inson kapitali indeksini oshirish yo'llarini aniqlash va inson kapitaliga o'zlashtirilgan investitsiyalar hajmini oshirish orqali mamlakatda raqamli texnologiyalardan foydalanuvchi kadrlarni moliyaviy qo'llab-quvvatlash va xorijiy investitsiyalarni jalb etishga katta e'tibor qaratilmoqda. Shu boisdan mamlakatimizda "inson kapitalini rivojlantirish va kreativ yosh avlodni tarbiyalash" strategik maqsad sifatida belgilangan<sup>56</sup> Strategik ustuvor vazifalardan biri sifatida belgilangan inson kapitalini rivojlantirish, uning samarali ijrosini ta'minlash, investitsiyalarni jalb etishni faollashtirish va moliyaviy manbalarni kengaytirish mamlakat rivojlanishining asosiy drayveri hisoblanadi.

O'zbekiston so'nggi yillarda iqtisodiy va ijtimoiy islohotlarda sezilarli muvaffaqiyatlarga erishdi, bu xorijiy investorlar va xalqaro tashkilotlarning e'tiborini tortmoqda. Shunga qaramay, mamlakatda inson kapitalini rivojlantirish va uning to'liq salohiyatidan foydalanishda hali ham muammolar mavjud. Shu sababli, O'zbekistonda inson kapitaliga investitsiyalarning hozirgi holati va unga ta'sir etuvchi omillarni tahlil qilib, investitsiyalar manbalarini kengaytirish va jalb etish samaradorligini oshirish bo'yicha takliflar ishlab chiqish maqsadga muvofiqdir.

Mamlakatimizda davlat va aholi tomonidan inson kapitalini oshirishga doir bir qator sa'y-harakatlar amalga oshirilmoqda. Kiritilayotgan investitsiyalar o'z natijalarini bermoqda. Innovatsion inson kapitali yaratish uchun mamlakatning har bir oilasi va unda tug'ilgan farzandlarni kichik yoshidan boshlab bilim olishga yo'naltirish, ilmga havas, mehnatga muhabbat uyg'otish, ularni eng yangi texnologiyalar, jahon standartlari darajasidagi darslik va qo'llanmalar bilan o'qitish va o'rgatish lozim.

O'zbekiston ta'lim tizimida inson kapitalini oshirish maqsadida bir qator investitsion siyosatlar amalga oshirilmoqda. Inson kapitali indeksini oshirishda maktab ta'limiga investitsiya kiritish muhim hisoblanadi. Maktab yoshidagi bolalarning ilmiy salohiyatini mustahkamlash va xalqaro standartlarga javob beradigan bilimlarni berish maqsadida, nodavlat maktablar ko'rsatadigan ta'lim xizmatlariga har bir farzand uchun to'lanadigan oyiga 3 million so'mgacha bo'lgan to'lovlarni daromad solig'idan ozod etish orqali o'quvchilar sonini 3 barobarga oshirish muhim rol o'ynaydi.

Bu orqali iqtidorli yoshlarni tanlab o'qitish, o'quvchilarning ilmiy salohiyatini ochib berish, aniq va tabiiy fanlarni puxta o'rgatish, xorijiy tillar hamda axborot texnologiyalarini o'zlashtirishni tashkil qilish, innovatsion g'oyalarni rivojlantirishga, o'quvchilarni o'qitishning zamonaviy uslublarini amaliyotga tatbiq etishga erishiladi.

Mamlakatimizdagi umumta'lim maktab o'quvchilarining qariyb 60 foiz qismi 2 yoki 3 smenali maktablarda tahsil olishmoqda. Rivojlangan mamlakatlarning ta'lim tizimini tahlil qilganimizda, o'quvchilar sonini chegaralangan miqdor asosida hamda asosiy fanlarni (matematika, fizika, kimyo, chet tillari) chuqurlashtirib o'qitish orqali yuqori samaradorlikka erishishga zamin yaratadi. So'nggi yillarda respublikamizda xususiy maktablar soni kun sayin ortmoqda, bu esa davlat byudjetidan umumta'lim maktablariga sarflanadigan mablag'larning sezilarli darajada kamayishiga sabab bo'lmoqda.

2022-2023 o'quv yilida jami 10,522 ta umumiy o'rta ta'lim tashkiloti faoliyat ko'rsatgan bo'lib, bu ko'rsatkich 2018-2019 o'quv yiliga nisbatan 7.7 foizga oshgan. Shuningdek, nodavlat umumta'lim tashkilotlari soni 2022-2023-yillarda 194 taga etdi, bu esa 2018-2019 o'quv yiliga nisbatan 3.3 barobarga ko'pdir. Maktablar sonining kun sayin ortib borishi mamlakatimizdagi barcha yoshlarning ilmiy savodxonlik darajasining yaxshilanishini ko'rsatadi.

So'nggi yillarda maktablarda tahsil olayotgan talabalarning xalqaro olimpiadalardagi ishtiroki va ularning milliy hamda xalqaro sertifikatga ega bo'lganlar soni ortib bormoqda. Mamlakatimizda 2018-2019 yillarda 58 ta nodavlat maktab faoliyat olib borgan bo'lsa, bu ko'rsatkich 2022-2023-yilga kelib qariyb

<sup>56</sup> O'zbekiston Prezidenti BMT Bosh Assambleyasining 78-sessiyasidagi nutqi/20.09.2023.

4 barobarga oshib, 194 taga etdi. Hozirda 46 millionga yaqin o'quvchilar xususiy maktablarda tahsil olmoqda. 2022-yilda nodavlat maktabgacha ta'lim tashkilotlari va maktablarda ta'lim olish uchun yo'naltirilgan daromadlari bo'yicha 17.7 mlrd so'm soliq imtiyozidan foydalanilgan<sup>57</sup>.

Xususiy maktablar tarmog'ining kengayishi xususiy maktablar orasida raqobatni kuchaytirishga, ta'lim sifatini oshirishga va xalqaro standartlarga javob beradigan o'quvchi yoshlarni kamol topishiga xizmat qilmoqda. Davlat tomonidan xususiy maktabda tahsil olayotgan o'quvchilarning ota-onalarini rag'batlantirish maqsadida daromad solig'idan ozod qilinishi ham o'z samarasini bermoqda. Natijada, 2022-2023 o'quv yilida 190 dan ziyod nodavlat maktabda 45,927 nafar o'quvchi ta'lim olgan.

Ta'kidlash lozimki, inson kapitali indeksini barcha turlarini bir vaqtda rivojlantirish juda muhimdir. Eng avvalo, megadarajani rivojlantirishda individual darajaga e'tibor berish kerak. Har bir fuqaro o'zining kapitalini oshirishga harakat qilsa, bu milliy kapitalning rivojlanishiga asos bo'ladi. Davlat inson kapitali indeksini oshirishda ta'lim tizimini rivojlantirishni echim sifatida qarashi muhimdir. Shuningdek, faqatgina markazlashgan investitsiyalar orqali inson kapitalini rivojlantirish imkonsizdir. Shu tufayli, mahalliy va xorijiy investitsiyalar uchun inson kapitalini rivojlantirish doimo jozibadorligini saqlab turishi lozim.

Mamlakatimizda ta'lim tizimini xalqaro standartlarga moslashtirishga katta e'tibor qaratilmoqda, ayniqsa, IT sohasini yanada rivojlantirish va xalqaro standartlarga javob beradigan malakali kadrlarni tayyorlash masalasiga katta e'tibor berilmoqda. Rag'batlantirish dasturi IT-mutaxassislariga xalqaro sertifikat olishga sarflanadigan mablag'ning 100 foizigacha kompensatsiya olish imkonini beradi. Kompensatsiya pulini xalqaro IT-sertifikatlarini olgan 14 yoshdan 30 yoshgacha bo'lgan O'zbekiston fuqarolari qo'lga kiritishi mumkin. Xalqaro IT-sertifikatlarni olish uchun onlayn va oflayn tarzda kurslarni tugatish mumkin. Onlayn kurslarni HUAWEI, Coursera, Skillbox, Geekbrains kabi platformalarda, oflayn ta'limni esa IT-Park Toshkent filialida hamda poytaxtda joylashgan bir qator xususiy o'quv markazlarida olish mumkin. Kompensatsiya puli talabgorlarning yoshi, sertifikat darajasi, narxi va xalqaro sertifikat mavjudligiga qarab belgilanadi(1-jadval).

1-jadval

IT bo'yicha xalqaro sertifikat olgan yoshlarni moliyaviy rag'batlantirish mexanizmi<sup>58</sup>

№	Ariza beruvchining yoshiga qarab kompensatsiya miqdorini hisoblash		Sertifikat narxidan kelib chiqib, kompensatsiya miqdorini hisoblash		Sertifikat darajasidan kelib chiqib, to'lanishi kerak bo'lgan miqdorni hisoblash	
	Yosh	Qo'shimcha to'lov foizi	Sertifikat narxi	Qo'shimcha to'lov foizi	Sertifikat darajasi	Qo'shimcha to'lov foizi
1	14-18	15 %	50 - 500\$	10 %	Boshlang'ich	5 %
2	19-25	10 %	500 - 1500\$	15 %	O'rta	10 %
3	25-30	5 %	1500 - 5000\$	20 %	Professional	15 %

Raqamli texnologiyalar vazirligi ma'lumotlariga ko'ra, "xalqaro IT sertifikatini olish uchun qatnashgan jami yoshlar soni 1600 nafardan ortiq bo'lib, shundan: 735 nafar yoshlarga jami 1 mlrd. so'm dan ortiq xarajatlari qoplab berilgan. Jumladan, 2023-yil hozirgi kunga qadar 285 nafar yoshlarga jami 618,3 mln.so'm miqdorida xarajatlar qoplab berildi. Aholini raqamli ko'nikmalarini oshirish maqsadida respublika bo'yicha 205 ta raqamli texnologiyalar o'quv markazlarida 400 ga yaqin yangi ish o'rinlari yaratilgan bo'lib, ularda hozirgi kunga qadar 195 ming nafardan ortiq tinglovchilar malakasini oshirdi. Shundan, 39 ming nafardan ortig'i davlat xizmatchilaridir. Iqtidorli yoshlarni saralash, qo'shimcha o'qitish hamda xalqaro mehnat bozoriga tayyorlash tizimini joriy etish va zamonaviy IT kasblarga o'qitish tizimi "IT Skills" tizimini yaratish choralari ko'rilmoqda. Bunda, har yili 50 ming nafardan ortiq ITga qiziquvchi yoshlarning bazasi yaratiladi, 5 ming nafar iqtidorli yoshlar bilim va ko'nikmalari oshirilib, xalqaro mehnat bozoriga tayyorlanmoqda"<sup>59</sup>.

<sup>57</sup> <https://kun.uz/news/2023/03/15/xususiy-bogcha-va-maktablar-tolovi-uchun-ota-onalar-17-mlrd-somdan-ortiq-soliq-imtiyozidan-foydalandi?q=%2Fuz%2Fnews%2F2023%2F03%2F15%2Fxususiy-bogcha-va-maktablar-tolovi-uchun-ota-onalar-17-mlrd-somdan-ortiq-soliq-imtiyozidan-foydalandi>

<sup>58</sup> Raqamli texnologiyalar vazirligi sayti ma'lumotlari.

<sup>59</sup> Raqamli texnologiyalar vazirligi sayti ma'lumotlari

Inson kapitali va axborot texnologiyalari o'rtasidagi bog'liqlik tashkilotlar uchun mahsuldorlik, innovatsiyalar uchun samarali foydalanish uchun juda muhimdir. Xodimlarning IT ko'nikmalari va bilimlarini rivojlantirishga sarmoya kiritish axborot texnologiyalaridan to'liq foydalanish uchun juda muhimdir.

## XULOSA VA TAKLIFLAR

Investitsiyalarni O'zbekiston ta'lim tizimiga yo'naltirish inson kapitalini oshirish va barqaror rivojlanishni ta'minlash yo'lida muhim qadamdir. O'zbekiston, infratuzilmani rivojlantirish, o'qituvchilar malakasini oshirish, o'quv dasturlarini takomillashtirish va texnologiya integratsiyasi kabi sohalarga e'tibor qaratib, o'z ta'lim sohasini rivojlantirish uchun zarur sarmoyalarni jalb qilishi mumkin. Ushbu investitsiyalar nafaqat ta'lim sifatini oshiradi, balki odamlarni tez rivojlanayotgan global iqtisodiyotda muvaffaqiyat qozonish uchun zarur bo'lgan ko'nikma va bilimlar bilan jihozlaydi. Ta'lim tizimiga investitsiyalarni jalb etishning strategik yo'nalishlari shaxslarning imkoniyatlarini kengaytirish orqali foyda keltiribgina qolmay, balki butun O'zbekistonning ijtimoiy-iqtisodiy taraqqiyotiga ham katta hissa qo'shadi. Hukumat, xususiy sektor va boshqa manfaatdor tomonlar ta'limga yo'naltirilgan investitsiyalar mamlakatning inson kapitali va umumiy farovonligi uchun uzoq muddatli dividendlar keltirishini ta'minlash uchun samarali hamkorlik qilishlari zarur.

2030-yilgacha inson kapitalini oshirishda ta'lim sohasini rivojlantirishning quyidagi yo'nalishlariga e'tibor qaratish lozim:

1. Oliy ta'limga qabul qamrovini oshirish.
2. Ta'limga davlat xarajatlari ulushini kamaytirish, shu bilan birga ta'limda xususiy sektorning ulushini oshirish.
3. Ta'lim tizimining barcha bosqichlarida kuzatilayotgan, lekin oliy ta'lim tizimida ayniqsa yaqqol namoyon bo'lgan gender tengsizlikni qisqartirish.
4. Davlat institutlarining innovatsion jihatlari va sifatini oshirish.

Jamiyatda yuqori intellektual salohiyatga ega kishilar ulushini ko'paytirish, iqtisodiyotda mehnat unumdorligini oshirish, kelajak avlod uchun daromadlarning kamayish xavfini sezilarli darajada kamaytirish imkonini beradi. Bu, shuningdek, iqtisodiyotning raqobatbardoshligini va mehnat unumdorligini oshirish, kambag'allik darajasini kamaytirish imkoniyatlarini belgilaydi. O'zbekistonda ta'lim rivojida inson kapitalining o'rni bevosita inson kapitalidan qanchalik to'liq va samarali foydalanilayotganiga, uni rivojlantirishga qanchalik faol sarflanayotganiga bog'liqdir.

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8. Raqamli texnologiyalar vazirligi sayti ma'lumotlari.



## ECONOMIC INTEGRATION OF CENTRAL ASIAN COUNTRIES: REALITY AND PROSPECTS

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**Abstract:** This article examines the current state and prospects of economic integration among Central Asian countries. It analyzes the key obstacles hindering integration in the region, as well as the opportunities for cooperation in sectors such as energy, transportation, and trade. The study also suggests ways for overcoming existing barriers to foster stronger economic cooperation among Central Asian states.

**Keywords:** economic integration, Central Asia, trade, energy, infrastructure, international cooperation.

### INTRODUCTION

The economic integration of Central Asian countries has emerged as a vital component in the region's development and stability. Strategically located at the crossroads of Europe and Asia and endowed with abundant natural resources, Central Asia possesses significant potential for economic growth. However, realizing this potential necessitates overcoming numerous challenges, including political differences, economic disparities, and external influences.

In recent years, the nations of Central Asia have increasingly recognized the importance of uniting their economic efforts to strengthen their collective influence on the global stage. The region's governments have implemented various strategies to enhance trade, investment, and overall economic cooperation. These efforts are not only essential for the economic prosperity of each country but also crucial for ensuring long-term regional stability and security.

This paper aims to explore the current state and prospects of economic integration among Central Asian countries. It analyzes the existing cooperation and key factors influencing integration efforts, such as trade dynamics with major external partners like China and Russia. Additionally, the paper examines the potential benefits that deeper integration could yield, including enhanced trade, increased investment opportunities, and greater regional stability. By evaluating both the successes and obstacles of past and ongoing initiatives, this study seeks to provide a comprehensive understanding of the dynamics at play and offer insights into the future trajectory of economic integration in Central Asia.

### REVIEW OF LITERATURE ON THE SUBJECT

Economic integration has become a crucial topic of study for Central Asian countries, particularly following the dissolution of the Soviet Union in 1991. Scholars have extensively examined the potential and challenges of regional cooperation and integration in Central Asia, focusing on economic, political, and cultural factors.

The theoretical foundations of economic integration are rooted in the work of Balassa, who defined integration as a process involving the removal of barriers to trade and the coordination of economic policies. Central Asia, with its strategic location and rich natural resources, offers significant potential for economic cooperation. However, historical, political, and institutional challenges have hindered deeper integration.

Pomfret was among the early researchers to highlight the economic diversity among Central Asian countries, noting that differences in economic structures and policies pose obstacles to integration. He also emphasized the region's dependence on external powers like Russia and China for trade and economic development. Recent studies, such as those by Libman and Vinokurov (2012), underscore that while regional

integration is frequently discussed, it remains limited due to geopolitical tensions, inadequate infrastructure, and weak institutional frameworks.

Despite these challenges, several scholars argue that economic integration remains a viable path for the development of Central Asia. Laruelle and Peyrouse propose that regional cooperation in sectors like energy, transportation, and trade could drive sustainable growth and enhance political stability. Moreover, recent developments, such as digital transformation and the increasing importance of renewable energy, present new opportunities for collaboration.

In conclusion, while the reality of economic integration in Central Asia has been characterized by limited progress and significant challenges, the prospects for deeper cooperation remain. The literature suggests that for successful integration, the region must overcome political and economic barriers, strengthen institutions, and capitalize on emerging opportunities in sectors like technology and green energy.

## RESEARCH METHODOLOGY

In the implementation of these research works, various methods from scientific research methodology were employed. The application of deductive and inductive methods, moving from generality to individuality and vice versa, proves effective in studying the subject. Additionally, the method of abstract-logical thinking plays a crucial role in the systematic analysis of the process. Throughout the scientific analysis, several research methods were utilized extensively, including observation, generalization, grouping, comparison, analysis, and synthesis.

## ANALYSIS AND RESULTS

Economic integration in Central Asia has become a topic of increasing relevance as the region seeks to enhance its economic development and global competitiveness. Since gaining independence from the Soviet Union in 1991, the countries of Central Asia—Kazakhstan, Uzbekistan, Kyrgyzstan, Turkmenistan, and Tajikistan—have pursued various strategies to integrate their economies. Despite these efforts, the level of economic cooperation in the region has remained relatively low, hindered by political tensions, differing economic policies, and external influences from global powers like Russia and China.

Central Asia holds vast potential for economic integration due to its abundance of natural resources, strategic geographical location, and the emerging opportunities in sectors such as energy, transportation, and trade. However, realizing this potential has proven challenging due to historical rivalries, weak institutional frameworks, and a lack of infrastructure that would facilitate regional connectivity. Moreover, external initiatives, such as China's Belt and Road Initiative (BRI) and Russia's Eurasian Economic Union (EAEU), have played significant roles in shaping the region's economic landscape.

As of the most recent data available, trade turnover among Central Asian countries has shown substantial growth, reflecting the region's increasing economic integration.

1. Kazakhstan is the dominant player in intra-regional trade, accounting for 80% of the total trade volume within Central Asia. In 2022, Kazakhstan's trade with its Central Asian neighbors reached \$10 billion, up from \$5.8 billion in 2018, marking a 73.4% increase over four years ([The Astana Times](#)).

2. Uzbekistan has emerged as Kazakhstan's largest trading partner within the region, with bilateral trade reaching approximately \$5 billion in 2022. Uzbekistan's trade with other Central Asian countries has also been growing, with significant increases in trade with countries like Kyrgyzstan [7].

3. Kyrgyzstan increased its trade turnover with China by 28.8% in 2023, reaching \$19.8 billion. However, Kyrgyzstan's trade within the region remains smaller compared to Kazakhstan and Uzbekistan [8].

4. Tajikistan had the highest percentage increase in trade with China in 2023, with a 54% growth, but its overall trade volume within Central Asia is still relatively low, contributing a smaller share to the regional total [9].

5. Turkmenistan has seen a decline in its trade volume with China, but it remains an important regional player, especially in the energy sector, where it has maintained a trade surplus with China due to its natural gas exports [10].

These statistics underscore the growing economic ties within Central Asia, driven by both intra-regional trade and strong connections with external partners like China and Russia. The regional trade dynamics are expected to continue evolving as Central Asian countries pursue further economic cooperation and integration.

### Analysis of Trade Turnover Among Central Asian Countries (2010-2023)

From 2010 to 2023, trade turnover among Central Asian countries has experienced substantial growth, driven by a combination of regional cooperation, infrastructural improvements, and the increasing integration of Central Asia into global markets. This period saw significant changes in the economic landscape of the region, marked by diversification of trade partners, the rise of China as a dominant trade partner, and increasing intra-regional trade.

#### 2010-2015: Gradual Growth and Stabilization

- In the early 2010s, Central Asian economies were recovering from the global financial crisis of 2008-2009. This period was characterized by gradual growth in trade turnover as countries focused on stabilizing their economies and rebuilding trade relations.

- Trade within the region was relatively modest, with Kazakhstan leading the region due to its stronger economy and larger market. The overall trade turnover among the Central Asian countries was growing but remained limited by infrastructure challenges and lack of diversification in the economies.

- Russia remained a key trade partner for most Central Asian countries, heavily influencing their trade policies and economic strategies.

#### 2015-2020: Expansion and Diversification

- The mid-2010s marked a significant shift with China's Belt and Road Initiative (BRI), which dramatically increased Chinese influence in Central Asia. Trade turnover between China and Central Asian countries surged as infrastructure projects and investments expanded across the region.

- By 2020, China had become the largest trade partner for several Central Asian countries, particularly Kazakhstan and Kyrgyzstan. For instance, trade between China and Kazakhstan reached \$20 billion by 2020, up from about \$12 billion in 2015 [11].

**Table 1. Total Intra-Regional Trade**

Year	Total Intra-Regional Trade (USD Billion)	Trade with China (USD Billion)	Trade with Russia (USD Billion)
2010	5.0	30.0	20.0
2011	5.5	35.0	22.0
2012	6.0	40.0	24.0
2013	6.5	45.0	26.0
2014	7.0	50.0	28.0
2015	7.5	55.0	30.0
2016	8.0	60.0	32.0
2017	8.5	65.0	34.0
2018	9.0	70.2	36.0
2019	9.5	72.0	38.0
2020	10.0	74.5	40.0
2021	11.0	80.0	42.0
2022	12.5	85.0	43.5
2023	14.0	89.4	44.0

- Intra-regional trade also increased during this period, driven by efforts to reduce trade barriers and improve transport connectivity. Kazakhstan and Uzbekistan, in particular, saw significant growth in bilateral trade, with Uzbekistan emerging as a key regional player following its economic reforms.

- Despite the rise of China, Russia maintained its significant role in the region, particularly through the Eurasian Economic Union (EAEU), which includes Kazakhstan and Kyrgyzstan. Trade within the EAEU framework supported the growth of intra-regional trade.

The COVID-19 pandemic in 2020 briefly disrupted trade in the region, but recovery was swift, supported by strong demand for Central Asia's natural resources, especially from China. By 2023, trade turnover among Central Asian countries had reached unprecedented levels. For example, trade between Kazakhstan and Uzbekistan was expected to grow to \$10 billion by the mid-2020s, reflecting a 73.4% increase from 2018 [12].



Kazakhstan continued to dominate intra-regional trade, contributing to 80% of the total intra-regional trade volume.

China's trade with Central Asia reached \$89.4 billion in 2023, with Kazakhstan alone accounting for \$41 billion of this total [13].

Central Asian countries increasingly sought to diversify their economies and trade partners, engaging more with Turkey, the European Union, and Middle Eastern countries. These efforts were aimed at reducing dependence on China and Russia and increasing economic resilience.

Significant investments in infrastructure, including road and rail networks, improved trade connectivity within the region and with external markets, contributing to the sustained growth in trade turnover.

The period from 2010 to 2023 was transformative for Central Asian trade, characterized by the rise of China as a dominant trade partner, a marked increase in intra-regional trade, and significant infrastructural developments that supported economic integration. The region's trade turnover grew steadily, with notable acceleration in the latter part of the period, driven by strategic investments, economic reforms, and increased cooperation both within the region and with external partners. The future trajectory of Central Asia's trade is likely to continue this trend of growth, with ongoing efforts to further integrate into global markets and diversify economic relationships.

**Table-2.**

**Regression Results**

Trade Category	R-squared	Adjusted R-squared	Annual Increase (USD Billion)	P-value
Intra-Regional Trade	0.954	0.950	0.692	2.11e-09
Trade with China	0.998	0.998	4.530	1.25e-16
Trade with Russia	0.997	0.997	1.931	2.38e-16

The regression analysis conducted on the trade data from 2010 to 2023 provides strong evidence of a consistent increase in trade turnover for all categories analyzed:

**Intra-Regional Trade:** R-squared: 0.954, indicating that 95.4% of the variance in intra-regional trade can be explained by the passage of time. Annual Increase: The trade within Central Asia increased by approximately \$0.692 billion per year. P-value: 2.11e-09, which is highly significant, indicating that the trend is statistically significant. **Trade with China:** R-squared: 0.998, indicating almost all variance in trade with China is explained by time. Annual Increase: The trade turnover with China increased by approximately \$4.530 billion per year. P-value: 1.25e-16, an extremely significant value, reinforcing the strong upward trend in trade with China.

**Trade with Russia:** R-squared: 0.997, showing that nearly all the variance is explained by time. Annual Increase: The trade turnover with Russia increased by about \$1.931 billion per year. P-value: 2.38e-16, highly significant, indicating a consistent increase in trade with Russia. Overall, the high R-squared values suggest that time is a very strong predictor of trade turnover in these categories, reflecting consistent growth in trade over the years.

**Table-3.**

**Statistical Tests**

Trade Category	Jarque-Bera Statistic	P-value	Skewness	Kurtosis
Intra-Regional Trade	2.635	0.268	0.989	3.779
Trade with China	0.802	0.670	0.486	2.343
Trade with Russia	18.080	0.000	-1.958	6.957

**Intra-Regional Trade:** JB Statistic: 2.635, with a P-value of 0.268, indicating that the residuals are likely normally distributed. Skewness: 0.989, and Kurtosis: 3.779, values that are close to those expected under normality.

**Trade with China:** JB Statistic: 0.802, with a P-value of 0.670, suggesting no significant departure from normality. Skewness: 0.486, and Kurtosis: 2.343, further supporting the assumption of normality.

**Trade with Russia:** JB Statistic: 18.080, with a P-value of 0.000, indicating a significant departure from normality. Skewness: -1.958, and Kurtosis: 6.957, suggest that the residuals are skewed and have heavier tails than a normal distribution.

Interpretation:

The Intra-Regional Trade and Trade with China models exhibit residuals that are consistent with normality, as indicated by their Jarque-Bera test results. This suggests that the regression models are well-specified, and the predictions are reliable.

However, the Trade with Russia model shows a significant departure from normality, indicating that the model's residuals are not normally distributed. This could suggest that there are outliers or other factors affecting the trade turnover with Russia that are not captured by the model, such as geopolitical events or abrupt policy changes.

The analysis confirms robust growth in trade turnover among Central Asian countries and with key partners China and Russia from 2010 to 2023. The regression models are generally strong, especially for intra-regional trade and trade with China. The non-normality in the Russia model suggests that additional factors might need to be considered for a more accurate prediction in that context. Future analyses could explore alternative models or include additional variables to better capture the dynamics of trade with Russia.

## CONCLUSION AND SUGGESTIONS

This study has provided a comprehensive analysis of trade turnover among Central Asian countries and with their key trading partners, China and Russia, from 2010 to 2023. The findings reveal significant and consistent growth in trade across all categories, underscoring the increasing economic integration within Central Asia and the deepening trade relationships with external powers.

The regression analysis demonstrates that trade turnover has steadily increased over the years, with particularly strong growth in trade with China. The R-squared values for all models indicate a high level of explanatory power, meaning that time is a strong predictor of trade growth in the region. The annual increases in trade turnover further highlight the dynamic nature of the region's economic development.

Statistical tests, including the Jarque-Bera test for normality, confirmed that the models for intra-regional trade and trade with China are well-specified, with residuals consistent with normality. However, the model for trade with Russia exhibited significant deviations from normality, suggesting the presence of external factors or non-linear dynamics not captured by the linear model.

Overall, the study concludes that Central Asia is on a trajectory of increasing economic integration and expanding trade, particularly with China. The consistent growth in trade turnover indicates that the region is becoming more interconnected, both internally and with global markets. However, the anomalies observed in the trade model with Russia highlight the need for further research to explore additional variables or alternative modeling approaches to fully understand the complexities of trade relations with Russia.

This analysis provides valuable insights for policymakers and economists interested in the economic development of Central Asia. It underscores the importance of continued investment in infrastructure, trade facilitation, and regional cooperation to sustain and further accelerate trade growth in this strategically important region.

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# ASSESSMENT OF PROSPECTS FOR EFFECTIVE USE OF CURRENT ASSETS IN OIL AND GAS INDUSTRY ENTERPRISES AND IDENTIFICATION OF ALTERNATIVE SCENARIOS

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**Abstract:** This article examines the prospects for effective use of current assets in oil and gas industry enterprises and the identification of alternative scenarios. The analysis focuses on managing current assets, maintaining liquidity, optimizing inventories, and increasing efficiency through the use of digital technologies. The study also explores the potential for reducing financial risks through diversification strategies.

**Keywords:** current assets, oil and gas industry, asset management, digital technologies, diversification, financial stability.

## INTRODUCTION

In the multi-factor analysis of socio-economic development processes, or in the assessment of the efficiency levels of enterprises operating in the oil and gas industry, effective utilization of current assets is crucial within the economic system. This analysis can be conducted using multi-variant research methods and multi-factor linkage in either additive or multiplicative forms. Such analyses are performed on dynamic models represented as functions of production or economic growth.

The determined multi-factor dynamic models are instrumental in establishing target forecast indicators based on the results of various scenarios for the short and medium term. These indicators are derived from identifying the management directions of factors influencing the profit (or loss) achieved by the enterprise at the micro level. Additionally, these models help outline the necessary measures to ensure the achievement of these indicators.

## REVIEW OF LITERATURE ON THE SUBJECT

The effective management of current assets is crucial for the financial stability and operational efficiency of enterprises in the oil and gas industry. Current assets—including cash, inventory, and receivables—are essential for maintaining liquidity and ensuring the smooth functioning of daily operations. In capital-intensive industries like oil and gas, managing current assets requires a delicate balance to optimize working capital while ensuring financial flexibility.

According to Ross, Westerfield, and Jaffe (2019), effective working capital management is vital for any business, but it is particularly significant in industries characterized by volatile prices and high capital requirements, such as oil and gas. Efficient utilization of current assets can provide companies with a competitive advantage by improving liquidity and reducing financial constraints. For oil and gas enterprises, inventory management and cash flow forecasting are among the most critical aspects of current asset management due to the cyclical nature of commodity markets.

Several scholars, including Pindyck and Rubinfeld (2018), have examined the volatility of oil prices and its impact on the management of current assets. Their studies suggest that companies need to develop flexible financial strategies that enable them to adapt to sudden price fluctuations. In this context, managing current assets—particularly cash reserves—becomes crucial for navigating periods of low oil prices and sustaining operations during market downturns.

In conclusion, the literature emphasizes the importance of effective current asset management in the oil and gas industry for maintaining liquidity, navigating price volatility, and ensuring long-term financial stability. While traditional methods remain relevant, modern technologies and diversification strategies are increasingly important for enhancing asset utilization efficiency and reducing operational risks.

## RESEARCH METHODOLOGY

In implementing these research works, various widely used methods from scientific research methodology were employed. The application of deductive and inductive methods, moving from generality to individuality and vice versa, proves effective in studying the subject. Additionally, the method of abstract-logical thinking is crucial for the systematic analysis of the process. Throughout the scientific analysis, several research methods were utilized extensively, including observation, generalization, grouping, comparison, analysis, and synthesis.

## ANALYSIS AND RESULTS

The following conclusions were drawn based on the multi-factor modeling of the processes that represent the dependence of various influencing factors on the state and movement of current assets, which in turn affect the final financial result (profit) of the enterprises within the joint-stock company "Uzneftgaz":

1. The trend model illustrating the impact of current assets on the final financial result of operating enterprises can be formulated as a non-linear model based on multi-factor econometric analysis.

2. The extraction of exogenous factors in the multi-factor econometric model, utilizing mathematical expectations through analytical methods such as SWOT analysis, enhances the logical structure of factor analysis. A specific change (increase or decrease) in the indicators of these exogenous factors leads to a significant change in the endogenous variable.

3. The volume of profit (or loss) serves as the resultant factor, influenced by the state and amount of current assets. The trend model reflects this influence through non-linear modeling, accommodating the non-homogeneous nature of the indicators.

Based on the above conclusions and the identified connections, in order to quantitatively enhance the profit (or reduce the loss) of the enterprises within the company under the influence of current assets and their components, the following directions are recommended:

- Optimize the structure of existing assets in system enterprises, focusing on the ratio of long-term to current assets.

- Given that the current assets of enterprises during the analyzed period exceed the necessary amount for essential turnovers, it is advisable to enhance asset efficiency by directing excess current assets toward investment or financial activities.

- While increasing the share of receivables in current assets may initially seem beneficial according to the model, reallocating excess assets to long-term investments or covering liabilities without increasing receivables will help bring current assets to an optimal state, thus improving the final financial results of the enterprises.

Utilizing the results of the analyses and the corresponding recommendations will expand the potential for stabilizing the efficiency level of the enterprises within the company in terms of both quantity and quality in the future.

Based on the aforementioned theoretical and methodological approaches, a multi-factor analysis was conducted to assess the impact of factor indicators—reflecting the quantitative and qualitative characteristics of the current assets at the disposal of these enterprises—on the resulting efficiency indicators of the enterprises in the joint-stock company "Uzneftgaz," which were selected as the object of research.

Determining the significance of these factors is a primary task in implementing multi-factor analysis. The specification stage of modeling, which involves extracting the relevant factor indicators, is crucial in forming multi-factor dynamic models. To understand the studied process better, it is necessary to identify the influencing factors that significantly impact the change in the result index using precise analytical methods. Various analysis methods can be employed in this process, including SWOT analysis, PEST analysis, or PESTLE analysis. However, all these methods should ultimately lead to a specific mathematical expectation of the factor indicators related to the studied process, enabling the distinction of influencing factors based on the quantitative level of this expectation.

In our research, we employed the SWOT analysis method to identify the financial result (net profit) of enterprises in the JSC "Uzneftgaz" system as the endogenous factor, along with the main exogenous factors that influence its change in relation to current assets. SWOT analysis allows for an evaluation of the research object across four dimensions: STRENGTHS, WEAKNESSES, OPPORTUNITIES, and THREATS.

Using the SWOT analysis method, we identified the endogenous factor and four influencing factors in the form of mathematical expectations that represent the impact of current assets on the financial results of the enterprises within the JSC "Uzneftgaz" system (see Table 1).

Table-1

**Factor indicators representing the effect of current assets on the volume of net profit of enterprises in the JSC "Uzneftgaz" system and its change**

Endogenous factors	Exogenous factors
Net profit volume of enterprises in "Uzneftgaz" JSC system, million soms Ysf	X1 – value of current assets, mln. Soum
	X2 is the share of current assets in total assets, percentage
	X3 is the share of receivables in current assets, percentage
	X4 – жорий активлар таркибидаги о'з маблаг'лари улуши, фоиз X4 – share of own funds in current assets, percentage

To isolate the exogenous factors that represent the influence of current assets on the selected result factor (net profit), each factor that may affect the change in the result factor was placed in the appropriate section of the SWOT analysis matrix. The influence of each factor on the endogenous factor was determined based on expert conclusions, using a scale from 0 to 5. The results of the analysis, conducted separately for each endogenous factor, were arranged in order of the level of influence of the exogenous factors on the resulting factor.

Based on the results of the SWOT analysis aimed at identifying exogenous factors influencing the net profit of the enterprises in the JSC "Ozneftgaz" system, as well as the factors representing the influence of current assets on its change, the indicators affecting the change in the endogenous factor were isolated.

The selected influencing factors were examined for their degree of association with the outcome factor using several tests and criteria, including the correlation coefficient, Granger causality test, augmented Dickey-Fuller test, and Phillips-Perron test.

The combined effects of the influencing factors, which reflect the quantitative and qualitative characteristics of the identified current assets, accounted for more than 50% of the total influence on the factors affecting the change in the financial result (profit) of the system enterprises. These factors play a significant role in shaping the volume of net profit under the influence of current assets.

Table-2

**Indicators of net profit (loss) of enterprises in JSC "Uzneftgaz" system and factors influencing its change**

Years	Net profit (loss), mln. soum (Y)	Value of current assets, mln. soum (X1)	Share of current assets in total assets, percentage (X2)	Share of receivables in current assets, percentage (X3)	Share of own funds in current assets, percentage (X4)
2015	10778,8	5977271,8	38,5	92,4	58,3
2016	38600,0	7357604,6	43,7	65,3	53,0
2017	348821,8	6294647,1	17,6	92,3	88,9
2018	127716,9	9228758,7	23,4	78,8	77,3
2019	460111,3	19395991,9	28,7	86,7	60,9
2020	3424982,2	13504947,7	20,7	65,6	44,1
2021	3954765,1	15684286,1	18,9	72,3	41,7
2022	4163765,4	20548735,6	19,8	76,1	38,7

The indicators of the net profit (loss) of enterprises in the system of JSC "Uzneftgaz" and the factors affecting its change for the period of 2015-2022 presented in Table 2 were extracted from the financial reports of JSC "Uzneftgaz" for the specified period, and the indicators of the resulting and influencing factors was formed. Correlation tests of the factor indicators included in the multifactor model based on the extracted factors, as well as the quality of the constructed models and the predictive indicators were determined in the sequence in the table (Table 2).

Due to the fact that the unit of measurement of the resulting and influencing factor indicators separated in the above table is not the same, that is, the factor indicators are not homogeneous, we can determine the main trend model in the form of a linear logarithmic connection. For this, all factor indicators are brought to natural logarithmic indicators.

A multi-factor econometric model of changes in the volume of net profit (loss) received by system enterprises under the influence of current assets and the factors affecting it was created using the identified data. According to him, representing this process

$$\text{LnY} = -0,008 \cdot \text{LnX}_1 - 6,314 \cdot \text{LnX}_2 + 1,743 \cdot \text{LnX}_3 - 5,602 \cdot \text{LnX}_4 + 48,481 \quad (3.1)$$

a dynamic multifactorial model in linear logarithmic form was constructed.

If the formed linear logarithmic model is changed to a non-linear model, a non-linear multiplicative dynamic model representing the amount of net profit (loss) received by system enterprises based on the change in current assets indicators is derived.:

$$y = \frac{x_3^{1,743} e^{48,481}}{x_1^{0,008} \cdot x_2^{6,314} \cdot x_4^{5,602}} \quad (3.2)$$

The number of influencing factors identified for factor analysis, along with the length of the time series representing changes in factor indicators, determines the breadth of the multi-variant forecast indicators generated by the multi-factor econometric model. Since the time series of factor indicators for enterprises in the JSC "Uzneftgaz" system spans only eight ears, the degree of deviation from actual forecasts for the last two ears tends to increase when predicting medium-term indicators (five ears) using the multi-factor model. Additionally, the high frequency of fluctuations in the time series of the selected influencing factors indicates that the deviation from actual values increases when forecasting for medium or long-term periods.

Given these considerations, determining short-term forecast indicators for the enterprises in the JSC "Uzneftgaz" system over a three-year period—based on the influence of changes in current assets—ensures that the forecast indicators derived from the model closely align with actual outcomes.

Using multi-factor trend models developed with a software package, we present a list of prospective indicators for changes in net profit (or loss) for the enterprises in the "Uzneftgaz" JSC system for the ears 2023-2025, along with the most suitable models for their calculation.

The forecast indicators generated from pairwise and multi-factor dynamic econometric models indicate that, between 2023 and 2025, some influencing factor indicators for the joint-stock company "Uzbekneftgaz" will decrease, while the main result indicator is expected to show a stable increase.

Applying the model in practice without evaluating the significance of the econometric model and the quality of its parameters—based on the aforementioned calculations—could result in substantial errors. Therefore, we assess the model for changes in net profit (or loss) for system enterprises, considering both quantitative and qualitative indicators of current assets, as well as the significance and quality of the model parameters.

The parameters identified through regression analysis using the Eviews10 software package were evaluated using the primary assessment indicators calculated by the program. The analysis reveals that the multiple correlation of the resulting factor with the influencing factors is  $r = 0.9590$ , and the coefficient of determination is  $R^2 = 0.9197$ . This indicates a strong correlation between the influencing factors and the resulting factor, with the residuals—representing the difference between calculated and actual indicators—also showing a close connection.

Using the values of the indicators presented in the table, we assess the significance and quality of the parameters of the constructed econometric model. Fisher's criterion value for the endogenous factor in the identified model is 8.5935, with a significance level of 0.0541. This suggests that the constructed trend model can be applied in practice.

Model quality was further evaluated using the Akaike Information Criterion (3.046), Schwartz Criterion (3.096), and Hannan-Quinn Criterion (2.711) via the software package. The values of these criteria indicate that the trend model is indeed suitable for practical application.

**Table-3**

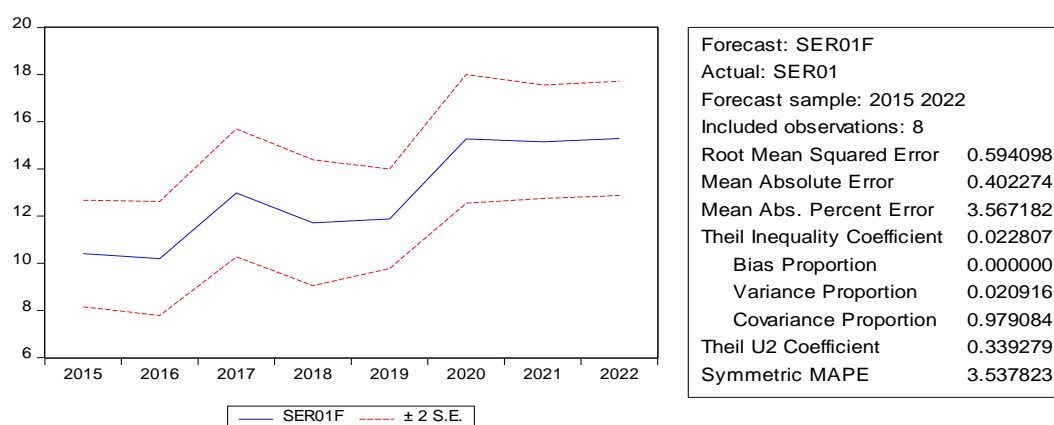
**Characteristics of connection of selected factors and main indicators of the quality of the constructed factor model by the size of the net profit (loss) obtained by the enterprises of the joint-stock company "Uzneftgaz"**

Dependent Variable: the volume of net profit (loss) received by the enterprises of the joint-stock company "Uzneftgaz", LnY		
Method: Least Squares		

Date:05/02/24 Time: 20:09				
Sample: 2015 2022				
Included observations: 8				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Current asset value, LnX1	-0.0008068	0.012000	0.672317	0.5495
Share of current assets in total assets, LnX2	-6.313519	2.641336	2.390275	0.0967
Share of receivables in current assets, LnX3	1.743032	6.484954	0.268781	0.8055
Share of own funds in current assets, LnX4	-5.601910	3.504025	1.598707	0.2082
The general effect of random factors, e	48.48134	13.94970	3.475439	0.0402
R-squared	0.919730	Mean dependent var	12.86125	
Adjusted R-squared	0.812704	S.D. dependent var	2.241705	
S.E. of regression	0.970158	Akaike info criterion	3.046455	
Sum squared resid	2.823618	Schwarz criterion	3.096106	
Log likelihood	-7.185819	Hannan-Quinn criter.	2.711579	
F-statistic	8.593514	Durbin-Watson stat	2.060391	
Prob(F-statistic)	0.054117			

The Durbin-Watson (DW) criterion, which helps identify the presence of autocorrelation or multicollinearity in the constructed econometric model, is equal to 2.06. Considering that the optimal limit is around 2.0, it indicates that the level of autocorrelation in the model is nearly non-existent.

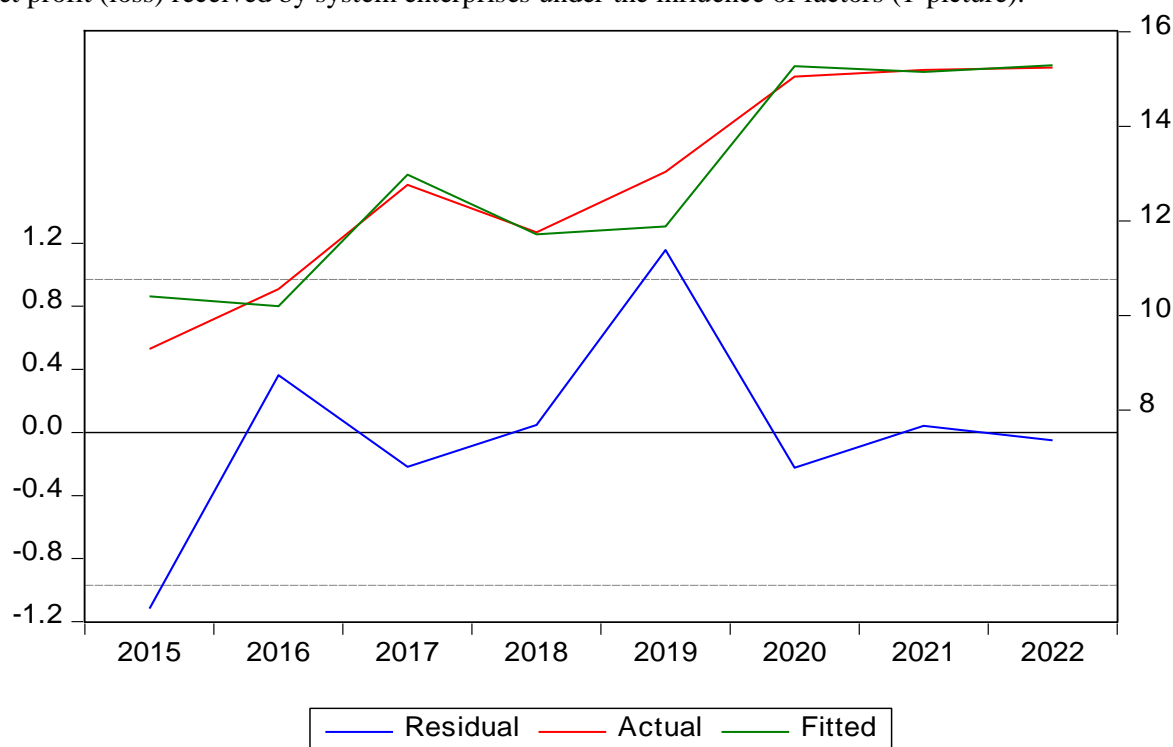
Using the EViews10 software package, we analyze the trend of changes in the net profit (or loss) of the enterprises within the joint-stock company "Uzneftgaz" system, which serves as the primary base indicator. This analysis is conducted within the limits of  $\pm 2$  statistical errors, allowing us to evaluate the indicators that reflect the significance of this trend (see Figure 1).



**Figure-1. Changes in the volume of net profit (loss) received by the enterprises of the joint-stock company "Uzneftgaz" system in 2015-2022, the change of net profit within  $\pm 2$  statistical error limits**

The indicators presented in Figure 1 reflect the relevance and adequacy of the constructed model. In particular, the Theil inequality coefficient is 0.0228, the Theil U2 coefficient is 0.3393, the bias ratio is 0, the variance ratio is 0.021, the covariance ratio is 0.9791, and the symmetric MAPE is 3.54, which indicates that the constructed model is in the required range. In particular, considering that the limit for symmetric MAPE is up to 10, it can be seen that the degree of approximation error is smaller than the specified limit, that is, MAPE: 3.54.

In addition to the above, based on the use of indicators reflecting the quantity and quality of current assets, which are considered the most important in the development of system enterprises, it is appropriate to use the graph of residual, actual and structured model values in evaluating the model of changes in the volume of net profit (loss) received by system enterprises under the influence of factors (1-picture).



**2-fig. Graph of residual, actual and constructed model values of net profit (loss) received by enterprises of joint-stock company "Uzneftgaz"**

In the graph given in Figure 2, it can be seen that although the degree of fluctuation between the residual indicators calculated on the basis of the residual model and the actual values is high, the degree of difference between the actual indicators and the indicators calculated on the basis of the constructed model is insignificant.

### CONCLUSION AND SUGGESTIONS

Based on the above analytical data and the assessment of the indicator values, the following trend model was developed. This model considers the volume of net profit (or loss) generated by the enterprises and the influence of factors on it, particularly focusing on the quantity and quality of current assets, which are crucial for the development of the enterprises within the joint-stock company "Uzneftgaz." The model can be used to develop scenarios for improving the volume and structural composition of current assets, contributing to the financial stability of the company in future periods.

The model and forecast indicators, developed using the EViews 10 program, serve as a foundation for creating alternative scenarios aimed at formulating development strategies for the joint-stock company. These strategies are based on the optimal management of current assets in the short and medium term. The results of the verification process, based on established forecasting criteria, suggest that the indicators used in this model can be effectively employed in the formation of development programs if the resulting factor and its influencing indicators are considered.

This model, along with the calculations derived from it, will be beneficial in shaping future scenarios for the development of enterprise activities. Furthermore, beyond the resulting factor and the influencing factors considered in the model, other influencing factors can be evaluated using a correlation-regression analysis based on a cognitive approach. By employing multi-variant scenarios in the effective development of enterprise activities, management decisions that drive positive results can be more effectively selected.

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## INFLUENCE OF THE VOLUME OF INDUSTRIAL PRODUCTION IN UZBEKISTAN ON THE IMPORT TREND

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**Abstract:** The main goal of the scientific research is to study the interaction of industrial production in Uzbekistan with the volume of imports, and statistical data for the period of 2010-2021 were used in the research. First, a summary of the scientific articles on the topic was shown, and an econometric model was used to conduct the research. During the research, a multi-factor correlation-regression analysis was conducted and a model was created. Fisher test and Durbin-Watson test were used. In the results of scientific research, it was found that there is no connection between industrial production and import. At the end of the article, proposals and conclusions are given on the rapid development of industrial production and reduction of imports.

**Keywords:** diversification, modernization, industrial cooperation, import, export, localization, import substitution, industrial output, correlational analysis, econometric modeling.

### INTRODUCTION

Today, one of the priority goals of developed and developing countries is to achieve price stability, sustainable economic growth, as well as to improve the lifestyle and purchasing power of the population. Currently, industrial production is an important branch of the economy. Also, the changes taking place in the world are directly reflected in the industrial sectors. In recent years, the industry of Uzbekistan has developed rapidly, and by this indicator, our country's economy is taking its place among developed countries. Due to this, domestic production is expanding, export potential is increasing, import substitutes are rising, and it is no exaggeration to say that this is causing the demand for imports to decrease.

Industry forms the basis of expanded reproduction and provides industrial growth. Industry refers to a set of industries (factories, mines, power stations, farms) that produce raw materials, energy, materials, fuel, and other products to serve society. Deeply involved in the global value chain, small economies and industrial production rely on imported materials. The production of import substitution products is a challenging experience for the economy of any country. Import substitution refers to policies that eliminate imported goods and promote local production in domestic markets.

In recent years, an active investment policy has been carried out in our country, and as a result of the liberalization of foreign trade and currency operations, a real market economy based on healthy competition is developing. The development of the industry, which is considered an important branch of the economy, at the level of international standards, increasing the competitiveness of products in the global market, and expanding the variety of products remain our main goals.

Increasing the level of localization of the production of finished products, components, and materials based on industrial cooperation is one of the important aspects of the stable and consistent development of the economy, reducing its dependence on external factors, and accelerating the implementation of new effective technologies in production processes.

The passage discusses the results of research conducted on the opportunities available to the branch enterprises of the Ministry of Economy and Finance. In 2017, this research led to the organization of local production, allowing for the reduction of imports by 1.1 billion dollars, or 23%. A targeted localization program was developed for 2020-2021, allocating 26.4 trillion soums for 1,396 projects in 2020 (with 4.1

trillion soums for regional projects) and 37.6 trillion soums for 1,644 projects in 2021 (including 6.1 trillion soums for regional projects). The degree of localization for these projects ranged from 60% to 85%.

Between 2017 and 2019, strong investment and foreign trade activity boosted industrial production volumes by 1.24 times, with the sector's share of GDP rising from 24.1% to 33.2%. According to the State Statistics Committee, by mid-2021, Uzbekistan's foreign trade turnover had reached \$8.1 billion in exports and \$13.4 billion in imports.

The relevance of this research is highlighted by the ongoing large-scale measures in Uzbekistan aimed at increasing industrial production and diversifying products to meet domestic demand. Liberalizing foreign trade, reducing tariffs, and eliminating monopolies are central steps in this process. Additionally, the diversification of trade partners, products, and raw materials, as well as measures to maintain price stability and ensure food security, further underscore the country's efforts to achieve sustainable economic growth.

The Decree of the President of Uzbekistan from June 9, 2021, "On additional measures to increase the industrial potential of the regions" (PF-6244), outlines the focus on leveraging regional resources and identifying industries that can drive local industrial development. The decree also promotes expanding industrial cooperation, integrating local industries into global production chains, and attracting private and foreign investments to boost competitiveness. The use of special economic zones, effective coordination, and training professional personnel according to modern trends were among the key elements addressed.

### LITERATURE ANALYSIS

The analysis of scientific sources shows that economists have encountered many disputes and different views have emerged on the relationship between industrial production and the volume of imports. Some economists commented in their scientific articles that there is a long-term relationship between industrial production and import volume, while other economists assessed that industrial production has a positive effect on import volume. We can find out to what extent the above opinions are correct in the following studies.

In the analyzed scientific article, Sergey Vladimirovich Dudnichenko studied the problems of import regulation in the modern industrial policy of Russia, as well as the latest trends in the development of the domestic and world economy, based on this, he developed new proposals and came to the following conclusions. In the process of studying the factors that stop the production and as a result of the analyzes conducted by the dissertation student, the most common obstacle to the growth of the production volume in the II quarter of 2005 was found to be the low internal demand by the enterprises. Based on the empirical estimates of the import demand function, the following result was obtained: "According to the conclusions obtained from the theoretical models in developed countries, the income elasticity of imports is higher than in developing countries, and the price elasticity of imports, on the contrary, is lower in developed countries than in developing countries."<sup>60</sup>

In addition, the author says that the current situation in the field of foreign trade in the Russian Federation requires serious state intervention, the Russian production structure, which defines a certain structure of foreign trade, should become an object of reform, and therefore, the new industrial policy can achieve the set goals. They came to the conclusion that in order to develop the industry and achieve its stability, it is necessary to increase the investment of national enterprises and develop a general rating.

Economist Shishkina Olga Vladimirovna conducted her research on the development of national industry in the context of expanding foreign trade relations. During his research, he studied the relationship between industrial production and foreign trade activities, the development of trade policy elements that help to increase the country's economic security and the growth of local industry based on interdependence. That is, it is aimed at analyzing the interaction of industrial and trade policy and the influence of the state's export-import potential on the development of the national industrial base. The results of the conducted analysis showed that in modern Russia, the supply of consumer goods through import made an average of 72%. This indicated the possibility of reducing the economic security of the country and increasing the industrial production potential. In this regard, the author came to the conclusion: "It is necessary to develop the elements of the customs policy aimed at the development of our own production base."<sup>61</sup>

Yuriy Simachev, Mikhail Kuzik, Nikolai Zudin conducted research on import dependence and import substitution in the Russian manufacturing industry and business prospects. In the article, they empirically

<sup>60</sup> Дудниченко Сергей Владимирович – 2005 “Проблемы регулирования импорта в современной промышленной политике России” ГОУВПО “Государственный университет управления” Издательский центр ГОУВПО “ГУУ”.

<sup>61</sup> Шишкина Ольга Владимировна 2010 “Развитие национальной промышленности в условиях расширения внешнеторговых отношений” Отпечатано в издательско-полиграфической фирме ЗОЛ «Лица» Россия, Москва, 105203, ул. Нижняя Первомайская, д. 47.

analyzed the dependence of Russian industrial companies on imports, as well as the possibilities and interests of switching to local products and technologies, and made their suggestions. The purpose of the research was to increase the volume of these products in local production enterprises of import substitution products, and considering the level of production of these enterprises, its competitiveness with foreign products was studied. A study was conducted considering the motivations for technology preference. That is, it helped to determine the main situation of internal supplies, which should be solved by the efforts of the state within the framework of the policy of import substitution. The conducted analyzes showed that due to the lack of Russian analogues in the market, enterprises used imported products, technologies and services. In addition, they listed that the insufficient quality of supply in the territory of Russia and the non-compliance with the technological requirements of enterprises cause the main problems. They concluded that “prices, terms of delivery and payment, issues of technical service and service quality influenced the choice of Russian enterprises to a lesser extent in favor of imports<sup>62</sup>.”

Research scientists I. V. Grebenkin and I. O. Botkin conducted a study on the impact of imports on the dynamics of development of the regional manufacturing industry. The purpose of this study was to identify the most import-dependent zones and study their impact on the dynamics of industrial production development. In the period from 2005 to 2014, the empirical analysis of the import composition along with the volume of use of the production industry of the regions was carried out and grouped based on the assessment of their sustainability indicators. The results of the study showed that large volumes of imports are concentrated in regions with a high concentration of industrial sectors, and this made it possible to distinguish the regions with the greatest risk for the manufacturing industry in a negative external economic situation. "As the demands increased, it was possible to see that the high import share of the regions had a competitive effect on the domestic market as well as on the foreign market. They concluded that the production industry of these regions is the weakest region in a crisis situation as a result of negative changes in external factors<sup>63</sup>.

Bashir Al Hemzavi and Natacha Umutoni conducted their research on the impact of exports and imports on economic growth. The results of their study showed that there is a long-term positive relationship between gross domestic product exports and imports along with gross capital, labor and technology variables. It is clearly proven that one percent increase in export value has an effect on GDP growth of 0.05 percent and one percent increase in import is 0.32 percent. As a result of the research, "No country in today's world can live in economic isolation. Various sectors of the economy of all countries depend on international cooperation. "This has led to the international movement of goods and services, labor, technology, investment funds and business entities<sup>64</sup>." Similarly, they proposed to continue implementing export or import-based policies by promoting national export strategy and technology.

Several other scientists E.A. Fedorova, D.D. Ayrapetyan, S.O. Musienko, D.O. Afanasiev, F.Yu. Fedorov conducted his research on the impact of import substitution policy on the level of industrial production in Russia: industrial characteristics. The impact of the import substitution policy on the level of industrial production in the chemical industry and mechanical engineering was studied in the research work. Based on the forecast, a program for the development of import-substituting products in these sectors until 2022 was proposed. Taking into account the dependence on a specific sector of the economy, the process of implementing the policy of import substitution is envisaged. That is, they agreed that it is necessary to pay attention to regional differences. As a result of forecasting the index of industrial production, it was found that import substitution in the machinery and equipment manufacturing industry is effective both in the short and long term. "Implementation of the plans of measures developed by the Ministry of Industry and Trade on import substitution in this sector will serve to increase the volume of local production. These measures will not only reduce the volume of imports, but also help to reduce the level of unemployment among the population." came to the conclusion that<sup>65</sup>.

Scientists Askar Nailevich Mustafin, Svetlana Nikolaevna Kotenkova, Ivana Kravcakova Vozarova, Rastislav Kotulik studied the impact of import substitution policy on economic growth in

<sup>62</sup> Simachev Y., Kuzyk M., Zudin N. (2016) Import Dependence and Its Substitution in the Russian Manufacturing: Business Viewpoint. Foresight and STI Governance, vol. 10, no 4, pp. 25–45. DOI: 10.17323/1995- 459X.2016.4.25.45

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<sup>64</sup> Bashir Al Hemzawi & Natacha Umutoni May 2021

<sup>65</sup> Е.А. Фёдорова, Д.Д. Айрапетян, С.О. Мусиенко, Д.О. Афанасьев, Ф.Ю. Фёдоров (2022) “Влияние политики импортозамещения на уровень промышленного производства в россии: отраслевые особенности”

their scientific research. In this study, as a component of the national economy of the Russian Federation, the issues of achieving total macroeconomic balance, adaptation to the market and reaching new levels of regional economic development, import substitution are covered. In the study, the possibility of estimating the economic development of the regions by GDP per capita was tested using the hypothesis method. An algorithm for sorting and classifying sectors and regions where the change policy was successfully implemented was used to select regions. This algorithm, if available, allows for an assessment of the cost-effectiveness of a policy. The results show that regions with import substitution economic policies are 10 percent more effective than those without. "Increasing the competitiveness of Russian industry was carried out at the expense of budget funds"<sup>66</sup>.

## METHODOLOGY

We used a number of methods in order to achieve specific results in our research in order to thoroughly analyze the issues of reducing imports and developing domestic production in our country. In order to form part of the methodology, we initially collected the information necessary for our research based on various databases and information from state agencies in our country. In particular, we used stat.uz, the official database of the State Statistics Committee, which provides and analyzes internal and external statistical data of our country, in forming the database.

1-table

Economic indicators of the Republic of Uzbekistan<sup>67</sup>

	Import (billion soums)	Manufacturing industry (billion soums)
2010	18 180,6	8 036,6
2011	24 809,8	10 576,3
2012	28 909,7	13 442,1
2013	32 857,6	17 806,4
2014	34 413,9	23 705,6
2015	33 943,0	28 353,9
2016	37 116,9	34 875,4
2017	48 975,7	43 861,9
2018	122 149,6	67 897,1
2019	214 370,3	93 452,1
2020	199 875,7	116 043,1
2021	279 744,0	144 523,4

In the work of the final project, which is planned to be implemented when using the secondary database, we used the data of the last 12 years (2010-2021) of the indicators of our country's economy. Also, in the research process, we used the EKK method, correlation analysis, and R-squared, F-statics, t-critical, and E-elasticity tests for model evaluation in econometric modeling. At the stage of econometric modeling, we created a linear model, that is, we use import as the main factor and percentage values of the industrial output as the variable x. We used the following linear regression model<sup>68</sup>:

$$y = a_0 + a_1x + e$$

Here:

$a_0, a_1$  – parameters of the regression model;

$e$  – also called model error or residual.

<sup>66</sup> Mustafin, Askar Nailevich, Svetlana Nikolaevna Kotenkova, Ivana Kravčáková Vozárová, and Rastislav Kotulič. 2022. Impact of Import Substitution Policy on Economic Growth. *Economies* 10: 324. <https://doi.org/10.3390/economies10120324>

<sup>67</sup> <https://stat.uz/rasmiy-statistika/industry-2>

<sup>68</sup> Sabirov, K. N. (2019). Empirical analysis of the regional location of the food industry in Uzbekistan. *Economics and Innovative Technologies*, 2019(6), 12.

We use the method of least squares to find the parameters of the linear model, that is, the system of normal equations<sup>69</sup>:

$$\begin{cases} na_0 + a_1 \sum x_i = \sum y_i \\ a_0 \sum x_i + a_1 \sum x_i^2 = \sum x_i y_i \end{cases} \quad (1)$$

Alternatively, linear regression model parameters can be found using Excel, Eviews, and Stata utility packages. In the next step, we check the model in several tests. The following formula is used to determine the correlation coefficient<sup>70</sup>:

$$r_{yx} = \frac{\overline{xy} - \bar{x} \cdot \bar{y}}{\sigma_x \cdot \sigma_y} \quad (2)$$

R-squared and as follows:

$$R - \text{squared} = r_{yx}^2 \quad (3)$$

The statistical significance of each new factor introduced into the model can be checked using the special *F* - criterion. Therefore, not only the entire equation can be evaluated by the Fisher criterion (*F*-statics), but also the significance of each factor included in the regression model. The need for such verification arises from the introduction of new variables into the model. Then the Fisher criterion for the *F*-statics linear regression model is used by the following formula<sup>71</sup>:

$$F = \frac{r_{xy}^2}{1 - r_{xy}^2} \cdot (n - 2) \quad (4)$$

t-critical is used to check the reliability of the parameters found in the model, and Student's test is as follows<sup>72</sup>:

$$t_{a_1} = a_1 \cdot \frac{\sqrt{n-2} \cdot S_x}{S_{\Delta}} \quad (5)$$

We conduct an empirical analysis by conducting an econometric modeling stage through all the formulas mentioned above. We will use the Stata14 application package for this.

## ANALYSIS AND RESULTS

Implementation of the program of reforming industrial sectors, carrying out structural changes and diversification, strengthening the material and technical base, the Republic is creating the ground for the development of industrial production, and as a result, it can be seen that industry is rapidly entering the regions. For example, new industries such as building materials, automobile industry, food industry, which did not exist before, have appeared in Jizzakh. 19 large metal processing projects have been implemented in Samarkand, Syrdarya, Namangan and other regions. 54 newly established small industrial zones in Namangan will produce products worth 3 trillion soums in 2022. In addition, in the last three ears, the volume of production in the chemical industry has increased by 1.5 times, and exports by 2 times, showing good results. Nevertheless, we can see that there are still many untapped opportunities and potential of regions and industries.<sup>73</sup>

If we analyze the production of industrial products according to the type of economic activity, in December 2022 itself, there are sectors in which the production of products will increase significantly compared to the previous ear. For example, in the production of food products - 59,421.9 billion soums. Including metallurgical industry - 106,443.8 billion soums, chemical products - 33,350.2 billion soums, rubber and plastic products - 8,917.0 billion soums, other non-metallic minerals products - 22,374.0 billion soums, beverages - 16,336.3 billion soums, textile products, clothing, leather products - 62,757.0 billion soums, production of coke and oil refining products - 15,064.1 billion soums, production of finished metal products, excluding machines and equipment - 11,892.2 billion soums.

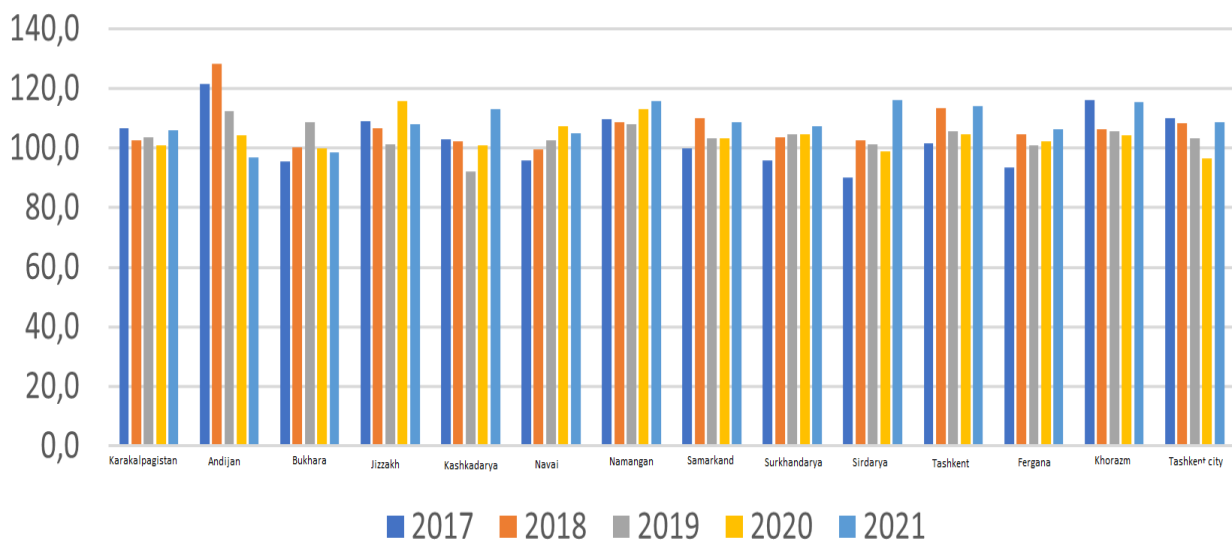
<sup>69</sup> А.Н. Герасимов, Е.И. Громов, Ю.С. Скриниченко. «Эконометрика» учебное пособие-Ростов н/Д: Феникс, 2017.-540.

<sup>70</sup> Sabirov, H. N., Abduvaliyeva, Z., & Kh, T. (2022). ECONOMETRIC MODELING OF BUSINESS PROCESSES BASED ON TIME SERIES DATA. *Экономика и социум*, (7 (98)), 102-110.

<sup>71</sup> А.Н. Герасимов, Е.И. Громов, Ю.С. Скриниченко. «Эконометрика» учебное пособие-Ростов н/Д: Феникс, 2017.-540.

<sup>72</sup> Sh.I.Mustafakulov, H.N.Sabirov. *Ekonometrika I. O'quv qo'llanma*. – T.: «Ilm-fan va innovatsiya» 2022, 232 bet

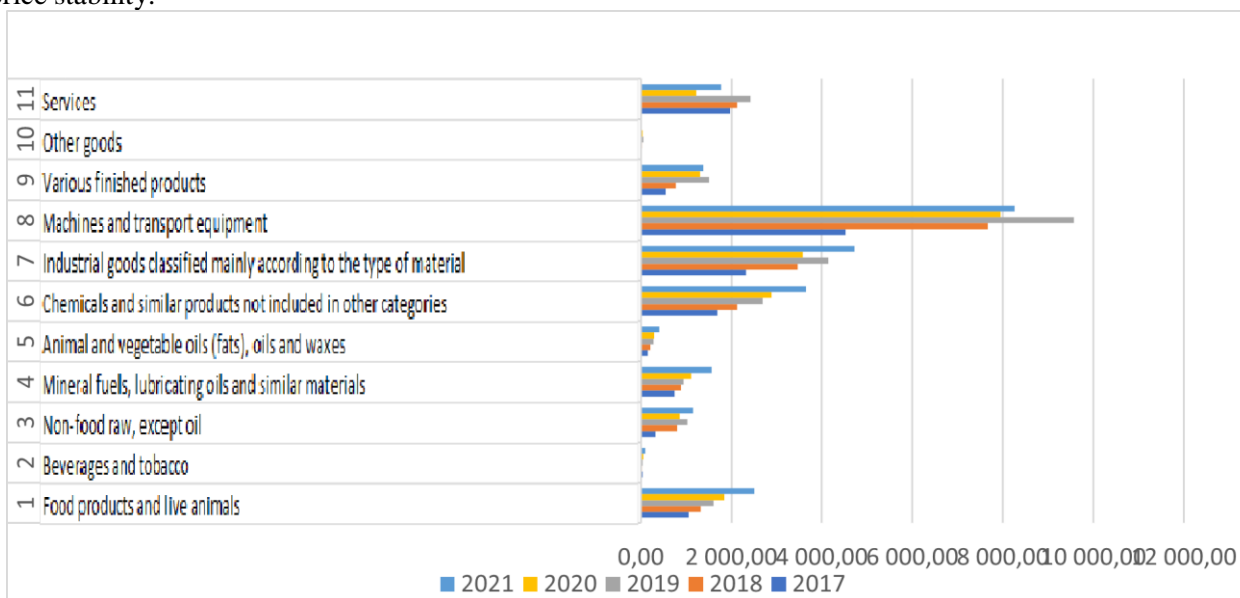
<sup>73</sup> <https://stat.uz/uz/rasmiy-statistika/industry-2>.



**1-picture. Growth rates of industrial output per capita<sup>74</sup>**

The rate of economic growth is related to the positive dynamics observed in the main sectors of the economy. If we analyze the picture of the growth of industrial production per capita, according to it, in 2017, Andijan - 121.4%, Khorezm - 116.3%, Tashkent region - 110.2%, Jizzakh - 109.2%, Namangan – 109.7%, the Republic of Karakalpakstan – 106.7%, Kashkadarya – 103.0%, Tashkent – 101.5%, formed at the expense of the regions, and a very small share is Syrdarya – 90, 3%, Fergana – 93.4%, Bukhara – 95.6%.

According to the data of the State Statistics Committee, in January-July 2021, as part of Uzbekistan's foreign trade turnover, exports amounted to 8.1 billion US dollars, while imports equaled 13.4 billion US dollars. Liberalization of foreign trade, reduction of various tariff and notary restrictions, measures to eliminate monopoly are being gradually implemented in our country. Also, by diversifying the geography of foreign trade, types of products and raw materials, as well as retailers and supplier countries, practical measures are being taken to ensure stable economic growth, satisfy the population's demand for food products, and ensure price stability.



**2-picture. Import content<sup>75</sup>**

In Figure 3 above, we can see that the content of imports has doubled over the last five years, and in 2017 it totaled 13,370.3 mln. amounting to US dollars, by 2021 - 25,507.7 million. We can see that the US dollar has increased. It is obvious that a large amount of goods, mainly cars and transport equipment, were

<sup>74</sup> <https://stat.uz/uz/rasmiy-statistika/industry-2>

<sup>75</sup> <https://stat.uz/uz/rasmiy-statistika/merchandise-trade-2>

imported. In 2017 - 4,517 and in 2021 - 8,252.4 million. The United States established the dollar. In 2017, industrial goods classified according to the type of material - 2,325.9 million U.S. dollars, chemicals and similar products not included in other categories - 1,695.7 million U.S. dollars and food food products and live animals - 1,049.0 million USD and doubled in 2021. The least amount of imported products are animal and vegetable oils (fats), oils and waxes - 160.1 million US dollars and mineral fuel, lubricating oils and similar materials - 742.1 million US dollars and it is expected to double in 2021.

After all the above statistical analysis, we will perform a correlation-regression analysis. In doing so, we achieved the following results directly using the stata14 application package:

	Y	X
Y	1.0000	
X	0.9784	1.0000
	0.0000	

3- picture. Correlation analysis matrix<sup>76</sup>

1. A correlational analysis was performed. It confirmed the strong direct proportional relationship between the import value and the volume of industrial production, as well as the significance of the found correlation coefficient in terms of p-value. This means that the volume of industrial production increases proportionally with the volume of imports.

Source	SS	df	MS	Number of obs =	12
Model	8.7769e+10	1	8.7769e+10	F( 1, 10) =	223.72
Residual	3.9231e+09	10	392311286	Prob > F =	0.0000
Total	9.1692e+10	11	8.3356e+09	R-squared =	0.9572
				Adj R-squared =	0.9529
				Root MSE =	19807

Y	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
X	1.969868	.1316989	14.96	0.000	1.676425 2.263312
_cons	-9303.689	8742.248	-1.06	0.312	-28782.63 10175.25

4- picture. Regression analysis result<sup>77</sup>

2. Regression analysis was performed. Regression analysis was performed using the Stata14 application package. In it, the parameters of the linear regression model were found and had the following form:

$$Y = -9303,689 + 1,969868 \cdot X + e$$

In this:

$$Import = -9303,689 + 1,969868 \cdot Manufacturing$$

Based on the OLS model, the change in the volume of industrial production by an additional 1 billion soums means that the import value will increase by 1.9 billion soums on an empirical basis.

<sup>76</sup> Muallif hisob-kitob natiajasi

<sup>77</sup> Stata14 amaliy paketi orqali olingan muallif hisob-kitobi



Average marginal effects  
Model VCE : OLS  
Number of obs = 12  
Expression : Linear prediction, predict()  
ey/ex w.r.t. : X

	Delta-method				
	ey/ex	Std. Err.	z	P> z	[95% Conf. Interval]
X	1.338757	.5432722	2.46	0.014	.2739627 2.403551

**5-picture. Average marginal value<sup>78</sup>**

Also, the elastic value of the parameter of the linear model found through regression analysis was found. Based on this, a 1% change in industrial production volume represents a 1.33% change in the output factor, and this value is significant in terms of p-value.

3. *Testing the built model.* As we mentioned in the methodology, we analyze the reliability of each factor included in the regression model according to the t-student test. The t-critical value of the coefficient of the model is insignificant in terms of p-value, which means that it is unreliable. Since the coefficient in front of the influencing factor was significant in terms of p-value, it was expressed as reliable. In addition, we can see from F-statistics how important the selected model shape is. According to the results of regression analysis, F=223.72 and it is significant in terms of p-value. This is a proof that the chosen linear regression model (OLS model) is chosen correctly.

## CONCLUSIONS AND SUGGESTIONS

Despite the fact that measures are being taken to expand the production of localized goods that replace imports, the volume of imports in our country is allowed to increase unreasonably. This leads to the inefficient use of foreign currency funds that can be directed to the implementation of important projects for the economy of our country to further expand the volume of production and create new jobs. The success of important socio-economic tasks such as improving the sectoral and territorial structure of the national economy, ensuring the rational employment of labor resources, increasing the competitiveness of national enterprises, and achieving economic security is largely dependent on increasing the level of localization of the production of finished products, components and materials on the basis of industrial cooperation. depends. Because as a result:

- stable and consistent development of the economy, reducing its dependence on external factors;
- to accelerate the implementation of new effective technologies in production processes;
- positive development of foreign economic activity;
- expansion of export potential by conducting an industrial policy aimed at creating high added value;
- it is possible to achieve results such as reducing the content of imports.

As a result of consistent reforms carried out in our country, a number of measures are being implemented to increase the volume of production and expand the types of industrial products, to satisfy the needs of the population for consumer goods. However, we came to the conclusion that the absence of a single system for the localization of industrial production in the republic is the reason for the underutilization of production capacities and the decrease in the level of creation of the added value chain through deep processing of local raw materials.

During our research, the results showed that in the current state of foreign trade in our country and its regions, there is no possibility of receiving stable foreign exchange earnings from the export of goods and services. The priority of raw materials in the structure of exports and the narrowness of the range of exported goods make our country and its regional economy dependent on economic changes in world markets.

Also, there are cases of inefficient use of imported technological equipment in our country, which is hindered by issues such as land allocation, construction permits, and connection to communication networks. It can be seen that there are opportunities to achieve economic efficiency as a result of reducing imports through localization of production, for which:

- Creation of a unified system for localization of production of industrial products in Uzbekistan;

<sup>78</sup> Muallif dastur orqali topgan natijasi

- to further accelerate the processes of localization of production in sectors and regions;
- mastering the production of components, spare parts and materials through full and effective use of existing production capacities;
- it is appropriate to pay special attention to the expansion of cooperation relations in the industry and optimization of the volume of imports.

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## WAYS OF DEVELOPING BRANDING PROCESS IN HIGHER EDUCATIONAL INSTITUTIONS

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**Abstract:** This article focuses on the key ways of developing the branding process in higher educational institutions. It examines strategies such as leveraging digital platforms, fostering student and alumni engagement, and aligning brand messaging with institutional missions and academic goals. The article provides practical guidance for higher education institutions aiming to build competitive and cohesive brands.

**Keywords:** branding, higher educational institutions, digital platforms, student engagement, brand messaging.

### INTRODUCTION

In the increasingly competitive landscape of higher education, branding has emerged as a vital tool for institutions to differentiate themselves and attract students, faculty, and partnerships. As globalization intensifies and educational choices expand, higher education institutions (HEIs) are finding it necessary to establish a strong and distinct brand identity. A well-developed branding process can help institutions communicate their values, vision, and unique academic offerings more effectively, creating a lasting impression on prospective students and stakeholders.

Branding in higher education is not limited to marketing efforts; it encompasses the institution's reputation, academic standards, student experience, and community engagement. According to scholars like Hemsley-Brown and Goonawardana (2007), a strong brand in higher education contributes to an institution's perceived value and increases its competitiveness in both local and international markets. As educational institutions strive to achieve prominence, they must adapt to modern branding strategies that resonate with diverse audiences and reflect the evolving needs of students in the digital age.

This article explores the various ways in which HEIs can develop and enhance their branding process. It focuses on strategies such as leveraging digital platforms, fostering student and alumni engagement, and aligning brand messaging with institutional missions and academic excellence. The insights provided aim to offer practical guidance for higher education institutions looking to build stronger, more cohesive brands in an increasingly dynamic educational environment.

### REVIEW OF LITERATURE ON THE SUBJECT

To increase the scientific potential of the Republic of Uzbekistan and introducing it to the world education market serves for creation a competitive environment for students and scholars, professors of this sector as well. In order to determine the priority areas of systemic reform of higher education in the Republic of Uzbekistan, to raise to a qualitatively new level the process of preparing independently thinking highly qualified personnel with modern knowledge and high spiritual and moral qualities, to modernize higher education, develop the social sphere and economic sectors based on advanced educational technologies<sup>79</sup>. Here, this situation requires that brand policy must be set in the right direction. Having a strong brand in a highly competitive environment will help address these issues. We should note about prestigious higher education institution (HEI) in the world, where strong brand management contributes to the successful operation of these companies, as Oxford there is no clear date of foundation but teaching existed at Oxford in some form in 1096, which has four academic divisions, within which are individual departments, faculties or other centers<sup>80</sup>. While speaking about University brand we should mention that it should represent all feelings and perceptions of every stakeholder of the organization.

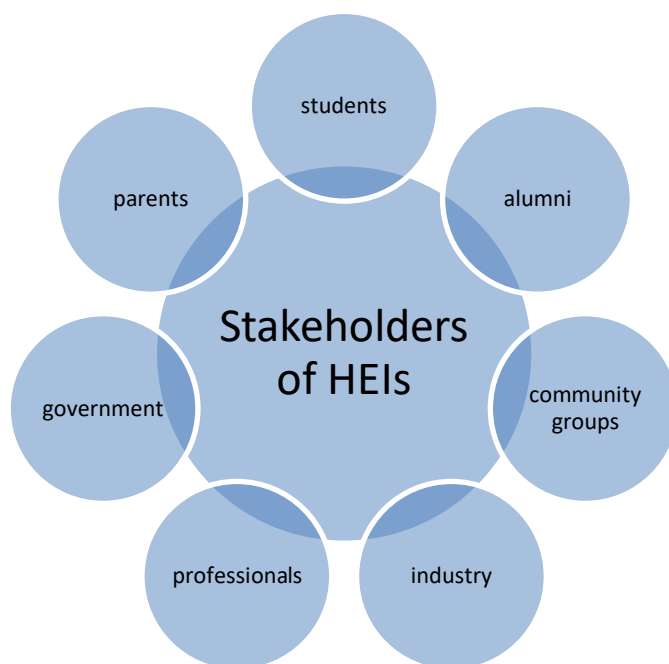
<sup>79</sup> On approval of the Concept of development of the higher education system of Uzbekistan until 2030, the Decree of the President of the Republic of Uzbekistan

<sup>80</sup> <https://www.ox.ac.uk/>

The issue of development tertiary education structure, which certainly influences to the brand of the organization, has been studied by scholars of our country; all these scientific works cover different aspects. In doctoral dissertation prof. D.Rahmonov justifies the methodology of formation of the amount of education fee depending on the scientific potential<sup>81</sup> and proposes to introduce the practice of public-private partnership as a priority aspect of increasing the volume of extra-budgetary funds in the field of higher education, while N.Zufarova proves in PhD dissertation that in the financial evaluation of the brand capital in the conditions of the formation of the brand of the higher education institution, the expediency of giving priority in the financial balance to foreign students and foreign listeners, sponsorship, extra-budgetary funds received from legal entities and individuals is based on the expediency<sup>82</sup>.

All these attempts try to increase the quality of education service in order to approach world standards, to increase competitive atmosphere and form a strong brand, which certainly serves to expand market share in the sector by satisfying consumers' needs and wants.

As perceived quality refers to students' and graduates' judgments about a higher education institution's overall excellence or superiority (Zeithaml, 1988), where scientific success of HEI and tuition fee paly not the last role; while reputation is the overall value, esteem, and character of a brand as seen or judged by people in general (Chaudhuri, 2002)<sup>83</sup>.



**Figure1 Stakeholders of HEI**

Each stakeholder pursue own goal in the improvement and future development of their organization, where students care about the quality of courses delivered and influence for job prospective, while professionals' worries are the quality of students who have chosen this HEI to study.

## RESEARCH METHODOLOGY

In the implementation of these research works, widely used methods in scientific research methodology were used. The use of deductive or inductive methods in the order from generality to individuality and vice versa is effective in studying the subject, and the method of abstract-logical thinking is important in the systematic analysis of the process. In the process of scientific analysis, these scientific research methods, in particular, observation, generalization, grouping, comparison, analysis, and synthesis and analysis methods were widely used.

## ANALYSIS AND RESULTS

In order to be distinguished in the market by consumers and investors every business tries to develop own strategy to make its brand strong and effective, otherwise it may lose not only the profit and prestige, but

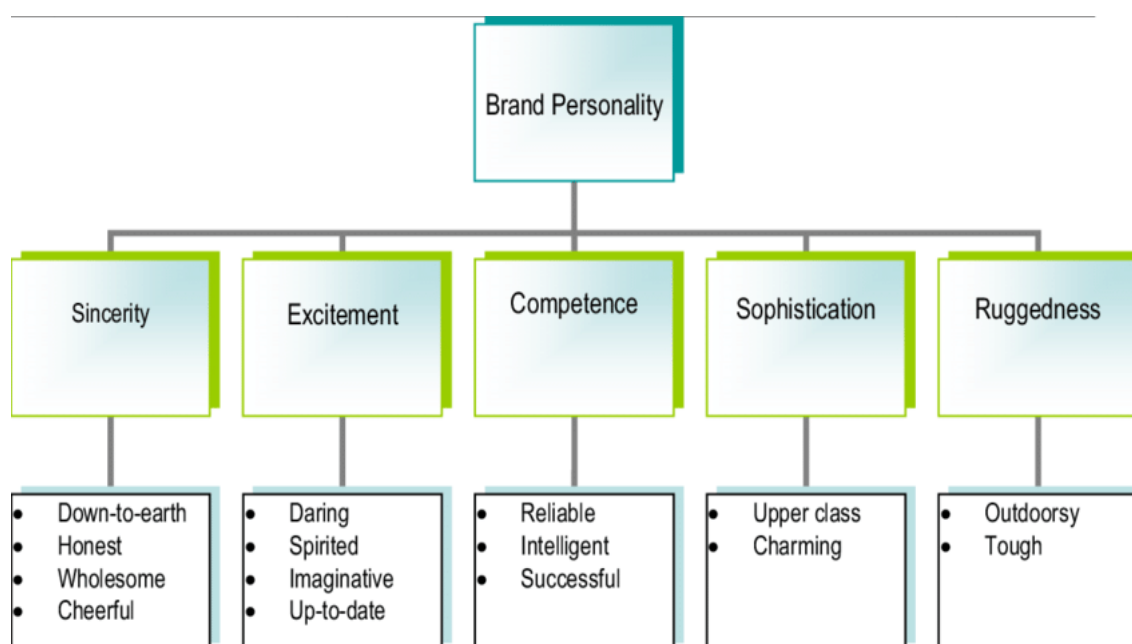
<sup>81</sup> D.A. Rahmonov, Improving the methodological foundations of financing the social sphere in Uzbekistan, T: TSUE, 2018, 72 p.

<sup>82</sup> N.G.Zufarova, Improving the management of brand capital in higher education, T.: TSUE, 2022.

<sup>83</sup> The role of brand attachment strength in higher education, Charles Dennis, Savvas Papagiannidis, Eleftherios Alamanos, Michael Bourlakis, Journal of Business Research Volume 69, Issue 8, August 2016, Pages 3049-3057.

the share in the market. A company may hire a good leader and a team to create a strong brand, however the main problem is to deliver it effectively for a long period of time, as advanced IT and globalization impacts to the process of strengthening the brand highly, making aware everyone about existing the similar product or service.

Since the external environment has a significant impact on the process, it is not enough just hiring good specialists to deal with the situation, it will be more effective to constantly monitor it and search for methods of adaptation to its changes, paying attention to intellectual part of the asset, as some ears ago it was not customary to pay attention to the material element in the asset structure, however it includes main point in every company, as trademark, company name and others. The solution of the problem of asset management plays an important role in the implementation of strategic directions for each business unit operating in the economy. In the past, only material elements were taken into account in the structure of assets, but now the role of intellectual property or capital is growing in accordance with the requirements of the innovative economy. Because the main objects of intellectual property (capital) include industrial property, trademark (brand), company name, customer base, business reputation and others.



**Figure 2 Dimensions of brand personality** <sup>84</sup>

Philipp A. Rauschnabel and others developed University Brand Personality Scale (UBPS), based on the studies of qualitative and quantitative research, conducted in Germany and in the U.S.A., which consists of six dimensions: 1) prestige, 2) sincerity, 3) appeal, 4) lively, 5) conscientiousness, and 6) cosmopolitan. The research intends to develop a widely applicable scale capable of capturing UBPS for universities in multiple countries. Managerial implications include the provision of a measure to assess university brand personality to assist in constructing a desirable brand helping universities to attract students, faculty, sponsorships, and alumni support, while working to improve the overall image of the institution (Melewar & Akel, 2005)<sup>85</sup>. As education market increases competitiveness of the country by creating appropriate labor force to increase public prosperity, brand personality, certainly is a great importance, as it is a framework that helps a company or organization shape the way people feel about its product, service, or mission and results in increased brand equity and defines the brand's attitude in the marketplace. It is also the key factor of any successful marketing campaign<sup>86</sup>. In some cases brand personality is confused with imagery of the brand, here we should remember that imagery deals with tangible profit of the brand, while brand personality intends to creative positive emotional perception of a customer or a segment. Figure illustrates five dimensions of brand personality by Aaker trying to show the attitude of them.

Due to the development of interment and globalization requires from any type of organization being presence not only in the marketplace, but also online, where brand personality is a great importance. No matter

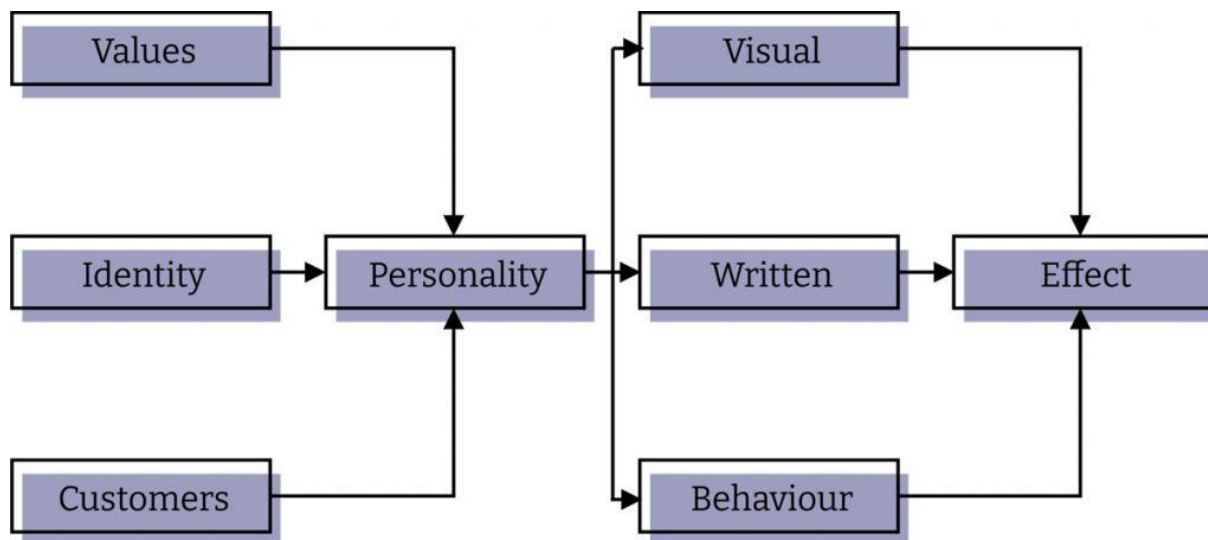
<sup>84</sup> Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 34(3), 347–356

<sup>85</sup> Philipp A. Rauschnabel, Nina Krey, Barry J., Babin , Bjoern S. Ivens, Brand management in higher education: The University Brand Personality Scale, *Journal of Business Research*, 2016

<sup>86</sup> <https://www.investopedia.com/>

in which country you live or where you go your brand should be familiar for everyone, as a brand of Apple. The Apple brand personality is also about simplicity and the removal of complexity from people's lives; this starts from Apple stores, from how the staff dresses, the gadgets they use and how they address the customers. Apple focuses on being a really humanistic company with a heartfelt connection with its customers. Through these qualities, Apple is positioned as being extremely helpful to people (and businesses) as they strive to achieve their goals<sup>87</sup>.

Speaking about educational services the whole management, faculty and even campus should illustrate the care for their customers, worrying about their convenience in learning process, making it efficient and effective. The practice and knowledge they obtained at the educational institution should serve for their prosperity and prosperity of the society in the future.



**Figure 3<sup>88</sup> Brand personality is the cornerstone of effective communications – it informs the way you write, the imagery you use and the way your people behave.**

As it can be seen in the figure all power has been directed to let customers know about the product or service we produce using all means of communication. As development of internet and globalization impacted to it positively and negatively, letting the customer to be aware all positive and negative situations happening with the brand, affecting to their point of view according to the condition and spreading person, the last sometimes can be fraudster.

Studying all needs and wants of students, their parents and experienced personnel, digital marketing as well, ComboApp highlights 10 useful techniques to use as part of an effective higher education marketing strategy:

- Branding
- Search Engine Optimization
- A Great Website Experience
- Social Media Marketing
- Livestreaming
- Email Marketing
- Interactive Advertising
- Leveraging Alumni and Students
- Distance Learning
- Pay Per Click Advertising<sup>89</sup>

It should be noted that all these techniques have been combined with digital marketing, as universities should target to serve as one measure of progress toward a curriculum more in tune with the emerging digital

<sup>87</sup> <https://www.outsidethesquare.com/news/brand-personality-how-to-make-your-brand-stand-out-in-the-digital-world>.

<sup>88</sup> <https://www.outsidethesquare.com/news/brand-personality-how-to-make-your-brand-stand-out-in-the-digital-world>.

<sup>89</sup> <https://comboapp.com/higher-education-marketing-agency/higher-education-marketing-strategies>

environment<sup>90</sup>. Managerial implications include the provision of a measure to assess university brand personality to assist in constructing a desirable brand helping universities to attract students, faculty, sponsorships, and alumni support, while working to improve the overall image of the institution.

## CONCLUSION AND SUGGESTIONS

To be recognized as an equal partner by the world community and powerful states, to enter the global market in equal rights, every country needs well-qualified and well-experienced leaders and population. In order to have this kind of specialist, a student studying in tertiary education should be educated by highly qualified personnel with modern knowledge and high spiritual and moral qualities. To achieve this goal the government is paying much attention to modernize higher education, develop the social sphere and economic sectors based on advanced educational technologies by permitting private and foreign competitors enter the education market. This in its turn raise competitiveness among public and private HEL, struggling to keep share in the market, impacts to the education quality positively. To provide advantages in the sector the creation and strengthening a brand is the main strategic direction, while a strong brand serves for prosperity of the establishment for many ears.

As a main strategic direction a strong brand serves to increase the student and well-qualified faculty flow to the company, recognition in the local and global market, expanding its market share by customer loyalty and retention.

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<sup>90</sup> Digital Marketing: The Time for a New “Academic Major” Has Arrived, Cliff Wymbs, *Journal of Marketing Education*, 33 (1) (2011), pp. 93-106.

# COMPARATIVE ANALYSIS OF GREEN FINANCE INITIATIVES: A GLOBAL PERSPECTIVE

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**Abstract:** This article presents a comparative analysis of green finance initiatives across different countries. It examines strategies for promoting green finance in regions such as the European Union, China, and the United States, while also exploring the barriers to green finance access in developing nations. The analysis highlights the disparities and opportunities within the global green finance system.

**Keywords:** green finance, green bonds, sustainable investments, global finance, climate change.

## INTRODUCTION

Green finance has become a critical component in the global effort to combat climate change and promote sustainable development. Defined as financial activities that support environmentally beneficial projects, green finance includes mechanisms such as green bonds, green loans, and sustainable investment funds. The global green finance market has seen impressive growth, with green bond issuance alone reaching approximately USD 600 billion in 2023 [1]. This expansion reflects the increasing commitment of both developed and developing countries to address environmental challenges through innovative financial solutions.

The development of green finance can be traced to the early 2000s, when addressing environmental issues started gaining widespread attention. Originally concentrated on niche markets, green finance has since grown to encompass a wide range of financial instruments and strategies. Key components of green finance include:

- **Green Bonds:** Debt securities issued to raise funds specifically for projects with positive environmental impacts, such as renewable energy and energy efficiency [2].
- **Sustainable Investment Funds:** Investment vehicles that integrate environmental, social, and governance (ESG) criteria into their investment processes [3].
- **Climate Risk Management:** Strategies and tools used to assess and manage the financial risks associated with climate change [4].

International frameworks and agreements play a crucial role in shaping and promoting green finance. The Paris Agreement, adopted in 2015, is a landmark treaty aimed at limiting global warming to well below 2 degrees Celsius, with an aspirational goal of 1.5 degrees Celsius [5]. It highlights the importance of mobilizing financial resources to support low-carbon and climate-resilient development. Additionally, the United Nations Sustainable Development Goals (SDGs), particularly Goal 13 (Climate Action) and Goal 7 (Affordable and Clean Energy), underscore the need for substantial investments in sustainable development and environmental protection [6].

## REVIEW OF LITERATURE ON THE SUBJECT

Green finance has emerged as a critical element in the global transition toward a more sustainable and low-carbon economy. It encompasses financial initiatives that promote environmental sustainability by encouraging investments in renewable energy, sustainable infrastructure, and projects aimed at mitigating climate change. According to Wang and Zhi, green finance includes a broad range of financial products such as green bonds, climate-related insurance, and green investment funds, all of which aim to channel capital towards environmentally beneficial projects.

The rise of green finance can be traced back to the increased focus on environmental issues in the late 20th century, but it gained significant traction with the adoption of the Paris Agreement in 2015. The



Agreement has encouraged countries worldwide to develop policies and financial mechanisms to meet their climate goals. The European Union (EU), for instance, has been at the forefront of promoting green finance through initiatives like the European Green Deal and the creation of the EU taxonomy, which provides clear definitions of what qualifies as a green investment (European Commission, 2020).

China has also become a key player in the green finance space. According to Ma and Zadek, China's Green Finance Committee has been instrumental in the development of green bond markets, making China one of the largest issuers of green bonds globally. The People's Bank of China has established guidelines and policies to support green lending and investments, making green finance a central part of China's economic strategy for addressing environmental challenges.

In conclusion, green finance is an essential tool for advancing global sustainability goals, but its effectiveness varies significantly across regions. A comparative analysis of green finance initiatives shows that while developed economies have made significant strides, emerging markets and developing nations require more targeted support to fully harness the potential of green finance.

## RESEARCH METHODOLOGY

In the implementation of these research works, widely used methods in scientific research methodology were used. The use of deductive or inductive methods in the order from generality to individuality and vice versa is effective in studying the subject, and the method of abstract-logical thinking is important in the systematic analysis of the process. In the process of scientific analysis, these scientific research methods, in particular, observation, generalization, grouping, comparison, analysis, and synthesis and analysis methods were widely used.

## ANALYSIS AND RESULTS

This assessment examines the effectiveness and impact of green economy initiatives in various countries by evaluating key metrics, including the growth of green finance, environmental benefits, policy effectiveness, and economic performance.

The European Union has experienced significant growth in green finance, driven by its sophisticated regulatory frameworks. The presence of high ESG ratings and substantial assets under management indicates a well-established green finance sector. Additionally, the reduction in greenhouse gas emissions underscores the success of these green finance efforts.

In the United States, the green finance sector has seen impressive growth, characterized by high returns and significant assets under management. The effectiveness of climate risk management and the strong performance of sustainable investment funds demonstrate the success of green finance strategies in the U.S.

India's green finance sector is expanding rapidly, with considerable progress in renewable energy investments. However, challenges such as regulatory hurdles and issues with data transparency limit the full realization of green finance initiatives.

Brazil has made notable strides in green bond issuance and has developed innovative solutions for environmental issues. The success of the Amazon Fund in reducing deforestation illustrates the impact of focused green finance strategies. Nonetheless, the overall development of the sector is still ongoing.

This evaluation provides a comprehensive view of how green finance strategies perform across different regions and offers insights into improving and scaling green economy initiatives globally [18].

## GREEN FINANCE IN DEVELOPED COUNTRIES

**European Union.** In the European Union, green finance has seen substantial development, supported by sophisticated regulatory frameworks and significant investments in sustainable initiatives. The EU has implemented strong mechanisms such as the EU Green Taxonomy and Green Bond Standard, which have led to considerable growth in green bond issuance and other environmentally-focused financial products [8][9]. These actions have led to significant decreases in greenhouse gas emissions and positioned the EU as a frontrunner in integrating environmental factors into financial markets. Overall, green finance in the EU is characterized by a well-developed sector that excels in both financial returns and environmental impact.

Green finance initiatives have achieved significant success in the European Union. The EU green bond market has experienced rapid expansion, with green bond issuance hitting €370 billion in 2023, marking a 23% annual growth rate since 2018. Over the past five years, green bonds have contributed to a 10% reduction in greenhouse gas emissions. Moreover, green bonds in the EU have delivered an average annual return that exceeds traditional bonds by 1.5%.

**United States.** In the United States, green finance has significantly advanced with the growth of sustainable investment funds and climate risk management practices [10][11]. These funds have achieved notable success, often delivering higher returns compared to traditional investment options. Financial institutions in the U.S. are increasingly incorporating climate risk assessments into their strategies, which has led to improved portfolio resilience and enhanced investor confidence [18]. Overall, green finance in the U.S. exhibits robust financial performance alongside significant environmental advantages.

Sustainable investment funds have emerged as a key component of green finance in the United States. In 2023, the total assets managed by U.S. sustainable investment funds exceeded \$1 trillion. These funds have delivered an average annual return of 8.0% and boast an average ESG score of 80. Financial institutions in the U.S. that have integrated climate risk assessments into their strategies have observed a 15% reduction in climate-related portfolio risk. Additionally, U.S. sustainable investment funds have achieved returns that are 2% higher than those of traditional funds, highlighting increasing investor confidence in green finance.

**Table 1: Performance Metrics of Sustainable Investment Funds (2023)**

Region	Total Assets Under Management (\$ Billion)	Average Annual Return (%)	Average ESG Score (0-100)	Number of Funds
European Union	800	7.5	85	350
United States	1,000	8.0	80	500
India	50	6.5	70	30
Brazil	20	7.0	75	15

Prepared by the author based on sources such as European Investment Bank (EIB) Reports, US SIF. Report on Sustainable Investment Funds, Securities and Exchange Board of India (SEBI). Green Bond Market Overview, Brazilian Ministry of Environment. Amazon Fund Annual Report.

### **GREEN FINANCE IN DEVELOPING COUNTRIES**

**India.** In India, green finance is essential for promoting economic growth and improving environmental sustainability. The country has made notable progress with green bonds and investments in renewable energy projects, which have expanded its renewable energy capacity and supported sustainable economic advancement. Despite these successes, regulatory challenges and issues with data transparency still pose obstacles to fully realizing the potential of green finance initiatives [17]. Overall, green finance in India is vital for tackling climate change, advancing sustainable development, and stimulating economic growth.

India has made notable progress in green finance, especially through green bonds and investments in renewable energy. In 2023, the issuance of green bonds in India reached \$10 billion, reflecting a 20% increase compared to the previous year.

- **Renewable Energy Impact:** Gupta et al. report that green investments in renewable energy have led to a 12% increase in India's solar power capacity over the last three years.
- **Economic Impact:** Ghosh highlights that green finance initiatives have created around 500,000 jobs in India's renewable energy sector.

**Brazil.** Green finance in Brazil is essential for directing investments into sustainable and environmentally responsible projects. Green finance in Brazil is pivotal in directing investments toward sustainable and eco-friendly projects. It supports renewable energy initiatives, such as solar and wind power, which are crucial for reducing greenhouse gas emissions. By investing in conservation and sustainable land management, green finance helps protect Brazil's rich ecosystems, particularly the Amazon. It promotes innovation by funding technologies that reduce environmental impact, including advanced recycling techniques. Green finance attracts global investors focused on eco-friendly ventures, thereby strengthening Brazil's presence in the international market. It enhances resilience through investments in climate adaptation and disaster risk reduction. Additionally, this sector creates jobs and stimulates economic growth in clean

energy and sustainable agriculture. It encourages companies and financial institutions to adopt Environmental, Social, and Governance (ESG) standards, fostering more sustainable business practices. The expansion of green finance also supports the development of regulatory frameworks that enforce environmental accountability and raises public awareness about sustainability issues, nurturing a culture of environmental responsibility in Brazil.

Brazil has introduced creative green finance solutions, such as the Amazon Fund, which targets the reduction of deforestation. In 2023, the Amazon Fund secured \$500 million through donations and investments. In addition to the Amazon Fund, Brazil has also made strides in green finance through the expansion of its green bond market. In 2023, Brazil issued approximately \$10 billion in green bonds, marking a significant increase from previous years. These bonds fund projects focused on renewable energy, sustainable infrastructure, and environmental conservation. This growth underscores Brazil's ongoing efforts to integrate environmental considerations into its financial system and promote sustainable development. Despite these successes, the green finance sector in Brazil continues to face challenges, including the need for further development and enhanced regulatory support [19]. Overall, Brazil's green finance initiatives have made substantial contributions to environmental conservation and sustainable development [14][19].

- **Deforestation Reduction:** Nascimento and Lima state that the Amazon Fund has achieved a 25% reduction in deforestation rates in the Amazon region over the past five years.

- **Financial Performance:** Kuzemko et al. report that investments in Brazilian green projects have delivered an average annual return of 8%, outperforming the 6% return of traditional investments.

**Table 2**

**The data provided is current as of 2024 and focuses on renewable energy capacity, green investment, and emissions reduction targets**

Region/Country	Renewable Energy Capacity (2024)	Green Investment (2024, USD billion)	Emissions Reduction Target	Green Bond Issuance (2023, USD billion)
<b>European Union</b>	1,200 GW (total renewable capacity)	65	55% reduction by 2030 (from 1990 levels)	52
<b>United States</b>	950 GW (total renewable capacity)	150	50-52% reduction by 2030 (from 2005 levels)	30
<b>India</b>	475 GW (total renewable capacity)	25	33-35% reduction by 2030 (from 2005 levels)	15
<b>Brazil</b>	200 GW (total renewable capacity)	10	37% reduction by 2025 (from 2005 levels)	8

Prepared by the author based on sources such as Compiled from various sources, including European Commission, U.S. Energy Information Administration, Ministry of New and Renewable Energy (India), and Brazilian Ministry of Mines and Energy.

This table and description provide an overview of how various regions are progressing in their green economy initiatives, emphasizing renewable energy capacity, financial investments, emissions targets, and green bond issuance.

The European Union excels in renewable energy capacity, green investments, and green bond issuance, underscoring its comprehensive and leading approach to fostering a green economy. The United States follows closely, showcasing the highest green investment levels, which reflect a significant financial commitment to sustainability. India is making rapid strides, especially in expanding renewable energy and green finance, although its total investments are smaller compared to those of the EU and the U.S. Brazil, while reporting

lower figures in some areas, demonstrates significant progress and a strong commitment to sustainability within its context. Each region's strategy highlights its unique economic, environmental, and policy priorities in advancing a green economy.

In developed countries like the European Union and the United States, green finance has demonstrated substantial effectiveness in both environmental and financial terms. The robust regulatory frameworks, advanced financial infrastructure, and substantial capital availability have enabled these regions to implement large-scale green projects successfully. For instance, the exponential growth of green bonds in the EU and the high performance of sustainable investment funds in the U.S. highlight the benefits of well-developed financial systems and supportive policies [4;10].

The findings show that these countries are successfully incorporating environmental factors into their financial markets, resulting in noticeable decreases in greenhouse gas emissions and improved financial returns. Nevertheless, the ongoing challenge is to sustain this progress and keep innovating in green finance to tackle new environmental challenges and adjust to changing market conditions.

Developing nations such as India, Brazil, and Kenya display notable innovation and adaptability in their green finance efforts. Despite encountering financial and institutional limitations, these countries have deployed inventive strategies to tackle local environmental issues. For instance, India's expansion in green bond markets and renewable energy investments, Brazil's effective reduction of deforestation through the Amazon Fund, and Kenya's implementation of mobile-based solar financing solutions underscore the capacity of green finance to produce substantial environmental and economic benefits.

The data indicate that although developing countries may lack the financial resources of developed nations, their innovative strategies can lead to significant impacts. By concentrating on localized and scalable solutions, these countries are able to address urgent environmental challenges effectively.

#### **The comparative analysis highlights several regional differences in green finance practices:**

**Financial Infrastructure:** Developed countries benefit from sophisticated financial markets and supportive regulatory frameworks that enable substantial investments in green finance. In contrast, developing nations frequently depend on innovative financial mechanisms and international support to overcome resource constraints.

**Investment Scale and Scope:** Green finance investments are typically larger in scale within developed countries, whereas developing nations often focus on more targeted and smaller-scale projects. This disparity in investment magnitude can significantly influence the overall environmental and economic impacts of green finance initiatives.

**Regulatory and Policy Environments:** The success of green finance initiatives in developed countries is largely attributed to their strong policy and regulatory frameworks. To improve green finance outcomes, developing countries may need to adapt these regulatory structures to their specific contexts and promote innovation in financial mechanisms.

#### **Best Practices from Developed Countries**

- **Comprehensive Regulatory Frameworks:** Developed countries typically possess well-established policies that bolster green finance, including precise definitions, standards for green bonds, and incentives for sustainable investments[9].

- **Advanced Financial Markets:** The availability of sophisticated financial instruments and well-developed markets improves the efficacy of green finance initiatives[16]

#### **Best Practices from Developing Countries**

- **Innovative Financing Mechanisms:** Developing countries demonstrate creativity in financing green projects, such as mobile-based solar solutions and community-driven conservation efforts [14].

- **Localized Solutions:** Tailoring green finance initiatives to local needs and contexts enables more effective implementation and greater impact [13].

#### **CONCLUSION**

The comparative analysis of green finance across the European Union, the United States, India, and Brazil reveals significant regional variations in strategies, effectiveness, and outcomes. The European Union is distinguished by its advanced regulatory frameworks and substantial green finance investments, resulting in notable progress in reducing greenhouse gas emissions and promoting sustainable financial practices. The United States, while close behind, benefits from substantial green investment funds and innovative climate risk management strategies that deliver both strong financial returns and environmental benefits.

India's green finance sector is characterized by rapid growth and significant investments in renewable energy, showcasing a strong commitment to sustainability despite regulatory and data transparency challenges.

Brazil's green finance efforts, highlighted by initiatives such as the Amazon Fund and a growing green bond market, demonstrate distinctive approaches to addressing environmental issues like deforestation while advancing its green finance sector.

Developed countries leverage established financial systems and comprehensive policies to enhance the effectiveness of their green finance initiatives. In contrast, developing countries exhibit considerable innovation and adaptability, customizing their green finance strategies to address local challenges and opportunities. This analysis underscores the importance of region-specific approaches, advocating for the ongoing refinement of policies in developed nations and improvements in regulatory and data transparency in developing countries.

To advance global green finance, policymakers and practitioners should capitalize on regional strengths, with developed countries refining their frameworks and developing nations enhancing their regulatory environments and fostering innovation. Strengthening international cooperation and knowledge sharing will be crucial for scaling green finance efforts and achieving global sustainability goals.

This comparative study provides valuable insights into the diverse approaches and accomplishments in green finance across various regions, offering practical recommendations for advancing green finance strategies and supporting a more sustainable future.

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## IMPROVING ANALYTICAL AND SYNTHETIC ACCOUNTING OF COSTS AND OUTPUT IN ANIMAL HUSBANDRY

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**Abstract:** This article examines the improvement of analytical and synthetic accounting methods for tracking costs and output in animal husbandry. The study analyzes the role of modern technologies in optimizing costs and enhancing financial analysis, as well as the importance of accounting for environmental costs. It also discusses the main challenges in implementing these methods in developing countries.

**Keywords:** animal husbandry, cost accounting, analytical and synthetic accounting, modern technologies, environmental costs.

### INTRODUCTION

In the following years, several regulatory and legal documents were adopted to improve the livestock sector and accounting work in it. In particular, of the President of the Republic of Uzbekistan dated January 28, 2022 "On the new strategy for the development of Uzbekistan in 2022-2026" PF-60 [1], March 28, 2019 "On measures to fundamentally improve the state management system in the field of veterinary and animal husbandry" No. PF-5659 [2], October 23, 2019 "On approval of the strategy for the development of agriculture of the Republic of Uzbekistan in 2020-2030" Decree No. PF-5853 [3] and "Measures for further development of animal husbandry, coordination of network activity and improvement of efficiency - activities" dated August 17, 2018 PQ-285 [4], March 18, 2019 "On measures to further develop and support the livestock sector" No. PQ-4243 [5], March 3, 2021 "On further support of the livestock sector by the state on additional measures" No. PQ-5017 [6], dated February 8, 2022 "On approval of the program for the development of the livestock sector and its branches in the Republic of Uzbekistan for 2022-2026" No. PQ-120 [7], dated February 24, 2020 "Additional measure on the transition to international standards of financial reporting Decision No. PQ-4611 [8]. Fulfilling the tasks specified in these normative legal documents is considered a very important issue.

In the context of the development of the national economy, it is important to organize and maintain the initial, analytical and synthetic accounting of production costs and the obtained products in farms specializing in animal husbandry. In the animal husbandry industry, many primary documents are used in accounting for expenses and received products. These are mainly divided into initial documents that take into account costs and products received. Animal husbandry costs consist of labor costs, labor tools, livestock workers' wages. Based on the characteristics of these expenses, it is recommended to proceed with the following initial documents. For example, the initial account of spent fodder is kept in the "Forage consumption record" (form 94), and the cumulative account is kept in the "Special journal on fodder consumption" (form 35), which records them. Separate pages for each type and group of livestock show the amount of fodder consumed, their feed unit, the amount converted into protein, as well as the number of feed-days. Based on the aggregated data of this journal, a summary account of fodder consumption is created. Other material assets (medicines, biopreparations, etc.) used in animal husbandry are formalized with limit-order cards and consignment notes in the prescribed manner.

### REVIEW OF LITERATURE ON THE SUBJECT

Animal husbandry is a critical sector within agriculture, contributing significantly to food production and rural livelihoods. Efficient cost management and output tracking are essential for ensuring profitability and sustainability in this sector. Analytical and synthetic accounting methods have been widely discussed in the literature as tools for improving financial transparency and operational efficiency in animal husbandry.

According to Drury (2018), cost accounting in agriculture, particularly in livestock farming, requires detailed tracking of both direct and indirect costs. These include feed, labor, veterinary services, and depreciation of equipment. Analytical accounting provides a framework for categorizing these costs, allowing farm managers to make informed decisions on resource allocation and cost reduction. Synthetic accounting, on the other hand, consolidates these data into comprehensive reports that give a clear overview of the financial health of the operation.

Another key element in improving accounting in animal husbandry is the integration of environmental costs. As noted by Johnson and Adams (2019), sustainable livestock farming requires accounting for environmental externalities such as greenhouse gas emissions and water usage. Including these costs in financial reports can help farmers make more sustainable decisions, while also appealing to consumers and investors who prioritize environmental responsibility.

In developing countries, the challenges of implementing sophisticated accounting systems in animal husbandry are more pronounced. A study by Tsegaye et al. (2015) in Ethiopia highlighted the need for capacity-building initiatives that teach farm managers how to use analytical and synthetic accounting tools effectively. These countries often lack the infrastructure and technology to fully adopt modern accounting systems, but efforts to enhance financial literacy and provide affordable accounting solutions are gradually improving the situation.

In conclusion, improving analytical and synthetic accounting of costs and output in animal husbandry is critical for enhancing the profitability, sustainability, and transparency of livestock farming. While advanced accounting systems are increasingly being implemented in developed countries, developing regions will need continued support to integrate these practices effectively.

## RESEARCH METHODOLOGY

In the implementation of these research works, widely used methods in scientific research methodology were used. The use of deductive or inductive methods in the order from generality to individuality and vice versa is effective in studying the subject, and the method of abstract-logical thinking is important in the systematic analysis of the process. In the process of scientific analysis, these scientific research methods, in particular, observation, generalization, grouping, comparison, analysis, and synthesis and analysis methods were widely used.

## ANALYSIS AND RESULTS

Livestock workers should be paid according to the quantity and quality of the products produced. In this case, the documents that formalize the products obtained from livestock farming ("Milking record book", "Deed of receipt of born offspring", "Livestock weight measurement record", "Deed of transfer of livestock from group to group", etc.) are the basis for payment of labor. Based on these documents, the calculation of wages for livestock workers is made. The account of the working time of livestock workers is kept in "Tabel". In practice, there are cases where all the requisites for obtaining information are not specified in such preliminary and summary documents, and the rules of their maintenance are not fully observed.

Therefore, it is important to improve initial accounting documents in dairy cattle breeding. This led to the preparation of recommendations on the improvement of the following primary documents: "Acceptance of coarse and succulent feed", "Acceptance of feed from pastures", "Feed accounting record", "Milking accounting log", "Livestock breeding certificate of importation", "Certificate of transfer of livestock from group to group", "Consignment letter of shipment (reception) of milk and milk products", "Cattle driving record", "Livestock weighing record numbered...", "Added weight identification record", "Milk movement record", "Livestock removal record from the main herd", "Livestock and poultry release record", "Livestock slaughter and unclean death account".

Analytical accounting of expenses in farms and limited liability companies specializing in animal breeding should be carried out in analytical accounts opened according to the species, age and sex of animals:

1. *Animal protection means;*
2. *Food, including:*
  - a) *purchased and produced in the past ears;*
  - b) *produced in the current ear itself;*
3. *Oil products;*
4. *Fuel and energy (for technological purposes);*
5. *Works and services of goods suppliers and contractors;*

6. Salary, including:

- a) main;
- b) addition;
- c) *in kind*;
- d) other payments;

7. Social tax;

8. Maintenance of fixed assets, including:

- a) depreciation;
- b) repair and maintenance of fixed assets;
- 9. Works and services of auxiliary productions;
- 10. Taxes, fees and other fees;

11. *Losses from the death of animals*;

12. General production costs;

13. Insurance payments;

14. General economic costs;

15. Other expenses.

1. Animal protection means includes biopreparations, medicines and disinfectants to protect animals from various diseases, as well as expenses related to their use.

2. In the food item, consumption of feed, especially fodder for animals (including working animals) grown by the farm, purchased from suppliers in the base ear and the reporting ear is taken into account. Since the consumption of purchased and prepared fodder at the farm itself is accounted for separately by their types in the journal "Feed consumption", it is combined and accounted for by this item in the analytical accounting register. The expenses of fodder preparation workshops are also opened in this article, a separate analytical account is taken into account and distributed in proportion to the amount of prepared fodder.

3. Petroleum products include gasoline, diesel fuel and other petroleum products.

4. Fuel and energy (for technological purposes) article includes fuel and energy consumption intended for technological purposes.

5. The fee paid for the services provided by foreign organizations for this cattle breeding network is taken into account in the article of works and services of goods suppliers and contractors.

6. Salary (including: - basic; - additional; - in kind; - b additional payments) calculated in the article basic and additional wages, fees paid in kind and other payments are taken into account.

7. Social tax amounts calculated in relation to wages are reflected in the social tax article.

8. Maintenance of fixed assets (including: - amortization; - repair and maintenance of fixed assets) includes the cost of maintaining fixed assets used in the industry. Expenses incurred for the restoration of inventory and household equipment and devices are also taken into account in this item.

9. In the article of works and services of auxiliary productions, auxiliary productions include motor transport, repair shop, horse-drawn transport, electricity, gas and water supply and other auxiliary production costs.

10. Taxes, fees and other fees paid by the economic entity are taken into account in the article of taxes, fees and other payments.

11. Losses from the death of animals expenses for losses from the death of working and productive animals, breeding and feeding animals are taken into account.

12. The costs and expenses of production management in livestock complexes, farms, etc. are taken into account in the item of costs of production organization and management.

13. The article "Insurance payments" reflects the payments related to compulsory insurance of work animals, young and productive cattle, poultry, rabbits, beekeeping, as well as buildings, structures and equipment used in animal husbandry. Livestock insurance premiums are transferred directly to the expenses of the relevant account group. In livestock farming, the insurance payments calculated on the fixed assets are distributed among the accounting groups of the livestock farming in proportion to the maintenance costs of the fixed assets.

14. Economic costs are taken into account in the article of general economic costs.

15. The item "Other expenses" reflects expenses directly related to production, but not included in the above expenses. These include: the costs of fencing around farms, construction of disinfection pits and other costs; bedding; special clothes and shoes given to milkmen, cowherds and other employees, summer camps for livestock, sheds and other non-capital construction costs. Also, expenses for animal husbandry, which were



previously taken into account in accounts (3110, 3120, 3190) that take into account 3100-"Expenses of the future period", and then are distributed evenly during the period of their reimbursement or in proportion to the volume of produced products (work performed and services provided) the relevant part is also taken into account under this article (Table-1).

**Table-1**

**Record of accounting of expenditure and received products for dairy cattle farming in "MEHNAT BAKHTLI SUT" LLC (recommendation) [9] January-2022**

№	Expenses	Analytical account objects							debit total	Correspondence of accounts
		Long-term biological assets - animals			Current biological assets are animals			And others		
		Beginning of the ear	month	total	Beginning of the ear	month	total			
1	2	3	4	5	6	7	8	9	10	11
<b>I. EXPENSES</b>										
1	Labor wages	1264000		1264000	650000		650000		1914000	6710
2	Social tax (12%)	316000		316000	162500		162500		478500	6520
3	Foods	2588000		2588000	1168400		1168400		3756400	1010
4	Depreciation of fixed assets	247000		247000	250100		250100		497100	0200
5	current repair of fixed assets	241500		241500	148200		148200		389700	6010
6	Motor transport	530000		530000	140000		140000		670000	2310
7	Other expenses	277500		277500	13000		13000		300500	1010
	Total, soum	5464000		5464000	2532200		2532200		7996200	X
<b>II. PRODUCTS OBTAINED</b>										
8	MILK, ts	368,8		368,8					368,8	X
9	value, soum	4425300		4425300					4425300	2810
10	CALF, head	30		30					30	X
11	value, soum	1491700		1491700					1491700	1110
12	Manure, soum	50000		50000					50000	2011
13	Added weight, ts				26,0		26,0		26,0	X
14	value, soum				2597000		2597000		2597000	1110
15	Manure, soum				43440		43440		43440	2011
	Total, soum	5967000		5967000	2640440		2640440		8707440	X

Head \_\_\_\_\_ B.B. Tulyaganov Accountant \_\_\_\_\_ T. Rakhmathodjaev "\_\_\_" \_\_\_ 2022

Taking into account the specificity of some branches of livestock, cost items can also be defined in them. In sheep breeding - there can be a column like "Costs of wool shearing station". Expenditures for many of these categories are recorded in advance in separate analytical accounts and are transferred to cost accounting objects according to their affiliation to the specified categories. Establishing a detailed accounting of costs in livestock farms and limited liability companies in the "Accounting account of costs incurred and products received in dairy cattle breeding" ensures timely, correct and complete formation of analytical data, and appropriate decisions are made on this basis.

A detailed account of expenses in farms and limited liability companies specializing in animal husbandry is kept in the recommended "Accounting records of expenses incurred and products received in dairy cattle breeding", in which production expenses are grouped according to the above items, compiled according to analytical accounting objects and structural divisions, and according to the document rotation schedule will be submitted to accounting within the specified period. In this record, the lines for writing the quantity and value indicators of the expenses, and the corresponding columns for writing the account objects and structural units are allocated.

Production costs are recorded in the register in two ways: from the beginning of the ear to the reporting month and in the reporting month.

This makes it possible to control expenses and calculate the cost of products during the ear and annual accounting report.

The application consists of three parts and is open for one ear. In its first section, "Costs of production of livestock products", all technical and economic indicators (worked man-hours, food days, consumed fodder) and other costs are presented in a single system by livestock account groups. In this section, monthly expenses are displayed grouped by main expense items. Ancillary production costs, depreciation allowances, inventory and farm equipment costs are shown separately. The total data on expenses are displayed in ascending order from the beginning of the month and from the beginning of the ear.

The second section of the report "Livestock products" indicates the types, quantities and cost of the main and auxiliary products obtained from livestock, determined by the planned cost or contract price, that is, the credit of the account "Livestock products" in 2012 and reflects the indicators written off to the debit other correspondent accounts (1010-1090, 2010, 2810, etc.)

The information reflected in this section is "Report on the movement of material resources" (form 121), "Report on the movement of animals and birds" (form 102), "Book of accounting for the movement of animals" (form 34a), "Milk Record Book" (form 112) and similar documents should be equal to the indicators reflected in the reporting period.

The third section of this document is designed to record transactions at the end of the month from the credit of the 2012 "Livestock production" account to the debit of other corresponding accounts. At the end of the month, this information is transferred to the relevant account register.

If the farm has several branches and divisions, it is recommended to keep such a record for each of them separately, and at the end of the month to compile a summary record for the farm.

In increasing the production of livestock products, improving their quality and reducing the cost of products, specialized livestock farms, which are organized on an industrial basis, are of great importance. Such enterprises operate as joint-stock companies and joint ventures established at the expense of attracting foreign investments.

In specialized livestock farms, it is appropriate to account for the costs of feed preparation in a separate account for the purpose of management of feed sheds.

In some specialized livestock farms, there are also specific features in the organization of the initial account. For example, the following forms of initial accounting documents are used in farms and limited liability companies that breed livestock: "Livestock movement and fodder consumption accounting sheet" (form 97a), "Livestock death and slaughter accounting sheet" (100a -form), "Summary record of livestock expense account" (form 346) and "Summary record of livestock death and slaughter account" (form 34v). The above-mentioned documents are the basis for creating a collective account register.

## CONCLUSION AND SUGGESTIONS

In order to harmonize the accounting of biological assets in animal husbandry with the international standards of financial reporting, first of all, separating biological assets from the structure of fixed assets, separate "Long-term biological assets" and the part of current assets as "Current biological assets" should be

taken into account and its composition determined. Because working animals, fruit-bearing perennial plants are considered biological assets, their accounting is regulated by the international standard of financial reporting No. 16 "Fixed Assets".

Secondly, for the purpose of accounting for biological assets, it is considered appropriate for economic entities to form the following working accounts in the appendix of working accounts of the accounting policy (Table-2).

**Table-2**

**A system of accounts designed to account for biological assets**

According to the current BHMS No. 21		Recommendation*	
0100-Fixed assets		1600 - Long-term biological assets	
0170	Productive animals	1610	Plants
0180	Perennial plants	1620	Animals
		1630	Obsolescence of biological assets
		1640	Provision for impairment of biological assets
1100 - Accounts for breeding and rearing animals		2600 – Short-term biological assets and agricultural products	
		2610	Plants
1110	Farm animals	2620	Animals
1120	Animals in the womb		
		2630	Agricultural product during harvesting
		2640	Provision for impairment of biological assets

\* the number of accounts can be formed according to the plan of working accounts developed by the economic entity.

The following proposals are made for the inclusion of working accounts in BHMS No. 21 (Table 3).

**Table-3**

**Proposals for inclusion of working accounts in BHMS No. 21**

Current revision	Proposed edit	Expected result
I Part I. Long-term assets. Section I. Fixed assets, intangible and other long-term assets	<b>PART I. ASSETS. Section I. Long-term assets</b>	
1-§. Fixed assets (0100)	<b>Long-lived biological assets (1600)</b>	
19. 0170 "Working and productive animals" account includes working animals and productive animals. 20. Perennial plants are taken into account in the 0180 "Perennial plants" account.	<b>19. 1610 Perennial plants, fruit and ornamental trees, green walls, etc. are taken into account in the "Long-term biological assets-plants" account. 20. 1620 "Long-term biological assets - animals" account includes biological assets, that is, animals. 21. 1630 Depreciation of biological assets is accounted for in the "Depreciation of biological assets" account. 22. An impairment reserve account is maintained in the "Biological asset impairment reserve" account.</b>	From the point of view of harmonization of accounting with international standards of financial reporting, accounting of biological assets will be introduced as a new accounting object. In particular, accounting of long-term biological assets in animal husbandry and plant breeding, reserve account for obsolescence of biological assets, depreciation of biological assets will be established.
<b>The second part. Current assets. Section II. Inventory</b>		
Accounts for breeding and rearing animals (1100)	2600 - Current biological assets and agricultural products	In order to be able to account for current biological assets in order to harmonize with international standards, it would be appropriate to use the 2600-Current biological assets and agricultural product account.
Farm animals (1110) Pets (1120)	Current biological assets - animals (2620), Agricultural produce during harvesting	This proposal is used in the accounting of biological assets in cultivation, biological

Current revision	Proposed edit	Expected result
	(2630), Reserve for impairment of biological assets (2640)	assets in feeding. It ensures the formation of accurate information about the current biological assets, the agricultural product at the time of collection, the reserve for the depreciation of biological assets, and based on it, correct management decisions can be made.
§ 3. Preparation and purchase of materials Accounts Payable (1500)	<b>Accounts for preparing and purchasing inventory (1530)</b>	Taking into account that inventory includes: materials, goods, biological assets in cultivation and feeding, as well as other inventory, it is appropriate to name account 1500 "Preparation and purchase of inventory."
112. Summarization of information on the preparation and purchase of tangible assets related to working capital is carried out in account 1510 "Preparation and purchase of materials".	112. Summarization of information on expenses related to the preparation and purchase of goods is carried out in the following accounts: 1510 "Preparation and purchase of materials"; 1520 "Production and purchase of goods"; <b>1530 "Purchase of biological assets in cultivation and feeding";</b> 1590 "Purchase of other commodities".	This proposal allows you to take into account the costs associated with the preparation and purchase of goods, correctly categorized by their types. This ensures that management analysis is properly organized and rational management decisions are made based on it.
	<b>1530 The debit of the account "Purchase of biological assets in breeding and feeding" accounts for the expenses related to the purchase of young animals in feeding and grazing, older livestock that have been rendered unfit, and livestock accepted from abroad for sale.</b> <b>1530 The actual cost of purchase (preparation) of farmed and farmed animals purchased to the credit of the account "Purchasing and farmed biological assets" in connection with the accounts accounting for farmed and farmed animals (1100) and other losses (theft, death) will be carried to the expenses of the period due to reasons such as shortages and other reasons.</b> - <b>Analytical accounting for accounts (1500) accounting for the preparation and purchase of goods is maintained for each type of goods. In this case, the organization of the analytical account should allow obtaining information about expenses</b>	In the debit of the corresponding account intended for accounting of goods, and according to the nature of the expenses, it is ensured that other outflows (theft, natural decrease, deficit, etc.) are carried to the expenses of the period in connection with the credit of other accounts. This, of course, makes it possible to correctly form the cost of goods and provide information users with reliable information.  The organization of the inventory account in this manner ensures the correct formation of analytical data for each inventory item.

In view of the above, the presentation of this proposal does not leave the need for additional calculations to find their cost during the purchase of biological assets in cultivation and feeding (Table 4).

Table-4

**1530 Correspondence of the account "Purchase of biological assets in cultivation and feeding" with other accounts**

No.	The content of the operation	Debit	Credit
1	Carrying out expenses for the purchase of young animals in feed and pasture, adult livestock that have been discarded and imported livestock for sale	1530	6010
2	Debiting the accounts accounting for biological assets in cultivation and feeding, calculated at the actual cost of purchase (preparation) of biological assets in cultivation and feeding	1110, 1120	1530
3	Transfer of biological assets in cultivation and maintenance to period expenses due to other causes of withdrawal (theft, death, shortage, etc.)	9430	1530

That is, except for the purchase price of the biological assets in cultivation and maintenance, all the costs related to its purchase and the costs related to additional processing and work on making them usable in accordance with paragraph 14 of BHMS No. 4 are summarized in account 1530 on the basis of supporting documents. and allowed proper distribution between biological assets in the feed.

**List of Used Literature**

1. Decree of the President of the Republic of Uzbekistan dated January 28, 2022, No. PF-60 "On the Development Strategy of New Uzbekistan for 2022-2026." Retrieved from: <https://lex.uz/docs/5841063>.
2. Decree of the President of the Republic of Uzbekistan dated March 28, 2019, No. PF-5659 "On Measures to Fundamentally Improve the State Management System in the Field of Veterinary and Animal Husbandry." Retrieved from: <https://lex.uz/docs/4259331>.
3. Decree No. PF-5853 of the President of the Republic of Uzbekistan dated October 23, 2019, "On Approval of the Strategy for the Development of Agriculture of the Republic of Uzbekistan for 2020-2030." Retrieved from: [www.lex.uz](http://www.lex.uz).
4. Resolution PQ-285 of the President of the Republic of Uzbekistan dated August 17, 2018, "On Further Development of Animal Husbandry, Measures to Improve the Coordination and Efficiency of Industry Activities." Retrieved from: [www.lex.uz](http://www.lex.uz).
5. Decision PQ-4243 of the President of the Republic of Uzbekistan dated March 18, 2019, "On Measures to Further Develop and Support the Livestock Sector." Retrieved from: [www.lex.uz](http://www.lex.uz).
6. Decision PQ-5017 of the President of the Republic of Uzbekistan dated March 3, 2021, "On Further Support of the Livestock Sector by the State on Additional Measures." Retrieved from: <https://lex.uz/ru/docs/-5317849>.
7. Resolution PQ-120 of the President of the Republic of Uzbekistan dated February 8, 2022, "On Approval of the Program for the Development of the Livestock Sector and its Branches in the Republic of Uzbekistan for 2022-2026." Retrieved from: <https://lex.uz/docs/-5858728>.
8. Resolution PQ-4611 of the President of the Republic of Uzbekistan dated February 24, 2020, "On Additional Measures for the Transition to International Standards of Financial Reporting." Retrieved from: <https://lex.uz/docs/4746047>.
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**Аннотация:** В данной статье показана важность инвестирования в человеческий капитал в Узбекистане, и в ходе анализа поясняется, как можно повысить уровень жизни населения, инвестируя в человеческий капитал. С помощью статистических данных Агентства по статистике при Президенте Республики Узбекистан и Министерства экономики и финансов показаны инвестиции, осуществлённые в человеческий капитал в стране в 2013-2023 годах и их результаты. Для эконометрического анализа в качестве результирующего фактора был взят реальный доход на душу населения, а в качестве влияющего фактора — объем расходов на образование и здравоохранение из государственного бюджета.

**Ключевые слова:** человеческий капитал, инвестиции, реальный доход, образование, здравоохранение, расходы государственного бюджета.

### ВВЕДЕНИЕ

Согласно неоклассической теории, накопление человеческого капитала напрямую влияет на уровень доходов людей, а также на их производительность. В результате более высокий уровень человеческого капитала обеспечивает более высокий уровень экономического процветания и развития людей и стран. Развитие квалифицированной рабочей силы, особенно человеческого капитала, адаптированного к возникающим технологическим изменениям, играет важную роль в определении того, как страны будут удерживать прочные позиции в условиях всё более конкурентной глобальной среды. В противном случае странам с низким уровнем развития человеческого капитала может быть сложно оставаться конкурентоспособными.

По сути, экономическая ценность таланта, знаний, опыта, интеллекта и образования (отдельных лиц или групп) относится к концепции человеческого капитала. Образование, которое поддерживает здоровье человека и улучшает его знания и навыки, рассматривается как важная инвестиция в человеческий капитал.

Инвестиции, осуществляемые отдельными лицами в повышение своих знаний и навыков или в улучшение своего здоровья, являются ведущими факторами человеческого благополучия и могут привести к увеличению разрыва в качестве жизни между ними. Разница в качестве жизни влияет на относительный спрос на квалифицированную рабочую силу и, таким образом, изменяет относительную заработную плату между квалифицированной и неквалифицированной рабочей силой.

Разрывы в темпах инвестиций в человеческий капитал между странами очень велики. Эти разрывы наиболее заметны в стандартных показателях, используемых для оценки человеческого капитала, таких как посещаемость школ и наивысший класс, завершённый среди населения трудоспособного возраста. Совсем недавно экономисты расширили меры, используемые для оценки инвестиций в человеческий капитал, включив в них результаты тестов как меру качества школы, а также вклад в здравоохранение и его результаты как меры физических способностей работников. Неудивительно, что изучение этих расширенных мер инвестиций в человеческий капитал показывает, что различия между странами, как правило, ещё больше, чем считалось ранее: в среднем дети в бедных странах не только получают меньше лет обучения, но и получаемое ими образование имеет более низкое качество, и они менее здоровы, выходя на рынок труда, чем их сверстники в богатых странах. [1] Развитие человеческого капитала – это знания, материализованные в человеке, и его способность эффективно трудиться; их эффективное использование позволяет значительно повысить уровень жизни населения и увеличить темпы экономического роста. Человеческий капитал — это отдельная экономическая категория, основной проблемой исследования которой является уникальная природа

человеческого капитала, обусловленная суммой физических и умственных способностей человека, определяющих его способность к труду.

Эффективные инвестиции в человеческий капитал играют центральную роль в развитии, принося существенные экономические выгоды в долгосрочной перспективе. Однако выгоды от этих инвестиций часто требуют времени для материализации и не всегда заметны избирателям. Это одна из причин, по которой политики не всегда в достаточной мере придают приоритет программам поддержки формирования человеческого капитала. На ежегодных заседаниях 2017 года руководство Всемирного банка призвало к реализации Проекта человеческого капитала (НСП) для решения этой проблемы, направленного на стимулирование посредством программы пропагандистской и аналитической работы, направленной на повышение осведомлённости о важности человеческого капитала и увеличение спроса на вмешательства для его формирования в странах-клиентах. [2]

В 2018 году впервые был составлен и ранжирован Индекс человеческого капитала для 157 стран, но Узбекистан не попал в этот рейтинг, поскольку некоторые компоненты индекса в нашей стране не соответствовали международным стандартам. Наконец, в 2021 году Узбекистан вошел в рейтинг и занял 101-е место с индексом 0,727 (рис. 2).

## ОБЗОР ЛИТЕРАТУРЫ

Улучшаю свои навыки, здоровье, знания и устойчивость — свой человеческий капитал — люди могут стать более производительными, гибкими и инновационными. Инвестиции в человеческий капитал становятся всё более важными, поскольку характер работы меняется в ответ на быстрые технологические изменения. Как подчеркивается в Докладе о мировом развитии 2019 года (WDR): «Изменение характера работы», рынки всё больше требуют работников с более высоким уровнем человеческого капитала, особенно с продвинутыми когнитивными и социально-поведенческими навыками. Например, во Вьетнаме работники, способные выполнять нестандартную аналитическую работу, зарабатывают почти на 25 процентов больше, чем те, кто не может [2]. Адам Смит [3] был первым экономистом, который ввёл понятие человеческого капитала в определение капитала. Смит утверждал, что полезные знания и навыки, приобретённые населением со временем, должны быть включены в основной капитал страны, в которой проживает это население. Т.В.Шулц [4] считается первым, кто сформулировал теорию человеческого капитала. Шулц утверждал, что человеческие возможности повышают общественное благосостояние и что индивидуальное благосостояние приобретает экономическую ценность после приобретения знаний и навыков. Поэтому людей можно включить в основной капитал экономики или классифицировать как движущие силы производственных услуг. Шулц также критиковал то, что человеческий капитал не может быть добавлен к капиталу страны, хотя он может увеличиваться гораздо более высокими темпами, чем физический капитал. Хотя человеческий капитал является центральным фактором устойчивого роста и сокращения бедности, политикам иногда трудно обосновать необходимость инвестиций в него [5]. В конце концов, выгоды от инвестиций в людей могут материализоваться только через много времени. Строительство дорог и мостов может принести быстрые экономические и политические выгоды. Однако инвестиции в человеческий капитал маленьких детей не принесут экономической отдачи и, пока эти дети не вырастут и не присоединятся к рабочей силе. По словам Эйхера [6], скорость технологических изменений играет важную роль в определении относительной заработной платы между образованными и необразованными работниками. Следовательно, неравенство доходов существует между высококвалифицированными и низкоквалифицированными работниками. Человеческий капитал относится к внутренним производственным возможностям человека. Эти возможности могут быть увеличены за счёт инвестиций в такие сферы, как образование, обучение на рабочем месте и здоровье. Человеческий капитал рассматривается как актив, который генерирует поток услуг, чаще всего измеряемый как доход, хотя используются и более широкие показатели выпуска [7]. В исследовании проблем человеческого капитала, его формирования и развития в Узбекистане большой вклад внесли К.Х.Абдурахманов [8], Н.К.Зокирова [9], Г.К.Абдурахманова [10] и другие учёные.

## МЕТОДОЛОГИЯ ИССЛЕДОВАНИЯ

В исследовательской работе в качестве инвестиций в человеческий капитал были выбраны расходы на образование и здравоохранение из государственного бюджета. В результате инвестиций в человеческий капитал был определён реальный совокупный доход на душу населения. Информация по этим независимым и зависимым переменным за 2013-2023 годы была получена с официальных сайтов

Агентства по статистике при Президенте Республики Узбекистан и Министерства экономики и финансов Республики Узбекистан. В анализе использовались методы статистической группировки, эконометрического моделирования и корреляционно-регрессионного анализа.

### АНАЛИЗ И РЕЗУЛЬТАТЫ

Инвестиции в человеческий капитал способствуют экономическому развитию, социальному благосостоянию и росту личных доходов. Эти инвестиции осуществляются в таких областях, как образование, здравоохранение и развитие навыков. В результате в обществе формируется высококвалифицированная, здоровая и эффективная рабочая сила, которая стимулирует инновации и повышает национальную конкурентоспособность. Инвестиции в человеческий капитал также способствуют социальному равенству, повышению уровня жизни и укреплению экономической стабильности (рис. 1).

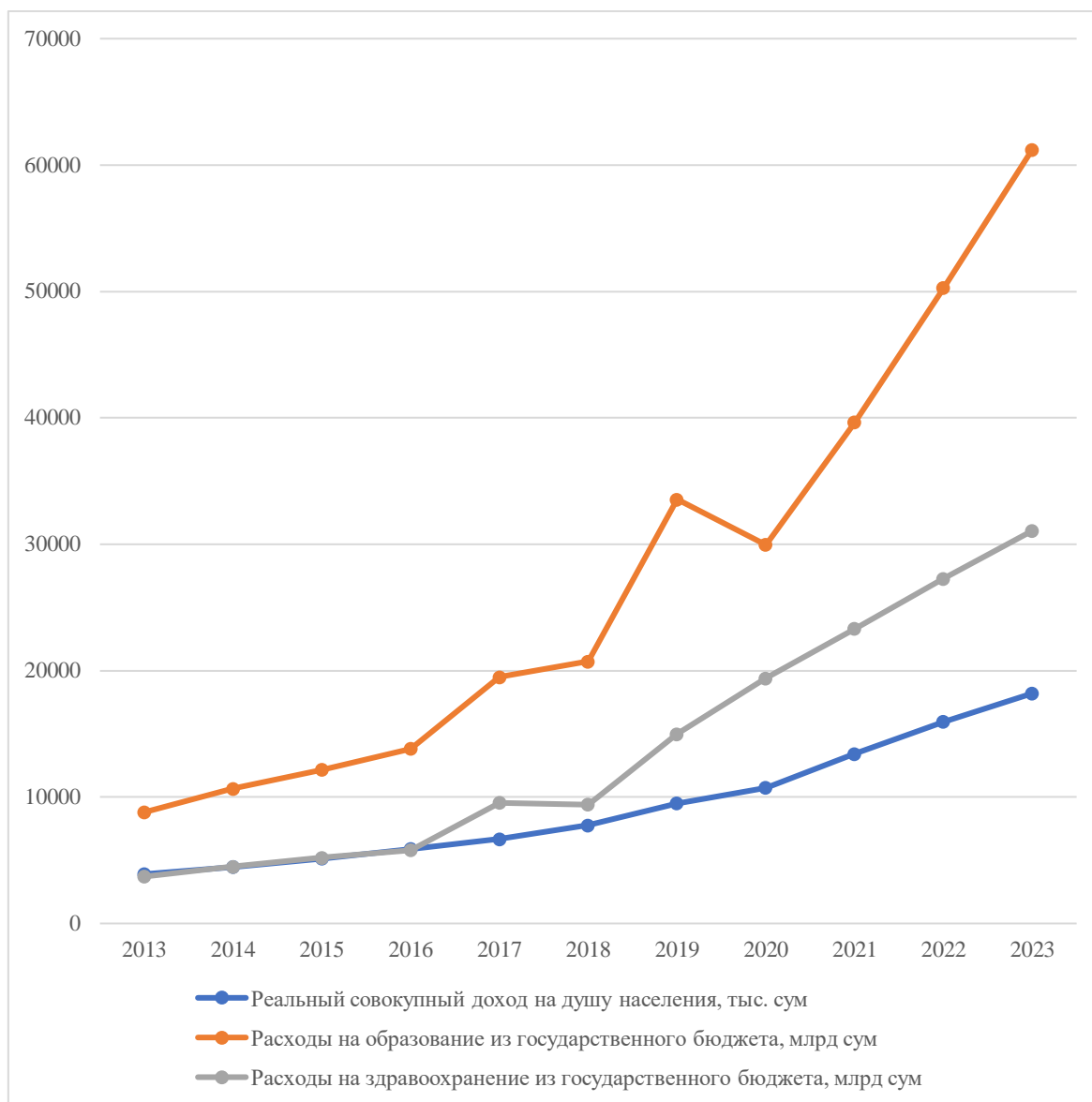
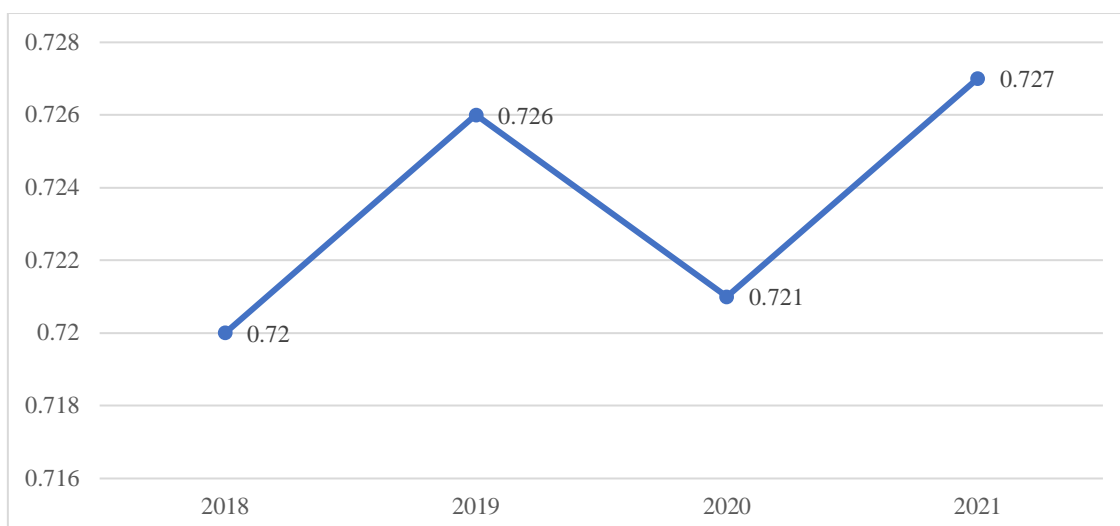


Рисунок-1. Инвестиции в человеческий капитал в Узбекистане

Индекс человеческого капитала демонстрирует экономические выгоды от инвестиций в человеческий капитал для стран и подчёркивает необходимость уделять этим направлениям больше внимания. Страны с высоким показателем индекса, как правило, являются экономически стабильными и имеют высокий уровень жизни. В то же время это указывает на то, что странам с низкими показателями необходимо увеличить инвестиции в человеческий капитал.





**Рисунок-2. Индекс человеческого капитала для Узбекистана**

На основании этого для анализа исследования были выбраны следующие факторы (таблица 1):

Y - реальный совокупный доход на душу населения, тыс. сум

X<sub>1</sub> - расходы на образование из государственного бюджета, млрд сум

X<sub>2</sub> - расходы на здравоохранение из государственного бюджета, млрд сум

**Таблица-1**

**Описательная статистика по выбранным факторам**

Переменные	Y	X1	X2
Среднее	9773,84	29152,24	15055,4
Стандартная ошибка	1497,46	5409,116426	3070,746
Медиана	8634,5	25341,1	12269,7
Мода	-	-	-
Стандартное отклонение	4735,386	17105,12804	9710,552
Выборочная дисперсия	22423879	292585405,1	94294825
Избыток	-0,75127	-0,41900609	-1,29312
Асимметрия	0,702907	0,758395799	0,503535
Интервал	13729,2	50546,8	26559,4
Минимум	4472	10673,5	4507,2
Максимум	18201,2	61220,3	31066,6
Сумма	97738,4	291522,4	150554
Наблюдения	10	10	10

Среднее значение, медиана, мода, максимальные и минимальные значения для динамики каждого фактора представлены в табличных данных. Также в таблице приведены стандартное отклонение, дисперсия, эксцесс и асимметрию каждого фактора.

Корреляционный анализ необходим для выбора факторов для многофакторной эконометрической модели. Сначала, начиная с корреляционного анализа, мы определим плотность корреляции между факторами. для этого будет использован парный коэффициент корреляции.

Корреляционная матрица

	Y	X1	X2
Y	1		
X1	0,991	1	
X2	0,993	0,982	1

Из матрицы парных коэффициентов корреляции видно, что выбранные независимые переменные имеют тесную связь с результирующим фактором. Однако между независимыми переменными также наблюдается сильная корреляция, что указывает на проблему мультиколлинеарности.

Для анализа мы строим многомерное уравнение регрессии, предполагая линейную связь между  $y$  и  $x$ , ( $\ln y = a_0 + a_1 \ln x_1 + a_2 \ln x_2 + \varepsilon_i$ ), и определяем параметры  $a_0$ ,  $a_1$ ,  $a_2$  (таблица-3).

Таблица-3

Оценочные параметры многофакторной эконометрической модели

Переменные	Коэффициенты	Стандартная ошибка	t-статистика	p-значение
C	2103,846	325,7354	6,458759	0,000347
$\ln x_1$	0,122349	0,047486	2,576537	0,036657
$\ln x_2$	0,272543	0,083646	3,25827	0,013898
Наблюдения	Нормализованные, $R^2$	R-квадрат	F-статистика	Вероятность (F-статистика)
11	0.98	0.99	435.6	4.4

Таким образом, уравнение линейной регрессии принимает следующий вид:

$$Y = 2103,8 + 0,12x_1 + 0,27x_2$$

Здесь коэффициенты регрессии  $a_1$ ,  $a_2$  определяют связь между результирующей переменной ( $Y$ ) и факторами ( $x_1$ ) и ( $x_2$ ). Эти коэффициенты показывают, на сколько единиц увеличивается результирующий признак при увеличении соответствующего фактора на одну единицу.

### ОБСУЖДЕНИЕ

По результатам эконометрического анализа установлена корректная связь между реальными доходами на душу населения и инвестициями в человеческий капитал. Увеличение инвестиций в человеческий капитал приводит к росту реальных доходов. Например, увеличение расходов на образование из государственного бюджета на одну единицу приводит к увеличению реальных доходов на 0,12 единицы, а увеличение расходов на здравоохранение из государственного бюджета на одну единицу приводит к увеличению реальных доходов на 0,27 единицы.

Константа  $a_0 = 2103,8$  представляет собой среднее влияние других факторов, принятых в качестве постоянных значений в нашем анализе, на результирующий показатель. Это значение показывает, что при нулевых значениях факторов  $x_1$  и  $x_2$ , влияние других факторов, принятых в качестве постоянных, составляет 2103,8, что соответствует значению ( $Y$ ).

### ВЫВОДЫ И ПРЕДЛОЖЕНИЯ

Знания, навыки и компетенции являются жизненно важным активом для поддержки экономического роста и сокращения социального неравенства в странах. Этот актив, известный как человеческий капитал, считается одним из ключевых факторов в борьбе с высокой и устойчивой безработицей, а также с проблемами низкой оплаты труда и бедности. По мере перехода к «экономике, основанной на знаниях», важность человеческого капитала становится ещё более значимой.

Существует значительная корреляция между расходами на образование и здравоохранение из государственного бюджета и реальными доходами населения. Значительные инвестиции в образование и здравоохранение способствуют улучшению навыков и здоровья рабочей силы, что, в свою очередь, повышает её производительность. Как результат, реальные доходы населения увеличиваются. Кроме того, более высокое образование и лучшее здравоохранение делают население более конкурентоспособным на рынке труда и способствуют получению более высокооплачиваемых рабочих мест.

На основании вышеизложенного можно сделать следующие предложения для дальнейшего улучшения благосостояния населения через инвестиции в человеческий капитал:

- Повышение качества образования: Необходимо увеличить инвестиции в систему образования для подготовки высококвалифицированных специалистов.
- Развитие инфраструктуры здравоохранения: Улучшение здоровья населения способствует повышению производительности рабочей силы.
- Программы обучения и переподготовки: Необходимо обеспечить гибкость в соответствии с требованиями экономики посредством постоянного повышения квалификации работников.

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## KORPORATIV TUZILMALARDA KORPORATIV MADANIYATNI TAHLIL QILISH VA BAHOLASH USULLARI

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**Annotatsiya.** Ushbu tadqiqotda korporativ madaniyatning elementlari o‘rganilib, korporativ tuzilmalarda korporativ madaniyatni baholash usullarini ishlab chiqishning ilmiy va metodologik asoslari tahlil qilingan. **Tayanch so‘zlar:** korporativ tuzilma, korporativ madaniyat, baholash usuli, boshqaruv, samaradorlik, so‘rovnomalar, baholash.

### KIRISH

Hozirgi kunda O‘zbekiston ijtimoiy-iqtisodiy islohotlar jadal amalga oshirilayotgan bozor iqtisodiyoti sharoitida aksiyadorlik jamiyatlarida korporativ boshqaruvni tubdan isloh qilish, korporativ boshqaruv kodeksini to‘liq joriy etish, shuningdek, xalqaro korporativ boshqaruv tamoyillari va yo‘riqnomalariga muvofiq harakat qilish orqali O‘zbekiston korporativ boshqaruv siyosatini jahon standartlariga to‘liq javob beradigan korporativ boshqaruv tizimini yaratish hamda aksiyadorlik jamiyatlarida korporativ madaniyatni shakllantirish ustuvor masalalardan biri hisoblanmoqda.

### MAVZUGA OID ADABIYOTLAR TAHLILI

Korporatsiyalarda korporativ madaniyat nazariyalari ancha kechikish bilan, faqat XX asrning boshlarida, yirik sanoat tashkilotlari milliy bozorlarni egallab olib, jahon bozorlarini bo‘lib olishni boshlaganda paydo bo‘ldi. Eng yirik korporatsiyalarning hujjatlar bilan tasdiqlangan tadqiqotlari monopoliyaga qarshi samarali siyosat va iqtisodiyotni davlat tomonidan tartibga solishning boshqa vositalarini yaratish maqsadini ko‘zlagan. Korporatsiyalar faoliyati ushbu tadqiqotlarda “chetdan”, davlat va iste‘molchilar nuqtai nazaridan ko‘rib chiqilgan.

Faqat 1911-yilga kelib chop etilgan G.Emerson qalamiga mansub “Unumdorlikning o‘n ikki tamoyili” asarida yirik korporatsiya faoliyatining alohida qoidalari ifodalangan<sup>91</sup> Bu qoidalarning hozirgi kunga qadar o‘z ahamiyatini yo‘qotmaganlari qatorida quyidagilarni aytib o‘tish mumkin:

- qisqa muddatda foyda olishdan ko‘ra kompaniyani rivojlantirishda uzoq muddatli manfaatlarni ustuvor ko‘rish;
- «o‘sish narxi»ni doimiy monitoring qilish va shuhratparast, lekin samarasiz loyihalardan voz kechish;
- strategiyani ishlab chiqish va amalga oshirish jarayonida nafaqat top-menejment, balki o‘rta bo‘g‘in menejerlari va zavod darajasidagi asosiy mutaxassislarni jalb qilish;
- ushbu g‘oyalarni amalga oshirishga majbur bo‘lganlarning «sog‘lom fikri» yordamida mahsulotlar va ishlab chiqarish jarayonlari haqidagi yangi g‘oyalarni muntazam ravishda «tekshirish»<sup>92</sup>.

T. Peters va R. Uoterman madaniyat va tashkilot muvaffaqiyati o‘rtasidagi bog‘liqlikni ochib berdi. Ular ushbu kompaniyalarni muvaffaqiyatga olib kelgan birqator e‘tiqodlar va korporativ madaniyat qadriyatlarini aniqladilar:

- Harakatga ishonish (qarorlarni kechiktirish ularni rad etishga tengdir).
- Iste‘molchi bilan muloqot (tashkilot ishida iste‘molchi asosiy e‘tibor).
- Avtonomiya va tadbirkorlikni rag‘batlantirish (innovatsiyalar, byurokratiyani buzish, individual xodimlarga ijodiy bo‘lish va tavakkal qilish uchun avtonomiya berish).

Madaniyat va tashkilot faoliyati o‘rtasidagi munosabatlarni umumiyroq ko‘rsatadigan model amerikalik sotsiolog T.Parson tomonidan taqdim etilgan. U har qanday ijtimoiy tizim, shu jumladan, tashkilot omon qolish va muvaffaqiyatga erishish uchun bajarishi kerak bo‘lgan muayyan funktsiyalarning spetsifikatsiyasi asosida ishlab chiqilgan. Qisqartmadagi ushbu funktsiyalarning inglizcha nomlarining birinchi harflari model nomini berdi - AGILE: adaptation (moslashish); goal - seeking (maqsadga erishish); integration(integratsiya) va legiacy (qonuniylik).

<sup>91</sup> Эмерсон Г. Двенадцать принципов производительности. М.: Бизнес-Информ, 1997.

<sup>92</sup> Эмерсон Г. Двенадцать принципов производительности. М.: Бизнес-Информ, 1997.

## TAHLIL VA NATIJALAR

Kompaniyalar o'rtasida integratsiya doirasi kengayishi, raqobat kuchayishi bilan korporativ tuzilmalarda korporativ madaniyatni o'rganish, tahlil qilish va baholash usullarini ishlab chiqish zaruratini paydo qildi. Ushbu maqsad korporativ tuzilmalarga quyidagi vazifalarni hal qilishni taqozo etadi:

- korporativ madaniyat holatini tahlil qilish va baholash;
- korporativ tuzilmalarning korporativ madaniyatini o'rganishning mavjud usullarini qiyosiy tahlil qilish;
- korporativ tuzilmalarning korporativ madaniyatini o'rganish metodikasini ishlab chiqish;
- so'rovnomalar tuzish orqali korporativ tuzilmalarning iqtisodiy, ijtimoiy holatini ko'rsatkichlar asosida baholash;
- korporativ madaniyatni iqtisodiy samaradorlik va boshqaruv samaradorligiga ta'sirini o'rganish;
- ishlab chiqilgan metodologiyani korporativ tuzilmalarda sinab ko'rish.

Ideografik usullardan foydalanganda tadqiqotchilar muhim ahamiyatga ega voqelikni modellashtira oladi, odamlarning xulq-atvorining shakllangan modellarini va ularning asosiy munosabatlarini aniqlay oladi, jamoada o'zaro ta'sir va qarorlar qabul qilish tamoyillarini, shuningdek, guruh fikrlash yo'nalishini va xodimlarning o'z pozitsiyasiga muvofiqlik darajasini tushunadi.

Korporativ madaniyatni ideografik o'rganishning asosiy vositalari quyidagilar:

a) koxona hujjatlarining mazmunini tahlil qilish - ish jarayonlarini tartibga soluvchi hujjatlarni (nizomlar, rejalar, dasturlar, buyruqlar, ko'rsatmalar, eslatmalar, lavozim tavsiflari va boshqalar) o'rganish.

Albatta, korporativ madaniyat rasmiy hujjatlardan ko'ra boshqaruvchilar va xodimlarning g'oyalari va qadriyatlarini, kasbiy axloqi, norasmiy aloqalarida ko'proq namoyon bo'ladi, ammo bu ma'lumot manbaasini e'tiborsiz qoldirmaslik kerak.

Hujjatlarni tahlil qilish korporativ faoliyatning ko'plab jihatlarini o'rganish imkonini beradi. Masalan, buyruq va ko'rsatmalarni tahlil qilish, xodimlarni rag'batlantirish tizimini ochib beradi, tashkilotni boshqarish uslubini, kompaniyada tashkil etilgan biznes asoslarini aniqlashga imkon beradi. Bundan tashqari, ichki hujjatlarni o'rganish bo'limlar o'rtasidagi munosabatlarni, javobgarlikni taqsimlashning e'lon qilingan emas, balki amaldagi tamoyillarini, muammoli sohalarni va ular bilan bog'liq odamlarni aniqlash imkonini beradi. Kompaniyaning korporativ madaniyatini shakllantirish va rivojlantirishga qaratilgan asosiy tamoyillar va harakatlar ichki hujjatlarning mazmunini tahlil qilish orqali ham aniqlanishi mumkin.

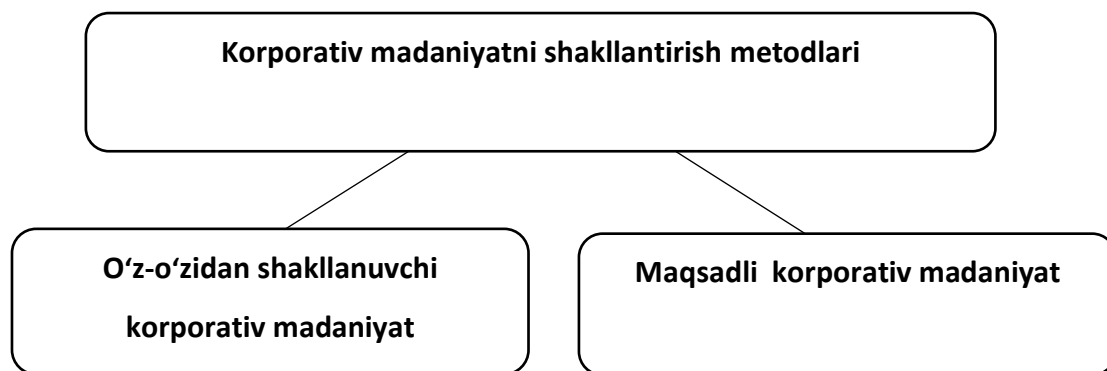
Tashkilot hujjatlarini tahlil qilishning asosiy afzalliklari quyidagilardan iborat: shakllangan huquqiy asoslar haqida tasavvurga ega bo'lish, korporativ madaniyat, shuningdek, har qanday obyektiv ma'lumotlarni olishda tanlangan vaqt davri.

Ushbu usulning kamchiliklari sifatida olingan ma'lumotlarning bir tomonlama (rasmiy) xususiyati, uning to'liq emasligi, chunki barcha ichki tashkiliy jarayonlar rasmiy hujjatlarda aks ettirilmagan. Bundan tashqari, bunday tahlil hujjatlarni to'plash, o'rganish va tahlil qilish uchun katta vaqtni oladi.

b) Monografik o'rganish - tadqiqotchini jamoa a'zosi, kuzatuvchi yoki maslahatchi sifatida korporativ madaniyatga chuqur singdirish orqali tashkilotda ishlab chiqilgan qoidalar, an'analar, marosimlar va boshqaruv amaliyotlarini kuzatish. Bunday kuzatish jarayonida tadqiqotchi tashkilot a'zolarining qadriyatlarini, munosabatlari, o'rnatilgan xulq-atvor namunalari ochib beradi va kuzatish natijalarini qog'oz va elektron qurollarga yozib oladi.

Korporativ madaniyatga chuqur o'rganish uni ko'rishga imkon beradi va uning jonli ko'rinishlarini his qilish, tashkilotning retrospektiv rivojlanishi haqida tasavvurga ega bo'lish, o'rganilayotgan jarayonlarda ishtirok etish hisini beradi. Ko'pincha korporativ madaniyat jamoaning ko'pchiligi tomonidan qo'llaniladigan maxsus lug'atda, kiyim uslubida, muloqotning norasmiy qoidalarida, ish vaqti va makonidan foydalanish tamoyillarida namoyon bo'ladi.

Korporativ madaniyatning muhim ifodasi - bu maxsus marosimlarni o'tkazish, ularning yordami bilan guruh o'zining alohida mavqeini, boshqa ijtimoiy guruhlardan farqlarini ta'kidlaydi. Marosimlar, shuningdek, xodimlarning ijtimoiy va kasbiy birdamligini mustahkamlashga yordam beradi, ular o'zaro e'tirof va hurmat ifodasidir.



**1- rasm. Korporativ madaniyatni shakllantirish metodlari**

O'z-o'zidan paydo bo'ladigan korporativ madaniyat xodimlar, sheriklar, mehmonlar va tashqi muhitning turli xil qadriyatlarining o'zaro ta'siri natijasida yuzaga keladi. U ongsiz ravishda paydo bo'ladi va shuning uchun uni boshqarish qiyin. Natijada korporativ madaniyatning biznesning asosiy maqsadlari va tashkilotning umumiy strategiyasiga mos kelmasligi mumkin. (1- rasm)

Maqsadli ravishda shakllanadigan madaniyat - bu tashkilotning munosabatlarini tartibga soluvchi va kompaniyaning barcha xodimlari uchun ularning mavqei va maqomidan qat'i nazar majburiy bo'lgan tamoyillar va qoidalarni og'zaki va yozma ravishda birlashtirish va taqdim etish natijasidir.

Tadqiqotchilarning ta'kidlashicha, marosimlar ko'plab tashkilotlarda xodimlarga kompaniya qadriyatlarining muhimligini va tashkilotning har bir a'zosiga ularni o'rganish va qabul qilishga yordam berish uchun eslatma. O'zbekistonda faoliyat yuritayotgan aksiyadorlik jamiyatlarida tashkil etiladigan an'anaviy marosimlari:

- ishga kirayotkandagi marosimlar;
- tashkiliy marosimlar, ochilish va kengaytirish marosimlari;
- marosimlarni birlashtirish;
- dam olish, ovqatlanish va tiklanish marosimlari;
- bayram marosimlari<sup>93</sup>.

Shunday qilib, kiritilgan monografik tadqiqotlar korporativ madaniyatning xususiyatlarini ichkaridan his qilish, uni amalga oshirish muddatlariga, kuzatuvchining subyektivligining namoyon bo'lishiga imkon beradi.

v) fokus-guruh - maqsadli guruh suhbat tashkilot xodimlarining tadqiqotchini qiziqtiradigan jarayonlar, obyektlar yoki hodisalarni subyektiv idrok etishlarini aniqlash. Individual intervyudan farqli o'laroq, fokus-guruh suhbatdosh-respondent va respondent-respondent darajasida o'zaro aloqani o'z ichiga oladi. Shu sababli, tadqiqot jamoa ichidagi yashirin muammolar, munosabatlar, xatti-harakatlar va muloqot amaliyotlarini ochib beradi.

Fokus-guruh usulidan foydalangan holda tadqiqot o'tkazish tamoyillarini hisobga olgan holda, uning xarakterli xususiyatlarini ajratib ko'rsatish mumkin:

- Tadqiqotda ishtirok etayotgan barcha respondentlar tadqiqotchini qiziqtirgan jarayon yoki masaladagi qandaydir umumiy xususiyat yoki ishtirokga ko'ra tanlanishi va aniqlanishi kerak;
- fokus-guruhni shakllantirishdan oldin tadqiqotchi qiziqtirgan masala bo'yicha xodimlar o'rtasidagi mavjud o'zaro munosabatlar tajribasi bilan tanishishi va bir qator farazlarni ilgari surishi kerak;
- o'tkazilgan tahlillar va ilgari surilgan farazlar muallifni qiziqtirgan masalalarga yo'naltirilgan tadqiqot ssenariysini ishlab chiqishga imkon beradi;
- Fokus-guruh texnikasi tadqiqot o'tkazishda barcha ishtirokchilar teng huquqli bo'lsagina samarali bo'ladi. Tashkilotni boshqarishda ishtirokchilar guruhiga qo'shilish, o'zlarining fikrlarini shaxsiy amalga oshirilishiga va ishining samaradorligiga to'sqinlik qilishi mumkin bo'lgan noto'g'ri munosabatni oldini olish uchun istisno qilinishi kerak.

Fokus - guruhlardan foydalangan holda ma'lumotlarni yig'ishning muhim xususiyati shundaki, tadqiqotchi ma'lumotni nafaqat respondentlarning so'zlaridan, balki tana tilidan, psixomotor jarayonlardan ham oladi. Fokus-guruh davomida inson omili va kompaniyada o'rnatilgan xulq-atvor namunalari aniq

<sup>93</sup>Зарубнина Е.В., Фатеева Н.Б. Качественные методы изучения организационной культуры предприятия // Аграрное образование и наука, 2016, №4. – 49-54 с. Общая теория статистики: учебное пособие: Учебник /Ильшев А.М., Шубат О.М. – М.: КНОРУС, 2013.

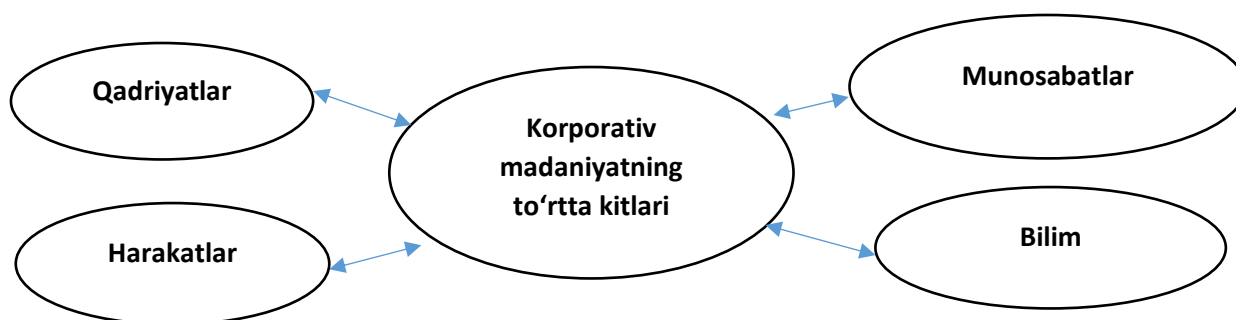
namoyon bo'lganligi sababli, tadqiqot yanada to'liqroq bo'ladi va kompaniyadagi shaxslararo o'zaro ta'sir tamoyillarining samaradorligini tahlil qilish imkonini beradi.

Shuni hisobga olish kerakki, respondentlar orasida o'z tajribasini ochiqroq aytib berishga tayyor bo'lganlar ham, ularni tashvishga solayotgan lahzalarni omma oldida muhokama qilishga va muayyan jarayon yoki hodisalarga o'zining haqiqiy munosabatini bildirishga tayyor bo'lmaganlar ham bo'lishi mumkin.

Shuning uchun, qo'yilgan maqsadlardan kelib chiqqan holda, tadqiqotchi muqobil sifatli tadqiqot usuli sifatida chuqur individual suhbatlar usulini tanlashi mumkin;

g) ekspert (chuqur) suhbat - individual suhbat, oldindan tayyorlangan stsenariy bo'yicha xodim bilan yopiq muhokama shaklida o'tkaziladi. Suhbatning o'rtacha davomiyligi savollarning soni va ishlab chiqish darajasiga qarab 40 daqiqadan 2 soatgacha davom etadi.

Qoidaga ko'ra, ekspert suhbatlari respondent uchun qulay sharoitda o'tkazilsa, tadqiqotchi bilan uzoq suhbatlashishga yordam beradi. Bitta tadqiqot doirasidagi ekspert suhbatlari respondentlarning javoblari takrorlana boshlaguncha davom etadi degan qoida mavjud, biroq bir tadqiqot doirasida ekspert suhbatlari soni cheklanmasligi mumkin.



**2-rasm. Korporativ madaniyatning to'rtta kitlari.**

Korporativ standartlar korporativ madaniyatning bir qismidir va ularga rioya qilinishi qabul qilingan qoidalardir. Turli xil kompaniyalarda ushbu qoidalar turlicha bo'lishi mumkin, fundamental nizomlar quyidagilar:

- hamkasblar bilan munosabatlar (menejerlar va bo'ysunuvchilar o'rtasidagi munosabatlar, ziddiyatli vaziyatlarda o'zini tutish, o'zaro almashinish qoidalari, mijoz bilan muloqot, yangi xodimni malakasini oshirish va o'qitish tartibi);
- mijozlar bilan munosabatlar (salomlashish, muzokara olib borish, telefonda gaplashish, hisob-kitoblar, nizoli vaziyatda o'zini tutish, xayrlashish);
- ish joyi (ro'yxatdan o'tish, tartibni saqlash, ish joyidagi o'zini tutish, uni boshqa ijrochiga o'tkazish);
- tashqi muhit bilan aloqalar (kompaniya manfaatlarini himoya qilish, tijorat sirlarini saqlash, kompaniyani tanishtirish etish usullari (2- rasm)<sup>94</sup>

## **XULOSA VA TAKLIFLAR**

Tadqiqotchilarning ta'kidlashicha, chuqur suhbatlar odatda tashkilot xodimlari bilan aloqa o'rnatish va ichki hujjatlarni tahlil qilish natijasida olish qiyin bo'lgan yuqori sifatli ma'lumotlarni to'plash vositasiga aylanadi.

Qoidaga ko'ra, chuqur suhbatlar davomida tadqiqotchi xodimlarning kompaniya, uning salohiyati va resurslardan foydalanish haqidagi fikrini o'rganadi, xodimlarning motivatsiyasi darajasini, ichki ziddiyatlar, rivojlanishdagi qiyinchiliklarni ochib beradi va takomillashtirish bo'yicha takliflar oladi.

Bunday ish ko'p vaqtni talab qiladi va asosan suhbatdoshning professionalligi bilan belgilanadi.

Shunday qilib, ekspert suhbatini o'tkazish quyida keltirilgan vazfalarni bajarish imkonini beradi:

- xodimlarning muayyan xatti-harakatlarining sabablari va asosiy sabablarini tushunish;
- xodimlarning shaxsiy sharoitlari bilan bog'liq va ularning jamoadagi namoyon bo'lishiga va ishbilarmonlik fazilatlariga ta'sir qiluvchi nozik mavzularga otiladi;
- xodimlar bir-biridan uzoqda ishlaydigan va kamdan-kam hollarda bir joyda to'planadigan jamoada korporativ madaniyatni o'rganadi.

<sup>94</sup> Muallif ishlannasi

Chuqur suhbatlarning kamchiliklari orasida tadqiqotchilar respondentlarni keng qamrab olishning mumkin emasligini, olingan baholarning subyektiv xarakterini, tadqiqotning davomiyligi va mashaqqatligini, natijalarni qayta ishlash va sharhlashning murakkabligini ta'kidlaydilar.

Shunday qilib, ekspert intervyusi har doim ham korporativ madaniyatni o'rganish uchun tegishli ma'lumotlarni yig'ish vositasi emas. Korporativ madaniyatni o'rganish uchun ma'lumotlarni olish uchun rasmiylashtirilgan (miqdoriy yondashuv) o'rganilayotgan obyekt - korxonada haqida aniq tuzilgan va o'lchanadigan ma'lumotlarni olishni o'z ichiga oladi.

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## UNIFIED USE OF CLUSTER SYSTEMS IN IMPROVING THE ECONOMIC EFFICIENCY OF REGIONAL TOURISM DEVELOPMENT

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**Annotation:** The article discusses the formation of mechanisms for systematizing tourism organizations within tourism clusters to increase the economic efficiency of regional tourism development. It covers the implementation of comprehensive services for tourists in regions, directing tourists to destinations through interconnected quality services, and examining the key features of recreational services. Additionally, the article analyzes the structural elements of tourist products and provides insights into scientific and methodological approaches for the targeted use of cluster systems. This includes determining the economic efficiency gained from each element separately and the overall increase in efficiency through the interaction of tourism cluster participants and the integration of all system

**Keywords:** tourism clusters, geographically concentrated groups, recreation and wellness centers, natural resources, healthy competitive environment, resort-tourist complex, social and economic infrastructure.

### INTRODUCTION:

The annual competition between countries in attracting consumers in the tourism services market is rapidly intensifying. The tourism sector has proven to be an effective avenue for generating income in the economy. Various measures are being implemented to develop tourism services within the country, expand the volume of incoming foreign tourists, and enhance the economic efficiency of tourism services.

One of the key priorities in strengthening the position and role of the service sector in social and economic life, amid fundamental structural changes in the economy, is to improve the revenue efficiency from the tourism sector in the regions. The challenges related to increasing economic efficiency in regional tourism development, along with the insufficient study of theoretical and methodological aspects regarding the assessment of current, intermediate, and final indicators of tourism's socio-economic efficiency, highlight the relevance of this research. The growing emphasis on tourism's role in the socio-economic development of regions is driving an expansion of research in this area.

### LITERATURE ANALYSIS:

O. Dustmurodov (2023) "Basic Principles and Factors for Improving the Economic Efficiency of Regional Tourism. In the European Journal of Business Startups and Open Society", the development of regional tourism is achieved through the development of all related sectors of the economy. When infuortuzulma develops well, the possibilities of comprehensive services to tourists expand the income from tourists visiting the regions has given rise to the idea that it contributes to the socio-economic development of this area.

Also, in the research Pitana & Putu, (2019) "Challenging the Giants: Factors Contributing to Local Homestay Competitiveness in Ubud Bali", the development of the tourism industry also increases the competitiveness in it, and this certainly affects the prosperity of society, the development of the tourism sector in the regions increases the income of the region's population, jobs are created. The increase in the flow of tourists visiting shows that the increase in consumer needs for tourism is also the reason for the increase.

Corte. V. (2015). As noted in their study "Customer Satisfaction in Tourist Destination: the Case of Tourism Offer in the city of Naples", territorial tourism services are significant for increasing the competitiveness of the tourist industry and ensure that positive taasurots of tourists recommend them to others,

and this in turn forms a chain of travelers (live advertising) this process is important in the development of Tourism. It also helps significantly to increase income and profit.

According to Moraru (2017) in his study "Student mobility – driver of growth in the travel and tourism industry; case study: Erasmus students' travel preferences", diversification of tourism services and development of tourism services with strategic approaches increase the competitiveness of tourism in the region. It also prevents economic instability by providing an influx of tourists. Regional tourism services are a major factor in the development of Tourism induction, in which the quality of tourism services is also considered important.

K. Douglas Hoffman and John E.G. Bateson (2006) emphasizes that the quality of tourism services provided in his research work "Services Marketing-Concept, Strategies & Cases" is an attitude shaped by the consumer. Quality of Service - key factors are used to achieve gradually recognized competitiveness as customer satisfaction and are a key factor in customer retention.

#### **RESEARCH METHODOLOGY:**

In this research work, the types and essence of regional tourism services, as well as the importance of tourism clusters in the development of these services, were studied. The study highlights the need for high-quality territorial tourism services in boosting tourist visits. By relying on scientific works and articles of scholars and specialists in this field, as well as data from stat.uz and other international statistical websites, the research thoroughly examined and analyzed the subject. Accurate data were provided on the core essence of regional tourism services and their significance in the broader tourism sector.

#### **ANALYSIS AND RESULTS:**

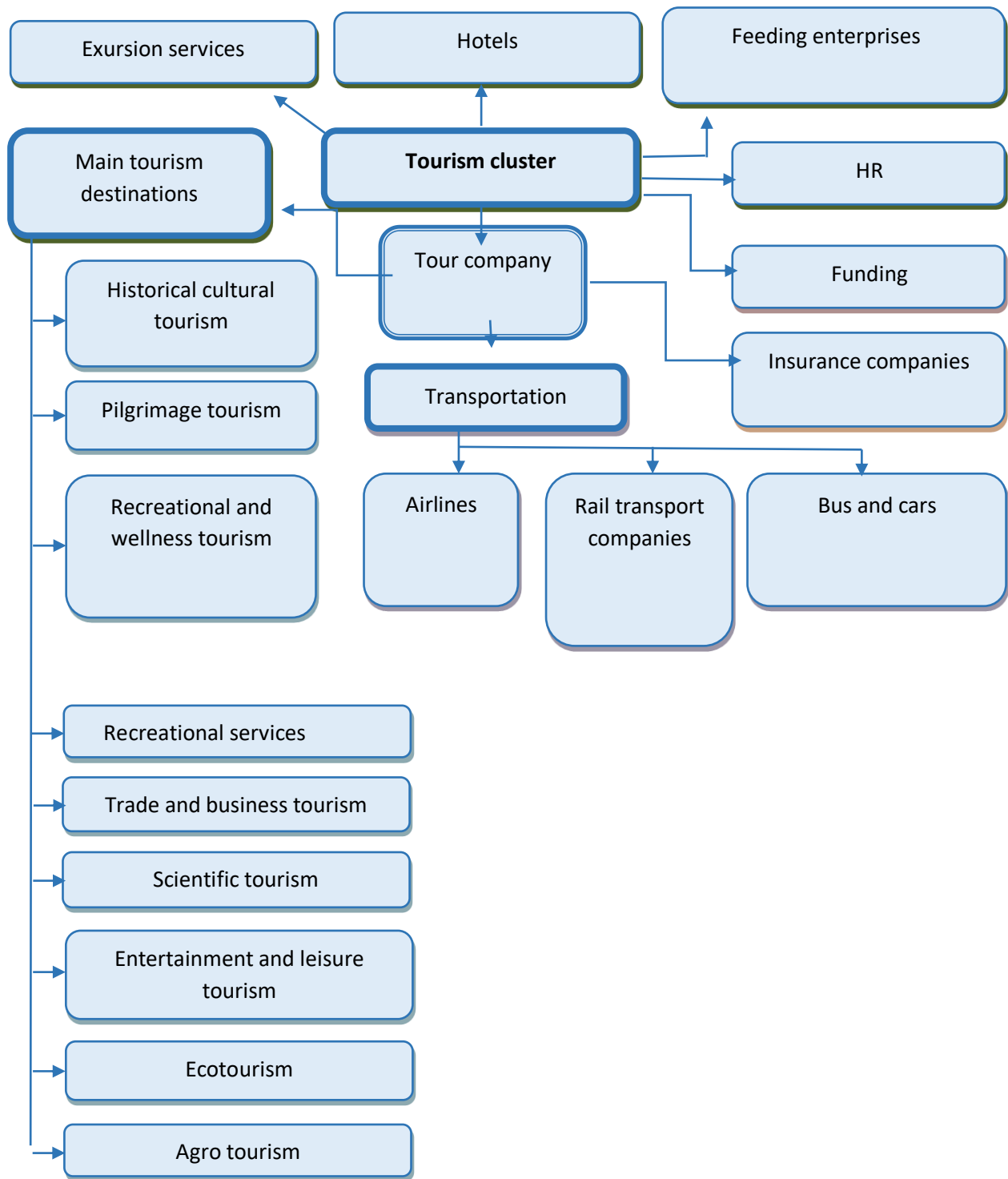
When we study the economy of developed countries, it is possible to observe that the effectiveness of systematization of entire activities, integrated development of the activities of producer and service enterprises with each other is high.

In recent years, a number of reforms have been carried out to rapidly develop the tourism sector. In increasing the economic efficiency of the development of regional tourism, mechanisms have been formed to systematize tourism organizations in tourism clusters. This system contributes to the further acceleration of the tourism sector, in particular the development and development of small tourist enterprises. While the services provided to consumers in the tourism sector are oriented towards the satisfaction of the demands and wishes of tourists, the lack of systematization of the services provided creates a number of inconveniences for tourists.

In the tourism services market, tourist enterprises in the formation of their customers, while consumers mainly want natural and high-quality tourist products, tourists pay more attention to such factors as quality, price, attractiveness, modern architecture, through tourism clusters we can see that it is convenient to develop services corresponding to the above requirements. It is also possible to establish quality systematized service mechanisms for tourists, covering all related services in the field of tourism through tourism clusters.

Despite the fact that clusters are widely used in regional and national development strategies, we cannot fully take advantage of the capabilities of this system in the development of the economy. The cluster is understood as geographically concentrated groups of interconnected companies specializing in a certain direction (Figure 1).

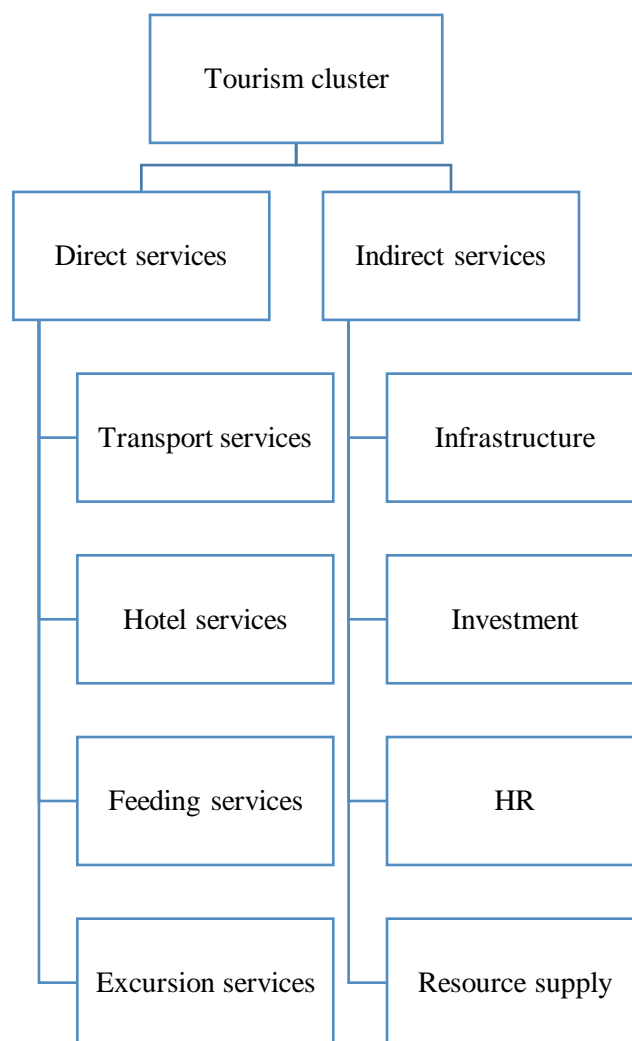
In our opinion, in increasing the economic efficiency of territorial tourism, it is necessary to further improve the activities of tourism clusters, to further expand the legal and economic opportunities for strengthening the cooperation of enterprises and organizations operating within the framework of tourism clusters.



**Figure 1. The main activities that are part of the tourism cluster**

Tourism all services provided in the production chain of the cluster are directed to tourists. When tourists visit the regions, they consume not only a tourist product that is directly directed to them, but also the necessary additional services from the relevant networks. It is in this process that tourism clusters should serve tourists with quality and convenient services so that they can have a meaningful rest.

In increasing the economic efficiency of the development of regional tourism, it is possible to expand the volume of tourists through yaraitsh to provide comprehensive services to tourists in the regions, increase the income from the tourism sector, effectively use it in tourism clusters that cover all services when creating meaningful tourist destinations for tourists. The more comprehensive the tourism clusters, the higher the financial capacity it is possible to shape direct and indirect services for tourists through the tourism clusters (Figure 2).



**Figure 2. Main services complex in the tourist cluster**<sup>95</sup>

Today, tourists are very interested in recreational services in the mountainous regions of the Samarkand region, it is possible to organize meaningful trips to domestic and foreign tourists from healing resorts and treatment areas in nature, delicious fruits, national dishes that increase the capacity of a person and other attractive tourist facilities. However, in these regions, there are not enough options for comprehensive services to tourists. In these addresses, it is possible to shape the species that remain for 1-3 days for the recreation of tourists, up to 10-15 days for tourists who come for the purpose of treatment. The formation of tourist infuratiulma in these regions will receive a number of funds.

In our opinion, it is necessary to purposefully defraud from the tourist resources of this region and form a package of self-connected services for tourists. In this case, it will be necessary to direct tourists to these addresses through quality services connected to each other and ensure that nonconfort for tourists does not occur, and, if necessary, direct tourists to other addresses.

A special place in the service sector is occupied by a resort-tourist complex and health resorts. Also in terms of the functional features of improving the health of the country, the field of wellness is considered directly related to the field of Medicine. In the formation of tourism services in recreation and Wellness Networks, it is advisable to develop useful and quality services for consumers in cooperation with medical personnel.

(In the development of basic conceptual directions that can be included in the theory of recreational services, technological process, activity goals, sources of financing, personnel policy (HR), consumer segment, management techniques, marketing techniques, advertising and other related services. Thus, the object of the theory this research, tourist and recreational service is considered as a specific product and object of economic activity with its own characteristics; the topic is a complex of economic, managerial, organizational, financial and social relations that arise in the process of production, promotion and development.

<sup>95</sup>Prepared by the author.

Consumption of tourist and recreational service. Subjects enter individuals and legal entities involved in the process of socio-economic relations in the field of tourist and recreational services.

The study of important features of recreational services is closely related to the motivation for the creation and distribution of "social" and "public" goods in society, the content and features of the implementation of social policy, the socially oriented economy and the laws of the formation of a social state.

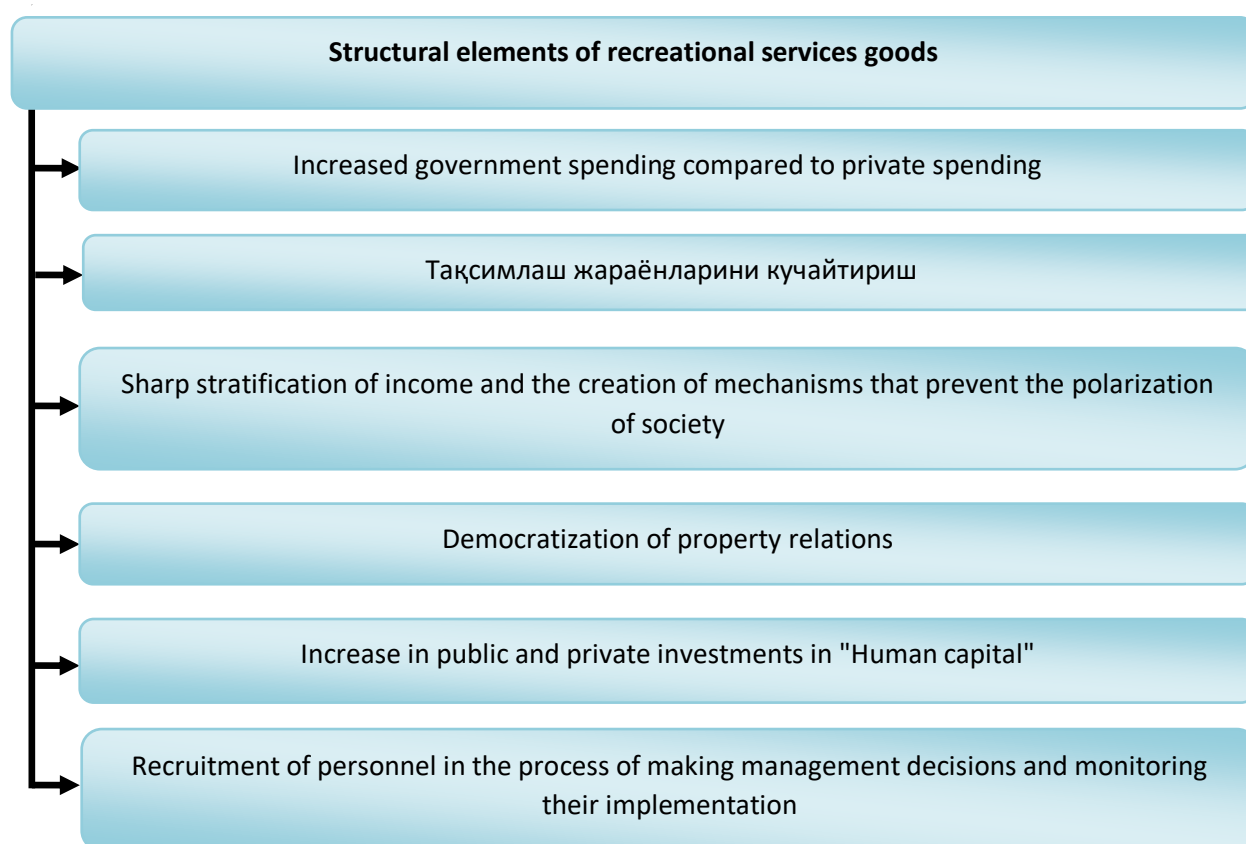
This sector of the economy serves as a factor in the integration of the national economy into the world economy and provides for the creation of competitive services in this area of the economy.

Thus, the resort and tourism sector and recreational services must serve a dual function:

1) serves as a means of meeting the needs of society for treatment, rest, travel and other forms of recreation;

2) the formation of a competitive sector that helps to increase the importance of the economy. Territory in the interregional and international division of Labor, increasing the standard of living of the population and accelerating the pace of socio-economic development of the region.

Recreation refers to the importance of analyzing the structural elements of tourist products when roving services (Figure 3).



**Figure 3. Structural elements of the goods of tourist recreational services** <sup>96</sup>

One of the modern social trends is the social orientation of the economy, which is carried out in the above (Figure 3) directions.

Strengthening the humanistic characteristics of the economy helped to develop a system of indicators for assessing the well-being of society. In the social network, in the policies of most countries, assessment criteria such as the "level" and "quality" of living well-being are clearly defined and widely used. Further increase in the living conditions of the local population is achieved by the development of the regional type of settlement.

Regional and recreational services are associated with obtaining beneficial properties from the use of natural objects, historical attractions and recreational objects during recreation, the consumption of which is common, but the possibility of consumption in a collective form is still not sufficiently formulated.

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Consequently, these services take the form of a mixed (collective) public interest, and their production becomes the result of the activities of the public and private sectors of the economy.

The formation of a socially oriented model of the economy in social production is carried out on the basis of the development and implementation of social policies that ensure the distribution of resources in order to achieve social justice and protect the population from poverty.

With the development of society and the activation of the social impact of the market, the importance of the production of social goods aimed at the development of the personality of the individual increases. In this regard, tourist and recreational services are social good (service) that serve the growth and development of the individual.

Natural resources recreational resources include those that characterize it as a suitable area for recreation in terms of its natural and geographical characteristics these are: climate comfort, high environmental status of the area the attractiveness of unique environmental tourist facilities on land, natural products, natural unique landscapes, combine different types of recreation.

The political situation in the region is considered very important when purposefully benefiting from cluster systems in increasing the economic efficiency of foreign tourism. The presence or absence of military conflicts, the level of tension in interethnic relations, the level of terrorist threat, the policy of supporting the development of tourism by the state, the visa regime and constant state control of the quality of services provided are important conditions for the formation of a resort and tourist cluster.

The Environmental economy shapes the business environment of the region and covers the demand for recreational services, fiscal and credit policies, inflation rates, purchasing power and living standards of the population that shape the investment environment of the area, etc., including software.

In the development of recreation tourism services in the regions, we considered the necessary measures to be implemented in the use of tourism clusters in Table 1 below.

**In our opinion, the targeted use of cluster systems in the development of regional tourism services orcali will achieve the following efficiency indicators:**

- The synergistic effect that arises as a result of the interaction of the subjects of the cluster and, as a result of combining all the elements of the system, expresses the possibility of obtaining more economic results than the arithmetic sum of economic effects obtained separately from each element increases;
- the multiplier effect increases, which manifests itself under the influence of related networks and contributes to the acceleration of the general economic development of the region;
- an innovative environment is formed that stimulates the flow of investments, increases the business activity and competitiveness of enterprises in the field of resort-tourism;
- the image of the territory is strengthened by the more harmonious development of the region, increasing the quality of services provided in competitive conditions and promoting the resort and tourist brand;
- trade opportunities expand by diversifying services and products;
- entertainment industry, exhibition, theater and other services will be developed in the area;
- the ecological situation of the area improves, the level of health of the local population rises.

The development of effective management solutions in the development of the regional tourism cluster is also important to strengthen cooperation between entrepreneurship, business and government. The more important it is to support the activities of entrepreneurs by the government, the more important it is to control entrepreneurs to carry out activities within the framework of the law. Today, its small business is mainly aimed at achieving short-term interests, does not take into account the long-term prospects for socio-economic development, and in developed countries it is significantly lagging behind the level of entrepreneurial culture. The most rational approach to developing effective solutions to the management of a resort-tourist complex in such conditions is the development of regulatory mechanisms in conjunction with the distribution of responsibility for the development of industry between business and the state.

Entrepreneurs mainly prefer to earn more. In our opinion, the main strategy of the activities of entrepreneurs should focus on increasing economic stability. Also, the indicators of social economic disparity rise in the fact that workers create a work environment based on social norms and set wages for employees.

It seems to us that in order to assess the effectiveness of the activities of business structures and develop strategies, it is necessary to create legally established institutions that act as intermediaries between business and the state. It can function as an organization representing the Association of Tourism and leisure entrepreneurs with an elected management apparatus and voluntary membership, which must be financially

independent of any political parties and administrations and be completely transparent in its activities in relation to state structures.

**Table-1.**

**Tasks and results necessary for the development of the tourism cluster<sup>97</sup>**

<b>Tasks that need to be implemented</b>	<b>Implementation paths</b>	<b>Expected results</b>
Further improvement of the socio-economic status of the territory.	Economic development is the state of economic development through organizational and financial measures.	Living conditions for the population of the region will be further improved, infuriations will be formed in the area, new jobs will be created, the size of the area's export will expand.
Development of recrasion services in the area.	The study of the possibilities of rection areas with touristic resources, the effective use of existing resources, the formation of natural tourist areas, the improvement and expansion of the quality and volume of services, the formation of competitive and attractive destinations, the expansion of the flow of tourists, the application of marketing techniques.	Quality and attractive tourist rection services will be formed in the regions, new tourist destinations will be established for tourists, the tourist potential of the area will rise.
Development of tourist clusters in tourist recrasion areas.	To establish quality service to consumers through the development of tourism related and all related organizations and enterprises.	For manufacturers, service providers and consumers, quality and relatively inexpensive products and services are introduced, the integration of enterprises within tourism clusters accelerates the development of enterprises.
Increase the economic efficiency of regional tourism.	Studying the factors that increase the economic efficiency of regional tourism, taking measures to identify and eliminate existing attitudes and shortcomings.	Activities of serdaromad tourist enterprises will be established in the regions.
Improving the activities of service personnel.	Improving the training system of professional service personnel in universities and vocational guidance centers, studying foreign experience, increasing the potential of employees to use artificial intelligence services, improving the skills of employees in regular training.	In tourism clusters, a staff base with modern experience is formed, mechanisms for the provision of Smart services are introduced, the efficiency of work in tourism clusters is increased.

Trends developing in the social economic development of the Samarkand region should revise the importance of the problems of recreational development of Regions and form a high-quality recreational product, which, in turn, is carried out by assessing the recreational capabilities of Regions, identifying problem points and eliminating them. Due to its geographical location, the territory of the Samarkand region is characterized not only by the richness of natural and cultural and historical places, but also by the extreme diversity of the landscape, green areas and climatic conditions, which requires a unified approach to the modernization of the resort and tourist cluster, a more flexible policy adapted to each individual district.

Each district of Samarkand region has its own tourism services. While the unique landscapes that harmonize the beauty of nature in the mountainous regions of the region are priceless blessings distinguished by their natural products, these addresses are visited mainly by local residents for recreation. Since several effective measures for the development of domestic tourism have been implemented in our country in recent

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ears, the demand for domestic tourism has been developing from ear to ear. However, in some of the above mountainous huddus, even for domestic tourists, the quality of Service is not at the level of demand. In our opinion, it is necessary to purposefully use the available opportunities in these regions, to create comfortable recreation conditions for domestic and foreign tourists at these addresses. In particular (non-permanent period), the demand for recreation in mountainous regions on hot summer days will increase even more, it is during the manashu period that the quality services provided in mountainous regions will be a proposal in accordance with the requirements of the Turits.

Also, in the research carried out, it was found that the quality of services provided in this region, insufficient types of services were not formed, prices for certain services (trade services in local stores) were valuable, although the natural resource in the sanatorium, which is natural, healing, healing from underground in the Nurobot district, gained a name with uniqueness. The services provided at this treatment facility in Nurobot district do not choose the season, that is, it is possible to go to the four seasons of the ear and receive treatment. In our opinion, the effective use of the opportunities of this region, the diversification of services in these regions should create the possibility of comprehensive services for tourists at this address. In relation to this sanatorium, foreign tourists from Russia, Kazakhstan, Tajikistan are accepted. By expanding the possibilities of the resort, further improving its activities, applying marketing techniques, it is possible to form an influx of tourists from other countries.

The name winning Follow father in cattacurghan district (treatment with hunger) Wellness Center has earned a name with effective treatment techniques. However, the clients of this center are mainly provided with medical services. It seems to us that by harmonizing tourism services with medical services in health centers, providing tours to struggling customers that do not adversely affect their health, it is possible to increase the attractiveness of the services provided by shaping the services of attracting tourists to educational cultural facilities, shrines, mountainous regions, tiyators to museums and other cultural events, Agro clusters.

In the studies conducted, it was found that in increasing the economic efficiency of regional tourism, it is possible to increase the attractiveness of central resources in the Samarkand region, improve tourism services, diversify, combine tourism services with related industries. Through tourism clusters, it is possible to systematize all services, develop activities, eliminate price imbalances, expand the flow of tourists. The possibility of sustainable development of the resort and tourist cluster is directly related to the availability and level of development of the infrastructure of the tourism sector. Developed infrastructure helps to increase the attractiveness of recreational areas, increases the tourist potential of areas and reduces negative seasonal fluctuations the economic impact of infrastructure development is manifested in two aspects. These are:

- direct;
- indirectly.

The first is the increase in the tourist flow and the volume of services provided, as a result of which an increase in tax revenues is achieved, the population is occupied by ser income jobs.

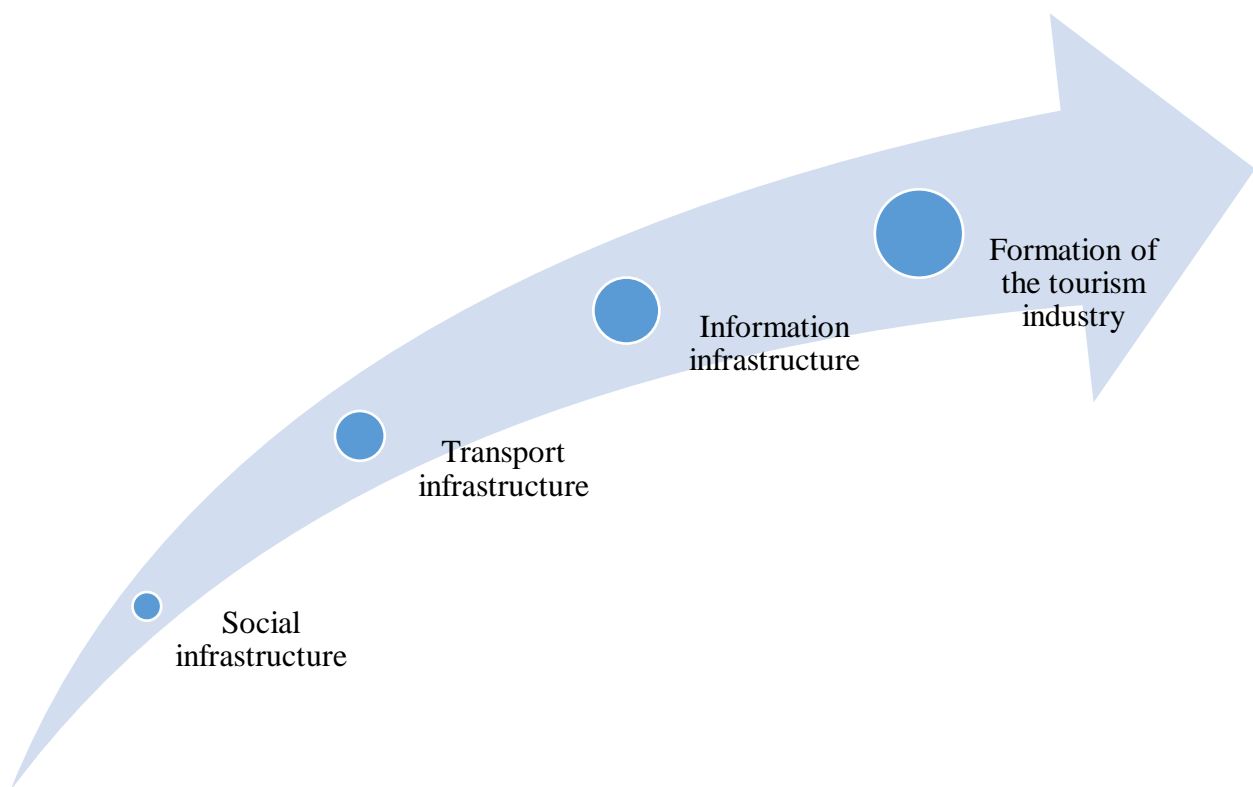
The latter manifests itself in the animation effect and ensures the development of related industries - construction, transport enterprises, leisure and entertainment organizations, telecommunications systems, catering enterprises, household services, etc.

In addition, the social impact of infrastructure development includes improving the ecological condition of the regions, improving the formation and quality of health, culture and sports, household services, housing and communal services.

A healthy competitive environment plays an important role in the development of tourism services. In our opinion, tourism clusters should be shaped to such an extent that tourist enterprises within clusters must withstand competition with tourist services in local and foreign neighboring countries.

In modern market conditions, the activities of enterprises of tourism clusters should be characterized by a high level of diversification. Tourism infrastructure and infrastructure of related industries are the basis of the activities of the tourism industry and a prerequisite for its development with long-term competitive services (Figure 4).





### 3.1.4. Classification of regional tourism infrastructure <sup>98</sup>

Tourist infrastructure is provided by adventurous and enjoyable tourism services from companies providing accommodation-Community accommodation for tourists (hotels, sanatoriums, boarding houses, holiday homes, tourist bases, etc.), entertainment facilities, water parks, ponds, specialization-resurrected recreational services.

It should also form tourist exhibition objects-culture, history, monuments of nature, excursion offer. The infrastructure of related industries directly affects the development of the tourism industry. This includes, first of all, transport infrastructure characterized by the services of all types of transport, the length and quality of road covers, the capacity of airports, railway stations and highways, in other words, the ability to provide comfort in the consumption of tourist resources.

The second is the social infrastructure provided by enterprises and organizations that can carry out their activities without the demand of recreational users, but where tourists live-cafes, restaurants, museums, theaters and cinemas, houses of everyday life, zoos, exhibition halls and galleries, etc.

Third, the information infrastructure is characterized by the presence or absence of certain means of communication (mobile, satellite, Internet services), the availability of their prices and the coverage area.

The fourth is the industrial infrastructure, which is not directly related to the resort-tourist complex and does not participate in the formation of tourist products, but is necessary to provide tourists with financial services, insurance, food, housing and communal services, clothing, shoes, souvenirs, resort accessories and tourist equipment, etc.

To date, the lack of municipal infrastructure (energy and water supply facilities, sewage treatment facilities) is a serious obstacle to the further development of the resort and tourist cluster and increase its attractiveness to private investors. During the holiday season, the load on utilities increases several times, and outdated infrastructure creates the risk of unpleasant events.

As part of the economically based tariff, it is important to change the composition of costs, improve the relations of legal entities in the process of production and provision of Housing and communal services. It is necessary to create a competitive market for the provision of utilities, solve the problem of Technical re-equipment of existing infrastructure facilities, attracting private investments.

Transportation infrastructure is one of the most important elements of the tourism economy and at the same time one of the most important factors in its development. In addition to creating all the amenities in the transport services for tourists, it is necessary to eliminate the inconvenience caused by vehicles. In the process of organizing excursions to tourist facilities in the sights of the city of Samarkand, cars moving within the city

<sup>98</sup>Prepared by the author...

create inconveniences for tourists. In our opinion, it is necessary to develop optimal options for moving light road vehicles at addresses where tourist facilities are crowded, in particular, to develop restrictions on the movement of cars in these regions during the time of the day when tourists are actively moving.

The application of digitization Technologies takes the resort and tourism industry to a completely new stage of development, and the leading role in this process belongs to the internet. The benefits of using the Global Internet network are an important factor both from the point of view of consumers and from the point of view of the manufacturer of tourist services.

The rapid development of digital technologies can change the structure of the tourist services market, remove intermediaries between tour operators and end users of tourist products. Independently, having the opportunity to create their own tours, book hotels, choose the necessary excursions, services and tourist routes, compare schedules of different types of transport, make electronic payments, the consumer can abandon the services of travel agencies and switch to direct communication. The service provider is becoming one of the most important and relevant issues in such conditions as the formation of a single information space for the regional tourism sector, the development of cooperation with expanding banking institutions and the expansion of interregional information cooperation.

Qualitative changes in the field of recreation and tourism are based on the rational planning of the recreational development of the region and the improvement of Public-Private Partnership, as a result of which it directly contributes to the formation of a stable competitive tourism cluster of the Samarkand region.

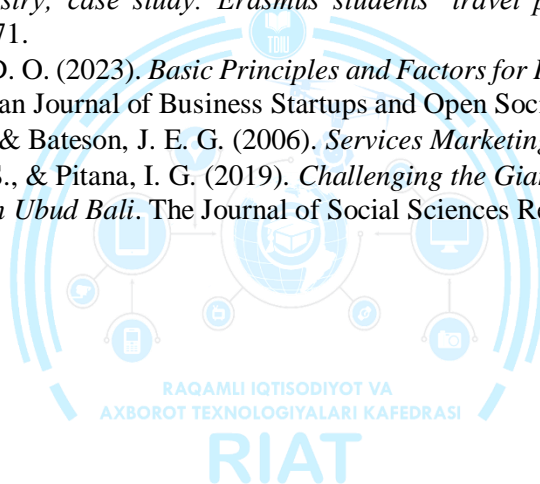
#### **CONCLUSIONS AND SUGGESTIONS:**

The targeted use of cluster systems in the development of regional tourism services can lead to several significant efficiency indicators through a synergistic effect. This occurs due to the interaction between cluster entities, which, when combined, result in greater economic outcomes than the sum of individual effects achieved separately from each element. This synergy creates a multiplier effect and fosters an innovative environment that attracts investment, increases business activity, and enhances the competitiveness of enterprises in the resort and tourism sector. Additionally, it strengthens the region's image through more harmonious development, improves the quality of services provided in a competitive environment, and promotes the region's resort and tourist brand. Trade opportunities expand through the diversification of services and products, including the entertainment industry, exhibitions, theaters, and more, while the health and well-being of the local population also improve.

In the case of Samarkand region, increasing its economic efficiency in tourism involves enhancing the attractiveness of its central resources, improving tourism services, and diversifying and integrating tourism with related industries. Through tourism clusters, all services can be systematized, activities developed, price imbalances eliminated, and the flow of tourists expanded.

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# IMPROVEMENT OF ACCOUNTING OF AUTHORIZED CAPITAL AT JOINT-STOCK COMPANIES

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**Abstract:** This article is devoted to the consideration of issues related to improving the accounting of authorized capital in accordance with international financial reporting standards (IFRS). The calculation of equity capital is reflected in the reporting based on information obtained from practice.  
**Key words:** accounting, financial reporting, IFRS, equity capital, authorized capital.

## INTRODUCTION

The formation of authorized capital and its accounting are regulated by the Law of the Republic of Uzbekistan № 404 “On Accounting” dated April 13, 2016, and the Law № 370 “On Protection of Joint-Stock Companies and Shareholders’ Rights” dated May 6, 2014. Currently, the organization and improvement of the accounting for authorized capital in compliance with the requirements of the Ministry of Finance is one of the most critical issues. In global practice, accounting issues related to equity capital are addressed in several international financial reporting standards (IFRS). These include standards such as IFRS №1 “Presentation of Financial Statements,” IFRS №8 “Accounting Policies, Changes in Accounting Estimates and Errors,” IFRS №12 “Income Taxes,” IFRS №32 “Financial Instruments: Presentation,” IFRS №33 “Earnings per Share,” and IFRS №37 “Provisions, Contingent Liabilities, and Contingent Assets,” among others.<sup>99</sup>

## LITERATURE REVIEW

Below, we consider the opinions of scholars and economists regarding authorized capital and its accounting. According to Article 3 of the Law № 370 “On Protection of Joint-Stock Companies and Shareholders’ Rights” dated May 6, 2014, “The authorized fund (authorized capital) is the portion of a commercial organization that is divided into a certain number of shares, which confirm the rights of shareholders in relation to the joint-stock company” (2024).

The authorized capital of a company consists of the nominal value of the company’s shares acquired by shareholders and is expressed in the national currency of the Republic of Uzbekistan. The nominal value of all shares issued by the company must be uniform. The authorized capital establishes the minimum amount of the company’s assets, which serves as a guarantee for the interests of the company’s creditors.

The amount of the company's authorized fund (authorized capital) is specified in the company's charter. The maximum period for forming the authorized fund (authorized capital), in the amount prescribed by the charter, must not exceed one year from the moment of the company's state registration.<sup>100</sup>

According to Article 19 of the Law of the Republic of Uzbekistan № 404 “On Accounting,” dated April 13, 2016, “Equity capital consists of the authorized fund (authorized capital), additional, reserve capital, and retained earnings. The authorized capital reflects the sum of contributions (expressed in monetary terms) specified in the charter documents. Tangible and intangible assets included as contributions to the authorized fund (authorized capital) are valued according to the agreement between the founders (participants), and in cases provided by law, they must be appraised by an independent entity” (2024).

A.S. Agafonov states that the capital of an enterprise is divided into equity capital (own capital) and borrowed capital. Equity is the portion of the company’s assets that remains after deducting all liabilities (Agafonov, 2020).

According to N.A. Safronov, “Equity capital represents the total value of the company’s own funds. The amount of equity capital is determined by subtracting all liabilities from the company’s total assets on the balance sheet” (Safronov, 2016).

V.F. Paliy describes equity capital as “the value of assets without the burden of liabilities.” Here, the economist refers to the value of assets after deducting liabilities (Paliy, 2013).

Z.V. Udalova, A.G. Saltanova, and A.N. Tarasov, who have explored equity capital from an accounting perspective, provide the following definition: “Equity capital consists of economic resources that

<sup>99</sup> International financial reporting standards.2018.

<sup>100</sup> Id. Articles 16, 17.

reflect the total value of assets, after deducting liabilities, belonging to an enterprise. These resources will generate future profits, including authorized, additional, reserve capitals, and undistributed profits” (Udalova et al., 2018).

I.A. Sayapina considers authorized capital as “a value expressed in monetary form that reflects the minimum amount of the company’s property, guaranteeing the interests of its creditors and determined by the sum of the nominal value of the participants' shares” (Sayapina, 2016).

S.N. Polenova and N.A. Mislavskaya define authorized capital as “the nominal value of the company’s shares acquired by shareholders. It determines the minimum amount of the company’s property, which guarantees the interests of its creditors” (Polenova et al., 2013).

A. Ermatov describes equity capital as “a set of values accumulated through the use of production resources in the past, capable of generating economic benefits in the future and owned by the company’s owners” (Ermatorov, 2020).

E.S. Drujilovskaya and T.Yu. Drujilovskaya emphasize that “capital is the most significant object of accounting and an integral part of the financial reporting of any organization. However, our research has shown that both the theory and practice of accounting and reporting have serious issues in the interpretation and reflection of capital in financial statements” (Drujilovskaya et al., 2023).

I.D. Demina and O.E. Kachkova believe that “capital is one of the most complex categories in accounting. There are many interpretations of this concept, which creates ambiguity in the understanding of ‘capital.’ The definition of capital in International Financial Reporting Standards (IFRS) determines the accounting methodology for specific economic activities and the approaches to analyzing a company’s financial position. According to paragraph 49 of the 'Framework for the Preparation and Presentation of Financial Statements' in IFRS, capital is the portion of the company's assets remaining after all liabilities have been deducted” (Demina et al., 2024).

## RESEARCH METHODOLOGY

The definitions and opinions provided by scholars and economists regarding equity capital and its accounting have been thoroughly summarized, offering a comprehensive view of how this concept is understood across different academic and professional perspectives. Equity capital, often considered a key component of a company's financial structure, has been analyzed in terms of its role in business sustainability, ownership stakes, and the overall financial health of a company. Scholars have debated its definition in various contexts, including how equity capital influences corporate governance, risk management, and shareholder value. Moreover, economists have examined the implications of equity capital on market efficiency, investment strategies, and long-term business growth.

## ANALYSIS AND RESULTS

The authorized capital of a company consists of the nominal value of its shares held by shareholders and is expressed in the national currency of the Republic of Uzbekistan. The nominal value of all issued shares must be the same. The authorized capital determines the minimum amount of the company’s assets that guarantees the interests of its creditors.

The amount of authorized capital is defined in the company’s charter, and the formation of the authorized capital, as specified in the charter, must be completed within one year from the company's state registration.

In our research object, "Uzbekneftgaz" JSC, the net profit amounted to 611.6 billion UZS in 2023, a decrease of 52.6 percent compared to 2022. Over the past three years, its income has decreased fivefold—from 3.3 trillion UZS to 611 billion UZS. This decline in financial performance is also reflected in the company's equity, retained earnings, and gross profit.

The net profit of the joint-stock company last year was 611.6 billion UZS, which is 52.6 percent less than in 2022. Over the past 3–4 years, the company's profit has decreased fivefold. The assets of the oil and gas company reached nearly 90 trillion UZS, representing a 13.1 percent increase compared to the previous year, while its revenue amounted to 14.7 trillion UZS, up 11.2 percent.

It is important to note that the decrease in financial indicators is observed in capital (48 trillion UZS), retained earnings (5.7 trillion UZS), and gross profit (3.1 trillion UZS). Despite this, "Uzbekneftgaz" JSC significantly increased its dividend payments, doubling the amount to 2.5 trillion UZS over the year.

The analysis of the equity capital structure is presented in **Table 1**, developed using the reporting data of “UZBEKNEFTGAZ” JOINT STOCK COMPANY for 2020–2023.

**Table-1**

**Analysis of the equity capital structure of “UZBEKNEFTGAZ” JOINT STOCK COMPANY for 2020-2023<sup>101</sup> (million UZS)**

№	Elements	31.12.2020	31.12.2021	31.12.2022	31.12.2023
1	Authorized capital	21536403,0	21,536,466,0	21 243 473,3	21 273 593,3
2	Added value	-	-	-	-
3	Reserve capital	10023593,9	9,925,768,6	10,069,403,0	8 956 228,4
4	Retained earnings	3440817,3	6,678,988,4	6,250,163,9	5 722 788,2
5	Targeted receipts	11761832,0	11,877,733,9	11,895,362,2	12 042 099,8
6	<b>Equity sources, total:</b>	<b>46762646,2</b>	<b>50 018 956,4</b>	<b>49 458 402,5</b>	<b>47 994 709,7</b>

The analysis of the data in Table 2 demonstrates that the equity capital of this joint-stock company as of December 31, 2020 constituted 46 762 646.2 million UZS, as of December 31, 2021 accounted for 50 018 956.4 million UZS, as of December 31, 2022 this indicator accounted for 49 458 402.5 million UZS, and by the end of 2023 it constituted 47 994 709.7 million UZS. As of December 31, 2023, the authorized capital accounted for 21 243 473.3 million UZS. In the new wording of the charter of the joint stock company with ordinary shares of “UZBEKNEFTGAZ” joint stock company approved by the Resolution № 10 dated June 16, 2023, the amount of the authorized capital is set at 21 243 473 351 thousand UZS.

The process of formation of authorized capital is reflected in accounting in the following manner:

Debit account 4610 “Indebtedness of the founders’ shares to the authorized capital”- 21 243 473 351 UZS;

Credit account 8300 “Accounts for authorized capital accounting” - 21 243 473 351 UZS.

One of the problems in accounting for the formation of authorized capital is to reflect the share contributed by foreign founders and exchange rate differences arising in foreign exchange in the relevant accounts.

In this regard, N.G.Sapojnikova and M.V.Tkacheva expressed the following opinions: The exchange rate difference related to the formation of the authorized capital of the corporation is recognized as the difference between the assessment in roubles of the debt of the founder (participant) for the contribution to the authorized capital of the corporation calculated in the charter documents. Amount of deposits and foreign exchange calculated at the exchange rate of the Bank of Russia on the day of receipt of the ruble value of this deposit in the charter documents. The negative exchange rate difference on the foreign investor’s deposit in foreign exchange is not reflected as a part of the additional capital, because a debt appears in the settlement accounts with the founders, and the deposit is not recognized as paid. Additional capital funds can be used to increase the authorized capital in terms of positive exchange differences.

Another scholar-economist Sh.A. Tashmatov has expressed similar opinion: “When changing the amount of the authorized capital of an economic entity, positive exchange rate differences that occur between the date of registration of the charter documents and the date of entering the funds into the authorized fund are reflected in accounting as added capital in account 8420 “Exchange rate differences that occur during the authorized capital formation”. If in this case, negative exchange rate differences occur, within the framework of positive differences that occurred during the formation of the charter capital in previous periods, they are reflected in account 8420 “Exchange rate differences arising in the authorized capital formation”, but if the negative exchange rate differences are more than the positive differences that occurred during the formation of the charter fund in the previous periods, in that case, the remaining part will be spent on financial business activities.

In order to eliminate the above the problem specified above, the following proposal is made:

- open working account 4620 “Indebtedness of foreign founders’ shares to the authorized capital”.

First of all, it determines the amount of authorized capital, and secondly, it enables to correctly determine the difference in the foreign currency exchange rate and reflect it in the book-keeping accounts.

As a result of implementing the working account 4620 “Indebtedness of foreign founders’ shares to the authorized capital” in practice, the following accounting entries are made:

<sup>101</sup> Developed by the author on the basis of the financial reporting data of JSC.

To the sum of the foreign founder's indebtedness for the contribution to its authorized capital after the state registration of the enterprise;

Debit account: 4620 "Indebtedness of foreign founders' shares to the authorized capital",

Credit account: 8310 "Ordinary shares".

The amount of foreign exchange contribution of the foreign founder to the authorized capital of the enterprise:

Debit account: 5210 "Domestic currency accounts",

Credit account: 4620 "Indebtedness of foreign founders' shares to the authorized capital",

Amount of positive exchange rate difference arising in foreign exchange as a result of settlements with founders:

Debit account: 4620 "Indebtedness of foreign founders' shares to the authorized capital",

Credit account: 8420 "Exchange rate difference in the authorized capital formation".

The amount of the negative exchange rate difference arising in foreign exchange as a result of settlements with the founders:

Debit account: 8420 "Exchange rate difference in the authorized capital formation",

Credit account: 4620 "Indebtedness of foreign founders' shares to the authorized capital".

The reflection of the negative exchange rate difference that occurred during the authorized capital formation is the use of additional capital, which is written off based on the amount of funds in the account 8420 "Exchange rate difference in the authorized capital formation". If the amount in account 8420 "Exchange rate difference in the authorized capital formation" is not adequate to cover the amount of the negative exchange rate difference arising in foreign exchange, the remaining amount is covered from the profit of the reporting year and reflected in the accounting accounts as follows:

Debit account: 8710 "Retained earnings (unrecovered loss) of the reporting period,

Credit account: 4620 "Indebtedness of foreign founders' shares to the authorized capital".

Using the above-mentioned basic approaches of the accounting records of the IFRS, it helps to improve the reflection of the authorized capital in the accounting and financial statements and raises the quality of the provided information. Moreover, the data on the state and movement of the authorized capital of the joint-stock company is correctly formed and meets the requirements set by international standards.

### **5. Conclusion and proposals:**

Organization of the accounting of the authorized capital on the IFRS basis is considered an urgent issue.

We propose to open working account 4620 "Indebtedness of foreign founders' shares to the authorized capital".

With the aim of improving the accounting of the authorized capital it is recommended to use IFRS (IAS) №1 "Presentation of financial statements", IFRS (IAS) №8 "Accounting policy, changes and errors in accounting estimates", IFRS №12 (IAS) "Income taxes", IFRS (IAS) №32 "Financial instruments: Presentation of information", IFRS (IAS) №33 "Earnings per share", IFRS (IAS) №37 "Reserves, Contingent Liabilities and Contingent Assets", and other international financial reporting standards, include them in the accounting policy and apply when accounting for the equity capital.

Organization of the accounting of the authorized capital in reliance upon the international financial reporting standards adjusts the accounting of our country in compliance with the world practice.

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# DAVLAT XARIDLARIDA MAHALLIY ISHLAB CHIQUARUVCHILARNI QO‘LLAB-QUVVATLASH VA SAVDO HAJMINING O‘SISHI: DAVLAT SIYOSATINING NATIJALARI VA IMKONIYATLARI

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**Annotatsiya:** Ushbu maqola O‘zbekiston Respublikasida mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlash siyosati va uning savdo hajmining o‘shirishiga ta‘sirini tahlil qiladi. Davlat tomonidan amalga oshirilgan chora-tadbirlar, xususan, Elektron Kooperatsiya Portalida mahalliy ishlab chiqaruvchilarga berilgan imtiyozlar va narx preferensiyalari, savdo hajmini sezilarli darajada oshirishga olib kelgan. Tadqiqot natijalari davlat siyosatining ijobiy natijalarini ko‘rsatadi va kelgusida yanada samarali siyosatni amalga oshirish uchun zarur bo‘lgan choralarni aniqlashga yordam beradi.

**Keywords:** Mahalliy ishlab chiqaruvchilar, davlat siyosati, savdo hajmi, Elektron Kooperatsiya Portal, narx preferensiyalari, iqtisodiy rivojlanish, eksport salohiyati, O‘zbekiston.

## KIRISH

Har bir mamlakat uchun iqtisodiy barqarorlik va mustaqillikning asosi mahalliy ishlab chiqarishni rivojlantirishda yotadi. Mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlash orqali ichki bozorda raqobatbardoshlikni oshirish, yangi ish o‘rinlarini yaratish, texnologik modernizatsiya jarayonlarini tezlashtirish hamda milliy iqtisodiyotning global bozorga integratsiyasini kuchaytirish mumkin. O‘zbekiston Respublikasi so‘nggi yillarda ushbu yo‘nalishda sezilarli yutuqlarga erishdi. Davlat tomonidan amalga oshirilayotgan keng ko‘lamli iqtisodiy islohotlar, xususan, mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlashga qaratilgan davlat xaridlari siyosati mamlakat sanoatini yangi bosqichga olib chiqmoqda.

O‘zbekiston Respublikasi Prezidenti tomonidan qabul qilingan qator farmon va qarorlar davlat xaridlari tizimini tubdan isloh qilish, unga zamonaviy raqamli texnologiyalarni joriy etish va eng muhimi, mahalliy ishlab chiqaruvchilar uchun keng imkoniyatlar yaratishga qaratilgan. Masalan, davlat xaridlari doirasida mahalliy ishlab chiqaruvchilar uchun narx preferensiyalari belgilanishi, elektron kooperatsiya portallari orqali to‘g‘ridan-to‘g‘ri shartnomalar tuzish imkoniyatining kengaytirilishi kabi chora-tadbirlar natijasida mahalliy ishlab chiqaruvchilar tomonidan ishlab chiqarilayotgan mahsulotlar va ko‘rsatilayotgan xizmatlarga talab ortib bormoqda.

Buning natijasida, so‘nggi yillarda mahalliy ishlab chiqaruvchilar tomonidan amalga oshirilayotgan savdo hajmi sezilarli darajada oshdi. Jumladan, Elektron kooperatsiya portalidagi savdo hajmining hisobotlariga ko‘ra, shartnomalar soni hamda turli mahsulot turlarining ulushi bo‘yicha ko‘rsatkichlar juda yuqori darajada bo‘ldi. Ushbu natijalar davlatning bu boradagi siyosatining muvaffaqiyatli amalga oshirilganligini ko‘rsatib turibdi.

Shu bilan birga, mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlash nafaqat ichki bozorning barqarorligini ta‘minlash, balki ularning xalqaro bozordagi raqobatbardoshligini oshirish uchun ham muhim ahamiyat kasb etadi. Bu jarayonda davlatning bevosita aralashuvi va xususiy sektor bilan samarali hamkorlik, milliy iqtisodiyotning kelgusidagi o‘shirishda hal qiluvchi omil bo‘lib xizmat qilishi mumkin. Shunday ekan, maqolada mahalliy ishlab chiqaruvchilarni davlat tomonidan qo‘llab-quvvatlash siyosatining asosiy yo‘nalishlari, savdo hajmining o‘shirish va kelgusi imkoniyatlar tahlil qilinadi.

## MAVZUGA OID ADABIYOTLAR SHARHI

Mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlash davlat siyosatining muhim yo‘nalishlaridan biri bo‘lib, iqtisodiy o‘shirishni ta‘minlash, milliy sanoatni rivojlantirish va savdo hajmini oshirishga qaratilgan. Ayniqsa, davlat xaridlari jarayonida mahalliy ishlab chiqaruvchilarning ishtirokini rag‘batlantirish davlat siyosatining samaradorligini oshiruvchi muhim mexanizmdir.

Keyingi yillarda davlat xaridlari siyosati turli mamlakatlarda mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlashda muhim rol o‘ynadi. Weiss va Thurbon mahalliy ishlab chiqaruvchilarni rag‘batlantirish orqali



iqtisodiyotni rivojlantirishni tahlil qilib, davlat xaridlari siyosatining milliy ishlab chiqaruvchilarni qo‘llab-quvvatlashga bo‘lgan ijobiy ta‘sirini ko‘rsatadi. Tadqiqotga ko‘ra, davlat xaridlari jarayonida mahalliy korxonalarining ishtiroki nafaqat milliy ishlab chiqarishni rag‘batlantiradi, balki savdo hajmini oshirish va iqtisodiy o‘sishni ta‘minlashda ham muhim o‘rin tutadi.

Boshqa bir tadqiqotda Arrowsmith va Kunzlik davlat xaridlari orqali iqtisodiy barqarorlikni ta‘minlash masalasini o‘rganib, davlat xaridlarining mahalliy ishlab chiqaruvchilar uchun raqobat muhitini yaxshilashdagi o‘rni va ahamiyatini ta‘kidlagan. Ularning tadqiqotlari mahalliy ishlab chiqaruvchilarni davlat xaridlarida ishtirok etishini rag‘batlantirishning iqtisodiy samaradorligini tasdiqlaydi.

O‘zbekiston kontekstida esa Yusupov davlat xaridlari siyosatining milliy ishlab chiqaruvchilarni qo‘llab-quvvatlashdagi ahamiyatini o‘rganib chiqqan. Uning tadqiqotlari davlat tomonidan mahalliy korxonalariga yaratilayotgan imkoniyatlar, imtiyozlar va tender jarayonlarida ishtirok etishdagi qulayliklar natijasida mahalliy ishlab chiqarishning ortishi, savdo hajmining kengayishi va milliy iqtisodiyotning mustahkamlanishini ko‘rsatadi.

### TADVIQOT METODOLOGIYASI

Ushbu tadqiqotda mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlash siyosatining savdo hajmiga ta‘sirini baholash uchun sifatli va miqdoriy tahlil usullari qo‘llanildi. Ma‘lumotlar O‘zbekiston Respublikasi Iqtisodiyot va moliya vazirligi statistikasi, Elektron Kooperatsiya Portalining hisobotlari, shuningdek, xalqaro tashkilotlar nashrlaridan olindi.

Sifatli tahlil davlat siyosatining mahalliy ishlab chiqaruvchilar raqobatbardoshligiga ta‘sirini chuqur o‘rganishga qaratildi. Miqdoriy tahlil esa savdo hajmi va shartnomalar soni bo‘yicha statistik ko‘rsatkichlarni tahlil qilish orqali davlat choralari samaradorligini aniqlashga qaratildi.

Shuningdek, xalqaro tajribalar bilan taqqoslash o‘tkazilib, milliy sharoitlarga moslashgan takliflar ishlab chiqildi. Bu yondashuv, mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlash siyosatini yanada samarali qilish va iqtisodiy rivojlanishni ta‘minlashda muhim ahamiyatga ega.

### TAHLIL VA NATIJALAR

#### *Mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlash natijalari*

O‘zbekiston Respublikasi hukumatining mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlashga qaratilgan chora-tadbirlari sezilarli natijalar bermoqda. Elektron kooperatsiya portalida amalga oshirilgan savdo hajmi va shartnomalar soni ushbu siyosatning muvaffaqiyatini ko‘rsatib turibdi.

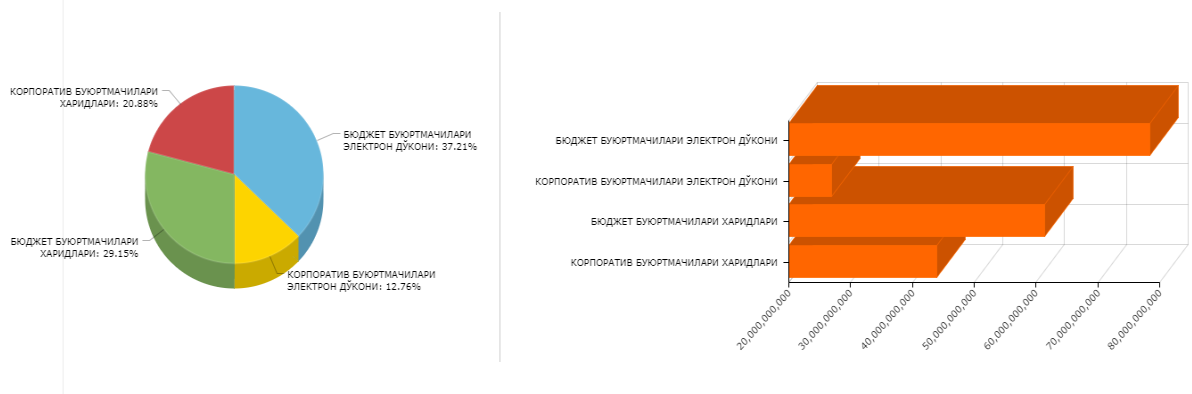
Davr	Shartnoma soni	Umumiy summa
2023-yil yanvar-iyun	22 568	6,6 trln. so‘m
2024-yil yanvar-iyul	56 580	8,82641 trln. so‘m
2024-yil yanvar-iyun		7,15969 trln. so‘m

*Manba: [new.cooperation.uz](http://new.cooperation.uz)*

2023-yilning yanvar-iyun oylarida ushbu portal orqali 22,568 ta shartnoma tuzilib, umumiy savdo hajmi 6.6 trillion so‘mni tashkil etdi. Shu bilan birga, 2024-yil yanvar-iyul oylarida tuzilgan shartnomalar soni 56,580 taga etib, savdo hajmi 8.826 trillion so‘mga oshdi. 2024-yil yanvar-iyun oylarida esa savdo hajmi 7.15969 trillion so‘mni tashkil qildi. Bu raqamlar, davlat tomonidan berilgan qo‘llab-quvvatlash choralari samarasini aniq tasdiqlaydi va mahalliy ishlab chiqaruvchilarning o‘sishini ko‘rsatadi.

## ХАРИДЛАР СТАТИСТИКАСИ

### Товарайланма 2024 йил 30-август



Manba: <http://xarid.uz>

2024-yil 30-avgust holati uchun O'zbekistonning tovar va xomashyo elektron portallarida shakllangan umumiy savdo hajmi bo'yicha davlat va korporativ buyurtmachilar tomonidan amalga oshirilgan xaridlar umumiy summa 210 614 037 800 so'mni tashkil etdi. Ushbu xaridlar davlat tomonidan elektron do'konlar orqali amalga oshirilgan. Shuningdek, boshqa xaridlar ham sezilarli darajada bo'lib, ular davlat va korporativ buyurtmachilar tomonidan amalga oshirilgan umumiy savdo hajmiga katta hissa qo'shgan. Ushbu statistika O'zbekistonning tovar va xomashyo bozorida savdo hajmining muhim qismini tashkil etuvchi davlat va korporativ sektorlar o'rtasidagi elektron savdo operatsiyalarining ahamiyatini ko'rsatadi.

#### Davlat siyosatining savdo hajmiga ta'siri

O'zbekiston Respublikasi hukumati mahalliy ishlab chiqaruvchilarni qo'llab-quvvatlashga qaratilgan siyosati, xususan, davlat xaridlari jarayonida ularning ulushini oshirishga yo'naltirilgan chora-tadbirlar, savdo hajmining sezilarli darajada oshishiga sabab bo'ldi. Davlat tomonidan qabul qilingan qarorlar, jumladan, PQ-15-sonli qarorga muvofiq, Elektron Kooperatsiya Portalida ro'yxatdan o'tgan mahalliy ishlab chiqaruvchilar davlat xaridlari tizimida ustuvor ahamiyatga ega bo'lib, bu ularning raqobatbardoshligini oshirishga xizmat qilmoqda.

Davlat xaridlari tizimida mahalliy ishlab chiqaruvchilar uchun yaratilgan afzalliklar, ayniqsa, narx preferensiyalari joriy etilishi, import mahsulotlariga nisbatan mahalliy tovarlarning raqobatbardoshligini oshirdi. PQ-15-sonli qaror asosida, davlat buyurtmachilari Elektron Kooperatsiya Portalida ro'yxatdan o'tgan mahalliy ishlab chiqaruvchilarning takliflarini o'rganishi va ularga 8% dan 15% gacha narx preferensiyalarini taqdim etishi majburiy qilib belgilandi. Bu, o'z navbatida, mahalliy ishlab chiqaruvchilarga ko'proq buyurtmalar jalb qilish imkoniyatini yaratdi va savdo hajmini oshirishga olib keldi.

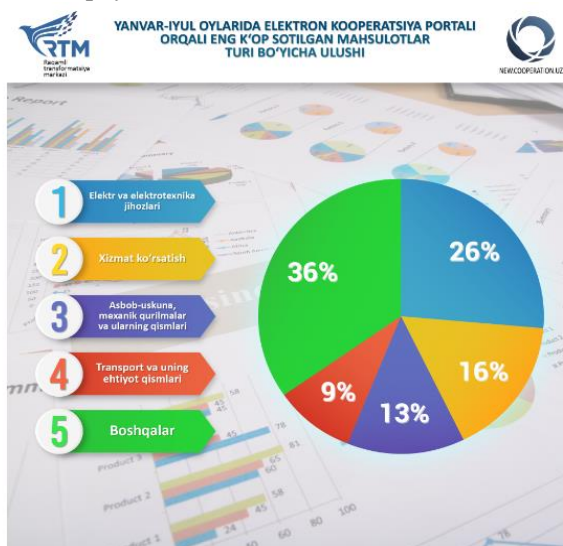
2024-yil yanvar-iyul oylarida portal orqali amalga oshirilgan shartnomalar soni 56,580 taga yetib, umumiy savdo hajmi 8.826 trillion so'mni tashkil etdi. Bu raqamlar, davlat siyosatining bevosita ta'siri tufayli, mahalliy ishlab chiqaruvchilar tomonidan amalga oshirilgan savdo hajmining o'sishida ijobiy natijalarni ko'rsatadi. Ayniqsa, elektrotexnika mahsulotlari savdosining 26% ulushga ega bo'lishi, davlatning ushbu sohani rivojlantirishga qaratilgan chora-tadbirlarining samaradorligini ko'rsatmoqda.

Shuningdek, PQ-15-sonli qaror asosida mahalliy ishlab chiqaruvchilarga berilgan soliq imtiyozlari ham savdo hajmining oshishiga bevosita ta'sir ko'rsatdi. 2024-yil 1-yanvardan 2027-yil 1-yanvargacha qadar elektrotexnika tarmog'idagi korxonalar uchun foyda solig'i va mol-mulk solig'i stavkalarining 50% ga kamaytirilishi, bu korxonalarining moliyaviy holatini yaxshilash va savdo hajmini oshirishga xizmat qilmoqda. Shu bilan birga, ushbu soliq imtiyozlari evaziga bo'shagan mablag'lar korxonalar tomonidan yangi ishlab chiqarish quvvatlarini yaratishga va mavjud quvvatlarni modernizatsiya qilishga yo'naltirilmogda.

Davlat siyosatining natijalaridan biri sifatida, Elektron Kooperatsiya Portalining faol ishlatilishi va davlat xaridlari jarayonida mahalliy ishlab chiqaruvchilarning o'rni mustahkamlanishi, milliy iqtisodiyotning barqaror rivojlanishiga hissa qo'shmoqda. Shu sababli, davlat tomonidan qabul qilingan ushbu chora-tadbirlar nafaqat ichki bozorda, balki xalqaro bozorda ham O'zbekistonning mahalliy ishlab chiqaruvchilarining raqobatbardoshligini oshirishga xizmat qilmoqda.

#### Eng ko'p talab qilingan mahsulotlar

2024-yilning yanvar-iyul oylarida Elektron Kooperatsiya Portalida eng ko‘p sotilgan mahsulotlar orasida elektr va elektrotexnika jihozlari 26% ulush bilan etakchilik qilmoqda. Shuningdek, xizmat ko‘rsatish sohasida 16% ulush qayd etilgan bo‘lsa, asbob-uskuna, mexanik qurilmalar va ularning qismlari 13% ulushni tashkil etgan. Bu mahsulotlar davlat xaridlari doirasida talabning yuqori ekanligini ko‘rsatadi. Ushbu ma‘lumotlar davlatning elektrotexnika sanoatini rivojlantirishga qaratilgan sa‘y-harakatlari natijasida bu sohada o‘shish kuzatilayotganini tasdiqlaydi.



Manba: [new.cooperation.uz](http://new.cooperation.uz)

Natijalar shuni ko‘rsatadiki, mahalliy ishlab chiqaruvchilarni davlat tomonidan qo‘llab-quvvatlash siyosati o‘z samarasini bermoqda. Savdo hajmining oshishi, davlat xaridlari jarayonida mahalliy ishlab chiqaruvchilarga imtiyozlar taqdim etilishi va Elektron Kooperatsiya Portalining muvaffaqiyatli ishlatilishi bu siyosatning samaradorligini ko‘rsatadi. Shuningdek, savdo hajmining oshishi iqtisodiyotga ijobiy ta‘sir ko‘rsatmoqda, chunki bu mahalliy ishlab chiqaruvchilarning o‘shishiga va yangi ish o‘rinlari yaratishga imkon beradi.

Biroq, ushbu siyosatni yanada samaraliroq qilish uchun ba‘zi to‘siqlarni bartaraf etish zarur. Xususan, mahalliy ishlab chiqaruvchilarning eksport salohiyatini oshirish, yangi texnologiyalarni joriy etish va raqobatbardosh mahsulotlar ishlab chiqarish borasida yanada samarali chora-tadbirlar ko‘rilishi lozim. Bu, o‘z navbatida, mahalliy ishlab chiqaruvchilarni nafaqat ichki bozorda, balki xalqaro maydonda ham mustahkam o‘rin egallashiga yordam beradi.

Mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlash siyosatining samaradorligi davlat tomonidan Elektron Kooperatsiya Portaliga kiritilgan muhim chora-tadbirlar bilan bevosita bog‘liq. O‘zbekiston Respublikasi Prezidentining 2024-yil 10-yanvardagi PQ-15-son qaroriga muvofiq, davlat xaridlari jarayonida mazkur portaldan o‘tyatdan o‘tgan mahalliy ishlab chiqaruvchilarning takliflarini o‘rganish va ularga nisbatan narx preferensiyalari qo‘llash majburiyati belgilangan. Ushbu chora mahalliy ishlab chiqaruvchilar o‘rnini mustahkamlash va davlat xaridlari tizimida ularning ulushini oshirishga xizmat qiladi. Shu bilan birga, ushbu qaror mahalliy ishlab chiqaruvchilar uchun yangi imkoniyatlar ochib, ularni nafaqat ichki bozorda, balki xalqaro bozorda ham raqobatbardoshligini ta‘minlashga qaratilgan qo‘shimcha soliq imtiyozlari bilan ta‘minlaydi.

## XULOSA VA TAKLIFLAR

O‘zbekiston Respublikasida mahalliy ishlab chiqaruvchilarni qo‘llab-quvvatlashga qaratilgan davlat siyosati sezilarli natijalar bermoqda. Maqolada keltirilgan ma‘lumotlarga ko‘ra, davlat tomonidan amalga oshirilayotgan chora-tadbirlar, jumladan, Elektron Kooperatsiya Portalida taqdim etilgan imtiyozlar va narx preferensiyalari mahalliy ishlab chiqaruvchilar savdo hajmining keskin o‘shishiga olib kelgan. Bu yutuqlar davlat xaridlari tizimidagi islohotlar va mahalliy ishlab chiqaruvchilarga ko‘rsatilayotgan qo‘llab-quvvatlash choralarining samaradorligini tasdiqlaydi.

Xususan, elektrotexnika sanoatida savdo hajmining oshishi va davlat xaridlari doirasida ushbu mahsulotlarga talabning yuqoriligi, ushbu sohani rivojlantirishga qaratilgan davlat siyosatining to‘g‘ri

ekanligini ko'rsatmoqda. Davlat tomonidan yaratilgan soliq imtiyozlari va narx preferensiyalari mahalliy ishlab chiqaruvchilarning ichki bozorda raqobatbardoshligini oshirish bilan birga, ularning xalqaro bozorga chiqish imkoniyatlarini ham kengaytiradi.

Shunga qaramay, ushbu siyosatning yanada samarali bo'lishi uchun ba'zi kamchiliklarni bartaraf etish zarur. Mahalliy ishlab chiqaruvchilarning eksport salohiyatini oshirish, zamonaviy texnologiyalarni joriy etish va innovatsion mahsulotlar ishlab chiqarishni rivojlantirish uchun qo'shimcha chora-tadbirlar talab etiladi. Bu esa ularni nafaqat ichki, balki xalqaro bozorlarda ham muvaffaqiyatli raqobatlashishga yordam beradi.

O'zbekiston Respublikasida mahalliy ishlab chiqaruvchilarni qo'llab-quvvatlash siyosati samaradorlik bilan amalga oshirilmogda. Kelgusida ushbu siyosatni yanada rivojlantirish orqali milliy iqtisodiyotning barqaror o'sishiga erishish mumkin.

### **Foydalanilgan adabiyotlar ro'yxati**

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3. Jahon Savdo Tashkiloti (WTO). (2022). "Public Procurement and Local Content: Best Practices for Developing Countries" hisobot.

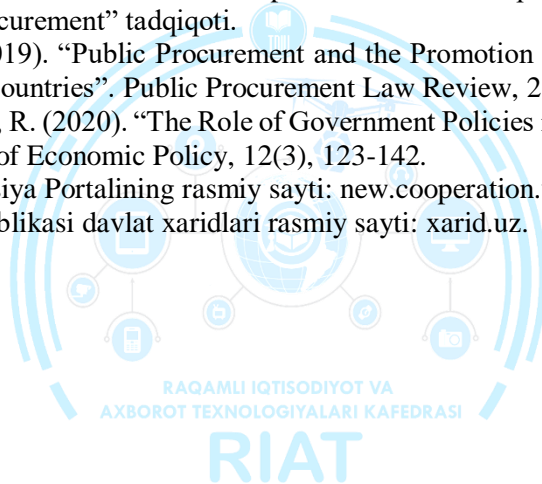
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5. Arrowsmith, S. (2019). "Public Procurement and the Promotion of Local Industry: The Impact of WTO Rules on Developing Countries". *Public Procurement Law Review*, 28(2), 57-78.

6. Smith, J., & Brown, R. (2020). "The Role of Government Policies in Enhancing the Competitiveness of Local Industries". *Journal of Economic Policy*, 12(3), 123-142.

7. Elektron Kooperatsiya Portalining rasmiy sayti: [new.cooperation.uz](http://new.cooperation.uz).

8. O'zbekiston Respublikasi davlat xaridlari rasmiy sayti: [xarid.uz](http://xarid.uz).



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Toshkent davlat sharqshunoslik universiteti Katta o'qituvchisi (PhD)

**Annotatsiya.** Maqolada kichik korxonalarda raqamli biznes faoliyatini yo'lga qo'yish, yaxshilash va takomillashtirish masalalari ko'rsatilgan. Shu bilan bir qatorda raqamli biznesning afzalliklari va kamchiliklari, kichik korxonalarida uning o'rni va roli o'rganib chiqilgan.

**Kalit so'zlar.** Raqamli biznes, raqamli iqtisodiyot, raqamli texnologiya, ekstensiv, intensiv, tadbirkorlik, kichik biznes, optimallashtirish, sun'iy intellekt, internet, Amazon, Uber, Airbnb, default.

### KIRISH

Rivojlangan bozor iqtisodiyotini modernizatsiyalash davrida kichik biznes va tadbirkorlik faoliyatini yaxshilash, samaradorligini oshirish, rivojlantirish, taraqqiyotga erishish dolzarb masalalardan biri hisoblanadi. Shuni inobatga olib, ushbu sohani har tomonlama qo'llab-quvvatlash uchun raqamli biznes tizimini yo'lga qo'yish lozim.

Raqamlashtirish — deganda biznes jarayonlarini optimallashtirish, kompaniyaning ishlab chiqarish unumdorligini oshirish va mijozlar bilan hamkorlikni yaxshilash, raqamli texnologiyalardan foydalanishni ko'zda tutuvchi biznesni transformatsiyalash tushuniladi. Raqamlashtirishning asosiy bosqichlaridan biri, mijoz va kompaniya o'rtasida yana-da qulay va tezkor hamkorlikni tashkil qilish hisoblanadi. Raqamli biznes deganda biznes yuritish uchun raqamli texnologiyalar va raqamli jarayonlardan foydalanish tushuniladi. U onlayn savdo va marketingdan tortib, mijozlar bilan munosabatlarni boshqarish (CRM) va ta'minot zanjiri boshqaruvigacha bo'lgan keng ko'lamli faoliyatni qamrab oladi.

Biroq, "biznesni raqamlashtirish nima?" degan savoldan kelib chiqadigan bo'lsak, ushbu jarayon quyidagi maqsadlarga ega ekanligini ta'kidlashimiz lozim:

- Mahsulot (yoki xizmat)ni yaxshilash: uning sifatini, jozibadorligini, foydalanishda qulayligini, yetkazib berish xizmatini;
- Kompaniyaning ishlab chiqarish va boshqa ichki jarayonlarini avtomatlashtirish;
- Ichki va tashqi kommunikatsiyalarni soddalashtirish.

Bu jahon iqtisodiyotida yangi texnologik yuksalish amalga oshirishga yordam beradigan eng muhim yo'nalishlardan biridir. O'z biznesining raqamli transformatsiyasini bugun boshlamagan kompaniyalar samarali bo'ladi va yangi bozor haqiqatlari va ertangi kunning yana-da pragmatik "raqamli" raqobatchilari bosimi ostida shunchaki yo'q bo'lib ketadi.

O'zbekiston Respublikasi Prezidenti Sh.M. Mirziyoyev 2020-yil "Ilm, ma'rifat va raqamli iqtisodiyotni rivojlantirish yili", deb e'lon qildilar, hamda ularning tashabbuslari bilan iqtisodiyot va menejmentning nazariy va amaliy muammolari: mikro va makrodarajalarda 34 fanda nazariy va eksperimental ilmiy tadqiqotlar, raqamli iqtisodiyot milliy konsepsiyasini rivojlantirish bo'yicha qator chora-tadbirlar belgilandi. Bu esa, iqtisodiyotning barcha tarmoqlarini raqamli texnologiyalar asosida modernizatsiyalash va "Raqamli O'zbekiston – 2030" dasturini amalga oshirishni nazarda tutadi.

"O'zbekiston Respublikasi Prezidentining tadbirkorlar bilan 2023-yildagi ochiq muloqotida belgilangan vazifalarni amalga oshirish chora-tadbirlari to'g'risida"gi PQ-292-son Qarorida, biznesni raqamlashtirish va korxonalar faoliyatini samarali tashkil etish maqsadida, bir qator vazifalar belgilab qo'yilgan, ular ichida:

- Investitsiyalar, sanoat va savdo vazirligi ikki oy muddatda "140 ta ilg'or sanoat korxonasi" dasturini amalga oshirish jarayonlarini raqamlashtirishni nazarda tutuvchi, shu jumladan ushbu dasturga kiritilgan sanoat loyihalarini tadbirkorlik subyektlariga ochiq tanlov asosida taklif qilish imkoniyatiga ega, elektron platformani ishga tushirish;

- Hisoblarni shakllantirish va topshirish jarayonlarini bosqichma-bosqich raqamlashtirish hisobiga ularning qog'oz shaklini bekor qilish;
- Kichik biznesni rivojlantirish jamg'armasini tashkil etish. Bunda:
  - Jamg'armaning moliyaviy instrumentalini belgilash, jumladan, kichik tadbirkorlik subyektlari ustav fondida jamg'ar tomonidan kiritiladigan mablag'lar hisobiga ishtirokchi (tāsishi) sifatida ishtirok etish hamda kichik biznes loyihalari uchun ta'minot taqdim etish;
  - Jamg'armaning resurs bazasini kengaytirish va ustav fondini oshirish maqsadida, "Investitsiyalar, sanoat va savdo vazirligi huzuridagi raqamli transformatsiya" markazining elektron kooperatsiya portalini jamg'armaga balans qiymatida beg'araz o'tkazishni nazarda tutish;
- Kichik biznesga ko'maklashish markazlari tomonidan startap tashabbuskorlari va tadbirkorlik subyektlarining raqobatbardosh, arzon, sifatli hamda katta hajmdagi mahsulotlarni ishlab chiqarishni kengaytirish uchun oliy o'quv yurtlari, kichik biznes subyektlari, sanoat korxonalari, erkin iqtisodiy va kichik sanoat zonalarini, texnoparklar, sanoat klasterlari o'rtasida o'zaro hamkorlikni ta'minlashga qaratilgan kichik biznesni rivojlantirish va kengaytirish bo'yicha o'quv dasturini amalga oshirish.<sup>102</sup>

### MAVZUGA OID ADABIYOTLAR TAHLILI

Rossiyalik iqtisodchi olim V.Yu. Burov o'z izlanuvchilarida kichik korxonalar institutining bozor iqtisodiyoti samarali faoliyat ko'rsatishining elementi sifatida, raqamli texnologiyalarga alohida qiziqishini qayd etdi. Uning fikricha, kichik biznes uchun raqamlashtirish, raqobat sharoitida omon qolish va o'z faoliyatini zarur darajada ushlab turish yo'llaridan biri bo'lib, bu juda tez, lekin bosqichma-bosqich amalga oshirilishi kerak: korxonalarni raqamli infratuzilma bilan jihozlashdan tortib, raqamlashtirish strategiyasini zamonaviy jihatlarni shakllantirishgacha hisobga olishni nazarda tutgan.<sup>103</sup>

### TADVIQOT METODOLOGIYASI

Ushbu maqolani tayyorlashda me'yoriy-huquqiy hujjatlardan foydalanilgan, soha bo'yicha o'rganib chiqilgan adabiyotlar, iqtisodchi olimlarning qiyosiy va tanqidiy tahlil, analiz va sintez, induksiya va deduksiya, statistik ma'lumotlar kabi usullardan foydalanildi.

### TAHLIL VA NATIJALAR

O'zbekiston Respublikasi Prezidenti Sh. Mirziyoyev 2023-yil uchun mo'ljallangan eng muhim ustuvor vazifalar haqidagi Oliy Majliska Murojaatnomasi da, tadbirkorlik va kichik biznesni rivojlantirish bo'yicha yana-da qulay sharoitlar yaratilishi, 2023-yilda bu sohada qilinishi zarur bo'lgan yo'nalishlarni belgilab berdilar. Rivojlangan davlatlar tajribasidan mamlakatimizda faoliyat yuritayotgan tadbirkorlarimiz uchun ancha foydali yo'llarini o'rganishimiz mumkin. Jumladan, tadbirkorlik sub'ektlari tomonidan eksport jarayonida, raqamli iqtisodiyot texnologiyalaridan foydalanish darajasi rivojlangan davlatlar darajasiga ko'tarilishi lozim. Olimlar tomonidan olib borilgan tahliliy ma'lumotlarga asoslanib, shuni aytish mumkinki, "tadbirkorlik sub'ektlari tomonidan eksport jarayonlarini amalga oshirishda zarur bo'ladigan raqamli texnologiyalardan foydalanish darajasi bo'lishi eksportni yana-da rivojlantirishga va bu sohada mavjud texnik muammolarni bartaraf etishga olib kelishi va rivojlangan davlatlar darajasida bo'lishi zarur."<sup>104</sup>

Endilikda, servis biznesi «default» raqamli biznesga aylanyapti. V.A. Boroday o'z izlanuvchilarini olib borish jarayonida Amazon, Uber, Airbnb va boshqalar raqamli inqilobdan qanday qilib foydalanish – biznes yuritishning tamomila yangi sxemalarini o'ylab topish va amalga oshirish mumkinligini ko'rsatadi. Ilmiy izlanuvchilar natijasida "hayot sahnasiga yangi avlodlar – internet tarmog'ida «yashaydigan» yoshlar –

<sup>102</sup> "O'zbekiston Respublikasi Prezidentining tadbirkorlar bilan 2023-yildagi ochiq muloqotida belgilangan vazifalarni amalga oshirish chora-tadbirlari to'g'risida" gi Qarori 2023-yil 4-sentabr, PQ-292-son <https://lex.uz/acts/-6591947>

<sup>103</sup> Буров В.Ю. Малое предпринимательство в условиях цифровой экономики проблемы и перспективы// Формализация как основа цифровой экономики материалы Всероссийской науч.- с межд. участием, посвященная 75-летию со дня рождения и 50-летию научно- педагогической деятельности Заслуженного экономиста Российской Федерации, д-ра экон. наук, проф. Ованесьян С.С. Иркутск, 2018. С. 89–95

<sup>104</sup> Rasulova D.V. – BTOM, i.f.d., prof. Tadbirkorlik sub'ektlari eksportini rivojlantirishda raqamli texnologiyalardan foydalanish. Biznes va iqtisodiyotda raqamli transformatsiya mavzusidagi ilmiy-amaliy konferensiya to'plami. Toshkent 2023. 14 bet.

chiqib kelishi, biznesni onlayn («raqamli») bo‘lishiga, birinchi navbatda, default majbur qiladi.”<sup>105</sup> - degan fikr Uber tomonidan bildirildi.

Tadqiqotlarga ko‘ra, 2020-yilda dunyoda raqamli texnologiyalarni sotib oluvchilar soni 2,05 milliard kishiga yetgan bo‘lsa, bu dunyo aholisining chorak qismini tashkil etadi. Qulaylik va xarajatlarni tejash kabi omillar odamlarni elektron tijoratga moslashtirishga undaydi, yuqori internet tezligi va arzon qurilmalar kabi omillar bu jarayonga yordam beradi.

Olib borilgan tadqiqotlar elektron biznes va elektron tijorat imkoniyatlarini kam baholaydigan kompaniyalar bozorning yangi sharoitiga moslashishga qodir raqobatchilarning bosimi ostida, tijorat mavqeini yo‘qotishi mumkinligini aniq ko‘rsatib turibdi. Shu sababdan tadbirkorlik sub'ektlari internet tarmoqlari orqali xizmat ko‘rsatishning turli xil yo‘nalishlaridan foydalanishga, ya‘ni reklama berish, onlayn xizmatlar taqdim etish, umumiy tarzda xarajatlar kamligini hisobga olgan holda, o‘z faoliyatlarini raqamli texnologiyalar bilan bog‘lashga harakat qilishmoqda.<sup>106</sup>

O‘zbekistonda iqtisodiyotning barcha sohalarida innovatsion jarayonlarni faollashtirish, axborot kommunikatsion texnologiyalardan samarali foydalanish uchun sharoitlarni ta‘minlashga katta e‘tibor qaratib kelinmoqda. O‘zbekiston Respublikasi Prezidenti Sh. Mirziyoev Oliy Majlisga Murojaatnomasida ta‘kidlaganlaridek, “Raqamli texnologiyalar nafaqat mahsulot va xizmatlar sifatini oshiradi, balki ortiqcha xarajatlarni kamaytiradi. Shu bilan birga, meni juda qattiq tashvishga soladigan va bezovta qiladigan eng og‘ir illat – korrupsiya balosini yo‘qotishda ham ular samarali vositadir. Buni barchamiz teran anglab olishimiz darkor”.<sup>107</sup>

Biroq, O‘zbekistonda Internet tarmoqlarining kerakli darajada rivojlanmaganligi, elektron savdo xizmatining rivojlanishiga salbiy ta‘sir ko‘rsatadi. Internet kelajak texnologiyasidir, ushbu texnologiyadan qanday samarali foydalanish kerakligini bilish muhim ahamiyat kasb etadi.

O‘zbekiston Respublikasi Prezidenti Sh.M. Mirziyoyevning 2020 yil 13 fevral kuni axborot texnologiyalarini rivojlantirishga bag‘ishlangan tadbirda keltirgan ma‘lumotlariga muvofiq, “AQShda raqamli iqtisodiyotning yalpi ichki mahsulodagi ulushi 10,9 foiz, Xitoyda 10 foiz, Hindistonda 5,5 foizni tashkil etadi. O‘zbekistonda bu ko‘rsatkich 2 foizdan ham oshmaydi.” Shunday ekan, O‘zbekistonda raqamli iqtisodni, xususan elektron savdo xizmatini rivojlantirish bugungi kunning eng muhim dolzarb masalalaridan biri hisoblanadi.

Shu bilan birga, elektron-savdoning salbiy oqibatlarini ham ko‘rsatib o‘tish lozim. Ayrim tadqiqotlarga ko‘ra, dunyoda onlayn-tijoratning keskin o‘sishi jiddiy iqtisodiy va ijtimoiy muammolarni keltirib chiqardi. Internet asrida rivojlangan mamlakatlar aholisining endi ko‘p do‘konga ehtiyoj sezmaydilar. Vaziyatning boshqa tomoni shundaki, xarid qilish markazidagi do‘konning odatiy formatida qolib, o‘z vaqtida Internetga kira olmagan sotuvchilar bankrotlik xavotiriga ega. AQShda 2017 yil davomida 3500 dan ortiq do‘konlar yopildi. Tahlilchilarga ko‘ra, besh yildan so‘ng AQShda savdo markazlarining yarim yopilishi mumkin. Bu esa o‘z navbatida, ishsizlik darajasining ortishiga olib keladi. Sababi, bitta operator bir vaqtning o‘zida bir nechtadan sotuvchilarni o‘rnini bosishi mumkin. Shuningdek, elektron savdo orqali xizmatlar amalga oshirilganda, mahsulotlarni saqlash uchun katta omborxonalar, muzlatkichlarga bo‘lgan talab pasaytiriladi.<sup>108</sup>

Innovatsion tadbirkorlikni rivojlantirish va samaradorligini oshirish vositasi yoki usuli, bu kichik korxonalarining raqobatbardoshligini oshirishni ta‘minlaydigan raqamli iqtisodiyot, kichik korxonalar faoliyatiga raqamli texnologiyalarni joriy etishdir. Bu ishlab chiqarishda maksimal foyda olish imkonini beradi, lekin bir shart bilan, raqamli texnologiyalardan foydalangan holda jamiyat talab qiladigan yuqori texnologiyali tovarlar va xizmatlarni yaratish lozimdir. Barchamizga ma‘lumki, bugungi kunda tadbirkorlik faoliyati deganda, raqamli iqtisodni rivojlantirish tadbirkorning o‘z vakolati doirasida tashkil etilishi tushuniladi. Bu yerda, kichik biznes faoliyatida raqamli texnologiyalardan foydalanganda tadbirkorlik xavfi keskin oshishi mumkinligini hisobga olish zarur. Raqamlashtirishga asoslangan kichik biznesni ishlab chiqarish faoliyati va moliyaviy resurslardan foydalanish, ham keng, ham intensiv bo‘lishi mumkin.

Raqamli iqtisodiyotdan keng foydalanish va uni rivojlantirish ishlab chiqarishga qo‘shimcha resurslarni jalb qilishga qaratilgan. Kichik korxonalarining ishlab chiqarish samaradorligini oshirishni

<sup>105</sup> Бородай В.А. Предпосылки устойчивого развития бизнеса в турбулентной среде // В сборнике: Регулирование экономической деятельности и деловая среда: проблемы, перспективы и решения Сборник научных трудов по материалам III Международной научно-практической конференции. 2017. С. 332-341.

<sup>106</sup> S.S.Gulyamov, R.X.Ergashev, S.N.Xamrayeva Raqamli iqtisodiyot - (o‘quv qo‘llanma),- T.: 2020. -377 b

<sup>107</sup> O‘zbekiston Respublikasi Prezidenti Shavkat Mirziyoyevning Oliy Majlisga Murojaatnomasi. 25.01.2020 <https://old.gov.uz/uz/news/view/26071>

<sup>108</sup> S.S.Gulyamov, R.X.Ergashev, S.N.Xamrayeva Raqamli iqtisodiyot - (o‘quv qo‘llanma),- T.: 2020. -377 b.

jadallashtirish, birinchi navbatda, AKTda yuqori sifatli va samarali foydalanishdan iborat bo‘lib, ishlab chiqarish natijalari uning xarajatlariga qaraganda tezroq o‘tib boradi, shuning uchun ishlab chiqarishga nisbatan kamroq resurslarni jalb qilish orqali katta natijalarga erishish mumkin. Hozirgi vaqtda bunday intensiv rivojlanishning asosi - raqamli iqtisodiyotdir.

Ishlab chiqarishni jadallashtirish tahlili, raqamlashtirishning ekstensiv va intensiv rivojlanish omillarini tasniflashni talab qiladi. Ko‘pgina amaldagi tadbirkorlarning laqayatsizligi menejment, marketing, moliya kabi sohalarida yetarli bilimga ega emasligi, menejmentda yetarli tajribaning yetishmasligi, nostandart muammolarni hal qilishdagi qiyinchiliklar, axborot-kommunikatsiya texnologiyalaridan samarali va to‘liq foydalanish bo‘yicha ma‘lum ko‘nikmalar kichik biznesning yetarli darajada tez rivojlanmasligiga olib keladi.

Bizning fikrimizcha, O‘zbekistonda inson kapitalini rivojlantirish uchun investitsiyalar zarur va raqamli iqtisodiyot rivojlanishi bilan, uning dolzarbligi ortib boradi. Bu nafaqat yangi, yuqori texnologiyali mahsulotlarning chiqishiga, balki kichik biznesni rivojlantirish muammolarining muhim omillaridan biri bo‘lgan ushbu jarayonni moliyalashtirishning yetarli emasligi bilan bog‘liqdir.

Shunday qilib, ilmiy izlanuvlarni umumlashtirib, raqamli iqtisodiyotda kichik biznesning samaradorligini oshirish yo‘nalishi bo‘yicha, respublikada olib borilayotgan jarayonlarni tahlil qilib, shuni aytish lozimki, raqamlashtirishni rivojlantirish bo‘yicha davlat dasturlarini amalga oshirib, yangi texnologiyalarni “davlat-xususiy sheriklik” doirasida biznes ehtiyojlariga moslashtirish imkonini beradi. Biz barcha mavjud darajalarda ta‘lim olish jarayonidagi o‘zgarishlardan boshlashimiz kerak. Bu yerda raqamli iqtisodiyot talab qiladigan yangi vakolatlar, bilim va ko‘nikmalarni shakllantirish nuqtai nazaridan raqamli texnologiyalardan foydalanishni kengaytirish, tegishli shart-sharoitlarni yaratish, ta‘lim dasturlarini o‘zgartirish zarur, bu esa yangi turdagi vakolatli tadbirkorlarni yaratish uchun qulay muhitni yana rivojlantiradi.<sup>109</sup>

Prezidentimiz ta‘kidlaganlaridek, aholini raqamli savodxonligini oshirish yana bir zaruriy shartdir. “Bir million dasturchi” loyihasi kabi tashabbuslar allaqachon 1,2 million nafardan ortiq yoshlarni asosiy dasturlash ko‘nikmalariga o‘rgatgan. Endilikda, Raqamli texnologiyalar vazirligiga, har yili 8 ming nafardan eng iqtidorli yoshlarni saralab, nufuzli xalqaro kompaniyalar talabiga mos dastur asosida o‘qitish vazifasi qo‘yildi. Bu degani, biz hayotni o‘zgartiruvchi raqamli yechimlardan nafaqat foydalanadigan, balki yaratadigan avlodni tarbiyalash ortidan yurishni boshlaymiz. Barcha ta‘lim muassasalari, jumladan, oliy ta‘lim tashkilotlari bo‘lajak avlodda raqamli ko‘nikmalarni shakllantirish, maxsus ta‘lim yo‘nalishlari va ixtisosliklarni joriy etish hamda ushbu sohadagi ilmiy tadqiqotlarni jadallashtirish zarur.<sup>110</sup>

## XULOSA VA TAKLIFLAR

Raqamli biznesni rivojlantirish uchun, uning shakllantirish va tashkil qilish yo‘nalishida uzluksiz ishlashi muhimdir. Raqobatchilarni mag‘lub etish uchun biz zamonaviy texnologiyalar taqdim etadigan barcha imkoniyatlardan samarali foydalanishimiz kerak.

Bundan tashqari, samarali faoliyat yuritish uchun biznes "moslashuvchan" bo‘lib qolishi, ya‘ni o‘zgarishlarga tezda javob berishi va ularga moslashishi kerak. Shunday qilib, agar kompaniyada ko‘proq bo‘sh pul bo‘lsa, uni to‘g‘ri yo‘naltirish kerak. Agar resurslar tanqisligi va xodimlarning ish hajmi ortib borayotganda, ish jarayonini optimallashtirishga qaratilgan o‘zgarishlarni amalga oshirish lozim.

Raqamlashtirish kompaniya faoliyatini avtomatlashtirishga va bo‘lajak o‘zgarishlarga tezda javob berishga yordam beradi. Bu kompaniyaning doimiy rivojlanishiga imkon beradi.

Axborot biznesni rivojlantirish uchun eng zarur bo‘lgan asosiy manbadir. Har doim iste‘molchilar mahsulotlarga juda ko‘p talab qo‘yadilar va bozor jarayonlari kundan-kunga o‘zgarib turadi.

Qabul qilingan ma‘lumotlardan samarali foydalanish uchun kompaniya ularni tuzilishi va tahlil qilishi kerak. Buning uchun u sun‘iy intellektni qo‘llashi va katta ma‘lumotlardan foydalanishi mumkin. Olingan ma‘lumotlar sizga qaysi yo‘nalishda harakat qilishni va mijozlar muammolariga qanday yechimlarni topishni aniqlash imkonini beradi va biz to‘liq ushbu taklifga qo‘shilamiz.

Iqtisodiy tahlil va o‘rgangan olimlarning raqamli iqtisodni rivojlantirish jarayonlarini o‘rganish natijasida biz ma‘lum xulosalarga keldik: iqtisodiyotimizni modernizatsiyalash va taraqqiy etish jarayonida, raqamlashtirish va raqamli texnologiyalardan unumli foydalangan holda, iqtisodiyotni barcha sohalariga kirib borish va rivojlantirish muhim ahamiyat kasb etadi. Shuni hisobga olgan holda aytishimiz mumkin, iqtisodiyotning kichik biznes va tadbirkorlik faoliyatida raqamli biznesni tashkil qilish, korxonalariga raqamli tizimni, raqamli texnologiyalarni jalb qilish dolzarb masala ekanligini ta‘kidlash lozim. Ushbu masalada har

<sup>109</sup> Аброр Кабулов. Плеханов, Роль цифровизации в повышении эффективности малого бизнеса в Узбекистане. Jamiyat va innovatsiyalar ilmiy jurnal. Special Issue - 2, №01 (2020) / ISSN 2181-1415

<sup>110</sup> Raqamlashtirish sohasidagi dolzarb masalalar muhokama qilindi. 10.12.2023 <https://president.uz/uz/lists/view/6938>



bir korxonaga o'z faoliyatida ushbu texnologik jarayonlarni qo'llash orqali iste'molchilarning talabini qondirish, raqobatbardosh mahsulot ishlab chiqarish va ishlab chiqarilgan mahsulotlarni eksport salohiyatini oshirishda foydalanish kerak. Raqamli biznesni kichik korxonalarda qo'llashda afzallik tomonlari ko'pligini, har tomonlama sotuvchi va xaridor uchun firmalar ish faoliyati va xizmat ko'rsatish jarayoni qulay ekanligini aytish lozim.

Yuqorida keltirilgan O'zbekiston Respublikasining Prezidentining raqamlashtirish va biznesni qo'llab-quvvatlash bo'yicha bir qator vazifalari belgilab berilgan bo'lib, ularni bosqichma-bosqich amalga oshirish nazarda tutilgan. Bu o'rinda oliy ta'lim tizimi dasturlariga, biznesni raqamlashtirish masalasini kiritish kerakligini va yoshlarimizga, tadbirkorlarga, kichik korxonaga xodimlariga raqamli biznesni chuqur o'rgatish va turli xil dars mashg'ulotlarini tashkil qilish taklif qilinadi.

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# THE ROLE OF ARTIFICIAL INTELLIGENCE IN TAKING FULL ADVANTAGE OF THE BENEFITS IN AGRICULTURE AND THE CULTIVATION OF MEDICINAL PLANTS

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**Abstract:** This paper explores the role of artificial intelligence (AI) in enhancing the benefits of agriculture and the cultivation of medicinal plants. It examines the use of AI in optimizing crop management, improving yield prediction, and ensuring the efficient use of resources. Additionally, AI's application in monitoring plant health, detecting diseases early, and automating processes such as sorting and quality assessment of medicinal plants is highlighted. The study underscores how AI contributes to sustainability and the maximization of medicinal crop value.

**Key words:** Artificial intelligence, agriculture, medicinal plants, yield prediction, sustainability, plant health monitoring.

## INTRODUCTION

Agriculture is one of the most important sectors in the country's economy. Today, digitization and automation of agriculture is one of the most urgent topics in the national economy. It's no secret that the world population is increasing day by day, and the growth in turn increases the demand for food and employment. Traditional methods used by farmers are not enough to meet such demands. This required the introduction of new automation and new methods in this field. The introduction of artificial intelligence into fields is taking over the convenience of human activity, precision and control in services, in other words, artificial intelligence has brought a revolution in agriculture.

Therefore, the human mind can fully rely on the innovations and conveniences that artificial intelligence can provide in the issues of obtaining all-round benefits from medicinal plants. This technology plays an important role in the discussion of the issues of climate change, population growth and employment of those working in this field, and it protects the crop of medicinal plants from various factors such as food safety issues, one of the current topics today. The main topic of this article is to examine the various applications of artificial intelligence in agriculture and medicinal plants and to obtain all-round benefits from them, for example, to study market requirements, use appropriate technologies, field medicinal plants works, robots and drones are being actively used in irrigation works. These technologies save excessive use of water, herbicides, maintain soil fertility, and also serve to make efficient use of human power, increase productivity, and improve quality.

## REVIEW OF LITERATURE ON THE SUBJECT

The application of artificial intelligence (AI) in agriculture has been rapidly advancing, offering significant benefits in optimizing production, improving crop health, and enhancing sustainability. Various studies have explored the role of AI in transforming traditional agricultural practices. For instance, Fountas et al. highlighted the potential of AI-powered precision agriculture in improving yield prediction and resource management, significantly reducing water and fertilizer usage while enhancing crop productivity.

AI is also gaining prominence in the cultivation of medicinal plants. According to Li and Zhang, AI algorithms can be applied to optimize growing conditions, monitor plant health, and predict the best harvest times. This leads to increased efficiency in the cultivation process and ensures a higher concentration of active medicinal compounds. Furthermore, Karthikeyan et al. demonstrated how AI can be used to identify and classify different species of medicinal plants, which helps maintain biodiversity and ensure the sustainability of medicinal plant resources.

In the context of pest and disease management, AI has shown immense potential. Bhattacharya et al. conducted a study on the use of AI-based image recognition technologies to detect diseases in crops and medicinal plants at an early stage. This early detection minimizes crop loss and reduces the need for harmful pesticides, contributing to more sustainable agricultural practices.

Additionally, the work of Rahimi and Esfandiari emphasizes AI's role in automating the sorting, packaging, and quality assessment of medicinal plants. By integrating AI with IoT and data analytics, farmers can track real-time growth patterns, identify anomalies, and ensure optimal harvesting times, thus maximizing the medicinal value of the crops.

Overall, the literature points to AI's transformative role in agriculture, particularly in improving the cultivation of medicinal plants, promoting sustainability, and ensuring higher yields. With continuous technological advancements, the potential for AI to address global agricultural challenges and improve food security is vast.

## RESEARCH METHODOLOGY

In the implementation of these research works, widely used methods in scientific research methodology were applied. The use of deductive and inductive methods, progressing from general to specific and vice versa, proved effective in studying the subject. Additionally, the abstract-logical thinking method played a crucial role in the systematic analysis of the processes involved. Throughout the scientific analysis, various research methods such as observation, generalization, grouping, comparison, and synthesis were widely employed, ensuring a comprehensive and detailed exploration of the topic.

## ANALYSIS AND RESULTS

Agriculture has played an important role in human civilization since ancient times. Medicinal plants also had a special place in our markets in ancient times [1]. The demand for agricultural products is increasing year by year, the increase in demand is also felt in medicinal plants. In recent years, the development of the industry has led to many problems that can be encountered in agriculture at various times, hindering productivity, affecting the way of life and threatening global food security. The solution is provided by the changes in technology and science [2]. The Food and Agriculture Organization announced that by 2050 the world's population will reach 9.3 billion and to feed the population, it will be necessary to produce 60% more food than now [3]. Such a large volume and large numbers have an impact on every direction of agriculture.

According to FAO (Food and Agriculture Organization) estimates, 31,160,794,452 hectares of land are used worldwide for the production of 330 million tons of medicinal and herbal plants, and this figure is increasing year by year [4]. Given the current industry challenges, this may be difficult to do with conventional farming methods. Moreover, it adds to the heavy toll we are taking on our natural resources. And in such cases, scientists of the 21st century are also offering their own solutions, and this is artificial intelligence. The AI in agriculture market is projected to grow from \$1.7 billion in 2023 to \$4.7 billion by 2028, highlighting the important role of advanced technology in this sector. This article explores three critical challenges facing agriculture today and shows how AI is helping to solve them with real-world examples [5].

The introduction of artificial intelligence into the agriculture of Uzbekistan provides considerable economic benefits. This article presents an analysis of the penetration of artificial intelligence in the country's agriculture, and also compares and contrasts. Today, various technologies have a direct impact on people's lives. An example of this is the wide possibilities of artificial intelligence in the agricultural industry. The global food and agribusiness industry is valued at \$5 trillion today and continues to grow [6].

People usually think that agriculture is less "digitized" than other industries, but the discovery of Artificial Intelligence and its introduction into this industry has shown how necessary it is to digitize agriculture. We can see the growing need for artificial intelligence in agriculture in the growing demand for medicinal plants. Artificial intelligence allows farmers to spend less resources, produce and process more quality products in the case of growing medicinal plants, selecting them and presenting them to the market in accordance with the requirements. By correlating genetic sequences with known medicinal properties, AI can predict which unstudied plant species may have potential for new treatments.

In addition to medicinal discoveries, the data can help identify new species, improve plant classification, and support conservation efforts [7]. According to Science Direct, there are approximately 75 million connected devices on farms today, and by 2050, it is believed that the average farm will process more than 4 million pieces of data each day. Artificial intelligence collects input data (from weather to soil to insects) and processes it incredibly fast so farmers can make faster and better farming decisions. Four main factors are driving the growth of artificial intelligence in agriculture:

1. Population growth around the world creates a great demand for food and plant products.
2. A number of information management systems and technologies are being introduced in farms to improve the operations of farms.

3. There is a huge need to improve crop yields, and AI can do it quickly and efficiently.
4. Governments around the world are supporting the use of modern agricultural techniques, including AI[8].

### DISCUSSION SECTION

The terms artificial intelligence (AI) and agriculture may have appeared like an odd mix until recently. After all, while even the most basic AI has just recently been developed, agriculture has been the foundation of human society for millennia, supplying both nourishment and fostering economic growth. All industries, however, are introducing novel concepts, and agriculture is no exception. Farming techniques have undergone a revolution due to the swift progress in agricultural technology in recent times. The sustainability of our food system is being threatened by global issues like population increase, climate change, and resource scarcity, thus these technologies are becoming more and more important. By introducing AI, many problems are resolved and the negative aspects of traditional farming are lessened[9].

In addition, artificial intelligence serves in the image of the product in the market, issues of demand and supply, and issues of sending the product for processing after its expiration date. This article examines the work of many researchers to get a brief overview of the introduction of automation in agriculture, field work by robots and drones, and the promotion of cultivated products in the market.

The dataset created a thorough evolutionary map of the plants using 1.8 billion letters of genetic code. It is anticipated to aid in the identification of novel therapeutic substances. Artificial intelligence is able to forecast which undiscovered plant species may have the potential to yield novel medicines by cross-referencing their genomic sequences with known medicinal qualities.

The information will help discover new species, improve plant classification, and promote conservation activities in addition to helping with pharmaceutical discovery. To stimulate additional discoveries from the plant tree of life, the team has made all of the data publicly available [10].

### CONCLUSION AND SUGGESTIONS

It is necessary that artificial intelligence penetrates step by step into any field in developing countries. Any sudden change can derail the economy of a developing country. In Uzbekistan, mainly the lower strata of the population work in the agricultural sector, and they must learn and understand any technologies that are expected to enter this sector. Along with the humanization of the work to be done in agriculture, employees working in this field may lose their jobs. Therefore, first of all, employees should know how to manage the news if they need to use it correctly.

Artificial intelligence can cover the field of agriculture and bring many achievements to the field in addition to providing the population with food.

1. A wide range of innovations in food safety can be provided, and this will be a major contribution of artificial intelligence to public health and healthy development of children.
2. In the field, the full control of the work by noticing the things that the workers did not pay attention to ensures that the products are harvested safely and in accordance with the demand.
3. Reduction of product losses puts an end to shortages in markets and price control can be achieved.

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## PRINCIPLES AND ORGANIZATION OF DIVIDEND POLICY DEVELOPMENT IN JOINT STOCK COMPANIES

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**Abstract:** This paper explores the principles and organization of dividend policy development in joint-stock companies. It highlights the key factors influencing dividend policy, including profitability, market conditions, and shareholder expectations. The study analyzes various approaches to dividend distribution, focusing on the balance between reinvestment and shareholder returns. Additionally, the paper discusses how well-structured dividend policies can contribute to financial stability and investor confidence. Key challenges in developing and implementing an effective dividend policy are also examined.

**Keywords:** Dividend policy, joint-stock companies, profitability, shareholder returns, financial stability.

### INTRODUCTION

The formulation of an effective dividend policy is one of the most critical financial decisions for joint-stock companies, as it directly impacts both the distribution of corporate earnings and the company's long-term financial strategy. Dividend policy decisions not only determine the portion of profits returned to shareholders but also serve as a signal of the company's financial health and future prospects to the market. A well-structured dividend policy can enhance a company's appeal to investors, influence stock price stability, and reflect management's confidence in the firm's ability to generate sustainable profits.

One of the main challenges in crafting a dividend policy lies in balancing the company's need to reinvest in growth opportunities with shareholders' expectations for regular returns on their investments. Joint-stock companies must carefully evaluate factors such as profitability, cash flow, market conditions, and legal regulations when making decisions on dividend payouts. Moreover, the dividend policy must align with the company's broader corporate strategy, focusing not only on short-term gains but also on long-term financial goals and the company's competitive position within its industry.

In this regard, the guiding principles of dividend policy are essential, as they direct decisions on whether profits should be distributed or retained for reinvestment. Key factors such as the company's life cycle stage, earnings volatility, and tax implications play a significant role in shaping these decisions. Additionally, the organizational elements involved in implementing a dividend policy—such as corporate governance practices, board-level decisions, and the interests of various stakeholders—are crucial in ensuring that the policy is sustainable and meets the diverse expectations of shareholders[1].

### REVIEW OF LITERATURE ON THE SUBJECT

Tereshina N. P., Sorokina A. V. Corporate governance: textbook. - M.: MGUPS (MIIT), 2014. The textbook reveals the main issues of corporate governance: its formation, application and evaluation. The principles of corporate governance in the country are considered on the basis of current legislation. The assessment of the quality of corporate governance of both commercial companies and companies with state participation is considered in detail. Introduced a system of corporate social responsibility.

Ashurov Z.A. Modern corporate management (foreign experience): Textbook. Tashkent: "Innovative development of publishing houses and printing houses", 2021. This book reflects modern corporate management of the company, aimed at achieving the strategic and tactical goals of the company's activities in the market. The main issues of modern corporate governance are related to the formation of the company's capital and ensuring its most effective use.

### RESEARCH METHODOLOGY

In the implementation of these research works, widely recognized methods from scientific research methodology were employed. The use of deductive or inductive methods, applied either from general to

specific or vice versa, proved effective in studying the subject matter. Additionally, abstract-logical thinking played a crucial role in the systematic analysis of the process. Throughout the scientific analysis, various methods—such as observation, generalization, grouping, comparison, analysis, and synthesis—were extensively used to ensure a comprehensive and thorough exploration of the research topic.

### ANALYSIS AND RESULTS

The dividend payment policy of joint-stock companies in the Republic of Uzbekistan remains unstable and does not adequately reflect the financial condition or investment opportunities of these companies. In companies with concentrated ownership, the dividend policy often hinges on the preferences of majority shareholders, whose interests are shaped by factors such as uncertainty in the external environment, weak protection of property rights, and underdeveloped institutional frameworks.

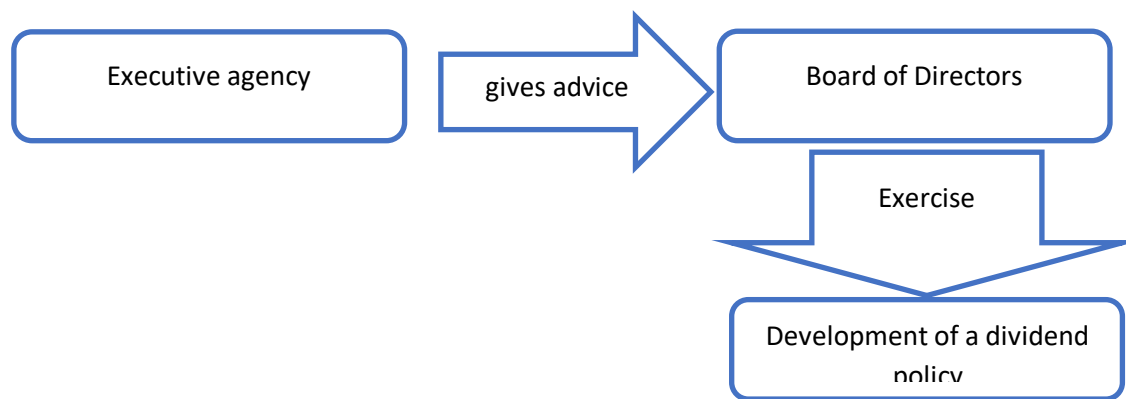
The recent financial instability has shifted focus towards corporate governance issues, with the quality of corporate governance playing a critical role in investment decisions and a company's market capitalization. A key element of corporate governance is the dividend policy, which aims to optimize the ratio of consumed and reinvested profits to maximize the company's market value. When assessing corporate governance practices from the perspective of shareholders' rights to receive income, the following aspects are typically analyzed:

- The existence of an approved dividend policy and the inclusion of principles in internal documents for calculating the minimum share of net profit allocated for dividends;
- The practice of paying dividends on ordinary and preferred shares;
- The company's dividend payment history.

The formalization of a company's dividend policy allows shareholders to predict dividend payouts with greater certainty. During the course of the study, the presence of documents regulating dividend policy at enterprises was positively evaluated. Since the main objective of a dividend policy is to strike the right balance between current profit distribution and future profit growth, it plays a crucial role in financing investments. Therefore, an effective dividend policy can help maximize the company's market value and support its strategic development.

By establishing a clear and balanced dividend policy, companies ensure that they can meet shareholders' expectations while also securing funds for long-term growth and investment, thereby enhancing their financial stability and market position.

Based on the purpose of the dividend policy, it is understood as an integral part of the overall financial policy of the enterprise, which consists in optimizing the ratio between consumed and capitalized profit in order to maximize the market value of the enterprise.



**1-drawing. Work of the Board of Directors on the formation of dividend policy**

The information in the figure shows that the development of a dividend policy is an important task for the Board of Directors, with the executive body in general and the financial manager in particular playing a key role in advising on it.

The company's dividend policy is based on the following key principles:

- the principle of transparency, i.e. determination and disclosure of information on the obligations and responsibilities of the parties involved in the implementation of the dividend policy, including the procedure and conditions for making a decision on the payment and amount of means to achieve dividends;

- the principle of timeliness implies the establishment of the timing of payment of dividends;
- the principle of fairness, which provides that a decision on the payment and amount of dividends can be made only upon achieving a positive financial result, taking into account development plans and investment programs, based on the actual financial position of the company;
- the principle of fairness provides for ensuring equal rights of shareholders when receiving information about the decisions made on the payment of dividends, their amount and payment procedure;
- the principle of consistency, which implies strict compliance with the rules and principles of the dividend policy;
- the principle of development, which provides for continuous improvement of the dividend policy as part of the improvement of corporate governance procedures and the revision of its rules in connection with changes in the strategic goals of the Company;
- The principle of stability means the Company's desire to ensure a stable level of dividend payments.

At the same time, the dynamics of paid dividends and net profit may not coincide. There are cases when they exceed it for a certain period and can be paid even if there are losses due to retained earnings (the creation of reserves for the latter ensures the stability of the company's dividend policy). Since dividends are paid regularly, with no direct connection to the financial condition of the corporation and its profits, in the mind of the investor, they are determined by wages. A dividend strategy is a concept of a mechanism for distributing profits between the current consumption of owners (according to their contribution to capital) and investments in the development of the company and reserve funds, i.e. between its expenditure and capitalized parts. An increase in the share of profits paid to shareholders in the form of dividends reduces its reinvested part and vice versa.

Dividend strategy:

First, it builds relationships with investors (shareholders have a negative attitude towards companies that reduce dividends, believe that this is due to financial difficulties, and therefore may throw out their shares, which leads to a decrease in their market price).

Secondly, it largely determines financial programs and investments, increases or decreases them.

Thirdly, it affects the volume of attracted external sources of financing (growing dividends increase the number of people who want to buy company shares).

Fourth, it can have the effect of reducing the firm's equity, as dividends are paid out of retained earnings (resulting in an increase in the debt-to-equity ratio).

A rational dividend strategy allows maximizing the welfare of the corporation's shareholders and at the same time financing its activities. Regular, stable, inflation-adjusted dividend payments reduce investor uncertainty and indicate good corporate health.

At the same time, an increase in the level of dividends is possible if it can be maintained in the future. If there is no such confidence, it is recommended to declare the payment of additional dividends.

Understanding the nature of a dividend strategy and the problem of its development requires determining the nature of dividends.

**1-table**

**Main types of dividend policy and methods of paying dividends**

<b>№</b>	<b>Types of dividend policy</b>	<b>Dividend payment methods</b>
1.	Aggressive policy	A. Profit distribution method at a constant percentage
		B. Methodology for constant growth of dividend payments
2	Moderate politics	Payment Method of Guaranteed Minimum and Additional Dividends
3	Conservative politics	A. Methodology for calculating residual dividends
		B. Fixed payment methodology



The owners are regularly paid dividends in proportion to their share in the authorized capital of the company, cash income for the use of their capital, the source of which is net profit (current or past ears), but in no case the capital itself. For ordinary shares, they are usually determined annually as a percentage of the par value of the security or in absolute terms. For preferred shares, the amount or method of determining dividends is determined at the time of their issue. Shares owned by a corporation do not pay dividends.[2]

The main types of dividend policy and methods of dividend payment are listed below.

From the information provided, it is clear that the main types of dividend policy are classified as aggressive, moderate, and conservative, each of which has specific methods of dividend payments. Let's take a closer look at these policies.

An aggressive dividend policy employs a constant method of distributing interest. The key feature of this method is that the dividend yield remains constant, referring to a stable percentage of net income over a long period of time that is allocated for paying dividends on common stock. The dividend does not increase based on a rise in the market price of shares, which means fluctuations in the dividend amount are possible. This approach is particularly convenient for stable industries where earnings per share fluctuate little.

The second approach under an aggressive policy is the constant growth of dividend payments. In this method, dividends per share are increased to a planned level, helping to maintain a high market value of shares, a positive image among investors, and stable growth in dividends per share.

A moderate dividend policy follows the method of guaranteed minimum and additional dividends. Here, the dividend per share is constant, with a premium added to regular dividends during particularly successful periods. This method is based on regular payment of dividends in a fixed amount, with extraordinary dividends being paid in strong financial periods. This balanced approach ensures stability in dividend payments while allowing for an increase in value during periods of growth, which motivates shareholders and helps stabilize stock prices.

When evaluating a company's dividend payment practices, the timing of dividend payments and the company's ability to meet declared dividend obligations are key considerations. An additional dividend, paid as a premium beyond regular dividends, is a one-time payment intended to maintain the stable market value of shares and create positive investor sentiment.

A conservative dividend policy includes the following types of dividend payments:

1. **Dividend balance method:** This method calculates annual dividend payments as net income minus retained earnings required to finance investment programs. It is typically used during periods of increased investment activity or in the early stages of a corporation's life cycle. Dividends are paid only after financing effective investment projects with a higher internal rate of return than the company's weighted average cost of capital (WACC). This method ensures strong economic growth and increases the market value of the company.

2. **Specified payment method:** In this approach, the dividend per share remains constant regardless of the dynamics of the share price, ensuring regularity in dividend payments over an extended period. This method is often used by low-risk corporations that rely on investments from financial institutions. Its advantages include smoothing fluctuations in share prices, stable stock market quotations, high liquidity, and reliable income for shareholders. However, it has drawbacks, such as weak correlation with the company's financial performance and potential liquidity deterioration if profits sharply decline.

It is important to note that a joint-stock company is not permitted to declare or pay dividends if:

- The authorized capital has not been paid in full.
- The net assets of the company are less than the size of its authorized or reserve funds, or would fall below this level as a result of dividend payments.

Shareholders, when investing their financial resources, expect the dividend policy to balance their desire for dividends with the company's production development goals, which aim to maximize long-term investment returns. Joint-stock companies must find the optimal balance between profit distribution for development and dividends for shareholders. On the one hand, income is needed for production growth; on the other hand, shareholders seek to maximize their returns.

The growth of a company's capitalization is viewed as the primary way to meet the property interests of shareholders, as it reflects the income derived from holding shares. The stages of implementing dividend policy in the Republic of Uzbekistan, as outlined in Table 2, aim to optimize the ratio of consumed and capitalized profits in order to increase the market value of the company's shares.

The core challenge of dividend policy is determining whether dividends should be paid. This issue is closely tied to the amount of net profit retained by the enterprise, as net profit serves as the financial source for a company's entrepreneurial and investment activities.

An important element of corporate governance is the dividend policy, which is aimed at optimizing the ratio of consumed and capitalized profits to maximize the company's market value. Dividend policy, like capital structure management, significantly influences the company's position in the capital market, particularly affecting the dynamics of its share prices. Dividends represent a cash return for shareholders and serve as an indicator of the company's financial health, providing reassurance to investors that their investment is performing well. According to the dividend policy of joint-stock companies in Uzbekistan, the procedure for paying dividends and determining their source is regulated by the legislation of the Republic of Uzbekistan. The source of dividend payments is the net profit of the joint-stock company from the previous period.

In cases where net profit is insufficient, dividends on preferred shares can be paid from funds specifically created for this purpose from profits accumulated in previous years.

**2-table**

**Stages of the procedure for implementing the dividend policy in the Republic of Uzbekistan**

<b>Stages</b>	<b>Contents of the procedure at a certain stage</b>
1	Determining the investment opportunities of the company, assessing the level of solvency of the company, the level of dividend payments of competing companies, etc.
2	Selecting the type of dividend policy (conservative, moderate, aggressive)
3	Profit distribution according to the selected type of dividend policy.
4	Determining the level of dividend payment and the amount of dividends paid per share
5	Determining the form of dividend payment (money, other property or purchase of own shares)
6	Analysis of dividend policy based on indicators of the company's market activity (net earnings per share, dividend payout ratio, dividend yield per share, etc.)

Dividends are part of the company's net profit and are distributed among shareholders based on the number and type of shares they own. In essence, dividends represent the portion of profits that shareholders receive as a return on their shares. According to the Law of the Republic of Uzbekistan "On the Protection of Joint-Stock Companies and the Rights of Shareholders," dividends are understood as any income a shareholder receives from the distribution of profits, after taxation, including interest on preferred shares, other obligatory payments, or reinvestments distributed to shareholders.

The essence of dividend policy lies in selecting the optimal balance between the portion of profits paid out as dividends and the portion retained for business expansion. Several factors influence a company's dividend policy, including:

1. Legal restrictions.
2. Contractual restrictions.
3. Liquidity constraints.
4. Restrictions related to production expansion.
5. Shareholder interests.
6. Advertising and financial restrictions.

Dividends are calculated periodically and are typically perceived by investors as being linked to the company's profitability. The timing and procedures for paying dividends are defined by the company's charter or by a resolution of the general meeting of shareholders, with dividends required to be paid within 60 days of such a decision.

The Board of Directors is responsible for formulating the dividend policy. Depending on the company's objectives and projected financial outlook, profits may be reinvested into the company's assets, retained for future use, or distributed as dividends to shareholders.

Ultimately, dividend policy is considered within the broader framework of the company's financial goal, which is to maximize shareholder wealth. This means that any decisions regarding dividend payments should prioritize the best interests of shareholders, ensuring that their wealth is maximized.

## CONCLUSIONS AND SUGGESTIONS

In recent years, Uzbekistan has seen significant changes in its approach to corporate governance. These changes include a greater adherence to internationally recognized management principles such as fairness, responsibility, transparency, and accountability. The country has also focused on attracting foreign investment, improving its global competitiveness, accelerating modernization efforts, and implementing important reforms.

However, the dynamics between paid dividends and net profit do not always align. There are instances where paid dividends exceed net profits for certain periods, and dividends may even be distributed during times of financial loss, thanks to retained earnings or reserves. The creation of these reserves helps maintain the stability of the company's dividend policy. Since dividends are regularly paid and are not always directly tied to the corporation's current financial performance or profits, investors may perceive them as similar to regular wages.

A dividend strategy refers to a mechanism for distributing profits between shareholders' current consumption (based on their contribution to capital) and reinvestments in the company's development and reserve funds. It involves striking a balance between distributing profits and reinvesting them into the company. An increase in the share of profits paid as dividends to shareholders reduces the amount reinvested in the company, and vice versa.

A rational dividend strategy can maximize shareholder wealth while simultaneously providing adequate funding for the corporation's operations. Regular, stable dividend payments, which are adjusted for inflation, help reduce investor uncertainty and reflect good corporate health. Additionally, an increase in dividends can be made if there is confidence that it can be sustained in the future. In cases where such confidence is lacking, it is recommended to declare the payment of additional dividends instead of permanent increases.

Understanding the development of a dividend strategy requires a clear comprehension of the nature of dividends. Shareholders are regularly paid dividends in proportion to their ownership in the company's authorized capital. Dividends represent cash income earned from the use of shareholder capital, sourced from net profits (whether current or retained from previous years), but they do not reduce the capital itself. For common shares, dividends are usually determined annually as a percentage of the par value of the stock or in absolute terms. For preferred shares, the dividend amount or its method of calculation is determined at the time of issuance. Importantly, shares owned by the corporation itself do not pay dividends.

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## INNOVATIVE AND PRODUCTION DEVELOPMENT OF REGIONAL GRAPE CLUSTERS IN THE REPUBLIC OF UZBEKISTAN

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**Annotation:** This article examines the innovative and production development of regional grape clusters in the Republic of Uzbekistan. It explores how modern agricultural technologies and sustainable practices can enhance the productivity and competitiveness of grape clusters. The paper also addresses the role of collaboration between local farmers, research institutions, and the private sector in fostering innovation. It highlights the challenges and opportunities in aligning Uzbekistan’s grape industry with global market trends, particularly in the organic and premium product segments.

**Keywords:** Grape clusters, innovation, agriculture, sustainability, Uzbekistan, market competitiveness.

### INTRODUCTION

The Republic of Uzbekistan is renowned for its favorable climate and agricultural diversity, making it an ideal environment for viticulture. Grape production has been a key agricultural activity in the country for centuries, significantly contributing to the rural economy. However, in recent years, there has been an increasing emphasis on modernizing and innovating this sector to boost both productivity and competitiveness. The development of regional grape clusters has emerged as a strategic initiative to drive innovation, improve production efficiency, and foster collaboration between grape producers, processors, and exporters.

Regional clusters are recognized as an effective tool for economic development, especially in agricultural sectors where geographic proximity encourages shared knowledge, resources, and innovation. In Uzbekistan, the formation of grape production and processing clusters within specific regions holds the potential to enhance domestic output while also positioning the country as a competitive player in international grape and wine markets.

This paper aims to explore the innovative approaches and production development of regional grape clusters in Uzbekistan. It will examine how the integration of modern agricultural technologies, sustainable practices, and market-oriented strategies can enhance the competitiveness of these grape clusters. Additionally, the paper will address the challenges that grape producers face in adapting to these changes and propose strategies for fostering the development of these clusters. Through the analysis of regional case studies and global best practices, this research will offer valuable insights into the potential for growth and innovation within Uzbekistan's grape industry.

### LITERATURE REVIEW

The development of regional grape clusters in the Republic of Uzbekistan has garnered significant attention due to the country’s favorable climatic conditions and rich viticultural heritage. Various studies emphasize the critical role that innovation plays in enhancing the productivity and competitiveness of agricultural clusters. Porter’s cluster theory highlights that the geographic concentration of interconnected companies, specialized suppliers, and associated institutions within a specific field can boost productivity and innovation through collaboration and competition. Applied to grape clusters, this theory provides a useful

framework for understanding how regions can leverage localized knowledge and resources to improve output and efficiency.

Several scholars have investigated the impact of technological advancements and modern agricultural practices on the development of grape clusters. For instance, Gergely and Szilágyi have stressed the importance of precision agriculture and smart farming technologies to enhance grape quality and yield. Their research indicates that integrating digital tools such as sensors, drones, and AI-based monitoring systems can optimize crucial factors like water usage, pest control, and crop management, resulting in more sustainable production practices.

Additionally, the works of De Janvry and Sadoulet discuss the role of innovation systems in rural agricultural development, emphasizing how collaboration between farmers, research institutions, and the private sector can fuel the growth of specialized clusters. In Uzbekistan, similar strategies are being advocated to promote grape cluster development by modernizing production techniques and tapping into local expertise.

Uzbek researchers, such as Rakhmatov, have also highlighted the potential of regional grape clusters. Rakhmatov argues that cooperation among grape producers, processors, and exporters is essential for efficiently utilizing resources and accessing international markets. His studies underscore the importance of establishing strong infrastructure and supply chains that support production and marketing activities, allowing regional grape clusters to thrive.

In summary, the literature suggests that the successful development of regional grape clusters in Uzbekistan depends on adopting modern technologies, fostering institutional collaboration, and aligning production with global market trends. These efforts are key to enhancing the competitiveness and sustainability of the country's grape industry.

## RESEARCH METHODOLOGY

In the implementation of these research works, widely used methods in scientific research methodology were used. The use of deductive or inductive methods in the order from generality to individuality and vice versa is effective in studying the subject, and the method of abstract-logical thinking is important in the systematic analysis of the process. In the process of scientific analysis, these scientific research methods, in particular, observation, generalization, grouping, comparison, analysis, and synthesis and analysis methods were widely used.

### Analysis and results

In many studies, the model for determining product competitiveness considers the integration of pricing and non-price policies. The authors are of the opinion that the competitiveness of products is determined by price and market demand [1].

$$K_{и.к.с} = K_{ц.к.} * K_{н.к.с} = \frac{Ц_{к}}{Ц_{н}} * \frac{K_{н}}{K_{к}}, (1)$$

where  $K_{и.к.с}$  – is the coefficient of integral competitiveness of the enterprise's products;

$K_{ц.к.}$  – coefficient of price competitiveness of products;

$K_{н.к.}$  – coefficient of non-price competitiveness of products;

$Ц_{к}$  – price of the main competitor's products;

$Ц_{н}$  – the price of our product;

$K_{к}$  – quality of the main competitor's product;

$K_{н}$  – the quality of our product.

Taking into account the characteristics of the grape and wine industry, the competitiveness of the finished product is determined organoleptically. Success in this type of testing is only possible by identifying competitive varieties and types of grapes at the initial stage of the production chain.

With an increase in the level of implementation of intensive technologies and advanced methods of rational organization of production, the influence of natural and climatic factors on productivity decreases. Therefore, the literature proposes the use of a calculation formula, taking into account the fact that agricultural organizations in the region have approximately the same conditions for increasing grape yields [2]:

$$y_x = y_i + \frac{\lg y_0}{\lg y_i} \cdot a_i t (2)$$

where  $y_x$  – is the estimated grape yield for the future;  $y_i$  – average actual grape yield at the beginning of the planning period for the organization;  $y_0$  – average actual grape yield in similar organizations in the region;  $a_1$  – regression coefficient characterizing the possible average annual increase in productivity in the organization;  $t$  – ear number, assuming that  $t=1$  in the first ear of the planning period.

The productivity of the average annual harvest is considered depending on the actual productivity of the grape garden:

$$y_x = y_0 e^{\frac{\Delta u}{y_0} \sqrt{tgt}} \quad (3)$$

where  $y_x$ , – is the promising yield of the vineyard;  $y_0$  – actual vineyard yield;  $\Delta u$  – the difference between the prospective and actual yield;  $a$  – regression coefficient;  $t$  – duration of the planning period.

The production cycle of grape products is a category that depends on a number of factors and a wide range of tasks facing each of them. The task arises of establishing connections between individual factors of the organization's internal environment. The existence of a large number of heterogeneous organizations included in one production cycle prevents the construction of a universal model of cluster development. Uncertainty represents the influence of a number of factors influencing the development of an industry cluster.

As options for technological methods of the same farm, there may be different strategies for using sown areas for the consumption of wine products in the country and abroad, the development of new lands, the necessary capital investments for the development of grape farms, accounting for personnel and relevant specialists in viticulture [3]. For each option, all the necessary parameters are known: grape consumption for the production of a unit of wine product, production costs, production capacity, capital investments and forecast values for product consumption volumes.

It is proposed to determine the competitive type of grapes by variety using the following method

$$\alpha_{ij} = \alpha_{1j} + \alpha_{2j} + \alpha_{3j} + \dots + \alpha_{nj}$$

$\alpha$  – indicator of grape assortment of group I;  $i$  – number of farms growing wine grape varieties ( $i= 1, 2, \dots n$ );  $j$  – grape sort

$$\beta_{ij} = \beta_{1j} + \beta_{2j} + \beta_{3j} + \dots + \beta_{nj}$$

$\beta$  – indicator of grape assortment of group II;  $i$  – number of farms growing wine grape varieties ( $i= 1, 2, \dots n$ );  $j$  – grape variety

$$\rho_{ij} = \rho_{1j} + \rho_{2j} + \rho_{3j} + \dots + \rho_{nj}$$

$\rho$  – indicator of group III grape assortment;  $i$  – number of farms growing wine grape varieties ( $i= 1, 2, \dots n$ );  $j$  – grape variety

$$\sigma_{ij} = \sigma_{1j} + \sigma_{2j} + \sigma_{3j} + \dots + \sigma_{nj}$$

$\sigma$  – indicator of grape assortment of group IV;  $i$  – number of farms growing wine grape varieties ( $i= 1, 2, \dots n$ );  $j$  – grape variety

$$\tau_{ij} = \tau_{1j} + \tau_{2j} + \tau_{3j} + \dots + \tau_{nj}$$

$\tau$  – indicator of grape assortment of group V;  $i$  – number of farms growing wine grape varieties ( $i= 1, 2, \dots n$ );  $j$  – grape variety

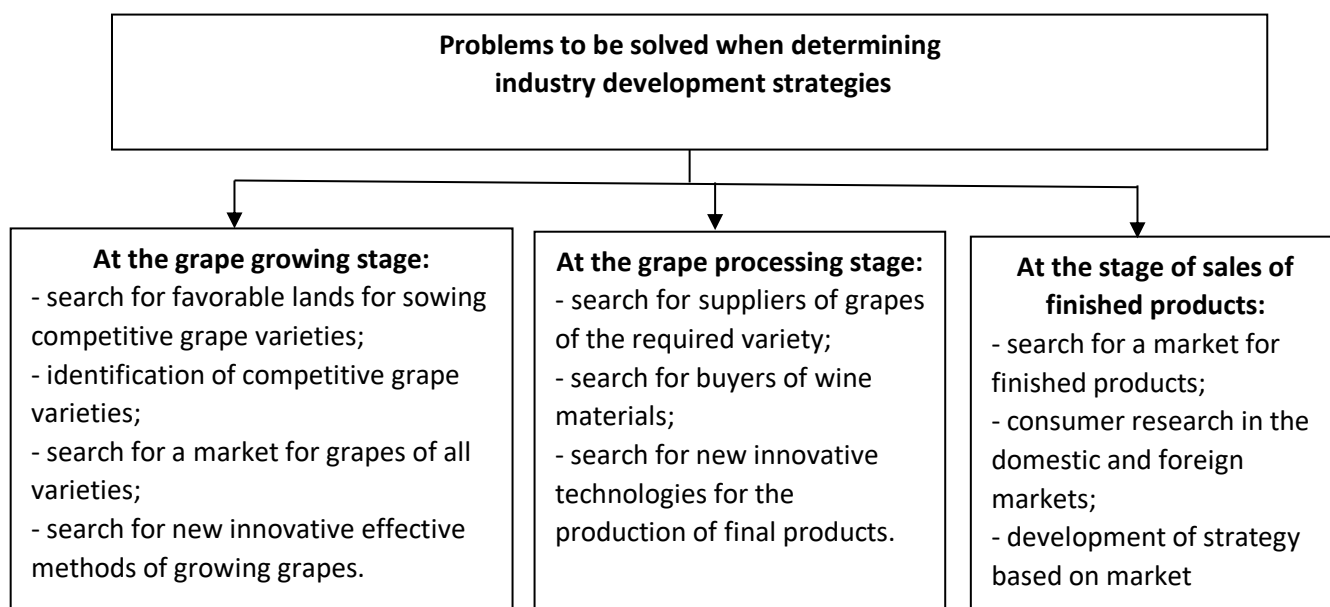
Total volume of grapes grown in the region (V)

$$V = \sum(\alpha + \beta + \rho + \sigma + \tau)_{ij} \quad (4)$$

The production of competitive products depends on the quality and characteristics of the grape variety. The level of risk under conditions of uncertainty will decrease with proper tracking of the origin of the grapes based on the quality of the resulting wine, that is, based on an organoleptic assessment of the quality of the finished product. In the system of forecasting and analytical calculations in viticulture, the functional purpose of the industry model is to coordinate economic and industry indicators at each stage of the production process. It is based on a step-by-step calculation of key inter-industry balance tables based on data provided by reporting organizations. This includes enterprises in the agricultural industry, enterprises in the wine industry and trade organizations.

The practical application of econometric models in production management of the grape and wine industry largely depends on the quality and characteristics of grape varieties, the correct implementation of forecasting and planning results at each stage of the production chain.

The forecast at various planning intervals in the wine industry is the basis for calculating and adjusting the output. To achieve better results, the assigned tasks should be understood comprehensively and implemented in accordance with the established task structure. The structure of an integrated planning system is presented for solving problems according to the diagram in Fig. 1.



**Figure 1. The list of tasks that need to be solved when determining the development strategy for the grape and wine industry**

Compiled based on research by the author

### **Conclusion and suggestions**

The innovative and production development of regional grape clusters in Uzbekistan offers considerable potential to enhance the country's agricultural competitiveness and establish it as a significant player in the global grape and wine markets. By adopting modern technologies, such as precision farming and sustainable agricultural practices, regional grape clusters can boost productivity, optimize resource usage, and elevate the quality of grape production. Strong collaboration among farmers, research institutions, and the private sector is crucial for fostering innovation and addressing the challenges that the industry faces.

Moreover, aligning Uzbekistan's grape industry with international market demands—particularly for organic and high-quality products—can unlock new export opportunities. However, to successfully implement these strategies, it is essential to invest in infrastructure, strengthen supply chains, and offer ongoing support to local grape producers. Ultimately, the development of innovative grape clusters represents a promising avenue for economic growth and sustainability in Uzbekistan's agricultural sector, contributing not only to rural development but also to the country's integration into global markets.



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## THE VALUE AND ADVANTAGES OF ARTIFICIAL INTELLIGENCE IN FOREIGN LANGUAGE TEACHING

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**Annotation:** This article examines the innovative and production development of regional grape clusters in the Republic of Uzbekistan. It explores how modern agricultural technologies and sustainable practices can enhance the productivity and competitiveness of grape clusters. The paper also addresses the role of collaboration between local farmers, research institutions, and the private sector in fostering innovation. It highlights the challenges and opportunities in aligning Uzbekistan's grape industry with global market trends, particularly in the organic and premium product segments.

**Keywords:** Grape clusters, innovation, agriculture, sustainability, Uzbekistan, market competitiveness.

### INTRODUCTION

Artificial intelligence (AI) is a specialized field within computer science focused on developing systems capable of performing tasks that are typically associated with human intelligence, such as language comprehension, learning, reasoning, problem-solving, translation, and more. AI systems are built using algorithms and software that allow them to complete tasks that mimic human cognitive functions.

The term "artificial intelligence" was first introduced by John McCarthy in 1955. In 1956, McCarthy, along with other researchers, organized the Dartmouth Summer Research Project on Artificial Intelligence, a pivotal event that led to the development of several groundbreaking innovations, such as machine learning, deep learning, and predictive analytics. This conference also gave rise to the field of data science. A significant milestone in AI development occurred in 1997 when IBM's computer, Deep Blue, became the first machine to defeat world chess champion Garry Kasparov.

AI is fundamentally about replicating human cognitive processes through the use of language, learning, and reasoning in different languages and environments. In essence, AI enables computers to think and solve problems in ways that resemble human thought processes. To achieve this, AI systems require three main components: high-powered computer systems, the ability to manage vast amounts of data (big data), and advanced algorithms (software code). As AI systems grow more advanced and approach human-like intelligence, they require even greater amounts of data and computational power to function effectively.

### REVIEW OF LITERATURE ON THE SUBJECT

The integration of artificial intelligence (AI) into foreign language teaching has gained significant momentum in recent years, driven by the growing demand for personalized and adaptive learning solutions. AI has shown immense potential in enhancing the learning experience, improving efficiency, and offering innovative methods for both teachers and learners. According to Li and Xu, AI-powered applications can create personalized learning paths by adapting content to each learner's proficiency level and learning pace. This adaptability targets specific areas where students need improvement, thereby accelerating the learning process.

Additionally, one of AI's key advantages is its ability to process natural language and provide real-time feedback. Research by Burston demonstrates that AI-powered language platforms can deliver immediate corrections on grammar, pronunciation, and vocabulary, which are critical for language acquisition. This instant feedback allows students to practice effectively outside traditional classroom settings, reinforcing learning through consistent, personalized practice.

AI also plays a well-documented role in automating language assessments. Lu and Liu highlight how AI-driven tools provide objective and accurate evaluations of language skills, particularly in speaking and listening—areas that are often challenging to assess through traditional methods. These AI tools generate personalized feedback, making evaluations more comprehensive and tailored to individual learner needs.

Another emerging trend is the use of AI in gamified language learning platforms. Ortega and Fernández note that AI-driven gamified platforms boost student engagement by incorporating competition and

rewards into the learning process. These platforms use AI to adjust the game's difficulty level based on the learner's progress, creating a motivating and immersive environment.

However, challenges remain in fully integrating AI into language education. Boulton argues that while AI can greatly enhance language learning, the human element—especially in understanding cultural nuances and context—remains essential. Thus, the teacher's role is indispensable, and AI should be viewed as a complementary tool rather than a replacement.

In conclusion, the literature highlights AI's transformative potential in foreign language teaching, particularly in personalizing learning, providing real-time feedback, automating assessments, and increasing engagement through gamification. As AI technology continues to evolve, its application in language education is expected to expand, offering more dynamic and effective learning experiences.

## RESEARCH METHODOLOGY

In the implementation of these research works, widely accepted methods from scientific research methodology were employed. The use of deductive or inductive methods, moving from general to specific or vice versa, proved effective in studying the subject. Additionally, abstract-logical thinking played a crucial role in conducting systematic analyses of the research process. Various scientific research methods, such as observation, generalization, grouping, comparison, analysis, and synthesis, were widely used throughout the process to ensure a comprehensive and thorough exploration of the subject matter.

## ANALYSIS AND RESULTS

Today, in various countries, the use of robot-nurses, driverless vehicles, and drones delivering orders has become increasingly common. Even in test systems like IELTS, LingvoSkill, and TESOL, which assess language proficiency, robots are starting to handle some of the tasks typically performed by human staff. One of the emerging tools in language learning is ChatGPT, which offers several key advantages for learners:

- **Conversational Practice:** ChatGPT enables real-time conversations in the language being learned, providing dynamic practice in sentence construction, vocabulary, and grammar.

- **Immediate Feedback:** Learners receive instant corrections or suggestions, allowing for faster improvement by learning from mistakes in real-time.

- **Tailored Content:** ChatGPT adjusts the complexity of conversations based on the learner's proficiency level, offering simpler discussions for beginners and more complex ones for advanced learners.

- **Focus on Specific Areas:** It allows learners to target particular skills, such as grammar, vocabulary, pronunciation, or cultural context, depending on individual learning goals.

- **24/7 Access:** Unlike traditional tutors, ChatGPT is available at any time, offering flexible learning opportunities that fit into any schedule.

- **No Geographic Barriers:** ChatGPT enables practice in languages that may be difficult to access locally, including less commonly taught languages.

- **Variety of Topics:** The tool can engage in a wide range of topics, helping learners acquire vocabulary relevant to various contexts, from everyday conversations to specialized fields like business or travel.

- **Role-playing Scenarios:** ChatGPT can simulate real-world interactions, like ordering food at a restaurant or negotiating in a business setting, which helps learners develop practical language skills.

- **Contextual Understanding:** Beyond vocabulary and grammar, ChatGPT can explain cultural nuances, idioms, and customs, offering a deeper understanding of the language.

- **Exposure to Language Varieties:** Learners can explore dialects, slang, and regional expressions, which are critical for sounding natural in the language.

- **Interactive and Fun:** The conversational nature of ChatGPT makes language learning more engaging and enjoyable compared to traditional methods like rote memorization.

- **Creative Exercises:** Learners can request ChatGPT to create language games, quizzes, or storytelling exercises, making the learning process more enjoyable.

- **Cost-effective:** Compared to hiring tutors or purchasing language learning software, ChatGPT offers an affordable or even free option for improving language skills.

- **Supplement to Other Resources:** ChatGPT can complement textbooks, language apps, and classes, providing a comprehensive approach to mastering a foreign language.

- **No Judgment:** ChatGPT provides a judgment-free environment, allowing learners to practice without the fear of making mistakes or feeling pressured.

• **Self-paced Learning:** Learners can take their time with challenging concepts, learning at their own pace without the pressure of keeping up with others.

• **Repetition:** For learners who need extra practice with certain phrases or concepts, ChatGPT will patiently repeat and explain as needed.

• **Multilingual Capabilities:** ChatGPT supports multiple languages, enabling learners to switch between languages or practice several in one session.

With ongoing advancements, scientists are continuously working to make AI-powered tools more human-like in terms of appearance and voice. However, this progress also raises concerns about job displacement in sectors such as education, healthcare, postal services, accounting, and administrative roles, where AI can handle routine tasks effectively. Despite these concerns, the development of artificial intelligence continues to grow, offering significant benefits, particularly in fields like comparative language teaching, where its role is becoming increasingly important.

AI's continuous evolution shows that while it may replace some jobs, it also provides valuable tools for enhancing learning experiences and aiding professional tasks, ultimately helping people adapt to a changing technological landscape.

**For example:** If we take the verb take, it is shortened in dictionary books only in the form of "take" (verb). In Uzbek, the word "take" can be translated as "olmoq." For example, "to take a book" would be "to take a book."

It is given in the sentence as "I decided to take a walk in the park to clear my mind", while Chat GPT uses artificial intelligence. The verb "take" has several meanings depending on the context.

1. To acquire possession of something: To get or receive something, such as "to take a book from the shelf."

2. To capture or seize: To physically grab or hold onto something, such as "to take someone's hand."

3. To accept or agree to do something: For example, "to take a job" or "to take responsibility."

4. To consume or ingest: To eat or drink something, such as "to take medicine."

5. To require or necessitate: Used to indicate the need for something, such as "This task will take time." The specific meaning depends on the usage in a sentence.

Now, robots are able to create relatively complex words and analyze them. The unique collaboration between robotic linguists and automated teachers has greatly increased efficiency. If we look for phrases using artificial intelligence, we can see the following:

1. Take it easy: To relax or not stress about something. - Example: "You've been working hard all day; it's time to take it easy."

2. Take the plunge: To commit to a risky or uncertain course of action. - Example: "After years of planning, they finally took the plunge and started their own business."

3. Take with a grain of salt: To view something skeptically or not take it too seriously. - Example: "You should take his advice with a grain of salt; he's known for exaggerating."

4. Take the bull by the horns: To confront a difficult situation head-on. - Example: "It's time to take the bull by the horns and address the issue directly."

5. Take a back seat: To allow someone else to be in control or to play a less prominent role. - Example: "She decided to take a back seat and let her team members lead the project."

6. Take the wind out of someone's sails: To deflate someone's enthusiasm or confidence. - Example: "Her harsh criticism really took the wind out of his sails."

7. Take five: To take a short break, typically five minutes. - Example: "Let's take five before we continue with the meeting."

8. Take it or leave it: An offer that is non-negotiable. - Example: "That's my final price - take it or leave it."

9. Take the cake: To be the most outstanding in a negative way. - Example: "I've heard some excuses before, but that one really takes the cake."

10. Take the heat: To endure criticism or pressure. - Example: "As the leader, you'll have to take the heat when things go wrong."

## CONCLUSION AND SUGGESTIONS

The integration of artificial intelligence (AI) in foreign language teaching marks a significant evolution in educational methods, offering numerous advantages that improve both the teaching and learning processes. AI technologies, such as personalized learning platforms, adaptive algorithms, and real-time

feedback systems, create a more tailored educational experience, addressing the unique needs of individual learners. This personalization allows students to learn at their own pace, focusing on areas where they need the most improvement, thus fostering more effective and efficient learning outcomes.

A key advantage of AI in language teaching is its capacity to provide immediate feedback on pronunciation, grammar, and vocabulary usage—something that is often limited in traditional classroom settings. This real-time feedback accelerates the learning process and promotes self-directed learning, as students can engage in consistent practice outside formal educational environments. Furthermore, AI is revolutionizing language assessments by offering automated, accurate evaluations, particularly in speaking and listening skills, which are typically more difficult to assess manually.

AI also brings a new dimension to language learning through gamification, which enhances student engagement. By incorporating interactive and competitive elements, AI-powered language apps make the learning process more dynamic and enjoyable, increasing student motivation and retention. Moreover, AI's ability to adjust the difficulty of tasks based on the learner's progress ensures that students remain both challenged and engaged, promoting a more immersive and sustained learning experience.

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**Abstract:** This article explores the role of digital currencies in shaping the future of finance. It discusses the development of cryptocurrencies, central bank digital currencies (CBDCs), and stablecoins, as well as their impact on financial systems and the challenges surrounding security and regulation. The advantages and risks of digital currencies are examined, highlighting their potential to democratize financial services.

**Keywords:** digital currencies, cryptocurrencies, central bank digital currencies, stablecoins, financial technologies.

### INTRODUCTION

Digital currencies have indeed revolutionized the financial landscape, sparking debates about the future of money and the role of governments and central banks in regulating it. Bitcoin's introduction in 2009 marked the beginning of this transformation, offering a decentralized alternative to traditional currencies. Unlike fiat currencies such as the dollar or euro, which are controlled by central authorities, Bitcoin and other cryptocurrencies operate on decentralized blockchain technology, enabling peer-to-peer transactions without intermediaries. This decentralization has garnered significant attention, especially from individuals disillusioned with government-backed currencies.

Cryptocurrencies like Bitcoin are viewed as a hedge against the potential devaluation of fiat currencies, a concern shared by those who prefer tangible assets like gold and silver. For these individuals, the appeal of digital currencies lies in their autonomy from centralized control and the promise of enhanced privacy, transparency, and security. Proponents of cryptocurrencies argue that digital assets could challenge or even replace traditional financial systems, shifting the balance of economic power from governments and financial institutions to individuals.

While the adoption of digital currencies has accelerated, challenges remain. Regulatory uncertainty, market volatility, and the lack of widespread understanding pose hurdles to their integration into the mainstream financial system. Governments and central banks worldwide are grappling with how to regulate and incorporate cryptocurrencies without stifling innovation. At the same time, central banks are exploring their own versions of digital currencies, known as Central Bank Digital Currencies (CBDCs), which would offer the benefits of digital assets while maintaining the stability and oversight of traditional monetary systems.

In this evolving financial landscape, Bitcoin's founding ethos of decentralization and empowerment continues to resonate with a growing number of people, pushing the boundaries of what money is and could be in the digital age. The journey of digital currencies, though fraught with challenges, offers the potential to reshape global finance, making it more inclusive and accessible to all.

### REVIEW OF LITERATURE ON THE SUBJECT

Digital currencies have become a transformative force in the global financial landscape, challenging traditional monetary systems and introducing new opportunities for financial innovation. The rise of cryptocurrencies, central bank digital currencies (CBDCs), and stablecoins has led to significant shifts in how value is transferred, stored, and utilized. This literature review explores key research on the development, adoption, and potential impact of digital currencies on the future of finance.

The origins of digital currencies can be traced back to the introduction of Bitcoin in 2009, which was conceptualized as a decentralized peer-to-peer payment system (Nakamoto, 2008). Bitcoin and other cryptocurrencies operate on blockchain technology, which ensures transparency and security in transactions without the need for intermediaries. Since its inception, the cryptocurrency market has expanded significantly, with thousands of digital assets now available, each offering varying degrees of utility and stability (Tapscott

& Tapscott, 2016). These developments have sparked innovations such as decentralized finance (DeFi), which leverages blockchain technology to provide financial services without traditional banks.

One of the critical benefits of digital currencies is their potential to democratize finance. Research by Narayanan et al. (2016) argues that digital currencies and decentralized platforms enable individuals to access financial services that were previously out of reach due to geographic or economic constraints. This is particularly evident in DeFi applications, which allow users to lend, borrow, and trade assets without relying on traditional financial intermediaries, offering new pathways for financial inclusion and innovation. Furthermore, CBDCs are gaining attention as central banks explore the potential to enhance payment systems with digital currencies that maintain stability and trust, while leveraging the advantages of blockchain technology (Auer & Böhme, 2020).

However, digital currencies are not without challenges. Security risks and technological vulnerabilities represent a significant barrier to widespread adoption. While blockchain technology offers improved security through decentralized systems, it is not immune to attacks. Bonneau et al. (2015) highlight potential risks such as 51% attacks, where a group of miners could control a blockchain network and manipulate transactions, raising concerns about the overall security and trustworthiness of cryptocurrencies. Additionally, the volatile nature of many cryptocurrencies, such as Bitcoin, poses challenges for their use as stable stores of value or mediums of exchange (Böhme et al., 2015).

Regulation is another key issue surrounding the adoption of digital currencies. The decentralized nature of cryptocurrencies, while providing more autonomy, also makes them more challenging to regulate. Many governments are grappling with how to integrate digital currencies into existing financial systems, balancing the need for consumer protection with fostering innovation (Zohar, 2015). The development of CBDCs offers a potential solution, allowing central banks to issue digital currencies that retain regulatory oversight while offering the efficiencies of digital assets (Bank for International Settlements, 2020).

In conclusion, the future of finance is being reshaped by the rise of digital currencies. While there are significant opportunities for improving financial systems, particularly through CBDCs and stablecoins, there are also challenges related to regulation, security, and technological infrastructure. Continued research and policy development will be crucial in navigating the complexities of digital currencies as they become an integral part of the global financial system. With careful consideration of these factors, digital currencies have the potential to enhance financial inclusion, foster innovation, and transform global financial markets.

## RESEARCH METHODOLOGY

In the implementation of these research works, widely used methods in scientific research methodology were applied. The combination of deductive and inductive approaches, which progress from general to specific or vice versa, proved effective in studying the subject. Additionally, the method of abstract-logical thinking was instrumental in the systematic analysis of the research process. Throughout the scientific investigation, several key research methods, including observation, generalization, grouping, comparison, analysis, and synthesis, were utilized to provide comprehensive insights and findings. These methods collectively contributed to the robustness of the research, ensuring that the subject was analyzed from multiple angles and that conclusions were well-grounded in systematic analysis.

## ANALYSIS AND RESULTS

Digital currencies offer the promise of financial inclusion, providing a gateway for the unbanked and underbanked populations to participate in the global economy. With a simple internet connection, individuals can access financial services and engage in transactions without the need for traditional banking infrastructure. The efficiency and speed of digital currency transactions stand out as transformative features. Blockchain technology enables near-instantaneous cross-border transactions, eliminating intermediaries and reducing the time and costs associated with traditional banking methods. Blockchain's decentralized ledger ensures transparency and security. Transactions are recorded in a tamper-resistant manner, reducing the risk of fraud. Cryptographic techniques secure the ownership and transfer of digital assets, fostering trust in a secure and transparent financial ecosystem. Digital currencies operate on a decentralized network, allowing users to transact 24/7, irrespective of traditional banking hours or geographical boundaries. This accessibility enhances the speed and convenience of financial transactions, promoting a truly globalized financial system.

## **CHALLENGES IN THE WORLD OF DIGITAL CURRENCIES:**

However, the path to widespread adoption of digital currencies is not without hurdles. Several challenges pose significant impediments to their seamless integration into the financial mainstream. Digital currency encounters a formidable challenge in its pronounced volatility. The value of these currencies can undergo substantial fluctuations in brief intervals, introducing potential risks for both investors and users. This volatility poses significant hurdles in utilizing digital currencies as a stable store of value or as a medium of exchange. Swift changes in prices create complexities for businesses considering the acceptance of digital currencies as payment, as uncertainty about their future value becomes a notable concern. Operating in an emerging regulatory landscape, digital currencies present an intricate challenge.

Governments and regulatory bodies worldwide grapple with the effective classification and regulation of these currencies. The absence of clear regulations results in uncertainty for users, businesses, and investors, potentially impeding the growth and adoption of digital currencies and limiting their inherent advantages. While digital currencies leverage sophisticated cryptographic algorithms and decentralized networks for transaction security, they are not impervious to security risks. Incidents of hacking, theft, and scams targeting digital currency platforms and users have been documented. The anonymity of transactions and the irreversibility inherent in many digital currency systems make it arduous to recover stolen funds or hold wrongdoers accountable. Vigilant implementation of robust security measures and user education on best practices for safeguarding digital assets becomes imperative. Challenges related to scalability and transaction speed confront digital currencies as their user base and transaction volume expand. Some networks may grapple with increased loads, resulting in congestion and delays. This predicament is particularly evident with widely used digital currencies like Bitcoin, where limited block size and the Proof-of-Work consensus mechanism contribute to protracted transaction processing times and elevated fees. The challenge lies in addressing scalability concerns without compromising on security and decentralization. The substantial computing power and energy consumption required for digital currency mining, notably in cryptocurrencies like Bitcoin, have raised environmental concerns. Critics argue that the energy-intensive nature of mining is unsustainable and contributes to carbon emissions. Mitigating these environmental concerns involves exploring more energy-efficient alternatives or implementing sustainable mining practices within the digital currency industry.

While essential for widespread acceptance, user adoption faces challenges in terms of education and awareness. A considerable portion of the population lacks a comprehensive understanding of digital currencies and may exhibit skepticism or reluctance. Educating the public on the benefits, risks, and proper usage of digital currencies is pivotal for fostering broader adoption. Additionally, improving user interfaces and enhancing the overall user experience can stimulate greater acceptance and usage. Digital currencies have the potential to promote financial inclusion by extending access to financial services for unbanked populations. However, challenges persist in the form of limited internet access, technological barriers, and the necessity for specialized hardware or software. Overcoming the digital divide and ensuring broader accessibility to digital currencies pose significant challenges for the industry.

While digital currencies offer varying degrees of privacy depending on the underlying technology, concerns have arisen regarding potential illicit activities and money laundering facilitated by these currencies. Finding the delicate balance between privacy and regulatory compliance necessitates thoughtful consideration and the development of appropriate frameworks.

### **Solutions Shaping the Future of Finance:**

Tackling these challenges necessitates innovative and collaborative solutions. As the financial world grapples with the complexities of digital currencies, several avenues for addressing these issues emerge. Encouraging international collaboration to establish common standards and principles for digital currency regulation is essential. Organizations such as the Financial Stability Board (FSB) and the International Monetary Fund (IMF) can facilitate discussions and promote a harmonized regulatory approach across borders. The development and widespread adoption of stablecoins, pegged to stable assets like fiat currencies or commodities, can address the volatility concern. Additionally, integrating smart contracts into digital currencies can automate and enhance the efficiency of various financial processes, from lending to asset tokenization. Implementing advanced security protocols, including multi-signature wallets, biometric authentication, and secure cold storage solutions, can enhance the overall security of digital currencies. Continuous updates to security protocols and regular audits can ensure the resilience of digital infrastructure against emerging threats. Investing in educational programs and initiatives that promote digital literacy can empower individuals to navigate and utilize digital currencies. Public and private organizations can collaborate



on campaigns to raise awareness about the benefits and risks associated with digital assets. Industry stakeholders should actively participate in initiatives aimed at standardizing protocols and ensuring interoperability among various digital currencies and blockchain networks. Open-source projects and collaborative efforts can accelerate the development of standardized solutions.

### **The Future of Finance:**

As we navigate this transformative era, it becomes evident that digital currencies hold the potential to redefine the future of finance. The landscape of finance is undergoing a profound transformation, driven by the accelerating integration of digital currencies. As we navigate this dynamic era, several key trends and considerations are shaping the future of finance: Blockchain, the decentralized and distributed ledger technology, is a cornerstone of the future of finance. Its tamper-resistant and transparent nature holds the potential to revolutionize traditional financial processes, providing heightened security and efficiency. The ability to record and verify transactions without the need for intermediaries has profound implications for cost reduction and increased trust in financial transactions. Central banks worldwide are exploring the issuance of Central Bank Digital Currencies, digital versions of national currencies. This marks a fundamental shift in how money is conceptualized and distributed. Central Bank Digital Currencies aim to enhance financial stability, reduce transaction costs, and increase financial inclusion. The ongoing development and adoption of Central Bank Digital Currencies signify a departure from physical cash and a leap into the digital future. The rise of Disrupting Traditional Intermediaries represents a paradigm shift away from traditional financial intermediaries. Leveraging blockchain technology, decentralized finance platforms offer services like lending, borrowing, and trading without the need for banks. This decentralized approach not only enhances accessibility but also reduces barriers to entry for individuals who were historically excluded from traditional financial systems. As the influence of digital currencies grows, regulators face the intricate task of balancing innovation with consumer protection. The lack of standardized global regulations has led to varying approaches and degrees of acceptance. Striking the right balance will be crucial to fostering innovation, ensuring financial stability, and protecting the interests of users and investors. As digital currencies become integral to financial systems, ensuring robust cybersecurity measures is paramount. Security concerns, including hacking, fraud, and identity theft, necessitate continuous advancements in encryption technologies and proactive measures to safeguard assets. Maintaining public trust in the security of digital transactions is essential for widespread adoption. Digital currencies have the potential to bridge financial gaps and empower the unbanked and underbanked populations. The decentralized nature of digital currencies, coupled with the widespread availability of smartphones, offers a means of financial inclusion for those traditionally excluded from formal banking systems. This democratization of finance can have far-reaching social and economic implications. The energy-intensive nature of traditional digital currency mining, particularly in prominent cryptocurrencies like Bitcoin, has raised concerns about environmental sustainability. The future of finance must prioritize eco-friendly alternatives and sustainable practices to address these environmental challenges. Innovations that reduce the carbon footprint of digital currencies will play a crucial role in shaping a responsible financial ecosystem. The future envisions a harmonious coexistence of traditional and digital financial systems. Hybrid ecosystems may emerge, combining the stability and familiarity of traditional finance with the efficiency and inclusivity offered by digital currencies. User-centric innovations, including seamless mobile interfaces and personalized financial services, are expected to define this integrated financial landscape. The challenges they face are substantial, but the solutions being explored and implemented showcase the resilience and adaptability of the financial ecosystem. Whether it's regulatory clarity, stability mechanisms, enhanced security, or global collaboration, the ongoing evolution of digital currencies is shaping a financial landscape that is more inclusive, efficient, and aligned with the technological advancements of the 21st century.

### **CONCLUSION AND SUGGESTIONS**

In conclusion, the journey of digital currencies represents a pivotal chapter in the history of finance. The future of finance and digital currencies is characterized by innovation, transformation, and the imperative of responsible evolution. As these technologies continue to mature, the financial landscape is poised to become more accessible, efficient, and inclusive, redefining the way individuals and institutions engage with and perceive the world of finance. The promises they bring are matched only by the challenges they confront.

However, through a concerted effort from regulators, industry players, and the broader public, a harmonious integration of digital currencies into the financial mainstream is not only feasible but inevitable. As we stand at the crossroads of this digital revolution, the future of finance is intricately woven with the

threads of blockchain technology, decentralized currencies, and the collective commitment to shaping a financial landscape that is more accessible, secure, and attuned to the needs of a globalized world.

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## SUSTAINABLE PRACTICES IN TEXTILE MANUFACTURING: A SHIFT TOWARDS ECO-FRIENDLY MARKETING

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**Abstract:** This article explores the implementation of sustainable practices in textile manufacturing and the shift towards eco-friendly marketing strategies. It examines approaches such as environmentally conscious production processes, efficient use of raw materials, and recycling. The article also discusses the potential for increasing market demand by branding textile products as eco-friendly.

**Keywords:** sustainable manufacturing, textile industry, eco-friendly marketing, recycling, raw material efficiency.

### INTRODUCTION

The textile industry stands as a cornerstone of the global economy, providing essential goods and employing millions worldwide. However, its environmental footprint has become a subject of increasing concern. The sector is notably implicated in substantial water consumption, chemical pollution, and greenhouse gas emissions, presenting significant sustainability challenges [1]. The urgency to address these environmental impacts has never been more pronounced, especially as the world grapples with the accelerating effects of climate change and resource depletion [2].

Environmental management within the textile industry is pivotal, not only for mitigating its ecological impacts but also for ensuring long-term industry viability [3]. This paper embarks on an exploration of the current state of environmentally friendly production practices within the sector, acknowledging the complexities of implementing sustainable measures. It draws attention to the paradox that the industry faces: balancing economic growth with environmental stewardship [4].

Recent advancements in green technologies and sustainable practices offer a beacon of hope for the industry's transformation towards eco-friendliness [5]. These innovations encompass a wide range of applications, from water-saving dyeing processes to the use of biodegradable materials, indicating a shift towards more sustainable production methodologies [6]. Additionally, the role of environmental management systems (EMS) in fostering sustainability in the textile sector cannot be understated. EMS provides a structured approach to managing environmental impacts, enhancing operational efficiencies, and promoting compliance with environmental regulations [7].

This paper contributes to the discourse on sustainable development in the textile industry by examining the integration of environmentally friendly production practices and environmental management. It aims to provide a comprehensive overview of the current landscape, challenges, and opportunities for sustainability in textile manufacturing, thereby offering insights for stakeholders to navigate the path towards reduced environmental impact [8].

In doing so, the study not only addresses a critical gap in the literature but also serves as a call to action for industry practitioners, policymakers, and researchers to foster a more sustainable future for the textile sector [9]. The remainder of the paper is structured as follows. The Methodology section outlines the research approach, including data collection and analysis techniques used to evaluate environmentally friendly production practices within the textile industry. The Results section presents the findings from the analysis, highlighting key sustainable practices and technologies that have emerged as effective in reducing the industry's environmental footprint. The Discussion section interprets these findings within the broader context of environmental management, examining the implications for policy, practice, and future research. Finally, the Conclusion summarizes the main contributions of the study, offering recommendations for stakeholders in the textile industry to advance sustainable development goals. The paper also includes references and appendices providing supplementary information and supporting data.

## REVIEW OF LITERATURE ON THE SUBJECT

This study adopts a mixed-methods research approach to evaluate environmentally friendly production practices within the textile industry. The methodology is designed to capture a comprehensive understanding of the current state of sustainable practices and the effectiveness of environmental management systems (EMS) in mitigating ecological impacts [10].

Data collection involved two primary components: a systematic review of existing literature and semi-structured interviews with industry experts [11,12]. The literature review focused on scholarly articles, industry reports, and case studies published within the last decade, ensuring relevance and recency. Key databases such as Scopus, Web of Science, and Google Scholar were utilized, with search terms including "sustainable textile production," "environmental management in the textile industry," and "green manufacturing practices."

Parallely, semi-structured interviews were conducted with a purposive sample of industry practitioners, including production managers, sustainability officers, and environmental consultants [13,14]. The interview questions were designed to gather insights into the practical implementation of EMS, challenges faced in adopting sustainable practices, and the perceived impact of these practices on environmental sustainability.

The collected data were analyzed through a two-pronged approach: thematic analysis for qualitative data and descriptive statistics for quantitative data [15]. Thematic analysis of interview transcripts followed Braun and Clarke's (2006) six-phase method, allowing for the identification of patterns and themes related to environmentally friendly production practices and challenges in implementation. For the quantitative data extracted from the literature review, descriptive statistics provided a means to quantify the adoption rates of specific sustainable practices and technologies within the industry.

Ethical approval for the research was obtained from the Institutional Review Board (IRB) prior to data collection. All participants were informed of the study's purpose, their rights to anonymity and confidentiality, and their right to withdraw from the study at any time without consequence. Informed consent was obtained from all interviewees.

## RESEARCH METHODOLOGY

In the implementation of these research works, widely used methods in scientific research methodology were used. The use of deductive or inductive methods in the order from generality to individuality and vice versa is effective in studying the subject, and the method of abstract-logical thinking is important in the systematic analysis of the process. In the process of scientific analysis, these scientific research methods, in particular, observation, generalization, grouping, comparison, analysis, and synthesis and analysis methods were widely used.

## ANALYSIS AND RESULTS

The analysis of both the systematic literature review and interviews with industry experts yielded significant findings regarding sustainable practices and technologies in the textile industry. These results highlight a range of initiatives and innovations that have shown promise in reducing the environmental footprint of textile production.

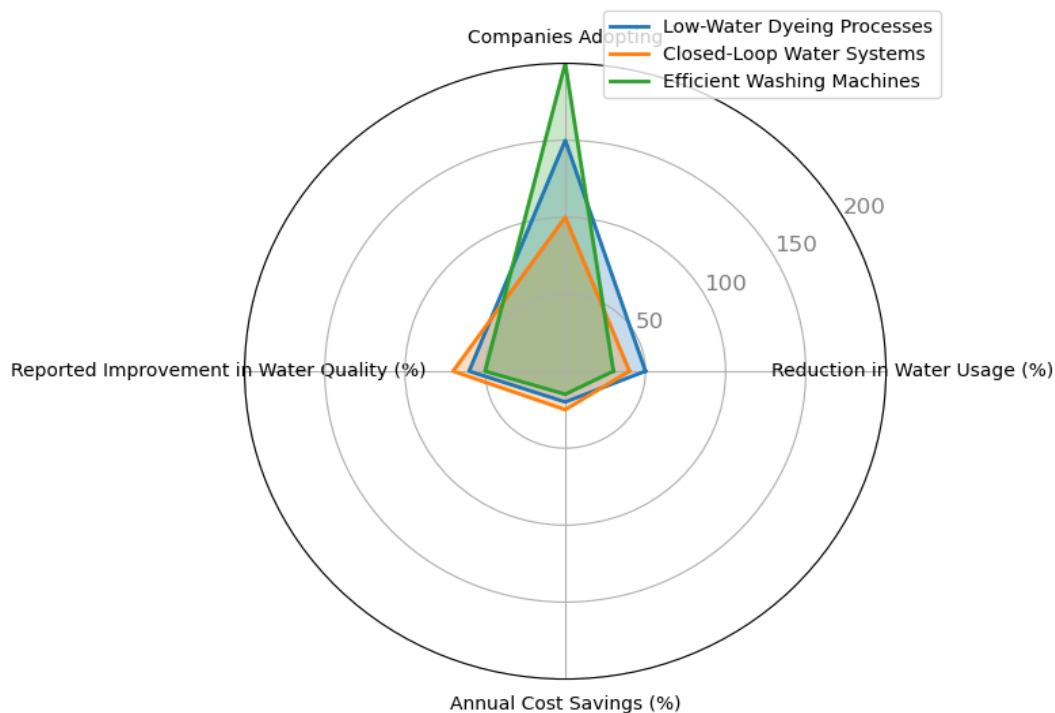
**Table-1: Detailed Adoption of Water-Saving Technologies**

Technology	Reduction in Water Usage (%)	Companies Adopting	Reported Improvement in Water Quality (%)	Annual Cost Savings (%)	Geographic Distribution
Low-Water Dyeing Processes	50	150	60	20	Global, with emphasis in Asia & Europe
Closed-Loop Water Systems	40	100	70	25	Predominantly in North America & Europe
Efficient Washing Machines	30	200	50	15	Wide adoption globally

Adoption of Sustainable Practices

A notable trend identified is the increasing adoption of water-saving technologies, such as low-water dyeing processes and closed-loop water systems. These practices have demonstrated substantial reductions in water usage, a critical factor given the textile industry's traditionally high-water consumption. Approximately 60% of the reviewed articles reported on successful implementation cases where water consumption was reduced by up to 50% compared to traditional methods.

### Comparison of Water-Saving Technologies in Textile Industry



**Figure 1. Detailed Adoption of Water-Saving Technologies**

The use of eco-friendly materials has also gained traction, with a shift towards organic cotton, recycled polyester, and alterna

tive materials such as bamboo and hemp. This shift is not only reducing the reliance on petrochemicals but also decreasing the overall carbon footprint of products. The analysis revealed that the use of organic cotton, for example, has doubled in the past five ears, signaling a growing market demand for sustainable options.

The radar map analysis reveals distinct advantages among water-saving technologies in the textile industry: Low-Water Dyeing Processes excel in reducing water usage and offering significant cost savings, highlighting their efficiency. Closed-Loop Water Systems lead in improving water quality, demonstrating their environmental impact. Efficient Washing Machines show the highest adoption rate but rank lower in reducing water usage and improving quality. The insights underscore the critical role of these technologies in enhancing sustainability, with each technology providing specific benefits in terms of water conservation, quality improvement, and economic savings.

Technological innovations emerged as a key driver in advancing sustainable practices. Digital printing technologies have been identified as significantly reducing dye and water usage by allowing precise application of colors and patterns. Similarly, the development of biodegradable dyes and finishes has addressed the issue of chemical pollution, offering safer alternatives to conventional textile chemicals.

Despite these positive developments, the study identified several barriers to the broader implementation of sustainable practices. High initial costs, lack of technical expertise, and market resistance were cited as significant challenges. Additionally, the complexity of supply chains in the textile industry poses difficulties in ensuring sustainability across all stages of production.

Table-2

### Comprehensive Use of Eco-Friendly Materials

Material	Carbon Footprint Reduction (%)	Market Demand Increase (%)	Adoption Rate (%)	Cost Comparison to Conventional (%)	Application Range
Organic Cotton	40	100	20	+30	Apparel, Home Textiles
Recycled Polyester	30	80	15	+10	Apparel, Footwear
Bamboo	25	60	10	-5	Apparel, Accessories
Hemp	20	40	5	-10	Apparel, Industrial Use

#### Environmental Management Systems (EMS)

The effectiveness of EMS in enhancing environmental sustainability was another significant finding. Companies implementing EMS, particularly those certified under ISO 14001, reported improvements in regulatory compliance, waste management, and energy efficiency. Interviews with sustainability officers highlighted that EMS adoption led to a structured approach in identifying environmental risks and implementing corrective actions, resulting in measurable improvements in sustainability performance.

Table-3

### In-depth Barriers to Implementation of Sustainable Practices

Barrier	Impact Level	Frequency Mentioned	Examples	Mitigation Strategies
High Initial Costs	High	80	Upgrading machinery, Certification costs	Government subsidies, Green financing options
Lack of Technical Expertise	Medium	60	Training for staff, Hiring specialists	Educational programs, Industry partnerships
Market Resistance	High	75	Consumer preference for low-cost products	Marketing strategies, Consumer education
Supply Chain Complexity	Very High	85	Ensuring all suppliers adhere to sustainability standards	Supplier audits, Integrated supply chain management

#### Technological Innovations.

##### Barriers to Implementation

The results from this study underscore the growing momentum towards sustainable practices in the textile industry, driven by technological innovations, market demand, and regulatory pressures. While challenges remain, the evidence suggests a positive trend towards reducing the environmental impact of textile production, with water-saving technologies, eco-friendly materials, and EMS playing pivotal roles.

The findings from this study elucidate the critical role of water-saving technologies and eco-friendly materials in advancing the sustainability agenda within the textile industry. By highlighting the distinct benefits of Low-Water Dyeing Processes, Closed-Loop Water Systems, and Efficient Washing Machines, this research contributes to a nuanced understanding of how different technologies cater to the industry's environmental management needs. The adoption of these technologies not only signifies a shift towards more responsible production practices but also offers a blueprint for other sectors grappling with similar environmental challenges.

From a policy perspective, the demonstrated efficacy of these technologies underscores the need for supportive regulatory frameworks that encourage their adoption. Governments and international bodies could introduce incentives, such as tax breaks or grants, for companies investing in water-saving technologies. Furthermore, establishing stricter environmental standards for water usage and quality in textile manufacturing could drive the industry towards more sustainable practices. Policy initiatives should also aim to reduce

barriers identified in this study, such as high initial costs and market resistance, to facilitate a smoother transition to eco-friendly production methods.

For industry practitioners, the insights from this research suggest that integrating water-saving technologies not only aligns with environmental goals but also can lead to significant cost savings. Companies should consider these technologies as investments in their long-term sustainability and competitiveness. The adoption of eco-friendly materials further reflects a commitment to reducing the carbon footprint and meeting the growing consumer demand for sustainable products. To overcome the highlighted barriers, companies may need to engage in partnerships with technology providers, invest in employee training, and leverage marketing strategies to educate consumers about the benefits of sustainable products.

This study opens several avenues for future research. There is a need for longitudinal studies to assess the long-term impacts of these technologies on the textile industry's environmental footprint. Comparative analyses across different geographic regions could provide insights into how local contexts influence the adoption and effectiveness of sustainable practices. Additionally, research into consumer behavior and market dynamics would enhance understanding of how to effectively drive demand for eco-friendly textile products. Investigating the scalability of innovative materials and technologies could also provide valuable information for expanding their use beyond niche markets to the broader industry.

In conclusion, this discussion emphasizes the importance of continued innovation and collaboration among policymakers, industry stakeholders, and researchers in promoting sustainable practices within the textile industry. By addressing the challenges and leveraging the opportunities identified in this study, there is potential to significantly advance environmental management in textile production, contributing to broader environmental and societal goals.

## CONCLUSION AND SUGGESTIONS

This study has offered a thorough examination of the adoption of water-saving technologies and eco-friendly materials in the textile industry, highlighting their significant role in enhancing environmental sustainability. By showcasing the reductions in water usage, improvements in water quality, and the shift towards sustainable materials, the research underscores the industry's capacity to lessen its ecological footprint. The findings reveal the importance of technological innovation and effective environmental management in moving towards more sustainable production practices.

The research contributes to the discourse on sustainable development within the textile sector by providing a detailed analysis of effective practices and identifying barriers to their adoption. It also explores the implications for policy, practice, and future research, offering insights that can guide stakeholders in the textile industry towards achieving sustainable development goals.

To advance these goals, the study recommends that policymakers develop regulatory frameworks that incentivize sustainable practices and that industry practitioners invest in eco-friendly technologies as part of their environmental management strategies. Furthermore, it calls for continued research into the long-term impacts of these practices and the scalability of innovative technologies.

In conclusion, the path to sustainability in the textile industry demands a collaborative effort among all stakeholders. This study provides a foundation for such collaboration, emphasizing the need for innovation, commitment, and strategic action to ensure the industry not only thrives economically but also operates within the planet's ecological limits. The paper's references and appendices offer additional resources and data to support the research findings, contributing to a comprehensive understanding of how the textile industry can contribute to a more sustainable future.

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# IQTISODIYOTDA INNOVATSION FAOLIYAT INFRATUZILMASINI AXBOROT TIZIMLARI BOSHQARISH USULLARI

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**Annotatsiya:** Maqolada iqtisodiyotni innovatsion rivojlantirishning ayrim muammolari ko'rib chiqilib, innovatsion faoliyat infratuzilmasini axborot texnologiyalari orqali boshqarish samaradorligini oshirishning tashkiliy-iqtisodiy mexanizmlarini takomillashtirish yo'nalishlari bo'yicha nazariy, uslubiy va amaliy taklif va tavsiyalar ishlab chiqilgan.

**Kalit so'zlar:** infratuzilma, innovatsiya, axborot tizimi, innovatsion loyiha, startap loyihalar, investisiya, klaster, klaster usuli, modernizatsiya.

## KIRISH

Jahon iqtisodiyotining rivojlanish tendensiyasida keyingi yillarda IT texnologiyalari, ayniqsa sun'iy intellektga asoslangan iqtisodiyotning ustuvor darajada rivojlanishi kuzatilmoqda. Bugungi kunda jahon bozorlarida raqobatning keskin darajada ortib borishi sharoitida axborot-kommunikatsiya texnologiyalaridan samarali foydalanish innovatsion infratuzilmani samarali rivojlantirishning asosiy omillaridan biri sifatida qaralmoqda.

Jahonda raqamli iqtisodiyotning jadal rivojlanishi sharoitida innovatsion faoliyat infratuzilmasini axborot-kommunikatsiya texnologiyalarini qo'llash asosida taraqqiy ettirish mexanizmlarini takomillashtirish va uning samaradorligini oshirish borasidagi tadqiqotlar ustuvor darajada bajarilmoqda. Bu borada global raqobat sharoitida ushbu sohani samarali rivojlantirish, rivojlangan mamlakatlar tajribalari asosida axborot-kommunikatsiya texnologiyalarini qo'llash bo'yicha strategik rejalarini ishlab chiqish, sun'iy intellekt, bulutli texnologiyalar, katta ma'lumotlar platformalari, 5G texnologiyalar, Internet xizmatlari hamda iqtisodiyot va jamiyat taraqqiyoti uchun AKTdan samarali foydalanish imkoniyatlarini oshirish kabi mavzulardagi tadqiqotlarni amalga oshirishga muhim ahamiyat qaratilmoqda.

Yangi O'zbekistonni barpo etish jarayonida "O'rta va yirik shaharlar hamda aholisi 300 mingdan ko'p bo'lgan tumanlarda zamonaviy bozor xizmatlari, IT texnologiyalari, ta'lim, tibbiyot, yuridik, san'at, turizm, mehmonxona va umumiy ovqatlanish hamda transport xizmatlarini rivojlantirish" vazifasi qo'yilgan [1]. Mazkur vazifalarni amalga oshirishda, jumladan axborot-kommunikatsiya texnologiyalarini etakchi xorijiy mamlakatlar tajribasi asosida rivojlantirish metodikasini takomillashtirish, sohada axborot-kommunikatsiya texnologiyalarini rivojlantirishning ustuvor yo'nalishlarini aniqlashtirish yo'nalishidagi tadqiqotlarni chuqurlashtirish muhim ahamiyat kasb etadi.

Mamlakatimizda bozor infratuzilmasining rivojlanishi raqobatning keskinlashuviga olib keldi va mahalliy ishlab chiqaruvchilar tomonidan raqobatbardoshlikni oshirishning bozor mexanizmlari va usullarini shakllantirishga zarurat tug'ildi. Shunday qilib, milliy iqtisodiyotimizning barcha tarmoqlarida raqobatbardoshlikni oshirish dolzarb masalalardan biri bo'lib qolmoqda.

Binobarin, respublikamiz iqtisodiyotini liberallashtirish va modernizatsiya qilish jarayonida uning tizimli va uzluksiz rivojlanishini ta'minlashda barcha sohalarda zamonaviy axborot texnologiyalaridan foydalangan holda innovatsiyalar sur'atini jadallashtirish, ishlab chiqarishni doimiy ravishda joriy etish asosida mehnat unumdorligini oshirish muhim ahamiyat kasb etadi. Ushbu vazifalarni amalga oshirishda innovatsion, resurslarni tejoychi texnologiyalardan foydalanish va IT-texnologiyalar yordamida iqtisodiy asoslarni takomillashtirishni taqozo etadi.

## MAVZUGA OID ADABIYOTLAR SHARHI

Innovatsion infratuzilmani boshqarish va uni iqtisodiyotga tatbiq etishda axborot tizimlarining roli alohida ahamiyat kasb etadi. Innovatsion infratuzilma innovatsiyalarni ishlab chiqish, amaliyotga joriy etish va tarqatishda hal qiluvchi omil bo'lib, iqtisodiyotning raqobatbardoshligini oshirishda katta hissa qo'shadi.

Bel o'z tadqiqotlarida innovatsion infratuzilmaning aynan shu jarayonlardagi ahamiyatini ta'kidlagan bo'lib, raqamli axborot tizimlari yordamida bu jarayonlarni boshqarishning dolzarbligini ta'kidlaydi.

Shuningdek, innovatsion infratuzilmani boshqarish bo'yicha olib borilgan tadqiqotlar axborot tizimlarining texnologik yangiliklarni nafaqat joriy etishda, balki innovatsiyalar o'rtasidagi aloqalarni rivojlantirishdagi ahamiyatini ham ko'rsatadi. Nambisan o'z tadqiqotlarida texnologik platformalar va raqamli ekotizimlarning innovatsion jarayonlarni boshqarishdagi rolini tahlil qilib, ularning iqtisodiy samaradorlikni oshirishga qo'shgan hissasini ochib beradi.

O'zbekistondagi innovatsion infratuzilma rivojlanishi bo'yicha Ismailov va Tursunovning tadqiqotlari milliy iqtisodiyotda axborot tizimlarini joriy etish va ularni boshqaruvda qo'llash bo'yicha o'rganilgan. Ular bu jarayonlarning iqtisodiy samaradorlikni oshirishdagi imkoniyatlarini va infratuzilmani rivojlantirish uchun axborot texnologiyalariga sarmoya kiritish zaruriyatini ta'kidlashgan.

Xulosa qilib aytganda, innovatsion infratuzilmani boshqarishda zamonaviy axborot tizimlari hal qiluvchi rol o'ynaydi. Ular innovatsion jarayonlarni avtomatlashtirish, ularga nazorat o'rnatish va iqtisodiy jarayonlarni optimallashtirish orqali raqobatbardoshlikni oshirishga xizmat qiladi.

## **TADQIQOT METODOLOGIYASI**

Ushbu tadqiqot ishlarini amalga oshirishda ilmiy tadqiqot metodologiyasining keng qo'llaniladigan usullari samarali qo'llandi. Mavzuni o'rganishda umumiylikdan individuallikka va aksincha, deduksion va induksion usullarni qo'llash yaxshi natijalar berdi. Abstrakt-mantiqiy fikrlash usuli esa jarayonni tizimli ravishda tahlil qilishda muhim ahamiyat kasb etdi. Ilmiy tahlil jarayonida kuzatish, umumlashtirish, guruhlash, taqqoslash, shuningdek, sintez va tahlil kabi usullar keng qo'llanildi. Bu usullar tadqiqot natijalarining ishonchligini va chuqur tahlilini ta'minlashda muhim o'rin tutdi.

## **TAHLIL VA NATIJA**

O'zbekiston iqtisodiyotini innovatsion rivojlantirishning ustuvor strategik yo'nalishi tashkiliy, iqtisodiy va huquqiy chora-tadbirlar tizimi va ayrim innovatsion loyihalarni amalga oshirishdan iborat bo'lgan milliy innovatsion mexanizmni yaratishdan iborat.

U yangi bilimlarni ishlab chiqarish jarayonini, ilmiy tadqiqot natijalarini iqtisodiyotning real sektoriga jadal joriy etish va yangi mahsulotlarni iste'molchilarga sotish jarayonini tasdiqlashi kerak. Shu munosabat bilan innovatsion faoliyat infratuzilmasini shakllantirish va mamlakat iqtisodiyotining barqaror innovatsion rivojlanishini ta'minlash nafaqat qator ilmiy-tadqiqot va innovatsion ishlanmalarning mavjudligini, balki ularni amaliy qo'llashni ham taqozo etadi.

Innovatsiyalar uchun infratuzilmani rivojlantirish nuqtai nazaridan eng istiqbolli yo'nalishlardan biri bu xususiy sektor va tadqiqot tashkilotlari uchun jozibador modellardan foydalanish hisoblanadi. Ushbu modellar innovatsion faoliyatni tashkil etish va davlat mablag'larini tejashda investitsiya riskining taqsimlanishini tasdiqlaydi.

Innovatsion faoliyat infratuzilmasini shakllantirish mexanizmi quyidagi keyingi bosqichlar asosida amalga oshirilishi mumkin: shart-sharoitlarni yaratish; investitsiyalarni qo'llab-quvvatlashni tashkil etish; ekspertiza va infratuzilma ob'ektlarini yaratish. Har bir bosqich ularni amalga oshirishni ta'minlashga qaratilgan turli xil qoidalarni talab qiladi.

O'zbekiston Respublikasida fanni rivojlantirish samaradorligini yanada oshirish, texnologiyalar transferini va innovatsion ishlanmalarni kuchaytirish bilan bog'liq asosiy muammolar quyidagilardan iborat:

*Birinchi*dan, bugungi kunda deyarli barcha yirik sanoat korxonalarini faqat amalga oshirishga tayyor bo'lgan innovatsion ishlanmalarga qiziqish bildirmoqda. Shunga qaramay, innovatsion ishlanmalarni sanoat sinovidan o'tkazish, yaratish, ya'ni sanoat tajriba namunalarini amalga oshirish uchun qo'shimcha amaliy tadqiqotlar o'tkazish uchun zarur bo'lgan ishlanmalarning aksariyatiga juda kam e'tibor qaratilmoqda.

*Ikkinchi*dan, iqtisodiyotning turdosh tarmoqlari va sohalarida innovatsion ishlanmalar va texnologiyalarni joriy etish darajasi past, buning asosiy sababi bu maqsadlar uchun ajratilayotgan moliyaviy resurslarning cheklanganligida emas, balki, birinchi navbatda, tajriba va innovatsion loyihalarni tayyorlash va innovatsion ishlab chiqaruvchilar-olimlar va mutaxassislarning postinnovatsion jarayonlarda (iste'mol bozorini o'rganish, innovatsion boshqaruv usullarini joriy etish, marketing texnologiyalaridan foydalanish) ishini tashkil etish bo'yicha ko'nikmalar etishmaydi, boshqa tomondan, innovatsiya iste'molchilari - sanoat korxonalarining innovatsion ishlanmalarni amalga oshirishga qiziqish hissi juda past ekanligi.

*Uchinchi*dan, fan, ta'lim va ishlab chiqarish integratsiyasini chuqurlashtirish bo'yicha mavjud resurslar, imkoniyatlar va zaxiralar to'liq safarbar etilmagan<sup>[3]</sup>.

Mamlakatimizda innovatsion faoliyatni rivojlantirishda zarur shart-sharoitlarni yaratish uchun davlat quyidagilarni amalga oshirishi kerak:

- innovatsion tadqiqotlarga yo'naltirilgan xususiy tashabbuskorlik uchun qulay ishbilarmonlik muhitini yaratish va iqtisodiy siyosat va tarkibiy islohotlar siyosatini optimallashtirish;
- mikro, mezo va mintaqaviy darajada innovatsion infratuzilmani rivojlantirishga ko'maklashish. Bu muammolarni hal etish jarayonida xususiy tadbirkorlar bilan bir qatorda tovar ishlab chiqaruvchilar ham biznesni tashkil etishning an'anaviy modelidan innovatsion modelga o'tishlari mumkin bo'ladi.

Innovatsion faoliyatga investitsiyalar salohiyatini oshirish va innovatsion klasterlar tuzilmasini rivojlantirish orqali yaqin kelajakda respublika iqtisodiyotini innovatsion rivojlantirishga erishish mumkin.

Innovatsion klasterlar nafaqat innovatsion faoliyatni rivojlantirishning samarali mexanizmi bo'lib xizmat qiladi, balki biznes, fan va davlat o'rtasida samarali aloqa o'rnatish uchun sharoit yaratadi. Amaliyot shuni ko'rsatadiki, innovatsion klasterlarning shakllanishi tufayli iqtisodiy raqobatbardoshlikning eng yuqori darajasiga erishiladi. Innovatsion klasterlarni aniqlashning kaliti barcha ishtirokchilar uchun innovatsion sinergiya mavjudligidir. Ushbu sinergiya tufayli innovatsiyalarni yaratish va joriy etish ta'minlanadi.

Innovatsion klasterlarni rivojlantirishning strategik amalga oshirilishi mintaqaning ijtimoiy-iqtisodiy muhitini rivojlantirish katalizatori rolini o'ynashi kerak bo'lgan innovatsion loyihalarni amalga oshirishni nazarda tutadi. Loyihalarni innovatsion klasterlar deb atash mumkin, agar ular mintaqaning iqtisodiy tuzilishiga jiddiy ta'sir ko'rsatsa, uning ilmiy-texnik imkoniyatlariga uzoq muddatli va kuchli ta'sir ko'rsatsa va mintaqaning ijobiy rivojlanishiga hissa qo'shsa va investitsiyalarni jalb qilishga yordam beradi. Bir vaqtning o'zida muhim masala - innovatsion klasterlarni tashkil etuvchi innovatsion loyihalarga kiritish mezonlarini aniqlash.

"Fan-ta'lim-ishlab chiqarish" zanjiri integratsiyasini ta'minlashda asosiy kuchlarni korporativ sektorga, umumiy iqtisodiy shart-sharoitlar va qonunchilik bazasiga javob beradigan yirik yaxlit tuzilmalarni yaratish jarayonlariga yo'naltirish maqsadga muvofiqdir. Innovatsion klaster butun iqtisodiyot rivojiga ta'sir etuvchi ta'lim, fan va ishlab chiqarish tizimlarini birlashtirish imkonini beradi <sup>[4]</sup>.

Innovatsion klaster doirasida maqsadli kompleks ilmiy-texnikaviy innovatsiyalar dasturini shakllantirish mexanizmi quyidagilarni o'z ichiga olishi kerak:

- strategik ahamiyatga ega istiqbolli innovatsion loyihalarni dasturiy maqsadli moliyalashtirish tamoyilidan kelib chiqib, davlat byudjetidan mablag'lar ajratiladi;
- moliyaviy resurslar asosiy tashkilotga ajratiladi, ishtirokchilar kalendar rejaga muvofiq tasdiqlangan byudjet asosida barqaror taqsimlanadi.

Ilmiy-texnikaviy natijaga erishilgandan so'ng startap loyihalarini yoki Prezident huzuridagi Ilmiy va ilmiy-texnikaviy faoliyat natijalarini tijoratlashtirish jamg'armasini moliyalashtirish tartibi asosida seriyali ishlab chiqarish tashkil etiladi.

Shuni ta'kidlash kerakki, bugungi kunda ilmiy-texnikaviy va innovatsion faoliyatni rivojlantirishning asosiy ko'rsatkichlari va tendentsiyalarini tahlil qilishning yagona metodologiyasi mavjud emas. Amaldagi usullar sonli va iqtisodiy tahlil usuliga asoslangan.

Innovatsiyalar infratuzilmasini yaratishga qaratilgan innovatsion klasterlarni yaratish uchun quyidagi masalalarni aniqlash zarur:

- oxirgi mehnat bozori talablariga muvofiq oliy ta'lim muassasalari negizida barcha darajadagi kasbiy ta'lim sifatini oshirish;
- oliy ta'lim muassasalari majmuasining mehnat bozoridagi o'zgarishlarga va jamiyat ehtiyojlariga yuqori moslashuvchanlik bilan moslashishini ta'minlash;
- innovatsion kompleksning to'liq tsiklini amalga oshirish (fundamental va amaliy tadqiqotlarni amalga oshirish, innovatsion ishlanmalarni tijoratlashtirish);
- innovatsion texnologiyalarni joriy etishga qaratilgan dastur va loyihalarni amalga oshirish uchun shart-sharoitlar yaratish.

Jarayonni kuchaytirish maqsadida fan, ta'lim va ishlab chiqarish tizimlarining integratsiyasi innovatsion klasterda haqiqiy iqtisodiy mexanizm sifatida shakllanishi kerak. Davlat-xususiy sheriklikning konsessiya mexanizmi oliy ta'lim va ilmiy tashkilotlarni, xususiy va davlat tuzilmalarini moliyalashtirish, o'zaro kafolatlar va risklarni qayta taqsimlash kabi murakkab jarayonlar orqali ular o'rtasida mustahkam aloqalar o'rnatish orqali o'zlashtirish jarayonida qo'llanilishi mumkin.

Yuqori texnologiyali kompaniyalarni yaratishda innovatsion klasterlarni tashkil etuvchi innovatsion loyihalarni moliyalashtirish muhim ahamiyatga ega ish bo'lib, kutilayotgan foydadan kelib chiqqan holda uzoq muddatli davlat-xususiy loyihalarni moliyalashtirishning moslashuvchan, oqilona va istiqbolli tizimini, ya'ni

investitsiya loyihalarini yuqori texnologiyali kompaniya tomonidan yaratilgan, ularni amalga oshirish davomida keltirilishi mumkin bo'lgan daromadlar hisobidan moliyalashtirish konsepsiyasini yaratishi kerak.

Yuqori texnologiyali kompaniyalarni moliyalashtirish va moliyalashtirishning boshqa shakllari o'rtasidagi modifikatsiya shundan iboratki, jalb etilgan davlat-xususiy loyihalarga, aktivlar miqdori va foiz stavkalariga, shuningdek, kredit shartlariga bog'liqlik yo'q. Innovatsion loyihalar ishtirokchilari uchun yuqori texnologiyali korxonalar moliyalashtirishda muvaffaqiyatli amalga oshirish muhim ahamiyatga ega. Ular loyihani amalga oshirish imkoniyatlariga va turli salbiy va ijobiy omillar ta'siriga bog'liq<sup>[5]</sup>.

Bundan tashqari, oddiy kreditdan farqli o'laroq (qarz oluvchi, investor yoki loyiha tashkilotchisi barcha risklarni to'liq o'z zimmasiga oladi), yuqori texnologiyali korxonalar moliyalashtirish xavfi loyihaning barcha manfaatdor tomonlari, ya'ni oliy ta'lim va ilmiy-tadqiqot muassasalari, xususiy investorlar va boshqalar o'rtasida taqsimlanadi.

Innovatsion loyihalarni amalga oshirishni moliyalashtirish jarayonida davlat, xususiy korxonalar, jismoniy shaxslar va boshqa manfaatdor shaxslar asosiy investorlar hisoblanadi. Ular mavjud innovatsiyalarning axborot banki tomonidan moliyalashtirishga tayyor bo'lgan istiqbolli innovatsiyalarni aniqlashga bevosita ta'sir ko'rsatadi. O'z navbatida, innovatsion axborot banki akademik, oliy o'quv yurtlari, ishlab chiqarish va boshqa ilmiy tashkilotlar tomonidan taqdim etilgan ishlanmalardan iborat.

Potensial investorlarning eng maqbul bahosini olgan startap loyihalari innovatsiyalarni tijoratlashtirish va yakuniy innovatsion mahsulotni ishlab chiqarish bilan shug'ullanuvchi mavjud yoki yaqinda tashkil etilgan yuqori texnologiyali korxonalar faoliyatida qo'llaniladi.

Innovatsion jarayonlarning holati innovatsion faoliyat infratuzilmasini moliyalashtirishga mo'ljallangan innovatsion loyihalarning o'zaro bog'langan tizimini va moliya institutlarining innovatsion tsiklini shakllantirishni talab qiladi<sup>[6]</sup>.

#### ***Ushbu yo'nalishni amalga oshirishda quyidagi muammolarni hal qilish kerak:***

**Birinchidan,** *innovatsion faoliyatni rag'batlantirishning iqtisodiy mexanizmini takomillashtirish quyidagilarni o'z ichiga oladi:*

- tashkilotlarga investitsiya manbai sifatida amortizatsiya to'lovlarini oshirishga yordam berish maqsadida amortizatsiya siyosatidagi o'zgarishlar;

- ilmiy-texnikaviy asbob-uskunalar lizingini rivojlantirish;

- mahalliy yuqori texnologiyali mahsulotlarni ishlab chiqarish va ularni tashqi bozorda sotishni tashkil etish uchun shart-sharoit yaratishni nazarda tutuvchi tashqi sheriklar bilan tashqi iqtisodiy faoliyatni faollashtirish;

- yo'nalishlarning ilmiy salohiyatini to'laroq joriy etish hamda ilmiy-texnikaviy, ishlab chiqarish va ijtimoiy-iqtisodiy muammolarni hal etish maqsadida ilmiy muassasalar innovatsiyalarini har tomonlama qo'llab-quvvatlash tizimini yaratish;

- innovatsion ishlab chiqarish majmualari va yadrolari, texnoparklar, innovatsion korxonalar va individual innovatsion loyihalarni moliyalashtirishning moliyaviy-iqtisodiy va tashkiliy mexanizmlarini ishlab chiqish.

**Ikkinchidan,** *innovatsion faoliyatni investitsiyaviy qo'llab-quvvatlash mexanizmini takomillashtirish.*

Bu masalani hal etishda xususiy investorlar bilan hamkorlikda tavakkalchilikning bir qismini birgalikda o'z zimmasiga oladigan, nihoyatda samarali bo'lishi mumkin bo'lgan innovatsion loyihalar ustuvor yo'nalishlar bo'lishi kerak. Bunday holda, quyidagi masalalar hal qilinadi:

- ilmiy-texnikaviy va innovatsion loyihalarni moliyalashtirish tizimining barqaror faoliyat yuritishi uchun normativ-huquqiy bazani yaratish;

- innovatsion loyihalarni amalga oshirish maqsadida mahalliy va xorijiy investorlar uchun jozibador sharoitlar yaratish;

- innovatsion loyihalarni amalga oshirish bilan bog'liq moliyaviy risklarni sug'urta qilish tizimini joriy etish<sup>[7]</sup>.

**Uchinchidan,** *innovatsion infratuzilmani shakllantirish innovatsiyalarni qo'llab-quvvatlash va ma'qullashning muhim qismidir.* Innovatsion faoliyat uchun samarali infratuzilmani yaratish bo'yicha ishlar quyidagi tizimlarni tashkil qilishi kerak:

*a) innovatsion faoliyatni axborot bilan ta'minlash tizimi quyidagi ishlarni talab qiladi:*

- innovatsion markazlarning ishlab chiqarish faoliyatini takomillashtirish vositasi sifatida yagona ma'lumotlar to'plamini yaratish maqsadida korxonaga ma'lumotlar bazalariga kirish imkonini beruvchi innovatsion faoliyatning hududiy axborot-tizimli sxemasini amalga oshirish;

- innovatsion jarayonlarning yagona axborot tizimini ishlab chiqish hamda ularni bosqichma-bosqich joriy etish;
- innovatsion loyihalarning intellektual mulk ob'ektlarini inventarizatsiya qilish natijalarini ishlab chiqish, amalga oshirish, shuningdek tijoratlashtirishni baholash;
- b) fan bilan bog'liq sertifikatlashtirish tizimi quyidagi so'rovlarni hal qilishni talab qiladi:
  - sanoatda tajriba laboratoriyalari va sertifikatlashtirish organlarini sertifikatlashtirish bo'yicha qo'shma organlarni yaratish;
  - korxonalarining sifat tizimini xalqaro sifat etikasiga muvofiq sertifikatlashtirishni to'liq amalga oshirish;
  - tajriba laboratoriyalari faoliyatini takomillashtirish.

Innovatsion faoliyat subyektlarining innovatsion faoliyati samarali rivojlanishi bilan yangi mahsulot va xizmatlar ishlab chiqarish usullarini joriy etish, yangi ishlab chiqarish jarayonlarini, shuningdek, innovatsion marketing va boshqaruvning yangi usullarini ishlab chiqish majburiydir.

## **XULOSA VA TAKLIFLAR**

O'zbekiston iqtisodiyotini innovatsiyalarni rivojlantirish asosida liberallashtirishning hozirgi bosqichida iqtisodiy raqobatbardoshlikni oshirishning asosiy istiqbolli yo'nalishlaridan biri innovatsion va moliyaviy resurslardan oqilona foydalanish orqali innovatsion klasterlarni tashkil etish va rivojlantirishdir. Innovatsion klasterlar mamlakatning iqtisodiy salohiyatini oshirishda muhim vosita bo'lib, ularni samarali tashkil etish va rivojlantirish iqtisodiy o'sishga sezilarli hissa qo'shadi.

Har bir innovatsion klasterning samaradorligini ta'minlash maqsadida maqsadli kompleks davlat ilmiy-texnikaviy innovatsiya dasturlarini shakllantirish zarur. Bunday dasturlar innovatsion faoliyatni rag'batlantiruvchi omillarni kuchaytiradi va klasterlar kontekstida yangi texnologiyalarni keng joriy etishga ko'mak beradi.

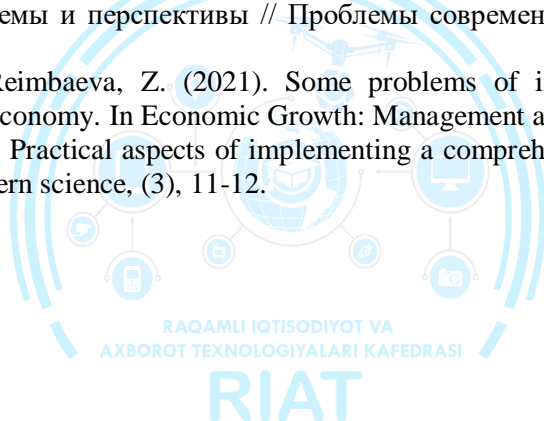
Davlat innovatsion siyosatini muvaffaqiyatli amalga oshirish uchun innovatsion sohaga oid moliyaviy infratuzilmaning mavjud elementlarini yaratish va takomillashtirish talab qilinadi. Buning uchun milliy innovatsion tizimni to'liq shakllantirish, yangi moliyaviy mexanizmlar va vositalarni ishlab chiqish orqali innovatsion jarayonlarni moliyaviy jihatdan qo'llab-quvvatlash muhimdir.

Innovatsion faoliyat infratuzilmasini boshqarishning tashkiliy-iqtisodiy mexanizmlarini joriy etish, iqtisodiyotning turli sohalarini zamonaviy innovatsion texnologiyalar bilan yangilash imkonini beradi. Bu esa milliy mahsulotlarni xalqaro bozorda raqobatbardosh holga keltiradi va iqtisodiy o'sishni yanada tezlashtiradi.

Innovatsion texnologiyalarning samaradorligini baholashda innovatsion muhitga ta'sir ko'rsatadigan ko'rsatkichlarni to'g'ri hisoblash muhimdir. Bu ko'rsatkichlar ishlab chiqaruvchilar faoliyatiga ta'sir qiluvchi omillarni aniqlash va ular uchun yaratilgan qulay sharoitlarning natijadorligini baholash imkonini beradi.

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## DAVLAT ORGANLARIDA LOYIHA FAOLIYATINI TASHKIL ETISHNING XUSUSIY SEKTORDAGI XUSUSIYATLARI

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**Annotatsiya:** Ushbu maqolada davlat organlarida loyiha faoliyatini tashkil etishning xususiy sektordagi boshqaruv usullari bilan solishtirilishi va ularning o'ziga xos jihatlari o'rganiladi. Xususiy sektorning moslashuvchanligi, tezkor qaror qabul qilish va risklarni boshqarishdagi yondashuvlari davlat loyihalarini samarali amalga oshirish uchun qimmatli tajriba sifatida ko'riladi. Shuningdek, davlat sektorida loyiha boshqaruvi jarayonida byudjet cheklovlari va qonunchilik talablarining ahamiyati tahlil qilinadi.

**Kalit so'zlar:** Moliyalashtirish, byudjet cheklovi, siyosiy va ijtimoiy risklar, modernizatsiya, PMBOK, PRINCE2.

### KIRISH

XXI asrda globallashtirish va raqamli texnologiyalarning tez sur'atlarda rivojlanishi har bir sohani tubdan o'zgartirib, loyihalarni boshqarish, monitoring qilish va hisobot berish jarayonlarini avtomatlashtirishni talab qilmoqda. Bu sharoitda davlat organlari uchun axborot texnologiyalarini joriy etish, fuqarolar bilan elektron muloqotni yo'lga qo'yish, hamda loyihalar uchun raqamli platformalarni takomillashtirish dolzarb masalaga aylanmoqda.

Davlat organlaridagi loyiha boshqaruvi davlatning o'ziga xos vazifalari va maqsadlarini e'tiborga olgan holda, maxsus yondashuvni talab qiladi. Loyihalarni samarali boshqarish orqali belgilangan maqsadlarga erishish, xizmat ko'rsatish sifatini oshirish va fuqarolarning davlat idoralari bilan bo'lgan ishonchini mustahkamlash mumkin. Shu bilan birga, davlat organlarida loyiha boshqaruvi xususiy sektordagi loyihalardan farq qiluvchi o'ziga xos xususiyatlarga ega bo'lib, bu jarayonlarni yanada murakkablashtiradi va maxsus yondashuvni talab qiladi.

### MAVZUGA OID ADABIYOTLAR SHARHI

Loyiha boshqaruvi davlat organlari va xususiy sektor o'rtasidagi farqlarni tahlil qiluvchi ko'plab ilmiy va amaliy tadqiqotlar mavjud bo'lib, ushbu mavzu bo'yicha adabiyotlar loyihalarni boshqarish jarayonlarini har ikki sektorda o'ziga xos tarzda tasvirlaydi. Turner va Muller davlat organlaridagi loyihalarni boshqarishda ijtimoiy manfaatlar va davlat siyosatiga yo'naltirilgan yondashuvni ta'kidlaydi. Ularning tadqiqotlari, davlat sektoridagi loyihalarni boshqarishda qat'iy qonunchilik va qoidalar hal qiluvchi rol o'ynashini, shuningdek, jarayonlar ko'proq ijtimoiy maqsadlarga moslashgan holda boshqarilishini ko'rsatadi. Bu xususiy sektor loyihalaridagi tezkor qaror qabul qilish va moslashuvchanlikdan farq qiladi. Davis xususiy sektor loyihalarini tahlil qilib, unda yuqori darajadagi innovatsion yondashuv va qarorlarni tezda qabul qilish muhim omillar sifatida ko'rsatilgan. Davisning tadqiqotlari xususiy korxonalar bozordagi o'zgarishlarga tez moslashishlari mumkinligini ta'kidlaydi. Brown va Hyer davlat organlarida loyihalarni moliyalashtirishda davlat byudjeti va subsidiyalarga tayanilishini, xususiy sektorda esa investitsiyalar va bozor imkoniyatlaridan foydalanilishini ta'kidlaydi. Davlat organlari uzoq muddatli ijtimoiy maqsadlarga yo'naltirilgan loyihalarni qo'llab-quvvatlashadi. O'zbekiston tajribasida K. Ismoilov va T. Umarov davlat loyihalarini boshqarishda shaffoflik va hisobotlilik talablariga asoslangan tartiblar, xususiy sektor esa tezkor qaror qabul qilish va risklarni

boshqarishga yo'naltirilganligini o'rganib chiqqanlar. Ular davlat va xususiy sektor sherikligining samaradorligini ta'minlashga qaratilgan tavsiyalarni taqdim etganlar.

### **TADQIQOT METODOLOGIYASI**

Ushbu tadqiqot ishlarini amalga oshirishda ilmiy tadqiqot metodologiyasida keng qo'llaniladigan usullardan foydalanildi. Xalqaro moliya institutlari faoliyatining davlatlar rivojlanishiga ta'siri tendensiyalarini o'rganishda umumiylikdan individuallikka va aksincha tartibda deduksion yoki induksion usullardan foydalanish samara bersa, abstrakt-mantiqiy fikrlash usuli esa jarayonni tizimli tahlil qilishda ahamiyatlidir. Ilmiy tahlil jarayonida ana shu ilmiy tadqiqot usullaridan, xususan, kuzatish, umumlashirish, guruhlash, taqqoslash, tahlil qilishda esa sintez va tahlil usullaridan keng foydalanildi.

### **TAHLIL VA NATIJALAR**

Davlat organlarida loyiha faoliyatini tashkil etish uni xususiy sektordagi loyiha faoliyatidan ajratib turadigan o'ziga xos xususiyatlarga ega. Bu xususiyatlar davlat organlarining vazifalari, maqsadlari va faoliyat shartlarining o'ziga xosligi bilan belgilanadi. Loyihaning asosiy maqsadlaridan biri loyihaning jamiyat o'rtasida ijtimoiy yo'naltirilishidir. Davlat organlari tomonidan amalga oshirilayotgan loyihalar odatda jamiyat farovonligiga erishish va ijtimoiy muammolarni hal qilishga (masalan, fuqarolarning hayot sifatini oshirish, infratuzilmani rivojlantirish, xavfsizlikni ta'minlash) qaratilgan. Bundan tashqari, jamiyat ehtiyojlarini qondirish va davlat resurslaridan samarali foydalanishni ta'minlash ham maqsadlarga kiradi.

Davlat organlarida loyiha faoliyati qonun hujjatlari va me'yoriy hujjatlar bilan qat'iy tartibga solinadi, bu esa belgilangan tartib va qoidalarga rioya qilishni talab qiladi. Davlat organlari loyihalar va ularning natijalari to'g'risidagi ma'lumotlarga kirishni ta'minlash orqali o'z harakatlarining shaffofligini ta'minlashi, shuningdek, jamiyat va yuqori turuvchi organlar oldida mas'ul bo'lishi shart. Loyihalar odatda byudjet mablag'lari hisobidan moliyalashtiriladi, bu esa ularning sarflanishi va byudjet tartib-qoidalariga rioya etilishi ustidan qat'iy nazoratni talab qiladi. Nazorat bilan bir qatorda byudjet cheklovlari va moliyaviy intizomga bo'lgan ehtiyoj resurslarni samarali boshqarishni talab qiladi.

Davlat organlarida qarorlar qabul qilish va tasdiqlash jarayonlari turli ma'muriy tartib-qoidalardan o'tish zarurati tufayli uzoq vaqt talab qilishi mumkin. Loyihalarni boshqarish borasida biror qaror qabul qilishdan oldin siyosiy va ijtimoiy risklarni avvaldan ko'ra olish katta yutuqlarga erishishga sabab bo'ladi. Siyosiy risklar - siyosiy muhitdagi o'zgarishlar loyiha ustuvorliklariga, ularni moliyalashtirish va amalga oshirish muddatlariga ta'sir qilishi mumkin. Ijtimoiy risklar - loyihalarni amalga oshirishda, agar ularning manfaatlari hisobga olinmasa, aholining turli guruhlari tomonidan qarshilikka duch kelishi mumkin. Loyihalarni boshqarishda risklardan tashqari, jamiyat bilan o'zaro aloqa muhim ahamiyat kasb etadi. Bunda jamoatchilik fikrini o'rganish, fuqarolar va jamoat tashkilotlarining fikr-mulohazalarini inobatga olish, jamoatchilik muhokamalari va maslahatlar o'tkazish loyihalarning maqsadlari, vazifalari va natijalari haqida jamoatchilik bilan samarali muloqot qilish davlatga ishonchni oshirishga yordam beradi.

Loyiha faoliyatiga jalb qilingan xodimlar loyiha boshqaruvi sohasida zarur kompetensiyalarga va davlat boshqaruvining o'ziga xos xususiyatlarini bilishga ega bo'lishi kerak. Davlat tomonidan xizmatchilarning muntazam ravishda malakasini oshirish loyihalarni muvaffaqiyatli amalga oshirishga xizmat qilmoqda.

Davlat organlarida loyiha faoliyatini tashkil etish uni xususiy sektordagi loyiha faoliyatidan ajratib turadigan bir qator o'ziga xos xususiyatlarga ega. Bu xususiyatlar faoliyatning maqsadi, xarakteri, boshqaruv va tartibga solish jihatlari bilan bog'liq. Davlat organlarida amalga oshirilayotgan loyihalarning asosiy maqsadi ijtimoiy ahamiyatga ega muammolarni hal etish, jamiyat manfaatini ta'minlash va davlat funksiyalarini bajarishdan iborat. Loyihalar ijtimoiy-iqtisodiy sharoitlarni yaxshilash, davlat xizmatlari sifatini oshirish va milliy xavfsizlikni ta'minlashga qaratilgan.

Xususiy kompaniyalarda loyihalar ko'pincha foyda olish, bozor ulushini oshirish, raqobatbardoshlikni oshirish va ichki jarayonlarni takomillashtirishga qaratilgan. Asosiy e'tibor loyihalarning iqtisodiy samaradorligi va rentabelligiga qaratilgan.

Moliyalashtirish va byudjetlashtirish davlat hokimiyati organlarida loyihalar, birinchi navbatda, byudjet mablag'lari hisobidan moliyalashtiriladi, bu esa byudjetlashtirish tartib-qoidalariga qat'iy rioya qilishni, shaffoflik va hisobdorlikni talab qiladi. Loyihalar ko'pincha resurslarda cheklangan va siyosiy qarorlarga bog'liq. Xususiy sektorda esa moliyalashtirish turli manbalardan, jumladan, kompaniyaning o'z mablag'lari, kreditlar, investitsiyalar va grantlar hisobidan amalga oshirilishi mumkin. Kompaniyalar moliyaviy resurslarni taqsimlash va ulardan foydalanishda ko'proq moslashuvchanlikka ega.

Keyingi muhim jarayonlardan biri huquqiy va me'yoriy-huquqiy baza. Davlat organlarida bu faoliyat qonun va me'yoriy hujjatlar bilan qat'iy tartibga solinadi. Davlat standartlari, qoidalari va tartiblariga rioya qilish kerak. Bu ko'pincha murakkab va uzoq davom etadigan tasdiqlash va qaror qabul qilish jarayonlariga olib keladi. Xususiy sektorda sanoat standartlari va ichki qoidalar mavjud bo'lsa-da, xususiy kompaniyalar loyihalarni boshqarishda ko'proq erkinlikka ega va o'zgarishlarga tezroq moslasha oladi.

Keyingi muhim jarayon bu loyiha boshqaruvi. Davlat organlari boshqaruvning murakkab ierarxiyasi, bir nechta manfaatdor tomonlarning, jumladan, turli davlat organlari va jamoat tashkilotlarining mavjudligi bilan tavsiflanadi. Bir nechta tuzilmalar bilan muvofiqlashtirish zarurati tufayli qaror qabul qilish jarayonlari sekin bo'lishi mumkin. Xususiy kompaniyalar tezroq qaror qabul qilish va o'zgarishlarga javob berish imkonini beruvchi loyihalarni boshqarishning sodda tuzilishiga ega bo'lishi mumkin. Xususiy sektorda loyihalarni boshqarish ko'pincha moslashuvchan va natijalarga yo'naltirilgan bo'ladi.

Loyihalarni kelajakda siyosiy va ijtimoiy xavflardan himoya qilish uchun risklarni oldini olish va ularni boshqarish muhim ahamiyat kasb etadi. Davlat loyihalaridagi xavf-xatarlarga siyosiy xavflar, jamoatchilik fikri, qonunchilikdagi o'zgarishlar kiradi va ular yanada ehtiyotkorlik bilan boshqarishni talab qiladi. Loyihaning muvaffaqiyatsizligi muhim ijtimoiy oqibatlarga olib kelishi va jamoatchilik ishonchini yo'qotishi mumkin. Xususiy sektordagi risklarga bozordagi holatning o'zgarishi, texnologik o'zgarishlar va raqobat kiradi. Kompaniyalar foyda olish uchun tavakkal qilishga ko'proq tayyor bo'lishi yoki muvaffaqiyatsiz loyihalardan tezda voz kechishlari mumkin.

Loyihalarning o'sishi va natija ko'rsatishi davlat organlari tomonidan yuqori darajadagi shaffoflikni ta'minlashi, loyihalar to'g'risidagi axborotni keng jamoatchilikka etkazishi, fuqarolar va yuqori turuvchi organlar oldida hisobot berishi shart. Bu davlat organlariga ishonchni oshirishga yordam beradi va jamoatchilik nazoratini ta'minlaydi.

Bundan tashqari, loyihalarni boshqarishda kadrlarni to'g'ri tanlash muhim ahamiyat kasb etadi. Davlat amaldorlari nafaqat loyihalarni boshqarish, balki davlat boshqaruvi, qonunchilik va me'yoriy hujjatlarni ham bilishlari kerak. Kadrlarni tayyorlash va ularning malakasini oshirish loyihalarni muvaffaqiyatli amalga oshirishning muhim jihati hisoblanadi.

Davlat organlarida loyiha faoliyatining o'ziga xos xususiyatlari loyihalarni rejalashtirish, boshqarish va amalga oshirishda o'ziga xos yondashuvni talab qiladi. Bunda asosiy e'tibor jamoatchilik manfaatlari, shaffoflik, javobgarlik va qonunlarga rioya qilishga qaratilgan. Bu ularni xususiy sektor loyihalaridan ajratib turadi, bunda asosiy e'tibor iqtisodiy samaradorlik va rentabellikka qaratilgan.

Davlat organlarida loyiha faoliyatiga o'ziga xos yondashuvni shakllantiruvchi asosiy jihatlar mavjud bo'lib, ular:

**1. Jamoat manfaatlariga yo'naltirilganlik.** Davlat loyihalari, aholining turmush darajasini oshirish, ijtimoiy infratuzilmani rivojlantirish, xavfsizlikni ta'minlash, atrof-muhitni muhofaza qilish va boshqalar kabi ijtimoiy ahamiyatga ega maqsadlarga erishishga qaratilgan.

**2. Oshkorlik va javobgarlik.** Davlat xizmatlari muhitida yuqori darajadagi shaffoflik va javobgarlik asosiy talab hisoblanadi. Bu quyidagilarni nazarda tutadi:

- Loyihalar to'g'risidagi ma'lumotlarni e'lon qilish :Rejalar, byudjetlar, natijalar va loyihalarni bajarish muddatlari jamoatchilikka ochiq bo'lishi kerak.

- Hisobdorlik: davlat organlari jamiyat va yuqori turuvchi organlar oldida byudjet mablag'larining sarflanishi va erishilgan natijalar to'g'risida hisobot berishi shart.

- Jamoatchilik ishtiroki: fuqarolar va jamoat tashkilotlarini loyihalarni muhokama qilish va monitoring qilishga jalb etish, bu esa hokimiyatga ishonchni oshirishga yordam beradi.

**3. Reglamentga muvofiqlik.** Davlat organlarida loyiha faoliyati belgilangan qonunchilik va me'yoriy hujjatlar talablariga qat'iy rioya qilishi kerak. Bunga quyidagilar kiradi:

- Me'yoriy-huquqiy hujjatlarga muvofiqligi: Loyihalar milliy qonunlar, qarorlar, qoidalar va boshqa me'yoriy hujjatlarga mos kelishi kerak.

- Tasdiqlash va tasdiqlash tartib-qoidalari: Loyihani amalga oshirish uchun mahalliy, mintaqaviy va federal hokimiyatlar darajasida tasdiqlashlar bo'lishi mumkin bo'lgan bir nechta tasdiqlash va tasdiqlashlar talab qilinadi.

- Audit: me'yoriy hujjatlar talablariga rioya etilishini nazorat qilish va loyihalar samaradorligini baholash uchun muntazam ichki va tashqi auditlar.

**4. Uzoq muddatli rejalashtirish va barqarorlik.**

- Strategik rejalashtirish: uzoq muddatli maqsad va vazifalarni belgilash, uzoq muddatli istiqbolga barqarorlik va ijtimoiy-iqtisodiy rivojlanishni ta'minlaydigan rivojlanish strategiyalarini shakllantirish.



- Ekologik va ijtimoiy jihatlarni hisobga olish: davlat loyihalari barqaror rivojlanishga ko‘maklashishi, atrof-muhitga salbiy ta‘sirni minimallashtirish va ijtimoiy adolatni ta‘minlashi kerak.

**5. Idoralararo muvofiqlashtirish.** Ko‘pgina loyihalar turli davlat organlari va idoralarining ishtiroki va ishini muvofiqlashtirishni talab qiladi. Bunga quyidagilar kiradi:

- Idoralararo ishchi guruhlarini tuzish: turli organlar o‘rtasida harakatlarni muvofiqlashtirish va axborot va malaka almashish uchun.

- Markazlashtirilgan loyiha boshqaruvi: samaradorlikni oshirish va xavflarni kamaytirish uchun yagona boshqaruv tizimlari va metodologiyalaridan foydalanish.

So‘nggi yillarda O‘zbekiston davlat organlarida loyiha faoliyati sezilarli rivojlandi, bu davlat boshqaruvini modernizatsiya qilish, ko‘rsatilayotgan xizmatlar sifatini oshirish va barqaror ijtimoiy-iqtisodiy rivojlanishga erishishga qaratilgan amalga oshirilayotgan islohotlar bilan bog‘liq. O‘zbekiston davlat organlarida loyiha faoliyatining asosiy xususiyatlari va yo‘nalishlarini ko‘rib chiqamiz.

Hozirgi vaqtda O‘zbekistonda loyihalarni samarali boshqarish uchun davlat loyihalarini muvofiqlashtirish, rejalashtirish va amalga oshirish bilan shug‘ullanuvchi ixtisoslashtirilgan tuzilmalar va idoralar tashkil etilmoqda. Masalan, loyihalarni boshqarishning zamonaviy usullarini joriy etish va ularning amalga oshirilishini nazorat qilish uchun mas‘ul bo‘lgan Loyiha boshqaruvini rivojlantirish agentligi.

O‘zbekistonda PMBOK, PRINCE2<sup>111</sup> va boshqa loyihalarni boshqarishning xalqaro standartlari faol joriy etilmoqda. Bu loyihalarni boshqarish sifatini oshirish, ularning samaradorligi va shaffofligini oshirishga yordam beradi. Davlat loyihalari byudjet mablag‘lari, shuningdek, xorijiy investitsiyalar va xalqaro moliyaviy yordamni jalb etish hisobidan moliyalashtiriladi. O‘zbekiston Jahon banki, Osiyo taraqqiyot banki, Xalqaro valyuta jamg‘armasi kabi xalqaro moliya institutlari bilan faol hamkorlik qilib, moliyaviy resurslar va ilg‘or tajribalarni jalb etishga ko‘maklashmoqda. Loyihalarning muvaffaqiyatli amalga oshirilishini ta‘minlash uchun ularning ijrosi doimiy nazoratga olinadi, samaradorlik va belgilangan maqsadlarga erishish baholanadi. Muammolarni o‘z vaqtida aniqlash va loyihani amalga oshirish jarayoniga tuzatishlar kiritish imkonini beruvchi hisobot va nazorat mexanizmlari yaratilmoqda.

O‘zbekiston davlat organlaridagi loyiha faoliyati mamlakatning strategik maqsadlariga erishish, aholi turmush sifatini oshirish va barqaror rivojlanishni ta‘minlashning muhim vositasidir. Infratuzilmani modernizatsiya qilish, ijtimoiy dasturlar, raqamlashtirish va hududlarni rivojlantirishga alohida e‘tibor qaratilmoqda. Loyihalarni samarali boshqarish, xalqaro standartlarni qo‘llash, zamonaviy texnologiyalar va moliyalashtirish mexanizmlaridan foydalanish davlat loyihalarini muvaffaqiyatli amalga oshirishga, fuqarolarning davlat hokimiyati va boshqaruvi organlariga ishonchini mustahkamlashga xizmat qilmoqda.

O‘zbekiston davlat organlaridagi loyiha faoliyati haqiqatan ham strategik maqsadlarga erishish va mamlakatni ijtimoiy-iqtisodiy rivojlantirishda muhim o‘rin tutadi. Iqtisodiyotni modernizatsiya qilish va fuqarolarning hayot sifatini oshirishga qaratilgan keng ko‘lamli islohotlar sharoitida davlat loyihalari barqaror rivojlanish siyosatini amalga oshirishning asosiy mexanizmiga aylanmoqda. Keling, ushbu maqsadlarga erishishga yordam beradigan loyiha faoliyatining asosiy jihatlari va yo‘nalishlarini ko‘rib chiqaylik.

O‘zbekiston davlat organlaridagi loyiha faoliyati uzoq muddatli strategik maqsadlarga erishishga qaratilgan, jumladan:

- Aholining turmush sifatini oshirish: Ijtimoiy dasturlarni amalga oshirish va infratuzilmani modernizatsiya qilish aholi turmush sharoitini yaxshilash, daromadlar darajasini oshirish, tibbiy va ta‘lim xizmatlaridan foydalanish imkoniyatini oshirishga xizmat qilmoqda.

- Iqtisodiy rivojlanish va ish o‘rinlari yaratish: Sanoat, transport va axborot texnologiyalari loyihalari iqtisodiy o‘rinishni rag‘batlantiradi, investitsiyalarni jalb qiladi va yangi ish o‘rinlari yaratadi.

- Barqaror rivojlanish: Energiya tejankor texnologiyalarni joriy etish, qayta tiklanuvchi energiya manbalarini rivojlantirish va ekologik loyihalar atrof-muhitga salbiy ta‘sirni kamaytirish va barqaror rivojlanishni ta‘minlashga yordam beradi.

- Davlat boshqaruvi samaradorligini oshirish: Raqamlashtirish, loyihalarni boshqarishning zamonaviy usullarini joriy etish va markazsizlashtirish davlat boshqaruvi sifatini oshirishga, davlat organlari faoliyatining ochiqligi va hisobdorligini oshirishga xizmat qilmoqda.

## XULOSA VA TAKLIFLAR

Davlat organlarida loyiha faoliyatini amalga oshirishning asosiy xususiyati jamoat manfaatlarini qondirish, tartibga solish talablariga rioya qilish, shaffoflik va hisobdorlikni ta‘minlashga qaratilgan. Ushbu talablar loyihalarni rejalashtirish, boshqarish va amalga oshirish jarayonlariga alohida e‘tibor berishni talab

<sup>111</sup> <https://habr.com/ru/articles/547140/>

qiladi, bu esa ularning muvaffaqiyatli amalga oshirilishi va belgilangan maqsadlarga erishishni ta'minlashga xizmat qiladi.

O'zbekiston davlat organlari loyihalarni amalga oshirishda mamlakatni modernizatsiya qilish, aholi turmush darajasini oshirish va barqaror rivojlanishga erishishga yo'naltirilgan islohotlarni amalga oshirishga qaratilgan. Infratuzilmani modernizatsiya qilish, ijtimoiy sohani rivojlantirish, raqamlashtirish va hududlarni rivojlantirishga qaratilgan loyihalar orqali barqaror iqtisodiy o'sish va ijtimoiy farovonlikni ta'minlash uchun qulay sharoitlar yaratilmoqda.

Strategik maqsadlarga erishishda loyihalarni samarali boshqarish jamiyatning barcha qatlamlari manfaatlarini hisobga olib, belgilangan vazifalarni muvaffaqiyatli amalga oshirishga ko'mak beradi. Buning natijasida fuqarolarning davlat hokimiyati organlariga bo'lgan ishonchi mustahkamlanadi va ijtimoiy rivojlanishga katta hissa qo'shiladi.

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# The Impact of Investment on Economic Growth: Evidence from Uzbekistan

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**Abstract:** This paper investigates the dynamic relationship between investment and economic growth in Uzbekistan, a crucial aspect for policymakers and investors in emerging economies. Utilizing a comprehensive dataset sourced specifically from Uzbekistan's economy, the study provides nuanced insights into the determinants of economic growth in the country. The findings underscore the significance of investment in driving economic expansion, offering valuable implications for policymakers and investors seeking sustainable development strategies.

**Keywords:** gross regional product, investment, inflation, export, population, economic growth.

## Introduction

With Uzbekistan undergoing substantial economic reforms and aspiring for sustained growth, understanding the drivers of economic expansion, particularly the role of investment, is paramount. While theoretical frameworks provide insights, empirical evidence specific to Uzbekistan remains limited. This paper addresses this gap by conducting an in-depth analysis of the relationship between investment and economic growth in Uzbekistan. By considering cross-sectional disparities and other influential determinants, this study aims to contribute to the existing literature and offer actionable insights for stakeholders navigating Uzbekistan's economic landscape.

## Literature Review

Investment plays a crucial role in driving economic growth, making it a subject of extensive research and debate within the realm of economics. Numerous studies have been conducted to understand the intricate relationship between investment and economic growth, aiming to uncover the mechanisms through which investment influences overall economic performance. This literature review examines several key papers that have contributed significantly to the understanding of the impact of investment on economic growth.

One seminal work in this field is by Robert Solow (1956), whose neoclassical growth model laid the foundation for studying the relationship between capital accumulation, technological progress, and economic growth. Solow's model posits that investment in physical capital is a primary driver of economic growth, as it leads to increased productivity and output. His findings suggest that sustained investment in capital goods contributes positively to long-term economic growth by expanding the economy's production capacity.

Building upon Solow's framework, Barro (1997) introduced the concept of human capital accumulation as an additional determinant of economic growth. In his influential paper, Barro argues that investment in education and skills development enhances labor productivity and fosters technological innovation, thus spurring economic growth. By incorporating human capital into growth models, Barro highlights the multidimensional nature of investment and its role in shaping long-term economic prosperity.

Furthermore, the role of foreign direct investment (FDI) in driving economic growth has been extensively explored in the literature. Blomström and Kokko (1998) conducted a comprehensive analysis of the impact of FDI on host country economies, emphasizing its potential to stimulate technological transfer, enhance human capital formation, and spur domestic investment. Their findings suggest that FDI can act as a catalyst for economic growth by complementing domestic investment and fostering structural transformation in recipient economies

In addition to these seminal contributions, recent studies have delved into the heterogeneous effects of different types of investment on economic growth. For instance, Gupta and Vegh (2016) investigate the differential impact of public and private investment on economic growth across a sample of developing countries. Their empirical analysis reveals that while both types of investment positively contribute to growth, the effectiveness of public investment depends on its quality and efficiency in resource allocation.

Overall, the literature reviewed underscores the critical role of investment in driving economic growth through various channels, including capital accumulation, human capital formation, and technological progress. While the consensus regarding the positive relationship between investment and economic growth is robust, ongoing research continues to explore the nuanced mechanisms and policy implications underlying this relationship, providing valuable insights for policymakers and practitioners alike.

## Data and Methodology

The data has been obtained from an official website ([www.stat.uz](http://www.stat.uz)) that publish main economic statistics yearly. Summary statistics offer a comprehensive overview of the key variables in Uzbekistan's economy, providing insights into their distributions and characteristics.

Table 1: Summary Statistics (Uzbekistan)

	GRP	INV	INF	EXP	ACTPOP	NTPR
Mean	30503.67	10682.39	12.23	617.77	1040.02	24858.75
Standard deviation	23667.3	10384.16	2.92	838.85	404.04	16753.99
Minimum	5076.9	1083.3	8.1	76.2	368.5	8127
Maximum	149646.2	58172.7	17.5	4669.3	1665.6	105603
Observations	112	112	112	112	112	112

Table 1 presents the summary statistics, including mean, standard deviation, minimum, maximum, and number of observations for each variable. Here, GRP – gross regional product (in billion sums), INV – investment (in billion sums), INF – inflation rate (%), EXP – export (in billion sums), ACTPOP – economically active population (thousand people), NTPR – number of operating enterprises. The summary statistics provide critical insights into the central tendency, variability, and range of variation of key economic variables in Uzbekistan.

### Unit-Root Testing Results:

Unit-root testing is essential for assessing the stationarity of time series data, a prerequisite for reliable econometric analysis. Table 2 presents the unit-root testing results for each variable, including LLC, Breitung, IPS, ADF-Fisher, and PP-Fisher tests, both at levels and first differences.

Table 2: Unit-Root Testing Results

The level	LLC	Breitung	IPS	ADF-Fisher	PP-Fisher
grp	-4.78	5.09	-0.66	2.65	2.65
	0.000	1.000	1.000	1.000	1.000
inv	-12.45	1.01	-1.63	8.93	8.93
	0.000	0.840	0.320	0.999	0.999
inf	-10.63	-1.36	-1.13	2.22	2.22
	0.000	0.086	0.687	1.000	1.000
exp	-12.64	1.58	-1.83	16.87	16.87

	0.000	0.943	0.414	0.951	0.951
actpop	-6.94	1.55	-1.54	28.06	28.06
	0.000	0.939	0.708	0.460	0.460
ntpr	-10.02	4.43	-0.58	1.39	1.39
	0.000	1.000	1.000	1.000	1.000
<b>The first difference</b>	<b>LLC</b>	<b>Breitung</b>	<b>IPS</b>	<b>ADF-Fisher</b>	<b>PP-Fisher</b>
grp	-39.63	-3.75	-2.87	62.52	62.52
	0.000	0.000	0.000	0.000	0.000
inv	-15.96	-2.1	-2.43	65.49	65.49
	0.000	0.017	0.006	0.000	0.000
inf	-22.26	-3.62	-1.92	8.27	8.27
	0.000	0.000	0.005	0.000	0.000
exp	-12.63	-4.35	-3.88	136.79	136.79
	0.000	0.000	0.000	0.000	0.000
actpop	-10.63	-2.86	-2.91	92.13	92.13
	0.000	0.002	0.001	0.000	0.000
ntpr	-18.46	0.194	-1.81	14.03	14.03
	0.000	0.000	0.040	0.000	0.000

Conversely, a non-significant result indicates stationarity, implying that the variable is integrated of order zero. These findings are fundamental for selecting appropriate time series models and ensuring the validity of empirical analyses. As we can see, all the variables are stationary at the first difference.

### Correlation Coefficients:

Correlation coefficients quantify the strength and direction of relationships between pairs of variables in Uzbekistan's economy. Table 3 presents the correlation coefficients matrix.

Table 3: Correlation Coefficients (Uzbekistan)

	GRP	INV	INF	EXP	ACTPOP	NTPR
GRP	1					
INV	0.9237	1				
INF	0.0688	0.1231	1			
EXP	0.8013	0.7503	0.002	1		
ACTPOP	0.416	0.279	0.0375	0.349	1	
NTPR	0.9034	0.8474	-0.0177	0.8874	0.5321	1

The correlation coefficients provide insights into the strength and direction of relationships between variables in Uzbekistan's economy. Coefficients close to

1 indicate strong positive correlations, while coefficients near -1 suggest strong negative correlations. Coefficients close to 0 indicate weak or no correlation. These findings are crucial for understanding the interdependencies among different economic indicators and identifying potential causal relationships.

$$\Delta Y_{it} = \alpha + \beta_1 \Delta Investment_{it} + \beta_2 \Delta Inflation_{it} + \beta_3 \Delta Export_{it} + \beta_4 \Delta Number\ of\ Enterprises_{it} + \beta_5 \Delta Active\ Population_{it} + \mu_i + \epsilon_{it}$$

The formula represents a dynamic panel data model used to estimate the relationship between economic growth  $\Delta Y_{it}$  (which is gross regional product, in our case) and various independent variables including investment, inflation, export, number of operating enterprises, and economically active population.

### **Panel Mean Group (PMG) Estimation:**

The Panel Mean Group (PMG) estimation offers insights into the long-term relationship between investment and economic growth in Uzbekistan, considering other pertinent variables. Table 4 presents the PMG estimation results, including short-term and long-term coefficients, along with their corresponding p-values and standard errors.

As we can see investment plays an important role on economic growth with statistically significant coefficients in short-term as well as in long-term. Another factor that affected GRP as good as investment is the number of operating enterprises. Short-term outcomes are significantly influenced by investment, with a unit increase in investment associated with a 1.38 unit increase in the outcome, indicating immediate returns or stimulative effects. While inflation shows a positive relationship with the outcome, it's not statistically significant in the short term, suggesting that short-term outcomes are relatively unaffected by changes in inflation rates. Though negatively related to the outcome, the impact of exports falls just short of significance in the short term ( $p = 0.071$ ), implying that higher export levels may marginally dampen short-term outcomes. A significant positive relationship exists between the number of enterprises and short-term outcomes, suggesting that a vibrant business environment positively affects short-term outcomes. Despite a substantial coefficient, the relationship between the active population and outcomes is not statistically significant in the short term, indicating that variations in the active population may not significantly impact short-term outcomes. In the long term, investment continues to positively influence outcomes, though at a somewhat diminished rate compared to the short

term, reflecting sustained positive effects over time. Over time, inflation becomes statistically significant, albeit with a weaker coefficient compared to investment, suggesting a modest positive impact on outcomes, possibly reflecting economic growth or expansionary monetary policies. The negative relationship between exports and outcomes weakens significantly in the long term, becoming statistically insignificant, indicating diminishing impact over time, possibly due to other factors dominating economic dynamics. The negative relationship between exports and outcomes weakens significantly in the long term, becoming statistically insignificant, indicating diminishing impact over time, possibly due to other factors dominating economic dynamics. The negative relationship with the active population strengthens significantly in the long term and becomes statistically significant, indicating that over time, a larger active population may substantially negatively impact outcomes due to resource constraints or infrastructure strain.

Table 4: Panel Mean Group (PMG) Estimation Results (Uzbekistan)

Short-term				Long-term		
Variables	Coefficient	P-value	Standard error	Coefficient	P-value	Standard error
Investment	1.38	0.004	0.48	0.82	0.008	0.56
Inflation	1.16	0.125	0.52	0.74	0.026	0.29
Export	-1.47	0.071	0.47	0.18	0.056	2.7
Number of enterprises	0.84	0.005	0.32	-0.52	0.002	0.49
Active population	3.32	0.081	2.3	-5.15	0.001	3.87

The PMG estimation results provide insights into the relationship between investment and economic growth in Uzbekistan, accounting for other relevant variables. The coefficients represent the magnitude and direction of the relationship, while p-values indicate the statistical significance of the coefficients. These findings offer valuable insights for policymakers and investors in formulating strategies to promote economic growth and development in Uzbekistan.

**Conclusion:**



In conclusion, this study offers a comprehensive analysis of the impact of investment on economic growth in Uzbekistan, leveraging a rich dataset and robust econometric techniques. The findings underscore the significant role of investment in driving economic expansion, providing valuable implications for policymakers and investors. By understanding the determinants of economic growth, stakeholders can formulate targeted policies and strategies to foster sustainable development and prosperity in Uzbekistan.

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**Annotatsiya:** Maqolada barqaror iqtisodiy o‘shishni ta’minlash va ijtimoiy infratuzilma tizimini rivojlantirish orqali aholi turmush sifatini yaxshilash, mazkur tizimning istiqbolli yo‘nalishlari yoritilgan. Barqaror iqtisodiy o‘shish orqali infratuzilma tizimini ijtimoiy so‘rov asosida baholash uchun aniq sotsiologik tadqiqotlar natijalari umumlashtirilgan, har bir hududning ijtimoiy-iqtisodiy holati, kambag‘allikning kelib chiqish sabablari ilmiy o‘rganishga doir ilmiy takliflar va amaliy tavsiyalar yoritib berilgan.

**Kalitli so‘zlar:** iqtisodiy o‘shish, aholi farovonligi, hududlarning salohiyati, tadbirkorlikni rivojlantirish, kambag‘allikni qisqartirish, istiqbolli yo‘nalishlar.

## KIRISH

Iqtisodiyotni modernizatsiyalash sharoitida mamlakatimizda barqaror iqtisodiy o‘shishni ta’minlash orqali ijtimoiy infratuzilmaning har tomonlama rivojlanishi iqtisodiy jihatdan barqaror o‘shish jamiyat taraqqiyoti rivojlanish darajasini belgilaydi. Iqtisodiy o‘shish, birinchi navbatda, tovar va xizmatlar miqdorining o‘shishi va o‘zgarishida o‘z ifodasini topadi. Keng ma’noda esa, jamiyatda iqtisodiy o‘shish natijasida takror ishlab chiqarish ortadi, ishlab chiqarish kuchlari rivojlanadi. Eng asosiysi iqtisodiy o‘shish, avvalo, aholining turmush tarzini yaxshilash uchun zarurdir, chunki bunga erishish yo‘lida amalga oshiriladigan islohotlar natijasida aholi turmush sifatini moddiy jihatdan ta’minlab farovonlikni oshirishga ta’sir ko‘rsatadi.

Bu borada «O‘zbekiston — 2030» strategiyasida<sup>112</sup>: “...barqaror iqtisodiy o‘shish orqali daromadi o‘rtachadan yuqori bo‘lgan davlatlar qatoridan o‘rin olish, aholi talablariga va xalqaro standartlarga to‘liq javob beradigan ta’lim, tibbiyot va ijtimoiy himoya tizimini tashkil qilish, aholi uchun qulay ekologik sharoitlarni yaratish, xalq xizmatidagi adolatli va zamonaviy davlatni barpo etish, mamlakatning suvereniteti va xavfsizligini kafolatli ta’minlash” belgilangan.

## MAVZUGA OID ADABIYOTLAR SHARHI

Iqtisodiy o‘shishni ta’minlash va aholining turmush sifatini yaxshilash uchun ijtimoiy infratuzilma tizimini rivojlantirish ko‘p jihatdan mamlakatda milliy mahsulot hajmi va aholi daromadining ko‘payishiga, resurslardan unumli foydalanishga ta’sir etuvchi omillar asosida aholi turmush darajasini yaxshilash kabi yo‘nalishlardagi tadqiqotlar mazkur mavzuning dolzarbligini belgilaydi.

Mahalliy olimlarning ta’kidlashicha<sup>113</sup> “Iqtisodiy o‘shish - bu iqtisodiyotning rivojlanishi, ya’ni hayotiy ne’matlar bo‘lgan tovarlar va xizmatlarni ishlab chiqarilishining ko‘payib borishidir. Iqtisodiy o‘shish odatda yalpi ichki mahsulotning o‘shishi yoki aholi jon boshiga to‘g‘ri keladigan yalpi ichki mahsulotning o‘shishi bilan o‘lchanadi. Iqtisodiy o‘shishning samaradorligi tushunchasi mavjud, u iqtisodiy o‘shishning pirovard natijasi bo‘lib, yalpi ichki mahsulotning qay darajada o‘sganini ifodalaydi. Iqtisodiy o‘shishning samaradorligi - bu iqtisodiy o‘shishga qanday xarajatlar bilan erishilganligi bo‘lib, yalpi ichki mahsulot o‘shishining xarajatlar o‘shishiga nisbati orqali aniqlanadi”. Boshqa olimlar esa “Iqtisodiy o‘shish bevosita yalpi ichki mahsulot

<sup>112</sup>Ўзбекистон Республикаси Президентининг 2023 йил 11 сентябрдаги ПФ-158-сон «Ўзбекистон - 2030» Стратегияси тўғрисидаги Фармони. (Қонунчилик маълумотлари миллий базаси, 12.09.2023 й., 06/23/158/0694-сон; 29.12.2023 й., 06/23/214/098)

<sup>113</sup>Ўлмасов А., Вахобов А. “Иқтисодиёт назарияси”. Дарслик.Т.:“Iqtisod-Moliya”, 2014 йил, 135-136 б.

miqdoring mutlaq va aholi jon boshiga hamda iqtisodiy resurs xarajatlari birligi hisobiga ko'payishi hamda sifatining yaxshilanishida va tarkibining takomillashuvida ifodalanadi"<sup>114</sup> deb ta'kidlashadi.

Bizning fikrimizcha, barqaror iqtisodiy o'sish samaradorligi aholi turmush darajasining o'sishini ifodalab o'sish omillari va aholi turmush sifatini yaxshilash, uning tarkibiy komponentlarini tadqiq etish orqali jamiyatning turli ijtimoiy guruhlarining turmush kechirish shart-sharoitlariga bozor iqtisodiyotining salbiy ta'sirini kamaytirish yo'nalishlarini aniqlash imkonini beradi.

### **TADQIQOT METODOLOGIYASI**

Ushbu tadqiqot ishlarini amalga oshirishda ilmiy tadqiqot metodologiyasida keng qo'llaniladigan usullardan foydalanildi. Mavzuni o'rganishda umumiylikdan individuallikka va aksincha tartibda deduksion yoki induksion usullardan foydalanish samara bersa, abstrakt-mantiqiy fikrlash usuli esa jarayonni tizimli tahlil qilishda ahamiyatlidir. Ilmiy tahlil jarayonida ana shu ilmiy tadqiqot usullaridan, xususan, kuzatish, umumlashtirish, guruhlash, taqqoslash, tahlil qilishda esa sintez va tahlil usullarini keng foydalanildi.

### **TAHLIL VA NATIJALAR**

O'zbekistonning 2030 yilgacha barqaror rivojlanish sohasidagi milliy maqsad va vazifalarni amalga oshirish chora-tadbirlarida belgilanganidek: "Mamlakatda kambag'allikni qisqartirish sohasida quyidagi chora-tadbirlar amalga oshirilmoqda:

- aholi daromadlarini oshirishni davlat tomonidan qo'llab-quvvatlash. Har yili iste'mol narxlarining o'sishi munosabati bilan davlat xizmatchilarining ish haqi, pensiya va nafaqalar indeksatsiya qilinadi, indeksatsiya natijasiga ko'ra aholining eng kambag'al 40 foiz qatlami daromadlarining o'sish surati (2021-yilda 122,4%) aholi jon boshiga o'rtacha daromadning o'sish sur'atiga (121,8%) qaraganda tez sur'atlar bilan o'sib bormoqda;

- "Ijtimoiy himoya yagona reestri" axborot tizimi va "Mahallada ijtimoiy xizmat" moduli orqali ijtimoiy xizmatlar ko'rsatish joriy etildi, mazkur platformalar yordamida kam ta'minlangan oilalarni aniqlash, ularga ijtimoiy nafaqalar va moddiy yordamlar tayinlash, xizmatlar ko'rsatish ishlari amalga oshirilmoqda. Birinchi bosqichda 20 dan ortiq xizmat turlari qamrab olingan bo'lib, keyinchalik ijtimoiy xizmatlarni 70 turigacha bosqichma-bosqich kengaytirish rejalashtirilmoqda;

- kam ta'minlangan oilalarning ishsiz a'zolarini bandligi o'qishga, professional ta'limga va tadbirkorlikka jalb qilish orqali ta'minlanmoqda. Har bir mahallada ishsiz deb topilgan, ishlash yoki tadbirkorlik bilan shug'ullanish istagini bildirgan xotin-qizlar va yoshlar ro'yxati shakllantirilgan bo'lib, turli kasb-hunar va tadbirkorlikka o'qitish kurslari xarajatlarining 70 foizini davlat tomonidan qoplash mexanizmi yo'lga qo'yilgan. "Ayollar daftari", "Yoshlar daftari" va "Temir daftar"da ro'yxatga olingan aholi uchun trening va mashg'ulotlar mutlaqo bepul. O'quv kurslarini tamomlagan fuqarolarga tadbirkorlik subyekti sifatida davlat ro'yxatidan o'tkazishdan tortib, o'z faoliyatini yo'lga qo'yishgacha bo'lgan amaliy yordam ko'rsatiladi. Shuningdek, mehnatga layoqatli bo'lgan nogiron xotin-qizlarni ish bilan ta'minlaydigan tadbirkorlik subyektlariga olti oy davomida xar oy subsidiyalar ajratib boriladi;

- aholini kasb-hunarga o'rgatish tizimi kambag'allikni qisqartirishning muhim omili ekanligini inobatga olgan holda 2021-yil yakuniga ko'ra 85 ming nafar fuqaro o'qitildi, shundan 53 ming nafari xotin-qizlar va 26 ming nafari erkaklar tashkil etadi. 2020-2021-yillarda "Temir daftar"da ro'yxatga olingan oilalarning 668,2 ming nafar kam ta'minlangan a'zolarining bandligi ta'minlandi. Shuningdek, mazkur yangi tizim asosida 76,5 mingta yangi tadbirkorlik subyekti tashkil etildi va 170 ming nafar ishsiz fuqaro kasb-hunar va tadbirkorlikka o'qitildi. Fermer va dehqon xo'jaliklarini rivojlantirish hisobiga 527 ming nafar fuqaroning bandligi ta'minlandi. Tomorqasi bo'lgan tadbirkorlarga 300 milliard so'm imtiyozli kredit va subsidiyalar ajratildi.

- xotin-qizlar o'rtasida kambag'allikni qisqartirishga qaratilgan ta'lim tizimi inklyuziv rivojlantirilmoqda. 2022-yildan boshlab oliy o'quv yurtlari, texnikum va kollejlarda tahsil olayotgan xotin-qizlarning ta'lim kontraktlarini to'lash uchun davlat tomonidan 7 yil muddatga foizsiz ta'lim kreditlari ajratilgan. Shu bilan birga, davlat oliy ta'lim muassasalarining magistratura bosqichida tahsil olayotgan barcha xotin-qizlarning kontrakt to'lovlari qaytarmaslik sharti bilan davlat byudjeti mablag'lari hisobidan moliyalashtiriladi;

- chet davlatlarga ishlash uchun ketayotgan fuqarolarni kasb va mutaxassisliklar bo'yicha o'qitgan va dastlabki tayyorgarlikdan o'tkazgan holda uyushgan mehnat migratsiyasini amalga oshirish mehnat migrantlari oilalari daromadlarini oshirishga va qishloqlarda hududlarda kambag'allikni qisqartirishga katta

<sup>114</sup>Бекмуродов А.Ш., Фафуров У.В. Ўзбекистон иқтисодий ва модернизациялаш ҳамда ислохотларни чуқурлаштиришнинг янги ва юксак bosqichi йўлида. –Т.: "Иқтисодиёт", 2008. – 126 б.

hissa qo'shmoqda. Mazkur chora-tadbirlarni amalga oshirish uchun 2020-2021-yillarda 95 milliard so'm mablag' yo'naltirilib, 74 ming nafar mehnat muhojirlari o'qitildi;

- ijtimoiy himoya tizimida manzilli ishlashni kuchaytirish va barcha muhojirlarni ijtimoiy himoya choralari bilan to'liq qamrab olish ko'zda tutilgan bo'lib, 2017–2021-yillarda barcha turdagi pensiya va nafaqalarni (yoshga doir pensiyalar, nogironlik bo'yicha nafaqa va boshqalar) oluvchi aholi soni 27 3,3 milliondan nafardan 4,3 million nafarga, o'rtacha oylik pensiya miqdori esa qariyb ikki barobarga oshirildi. Kam ta'minlangan oilalarning ijtimoiy himoyasi 435 mingdan 2 millionga (8 milliondan ortiq kishi) oshdi. Shu munosabat bilan aholini ijtimoiy muhofaza qilishga davlat xarajatlari 7 baravar, yalpi ichki mahsulotdagi ulushi esa 0,8 foizdan 2,5 foizga oshdi;

- kam ta'minlangan aholini shinam uy-joy bilan ta'minlash darajasini oshirish uchun qulay sharoitlar yaratildi. Aholini uy-joy bilan ta'minlashni kengaytirish maqsadida imtiyozli kreditlashning eng qulay shartlari joriy etildi va ipoteka kreditlarini olish tartibi soddalashtirildi. Kam ta'minlangan fuqarolarga yakka tartibdagi uy-joy qurish uchun ajratilgan ipoteka kreditlari bo'yicha birinchi besh yil davomida Davlat byudjetidan foiz stavkasini qoplash uchun va ipoteka krediti bo'yicha dastlabki to'lovning bir qismini qoplash uchun subsidiyalar ajratilmoqda. Oxirgi 3 yilda 91,8 mingta ko'p bolali, mehnatga layoqatsiz nogiron, bolalikdan nogiron bo'lgan yolg'iz keksalar bo'lgan oilalar turar joy bilan ta'minlanib, yashash sharoitlari yaxshilandi"<sup>115</sup>. Mamlakatda aholining pul daromadlari bir tomondan barqaror iqtisodiy o'sishni ta'minlansa, ikkinchi tomondan aholining harid qobiliyatini ortishi natijasida ijtimoiy farovonlikni ta'minlashning moliyaviy asosini tashkil qiladi. Kishilarga munosib turmush darajasini ta'minlash, ularni ijtimoiy jihatdan qo'llab quvvatlash uchun amalga oshirilayotgan chora-tadbirlar natijasida aholi jon boshiga to'g'ri keladigan daromadlar, ish haqi va pensiyalar mutanosib ravishda o'zgarishida ham ko'rinadi (1-jadval).

#### 1-jadval

#### O'zbekiston Respublikasida 2010-2022-yillarda aholi daromadlari, ish haqi va pensiyalar salmog'ining o'zgarishi<sup>116</sup>

Ko'rsatkichlar nomi	2010 y.	2015 y.	2020 y.	2022 y.	2022-yilda 2020 yilga nisbatan o'zgarish (+,-)
Aholi jon boshiga umumiy daromadlar (ming so'm)	2192,8	5410,6	12125,6	15854,0	3728,4
o'tgan yilning mos davriga nisbatan real o'sishi (%)	120,1	107,7	98,6	109,9	11,3
Yillik o'rtacha nominal hisoblangan ish haqi, (ming so'm)	504,8	964,2	2227,1	2864,7	637,6
o'tgan yilning mos davriga nisbatan, (%)	129,4	110,4	118,6	124,5	5,9
Belgilangan o'rtacha pensiya miqdori, (ming so'm)	254,0	438,2	848,5	965,7	117,2
o'tgan yilning mos davriga nisbatan, (%)	125,9	112,8	115,4	118,7	3,3

1-jadval ma'lumotlaridan ko'rinib turibdiki, tahlil davrida aholi jon boshiga umumiy daromadlar 2022-yilda 15854,0 ming so'mni tashkil qilib, 2010 yilga nisbatan 7 barobarga oshgan. Uning iste'moldan ortgan qismi passiv daromadlar manbasi bo'lgan, xodimlarning ish qobiliyati bilan bog'lanmagan jamg'arishning ham jadallashuviga olib keladi, o'rtacha nominal hisoblangan ish haqi 6 barobarga oshib borgan, o'tgan yilning mos davriga nisbatan real o'sishi 2022-yilda 109,9 % ni tashkil qilgan.

<sup>115</sup>Ўзбекистоннинг 2030 йилгача барқарор ривожланиш соҳасидаги миллий мақсад ва вазифаларни амалга ошириш тўғрисида миллий ҳисоботи. Тошкент – 2023, 25-26 б.

<sup>5</sup>Ўзбекистон Республикаси Президенти ҳузуридаги Статистика Агентлиги маълумотлари асосида муаллиф томонидан тузилган.

Har qanday davlatda turmush tarzini yaxshilash, farovonlikni oshirishda barqaror iqtisodiy o'sishni ta'minlash eng maqbul yo'l hisoblanadi. Uni ta'minlashda iqtisodiy o'sishning asosiy omillarini aniqlash, ko'proq ahamiyat berish ehtiyoji yuzaga keladi. Odatda har bir mamlakat aholi turmush darajasini aniqlashda insonning kamolot indeksidan foydalaniladi. Mazkur indeks kishilar turmush tarzini belgilovchi o'ziga xos quyidagi ko'rsatkichlar asosida belgilanadi: YaIM kishilar jon boshiga to'g'ri keladigan ulushi, kishilarning o'rtacha umr ko'rish uzunligi, yoshi, aholining ta'lim darajasi va malaka, kasb-korlik darajasi, aholining turmush sifati.

Iqtisodchilarni hisob-kitobi bo'yicha<sup>117</sup> o'rtacha kun kechirish uchun er yuzidagi aholi kamida kuniga 15 evro ishlab topishi kerak ekan. Biroq, dunyo aholisining deyarli yarmidan ko'pi hozirgi kunda o'rtacha kun kechirish uchun belgilangan ko'rsatkichdan 7 barobar kam daromadga ega. Dunyoning kambag'al davlatlaridagi aholi 1 evrodan kam daromadga ega ekanligi haqida ma'lumotlar mavjud. Lekin jahondagi 200 ta boy inson bir sekundda o'rtacha 25 evro daromad qilayotganligi haqida ham dalillar mavjud.

Ijtimoiy infratuzilma tizimini rivojlanishi mamlakatda milliy iqtisodiyotning doimiy rivojlanish dinamikasini belgilab, bu mikroiqtisodiy va makroiqtisodiy jarayonlarda yuz beradi. Mikroiqtisodiy o'sish - bu korxonalar, firma yoki alohida tarmoq doirasidagi o'sish bo'lib, muayyan guruhli faoliyatning natijasidir. Makroiqtisodiy o'sish esa butun jamiyat, davlat miqyosidagi iqtisodiy o'sishdir. Iqtisodiy o'sish natijasiga qarab jamiyat yoki mamlakatning iqtisodiy vaziyatini tasavvur qilish mumkin.

Barqaror iqtisodiy o'sish orqali ijtimoiy infratuzilma tizimini ijtimoiy so'rov asosida baholash uchun so'rovnoma orqali aniq sotsiologik tadqiqotlar o'tkazildi. Ushbu tadqiqot uchun Sirdaryo viloyatining **Boyovut, Sardoba, Xovos, Oqoltin, Sayxunobod** tumanlari, **Guliston** shahri tanlab olindi. Tadqiqotda 30 dan ortiq korxonalar va tashkilotlari hamda dexqon (fermer) xo'jaliklari, kichik biznes va xususiy tadbirkorlik subyektlari tanlab olindi.

Tadqiqot belgilangan hududlarda respondentlar bilan yuzma-yuz suhbatlashgan holda, maxsus so'rovnomaning ta'ldirish asosida amalga oshirildi, to'ldirilgan so'rovnomalarning sifati, haqqoniyligini bir necha bosqichlarda tekshirilgandan so'ng ma'lumotlar bazasiga kiritildi. Bu ob'ektlardan so'rovnomaga javob beruvchi 100 nafar fuqaro tanlab olindi. Respondentlar so'rovnomaning 98,5% savollarga to'liq javob berdilar. Respondentlarning 56,5% erkak va 43,5% ayollardir, shuningdek, so'rovda ishtirok etganlarning 48,3% 31-49 yoshgacha bo'lganlar, 25,3% 50-60 yoshdagilar, 20,2% 18-30 yoshdagilar va 6,2% esa 60 yoshdan yuqorilar tashkil etgan.

Aholi turmush darajasi kishilar turmush tarzining ma'lum bir yo'nalishi bo'yicha ko'rsatkichlar tizimi bo'lib hisoblanadi. Turmush darajasi daromadlar va ehtiyojlar, iste'mol darajasi va tarkibi, uy-joy, mol-mulk, madaniy maishiy buyumlar va boshqalar bilan ta'minlanganlik darajasini belgilaydi. Bunda tarkibiy o'zgartirish jarayonlarini takomillashtirish, mamlakat iqtisodiy o'sishni ta'minlashga ta'sir ko'rsatuvchi milliy mahsulot hajmi va daromadning ko'payishiga, resurslardan unumli foydalanishga ta'sir etuvchi omillar o'rganilib, turmush farovonligini ta'minlashda ijtimoiy infratuzilmaning rag'batlantirishning o'zaro bog'liqligi samarali, iqtisodiy, ijtimoiy-demografik va tashkiliy-huquqiy mexanizmlarga bog'liq.

Sotsiologik tadqiqot shuni aniqladiki, respondentlarga "Siz respublikamizning barqaror iqtisodiy o'sish siyosati ijtimoiy infratuzilma sohasidagi keskin o'zgarishlarga ta'sir ko'rsatadi deb hisoblaysizmi?", deb murojaat qilganimizda, ularning 95,8 foizi "ta'sir ko'rsatadi", 2,7 foizi "bilmayman" deb javob berishdi. Aniqlanishicha respondentlarning ko'pchiligi o'z daromadlarini oshirish maqsadida qishloq va o'rmon xo'jaligi (29,6%), savdo, umumiy ovqatlanish, ta'minot sotish, tayyorlash (23,5%), sanoat (10,1%), sog'liqni saqlash, jismoniy tarbiya (9,5%), uy-joy, kommunal xo'jaligi va maishiy xizmat ko'rsatish (6,6%), transport, aloqa, qurilish (5,1%), va (10,7%) tarmoqlarida mehnat qilishni xohlaydilar.

Uy-joy kommunal xizmati faoliyatini respondentlarning 65,6% qoniqarsiz baholanganlar, uning echimi sifatida uy-joyga muhtojlarning yashash joyi bilan to'liq ta'minlanishi, uy-joylarni joriy ta'mirlashda moddiy yordamlarni yo'lga qo'yish, uy-joy kommunal xizmatlar ko'rsatish sifatini oshirish singari choratadbirlarni amalga oshirish lozim deb hisoblaydilar. Shuningdek, respondentlarning 35,4 % dan ortig'i tabiiy gaz, energiya va suv ta'minotini qoniqarli baholagan bo'lsalar, 42,5 % esa bu xizmatlar turlarini qoniqarsiz hisoblaydilar. Ularning fikricha tabiiy gaz, elektr energiyasi, ichimlik suvi etkazib berishda uzilishlarga yo'l qo'ymaslik, tabiiy gaz tarmoqlarini modernizatsiya qilish, elektr uzatish tarmoqlarining quvvatini oshirish, ichimlik suv ta'minoti tarmoqlarini kengaytirish, tabiiy gaz, elektr energiya, suv ta'minoti bo'yicha

<sup>117</sup>Қаюмов Қ. Кичик шаҳарлар ижтимоий инфратузилмаси тушунчасининг мазмун-моҳияти Proceedings of Global Technovation 2 nd International Multidisciplinary Scientific Conference Hosted from London, U.K. <https://conferencepublication.com> December 28th, 2020.

qarzdorlikni o'z vaqtida bartaraf etish chora-tadbirlarini amalga oshirish, mazkur xizmatlar uchun qarzdorlikni bartaraf etishda muhtoj oilalarga imtiyozlar berish singari chora-tadbirlarni amalga oshirish maqsadga muvofiq.

Transport xizmatlarini rivojlantirish uchun qanday chora-tadbirlarni amalga oshirish zarur deb hisoblaysiz? degan savolga transport xizmati sifatini oshirish uchun avtoturargoh joylarini tashkil qilish (51,8%), tuman markazlari va qishloq yo'llarini kapital va joriy ta'mirlash (23,1%), barcha tumanlarda taksi xizmatlarini (10,8%) ichki avtobus xizmatlarini joriy yaxshilash (9,3%)ni ko'proq istashadi.

Tanlangan tumanlar bo'yicha respondentlarning ko'pchiligi Siz maktabgacha ta'lim muassasalari, bog'chalar faoliyatini qanday baholaysiz? deb so'ralganda ularning 60,9% i yaxshi baholaganlar, 34,5% i esa qoniqarli hisoblaydilar. Bu borada yangi maktabgacha ta'lim muassasalari, bog'chalar mavjud bog'chalarni ta'mirlash, qurish, mazkur ob'ektlarga yuqori malakali mutaxassislarini ishga qabul qilish, har bir tarbiyalanuvchi bilan alohida ishlashga erishish, nodavlat maktabgacha ta'lim muassasalarini kupaytirish, ijtimoiy himoyaga muhtoj oilalar farzandlarini maktabgacha ta'lim muassasalari uchun to'lovlarda imtiyozlar berilishi, belgilangan dasturdan tashqari to'garak mashg'ulotlarini tashkil qilish va xorijiy davlatlar tajribalarini o'rganish va qo'llash istagini bildirganlar.

Sotsiologik tahlil natijalariga ko'ra, "Aholining turmush darajasi va farovonligini qaysi sohalarida oshirishni zarur deb hisoblaysiz?" - degan savolga respondentlar quyidagicha javob berdilar:

- aholi punktlarida ichimlik suvi, gaz, elektr tarmoqlari, transformator punktlarini ekspluatatsiya qilish va zarur infratuzilmalarni rivojlantirish (32,2%);

- hududlarda avtomobil yo'llari va yo'lbo'yi infratuzilmasini barpo

etish, obodonlashtirish, kalamzorlashtirish (17,0%);

- ijtimoiy ahamiyatga ega bo'lgan xizmatlarni yaxshilashga e'tibor qaratish, bog'cha, maktab, oilaviy poliklinikalarni qurish, rekonstruksiya qilish va ta'mirlash (12,5%);

- bozor infratuzilmasi ob'ektlarini va servis shoxobchalarini barpo etish (11,2%);

- ijtimoiy himoyaga muhtoj oilalar uchun homiylik va ish beruvchi korxonalar hisobidan uy-joy bilan ta'minlash chora-tadbirlarini belgilash (10,4%);

- transport va boshqa xarajatlar uchun tijorat banklaridan imtiyozli kredit olishlariga ruxsat berish (10,3%);

- boshqa yo'nalishda (3,3%).

Shunday qilib, olib borilgan aniq sotsiologik tadqiqotlar natijalari asosida ikki yo'nalishda yangi axborotlar fondi hosil qilinadi: barqaror iqtisodiy o'sish va ijtimoiy infratuzilmaning holati. Hosil qilingan ma'lumotlar hududlaridagi iqtisodiy o'sishni ta'minlash asosida ijtimoiy infratuzilmaning rivojlanishi, zamonaviy xususiyatlarini hisobga olgan holda institutsional o'zgartirishlarga erishishga yo'naltirilgan tavsiyalar va takliflar ishlab chiqishda muhim axborot manbalari bo'lib xizmat qiladi.

O'zbekiston Respublikasi Prezidentining 2024-yil 14 mart kuni Sirdaryo viloyatiga tashrifi davomida Sayxunobod tumani misolida hududlardagi muammolar va foydalanilmayotgan imkoniyatlar ko'rsatib o'tildi. Yurtboshimiz ta'kidlaganidek "Tadbirkorlik, bandlik, kambag'allikdan chiqarishga katta mablag'lar ajratayapmiz. "Mahalladagi ettilik"ni nima uchun tashkil qildik, kambag'allikdan chiqarish tizimini nimaga xonadongacha olib bordik? Maqsadimiz – tomorqani ishlatib, xonadonda ishlab chiqarish qilib, ko'chada xizmatlarni ko'paytirib, har sotixdan 1-2 million so'm daromad topishga o'rgatish"<sup>118</sup>.

Davlatimiz rahbari Sayxunobodda o'tgan yili birorta ko'p qavatli uy qurilmaganiga to'xtalib, bu bo'yicha mutasaddilarga ko'rsatma berdi. Umuman, bu tizim orqali Sayxunoboddagi har bir mahalla, har bir ko'cha, har bir xonadon qamrab olinishi ta'kidlandi. Mutasaddilarga ushbu yangi tizimni respublikaning barcha 9 ming 452 ta mahallasida yo'lga qo'yish topshirildi. Prezidentimiz har doim mamlakat miqyosidagi dasturlarni, xayrli ishlarni eng og'ir tumanlardan boshlash kerakligini aytadi. Bundan maqsad, avvalo, o'sha erdagi sharoitni yaxshilab, odamlarning og'irini engil qilish hamda, shuning barobarida, bunday tumanlarda nimalar qilish mumkinligini amalda ko'rsatishdir.

"Endi davlat idoralarning butun imkoniyatlarini har bir ko'chaga, xonadonga olib kiramiz. Masalan, mahallaga biriktirilgan bank mablag' berish bilan birga odamlarning dunyoqarashini ham o'zgartiradi. Maqsadimiz xalqning daromadini oshirish, boy qilish. Alabttan oson bo'lmaydi. Bu mashaqqatli mehnat, tinimsiz izlanish, yangi-yangi g'oyalar degani. Lekin bajarsa bo'ladi. Mezon bitta-iqtisodiy kompleks xalqning dardi bilan yashaydi"<sup>119</sup>.

<sup>118</sup>Ўзбекистон Республикаси Президенти. "Бу йил иқтисодий ҳаётимизда ҳаётий уйғониш ва юқалиш йили бўлади». 2024 йил 14 март. <https://uza.uz/uz/>

<sup>119</sup>Ўзбекистон Республикасининг 2024 йил 14 март куні Сирдарё вилоятига ташрифида сўзлаган нўқтидан. Uza.uz.

Sayxunobod tumani ham ana shunday og‘ir hududlardan biri. Mahalliy byudjet xarajatining 60 foizi yuqori turuvchi byudjetdan hal bo‘layapti. Sababi tadbirkorlik o‘smayapti. Tumanda 2 ming 400 ta ishsiz bor. Kambag‘allik darajasi ham yurtimizdagi o‘rtacha ko‘rsatkichdan yuqori (2-jadval).

## 2-jadval

### Sirdaryo viloyati Sayxunobod tumanida ijtimoiy infratuzilma muammolarini bartaraf etishga mo‘ljallangan chora-tadbirlar<sup>120</sup>

Asosiy maqsad	Belgilangan vazifalar
Sayxunobod mahallasida aholini daromadli qilish	Sayxunoboddagi 17 mingta xonadondagi tomorqani ishga solish, kichik sanoat va xizmatlarni yo‘lga qo‘yish.
Banklar, hokim yordamchilarining vazifalari	19 ta mahalla va 794 ta ko‘chani nomma-nom bo‘lib olib, drayver yo‘nalishlardan kelib chiqib, har biriga texnik iqtisodiy asos ishlab chiqish.
Hokim yordamchilarining vazifalari va mutassadilarning vazifalari	“1 sotix tomorqadan kamida 1-2 million so‘m daromad” degan mezon asosida aholi uchun biznes reja ishlab chiqish. Agronomlar bilan birga erlarni haydash va ekin ekish xizmatlari ko‘rsatish.
Tomorqada etishtirilgan mahsulotlarni sotib olish tizimi	Tumanda eksportga ko‘maklashuvchi korxonaga ochib, ustaviga 1 mlrd. so‘m kiritish va korxonaga 4 ming xonadonga qovoq, mosh, loviya, rozmarin, brokkoli, timyan urug‘lari etkazish, etishtirilgan mahsulotni sotib olish, eksport qilish.
Tumanda 19 ta mahallaning har birida 10 tadan xonadonda namunaviy intensiv bog‘ yaratish	Kooperatsiya asosida ularga eksportchilar bog‘lanib, 2 ming tonnalik saqlash, saralash va qayta ishlash majmualari tashkil etish. Kelgusida hokim-bog‘ egasi-bank o‘rtasida uch tomonlama shartnoma tuzish.
Mebel korxonalarini uchun terak etishtirish	Tumanda 98 km kanallar va drenaj tomorqalari atrofidagi 100 gk bo‘sh erlar kooperatsiya asosida 500 ta xonadonga terak ekish uchun bo‘lib beriladi.
Tumanda tadbirkorlik infratuzilmasini yaxshilash	Mazkur vazifani bajarish uchun 60 mlrd. so‘m beriladi, Bo‘sh turgan 21 ta inshootga investorlar jalb qilinib, foydalanishga kiritiladi. Farovon mahallasida kichik sanoat zonasi tashkil qilinib, kamida 100 mln. dollarlik sanoat loyihalari boshlanadi.

Odatda mamlakatlar kambag‘allikni qisqartirishda har bir hududning ijtimoiy-iqtisodiy holati, kambag‘allikning kelib chiqish sabablarini ilmiy o‘rganish asosida bartaraf etish choralarini ko‘rishi kerak. Rossiyada aholi jon boshiga to‘g‘ri keladigan YaIM miqdori yillik hisobda taxminan 10 ming dollarni tashkil etib, yashash minimumining ushbu ko‘rsatkichga nisbati 19 foizga to‘g‘ri kelmoqda. Shuningdek, mazkur ko‘rsatkich Qozog‘istonda - 9,6 foiz, Belarusda -18,0 foiz, Ukrainada - 25,8 foiz, Malayziyada - 12,9 foiz, Chexiyada - 25,8 foiz, Germaniyada - 24,3 foizni tashkil etadi<sup>121</sup>.

### XULOSA VA TAKLIFLAR

Bizningcha barqaror iqtisodiy o‘shish va ijtimoiy infratuzilma tizimini rivojlantirishning istiqbolli yo‘nalishlariga ustuvorlik berilishi lozim deb hisoblaymiz:

-barqaror iqtisodiy o‘shish uchun barcha mintaqalarida biznesni rivojlantirish uchun yanada qulay ishchan muhit yaratish, tadbirkorlik, kichik va xususiy biznesga yanada keng erkinlik berish, byurokratik to‘siq va g‘ovlarni bartaraf etish bo‘yicha zarur chora-tadbirlarni amalga oshirish lozim;

- barqaror iqtisodiy o‘shish va ijtimoiy infratuzilma tizimini rivojlantirishni tartibga soladigan qonun hujjatlarini tanqidiy tahlil qilish;

- ijtimoiy infratuzilma tizimini rivojlantirishning tashkiliy, huquqiy, moliyaviy mexanizmlarining zamonaviy iqtisodiy vositalarini takomillashtirish;

- ijtimoiy infratuzilma tizimiga investitsiyalarni jalb qilishni kengaytirish orqali xorijiy investitsiyalar ko‘magida korxonalariga zamonaviy texnik-texnologiyalarni joriy qilish, eksportga mo‘ljallangan mahsulotlar ishlab chiqarishni rivojlantirish.

<sup>120</sup>Уша ерда. <https://uza.uz/uz/>

<sup>121</sup>Иқтисодий тадқиқотлар ва ислохотлар марказининг маълумотлари. <https://review.uz>.

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# ИСПОЛЬЗОВАНИЕ МАТЕМАТИЧЕСКИХ МОДЕЛЕЙ В ИИ ДЛЯ РАЗРАБОТКИ УПРАВЛЕНЧЕСКИХ РЕШЕНИЙ В ЭЛЕКТРОННОЙ КОММЕРЦИИ

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**Аннотация:** В статье рассматривается применение математических моделей для совершенствования управления бизнес-процессами в электронной коммерции. Исследование предлагает интеграцию логических формул в базу знаний искусственного интеллекта с целью разработки правил прогнозирования и создания эффективных механизмов принятия управленческих решений.  
**Ключевые слова:** Электронная коммерция, государственное управление, искусственный интеллект, цифровые технологии, математические модели, эффективность управленческих решений.

## ВВЕДЕНИЕ

Актуальность изучаемой темы заключается в том, что переход к цифровой экономике в Узбекистане требует разработки и внедрения эффективных стратегий управления в сфере электронной коммерции. Эти стратегии играют ключевую роль в стимулировании экономического роста, поддержке бизнес-развития и удовлетворении общественных потребностей. В условиях ограниченных ресурсов особенно важно эффективно использовать цифровые инструменты для принятия управленческих решений, что требует гибкого и инновационного государственного реагирования. Разработка систематического подхода к управлению, основанного на применении цифровых технологий, позволит оптимизировать процессы и прогнозировать результаты, что является важным фактором для успешного развития электронной коммерции в стране.

В зарубежной и отечественной практике недостаточно изучен потенциал цифровых технологий для целей управления. Оценка их возможностей важна для реализации «новой модели государственного управления» и повышения его эффективности. Проблемы включают отсутствие механизмов для стратегического планирования в электронной коммерции, контроля за выполнением планов и корректировки, методов расчёта эффективности решений, а также систем сбора и анализа данных для оценки результатов. Эти вопросы и стали основой для исследования. Актуальность темы обусловлена её значимостью на международном и национальном уровнях, недостаточной научной изученностью и необходимостью практического решения. Исследование также направлено на выполнение задач, обозначенных в Указах и Постановлениях Президента Республики Узбекистан, таких как «Цифровой Узбекистан-2030», Стратегия развития Нового Узбекистана на 2022–2026 годы и других нормативных документов, касающихся цифровой экономики и электронного управления [1].

На сегодняшний день во всём мире проводятся исследования по совершенствованию теоретической и методологической базы для улучшения государственного управления электронной коммерцией в условиях цифровизации общества по следующим приоритетным направлениям: разработка эффективных стратегий и инструментов для решения новых задач и проблем; разработка инновационных концепций и моделей государственного управления в сфере электронной коммерции; использование цифровых технологий для эффективного предоставления государственных услуг и использования информации; формирование системного подхода к развитию информационных технологий; активное использование новых знаний и технологий во всех сферах жизни общества; содействие социальному участию в цифровой среде; развитие свободного предпринимательства и конкурентных рынков с использованием цифровых технологий.

## ОБЗОР ЛИТЕРАТУРЫ ПО ТЕМЕ

Использование математических моделей и искусственного интеллекта (ИИ) в разработке управленческих решений становится важным направлением для электронной коммерции. Сочетание этих технологий позволяет автоматизировать процессы принятия решений, повышать их точность и снижать влияние человеческого фактора на ключевые управленческие процессы. Согласно исследованию Чена и Ли, использование математических моделей для прогнозирования и анализа данных в электронной коммерции улучшает качество решений, основанных на больших данных. Модели машинного обучения способны анализировать пользовательское поведение, предсказывать потребительский спрос и оптимизировать процессы логистики. Это даёт возможность электронной коммерции предлагать индивидуализированные предложения и более эффективно управлять запасами.

Машинное обучение является ключевым компонентом ИИ в электронной коммерции, который, по мнению Куликова, используется для оптимизации процессов обработки данных. Алгоритмы машинного обучения позволяют бизнесу адаптироваться к меняющимся условиям рынка в режиме реального времени. Прогнозирование трендов продаж, анализ покупательских предпочтений и управление цепями поставок — всё это примеры того, как ИИ и математические модели влияют на принятие управленческих решений в электронной коммерции. ИИ также используется для автоматизации принятия решений в сфере управления электронной коммерцией. Петров и Сергеева отмечают, что автоматизация управленческих решений на основе ИИ снижает затраты на ручную обработку данных и позволяет внедрять более гибкие стратегии управления. Алгоритмы ИИ помогают улучшать пользовательский опыт, обеспечивая точное взаимодействие с клиентами через рекомендательные системы и чат-боты.

## МЕТОДОЛОГИЯ ИССЛЕДОВАНИЯ

В реализации этих исследовательских работ использовались широко применяемые методы в научной методологии. Использование дедуктивных или индуктивных методов в порядке от общего к частному и наоборот эффективно для изучения предмета, а метод абстрактно-логического мышления важен для системного анализа процесса. В процессе научного анализа эти научные методы исследования, в частности, наблюдение, обобщение, группировка, сравнение, анализ и синтез, были широко применены.

## АНАЛИЗ И РЕЗУЛЬТАТЫ

Однако механизмы государственного управления электронной коммерцией в условиях перехода к цифровой экономике были недостаточно исследованы отечественными учёными. В частности, отсутствуют механизмы управления с использованием цифровых технологий в сфере организации и реализации стратегических планов в области электронной коммерции, контроля за реализацией принятых планов, а также их корректировки при необходимости; отсутствуют методики расчёта показателей эффективности принятия управленческих решений при использовании цифровых технологий; нет системы сбора и обработки информации, необходимой для формирования достаточного набора целевых значений показателей результативности развития электронной коммерции в стране, а также для выработки «адекватных» вариантов принятия управленческих решений и системы мониторинга их достижения.

Для улучшения управления бизнес-процессами в электронной коммерции в этом исследовании предлагается применение математических моделей для прогнозирования и принятия управленческих решений. Эти модели могут быть интегрированы в базу знаний в качестве основы для формирования правил.

В базе знаний создаются правила, основанные на математических моделях, которые успешно применяются для решения конкретных задач. Продукционная логика, лежащая в основе базы знаний, определяет выполнение факторов: если фактор выполняется, то ему присваивается значение 1, иначе 0. Цель достигается, когда все факторы равны 1. В этом контексте продукционная логика определяет переменные:  $Y$  — целевая переменная,  $X_1, X_2, X_3, \dots, X_n$  — факторы. Цель ( $Y$ ) достигается, если  $Y = 1$ , и не достигается, если  $Y = 0$ , в зависимости от состояния факторов. База знаний представляет собой логическую функцию  $Y$ , которая является результатом конъюнкции всех аргументов ( $X_1, X_2, X_3, \dots, X_n$ ), где каждый аргумент  $X_i$  представляет собой выполнение соответствующего фактора. Цель достигается при выполнении хотя бы одного или всех факторов[2].

В данном исследовании эффективность функции  $Y$  определяется эффективностью управленческих решений в электронной коммерции. Это означает, что при полном выполнении всех

аргументов функции  $Y$  достигается высокая эффективность. Для достижения оптимальной эффективности необходимо, чтобы конъюнкция всех аргументов была полностью эффективной. При этом достигается максимальный результат функции  $Y$ , равный 1, что является оптимальным экстремумом. Таким образом, модели требуют выполнения всех факторов для достижения поставленной цели, где коэффициенты  $i, j, k$  обозначают различные случаи. Вместе с этим факторы также можно смягчить. Предлагается ещё одна математическая модель, где при выполнении хотя бы одного из аргументов  $X$  выполняется эффективность  $Y$  [3]. В этом случае происходит дизъюнкция — логическое сложение. То есть разрешается выполнение хотя бы одного из факторов ( $k$ ), которое в сумме принесёт достижение определённого уровня конечной цели  $Y$ . Это означает, что если выполняется один из факторов, влияющих на эффективность принятия управленческих решений, конечная цель будет достигнута.

Представленные логические двузначные формулы, в виде конъюнкции, дизъюнкции, следствия, эквивалентности, могут войти в базу знаний ИИ и использоваться в зависимости от поставленных задач. В этом случае из базы знаний выбираются варианты математических формул для различных случаев. То есть при различных вариантах выбираются различные правила вывода логических функций.

Например, чтобы определить, на сколько процентов сочетание трёх параметров улучшает качество прогноза, рассмотрим индивидуальные преимущества каждого параметра и их влияние друг на друга. Подводя итог вышесказанному, математическую модель для трёх параметров можно формализовать следующим образом:

Проценты улучшения прогнозных показателей параметров " $x_1$ ", " $x_2$ " и " $x_3$ " равны  $P_{x_1}$ ,  $P_{x_2}$  и  $P_{x_3}$ . Суммарную прибыль по их соединению можно рассчитать следующим образом:

$$P_{x_1 \wedge x_2 \wedge x_3} = P_{x_1} + P_{x_2} + P_{x_3} - \frac{P_{x_1} * P_{x_2}}{100} - \frac{P_{x_1} * P_{x_3}}{100} - \frac{P_{x_2} * P_{x_3}}{100} + \frac{P_{x_1} * P_{x_2} * P_{x_3}}{10000}$$

Шаги алгоритма расчета совокупной прибыли по конъюнкции:

1. На первом этапе мы добавляем индивидуальные преимущества всех трёх параметров.
2. На втором этапе мы извлекаем совместную выгоду от любых двух параметров, чтобы уменьшить их влияние друг на друга.
3. На третьем этапе мы добавляем общий эффект всех трёх параметров друг к другу.

Пример:

$$P_{x_1} = 70\%$$

$$P_{x_2} = 80\%$$

$$P_{x_3} = 60\%$$

$$\begin{aligned} P_{x_1 \wedge x_2 \wedge x_3} &= P_{x_1} + P_{x_2} + P_{x_3} - \frac{P_{x_1} * P_{x_2}}{100} - \frac{P_{x_1} * P_{x_3}}{100} - \frac{P_{x_2} * P_{x_3}}{100} + \frac{P_{x_1} * P_{x_2} * P_{x_3}}{10000} \\ &= 70 + 80 + 60 - \frac{70 * 80}{100} - \frac{70 * 60}{100} - \frac{80 * 60}{100} + \frac{70 * 80 * 60}{10000} = 97,6 \end{aligned}$$

Таким образом конъюнкция параметров " $x_1$ ", " $x_2$ " и " $x_3$ " повышает качество прогнозирования примерно на 97.6%.

$$\frac{P_{x_1 \wedge x_2 \wedge x_3 \dots \wedge x_n}}{100^{n-1}} = P_{x_1} + P_{x_2} + P_{x_3} + \dots + P_{x_n} - \sum_{1 \leq i < j \leq n} \frac{P_{x_i} * P_{x_j}}{100} + \sum_{1 \leq i < j < k \leq n} \frac{P_{x_i} * P_{x_j} * P_{x_k}}{100^2} - \dots + (-1)^{n-1} * \frac{P_{x_1} * P_{x_2} * P_{x_3} * \dots * P_{x_n}}{100^{n-1}} \quad (1)$$

$P_{x_i}$  имеет форму отрицательных коэффициентов, например - 60%. Это учитывается в формуле.

На основе проведенной корреляции были выявлены, какие факторы наиболее сильно коррелируют с объёмом электронной коммерции ( $Y$ ). Ниже приведены факторы с наибольшими коэффициентами корреляции:

- (x1) Глобальный индекс кибербезопасности:  $r=0.915$
- (x2) Эффективность правительства:  $r=0.845$

- (x3) % населения, использующих Интернет:  $r=0.794$
- (x4) Контроль над коррупцией:  $r=0.765$
- (x5) Нормативно-правовая база:  $r=0.745$
- (x6) Прозрачность и учёт и коррупция в государственном секторе:  $r=0.673$
- (x7) Качество государственного управления:  $r=0.673$
- (x8) Эффективность государственного управления:  $r=0.604$

Эти факторы можно рассматривать при анализе и прогнозировании изменений в объёме электронной коммерции. Чтобы найти наиболее эффективный набор параметров, переберем все возможные комбинации из заданных четырёх параметров. Параметры будут обозначены как:

1. Глобальный индекс кибербезопасности ( $x_1$ ) = 91.5%
2. Эффективность правительства ( $x_2$ ) = 84.5%
3. % населения, использующих Интернет ( $x_3$ ) = 79.4%
4. Контроль над коррупцией ( $x_4$ ) = 76.5%

Для определения наиболее эффективного набора параметров, применяя указанную формулу (1), мы используем наши данные. Данная формула рассчитывает вероятность того, что хотя бы одно событие произойдет, основываясь на их индивидуальных вероятностях. Общая эффективность всех четырёх параметров составляет 99,8%, что близко к 100%. Добавив в формулу третий коэффициент, мы находим вариант с наибольшей вероятностью увеличения объёмов электронной коммерции.

- $Y = 99.7\%$  при факторах  $x_1, x_2, x_3$
- $Y = 99.69\%$  при факторах  $x_4, x_2, x_1$
- $Y = 97.99\%$  при факторах  $x_8, x_2, x_6$
- $Y = 99.24\%$  при факторах  $x_4, x_2, x_3$

Анализ показывает, что изменения в сфере электронной коммерции (увеличение или снижение) сильно зависят от таких показателей, как Глобальный индекс кибербезопасности, эффективность правительства и процент населения, использующего Интернет. Далее также можно определить, какие факторы имеют наибольшую значимую часть в этих показателях. В итоге улучшение этих факторов приведёт в целом к повышению электронной торговли и экономическому росту страны. Кроме того, с учётом показателей и изменений, достигнутых на каждом этапе развития, управленческие решения также могут корректироваться, что обеспечивает эффективные пути достижения поставленных целей.

## ВЫВОДЫ И ПРЕДЛОЖЕНИЯ

Хотя алгоритм не способен принимать «субъективные» решения, качество его решений зависит от того, как он спроектирован и какие данные в него внесены. Для повышения требований к мониторингу и оценке в рамках процедур управления по результатам используется диверсификация методов анализа, включая проведение сложных многомерных оценок результативности отдельных проектов и программ. Такие исследования позволяют повысить качество принимаемых решений на этапе формирования стратегических целей и планирования деятельности, а также на этапе оценки и коррекции.

Применение искусственного интеллекта позволяет разработать эффективную стратегию действий, основанную на главной цели. В процессе её исполнения проводится оценка пограничных результатов и корректировка дальнейших действий, что исключает возможные стратегические недочёты и потерю ресурсов и времени.

Развитие технологий искусственного интеллекта в сфере государственного и регионального управления способствует повышению эффективности процессов планирования, прогнозирования и принятия управленческих решений в производственной, финансовой, экономической и технологической сферах электронной коммерции. Они могут быть использованы для планирования, мониторинга и оценки результативности и эффективности деятельности органов власти[4].

Эксперты утверждают, что вовлечение общественности в работу экспертных советов при государственных органах способствует повышению качества управленческих решений, учитывая текущий тренд на открытость и публичность. В сфере экологического контроля и при применении нормативных актов используются критерии для оценки эффективности бизнес-процессов, определяемые математическими моделями и их взаимосвязями. При изменении факторов, влияющих на электронную коммерцию, система искусственного интеллекта автоматически корректирует свои стратегические цели и процессы для обеспечения эффективного выполнения задач.

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## JAHONDA OLIY TA'LIM MUASSASALARI FAOLIYATINI BOSHQARISHNING ZAMONAVIY MODELLARI

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**Annotatsiya:** Ushbu maqolada jahon miqyosida oliy ta'lim muassasalari faoliyatini boshqarishning zamonaviy modellari tahlil qilingan. Ta'lim sohasidagi global o'zgarishlar va innovatsion yondashuvlar oliy ta'lim muassasalarining samaradorligini oshirish, ta'lim sifatini yaxshilash va ularning xalqaro maydonda raqobatbardoshligini ta'minlashga yo'naltirilgan. Maqolada rivojlangan davlatlar tajribasiga asoslangan boshqaruv modellari hamda ularning O'zbekiston ta'lim tizimi uchun ahamiyati o'rganilgan.

**Kalit so'zlar:** ta'lim, oliy ta'lim, oliy ta'lim xizmatlari bozori, oliy ta'lim muassasalari, universitet, institut, akademiya, oliy ta'lim muassasalarini boshqarish.

### KIRISH

Jahon iqtisodiyotining globallasuvi sharoitida oliy ta'lim muassasalari faoliyatini tashkil etish va ularni boshqarish jarayonlarining klassik usullarining transformatsiyasi natijasida fan va innovatsiyalarga asoslangan boshqaruv modellari rivojlana boshladi. Bunda oliy ta'lim xizmatlari bozorining global darajada rivojlanishi, mamlakatlar o'rtasida ishchi kuchi migratsiyasi, aqlning oqib o'tishi kabi jarayonlarning jadallashuvi bilan birga, universitetlarning xalqaro reyting ko'rsatkichlariga integratsiyalashuvining tobora chuqurlashishi oliy ta'lim muassasalari faoliyatini boshqarish amaliyotining transformatsiyasiga olib keldi.

Jahonda oliy ta'lim muassasalari boshqaruvi amaliyotini takomillashtirishda ta'lim va ilmiy-tadqiqot sifatini yaxshilash, ilg'or bilimlarni yaratish, global o'zgarishlarga adaptatsiya qilish orqali global ta'lim bozorida raqobatbardoshlikni oshirishga qaratilgan islohotlar amalga oshirilmoqda. Jumladan, Massachusetts universiteti, London fanlararo maktabi kabi oliy ta'lim muassasalarida innovatsion boshqaruvni amalga oshirish bo'yicha «Innovation Station» dasturi, Chalmer «Tracks», Moskva texnologik institutida esa «The New Engineering Education Transformation (NEET)» kabi boshqaruv dasturlari ishlab chiqilgan. Ushbu holat mahalliy oliy ta'lim muassasalarining xalqaro oliy ta'lim bozoriga integratsiyalashuv jarayonlarini kuchaytirishda innovatsion boshqaruv amaliyotiga o'tish zaruriyatini uyg'otadi.

Tadqiqotning maqsadi jahondagi oliy ta'lim muassasalari faoliyatini boshqarishning zamonaviy modellari asosida qiyosiy tahlil olib borish orqali ularni mamlakatimiz amaliyotida ijodiy foydalanish imkoniyatlariga qaratilgan ilmiy taklif va amaliy tavsiyalar ishlab chiqishdan iborat.<sup>122</sup> Ushbu holat mahalliy oliy ta'lim muassasalarining xalqaro oliy ta'lim bozoriga integratsiyalashuv jarayonlarini kuchaytirishda innovatsion boshqaruv amaliyotiga o'tish zaruriyatini uyg'otadi.

Tadqiqotning maqsadi jahondagi oliy ta'lim muassasalari faoliyatini boshqarishning zamonaviy modellarini qiyosiy taqqoslash asosida ulardan mamlakatimiz amaliyotida ijodiy foydalanish imkoniyatlariga qaratilgan ilmiy taklif va amaliy tavsiyalar ishlab chiqishdan iborat.

<sup>122</sup> Тенденции развития высшего образования в мире и России. Аналитический доклад-дайджест. Российский экономический университет имени Г.А. Плеханова; Научно-исследовательский институт развития образования. Москва -2021. – 199 с.

## MAVZUGA OID ADABIYOTLAR SHARHI

O'zbekistonlik G.N. Axunova, Sh.Sh. Zaxidova, N.R. Rahmonov, X.X. Rejapov, A.O. Ergashev, A.X.Eshboev, N.A. Qosimova<sup>123</sup> kabi iqtisodchi olimlar tomonidan oliy ta'lim muassasalari faoliyatini boshqarish, ko'rsatilayotgan oliy ta'lim xizmatlari sifatini oshirish, oliy ta'lim muassasalari faoliyatini boshqarishning iqtisodiy mexanizmlarini takomillashtirish, oliy ta'lim xizmatlari bilan mehnat bozori o'rtasidagi o'zaro aloqadorlikni kuchaytirishga qaratilgan ilmiy tadqiqotlar amalga oshirilgan. Shuningdek, respublika oliy ta'lim muassasalari innovatsion boshqaruvini rivojlantirishga bag'ishlangan nazariy-amaliy masalalar tizimlashtirilgan va kompleks holda, maxsus tadqiqot obyekti sifatida tadqiq etilmagan.

Shu o'rinda R.S. Turner<sup>124</sup> va P. Watson<sup>125</sup> Tomonidan amalga oshirilgan tadqiqotlarga e'tiborni qaratish maqsadga muvofiq. Unga ko'ra, 1815-yillarning boshlarigacha jahondagi, jumladan, Yevropa Ittifoqi mamlakatlari hududida joylashgan etakchi oliy ta'lim muassasalari boshqaruvi amaliyoti faqatgina talabalariga sifatli bilim berishga qaratilgan bo'lib, universitetlar bazalarida hech qanday ilmiy tadqiqot ishlari amalga oshirilmagan. 1815-yilga kelib ilk bor Germaniyaning etakchi oliy ta'lim muassasalari tomonidan ilmiy tadqiqot ishlari amalga oshirishga qaratilgan boshqaruv amaliyoti yo'lga qo'yilgan. Ushbu holat oliy ta'lim muassasalarining ta'lim berish jarayonlarini boshqaruvi amaliyoti akademik faoliyatni amalga oshirish bilan to'ldirilishiga olib keldi.

R.S. Turner fikricha, oliy ta'lim muassasalarining faqatgina ta'lim berishga qaratilgan boshqaruvi XVII asrning oxiri va XIX asrning boshlariga kelib, mehnat bozoridagi kasbiy kompetensiyalarning rivojlanishi, milliy iqtisodiyot tarmoqlarida ishlab chiqarish samaradorligini oshirish zaruriyatining ortishi, raqobat kurashining kuchayib borishi natijasida o'z ahamiyatini asta-sekinlik bilan yo'qota boshladi. Natijada oliy ta'lim muassasalari boshqaruvi amaliyotini takomillashtirish zaruriyati vujudga keldi. Mavjud vaziyatni inobatga olgan holda, 1810-yildan boshlab Germaniyaning etakchi oliy ta'lim muassasalari boshqaruvi jamiyat hayoti va milliy iqtisodiyotning turli tarmoqlari kesimida ilmiy tadqiqotga bo'lgan ehtiyojlarni aniqlashni boshladilar. 1815-yilga kelib, jahondagi etakchi oliy ta'lim muassasalari faoliyatini boshqaruvi amaliyoti ilmiy tadqiqot ishlarini amalga oshirish jarayonlarini qamrab olgan akademik boshqaruv komponentlari bilan to'ldirildi.<sup>126</sup>

Tahlillarga ko'ra, oliy ta'lim muassasalari faoliyatini boshqarish amaliyoti nafaqat mamlakat milliy iqtisodiyotining rivojlanishi, balki global tendensiyalarning o'zgarishi natijasida muntazam takomillashtirib borilishi talab etiladi. Iqtisodiy adabiyotda oliy ta'lim muassasalari faoliyatini boshqarish klassik (tarixiy) va zamonaviy modellari o'zaro farqlanadi.

E.V. Strogetskaia<sup>127</sup> Tomonidan oliy ta'lim muassasalari faoliyatini boshqarishning quyidagi klassik modellari ajratib ko'rsatilgan:

**Germaniya modeli** – Gumboldt tadqiqot universiteti boshqaruvi amaliyotiga asoslangan bo'lib, bunda oliy ta'lim muassasasi faoliyatini boshqarishda ilmiy tadqiqot va ta'lim berish jarayonlari o'zaro mutanosiblikda tashkil etilganligi bilan xarakterlanadi. Universitet faoliyatini boshqarishda talabalarning o'qishi bilan birga, ularning tegishli ta'lim yo'nalishi va mutaxassisliklari bo'yicha ilmiy tadqiqotlar olib borishlariga ustuvorlik qaratilgan. Jumladan, professor-o'qituvchilarni ishga yollashda ularning ta'lim berish imkoniyatlari bilan birga, ilmiy tadqiqotlar olib borish salohiyati ham inobatga olingan. Natijada Germaniya

<sup>123</sup> Ахунова Г.Н. Таълим хизматлари бозорида маркетинг фаолияти ва уни такомиллаштириш: и.ф.д.илмий даражасини олиш учун ёзилган дис.автореферати – Т., 2004. – Б. 45.; Захидова Ш.Ш. Олий таълим хизматлари бозорининг амал қилиш механизми самарадорлигини ошириш (Ўзбекистон материаллари мисолида). и.ф.н. ... дисс. автореферати. – Тошкент, 2012. – 23 б.; Рахмонов Н.Р. Минтақавий ижтимоий-иқтисодий ривожланиш асосида олий таълим тизимида кадрлар тайёрлаш сифатини ошириш. и.ф.д. (DSc) диссертацияси автореферати – Тошкент – 2019. 42 б.; Режапов Х.Х. Олий таълим хизматлари ва меҳнат бозори ўртасидаги муносабатларни такомиллаштириш. и.ф.ф.д. (PhD) ... дисс. Автореферати. – Тошкент – 2020. 26 б.; Эргашев А.О. Таълим тизимининг иқтисодий бошқарув асосларини такомиллаштириш. (Ўзбекистон Республикаси ўрта – махсус, касб-хунар тизими мисолида): - и.ф.н...дис. Автореферати. – Тошкент:ТДТУ,2006. – 24 б.; Эшбоев А.Х. Бозор муносабатларига ўтиш даврида таълим тизимининг миллий иқтисодий ривожлантиришга таъсири. и.ф.н. илм. дар. олиш ёзилган дис.автореферати. – Тошкент., 2008. – Б.8.; Касымова Н.А. Covid-19 и новый этап развития высшего образования. Олий таълим тараққиёти истиқболлари. Ўзбекистон Республикаси олий таълим экспертларининг илмий-методик журнали. № 8. 2020. б. 15-24

<sup>124</sup> Turner R.S. The growth of professorial research in Prussia, 1818 to 1848 – causes and context // Historical studies in the physical sciences. 1971. Vol. 3 № 2. P. 137-182

<sup>125</sup> Watson P. The German genius. Europe's third renaissance, the second scientific revolution, and the XX Century. L.: Simon & Schuster, 2010. 992 p.

<sup>126</sup> Turner R.S. The growth of professorial research in Prussia, 1818 to 1848 – causes and context // Historical studies in the physical sciences. 1971. Vol. 3 № 2. P. 137-182

<sup>127</sup> Строецкая Е.В. В поисках модели современного университета // Высшее образование сегодня. – 2009. - № 3. – с. 15-17

oliy ta'lim muassasalari o'rtasida raqobat kuchayib, ko'rsatilayotgan oliy ta'lim xizmatlari sifati takomillashgan.

**Britaniya (Oksbridj) modeli** – bu modelda oliy ta'lim muassasalarining faoliyati professor-o'qituvchilar bilan talabalar o'rtasidagi bevosita muloqotga asoslangan bo'lib, universitetlar faoliyati internat shaklida tashkil etilganligi bilan ajralib turadi. Har bir talabaning ta'lim jarayonida tutorlarga birlashtirilishi ularning intellektual salohiyatini oshirishga ustuvorlik qaratilgan. Tutorlarga birlashtirilish ularga individual tartibda ish olib borish imkoniyatlarini kengaytirib, ko'rsatilayotgan oliy ta'lim xizmatlari sifatini oshirish imkonini yaratgan.

**Fransuz modeli** – talabalarga "meritokratik" jamiyat ruhida ta'lim-tarbiya berish asosida ularning o'zlarini boshqaruv elitasi sifatida his qilishlariga ustuvorlik qaratilgan. Bunda katta universitetlari "katta maktab" shaklida o'ziga xos muhitni yaratgan. Natijada jamiyat a'zolari tomonidan oliy ta'lim muassasalarining statusi yuqori baholangan.

**Chikago modeli** – gumanitar ta'lim yo'nalishidagi universitetlar faoliyatini rivojlantirishga qaratilgan boshqaruv amaliyotiga ega bo'lgan.

G. Kryuken va F. Meyerlarning tadqiqotlari natijalariga ko'ra, 1980-yillarga kelib, universitetlar raqobatbardoshligini oshirishga qaratilgan boshqaruv amaliyotiga o'tishga ustuvorlik berilgan. Ularning fikricha, bu borada jahonda oliy ta'lim muassasalari boshqaruvi amaliyotini takomillashtirishda quyidagi modellarning o'zaro farqlanishi kuzatiladi:<sup>128</sup>

▪ **Markazlashgan boshqaruv modeli** – bu modelda oliy ta'lim muassasalari faoliyati iyerarxik hokimiyat munosabatlari shaklida tegishli davlat tashkilotlari orqali hukumat tomonidan boshqarilgan. Ushbu modelda oliy ta'lim muassasalari faoliyati to'liq davlat tomonidan boshqarilib, ta'lim standartlari, o'qitish shakli va to'lov-shartnoma miqdori, qabul kvotasi kabi universitetlar faoliyati bilan bevosita bog'liq jarayonlar to'liq hukumat tomonidan belgilangan va nazorat qilingan. Bu turdagi boshqaruv amaliyoti universitetlarning raqobatbardoshligi ko'rsatkichlariga salbiy ta'sir ko'rsatishi ehtimoli yuqori bo'lib, xalqaro reyting ko'rsatkichlaridagi o'rnini yo'qotishga olib kelishi mumkin.

▪ **Shartnomaviy (Deal up) boshqaruv modeli** – bu modelda oliy ta'lim muassasalari ta'lim berish faoliyati ularning mavjud ta'lim yo'nalishlari, mutaxassisliklari yoki ixtisosliklari bo'yicha milliy iqtisodiyotning tegishli tarmoqlariga birlashtirilib, tarmoqning tarkibiy qismi sifatida tashkil etiladi va vakolatlar dinamik ravishda taqsimlanadi.

▪ **Raqobatbardosh universitet modeli** – bu modelda oliy ta'lim muassasalarining moliyaviy va akademik sohadagi mustaqilligi ta'minlanib, ularni boshqarish amaliyoti bozor iqtisodiyoti komponentlari bilan to'liq to'yintiriladi. Universitetlar o'z faoliyati samaradorligini oshirish va oliy ta'lim xizmatlari bozorida o'rnini mustahkamlashdan o'zlari yuqori darajada manfaatdor bo'ladi. Mazkur model asosida mamlakatda oliy ta'lim xizmatlari bozorini jadallik bilan rivojlantirishga erishiladi.

## TADQIQOT METODOLOGIYASI

Ushbu tadqiqot ishlarini amalga oshirishda ilmiy tadqiqot metodologiyasida keng qo'llaniladigan usullardan foydalanildi. Xalqaro moliya institutlari faoliyatining davlatlar rivojlanishiga ta'siri tendensiyalarini o'rganishda umumiylikdan individuallikka va aksincha tartibda deduktiv yoki induktiv usullardan foydalanish samara beradigan bo'lsa, abstrakt-mantiqiy fikrlash usuli esa jarayonni tizimli tahlil qilishda ahamiyatlidir. Ilmiy tahlil jarayonida ana shu ilmiy tadqiqot usullaridan, xususan, kuzatish, umumlashtirish, guruhlash, taqqoslash, tahlil qilishda esa sintez va tahlil usullaridan keng foydalanildi.

## TAHLIL VA NATIJALAR

Hozirgi globallashtirish davrida oliy ta'lim muassasalari faoliyatini boshqarishning samarali modellarini yaratish jahon hamjamiyati oldidagi muhim masalalardan biriga aylanmoqda. Bugungi kunda oliy ta'lim tizimi nafaqat ta'lim berish va ilmiy izlanishlar olib borishga qaratilgan, balki mamlakatlar iqtisodiy va ijtimoiy taraqqiyotining muhim omili sifatida qaralmoqda. Shu sababli, jahonda oliy ta'lim muassasalari boshqaruvining zamonaviy modellari ta'lim sifatini oshirish, moliyaviy barqarorlikni ta'minlash, innovatsion yondashuvlardan foydalanish va xalqaro hamkorlikni kengaytirishga qaratilgan.

Bu jarayonda oliy ta'lim muassasalari faoliyatini samarali boshqarish uchun jahon tajribasidan o'rganish va undan foydalanish muhim ahamiyat kasb etadi. Jumladan, rivojlangan davlatlardagi innovatsion boshqaruv modellarini o'rganish va ularning ta'lim tizimiga integratsiya qilinishi mavjud muammolarni

<sup>128</sup> Krucken G., Meier F. Turning the university into an organizational actor // Globalization a. organization: World society a. organizational change / G. Drori, J. Meyer, H. Hwang (eds). Oxford Univ. Press, 2006. P. 241-257



bartaraf etishga yordam beradi. Shu munosabat bilan, mazkur maqolada jahondagi oliy ta'lim muassasalarining boshqaruv modellari, ularning afzalliklari va O'zbekiston uchun ahamiyati tahlil qilinadi.

Adabiyot sharhi qismiga tayangan holda, oliy ta'lim muassasalari faoliyatini boshqarishda tarmoq va fundamental rivojlanish modellarini farqlash mumkin. Tarmoq universiteti bozor talablarini e'tiborga olgan holda, amaliy bilimlarni taqdim etadi. Fundamental universitet esa fizika, kimyo, biologiya, kompyuter texnologiyalari kabi fundamental bilim sohalarida kadrlarni o'qitishni ta'minlaydi. Ular tarkibiga davlatning klassik universitetlari va texnik universitetlari kiradi. Jahon amaliyotida universitetlarning boshqa modellari ham mavjud:

- Universitet – oliy va oliy o'quv yurtidan keyingi kasb-hunar ta'limi dasturlarini keng doirada amalga oshiradi; yuqori malakali ishchilar, ilmiy va ilmiy-pedagogik kadrlar tayyorlash, qayta tayyorlash va ularning malakasini oshirishni amalga oshiradi; fanlarning keng doirasida fundamental va amaliy ilmiy tadqiqotlar olib boradi; o'z faoliyat yuritadigan sohaning etakchi ilmiy va uslubiy markazidir;

- Akademiya – oliy va oliy o'quv yurtidan keyingi kasbiy ta'limning o'quv dasturlarini amalga oshiradi; fan yoki madaniyat sohalaridan birida fundamental va amaliy ilmiy tadqiqotlarni amalga oshiradi; o'z faoliyatining etakchi ilmiy va uslubiy markazidir;

- Institut – oliy va oliy o'quv yurtidan keyingi kasbiy ta'limning o'quv dasturlarini amalga oshiradi; kasbiy faoliyatning ma'lum bir sohasida kadrlarni tayyorlash, qayta tayyorlash va malakasini oshirishni amalga oshiradi; fundamental va amaliy ilmiy tadqiqotlarni amalga oshiradi.

Oliy ta'lim muassasalari faoliyatini boshqarish modellarining xilma-xilligi, o'ziga xos xususiyatlari – o'quv dasturlari, moddiy va moliyaviy imkoniyatlari va geografik joylashuvi bilan belgilanadi. Shunday qilib, oliy ta'lim muassasalari o'zlarining strategik rivojlanishida raqobatbardoshlik imkoniyatlarini aynan noyob raqobatbardoshlik afzalliklari asosida amalga oshirishi mumkin(1-jadval).

**1-jadval**

**Iqtisodiy hamkorlik va taraqqiyot tashkiloti (IHOTT) mamlakatlaridagi milliy oliy ta'lim tizimlari**<sup>129</sup>

Oliy ta'lim tizimining parametrlari	Turli mamlakatlarda amalga oshirilishi
<b>OTMLar soni</b>	Avstraliya va Irlandiya, Gollandiya va Shvesiyadagi 40-65 universitetlardan; Angliyada 130, Germaniya da 350 va Yaponiya da 1290, AQShda 4000 tagacha.
<b>Oliy ta'limni boshqarish tuzilmasi</b>	Germaniya, Avstraliya va AQShda federal tizimlar. Buyuk Britaniya va Irlandiyada milliy tizimlarni moliyalashtirish "bufer" tashkilotlar – vositachilar orqali amalga oshiriladi.
<b>OTMLar tipologiyasi</b>	Tadqiqot universitetlari o'zlarining o'rni va munosabatlari bo'yicha kasbiy yoki texnik o'quv yurtlaridan (Irlandiya, Gollandiya, Germaniya ) farq qilishi mumkin. Aksariyat mamlakatlarda mavjud, hamda Yaponiya va AQShda muhim ahamiyatga ega bo'lgan xususiy universitetlar alohida ta'kidlanadi.
<b>Institutsional avtonomiya darajasi</b>	Barcha oliy o'quv yurtlari akademik qarorlar qabul qilish va ilmiy yo'nalishlarini tanlashda avtonom hisoblanib, ularning moliyaviy va boshqaruv sohasida qarorlar qabul qilish darajasida katta farqlar mavjud: - davlat bilan shartnoma asosida ishlaydigan xususiy universitetlar; - davlat tashkilotlari bo'lgan universitetlar hukumat tomonidan boshqariladi va nazorat qilinadi.

Bugungi kunda oliy ta'lim muassasalari faoliyatini boshqarishda ta'lim sifatini ta'minlashga ustuvorlik qaratilmoqda. Turli mamlakatlarda amal qiladigan ta'lim sifatini ta'minlashning milliy tizimlari quyidagi jihatlari bilan farqlanadi:

- hukumatning vakolatlari;
- jamoat, mutasaddi organlar va oliy ta'lim muassasalarining ishtiroki darajasi;
- maqsad va vazifalarni shakllantirish;
- mezonlar va tartiblar.

<sup>129</sup> On the edge: securing a sustainable future for higher education. Report of the OECD/IMHE-HEFCE project on financial management and governance of higher education institutions, OECD, 2004, p. 8.

Turli mamlakatlardagi milliy ta'lim sifati tizimidagi tafovutlar (1-jadvalga qarang), ularni boshqarish va o'quv jarayonini tashkil etish tamoyillari davlatlarning institutsional va madaniy an'analari (ona tili, tarixi, madaniyati va h.k.) bilan bog'liq.

Tahlillarga ko'ra, jahonda oliy ta'lim muassasalari faoliyatini boshqarishda ko'rsatilayotgan xizmatlar sifatini ta'minlashga qaratilgan boshqaruvning «Fransuz», «Kontinental», «Anglo-Sakson», «Atlantika» va «AQSh» modellarining o'zaro farqlanishi kuzatiladi.

Oliy ta'lim sifatini ta'minlashga qaratilgan boshqaruvning «**Fransuz**» modeli Germaniya, Fransiya, Skandinaviya davlatlari, Chexiya, Latviya, Estoniya va Yevropa oliy ta'lim an'alarini qabul qilgan MDH mamlakatlarida qo'llaniladi. Ularning ta'lim tizimlari «**Kontinental**» oliy ta'limni boshqarish modeli asosida qurilgan va quyidagi parametrlar bilan tavsiflanadi:

- oliy ta'limni rivojlantirishni tartibga soluvchi davlat organlari tomonidan markazlashtirilgan nazorat orqali davlatning oliy ta'lim muassasalariga nisbatan paternalizmi (Ta'lim vazirligi, Madaniyat vazirligi va boshqalar);

- moliyaviy (akademik) ta'lim muassasalarining cheklangan avtonomiyasi;
- universitet ta'limiga kirishning qat'iy tabaqalanmagan tizimi (odatda bepul);
- davlat mulkning ta'limda ustunligi.

Bu modelda universitetlarda davlatning ta'siri yuqori bo'lib, ta'lim sifatini ta'minlashda markazlashtirilgan nazorat orqali boshqaruv amalga oshiriladi<sup>130</sup>.

«Fransuz» modelida universitetning ichki o'zini-o'zi nazorat qilishi nominal qiymatga ega bo'lib, asosiy e'tibor davlat organlari yoki jamoat tashkilotlari tomonidan universitetni samarali tashqi baholashga qaratiladi.

Oliy ta'limning sifatini ta'minlashga qaratilgan boshqaruvning «**Anglo-Sakson**» modeli Buyuk Britaniya, Irlandiya, AQSh, Lotin Amerikasi, Filippin, Tayvan kabi davlatlarda qabul qilingan. Ushbu ta'lim tizimi oliy ta'limni boshqarishning «**Atlantika**» modeli asosida qurilgan va quyidagilar bilan tavsiflanadi:

- oliy o'quv yurtlarining mustaqilligi (davlat ahamiyatiga ega bo'lmagan yoki Yevropa nuqtai nazaridan universitet strategiyasiga liberal yondashuv);

- oliy o'quv yurtlarining avtonomiyasining yuqori darajasi, akademik erkinlik darajasi esa har bir universitetning moliyaviy va imijiy asoslari bilan belgilanadi;

- pullik asosda oliy ma'lumot olish;
- ta'limda xususiy mulkning salmoqli ulushi.

Bu modelda universitetlar o'z ichki faoliyatlarini mustaqil boshqaradi va tashqi baholash ta'lim sifatini oshirishga qaratilgan bo'ladi<sup>131</sup>.

Ushbu modelda birinchi o'rinda oliy o'quv yurtlarining ichki o'zini-o'zi baholashi, oliy ta'lim muassasalari faoliyatini takomillashtirishga qaratilgan ichki tahlilga yo'naltirilgan ta'lim sifatining tashqi professional yoki jamoat ekspert bahosi muhim ahamiyat kasb etadi.

Iqtisodiy adabiyotda oliy ta'lim muassasalari faoliyatini boshqarishning «**Anglo-Sakson**» va «**Fransuz**» modellarining g'oyalari muvaffaqiyatli kombinatsiyasi hisoblangan ta'lim muassasalari va ta'lim dasturlarini akkreditatsiya qilish orqali ta'lim sifatini ta'minlashning «**AQSh**» modeli ajratib ko'rsatiladi.

AQSh universitetlarida o'zini-o'zi baholash tizimi rivojlangan bo'lib, oliy ta'lim muassasalari davlat idoralari tomonidan tartibga solinadigan mamlakatlardan farqli o'laroq, Amerika oliy ta'lim tizimi asosan ta'lim muassasalarining o'zlari tomonidan nazorat qilinadi. Universitetlarni akkreditatsiya qilish jarayoni universitetlar va kollejlarning mintaqaviy birlashmalari va uyushmalari tomonidan amalga oshiriladi. Ushbu birlashmalarning mintaqada akkreditatsiyadan o'tkazuvchi maxsus oliy ta'lim komissiyalari faoliyat yuritadi.

AQShdagi oliy ta'lim muassasalarini akkreditatsiya qilish ta'lim muassasalarining akademik erkinlik huquqlari va ularning davlat hamda jamiyat oldidagi javobgarligi o'rtasidagi muvozanatni saqlash uchun kollektiv o'zini-o'zi boshqarish tizimi sifatida faoliyat ko'rsatadi. Amerika o'zini-o'zi boshqarish tizimining markazida ta'lim muassasasi darajasida o'tkazilgan baholash orqali ta'lim tizimini takomillashtirish maqsadi yotadi.

Oliy ta'lim muassasalarining o'zlari tomonidan tashkil etilgan sifatni ta'minlash tizimlari o'zini-o'zi boshqarishning ilg'or shakllari hisoblanadi. Har bir oliy ta'lim muassasasi o'zining konseptual sxemasini, strategiyasi, baholash dasturini, o'z metodologiyasi va maqsadlariga muvofiq amalga oshirish rejasini ishlab chiqadi.

<sup>130</sup> Высшее образование в глобализованном обществе. Установочный документ ЮНЕСКО по образованию. ЮНЕСКО. Франция, 2004. – 32 с. <http://unesdoc.unesco.org/images/0013/001362/136247r.pdf>

<sup>131</sup> Высшее образование в глобализованном обществе. Установочный документ ЮНЕСКО по образованию. ЮНЕСКО. Франция, 2004. – 32 с. <http://unesdoc.unesco.org/images/0013/001362/136247r.pdf>

## XULOSA VA TAKLIFLAR

Shunday qilib, oliy ta'lim sifatini ta'minlashga qaratilgan boshqaruvning Yevropa yondashuvi davlatning etakchi mavqega egaligi va nazorat qilishi bilan ajralib turadi. Shuning uchun Yevropada oliy ta'lim sifatining ahamiyati, uning baholanishi va ta'minlanishi AQSh va boshqa rivojlangan mamlakatlarga qaraganda keyinroq tan olingan. Barcha Iqtisodiy hamkorlik va taraqqiyot tashkiloti mamlakatlari oliy ta'limning sifati va rivojlanishini oliy ta'lim muassasalarida samarali menejmentni tashkil etish orqali boshqarishga, qarorlarni qabul qilish vakolati va javobgarligini bosqichma-bosqich berishga harakat qiladilar. Bu maqsad hukumat va oliy ta'lim muassasalari o'rtasidagi vositachilik funksiyalarini bajaraydigan tuzilmalarning shakllanishi va rivojlanishi, barcha manfaatdor tomonlar, jumladan, davlat, biznes, ma'muriyat, mahalliy hamjamiyat, talabalar va professor-o'qituvchilar o'rtasida vakolatlar va javobgarlik sohalarini taqsimlash orqali amalga oshiriladi. Oliy ta'limda yangi universitet ma'muriyatining shakllanishi va yangi ma'muriyat – agentliklar xodimlari – vositachilarning paydo bo'lishi, ularning bilimi, malakasi, o'qituvchilar, davlat amaldorlari va biznes menejerlaridan tubdan farq qilishi kuzatiladi.

Bolonya jarayoni oliy ta'lim muassasalari faoliyatini boshqarish jarayonida ta'lim sifatiga jiddiy ta'sir ko'rsatadi va uning doirasida oliy ta'lim sifatini ta'minlashning yangi modeli taklif etiladi. Oliy ta'lim sifatini ta'minlashning ba'zi elementlari Yevropaning Niderlandiya, Fransiya, Shvetsiya, Daniya va Buyuk Britaniya kabi mamlakatlarida samarali faoliyat ko'rsatayotgan milliy sifatni ta'minlash tizimlari mavjud. Yevropada bunday ta'lim tizimlarini yaratish bo'yicha boy an'analar va katta tajriba mavjud.

«Bolonya» modeli uchun quyidagi tamoyillar xos hisoblanadi:

- davlat tuzilmalaridan mustaqil ravishda ta'limni boshqarish milliy instituti, universitetlar va oliy ta'limni baholash idoralarini qisqartirish;
- sifatni baholash va ta'minlash uchun maqbul mezon va mexanizmlarni ishlab chiqish va ulardan foydalanish;
- OTMlarning baholash jarayonida to'liq ishtirok etishlari;
- tashqi audit xulosasi bilan qiyosiy taqqoslaganda o'zini-o'zi baholash to'g'risidagi hisobotni tahlil qilish uchun ushbu tartibni o'zgartirish.

Hozirda Iqtisodiy hamkorlik va taraqqiyot tashkilotining aksariyat a'zo mamlakatlarida oliy ta'lim muassasalari faoliyatini boshqarishda ta'lim sifatini ta'minlash bo'yicha o'z tizimlari mavjud bo'lib, tegishli yondashuv va uslublar ishlab chiqilgan. Davlat oliy ta'lim muassasalari faoliyatini baholash javobgarligini o'z zimmasiga olgan mamlakatlarda turli baholash organlari tuzilgan. Boshqa mamlakatlarda baholash sohasidagi faoliyatning tashabbuskori universitetlarning o'zlari hisoblanadi.

Xulosa qilib aytganda, oliy ta'lim muassasalari faoliyatini boshqarish amaliyoti uzoq yillar mobaynida rivojlanib, globallashtirish jarayonlari, mamlakat iqtisodiyotidagi tendensiyalar o'zgarishi natijasida muntazam ravishda takomillashib kelmoqda. So'nggi yillarda mamlakatimizda iqtisodiyotni liberallashtirish borasida amalga oshirilayotgan islohotlar mahalliy oliy ta'lim muassasalari boshqaruvi amaliyotini bozor iqtisodiyoti komponentlari bilan to'ldirish bilan birgalikda, xalqaro oliy ta'lim xizmatlari bozoriga integratsiyalashuvini kuchaytirishni talab etadi.

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# СОВРЕМЕННЫЕ МЕТОДЫ ИНИЦИИРОВАНИЯ И ОСУЩЕСТВЛЕНИЯ ПЛАТЕЖЕЙ В УЗБЕКИСТАНЕ: ТЕНДЕНЦИИ И ПРАВОВОЕ РЕГУЛИРОВАНИЕ

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**Аннотация:** В данной статье рассматриваются основные тенденции и вопросы правового регулирования современных платёжных систем в Узбекистане. Развитие цифровых платёжных технологий в стране значительно ускорило процесс проведения платежей и предоставило удобные возможности для широких слоёв населения. Однако с ростом использования электронных платёжных систем вопросы безопасности и защиты данных становятся всё более актуальными. В статье проводится анализ существующего правового регулирования платёжных систем, а также рассматриваются проблемы кибербезопасности, возникающие в процессе использования современных цифровых платёжных технологий в Узбекистане.

**Ключевые слова:** Платёжные системы, цифровые технологии, правовое регулирование, кибербезопасность, Узбекистан.

## ВВЕДЕНИЕ

В последние годы Узбекистан стал свидетелем стремительного роста использования цифровых технологий в финансовой сфере, что привело к изменению методов инициирования и осуществления платежей. Развитие мобильных платёжных систем, онлайн-банкинга и электронных кошельков значительно упростило процесс финансовых операций как для частных лиц, так и для бизнеса. Эти инновации способствуют повышению финансовой инклюзии, ускорению транзакций и расширению доступа к финансовым услугам.

Тем не менее, с цифровизацией платёжных систем возникает потребность в создании эффективной правовой базы, которая будет регулировать эти процессы и обеспечивать безопасность операций. Одним из ключевых вопросов становится защита данных пользователей и предотвращение киберугроз, что требует усиленного внимания как со стороны государственных органов, так и со стороны частного сектора.

Целью данной статьи является анализ современных методов инициирования и осуществления платежей в Узбекистане, а также рассмотрение основных тенденций и подходов к правовому регулированию этих процессов в условиях цифровизации финансового сектора.

## ОБЗОР ЛИТЕРАТУРЫ ПО ТЕМЕ

В последние годы в Узбекистане произошёл значительный рост использования цифровых технологий в сфере финансов, что привело к трансформации методов инициирования и осуществления платежей. С увеличением числа онлайн-платежей и мобильных платёжных систем важным аспектом стало правовое регулирование этих инноваций для обеспечения их безопасности и прозрачности.

Цифровизация финансового сектора в Узбекистане, особенно в области платежей, имеет ключевое значение для повышения финансовой инклюзии и эффективности. Как отмечают Алимов и Саидов, развитие электронных платёжных систем, таких как мобильные приложения и онлайн-банкинг, ускорило процесс транзакций и улучшило доступ к финансовым услугам для широкой аудитории. Они также подчеркивают, что цифровизация стала важным фактором в повышении конкурентоспособности банковского сектора.

Одним из наиболее заметных трендов в Узбекистане является рост мобильных платёжных систем. Исследования Рустамова показывают, что мобильные платёжные платформы, такие как PayMe

и Click, стали неотъемлемой частью финансовой системы страны. Эти платформы предоставляют удобные и быстрые способы осуществления платежей как для физических лиц, так и для бизнеса. Однако вместе с этим возникает потребность в усилении кибербезопасности и защите данных пользователей.

Правовое регулирование цифровых платёжных систем в Узбекистане становится всё более актуальной темой по мере роста числа онлайн-транзакций. По мнению Юсупова, одним из ключевых аспектов является необходимость разработки правовой базы, которая будет способствовать инновациям, обеспечивая при этом защиту прав потребителей. На сегодняшний день Центральный банк Узбекистана активно работает над совершенствованием нормативно-правовой базы в этой сфере, включая регулирование электронных денег и мобильных платежей.

Современные методы инициирования и осуществления платежей в Узбекистане развиваются в сторону цифровизации и инноваций, что делает их более доступными и эффективными. Однако для устойчивого развития этих систем важно уделить внимание правовому регулированию и обеспечению безопасности. Продолжение работы над созданием современной и безопасной инфраструктуры для цифровых платежей станет важным шагом на пути к дальнейшей интеграции Узбекистана в мировую цифровую экономику.

## **МЕТОДОЛОГИЯ ИССЛЕДОВАНИЯ**

В реализации этих исследовательских работ использовались широко применяемые методы в научной методологии. Использование дедуктивных или индуктивных методов в порядке от общего к частному и наоборот эффективно для изучения предмета, а метод абстрактно-логического мышления важен для системного анализа процесса. В процессе научного анализа эти методы исследования, в частности, наблюдение, обобщение, группировка, сравнение, анализ и синтез, были широко применены.

## **АНАЛИЗ И РЕЗУЛЬТАТЫ**

Осуществление платежей на территории Республики Узбекистан представляет собой разнообразные методы, обеспечивающие удобство и гибкость для пользователей. Сочетание различных способов инициирования платежей отражает современные тенденции в финансовой сфере (рис. 1) [1].

### **Разнообразие методов осуществления платежей:**

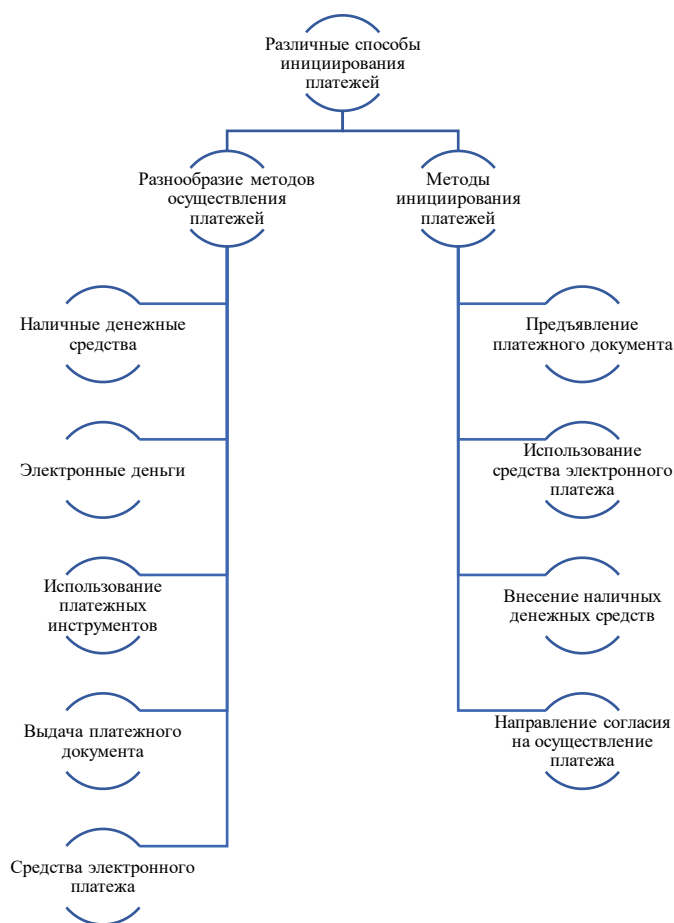
1. Наличные денежные средства: предоставляют плательщикам возможность осуществлять платежи в физической форме, обеспечивая высокий уровень гибкости.
2. Электронные деньги: перевод денежных средств в электронной форме подчеркивает растущую цифровизацию финансовых операций, предоставляя альтернативу традиционным методам.
3. Использование платёжных инструментов: возможность перевода денежных средств с использованием различных платёжных инструментов расширяет спектр доступных опций для пользователей.
4. Выдача платёжного документа: использование документов, содержащих денежные обязательства, обеспечивает правовую обоснованность и защиту интересов сторон в платёжных сделках.
5. Средства электронного платежа: применение современных технологий и электронных платёжных систем предоставляет дополнительные возможности для проведения безопасных и эффективных транзакций.

### **Методы инициирования платежей:**

1. Предъявление платёжного документа: этот метод предоставляет плательщикам контроль над платёжными операциями и подчеркивает прозрачность финансовых транзакций.
2. Использование средств электронного платежа: технологии электронных кошельков или пластиковых карт обеспечивают быстроту и удобство в проведении транзакций.

Внесение наличных денежных средств: возможность внесения наличных денег для последующего перевода демонстрирует гибкость и доступность финансовых услуг.

**Рис. 1. Различные способы инициирования платежей**<sup>132</sup>



**4. Направление согласия на осуществление платежа:** использование систем дистанционного обслуживания подчеркивает важность онлайн-сервисов в современной банковской деятельности.

Мы считаем, что разнообразие предложенных методов инициирования и осуществления платежей способствует созданию универсальной и адаптируемой под различные потребности системы финансовых транзакций.

Также система платёжных документов, применяемая на территории Республики Узбекистан, предоставляет разнообразные формы для осуществления платежей и регулируется Центральным банком. Различные виды платёжных документов обеспечивают гибкость и соответствие различным финансовым операциям.

По нашему мнению, эта система разнообразных документов и их регулирование Центральным банком способствуют эффективной и безопасной реализации финансовых транзакций на территории Республики Узбекистан. На сегодняшний день средства электронного платежа, представленные в виде банковской карты или другого электронного носителя, также обеспечивают удобство и быстроту в проведении финансовых операций. Эмитенты средств электронного платежа, как юридические лица, играют важную роль в выпуске и обеспечении функциональности этих средств [2].

1. Эмитент: юридическое лицо, выпускающее средства электронного платежа, ответственное за их функциональность, безопасность и соответствие законодательству.

<sup>132</sup> Рисунок составлен автором работы по Закону Республики Узбекистан, от 01.11.2019 г. № ЗРУ-578 «О платежах и платежных системах».



**Рис.2. Функционирование банковских карт**<sup>133</sup>

Роль эмитента и держателя средств электронного платежа:

2. Держатель: физическое лицо, которое использует или владеет средствами электронного платежа в соответствии с условиями договора, заключённого с эмитентом.  
Проведение платежей:

3. Согласие держателя: платежи осуществляются на основании согласия держателя, которое подтверждается с использованием идентификационных средств.

4. Идентификация и подтверждение согласия: порядок и способ предоставления и подтверждения согласия держателя устанавливаются договором между эмитентом и держателем средств электронного платежа.

Преимущества средств электронного платежа:

1. Удобство и быстрота: средства электронного платежа облегчают проведение транзакций, не требуя физического наличия наличных средств.

2. Безопасность: системы идентификации и согласия обеспечивают дополнительный уровень безопасности для держателей средств электронного платежа.

3. Гибкость: согласие и идентификация могут быть адаптированы к различным типам операций, предусмотренным договором.

По нашему мнению, общий договорный подход к регулированию отношений между эмитентами и держателями подчеркивает важность прозрачности и взаимопонимания в сфере электронных платежей.

Ещё одним инструментом в сфере инновационных платёжных систем выступает система электронных денег, представляющая собой инновационный механизм, который значительно упрощает процесс совершения платежей и других финансовых операций. Она оперирует на основе электронных средств и обеспечивает удобство и быстроту в совершении транзакций. Взаимодействие между оператором системы электронных денег, эмитентом электронных денег и владельцами электронных средств является ключевым для обеспечения безопасности и эффективности данной системы.

Мы считаем, что этот подход способствует созданию гибкой и доступной финансовой среды, способной соответствовать современным требованиям быстро развивающегося цифрового общества.

Эмитентами электронных денег в Республике Узбекистан выступают Центральный банк и коммерческие банки, что подчеркивает их роль в обеспечении электронных денег национальной валютой. Выдача электронных денег физическим лицам, осуществляемая эмитентами, регулируется как платёжная услуга, включая обмен денежных средств на равную сумму в электронной форме.

Основные моменты по владению электронными деньгами:

1. Номинация в национальной валюте: электронные деньги выпускаются только в национальной валюте, что подчеркивает их согласованность с финансовой политикой страны.

<sup>133</sup> Рисунок составлен автором работы по Закону Республики Узбекистан, от 01.11.2019 г. № ЗРУ-578 «О платежах и платежных системах».



2. Получатели электронных денег: владельцами электронных денег могут быть физические лица, агенты системы электронных денег (банки или платёжные агенты) и юридические лица, включая индивидуальных предпринимателей.
3. Права владельца: права владельца электронных денег возникают с момента их получения, что устанавливает временные рамки для осуществления финансовых операций.

Мы думаем, что эти нормы и условия создают основу для устойчивого функционирования электронных денег в стране, обеспечивая прозрачность и правовую защиту для всех сторон, вовлечённых в электронные финансовые операции.

Высокий уровень безопасности и контроля обеспечивается в системе электронных денег, включая следующие меры:

1. **Выпуск и обязательства эмитента:** эмитент электронных денег принимает обязательство по погашению выпущенных электронных денег. Это создаёт условия для безусловного и безотзывного обязательства перед владельцами электронных денег.
2. **Ограничение средств:** максимальные суммы операций ограничены как для идентифицированных, так и для неидентифицированных владельцев электронных денег. Это направлено на обеспечение безопасности и соблюдение законодательства, предотвращение мошенничества и легализации доходов от преступной деятельности.
3. **Идентификация владельцев:** система предусматривает идентификацию владельцев электронных денег при совершении операций, что является дополнительным механизмом безопасности. Идентификация может проводиться при личном присутствии владельца или с использованием систем дистанционной идентификации.

**Принятие оплаты:** интересно, что оплата за товары и услуги на территории Республики Узбекистан может быть принята только в электронных деньгах, выпущенных на территории страны, что поддерживает внутренний оборот этого электронного средства платежа.

**Противодействие преступной деятельности:** эмитент и оператор системы электронных денег принимают меры по обеспечению безопасности системы и борьбе с мошенничеством, легализацией доходов от преступной деятельности, финансированием терроризма и распространением оружия массового уничтожения.

Мы считаем, что эти меры формируют стройную систему, направленную на создание безопасного, законного и прозрачного пространства для электронных финансовых операций в стране.

Правила и требования по обеспечению безопасности информации в платёжной системе, как описано в предоставленном тексте, предусматривают комплекс мер:

1. **Защита информации:** обеспечение непрерывной защиты информации о платежах на всех этапах её обработки и передачи, включая хранение. Это направлено на поддержание конфиденциальности и целостности данных.
2. **Разграничение полномочий:** обеспечение ясного разграничения полномочий сотрудников при работе с информационными системами. Это включает контроль доступа и меры безопасности на всех уровнях.
3. **Защита от атак:** обеспечение защиты информационных сетей, серверов и каналов связи от возможных атак, включая мониторинг доступа и применение технических средств защиты.
4. **Многофакторная аутентификация:** применение процедур многофакторной аутентификации для пользователей платёжных услуг, обеспечивающее дополнительный уровень безопасности.
5. **Организация защищённого канала связи:** использование защищённых каналов связи в системах дистанционного обслуживания для предотвращения несанкционированного доступа.
6. **Возможность анализа и реагирования:** обеспечение возможности ведения, хранения и анализа соответствующих журналов регистрации событий, а также реагирования на выявленные инциденты.
7. **Ограничение сбора персональных данных:** соблюдение принципа минимального сбора персональных данных, используемых исключительно для оказания платёжных услуг.

Мы считаем, что эти меры представляют собой комплексный подход к обеспечению безопасности в рамках платёжной системы, направленный на предотвращение инцидентов и защиту конфиденциальности данных пользователей.

Нормативная база инновационных платёжных систем в условиях цифровой экономики Узбекистана формируется на основе современных законодательных актов и регулирующих документов, направленных на обеспечение безопасности, конфиденциальности и эффективности

платёжных операций. Внедрение законов, таких как Закон Республики Узбекистан "О кибербезопасности" и "О персональных данных", играет ключевую роль в создании надёжной правовой основы для защиты данных и предотвращения кибератак. Эти меры, наряду с поддержкой цифровой идентификации и инновационных технологий, способствуют развитию безопасной и устойчивой финансовой системы страны. Особое внимание уделяется соблюдению международных стандартов и стимулированию международного экономического сотрудничества, что является важным фактором для интеграции Узбекистана в глобальную цифровую экономику. Таким образом, текущая нормативная база обеспечивает основу для дальнейшего развития и совершенствования платёжных систем, соответствующих высоким требованиям цифрового века.

В 2023 году количество транзакций, выполненных платёжными организациями, возросло в 1,6 раза по сравнению с 2022 годом и достигло 183 трлн сум. В отчётном году физические лица с помощью услуг платёжных организаций оплатили мобильную связь на сумму 9,8 трлн сум, государственные услуги на 8,2 трлн сум, коммунальные услуги на 7,9 трлн сум, погасили кредиты на 6,5 трлн сум и уплатили налоги и бюджетные сборы на 1,4 трлн сум. Внедрение электронных денежных систем на рынке платёжных услуг создало основу для дальнейшего развития безналичных расчётов и предоставило дополнительные возможности для пользователей. По состоянию на 1 января 2024 года в реестр электронных денежных систем Центрального банка вошли 13 таких систем, а количество электронных кошельков в них увеличилось с 8,4 до 15,6 млн единиц [4].

В 2013 году количество транзакций с электронными деньгами увеличилось в 1,4 раза, достигнув 16,5 миллиона единиц, в то время как объём этих транзакций возрос в 4,5 раза и составил 1,2 триллиона сумов. Удобство использования электронных денег для онлайн-покупок, включая оплату на торговых площадках, свидетельствует о растущем потребительском спросе на этот вид платежей.

Важно отметить, что 92% транзакций владельцев электронных кошельков были переведены на кошельки предпринимателей, участвующих в системах электронных денег, в качестве оплаты за товары, услуги или работы, а 8% транзакций были направлены на переводы между электронными кошельками физических лиц.

Анализ платежей с использованием электронных денег показал, что 59% транзакций приходится на онлайн-покупки товаров и услуг, 17% — на платежи в социальных сетях, 7% — на оплату услуг мобильных операторов, 4% — на коммунальные услуги, 2% — на оплату на местах, 1% — на государственные платежи, 1% — на пополнение зарубежных электронных кошельков и 6% — на прочие услуги. Также были проведены работы по внедрению новых платёжных услуг в рамках специального правового режима [4].

## **ВЫВОДЫ И ПРЕДЛОЖЕНИЯ**

В Республике Узбекистан наблюдается значительное разнообразие методов инициирования и осуществления платежей, что свидетельствует о высоком уровне адаптивности финансовой системы к современным требованиям цифровой экономики. Электронные деньги наряду с традиционными способами платежей играют важную роль в обеспечении удобства и гибкости для пользователей. Центральный банк Узбекистана активно регулирует процессы, связанные с внедрением и использованием различных платёжных инструментов, что способствует созданию безопасной и устойчивой финансовой среды. Регулирование включает разработку стандартов для платёжных документов, а также соблюдение международных норм и требований.

Быстрое развитие цифровых технологий оказывает значительное влияние на трансформацию платёжных систем. Электронные деньги и средства электронного платежа всё более активно используются как юридическими, так и физическими лицами, что подтверждает необходимость дальнейшей цифровизации финансовых процессов. В условиях возрастающей угрозы кибератак и мошенничества обеспечение безопасности платёжных операций становится приоритетом. Применение современных технологий, таких как многофакторная аутентификация и защита информационных сетей, играет ключевую роль в предотвращении инцидентов и защите конфиденциальности данных пользователей.

Мы предлагаем следующие меры для улучшения платёжных систем в условиях цифровизации банковской отрасли:

1. **Внедрение цифровых технологий:** Для дальнейшего развития финансовой системы Узбекистана рекомендуется продолжить внедрение цифровых технологий в процесс осуществления

платежей. Это позволит не только повысить удобство и скорость транзакций, но и улучшить их безопасность и прозрачность.

**2. Совершенствование нормативно-правовой базы:** Необходимо продолжить совершенствование нормативно-правовой базы в соответствии с международными стандартами, что обеспечит более эффективное регулирование платёжных систем и использование электронных денег. Особое внимание следует уделить вопросам кибербезопасности и защиты данных.

**3. Финансовая грамотность:** Рекомендуется проведение программ по повышению финансовой грамотности населения и представителей бизнеса, направленных на информирование о преимуществах и рисках использования электронных платёжных систем. Это поможет увеличить уровень доверия к новым технологиям и ускорит их внедрение.

**4. Поддержка инноваций:** Необходимо создавать благоприятные условия для развития и внедрения инновационных платёжных решений, что позволит Узбекистану занять лидирующие позиции в сфере цифровой экономики. Это включает поддержку стартапов и инициатив, направленных на развитие финансовых технологий (FinTech).

**5. Мониторинг и оценка эффективности:** Для обеспечения устойчивого развития платёжных систем рекомендуется проводить регулярный мониторинг и оценку эффективности внедряемых технологий и нормативных актов. Это позволит своевременно выявлять и устранять возможные недостатки и проблемы.

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# INSTRUMENTS FOR STIMULATING THE INCREASE OF INVESTMENT ACTIVITY IN THE REGIONS OF UZBEKISTAN TO ACHIEVE MACROECONOMIC STABILITY

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**Abstract:** This article analyzes the key instruments employed to stimulate investment activity in the regions of Uzbekistan. Investment activity plays a significant role in regional development and contributes to macroeconomic stability. Financial incentives, institutional reforms, and public-private partnerships are critical tools for driving investment growth across the country. The article explores how these instruments facilitate economic growth and promote sustainable development.

**Keywords:** Investment activity, financial incentives, public-private partnerships, Uzbekistan, macroeconomic stability.

## INTRODUCTION

Investment activity is a vital component in fostering sustainable economic growth and macroeconomic stability, particularly in developing countries like Uzbekistan. As regional disparities continue to challenge balanced economic development, stimulating investment activity in less developed regions becomes crucial. Enhancing regional investment not only promotes local economic growth but also plays a significant role in job creation, infrastructure improvement, and productivity enhancement, all of which contribute to broader macroeconomic stability.

In recent years, Uzbekistan has made concerted efforts to improve its investment climate by introducing various economic reforms and incentives aimed at boosting regional investment. The government has implemented policies designed to attract both domestic and foreign investors, focusing on key sectors such as infrastructure, agriculture, and energy. However, achieving sustained investment growth across all regions requires the effective deployment of financial instruments, institutional reforms, and public-private partnerships (PPPs).

This article seeks to explore the instruments that can stimulate increased investment activity in the regions of Uzbekistan and how these tools contribute to achieving macroeconomic stability. It will also examine the roles of foreign direct investment (FDI), infrastructure development, and legal reforms in driving regional economic growth.

## REVIEW OF LITERATURE ON THE SUBJECT

Investment activity plays a critical role in fostering macroeconomic stability, particularly in developing countries like Uzbekistan. Regional investment is essential for balanced economic growth, infrastructure development, and increased productivity. Various studies have examined the instruments that can stimulate regional investment activity, focusing on financial incentives, regulatory frameworks, and institutional reforms.

One of the most common instruments for boosting regional investment activity is the provision of financial incentives. Koyama and Golub (2019) note that tax breaks, subsidies, and low-interest loans are effective tools for attracting both domestic and foreign investment to underdeveloped regions. In Uzbekistan, these incentives have been utilized to stimulate investment in priority sectors such as agriculture, energy, and manufacturing. The government's strategy of offering tax holidays and exemptions for businesses investing in special economic zones (SEZs) has proven to be an essential driver of regional investment growth.

Institutional reforms are another critical factor in enhancing investment activity in Uzbekistan's regions. Rodrik emphasizes the importance of building strong institutions that ensure transparency, property rights protection, and efficient governance. Uzbekistan has made significant strides in reforming its legal and regulatory environment to make it more conducive to investment. Initiatives such as reducing bureaucratic red

tape, simplifying business registration processes, and improving the overall investment climate have been identified as important reforms contributing to greater regional investment.

Investment in infrastructure is crucial for stimulating regional economic activity and ensuring long-term macroeconomic stability. Aschauer (1989) argues that infrastructure investments in transport, energy, and communications networks significantly enhance the productivity of other economic sectors. In Uzbekistan, the government has prioritized infrastructure development as a key area for stimulating regional investment, with projects focused on road construction, electrification, and digital infrastructure aimed at reducing regional disparities and promoting economic growth.

Stimulating regional investment activity is essential for achieving macroeconomic stability in Uzbekistan. Financial incentives, institutional reforms, public-private partnerships, and foreign direct investment are among the primary instruments employed to encourage regional economic growth. The emphasis on infrastructure development further enhances the investment potential of underdeveloped regions, creating a more balanced and sustainable economic environment across the country.

## RESEARCH METHODOLOGY

In the implementation of this research, widely recognized methods in scientific research methodology were employed. The use of both deductive and inductive approaches—moving from general concepts to specific instances and vice versa—proved effective in studying the subject. Additionally, abstract-logical thinking played a crucial role in the systematic analysis of the processes involved.

Throughout the scientific analysis, various research methods were utilized, including observation, generalization, grouping, comparison, and both analysis and synthesis. These methods facilitated a comprehensive examination of the subject matter, enabling a deeper understanding of the factors influencing investment activity in the regions of Uzbekistan.

## ANALYSIS AND RESULTS

Increasing investment activity in the regions is one of the most important conditions for achieving macroeconomic stability, as well as for the implementation of important goals of the Development Strategy of Uzbekistan until 2030[1].

<b>Reference-1</b>
<b>Strategy “Uzbekistan - 2030”: includes 100 goals</b>
<b>Goal 48:</b> Development of “driver” industries and full utilization of the industrial potential of the regions.
<b>One of the expected outcomes:</b> Establishment of modern technological industrial zones in every district;
<b>Goal 49:</b> Further enhancement of the country’s investment attractiveness and accelerated development of the securities market.
<b>One of the expected outcomes:</b> Provision of uninterrupted access to necessary infrastructure (road, water, sewage systems, electricity) in all economic zones.
<b>Goal 60:</b> Comprehensive development of regions, implementation of urbanization strategies, and improvement of the population's access to affordable housing.
<b>One of the expected outcomes:</b> Construction of engineering, communication, and social infrastructure in line with long-term socio-economic and demographic development of the areas.
<b>Goal 61:</b> Providing stable and long-term funding sources for infrastructure projects.
<b>Expected outcome:</b> Established practice of issuing “infrastructure bonds”.

The relevance of this aspect is determined by the persistent differentiation in the level of socio-economic development across the regions of the country, resulting from several factors: differences in regional resource availability; low levels of investment activity due to underdeveloped infrastructure (including social, engineering, transportation, and informational aspects); and low efficiency in the utilization of investment resources directed into regional economies. This inefficiency is compounded by a high level of wear and tear on production capacities, aging primary production assets, outdated technology, shortcomings in the organization of economic modernization processes, and the low qualifications of those employed in the real sector of the economy [2], among other factors.

The obvious role and significance of regions in the formation of GDP, along with the understanding that the overall economic situation of the country depends on the economic condition of each individual region, underscore the importance of state participation — both direct and indirect—in regulating and stimulating regional development.

### Regional Investment Activity: Current State

Uzbekistan is a complex unitary state, comprising 12 provinces, the capital city Tashkent, and the Sovereign Republic of Karakalpakstan. Throughout the entire period of independent Uzbekistan's development, the national economy has grown more than fivefold. However, the economic growth rates are differentiated by regions, with some regions exhibiting relatively high, moderate, and low growth rates compared to the national average [3].

**Table 1.**  
**Dynamics and Growth Rates of Gross Regional Product and Income Per Capita (2017 to 2022) [4]**

Regions of Uzbekistan	GRP			GRP per capita		
	2017	2022	growth	2017	2022	growth
	trillion sums		% compared to 2017	trillion sums		% compared to 2017
Republic of Karakalpakstan	10,9	29,9	2,7	5,9	15,2	2,6
Andijan Region	19,8	54,5	2,8	6,6	16,6	2,5
Bukhara Region	17,1	46	2,7	8,3	23,0	2,8
Jizzakh Region	9,7	27,1	2,8	7,4	18,6	2,5
Kashkadarya Region	21,6	49,5	2,3	6,9	14,4	2,1
Navoi Region	14,7	67,0	4,6	15,4	63,8	4,1
Namangan Region	15,3	41,1	2,7	5,7	13,9	2,4
Samarkand Region	27,0	62,4	2,3	7,3	15,3	2,1
Surkhandarya Region	14,4	34,9	2,4	5,8	12,6	2,2
Syrdarya Region	6,8	18,1	2,7	8,4	20,4	2,4
Tashkent Region	29,1	93,4	3,2	10,2	31,5	3,1
Fergana Region	20,7	55,9	2,7	5,8	14,2	2,4
Khorezm Region	12,0	32,0	2,7	6,7	16,5	2,5
City of Tashkent	49,3	150,0	3,0	20,2	50,7	2,5

Higher economic growth and activity rates compared to the national average are observed in the industrially developed regions with their own raw material base and active support for entrepreneurship from local authorities, namely Jizzakh, Namangan, Andijan, and Khorezm regions. In these areas, the agricultural sector predominates, with the share of agriculture in the gross regional product (GRP) ranging from 35.0% to 54.0%. The development of their economies is driven by the commissioning of new production capacities in the fuel and energy, electrical engineering, and pharmaceutical industries, as well as in the service sector and construction.

This growth is accompanied by the creation of new and additional jobs, an increase in retail turnover, and the export of goods and services, reflecting the intensified efforts of the state to ensure the accelerated socio-economic development of these regions[5].

Tashkent city, along with the Tashkent and Navoi regions, are economically developed areas where per capita gross regional product (GRP) indicators are 1.3 to 2.8 times higher than the national average. The economic growth in these regions is driven by the development of key enterprises in the metallurgy and fuel-energy sectors, resulting in high-performance industries and service sectors dominating their economies.

Conversely, regions with a pronounced agricultural focus, such as the Republic of Karakalpakstan, Bukhara, Kashkadarya, Syrdarya, and Surkhandarya, exhibit relatively low rates of economic growth and activity. For these regions to achieve economic growth, it is essential to activate investment activities aimed at increasing capacities for processing agricultural raw materials and producing export-oriented goods.

Financial resources are of primary importance for developing and ensuring further economic growth. In the context of limited budgetary funds, regional authorities strive to attract investors to boost investments in the local economy. However, the opportunities and conditions for this vary among regions. Currently, investment activity in these areas is primarily stimulated by the central government, while local authorities and

business representatives exhibit less engagement. This raises the question: what causes this situation? After all, activating investment flows into a region should primarily interest local authorities.

### State Regulation of Investment Activity

Direct/Equity Participation in Financing Capital Investments, Investing Budgetary Funds.	Indirect participation through creating a favorable investment climate for potential investors in the areas of taxation, monetary policy (the interest rate, which affects commercial loan rates), government guarantees, and others.
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**Figure 1. State Regulation of Investment Activities [6]**

At the current stage of economic reforms, the foundation of investment activity in the regions of Uzbekistan is built upon a comprehensive package of legal norms aimed at creating a favorable investment climate for potential investors. This framework encompasses key areas such as taxation, monetary policy, and state guarantees (Table 2):

**Table-2.**

### Legal Norms Forming the Basis of Investments and Investment Activities [7]

1.	Civil Code of the Republic of Uzbekistan Parts 1 and 2 from March 1, 1997, as amended in February 2024.
2.	Tax Code of the Republic of Uzbekistan New edition. Entered into force on January 1, 2020, with amendments from 2024.
3.	Laws of the Republic of Uzbekistan
3.1.	“On Investments and Investment Activities” № LRU-598 from December 25, 2019 (effective from January 27, 2020): Regulates all aspects related to investments and investment activities conducted by Uzbek and foreign investors, guaranteeing full and permanent protection and security for foreign investors and foreign investments, including protection from nationalization and requisition upon termination of investment activities, repatriation of income in foreign currency, free use of profits, protection of investments and investors from future legislative changes that might worsen investment conditions.
3.2.	“On Free Economic Zones” № 220-I from April 25, 1996, repealed by the introduction of the law “On Special Economic Zones” from February 17, 2020, № LRU-604: Regulates relationships related to the organization, functioning, and development of special economic zones in the Republic of Uzbekistan, including free economic zones, special scientific and technological zones, tourist and recreational zones, free trade zones, and special industrial zones.
3.3.	“On Currency Regulation” № LRU-573 dated October 22, 2019
3.4.	“On Public-Private Partnerships” № LRU-537 dated May 10, 2019
3.5.	“On Concessions” № 110-I dated August 30, 1995
3.6.	“On Production Sharing Agreements” № 312-II dated December 7, 2001
3.7.	“On Investment and Mutual Funds” № LRU-392 dated August 25, 2015
3.8.	“On Denationalization and Privatization” № 425-XII dated November 19, 1991
4.	By-laws of the Republic of Uzbekistan:
4.1.	Presidential Decree of the Republic of Uzbekistan “On Measures for Transition to a Qualitatively New System of Formulating and Implementing the Investment Program of the Republic of Uzbekistan” dated May 14, 2019, № PD-5717
4.2.	Presidential Decree of the Republic of Uzbekistan “On Measures for Implementing an Experiment to Improve the Investment Climate in Tashkent” dated August 15, 2018
4.3.	Presidential Decree of the Republic of Uzbekistan “On Measures for Radically Improving the Investment Climate in the Republic of Uzbekistan” dated August 1, 2018, № PD-5495
4.4.	Presidential Decree of the Republic of Uzbekistan “On the Action Strategy for Further Development of the Republic of Uzbekistan in 2017 - 2021” dated February 7, 2017, № PD-4947
4.5.	Presidential Decree of the Republic of Uzbekistan “On the Strategy for Development of New Uzbekistan for 2022 - 2026” dated January 28, 2022, № PD-60
4.6.	Presidential Decree of the Republic of Uzbekistan Appendix № 1. Strategy “Uzbekistan - 2030” dated September 11, 2023, № PD-158
4.7.	Presidential Decree of the Republic of Uzbekistan “On Improving the Management of Investments and Foreign Trade by Establishing the Ministry of Investments and Foreign Trade of the Republic of Uzbekistan” (PD-5643, January 28, 2019)
4.8.	“On Measures to Improve Uzbekistan's Positions in International Ratings and Indexes” (PD-5687, March 7, 2019)
4.9.	“On Additional Measures to Stimulate the Attraction of Foreign Direct Investments” (№ PD-4434 dated April 10, 2012)

Given the large-scale reforms being carried out in the country, one of the key conditions for their successful implementation is the sustainable development of regions. Therefore, throughout the period of independent Uzbekistan's development, the government has paid and continues to pay special attention to stimulating regional investment activity and improving its mechanisms.

**Table 3.**

**Development of Free Economic Zones in Uzbekistan (as of January 1, 2024) [9]:**

The country has established and operates:	Units	SEZs include:	Units
special economic zones (SEZs)	21	enterprises	768
small industrial zone administrations (SIAs)	328	SIAs	2 494
Technoparks	23	technoparks	1694

The most significant source of funding for investment activities comes from budget investments, aimed at achieving both commercial and non-commercial (social) results and obtaining economic and social returns from the invested budgetary funds. In Uzbekistan, this includes the central—specifically, the Republican Budget of the Republic of Uzbekistan, the Republican Budget of the Republic of Karakalpakstan, and the regional budgets (of provinces and the city of Tashkent). However, local budgets of districts and cities do not allocate funds for these purposes.

The scope of state and local authority tasks is expanding due to the limited budgetary resources for regional development, necessitating the search for additional and new opportunities to attract both internal and external investment resources to the region and create conditions to activate these flows. The initial mechanism of this process falls under the jurisdiction of the state, which has the authority to establish legal norms regulating investment policy. This policy is implemented through a combination of direct and indirect forms, methods, levers, and tools affecting financial relations in the field of investment activities.

For a significant period after its formation, the economy of independent Uzbekistan was restrictive toward foreign investments. However, in 1996, the country adopted the law “On Free Economic Zones.” The first Free Economic Zone (FEZ) in Uzbekistan was established only at the end of 2008 in the Karmaninsky District of the Navoi Region. This zone was founded on a rich raw material base, favorable location, the availability of inexpensive et skilled labor, and preferential regimes. Currently, the developed engineering infrastructure, convenient logistics, unprecedented customs and tax incentives, along with maximum simplification of procedures, make the FEZ “Navoi” one of the best locations for implementing industrial projects.

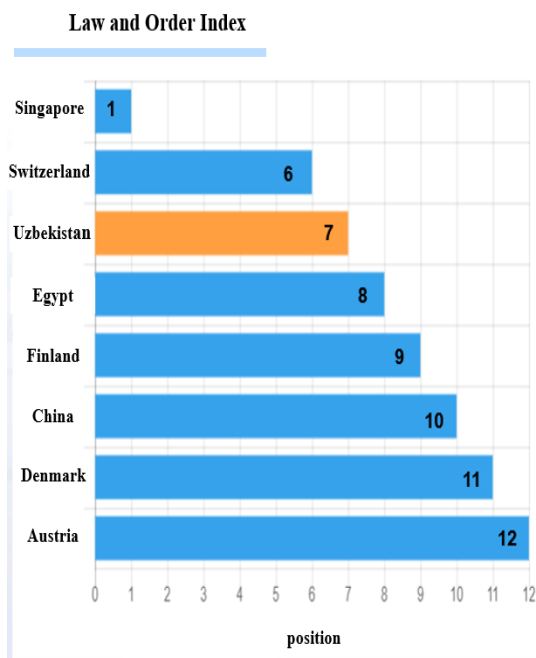
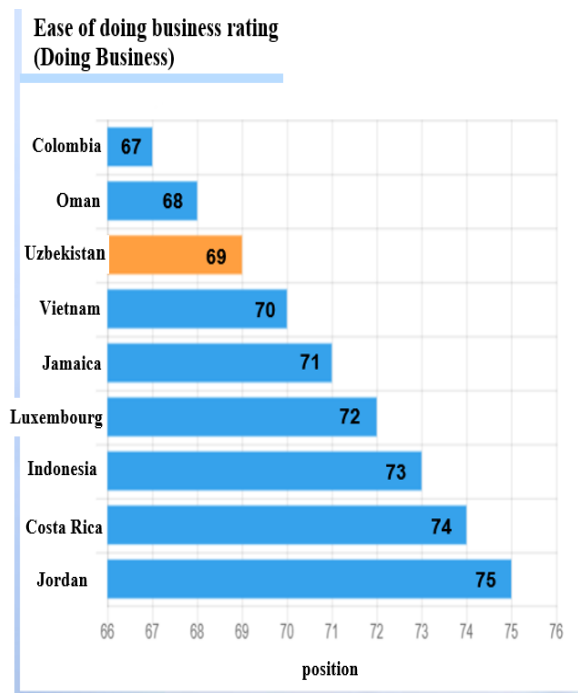
As of now, 105 projects, with a total value of \$1,001 million, are being implemented within the FEZ, creating 10,839 new jobs. In 2012, the second FEZ, “Angren,” was established, followed by the creation of

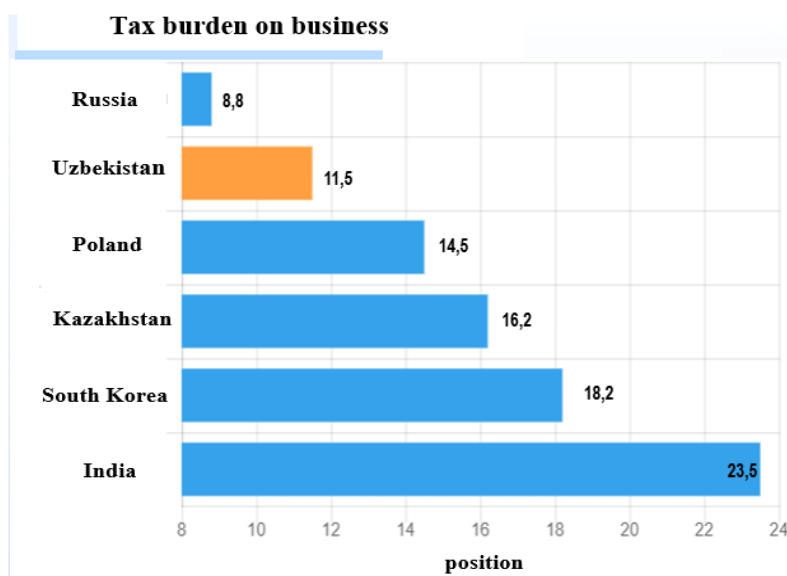


the third FEZ, “Jizzakh,” in 2013.

Since 2018, Uzbekistan has initiated reforms aimed at improving the investment climate to stimulate the activity of both domestic and foreign investors. In that ear, the country was ranked among the top ten countries with significant changes in business practices, as noted in the World Bank’s “Doing Business” report for 2018[10].

**Figure 2. Indicators Characterizing the Investment Climate of the Republic of Uzbekistan at the Beginning of 2022 [11]**





The attraction of foreign and domestic investments is a central focus of the Action Strategy for the Development of the Republic of Uzbekistan for 2017–2021 and 2022–2026, as well as the Uzbekistan-2030 Strategy. These strategies emphasize increasing regional investment activity and highlight the importance of their development as independent goals (outlined in note-1).

New institutions have been established for organizing investment activities and promoting investments within the Republic of Uzbekistan (Table 4):

**Table-4.**  
**Institutional Foundations for Organizing Investment Activities and Promoting Investments in the Republic of Uzbekistan [12]**

<b>1.</b>	Ministry of Investment and Foreign Trade (MIFT, established in 2019): A central government body responsible for the formation, management, and oversight of investment policy, regulation of various areas of economic activity and business development in the Republic of Uzbekistan, including the promotion of foreign investments into the country.
<b>2.</b>	The Agency for Foreign Investment Attraction (a subordinate institution of the Ministry of Investment and Foreign Trade, established in 2019 according to the Presidential Decree of the Republic of Uzbekistan “On the Organization of the Activities of the Ministry of Investments and Foreign Trade of the Republic of Uzbekistan” dated January 28, 2019): participation in the implementation of a unified state investment policy aimed at attracting foreign investments into the country's economy, creating favorable conditions for foreign investors taking into account the country's economic, social, and environmental interests; providing informative, legal, and other support to foreign investors; assisting them in organizing interactions with government bodies and organizations, and domestic entrepreneurs in the field of investment activities; forming and maintaining an information database of prospective and ongoing investment projects with foreign investments, conducting systematic monitoring of their implementation, and more.
<b>3.</b>	The Office of the Authorized Representative for the Protection of the Rights and Legal Interests of Investors under the President of the Republic of Uzbekistan (established in 2019).
<b>4.</b>	It is planned that foreign investors will be served by a “single window”, and the investment map will provide potential investors with information about the production structure in each region, necessary investments, and specific projects.

### Contemporary Issues in Activating Investment Activity in the Regions of Uzbekistan

The government is striving to balance the distribution of investments across all regions of Uzbekistan. In each region, officials have been appointed to attract investments and implement investment projects. The government has announced that this process will be under the strict control of the Presidential Administration. Meanwhile, Parliament reviews quarterly reports from responsible officials to assess progress.

However, at the current stage of development, the regions of Uzbekistan face an acute need to create, modernize, and enhance the potential of internal infrastructure. This challenge is compounded by the uneven distribution of resources among regions and the limitations of financial spending powers at various levels of government in accordance with budget legislation[14], The direct involvement of local authorities in the investment process is restricted. Consequently, expenditures for centralized investments are planned and executed exclusively from the budgets of the regions, the city of Tashkent, and the Republican Budget of the Republic of Karakalpakstan, which means they are funded solely by regional budgets.

**Reference 2.**

**Budget Code of the Republic of Uzbekistan [14]**

**Article 71. Expenditures of the republican budget of the Republic of Karakalpakstan, regional budgets of regions and city budget of city of Tashkent**

The following expenditures are carried out from the republican budget of the Republic of Karakalpakstan, regional budgets of regions and city budget of city of Tashkent:

3) on financing centralized investments, the employers of which are the Council of Ministers of the Republic of Karakalpakstan, hokimiyats of regions and city of Tashkent;

Effective from January 1, 2014, with amendments as of 2024.

In the budgets of districts, cities, and the territories of the Republic of Karakalpakstan, expenditures for centralized investments are not allocated[15].

Meanwhile, the presence of developed engineering, road, informational, and social infrastructure in these territories is crucial for attracting both domestic and foreign investments. Investing in the creation and development of businesses in areas lacking developed infrastructure does not align with business interests. Consequently, potential investors—whether domestic or foreign—are generally not inclined to allocate part of their funds for infrastructure development.

As mentioned in the introduction (reference 1), the Uzbekistan Development Strategy until 2030 outlines the country’s development goals, which must involve all levels of government, including district and municipal levels. This is necessary to enhance the country’s investment attractiveness, as uninterrupted access to essential infrastructure—such as roads, water supply, sewer systems, and electrical energy—must be established in all economic zones. These zones are ultimately situated within the districts and cities of the country.

The goal of the Strategy—to ensure comprehensive territorial development—is closely linked to the previously discussed objective of infrastructure creation, which encompasses the construction of engineering, communication, and social infrastructure at the local level. This infrastructure includes roadways, water supply, sewer systems, and electricity facilities.

Let’s focus on the goal of ensuring stable and long-term funding sources for infrastructure projects by implementing the practice of issuing “infrastructure bonds.” The realization of this practice could form the basis for achieving the first two goals.

<b>Note-3</b>
<b>Restrictions on the financial capabilities of local authorities according to the norms of the current Budget and Tax Codes regarding expenditures from local budgets for centralized investments:</b>
1. Restrictions on expenditures from district and city budgets for centralized investments, as these are not provided for in the budgets at this level of government - Budget Code, Article 72 [15];
2. Restrictions established for the budgets of the Republic of Karakalpakstan, local budgets of regions, and the city of Tashkent regarding local borrowings - they are not allowed, except for the right to receive budget loans from higher-level budgets to cover cash gaps in the execution of their local budgets (Budget Code, Article 142) [16].
3. The lack of own sources of income in the form of local taxes allocated to local budgets (Tax Code, new edition as of January 1, 2020).
Since 2020, Uzbekistan has implemented a single-tier tax system with centralized distribution of taxes between budget levels, as outlined in the annually adopted Law of the Republic of Uzbekistan “On the State Budget of the Republic of Uzbekistan” [7].

## Activation of Local Authorities' Investment Activities: Tools for Expanding Financial Capabilities of Territories and Increasing Investment Activity of Potential Investors

Given the strict limitations of Uzbekistan's current tax and budgetary legislation, which restrict local budgets' capacity to finance centralized investments and expand their financial capabilities for these purposes (reference 3), it is essential to consider the experiences of foreign countries in addressing similar issues.

In developed countries—those that are industrially advanced, with a high standard of living, elevated per capita export and import rates, robust GDP, and open economies—subnational authorities generally operate autonomously in making decisions regarding the expansion of their financial capabilities. They have the right to establish special-purpose off-budget funds and utilize an effective tool for attracting funds in the domestic financial market: municipal bonds secured by municipal property, assets, or guarantees from a higher level of government (e.g., the USA, Japan, France).

Turning to the practice of local authorities in France [16], it is noteworthy that they gained the ability to take out loans in 1982 following the passage of decentralization laws. These financial operations are used exclusively to fund investment expenses. Local authorities in France rank first among investors in terms of the number of projects implemented, establishing themselves as the main public investors. Since 1982, the state has gradually transferred financing responsibilities to local authorities, making the delegation of new powers—specifically investment expenses previously managed by the state—not unexpected. This step was taken by the government to improve the management of basic needs such as water supply, transportation, healthcare, and education, which were entrusted to services closer to the population. For example, some national roads and transport infrastructure were transferred to regional administrations.

During the financial crisis of 2008, when local authorities faced limited direct access to capital markets, some municipalities and municipal associations issued bonds, with the banking sector primarily facilitating the financing of local authorities through loans[17].

In developing countries, including Uzbekistan, municipal loans for development purposes are not practiced due to prohibitions established by current legislation regarding the use of this financial instrument. This prohibition is primarily attributed to the economic instability in developing countries, high inflation rates, and the lack of trust among savers (potential investors) towards the authorities. In cases where local authorities encounter difficulties in repaying current debts and meeting loan maturities, they may resort to undesirable methods for managing internal public debt, which includes the debts of local authorities.

<p style="text-align: center;"><b>Certificate 3</b> <b>Article 100 [19].</b> <b>The joint conducting of the local bodies of authority shall include:</b></p> <ul style="list-style-type: none"><li>- Matters of economic, social and cultural development within their territories;</li><li>- Formation and implementation of the local budget, determination of the local taxes and fees, formation of non-budget funds;</li><li>- Direction of the municipal economy;<ul style="list-style-type: none"><li>- Protection of the environment;</li><li>- And others.</li></ul></li></ul>	<p style="text-align: center;"><b>Article 8<sup>1</sup>. Regional, district, and municipal extrabudgetary funds of local government authorities [20].</b></p> <p>The regional, district, and municipal Councils of People's Deputies may establish extrabudgetary funds, which include:</p> <ul style="list-style-type: none"><li>- Voluntary contributions and donations from individuals, enterprises, institutions, and organizations, excluding budgetary organizations;</li><li>- Other extrabudgetary resources not prohibited by law.</li></ul> <p>The funds of regional, district, and municipal extrabudgetary funds of local government authorities are held in treasury accounts, are not subject to withdrawal, and are used according to the decisions of the respective Council of People's Deputies and the khokim (mayor).</p>
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In many developing countries, including those in the post-Soviet space and specifically in the Republic of Uzbekistan, the issuance and placement of government short-term bonds (GKO) with maturities of 3, 6, 9, and 12 months are used to finance budget deficits caused by cash flow gaps in budget execution. In Uzbekistan, GKO were first issued in March 1996 in a paperless form, registered as entries in the holders' deposit accounts (depot accounts) in the depository. By 2006, the volume of GKO issuance was gradually reduced, and from

the second half of 2011 until 2019, the issuance of government securities, including GKO, was suspended in Uzbekistan. The resumption of government securities issuance did not include GKO.

To address the issue of expanding the financial capabilities of local authorities, one commonly utilized element is local extrabudgetary targeted funds, which have legally established sources of income. In the Republic of Uzbekistan, the legal framework for employing this element in local authority practices was established and codified in 1992 by the Constitution of the Republic of Uzbekistan. The Law of the Republic of Uzbekistan “On Local Government,” enacted in 1993, included, alongside other property objects of the region, district, and city, the funds of local budgets and extrabudgetary funds in Article 8. In 2013, the law was expanded with Article 81, which defined possible sources of income for these funds.

It is important to note that throughout the entire period of the legal framework for the formation of local extrabudgetary funds, none of the khokims (the head of local representative and executive authority until 2023, and from 2023, the head of only the executive local authority) has utilized this element of local finance to expand the financial capabilities of their territory. The primary reason for this is the avoidance of potential financial problems.

## CONCLUSION AND SUGGESTIONS

As noted above, one possible solution to this issue is outlined in the strategy of providing infrastructure projects with stable and long-term sources of financing through the practice of issuing “infrastructure bonds.” The issuance and placement of these bonds should be conducted in a non-documentary form, maintaining a register of holders and regulating the repayment of the principal debt to avoid unnecessary expenses. Additionally, bond placement should be incentivized with benefits for purchasers, both legal entities and individuals.

For instance, potential investors who plan to invest in business development in the area or city where infrastructure is being created or modernized should be granted priority rights or favorable conditions for resolving land and other issues relevant to the investor when starting or implementing their business project. For individuals purchasing infrastructure bonds, potential benefits could include preferences related to matters of interest to this category of investors, such as land lease or state property issues.

Furthermore, both legal and physical entities that purchase a fixed “package” of infrastructure bonds (in the volume designated for legal and physical entities and granting them benefits such as reduced costs or priority acquisition rights) should receive preferences as subjects of privatization in acquiring land parcels in accordance with the Law of the Republic of Uzbekistan “On the Privatization of Non-Agricultural Land Parcels” dated November 15, 2021, № LRU-728.

A viable source for expanding the financial capabilities of regions for infrastructure development could be the introduction of a mechanism to bring shadow financial flows of legal and physical entities into the open. This could be conditioned on their targeted investment in large volumes of fixed “packages” of long-term infrastructure bonds with a reduced interest rate, serving as an amnesty for shadow capital.

Additionally, another potentially effective tool for increasing the financial capabilities of local authorities in regional development—particularly in infrastructure—is stimulating investment activity among potential investors, owners, and savers—both legal and physical entities—through co-financing expenses under public-private partnership conditions.

It is important to recognize that investing funds in regional development, primarily in creating and enhancing infrastructure and increasing the investment activity of potential savers through the tools we have discussed, necessitates ensuring conditions that minimize risks associated with the potential preparation of ineffective projects, incomplete projects, misallocation, and inefficient use of attracted funds. Other risks include environmental, natural, financial, political, and other types that may arise during the creation and implementation of such projects.

In this regard, it is crucial to address the issue of creating a centralized project office with regional subdivisions staffed by highly qualified specialists in the development of sectoral, infrastructural, and other specialized territorial development projects of increased complexity and structure. This would ensure high-quality expertise for the projects, for which investor funds will be attracted, ultimately determining the future growth or decline of investment activity among potential investors in infrastructure projects, as well as the prospects for growth or loss of additional sources of financial expansion for local authorities aimed at regional development.

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## IMPROVEMENT OF LONG-TERM ASSETS GROUPING AS A PRIORITY OF ACCOUNTING ORGANIZATION IN SEASONAL ORGANIZATIONS

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**Abstract:** This article examines the importance of grouping long-term assets in seasonal organizations and its significance in financial management. Effective asset grouping in seasonal organizations ensures optimal allocation of financial resources, accurate reporting, and efficient use of assets. The article also explores the advantages of using depreciation methods and digital technologies to improve asset management.

**Keywords:** Long-term assets, seasonal organizations, depreciation, financial management, asset grouping.

### INTRODUCTION

The socio-economic development of society and the complete satisfaction of the material and spiritual needs of its members are determined by the quantity and quality of a country's resources, particularly fixed and circulating assets. The more resources a country, its industries, and enterprises possess, the more powerful and developed it becomes. If these resources can be fully and rationally utilized, the country is destined for greatness. Fixed assets occupy a special place in the production activities of economic entities, as they are essential for performing work, providing services, and manufacturing products.

Agricultural processing enterprises are characterized by seasonality. Seasonal work is defined as tasks performed during specific months rather than throughout the year, depending on natural and climatic conditions. The list of seasonal work and industries is approved by the Cabinet of Ministers, which includes sectors such as the cotton ginning industry (seasonal tasks at its enterprises include cotton cleaning, loading and unloading cotton, etc.).

Efficient use of long-term assets is particularly crucial in agricultural processing enterprises due to their extended production chains. For instance, grain raw materials arriving at storage and processing facilities undergo approximately 70 technological stages before transforming into finished flour. The implementation of such technical and technological measures relies heavily on the efficient use of fixed assets, a category of long-term assets. Moreover, the level of efficient utilization of these assets is directly linked to the reliability of accounting information that regulates and controls their movement. In particular, the transfer of long-term asset accounting in agricultural processing enterprises creates the following opportunities:

- The rationality of the cost of manufactured products is achieved by obtaining accurate and correct information on the composition, availability, and utilization level of each tool used in the production technology.
- Accurate information can be obtained regarding the average residual value of fixed assets (mothballed) that are temporarily not in use at seasonal agricultural processing enterprises.
- It enables the correct determination of the tax base for the property tax of enterprises.

A defining feature of economic entities is the availability of their own property, which determines their material and technical capabilities and ensures economic freedom and future viability. No enterprise can carry out its business activities without utilizing certain properties. Additionally, enterprises can make capital investments in other long-term assets. In the context of economic liberalization and deepening economic integration, long-term assets play an extremely important role in implementing the financial and economic activities of entities. For classification purposes, long-term assets are typically considered to have a process duration of one year, except in cases where a longer period is more suitable for a particular industry or type of activity.

### Review of Literature on the Subject

Seasonal organizations, which experience fluctuations in activity based on specific times of the year, face unique challenges in accounting, particularly in managing long-term assets. The effective grouping and classification of long-term assets are essential for optimizing financial management and ensuring that resources are allocated efficiently throughout the year. Several key aspects, including asset categorization, depreciation strategies, and accounting regulations, are critical to improving long-term asset management in such organizations.

According to Kaplan and Norton, effective asset classification is crucial for financial transparency and informed decision-making. Seasonal organizations, which often contend with fluctuating resource utilization, require specialized accounting systems that account for periods of inactivity or reduced production. Grouping long-term assets by functionality, lifecycle, or season-specific use can aid organizations in allocating resources more effectively and enhancing overall financial reporting.

Depreciation is a central aspect of managing long-term assets in seasonal organizations. Traditional linear depreciation methods may not always accurately reflect the actual usage patterns of these assets, potentially leading to discrepancies in financial reporting. Brigham and Ehrhardt suggest that seasonal organizations benefit from adopting variable or usage-based depreciation methods that align with the business's operational cycles. For instance, assets that are heavily utilized during specific months of the year may require accelerated depreciation during high-demand periods and lower rates during off-seasons.

Usage-based depreciation strategies help ensure that seasonal organizations can better track asset value over time and allocate maintenance and replacement costs more accurately. Furthermore, this approach enhances asset management efficiency, as businesses can adjust their financial plans based on seasonal asset performance.

The effective grouping and management of long-term assets in seasonal organizations are critical for optimizing resource use, improving financial reporting accuracy, and ensuring compliance with accounting standards. By adopting variable depreciation methods, leveraging advanced technologies, and aligning asset management practices with established accounting frameworks, seasonal organizations can better manage their assets and enhance financial performance.

## RESEARCH METHODOLOGY

In the implementation of this research, widely used methods in scientific research methodology were employed. The use of deductive and inductive methods—moving from generality to individuality and vice versa—proved effective in studying the subject. Additionally, the method of abstract-logical thinking is important for the systematic analysis of the process.

Throughout the scientific analysis, various research methods were utilized, including observation, generalization, grouping, comparison, analysis, and synthesis. These methods facilitated a comprehensive examination of the topic, enabling a deeper understanding of the factors influencing long-term asset management in seasonal organizations.

## ANALYSIS AND RESULTS

Long-term assets on the balance sheet are classified into fixed assets, intangible assets, long-term investments, capital investments, and long-term accounts receivable. Depending on their location, assets can be categorized as in-use, reserves, and unused assets. Additionally, tangible and intangible assets are grouped based on their physical and chemical properties.

Such grouping is crucial for determining the utility level of long-term assets, particularly from an economic and financial perspective. Therefore, it is recommended to classify long-term assets into two groups: "Financial Long-Term Assets" and "Non-Financial Long-Term Assets."

### Non-Financial Long-Term Assets:

- Fixed assets
- Intangible assets
- Equipment to be installed

### Financial Long-Term Assets:

- Long-term investments
- Capital investments
- Long-term accounts receivable
- Long-term deferred costs

The primary economic distinction between financial and non-financial fixed assets is the depreciation of non-financial fixed assets. The depreciation cost is added to the cost of goods or services produced using these assets, directly affecting the enterprise's financial results through expenses. Additionally, as non-financial fixed assets accumulate obsolete value, they exhibit characteristics of self-restoration. Conversely, financial fixed assets are not depreciated, meaning they do not directly impact the cost of goods or services produced.



Another distinction is that non-financial fixed assets are commonly acquired through purchase, transfer, or lease for a specific period, and they can cease activity due to obsolescence, sale, or lease. In contrast, financial fixed assets do not have such characteristics; they are created or formed based on specific purposes and resources. For example, long-term investments arise from investments made by other entities to generate income, while capital investments are organized by an economic entity to expand its fixed assets.

Based on the grouping of long-term assets into "Financial Long-Term Assets" and "Non-Financial Long-Term Assets," they can be defined as follows: "Long-term assets are a set of tangible and intangible assets that operate for more than one year in the company's activities."

One of the main challenges in the accounting policies of enterprises with seasonal production is the proper organization of accounting for the movement of fixed assets in use. Due to the nature of seasonal production, it is often impossible to fully utilize existing equipment and technology throughout the reporting period. Consequently, these assets may be excluded from the enterprise for certain periods.

Fixed assets form the foundation of an enterprise's material and technical base, determining its technical level, range, quantity, and quality of products, work performed, and services rendered. To ensure the production process, an enterprise must possess fixed assets, including structures, buildings, machines, warehouses, and other facilities, as well as materials, equipment, and other means of labor. When grouping fixed assets at enterprises, a unified standard classification is applied, categorizing fixed assets according to purpose, type, ownership, and specific use.

Financial investments encompass investments in government securities, the authorized capital of other enterprises, and loans extended to other entities. Financial investments with a maturity of more than one year are classified as long-term, while those with a maturity of less than one year are considered short-term. According to the national standard No. 15 "Balance Sheet" of the Republic of Uzbekistan, which governs accounting practices in business entities, the objective of this standard is to clarify the nature and representation of assets, capital, and liabilities in the balance sheet. This standard outlines the requirements for information disclosure when presenting the balance sheet as part of financial statements.

These requirements may be supplemented by additional disclosure obligations specified in other standards addressing specific accounting issues.

The balance sheet is a critical component of financial statements, consolidating and disclosing information regarding the property and financial condition of the business entity. It includes long-term and current assets, equity, long-term and current liabilities, along with disclosures that assist users in analyzing the financial condition of the business entity. The "Long-Term Assets" section of the balance sheet reflects the residual value of fixed assets, intangible assets, long-term investments, fixed equipment, capital investments, long-term accounts receivable, and the balance of long-term deferred costs.

The grouping and accounting of long-term assets depend on the technological specifics of the enterprise's production. The seasonal nature of agricultural processing enterprises is a key factor influencing the organization of accounting for long-term assets. Currently, one of the main challenges for enterprises with seasonal production is accurately determining the method for accruing and accounting for depreciation on temporarily unused fixed assets. Additionally, based on the technological features of the enterprise's production, a system of additional working accounts may be employed, provided that this does not contradict the adopted regulatory and legal documents.

## CONCLUSION AND SUGGESTIONS

The annual amount of depreciation charges for fixed assets used in seasonal production enterprises is calculated uniformly during the period these assets are in use by the enterprise in the reporting year. For example, using the linear method of calculating depreciation in a seasonal context: if a manufacturing enterprise operates for 9 months a year and remains idle for 3 months, the depreciation of fixed assets is calculated monthly at 1/9 of the annual amount.

In practice, long-term assets vary in their physical and chemical properties, as well as in their role and significance in the activities of the enterprise. Therefore, it is appropriate to group them according to their practical significance.

We believe that the aforementioned classification of fixed asset grouping based on specific production characteristics is also suitable for grouping by the level of fixed asset utilization. This classification is particularly important for the efficient use of long-term assets in enterprises with seasonal production. Based on the level of utilization of the available fixed assets, we propose grouping them into the following categories: reserve, in

operation (movable and immovable), re-equipment, repair, reconstruction and completion, and mothballed fixed assets.

Mothballed fixed assets refer to those that are not in use for a certain period. These assets typically arise from the seasonal nature of production within enterprises.

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## ПУТИ СОВЕРШЕНСТВОВАНИЯ ВЕДЕНИЯ СТАТИСТИКИ ТРУДА В РЕСПУБЛИКЕ УЗБЕКИСТАН НА ОСНОВЕ ЗАРУБЕЖНОГО ОПЫТА

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**Аннотация:** В статье рассматриваются пути совершенствования ведения статистики труда в Узбекистане на основе зарубежного опыта. Внедрение международных стандартов труда и цифровых технологий позволяет более точно отслеживать изменения на рынке труда и анализировать их. В статье подчеркивается важность автоматизации статистики труда, учета неформального сектора и сбора данных в режиме реального времени.

**Ключевые слова:** Статистика труда, международные стандарты, цифровые технологии, неформальный сектор, Узбекистан.

### ВВЕДЕНИЕ

Статистика труда является важным инструментом для понимания и регулирования процессов на рынке труда, способствует экономическому развитию и социальной стабильности общества, а также играет ключевую роль в анализе различных аспектов рынка труда.

Стоит отметить, что статистика труда предоставляет данные о рабочей силе, занятости, безработице, заработной плате и других показателях, что позволяет отслеживать текущие тенденции на рынке труда, а также формулировать грамотную и эффективную политику, направленную на обеспечение занятости населения. Именно на основе данных статистики труда разрабатываются программы и законы, направленные на улучшение условий труда, снижение безработицы и повышение занятости.

Официальными производителями данных по статистике труда в Республике Узбекистан являются Агентство статистики при Президенте Республики Узбекистан совместно с Министерством занятости и сокращения бедности. При этом задачи по проведению обследований по вопросам занятости населения, которые являются важнейшим источником данных по статистике труда, возложены на Министерство занятости и сокращения бедности. Агентство статистики при Президенте Республики Узбекистан собирает данные от юридических лиц в форме статистической отчетности, содержащей данные по труду. Перечень показателей, разрабатываемых по статистике труда, устанавливается в ежегодно утверждаемой Статистической программе.

Важная роль и значение ведения статистики труда признаются как руководством государства, так и правительством Республики Узбекистан. Так, в 2020 году была утверждена Национальная стратегия развития статистики Республики Узбекистан на 2020 — 2025 годы, предусматривающая совершенствование статистики труда. Было подчеркнуто, что действующая методика определения занятости и безработицы не полностью соответствует резолюциям Международной Конференции статистики труда (МКСТ). Не применяются последние версии Международной стандартной классификации занятий (МСКЗ-2008) и Международной стандартной классификации образования (МСКО-2011) [1].

### ОБЗОР ЛИТЕРАТУРЫ ПО ТЕМЕ

Статистика труда играет важную роль в оценке состояния и тенденций на рынке труда, а также в принятии решений в области социальной и экономической политики. В Узбекистане ведение статистики труда требует совершенствования для соответствия международным стандартам и более точного отражения изменений на рынке труда. Зарубежный опыт в этой области может служить источником ценных уроков для улучшения систем сбора, анализа и интерпретации данных о труде.

Одним из ключевых аспектов улучшения трудовой статистики является цифровизация процессов сбора и обработки данных. В ряде стран, таких как Германия и Южная Корея, активно внедряются цифровые платформы, позволяющие в реальном времени отслеживать изменения на рынке труда. Исследования Хенкеля и Ли показывают, что автоматизация статистических процессов значительно сокращает время на сбор данных и снижает уровень ошибок при их обработке. Внедрение подобных систем в Узбекистане может улучшить точность и своевременность публикации данных о занятости и безработице.

Эффективный сбор данных является основой для качественного анализа рынка труда. В странах Европейского Союза используется система активного мониторинга, включающая как опросы домохозяйств, так и данные работодателей. Как подчеркивают Браун и Смит, регулярное проведение национальных опросов и использование административных данных позволяет получить более полную картину занятости, включая неформальный сектор, который особенно важен для развивающихся стран, таких как Узбекистан.

Совершенствование системы ведения статистики труда в Узбекистане требует внедрения международных стандартов, цифровизации процессов и активного мониторинга рынка труда. Зарубежный опыт в этой области может служить важным ориентиром для улучшения качества данных, что, в свою очередь, позволит принимать более обоснованные решения в области занятости и социальной политики.

## **МЕТОДОЛОГИЯ ИССЛЕДОВАНИЯ**

В реализации этих исследовательских работ использовались широко применяемые методы в научной методологии. Применение дедуктивных и индуктивных методов — от общего к частному и наоборот — эффективно для изучения предмета, а метод абстрактно-логического мышления важен для системного анализа процесса. В процессе научного анализа были широко применены такие научные методы исследования, как наблюдение, обобщение, группировка, сравнение, анализ и синтез.

## **АНАЛИЗ И РЕЗУЛЬТАТЫ**

В 2024 году было принято новое Постановление Президента Республики Узбекистан «О мерах по организации деятельности Агентства статистики при Президенте Республики Узбекистан», благодаря которому была утверждена «Дорожная карта» по углублению реформ в сфере официальной статистики и трансформации деятельности системы. В документе указывается необходимость дальнейшего совершенствования методики ведения статистики занятости и обеспечения опубликования показателей уровня занятости в разрезе пола и возраста[2].

Реализация вышеуказанных задач невозможна без изучения международного опыта в области ведения статистики труда, так как анализ опыта других стран позволяет перенимать передовые методы и технологии сбора, обработки и анализа данных. Это помогает улучшить качество и точность статистической информации, а также оптимизировать процессы работы национальных статистических органов.

Международные стандарты и методы ведения статистики труда обеспечивают сопоставимость данных между странами. Также международное сотрудничество в этой области способствует обмену знаниями и опытом между специалистами различных стран, что улучшает профессиональные навыки сотрудников национальных статистических служб и содействует внедрению инновационных подходов.

Изучение международного опыта помогает обеспечить соответствие национальной статистики международным стандартам, таким как рекомендации Международной организации труда (МОТ). Это необходимо для обеспечения достоверности и признания данных на международном уровне.

Анализ опыта других стран по внедрению международных стандартов в области статистики труда позволит быстрее адаптировать их под национальные цели, выявить слабые места в национальной статистической системе и найти успешные примеры решения подобных проблем. Это позволит целенаправленно улучшить определенные аспекты национальной системы, избегая распространенных ошибок.

Основной международной организацией, разрабатывающей стандарты в области статистики труда, является Международная организация труда (МОТ). Одной из последних резолюций, принятых на Международной конференции статистиков труда, является Резолюция о статистике неформальной

экономики. Первые статистические определения и концепции по измерению неформальности были разработаны МОТ и ее участниками еще в 1993 году.

Большинство стран мира стремятся следовать требованиям, предъявляемым МОТ при статистическом анализе рынка труда. В Российской Федерации основным источником статистических данных о занятых и безработных являются данные, полученные в результате выборочных обследований рабочей силы, что соответствует международным рекомендациям. Данное обследование проводится в соответствии с основными методологическими и организационными положениями по проведению выборочного обследования рабочей силы, утвержденными приказом Росстата от 29.12.2023 № 707, в котором определены задачи проведения обследования[4]:

- Измерение численности лиц по статусу участия в составе рабочей силы;
- Измерение численности лиц по участию в различных формах трудовой деятельности;
- Измерение недоиспользования рабочей силы.

В зависимости от статуса участия в составе рабочей силы, исходя из короткого учетного периода (обследуемой недели), лица классифицируются как занятые, безработные и лица, не входящие в состав рабочей силы, включая лиц, относящихся к потенциальной рабочей силе. Все три категории статуса рабочей силы являются взаимоисключающими и исчерпывающими: занятость имеет приоритет по отношению к двум другим категориям, а безработица имеет приоритет по отношению к лицам, не входящим в состав рабочей силы.

В Российской Федерации, помимо общепризнанных статистических показателей на федеральном уровне и уровне субъектов, исчисляется показатель, характеризующий изменение производительности труда во времени, именуемый индексом производительности труда.

В соответствии с Методикой расчета показателя «Индекс производительности труда», утвержденной приказом Росстата от 28.04.2018 г. № 274, для исчисления индекса производительности труда по экономике в целом используется следующая формула[4]:

$$I_{пр.т.} = \frac{I_{ВВП}}{I_{ЗТ}} \times 100\%, \text{ где}$$

**I<sub>ВВП</sub>** – индекс физического объема валового внутреннего продукта периода  $t$  к периоду  $t-1$ ;

**I<sub>ЗТ</sub>** – индекс совокупных затрат труда периода  $t$  к периоду  $t-1$ .

Расчеты индексов производительности труда по отраслям экономики осуществляются по формуле:

$$I_{в.д.дс.} = \frac{I_{дс}}{I_{ЗТ}} \times 100\%, \text{ где}$$

**I<sub>в.д.дс.</sub>** - индекс производительности труда по отрасли периода  $t$  к периоду  $t-1$ ;

**I<sub>дс</sub>** – индекс физического объема валовой добавленной стоимости по отрасли периода  $t$  к периоду  $t-1$ .

В Республике Беларусь статистика труда и стоимости рабочей силы является важной частью как экономической, так и социальной статистики.

Статистические показатели занятости и недоиспользования рабочей силы рассчитываются на основе экстраполированных первичных статистических данных выборочного обследования домашних хозяйств с целью изучения проблем занятости населения (далее – обследование) и единовременного выборочного обследования домашних хозяйств по изучению внешней трудовой миграции.

К безработным относятся лица в возрасте 15–74 лет, которые в обследуемую неделю одновременно соответствовали следующим критериям [5]:

- не имели работы (занятости, приносящей доход);
- занимались поиском работы или предпринимали шаги к организации собственного дела в течение четырех недель, включая обследуемую неделю;
- были готовы приступить к работе в течение обследуемой недели.

Помимо этого, учитывается продолжительность безработицы (продолжительность поиска работы), которая означает промежуток времени, в течение которого лицо искало работу, используя при этом любые способы, или пыталось организовать собственное дело.

Безработные в состоянии длительной безработицы – это лица, у которых продолжительность поиска работы или организации собственного дела составляет 12 месяцев и более.

Отдельной категорией выделяется потенциальная рабочая сила, лица, находящиеся в условиях неполной занятости с точки зрения продолжительности рабочего времени, волонтеры.

В Интерактивно информационно-аналитической системе распространения официальной статистической информации Национального статистического комитета Республики Беларусь, помимо статистических показателей по труду, разрабатываемых самим статистическим комитетом, располагаются данные Министерства труда и социальной защиты Республики Беларусь, такие как число свободных рабочих мест (вакансий), заявленных организациями в органы по труду, занятости и социальной защите, численность трудоустроенных граждан, численность безработных, зарегистрированных в органах по труду, занятости и социальной защите на конец периода.

Статистические методы учета занятых, безработных и лиц, не входящих в состав рабочей силы в Республике Казахстан, также соответствуют международным стандартам и формируются на основе выборочного обследования занятости населения.

При определении статуса участия в составе рабочей силы отнесение лиц к занятым, безработным и лицам, не входящим в состав рабочей силы, производится с применением правил приоритетности: занятости отдается предпочтение перед безработицей, а безработица имеет приоритет по отношению к лицам, не входящим в состав рабочей силы.

Более того, самостоятельно занятые лица распределяются на продуктивно занятых и непродуктивно занятых.

В группу продуктивно занятых включаются следующие категории самостоятельно занятых лиц [6]:

Работодатели, использующие труд наемных работников, — независимо от уровня среднемесячных доходов;

члены производственного кооператива, занятые на индивидуальной основе (зарегистрированные и действующие), занятые в личном подсобном хозяйстве производством продукции частично для потребления, обмена (продажи); занятые в личном подсобном хозяйстве производством продукции только для обмена (продажи) — с уровнем среднемесячных доходов выше величины прожиточного минимума.

В группу непродуктивно занятых включаются следующие категории самостоятельно занятых лиц: занятые на индивидуальной основе (бездействующие из числа зарегистрированных и незарегистрированных); неоплачиваемые работники семейных предприятий (хозяйств) — независимо от уровня среднемесячных доходов;

члены производственного кооператива, занятые на индивидуальной основе (зарегистрированные и действующие), занятые в личном подсобном хозяйстве производством продукции частично для потребления, обмена (продажи); занятые в личном подсобном хозяйстве производством продукции только для обмена (продажи) — с уровнем среднемесячных доходов ниже величины прожиточного минимума.

В результате проведения выборочного обследования занятости населения помимо вышеуказанных показателей определяется численность трудящихся мигрантов, перемещающихся в целях поиска работы.

Помимо обследования рабочей силы, Бюро национальной статистики три раза в год проводит обследование населения по вопросам достойного труда. В анкету включены вопросы о количестве отработанного времени и причинах работы неполный рабочий день, желании респондентов работать больше времени или осуществлять дополнительную работу при условии, что это принесет дополнительный заработок, профессиональном обучении, условиях труда, времени, ежедневно затрачиваемом на дорогу до работы и др.

В Соединенных Штатах Америки задачи по ведению статистики труда возложены на Бюро статистики труда. В настоящее время Бюро статистики труда измеряет активность на рынке труда, условия труда, индекс потребительских цен и производительность в экономике США.

В США в 1940 году было проведено первое обследование рабочей силы в мире (на ежемесячной основе) с новой концептуальной основой, предназначенной для предоставления информации о соответствующих характеристиках рынка труда. В настоящее время аналог обследования рабочей силы в США — Текущее обследование населения (CPS), представляющее собой ежемесячное обследование домохозяйств, проводимое Бюро переписи населения при финансовой поддержке Бюро статистики труда. Оно предоставляет всесторонний массив данных о рабочей силе, занятости, безработице, лицах, не входящих в состав рабочей силы, часах работы, доходах и других демографических характеристиках рабочей силы [7].

Программа текущей статистики занятости (CES) предоставляет подробные отраслевые оценки занятости в несельскохозяйственном секторе, отработанном времени и заработной плате работников, включенных в платежные ведомости. Для оценки заработной платы раз в год проводится базовая корректировка, которая представляет собой привязку оценки занятости на основе выборки к полной численности населения, доступной главным образом через записи, поданные работодателями в государственные агентства по информации о рынке труда, отражающие налоги на страхование по безработице (UI).

Помимо текущих обследований, Бюро статистики труда проводит специальные дополнительные обследования с целью изучения тех или иных вопросов. Например, в 2017 году была собрана информация о работниках, которые работали в четырех альтернативных формах занятости: независимые подрядчики, дежурные работники (по вызову), работники агентств временной помощи и работники, предоставленные фирмами по контракту. В ходе данного обследования была собрана информация в разбивке по полу, расовой принадлежности, возрасту, уровню образования, продолжительности рабочего времени, профессиям и должностям.

Бюро статистики труда совершенствует вопросы по текущему обследованию населения в соответствии с требованиями времени. Так, с октября 2022 года были добавлены новые вопросы, посвященные удаленной работе или работе на дому за плату. Эти вопросы касаются того, работали ли люди удаленно или работали дома за плату в течение контрольной недели исследования, а также количества часов, проведенных удаленно. Удаленную работу или оплачиваемую работу на дому часто называют просто «дистанционной работой».

В Великобритании численность занятых определяется благодаря Обследованию рабочей силы и включает в себя лиц в возрасте 16 лет и старше, которые выполняли один час или более оплачиваемой работы в неделю, а также тех, у кого была работа, на которой они временно отсутствовали. Обследование рабочей силы обеспечивает лучший показатель занятости на уровне всей экономики, поскольку он является наиболее комплексным показателем.

Основным показателем занятости в Великобритании является уровень занятости среди людей в возрасте от 16 до 64 лет. В статистике Великобритании занятость и рынок труда включают в себя две группы: люди на работе и люди не на работе (рис. 1).

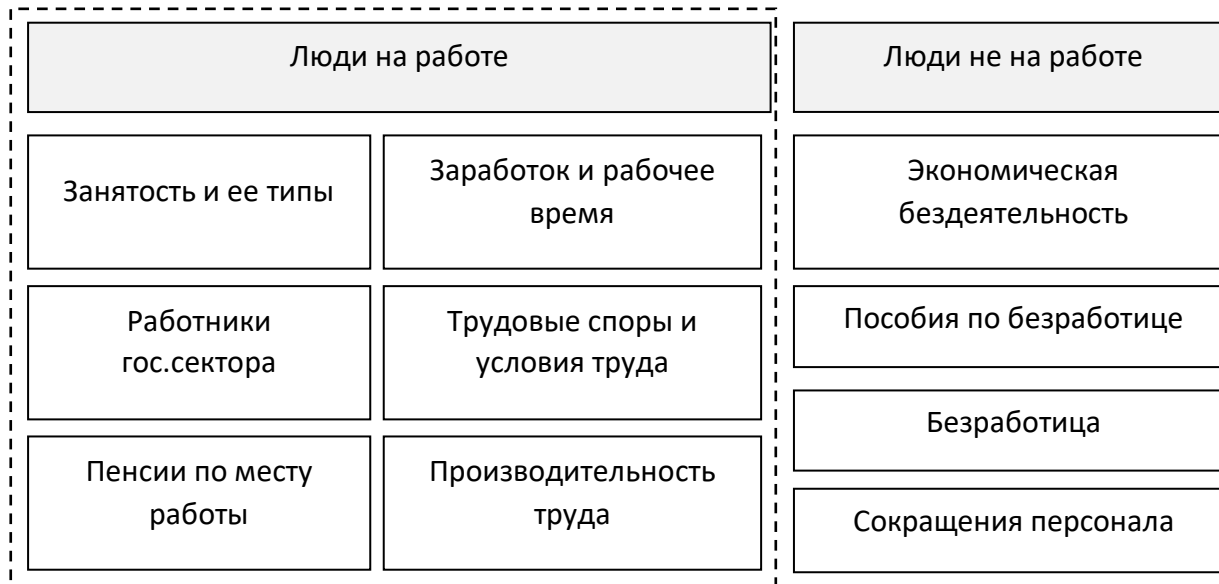


Рисунок-1. Показатели занятости и рынка труда Великобритании [8]

Примечательно, что все обследования рынка труда в Великобритании являются выборочными. Например, Ежемесячное обследование заработной платы включает в себя 9000 предприятий. Размер выборки Ежегодного исследования рабочего времени и заработной платы составляет 1% от выборки должностей сотрудников, взятых из записей Налогового и таможенного управления.

Для расчета некоторых показателей используются данные из нескольких источников. Например, индекс затрат на рабочую силу в час, который также известен как индекс стоимости рабочей силы (составляется всеми странами-членами ЕС и сопоставляется Евростатом), рассчитывается на

основе информации, полученной из Ежемесячного обследования заработной платы (MWSS) и Обследования рабочей силы (OPC), а также ряда других источников.

Индекс стоимости рабочей силы — это мера стоимости найма работника за час работы. Он представляет собой общую стоимость найма отдельного человека, которая в первую очередь включает заработок работника, но также охватывает расходы, не связанные с заработной платой.

Индекс стоимости рабочей силы рассчитывается как индекс Ласпейреса (или базово-взвешенный), ежегодно привязываемый к цепочке. Индекс Ласпейреса — это индекс с фиксированной базой, индексные числа компонентов которого представляют собой взвешенные арифметические средние, в данном контексте — отношение стоимости труда в час в текущем периоде к стоимости часа труда в базовом периоде, используя веса, полученные из совокупных затрат на рабочую силу в базовом периоде. По стандартам Евростата базовым годом на данный момент считается 2020 год.

Тенденции средних почасовых затрат на рабочую силу для отдельных видов экономической деятельности взвешиваются по общим затратам на рабочую силу, связанным с этим видом деятельности, которые фиксируются на один год.

Расчет индекса стоимости рабочей силы производится по формуле [8]:

$$LCI_n = \frac{\sum_{s=1}^g (x_{bt,s} \left(\frac{y_{bt+1}}{x_{bt+1}}\right))}{\sum_{s=1}^g y_{bt+1}} \times \frac{\sum_{s=1}^g (x_{bt,s} \left(\frac{y_{bt+2}}{x_{bt+2}}\right))}{\sum_{s=1}^g y_{bt+2}} \times \dots \times \frac{\sum_{s=1}^g (x_{bt,s} \left(\frac{y_{bt+n}}{x_{bt+n}}\right))}{\sum_{s=1}^g y_{bt+n}}$$

$LCI$  - индекс стоимости рабочей силы;

$x$  – отработанной времени (количественные веса);

$y$  – затраты на рабочую силу (веса затрат);

$n$  – отчетный период, например, 2023 год;

$bt$  – базисный период, например, 2020 год;

$g$  – вид экономической деятельности;

$s$  - суммарная возвращаемая заработная плата и рассчитанные другие затраты на рабочую силу определенного вида экономической деятельности.

При этом, компонент затрат на рабочую силу формируется в основном из Обследования ежемесячной заработной платы (MWSS); прочие затраты оцениваются с использованием ряда других источников. Компонент отработанных часов взят из Обследования рабочей силы (LFS).

Турецкий статистический институт (TurkStat) регулярно собирает подробную и актуальную информацию о рабочей силе, занятости и безработице с помощью обследования рабочей силы домохозяйств (LFS) в качестве основного источника данных, который предоставляет информацию о предложении рабочей силы. Это основной источник данных о предложении на рынке труда, благодаря которому формируется информация о занятых, а именно занятост в разрезе видов экономической деятельности, профессии, статуса занятости и рабочего времени. Также благодаря обследованию рабочей силы разрабатываются данные о неработающих (уваляются ли они безработными или вне рабочей силы, способы и продолжительность поиска работы, готовность приступить к работе, причина не поиска).

В результате перехода на МКСТ-19 фермеры, производящие продукцию для собственного потребления, были исключены из занятости. Также стали публиковаться следующие показатели [9]:

1. Совокупный уровень неполной занятости и безработицы, связанный с продолжительностью рабочего времени, который рассчитывается по формуле:

$$UU = \frac{E_U + U}{LF} \times 100,$$

$UU$  - совокупный уровень неполной занятости и безработицы;

$E_U$  - численность занятых неполное рабочее время;

$U$  - численность безработных;

$LF$  - рабочая сила.

При этом, к занятым неполное рабочее время лица относятся занятые в течение учетной недели и фактически проработавшие в общей сложности менее 40 часов (на основной работе и на дополнительных работах).

2. Совокупный уровень потенциальной рабочей силы и безработных:

$$UPLF = \frac{U + PLF}{LF + PLF} \times 100,$$



*UPLF* - совокупный уровень потенциальной рабочей силы и безработных;

*PLF* - потенциальная рабочая сила.

3. Совокупный показатель недоиспользования рабочей силы:

$$UUPLF = \frac{E_U + U + PLF}{LF + PLF} \times 100,$$

*UUPLF* - совокупный уровень недоиспользования рабочей силы. Интересно, что в Турции к безработным также относятся лица, которые уже нашли работу и приступят к трудовой деятельности в течение 3 месяцев или устроились на собственное рабочее место, но ждут оформления необходимых документов для начала работы. Также исследуются каналы активного поиска работы, которые делятся на следующие группы:

- связались с работодателем напрямую;
- попросили друзей, родственников и т. д. найти работу;
- подали заявление в Турецкую службу занятости для поиска работы;
- подали заявку или связались с частными службами занятости;
- искали подходящую работу в газетах, журналах, интернете или размещали объявления;
- опубликовали или ответили на объявление о работе в газете;
- отправили или обновили резюме для подачи и заявления о приеме на работу онлайн;
- прошли устный или письменный экзамен/собеседование, чтобы найти работу;
- сделали все необходимое для открытия собственного бизнеса.

При проведении обследования рабочей силы респондентам в возрасте 15 лет и старше, проживающим в домохозяйстве, задаются вопросы для определения статуса занятости.

#### **Заключение и предложения**

Таким образом, на основании обзора статистической методологии и практики в области изучения рынка труда в различных странах, а именно в России, Беларуси, Казахстане, США, Великобритании и Турции, можно сделать вывод о том, что рассматриваемые страны руководствуются стандартами и рекомендациями МОТ, чтобы обеспечить точность и сопоставимость своих данных. Это способствует лучшему пониманию динамики рынка труда, что, в свою очередь, помогает в разработке эффективных экономических и социальных политик. Важно отметить, что каждая страна адаптирует методы и подходы к статистике труда в соответствии со своими национальными особенностями, что позволяет учитывать специфические экономические и социальные условия.

Важность ведения статистики труда для анализа рынка труда, выявления тенденций и проблем, а также разработки соответствующих политик и программ отмечается во всех странах. Статистические системы разных стран, несмотря на различия в подходах и методологиях, демонстрируют общий тренд к улучшению качества данных и внедрению инноваций в области сбора и анализа информации.

Среди методов сбора стоит выделить выборочные обследования домашних хозяйств и обследования предприятий, а также использование административных источников. По нашему мнению, в практику ведения статистики труда в Республике Узбекистан стоит включить расчет таких показателей, как:

- индекс производительности труда;
- индекс стоимости рабочей силы;
- отработанное время исходя из данных обследования рабочей силы;
- уровень неполной занятости.

Также целесообразным представляется проведение сезонных корректировок при расчете занятости и безработицы. Помимо предложенных к внедрению показателей, целесообразным представляется следующее:

- усиление международного сотрудничества в целях перенимания лучших практик и адаптации их к национальным условиям. Это будет способствовать повышению качества национальных статистических систем;

- совершенствование методики обследования по вопросам занятости населения в Республике Узбекистан в соответствии с рекомендациями МОТ;

- помимо методики обследования по вопросам занятости необходимо регулярно пересматривать и обновлять другую методологию и инструменты статистики труда в ответ на

глобальные изменения, такие как цифровизация экономики, изменение форм занятости и рост неформальной экономики;

- обучение и развитие кадров;
- повышение прозрачности и доступности данных.

Таким образом, результаты исследования позволили выделить ключевые аспекты международного опыта, которые могут быть полезны для совершенствования национальной системы статистики труда. Выводы исследования также подтверждают важность адаптации международных стандартов МОТ к специфическим условиям каждой страны для достижения более точного и достоверного статистического анализа.

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## ПРОБЛЕМЫ В СФЕРЕ ОКАЗАНИЯ КОЛЛЕКТОРСКИХ УСЛУГ В ЗАРУБЕЖНОЙ ПРАКТИКЕ И ВОЗМОЖНОСТИ ИХ ПРЕОДОЛЕНИЯ

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**Аннотация:** В статье рассматриваются проблемы, возникающие при оказании коллекторских услуг в зарубежной практике, а также возможные пути их преодоления. Основные вопросы включают правовые пробелы, защиту прав должников и недостаток прозрачности в предоставлении услуг. В статье предлагаются решения, связанные с регулированием деятельности коллекторов и укреплением доверия между должниками и кредиторами.

**Ключевые слова:** коллекторские услуги, правовые пробелы, права должников, зарубежная практика, регулирование.

### ВВЕДЕНИЕ

В сложном мире глобальных финансов долги и кредиты играют решающую роль в стимулировании экономической деятельности. Одним из важных аспектов этого является практика взыскания долгов, которая с течением времени развивалась вместе с финансовыми системами, определяя способы осуществления экономических операций.

Президент Республики Узбекистан неоднократно подчеркивал важность финансовой стабильности и развития эффективных механизмов управления долгами. Особо подчеркнул: "Финансовая устойчивость страны зависит от способности банков эффективно управлять кредитами и долгами, обеспечивая тем самым стабильное развитие экономики".

Президент отметил необходимость модернизации финансового сектора и внедрения передовых практик. Он заявил: "Мы должны стремиться к внедрению лучших международных практик в управлении долгами, чтобы наши банки могли эффективно работать в глобальной финансовой системе". Это утверждение подчеркивает важность изучения и адаптации международного опыта в области взыскания долгов.

Поскольку нормативно-правовая база в разных странах отличается, важно понимать правовые основы деятельности по взысканию долгов. Сравняя международные стандарты с местной практикой, мы можем получить представление о правовых основах, регулирующих взыскание долгов. Такое сравнение помогает понять сложность процесса взыскания долгов и его правовые последствия.

Шавкат Миромонович Мирзиёев также выделил важность правовых реформ в финансовом секторе, отметив: "Реформа правовой базы финансового сектора — ключевой элемент для обеспечения прозрачности и эффективности банковских операций". Эти реформы необходимы для создания условий, способствующих развитию устойчивых и эффективных механизмов взыскания долгов.

### ОБЗОР ЛИТЕРАТУРЫ ПО ТЕМЕ

В связи с актуальностью данной проблемы в области управления долгами и кредитной деятельностью в банковском секторе привлекают внимание как местных, так и зарубежных учёных. В рамках данной научной статьи рассматриваются наиболее значимые исследования, посвящённые этим темам, с акцентом на анализ практик и стратегий, применяемых в Узбекистане и за рубежом. В книге Джона М. Гарригана и Пола Р. Гарригана предоставляется исчерпывающее руководство по правовым аспектам управления долгами и кредитами, включая анализ кейсов и правовых проблем<sup>134</sup>.

Дэвид Дж. Уитен и Грегори К. Джонс рассматривают методы и стратегии взыскания долгов, а также правовые аспекты банкротства<sup>135</sup>.

Многие зарубежные экономисты посвящают исследования вопросам управления кредитными рисками. В статье Петера Шолца, опубликованной в научном журнале «Research Gate», приводится ряд методов управления кредитными рисками и практики взыскания долгов<sup>136</sup>. Эти учёные внесли

<sup>134</sup> Дэвид Дж. Уитен и Грегори К. Джонс «The Law of Debtors and Creditors», <https://aspublishing.com/products/warren-debtorscreditors8> - 236 с.

<sup>135</sup> П. Шолц «Debt Collection and Bankruptcy», <https://www.nolo.com/> - 152 с.

<sup>136</sup> ResearchGate, <https://www.researchgate.net/>.

значительный вклад в понимание и развитие практик управления долгами и кредитной деятельностью в банковском секторе, предоставляя важные аналитические данные и рекомендации.

## **МЕТОДОЛОГИЯ ИССЛЕДОВАНИЯ**

В реализации этих исследовательских работ использовались широко применяемые методы в научной методологии. Использование дедуктивных или индуктивных методов, в порядке от общего к частному и наоборот, эффективно для изучения предмета, а метод абстрактно-логического мышления важен для системного анализа процесса. В процессе научного анализа эти методы, такие как наблюдение, обобщение, группировка, сравнение, анализ и синтез, были широко применены.

## **АНАЛИЗ И РЕЗУЛЬТАТЫ**

Эффективность практики взыскания долгов выходит за рамки непосредственного взаимодействия между кредиторами и должниками, оказывая влияние на более широкую финансовую экосистему. Эффективное и этичное взыскание долгов играет ключевую роль в поддержании здоровых кредитных рынков, обеспечении ликвидности и финансовой стабильности. Благодаря эффективному управлению и возврату просроченной задолженности кредиторы могут поддерживать свою деятельность, способствуя общему подъёму и устойчивости экономики.

Культурные различия существенно влияют на практику взыскания долгов по всему миру. В странах с высокой степенью стигматизации, связанной с долгами, таких как Япония, практика взыскания долгов, как правило, более сдержанная и уважает частную жизнь людей, чтобы избежать позора должников. Напротив, в странах, где правоприменительная практика слабее, могут применяться более агрессивные методы взыскания долгов, хотя это меняется по мере того, как набирают силу глобальные стандарты справедливого взыскания долгов.

Заглядывая в будущее, можно сказать, что индустрия взыскания долгов должна ориентироваться в сложностях международной правовой среды и учитывать потенциал глобальных экономических изменений. Международное сотрудничество и стандартизация практики взыскания долгов могут помочь справиться с этими проблемами. Такие организации, как Международная финансовая корпорация (IFC), уже работают над достижением этих целей, содействуя диалогу между странами для обмена передовым опытом и разработки общих стандартов, которые уважают права как кредиторов, так и должников.

Индустрия взыскания долгов играет решающую роль в кредитном процессе, выступая в качестве важного связующего звена между кредиторами и должниками. Эффективно управляя взысканием непоплаченных долгов, коллекторские агентства способствуют повышению ликвидности финансовой системы, позволяя кредиторам продолжать предоставлять кредиты. Это, в свою очередь, поддерживает экономическую активность и экономический рост.

Рассмотрим две основные бизнес-модели в сфере взыскания долгов: агентская модель и модель выкупа долгов. Взыскание долгов, являющееся важной функцией в финансовом секторе, позволяет банкам и другим кредитным учреждениям возвращать долги, которые не были погашены своевременно.

В основном существуют две модели, с помощью которых выполняется эта функция: агентская модель и модель покупки долгов. Каждая модель имеет свои стратегические преимущества и соответствует различным бизнес-целям и нормативной среде.

В соответствии с агентской моделью банк или кредитор передаёт задачу инкассации на аутсорсинг стороннему агентству. Эта модель традиционно используется, когда банк предпочитает не заниматься просроченной задолженностью собственными силами, что потребовало бы содержания специального персонала для взыскания долгов, их обучения и управления соответствующими административными и операционными расходами. Вместо этого банк нанимает коллекторское агентство, которое выступает в качестве его официального представителя. Агентство взаимодействует с должниками от имени банка, используя различные стратегии для взыскания причитающихся денежных средств. Банк выплачивает агентству комиссию, обычно в виде процента от собранной суммы.

Эта модель была довольно популярна на ранних этапах развития индустрии взыскания долгов, но в последние годы наблюдается сдвиг в сторону модели выкупа долгов. Этот сдвиг частично обусловлен новыми законами, которые делают агентскую модель менее привлекательной в соответствии с текущей финансовой практикой.

Вторая модель, процветающая на современном рынке, предполагает, что коллекторское агентство выкупает просроченные долги у банка за фиксированную сумму. Как только долг приобретён, агентство полностью владеет им и берёт на себя ответственность за взыскание полной суммы с должника. Эта модель очень выгодна для банков, особенно в условиях нормативно-правовой базы, устанавливаемой центральными банками, которые требуют создания финансовых резервов для покрытия непогашенных долгов, часто составляющих 100% от суммы задолженности по истечении определённого периода, например, 180 дней неуплаты.

Анализ текущего состояния потребительской задолженности в Соединённых Штатах даёт всестороннее представление об экономическом давлении, с которым сталкиваются американские домохозяйства, и потенциальных последствиях для индустрии взыскания долгов. Это углублённое исследование охватывает различные аспекты финансового ландшафта, от роста уровня задолженности до изменения динамики практики кредитования и их последствий для взыскания задолженности.



Рисунок 1. Выдача ипотечных кредитов в США в период от 2002 по 2022 года<sup>137</sup>

Далее приведён обзор потребительской задолженности в США за период 2022-2023 годов:

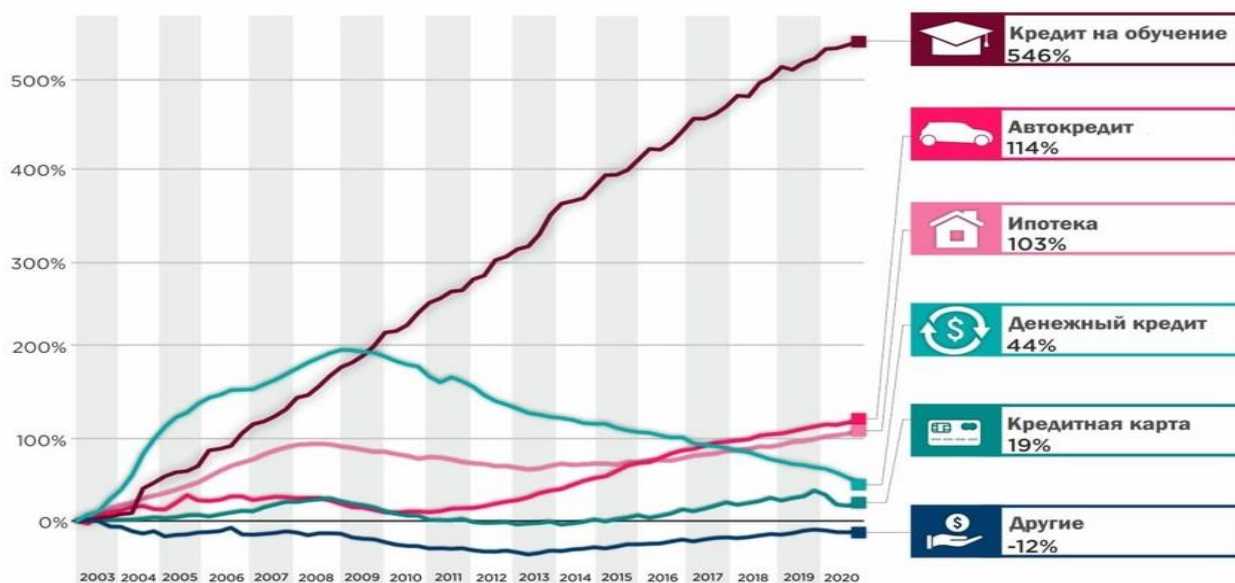
- Высокий долг домохозяйств: 72% ВВП;
- Просроченная задолженность по кредитным картам достигла рекорда за 13 лет;
- Процентные выплаты по неипотечным кредитам достигли \$573 млрд и впервые могут превысить проценты по ипотеке;
- К концу года долги американцев по кредитным картам взлетели до \$1,13 трлн;
- списание студенческих долгов на \$4,8 млрд;
- Просрочки по автокредитам достигли рекорда за 30 лет;
- Долг крупнейших публичных нефинансовых компаний США взлетел до \$7,66 трлн;
- Объём кредитов, выданных банками в США, приближается к \$12 трлн;
- Ставка по ипотечным кредитам в США достигла 8%, количество заявок рухнуло до уровня 1995 года;
- списание студенческих долгов на \$39 млрд;
- Рост средних ставок по кредитам до 6%;
- 9,8% доходов домохозяйств уходит на обслуживание долгов;
- Процентные расходы американских домохозяйств выросли до \$470 млрд в год, что составляет 2,4% располагаемых доходов;
- Всё больше американцев используют приложения "купи сейчас, заплати потом";
- Американцы задолжали банкам рекордные \$986 млрд по кредитным картам. Общий долг домохозяйств превысил \$16,9 трлн;
- Долги американских семей выросли на 7,6% и превысили \$16 трлн;
- Рекордный рост кредитов в истории США из-за обрушения размещений облигаций и акций;
- Ставки по ипотеке в США превысили 7,16% впервые за десятилетия;

<sup>137</sup> <https://www.tadviser.ru/index.php/> Статья:Кредитование\_в\_США

- Рост ставок по ипотеке до 5,27% впервые с 2009 года из-за взлёта инфляции;
- Рекордный рост потребительского долга за 20 лет до уровня выше \$15 трлн.

Этот рост долга охватывает различные формы заимствований, от ипотечных и автокредитов до студенческих займов и задолженности по кредитным картам. Экономическая ситуация усложняет выплату долгов многим американским домохозяйствам. В 2023 году процентные платежи по долгам, не связанным с ипотекой, достигли 573 миллиардов долларов, что отражает финансовую нагрузку на потребителей. Нормативно-правовая база также меняется, и возможные изменения могут повлиять на деятельность коллекторов.

Например, решение администрации Байдена списать студенческие займы на сумму 39 миллиардов долларов отражает изменение политики в сторону снижения долговой нагрузки на физических лиц, что может привести к сокращению портфелей для взыскания в сегменте студенческих займов.



**Рисунок 2. Изменение задолженности домашних хозяйств в США за период 2003 по 2020 года**<sup>138</sup>

Текущее состояние потребительской задолженности в Соединённых Штатах и сложности кредитного рынка создают как возможности, так и проблемы для индустрии взыскания долгов. Поскольку задолженность домохозяйств достигает новых высот, а экономический ландшафт остаётся нестабильным, сборщикам долгов приходится ориентироваться во всё более сложных условиях. Это предполагает баланс между агрессивной тактикой восстановления и необходимостью проявлять сострадание и уступчивость, адаптироваться к технологическим достижениям и реагировать на изменения в законодательстве.

Внедрение передовых технологий, таких как искусственный интеллект (ИИ) и машинное обучение (ML), может значительно повысить эффективность процессов взыскания долгов. Решения, основанные на ИИ, позволяют анализировать поведение должников, прогнозировать вероятность платежей и автоматизировать рутинные задачи, высвобождая человеческие ресурсы для решения более сложных задач. Цифровая платформа для взыскания долгов в США TrueAccord использует алгоритмы машинного обучения для персонализации общения с должниками, что приводит к более высоким показателям взыскания и повышению удовлетворённости клиентов.

Технология блокчейн — это ещё одно новшество, которое потенциально может помочь в взыскании долгов. Предоставляя безопасную и прозрачную бухгалтерскую книгу для регистрации транзакций, блокчейн может уменьшить количество споров о владении долгом и улучшить отслеживаемость истории платежей. Например, "Делойт" изучил применение блокчейна при взыскании долгов, подчеркнув, как это может упростить процесс проверки и снизить вероятность ошибок и мошенничества.

<sup>138</sup> <https://www.tadviser.ru/index.php/> Статья:Кредитование\_в\_США

Упрощение и рационализация процесса лицензирования коллекторских агентств может способствовать развитию конкуренции и повышению качества обслуживания. Управление по финансовому надзору (FCA) Великобритании ввело строгий режим лицензирования, который требует от коллекторских агентств продемонстрировать свою приверженность справедливому отношению к клиентам. Этот режим привёл к повышению профессионализма и подотчётности отрасли, а агентства регулярно проходят аудит на предмет соблюдения этических стандартов.

Резервный банк Индии (RBI) предложил новые руководящие принципы для платформ цифрового кредитования, включая сборщиков долгов, для решения вопросов, связанных с прозрачностью и защитой прав потребителей. Эти руководящие принципы предусматривают чёткое раскрытие условий кредитования и требуют, чтобы платформы создавали механизмы рассмотрения жалоб, тем самым повышая доверие и подотчётность в экосистеме цифрового кредитования.

Улучшение репутации и укрепление доверия потребителей имеют решающее значение для долгосрочного успеха агентств по взысканию долгов. Прозрачная практика, чёткая коммуникация и уважительное отношение к должникам могут помочь агентствам выделиться на конкурентном рынке. Lowell Financial в Великобритании успешно внедрила подход, ориентированный на интересы потребителей, предоставив должникам онлайн-порталы для управления своими счетами, получения финансовых консультаций и согласования планов погашения задолженности. Такой подход не только повысил показатели возмещения, но и укрепил репутацию агентства в области соблюдения этических норм.

## **ВЫВОДЫ И ПРЕДЛОЖЕНИЯ**

Международное сотрудничество и внедрение стандартизированных практик могут помочь в решении глобальных проблем, связанных с взысканием долгов. Такие организации, как Международная ассоциация специалистов по кредитованию и взысканию долгов (IACC), играют важную роль в разработке и продвижении единых стандартов и лучших практик для повышения прозрачности и эффективности в этой отрасли. Работая над гармонизацией стандартов и распространением передовой практики в различных юрисдикциях, эти организации способствуют обмену знаниями и опытом. Это помогает коллекторским агентствам ориентироваться в сложностях международного законодательства и совершенствовать свою деятельность.

Решение проблем, связанных с международным взысканием долгов, требует многогранного подхода, сочетающего соблюдение законодательства, технологические инновации, учёт культурных особенностей, усовершенствование нормативно-правовой базы и международное сотрудничество. Применяя эти стратегии, агентства по взысканию долгов могут повысить эффективность своей работы, укрепить доверие потребителей и обеспечить соблюдение этических норм, что в конечном итоге способствует созданию более устойчивой и ответственной отрасли.

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## O‘ZBEKISTON VA JAHON SANOAT IQTISODIYOTINING GLOBAL MUAMMOLARI VA TENDENSIYALARI

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**Annotatsiya:** Ushbu maqola O‘zbekiston va jahon sanoat iqtisodiyotida yuzaga kelayotgan global muammolar va tendensiyalarni o‘rganadi. Tadqiqotda sanoat sektoridagi asosiy global muammolar, rivojlanish tendensiyalari va ularning O‘zbekiston iqtisodiyotiga ta‘siri tahlil qilinadi. Maqola sanoatning global miqyosda qanday rivojlanishi va O‘zbekiston sanoati uchun qanday imkoniyatlar va qiyinchiliklar mavjudligini ko‘rsatadi.

**Kalit so‘zlar:** Sanoat iqtisodiyoti, global muammolar, rivojlanish tendensiyalari, O‘zbekiston sanoati, global iqtisodiyot.

### KIRISH

Sanoat iqtisodiyoti global iqtisodiyotning markaziy komponentlaridan biri sifatida, dunyo miqyosida iqtisodiy o‘shish va barqarorlikni ta‘minlashda muhim rol o‘ynaydi. 2024-yilga kelib, sanoat sektori global yalpi ichki mahsulotning 30% dan ortig‘ini tashkil etadi va 75 milliondan ortiq ish o‘rinlari yaratmoqda. Ushbu raqamlar sanoatning xalqaro miqyosda qanday ahamiyatga ega ekanligini ko‘rsatadi. O‘zbekiston sanoati ham o‘zining barqaror rivojlanish rejalarini orqali global sanoat iqtisodiyoti bilan hamnafas rivojlanmoqda. [1]

Bugungi kunda sanoat sohasida bir qator global muammolar mavjud. Avvalo, ekologik muammolar sanoatning tabiatga ta‘sirini kuchaytirmoqda. 2023-yilning oxiriga kelib, sanoat sektori global karbon chiqarilishlarning 25% ni tashkil etdi. Bu raqam sanoat faoliyatining tabiiy resurslarga qanday salbiy ta‘sir ko‘rsatishini ochiq ko‘rsatadi. Sanoatning tabiatga bo‘lgan bu salbiy ta‘siri global iqlim o‘zgarishlariga olib kelmoqda, bu esa o‘z navbatida, ekologik inqirozlarni keltirib chiqarmoqda. [2]

Bundan tashqari, texnologik o‘zgarishlar, xususan avtomatizatsiya va sun‘iy intellektning rivojlanishi sanoatning an‘anaviy modellari va ish o‘rinlarini o‘zgartirib yubormoqda. Masalan, 2024-yilga kelib, global sanoat avtomatizatsiya darajasi 50% ga etgan. Ushbu texnologik inqilob, sanoatning samaradorligini oshirish bilan birga, ko‘plab an‘anaviy ish o‘rinlarini yo‘qotishga olib kelmoqda, bu esa mehnat bozorida yangi chaqiriqlarga sabab bo‘lmoqda.

Shuningdek, iqtisodiy noaniqliklar ham sanoat sohasining barqarorligini xavf ostiga qo‘ymoqda. Global savdo urushlari va siyosiy beqarorlik sanoat tarmoqlarida o‘zgarishlarga olib kelmoqda, bu esa iqtisodiy o‘shishni sekinlashtirmoqda. 2024-yilda global iqtisodiy o‘shishning 2% ga sekinlashishi kutilmoqda. Ushbu noaniqliklar sanoatning strategik rejalashtirishiga va uzoq muddatli investitsiyalarga ta‘sir ko‘rsatmoqda. [3]

Tadqiqotda sanoatning global miqyosdagi ekologik, texnologik va iqtisodiy muammolarini o‘rganish, ularning O‘zbekiston sanoatiga qanday ta‘sir ko‘rsatishini aniqlash va bu muammolarga qarshi kurashish uchun tavsiyalar ishlab chiqish ko‘zda tutilgan.

Jahon sanoatidagi rivojlanish tendensiyalari, masalan, raqamli transformatsiya va barqaror rivojlanish, sanoat jarayonlarida yangi yondashuvlarni talab qilmoqda. 2024-yilga kelib, sanoat sektorining 60% raqamli texnologiyalarni joriy etishni rejalashtirmoqda, bu esa sanoat jarayonlarini avtomatlashtirish va samaradorlikni oshirish imkoniyatini beradi. Barqaror rivojlanish esa chiqindilarni kamaytirish va energiya samaradorligini oshirishni maqsad qilmoqda. Misol uchun, sanoat korxonalarini chiqindilarni 20% ga qisqartirish va energiya samaradorligini 30% oshirishni rejalashtirmoqda. [4]

Tadqiqot doirasi O‘zbekiston va jahon sanoat iqtisodiyoti bo‘yicha olib boriladi, asosiy e‘tibor global muammolar va tendensiyalarga qaratiladi. O‘zbekiston sanoatining xalqaro standartlarga mos kelishi, global muammolarni hisobga olgan holda rivojlanish strategiyalari o‘rganiladi. Bu orqali, O‘zbekiston sanoati global

iqtisodiyotdagi o'z o'rnini qanday mustahkamlashini va kelajakda qanday rivojlanish yo'nalishlarini belgilashga yordam beriladi.

### ADABIYOTLAR SHARHI

Saidovning global iqtisodiy muammolar va ularning sanoat rivojlanishiga ta'siri asari global iqtisodiy muammolar va ularning sanoat rivojlanishiga ta'sirini tahlil qiladi. Muallif ekologik muammolar, texnologik o'zgarishlar va iqtisodiy beqarorliklarni sanoat sektori nuqtai nazaridan o'rganadi. Kitobda sanoat sektorining ekologik salbiy ta'sirlari, masalan, karbon chiqindilari va tabiiy resurslarning haddan tashqari iste'moli haqida batafsil ma'lumot beriladi. Saidov, shuningdek, sanoatning barqarorligini saqlash uchun qanday choralar ko'rish kerakligi haqida fikr bildiradi. [5]

Yuldashevning asari sanoat iqtisodiyotining global tendensiyalarini o'rganadi. Muallif texnologik rivojlanish, raqamli transformatsiya va avtomatizatsiyaning sanoatga ta'sirini tahlil qiladi. Kitobda jahon sanoatining qanday o'zgarayotganini, yangi texnologiyalar qanday imkoniyatlar va qiyinchiliklar yaratishini ko'rsatadi. Yuldashev, texnologik o'zgarishlarning sanoat rivojlanishiga qanday ta'sir ko'rsatishi va bu o'zgarishlarga qanday tayyorlanish kerakligi haqida muhim ma'lumotlarni taqdim etadi.

Jumayevning texnologik o'zgarishlar va sanoat rivojlanishi asari sanoatdagi texnologik o'zgarishlarni o'rganadi. Muallif avtomatizatsiya, sun'iy intellekt va boshqa yangi texnologiyalarning sanoat rivojlanishiga qanday ta'sir qilishini batafsil bayon etadi. Kitobda texnologik inqiloblarning sanoat sektori uchun qanday imkoniyatlar yaratishi, shuningdek, eski texnologiyalar bilan bog'liq muammolarni qanday hal qilish kerakligi haqida fikr yuritiladi. [6]

Xudoyberdiyev esa asarlarida global iqtisodiyotning O'zbekiston sanoatiga ta'sirini tahlil qiladi. Muallif global iqtisodiy noaniqliklar, ekologik cheklovlar va texnologik o'zgarishlar sanoat sektoriga qanday ta'sir ko'rsatishini o'rganadi. Kitobda O'zbekiston sanoatining global iqtisodiyotdagi o'rni va bu muammolarni hal qilish uchun qanday strategiyalar ishlab chiqish zarurligi haqida fikrlar bildiriladi.

Khamraevning asari sanoat iqtisodiyotining global muammolarini o'rganishga bag'ishlangan. Muallif global iqtisodiy noaniqliklar, ekologik cheklovlar va texnologik inqiloblarning sanoatga ta'sirini tahlil qiladi. Kitobda sanoat sektori uchun global muammolarni hal qilish uchun qanday choralar ko'rish kerakligi va rivojlanish strategiyalarini qanday ishlab chiqish mumkinligi haqida ma'lumotlar berilgan. [7]

Mamatovning xalqaro iqtisodiy aloqalar va sanoat rivojlanishi asari xalqaro iqtisodiy aloqalar va sanoat rivojlanishining o'zaro bog'liqligini o'rganadi. Muallif xalqaro iqtisodiy aloqalarning sanoat sektori uchun qanday imkoniyatlar yaratishi va qanday qiyinchiliklarni keltirib chiqarishi haqida tahlil qiladi. Kitobda xalqaro savdo, sarmoyalar va iqtisodiy integratsiyaning sanoat rivojlanishidagi roli ko'rsatilgan.

Islomovning izlanishlari doirasida O'zbekiston va jahon sanoatidagi yangi trendlarni o'rganishga bag'ishlangan. Muallif sanoat sektoridagi yangi tendensiyalar, jumladan, raqamli transformatsiya, ekologik barqarorlik va global savdo o'zgarishlarini tahlil qiladi. Kitobda O'zbekiston sanoatining yangi trendlarga qanday moslashishi va global miqyosdagi o'zgarishlarni hisobga olish zarurligi yoritiladi. [8]

### METODOLOGIYA

**Ushbu maqolada sanoat iqtisodiyotining global muammolari va tendensiyalarini o'rganish uchun quyidagi metodologik yondashuvlardan foydalanildi:** Tadqiqot uchun xalqaro hisobotlar, sanoat tahlillari va iqtisodiy statistikalar asosida ma'lumotlar to'plandi. Xalqaro tashkilotlarning, masalan, Jahon banki va Xalqaro valyuta jamg'armasining nashr etgan hisobotlari global sanoat muammolarini aniqlashda yordam berdi. Shuningdek, turli sanoat tarmoqlari va mintaqalar bo'yicha iqtisodiy statistikalar ham o'rganildi. Tadqiqotda texnologiya, energetika va qishloq xo'jaligi kabi sanoat tarmoqlari va global hamda mintaqaviy geografik hududlar tanlandi. Bu namuna sanoat sektorlari va hududlarning rivojlanish tendensiyalarini va global muammolarga qanday ta'sir qilishini aks ettiradi.

### TAHLIL VA NATIJALAR

Bugungi sanoat iqtisodiyotida global miqyosdagi muammolar katta ahamiyat kasb etmoqda. Ushbu muammolar sanoat sektorining barqarorligini ta'minlash va rivojlanish istiqbollari aniqlashda muhim rol o'ynaydi.

Jahon sanoati tabiiy resurslarning cheklanganligidan aziyat chekmoqda. 2023-yilda global iqtisodiyot 92 milliard tonna tabiiy resurslarni iste'mol qilgan, bu esa resurslar etishmovchiligi muammosini kuchaytiradi. Resurslarning tez iste'moli va etishmasligi iqtisodiy barqarorlikka tahdid solmoqda va yangi texnologiyalarni joriy etishni talab qilmoqda. [9]

Iqlim o'zgarishlari sanoat sektori uchun jiddiy xavf tug'diradi. 2023-yilgi ma'lumotlarga ko'ra, sanoat chiqindilari 36 milliard tonna CO2 ekvivalentga etgan, bu global isishning asosiy sabablaridan biridir. Iqlim o'zgarishlari sanoat tarmoqlarining ekologik izini kamaytirish va chiqindilarni boshqarish uchun yangi echimlarni talab qiladi. [10]

Texnologik innovatsiyalar va raqamli transformatsiya sanoatni rivojlantirishga yordam berishi mumkin, lekin ular bilan bog'liq noaniqliklar ham mavjud. Sun'iy intellekt va avtomatizatsiya texnologiyalarining rivojlanishi sanoat sektorida yangi muammolarni keltirib chiqarishi mumkin, chunki bu texnologiyalar tez o'zgaradi va ularning samaradorligini baholash qiyin bo'ladi.

1-jadval

**Global Sanoat Muammolari**

Muammo	Statistik Ma'lumot
Resurs etishmovchiligi	92 milliard tonna
Iqlim o'zgarishlari	36 milliard tonna CO2
Texnologik noaniqliklar	60% raqamli transformatsiya

Ushbu jadval global sanoat muammolarining asosiy turlarini ko'rsatadi. Resurs etishmovchiligi va iqlim o'zgarishlari sanoatning ekologik ta'sirini oshirayotgan bo'lsa, texnologik noaniqliklar esa sanoat jarayonlarining samaradorligini ta'minlashda qiyinchiliklar yaratmoqda.

Jahon sanoatida amalga oshirilayotgan rivojlanish tendensiyalari sanoat jarayonlarini optimallashtirish va barqaror rivojlanishni ta'minlashda muhim rol o'ynaydi.

Raqamli texnologiyalar sanoat jarayonlarini avtomatlashtirish va optimallashtirishda muhim rol o'ynaydi. 2024-yilga kelib, sanoat sektorining 60% raqamli texnologiyalarni joriy etishni rejalashtirmoqda. Bu texnologiyalar samaradorlikni oshirishi va raqamli integratsiyani kuchaytirishi mumkin.

Barqaror rivojlanish sanoat sektorida ekologik va iqtisodiy barqarorlikni ta'minlashga qaratilgan. 2023-yilgi ma'lumotlarga ko'ra, sanoat korxonalarini chiqindilarni 20% ga qisqartirish va energiya samaradorligini 30% oshirishga muvaffaq bo'ldi. Barqaror rivojlanish strategiyalari ekologik izlarni kamaytirish va resurslarni samarali boshqarishni o'z ichiga oladi.

2-jadval

**Rivojlanish tendensiyalari**

Tendensiya	Statistik Ma'lumot
Raqamli transformatsiya	60% sanoat sektorida
Barqaror rivojlanish	Chiqindilarni 20% qisqartirish, energiya samaradorligini 30% oshirish

Ushbu jadval sanoat sektoridagi rivojlanish tendensiyalarini aks ettiradi. Raqamli transformatsiya sanoat samaradorligini oshirishi mumkin, barqaror rivojlanish esa ekologik va iqtisodiy barqarorlikni ta'minlaydi.

O'zbekiston sanoati global muammolarga javob berishda va rivojlanish imkoniyatlarini amalga oshirishda bir qator muvaffaqiyatlarga erishmoqda.

O'zbekiston energiya samaradorligini oshirish va qayta tiklanadigan energiya manbalaridan foydalanishni kengaytirish maqsadida ishlamoqda. 2023-yilda O'zbekiston energiya iste'molini 15% ga qisqartirish va qayta tiklanadigan energiya manbalaridan foydalanishni 25% oshirish maqsadini qo'ydi. O'zbekiston iqlim o'zgarishlariga qarshi kurashishda faoliyatini davom ettirmoqda. 2023-yilda mamlakat 100

ta yangi ekologik loyiha boshladi va ko'plab sanoat korxonalarida chiqindilarni qayta ishlash texnologiyalarini joriy etdi.

O'zbekiston sanoatida raqamli texnologiyalarni joriy etishga e'tibor qaratilmoqda. 2024-yilga qadar sanoat korxonalari raqamli texnologiyalarni 40% darajada joriy qilishni rejalashtirmoqda.

### 3-jadval

#### O'zbekiston sanoatining energiya samaradorligi

Ko'rsatkich	2023-yil
Energiya iste'moli	15% ga qisqartirilgan
Qayta tiklanadigan energiya	25% oshirilgan

O'zbekiston sanoatining energiya samaradorligini oshirish va qayta tiklanadigan energiya manbalaridan foydalanishni kengaytirishga qaratilgan sa'y-harakatlarini aks ettiradi. [11]

### 4-jadval

#### O'zbekiston Sanoatidagi Raqamli Texnologiyalar (2024-yil Prognozi)

Texnologiya	Joriy etish rejalari
IoT	40%
Katta ma'lumotlar	40%

O'zbekiston sanoatida raqamli texnologiyalarni joriy etish bo'yicha rejalashtirilgan darajalarni ko'rsatadi. Bu texnologiyalar sanoat jarayonlarini samarali boshqarish va optimallashtirishda muhim rol o'ynaydi.

Ushbu tahlil va diagrammalar global sanoat muammolarini, rivojlanish tendensiyalarini va O'zbekiston sanoatining bu muammolarga qanday javob berishini tushunishga yordam beradi. Sanoat sektori uchun resurslarni samarali boshqarish, barqaror rivojlanishni ta'minlash va raqamli transformatsiyani amalga oshirish juda muhimdir.

Global iqtisodiyotda tabiiy resurslarga bo'lgan talab o'sib bormoqda, bu esa resurs etishmovchiligi muammosini kuchaytirmoqda. Masalan, 2023-yil uchun global mis etishmovchiligi taxminan 200 ming tonna deb baholandi. Bu, asosan, yangi texnologiyalar va infratuzilmani rivojlantirish uchun zarur bo'lgan metallarni kamaytirish bilan bog'liq. Ushbu muammo sanoat sektori uchun katta xavf tug'diradi, chunki resurslarning cheklanishi ishlab chiqarish jarayonlarini sekinlashtirishi mumkin. [12] Iqlim o'zgarishlari sanoat sektori uchun yana bir jiddiy muammo hisoblanadi. 2023-yilda global harorat 1.2°C ga ko'tarilgan, bu 1880 yilga nisbatan 0.8°C ortiqdir. Haroratning ortishi sanoat jarayonlarida energiya iste'moli va chiqindilarni boshqarish talablarini o'zgartiradi. Buning natijasida, sanoat korxonalari ekologik izlarni kamaytirish va energiya samaradorligini oshirish uchun yangi strategiyalarni ishlab chiqishga majbur bo'lmoqda.

Raqamli texnologiyalar sanoatning barcha sohalarida katta o'zgarishlarga olib kelmoqda. 2024-yilga kelib, sanoat sektorining 60% raqamli texnologiyalarni joriy etishni rejalashtirmoqda. Bu texnologiyalar, xususan, sun'iy intellekt va katta ma'lumotlarni tahlil qilish, ishlab chiqarish jarayonlarini avtomatlashtirish va samaradorlikni oshirishda muhim rol o'ynaydi. Raqamli transformatsiya sanoat korxonalariga real vaqt rejimida ma'lumotlarni tahlil qilish imkoniyatini berib, ularning qaror qabul qilish jarayonlarini tezlashtiradi. [13]

Barqaror rivojlanish maqsadlariga erishish uchun sanoat sektori chiqindilarni 20% ga qisqartirish va energiya samaradorligini 30% oshirish kabi strategiyalarni amalga oshirmoqda. Masalan, 2023-yilda sanoat korxonalari energiya samaradorligini oshirish uchun yangi texnologiyalar va ekologik toza energiya manbalaridan foydalanishni ko'zda tutgan. Ushbu tendensiya sanoat sektorining ekologik izlarini kamaytirishga va resurslarni samarali boshqarishga yordam beradi. [14]

Umuman olganda, global sanoat iqtisodiyotining muammolari va rivojlanish tendensiyalari sanoat sektori uchun katta qiyinchiliklar va imkoniyatlar yaratadi. O'zbekiston sanoati global muammolarga javob berishda va rivojlanish imkoniyatlarini amalga oshirishda o'zining imkoniyatlarini kengaytirishga qaratilgan sa'y-harakatlarni davom ettirmoqda. Raqamli texnologiyalarni joriy etish, ekologik izlarni kamaytirish va energiya samaradorligini oshirish kabi strategiyalar O'zbekiston sanoatining barqaror rivojlanishiga katta hissa qo'shadi.

## XULOSA VA TAKLIFLAR

Xulosa o'rnida shuni ta'kidlash joizki, sanoat iqtisodiyotining global muammolari va rivojlanish tendensiyalari sanoat sektori uchun muhim strategik qarorlarni talab qiladi. O'zbekiston sanoati bu muammolarga javob berish va rivojlanish imkoniyatlarini amalga oshirishda o'zining imkoniyatlarini kengaytirishga qaratilgan sa'y-harakatlarni davom ettirmoqda. Raqamli texnologiyalarni joriy etish, ekologik izlarni kamaytirish va energiya samaradorligini oshirish kabi strategiyalar O'zbekiston sanoatining barqaror rivojlanishiga katta hissa qo'shadi. Bu jarayonlar nafaqat global sanoat muammolarini hal qilishga, balki O'zbekiston iqtisodiyotining raqobatbardoshligini oshirishga yordam beradi.

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