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ASSESSMENT OF THE IMPACT OF THE INTERNAL AUDIT SERVICE ON EFFICIENCY BY CREATING AN INTERNAL AUDIT SERVICE AT ENTERPRISES

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Annotation. Today, internal audit is being formed as a separate structure as a result of the increased role of corporate governance in attracting foreign investment, internal audit is used in world practice as an important tool for protecting business, minimizing risks and implementing comprehensive control. Taking this into account, this article analyzes the experience of economically developed countries and scientific achievements in the field, harmonizes regulatory documents coordinating internal audit activities in business entities with international requirements, increases the efficiency of the internal audit institution, forms an effective management system, and studies the existing problems in reducing business risks of the internal audit service in attracting investors, as well as the author's approaches and proposals for their elimination.

Keywords: *business entities, budgetary organizations, audit, internal audit, funds, control, state budget, budget system, financing, budget revenues, budget expenditures, local budget, fiscal policy.*

KORXONALARDA ICHKI AUDIT XIZMATINI TASHKIL ETISH ORQALI UNING SAMARADORLIKKA TA'SIRINI BAHOLASH

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Annotatsiya. Bugungi kunda xorijiy investitsiyalarni jalb qilishda ichki auditning korporativ boshqaruvdagi roli ortib borishi natijasida alohida tuzilma sifatida shakllanishi jahon amaliyotida ichki audit biznesni himoya qilish, risklarni minimallashtirish va kompleks nazoratni amalga oshirishning muhim vositasi sifatida qo‘llanilmoqda. Shuni inobatga olgan holda ushbu maqolada iqtisodiy rivojlangan davlatlar tajribasi va sohadagi ilmiy yutuqlarini tahlil etish, xo‘jalik yurituvchi subyektlarda ichki audit faoliyatini muvofiqlashtiruvchi me’yoriy hujjatlarni xalqaro talablarga uyg‘unlashtirish, ichki audit institutining faoliyat samaradorligini oshirish, samarali boshqaruv tizimini shakllantirish va investorlarni jalb etishda ichki audit xizmatining biznes risklarini pasaytirishdagi mavjud muammolar hamda ularni bartaraf etish bo‘yicha muallif yondashuvlari va takliflari o‘rganilgan.

Kalit so‘zlar: *xo‘jalik yurituvchi subyektlar, byudjet tashkilotlari, audit, ichki audit, pul mablag‘lari, nazorat, davlat byudjeti, byudjet tizimi, moliyalashtirish, byudjet daromadlari, byudjet xarajatlari, mahalliy byudjet, soliq-byudjet siyosati.*

ОЦЕНКА ВЛИЯНИЯ СЛУЖБЫ ВНУТРЕННЕГО АУДИТА НА ЭФФЕКТИВНОСТЬ ПУТЕМ СОЗДАНИЯ СЛУЖБЫ ВНУТРЕННЕГО АУДИТА НА ПРЕДПРИЯТИЯХ

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Аннотация. Сегодня происходит формирование внутреннего аудита как отдельной структуры в результате возросшей роли корпоративного управления в привлечении иностранных инвестиций, внутренний аудит используется в мировой практике как важный инструмент защиты бизнеса, минимизации рисков и осуществления комплексного контроля. Учитывая это, в статье анализируется опыт экономически развитых стран и научные достижения в данной области, гармонизируются нормативные документы, координирующие деятельность внутреннего аудита в хозяйствующих субъектах, с международными требованиями, повышается эффективность деятельности института внутреннего аудита, формируется эффективная система управления, Изучены подходы и предложения автора по устранению существующих проблем службы внутреннего аудита в снижении предпринимательских рисков при привлечении инвесторов.

Ключевые слова: *хозяйствующие субъекты, бюджетные организации, аудит, внутренний аудит, фонды, контроль, государственный бюджет, бюджетная система, финансирование, доходы бюджета, расходы бюджета, местный бюджет, налогово-бюджетная политика*

KIRISH

Ma’lumki, har bir xo‘jalik yurituvchi subyektning asosiy maqsadi – faoliyat samaradorligiga erishish va yuqori foyda olish. Moliyaviy nazoratni amalga oshirish natijasida moliya tizimining har bir bo‘g‘inidagi holatni obyektiv aks ettiradigan ishonchli axborot olish imkoniyati yaratiladi. Moliyaviy nazorat orqali korxona rahbariyati samarali moliyaviy-xo‘jalik boshqaruvini amalga oshira oladi, mulkdorlar esa, ularning mulkini tasarruf etayotgan boshqaruvchilarning ishini nazorat qila oladi. Natijada iqtisodiyotga jalb qilingan investitsiyalar hamda fuqarolarning shaxsiy mulki qo‘shimcha kafolatlarga ega bo‘ladi.

O‘zbekistonda amalga oshirilayotgan keng ko‘lamli islohotlar ichki auditning nazariy va huquqiy asoslari, ichki audit xizmatini tashkil etish mexanizmlarini xalqaro standartlar talablari asosida takomillashtirish hamda ichki audit samaradorligini baholashning uslubiy asoslarini ishlab chiqishni talab qilmoqda. O‘zbekiston Respublikasini innovatsion rivojlantirish strategiyasida «xalqaro tajribani hisobga olgan holda korporativ huquqni rivojlantirish va korporativ boshqaruvning zamonaviy prinsiplarini joriy etish» muhim vazifalardan biri etib belgilangan. Mazkur vazifalarning bajarilishini ta’minlash ichki audit faoliyatini tartibga soluvchi me’yoriy-huquqiy tizimni xalqaro standartlarga mos ravishda rivojlantirish, xalqaro standartlar asosida ichki auditni tashkil etish va uni takomillashtirish bo‘yicha ilmiy-tadqiqot ishlarini olib borishni taqozo etadi.

MAVZUGA DOIR ADABIYOTLAR TAHLILI

Ichki auditni dastlabki rivojlanish shakli ko‘pchilikda zamonaviy ichki tekshiruvni, shuningdek o‘z ichiga buxgalteriya hisobini va xo‘jalik operatsiyalarini baholashni to‘g‘ri o‘rganishni eslatadi. Ichki auditni nisbatan zamonaviy shakli dastlab, Amerika Qo‘shma Shtatlarida yuzaga kelgan. 1789-yilda Kongressning birinchi chaqiruvi moliya vaziri, nazoratchi va auditor tayinlashni qo‘llab-quvvatlagan. Alohida qayd etish kerakki, o‘sha vaqtda buxgalteriya hisobi qo‘lda yuritilishi munosabati bilan auditorlar xo‘jalik operatsiyalari yozuvlarining to‘g‘riligini va xatoliklarni qayta tekshirish talab etilgan. Birinchi marotaba ichki audit bo‘yicha yo‘riqnoma 1875-yilda Germaniyaning yirik temir yo‘l sanoat korxonasi “Ag Krupp” tomonidan qabul qilingan (Мухина А., 2013: 151-156).

Ichki audit – ichki nazorat tizimining asosiy elementi sifatida buxgalteriya hisobini yuritishning o‘rnatilgan tartibiga amal qilinishini ta’minlashga qaratilgan

harakat sifatida bir qancha olimlarning qarashlari bir-biriga yaqinligini ko‘rish mumkin. Jumladan, V.I.Podolskiy, A.A.Savina, L.V.Sotnikova “Ichki audit iqtisodiyot subyektida uning mulk egalari manfaatlarini ko‘zlab tashkil etilgan va uning ichki hujjatlari bilan tartibga solingan buxgalteriya hisobini yuritishning o‘rnatilgan tartibiga amal qilinishini va ichki nazorat tizimi faoliyati ishonchliligini nazorat qiluvchi nazorat tizimi hisoblanadi” deb fikrlagan (Подольский В., Савина А., Сотникова Л., 2010).

D. Litvin ichki auditning xususiyatini quyidagicha ochib beradi. “Ichki audit-xo‘jalik subyekti tomonidan tashkil etilgan va uning rahbari uchun amal qiladigan buxgalteriya hisobini yuritishni o‘rnatilgan tartibiga mosligini nazorat qilish tizimidir” deb e’tirof etgan (Литвин Д., Богданова Е., Михеева Л., 2010).

A. Evdokimova va I. Pashkina “Ichki audit – buxgalteriya hisobi va ichki nazoratni to‘g‘ri yuritishga javob beradigan tashkilotning ichida qo‘llaniladigan nazorat tizimi” sifatida e’tirof etadi (Евдокимова А., Пашкина И., 2009).

V. Bursev ichki auditga quyidagicha ta’rif bergan: “Ichki audit – bu xo‘jalik yurituvchi subyekt buxgalteriya hujjatlari bilan boshqaruv organi va korxona mablag‘lari harakatining nazorati bo‘yicha boshqaruv kengashi va ijrochi organlarga ma’lumot berish borasida bajariladigan ishlardir” (Бурцев В., 2003)

A. Bogomolova ichki audit xizmatini quyidagicha izohlagan “Ichki audit - auditning asosiy qismidan iborat bo‘lib, ta’sischilar huquqini ta’minlovchi xizmat hisoblanib va uning faoliyati mol-mulklardan to‘g‘ri foydalanishi va ichki nazoratning ishonchliligini ta’minlashdir” (Богомолова А., 1999).

Z. Mamatovning fikricha “Ichki auditorlar xo‘jalik yurituvchi subyekt, firma, subyekt va shu kabilarning boshqaruv faoliyatini mustaqil ekspert sifatida baholaydi. Ular tahlil va baholash natijalarini, o‘zlari tekshiradigan xo‘jalik yurituvchi subyekt faoliyati to‘g‘risidagi axborotlarni, o‘z tavsiyalari va maslahatlarini boshqaruvni amalga oshirayotgan bosh firmaga taqdim etadilar” (Mamatov Z., 2007).

Bu borada, professor A. Karimov tashqi va ichki auditning asosiy ikkita o‘zaro farqli jihati mavjudligini ta’kidlaydi:

Birinchidan, tashqi audit korxonaning moliyaviy hujjatlari to‘g‘riligini tasdiqlashga, ichki audit esa asosiy e’tiborni korxonaning mavjud nazorat tizimi va uning turli bo‘linmalaridagi ishlab chiqarish, marketing, savdo-sotiq, moliya va hokazolarning holatini aniqlashga asoslanadi;

Ikkinchidan, tashqi audit, birinchi navbatda, korxona mijozlari hisoblangan iste’molchi, kreditor, soliq organlari va boshqa foydalanuvchilar manfaatlarini inobatga oladi. Ichki audit, birinchi navbatda, korxona boshqaruvi manfaatlariga qaratilgan bo‘lib, samarali ichki audit tizimi tashqi auditga sarflanadigan xarajatlarni qisman kamaytirishga xizmat qiladi (Каримов А., 2008).

Keltirilgan ta’riflarga asoslanib aytish mumkinki, ichki audit xizmati tashkilotning ichki nazorat tizimini tashkil etuvchi tarkibiy elementlaridan biri bo‘lib hisoblanadi. Ichki audit xizmati ichki nazorat tizimining turli bo‘g‘inlari (elementlari) ustidan samarali nazoratni amalga oshirishga yordam berish uchun mo‘ljallangan faoliyat sifatida e’tirof etish mumkin.

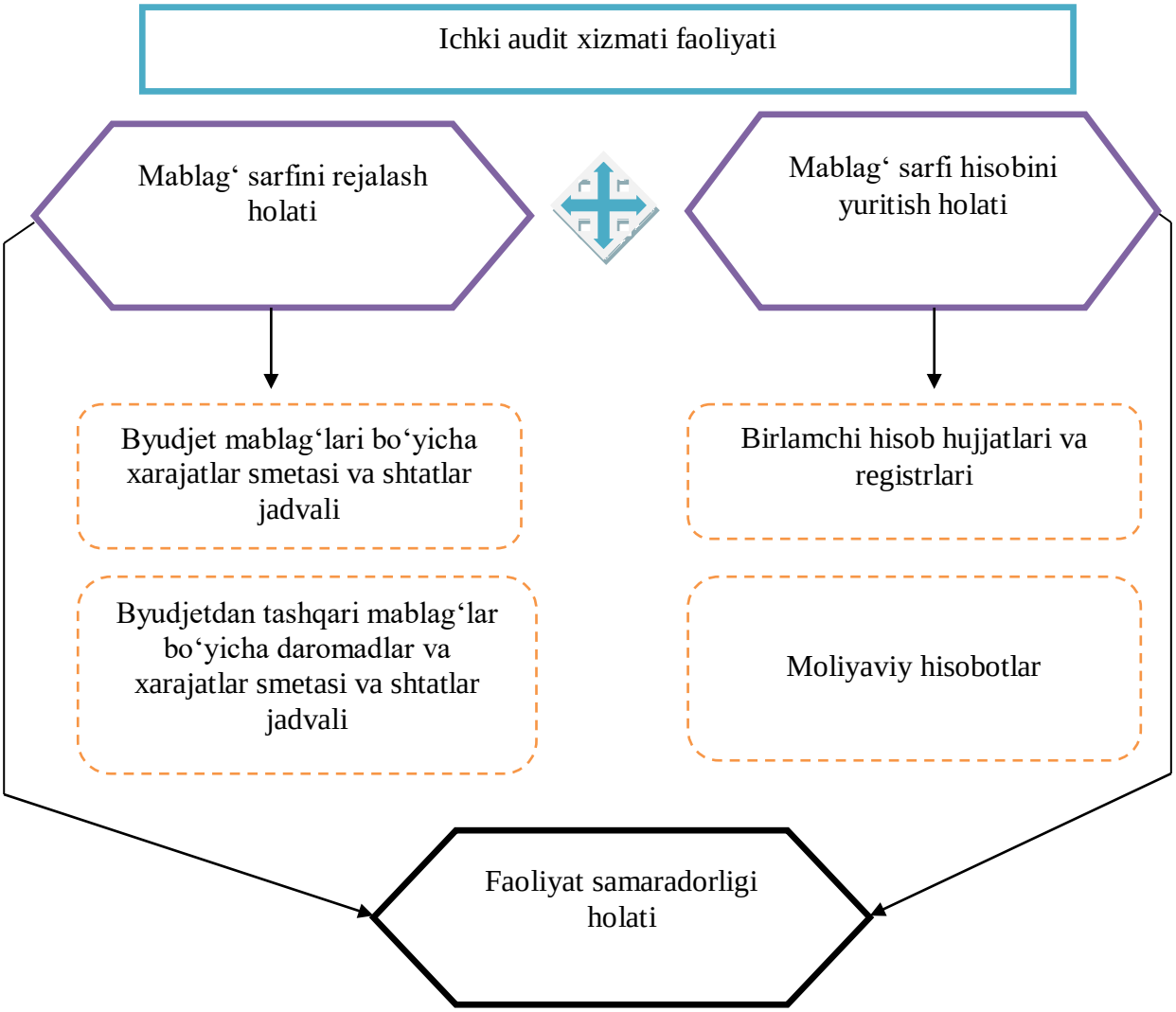
TADQIQOT METODOLOGIYASI

Tadqiqotda ilmiy abstraksiyalash, guruhlash, qiyoslash, retrospektiv va istiqbolli, empirik tahlil va boshqa uslublardan foydalanildi. Maqolada qiyosiy taqqoslash usulida jahon amaliyotida byudjet tashkilotlarida ichki audit xizmatini tashkil etishni rivojlantirish usullarining tashkiliy-huquqiy asoslarini mamlakatimizdagi mavjud asoslar bilan taqqoslab, tegishli xulosalar shakllantirildi.

TAHLIL VA NATIJALAR

Mamlakatimizda davlat moliyasini boshqarish hamda nazoratini takomillashtirish bo‘yicha keng qamrovli islohotlar amalga oshirilmoqda. Shular jumlasidan byudjet jarayonining shaffofligini yanada oshirish va uning ustidan jamoatchilik nazoratini kuchaytirish, byudjetdan moliyalashtirish, hisob va hisobot mexanizmini takomillashtirish, vazirlik va idoralarning bo‘ysunuvidagi muassasalarda byudjet intizomini mustahkamlash borasidagi mas’uliyatini oshirish, shuningdek, zamonaviy axborot texnologiyalari va xalqaro e’tirof etilgan moliyaviy nazorat standartlarini joriy qilish yo‘li bilan byudjet qonunchiligini buzish holatlarining oldini olish va profilaktikasiga qaratilgan davlat moliyaviy nazoratining rolini tubdan qayta ko‘rib chiqish belgilandi.

Aytish mumkinki, byudjet hamda byudjetdan tashqari mablag‘lardan maqsadli va oqilona foydalanishni ichki nazorati ko‘p jihatdan ichki audit tizimini samarali tashkil etishga bog‘liq bo‘ladi. Respublikamizda ichki audit xizmatini tashkil etishda xorijiy investor ishtirokidagi subyektlarda ularning ahamiyatini oshirish, har bir subyektda ichki audit xizmatining javobgarligini yanada oshirish hamda xizmat tomonidan taqdim etiladigan yig‘ma hisobot natijalar asosida kuzatuv kengashi tavsiyasiga ko‘ra ijroiya organi faoliyatidagi kamchiliklarni o‘z vaqtida bartaraf etish va ichki auditning mustaqilligi prinsipini yanada kuchaytirish lozim. Natijada ichki auditorlarga e’tibor yanada oshadi, xo‘jalik yurituvchi subyektlar faoliyatini o‘rganish natijalariga qiziqish uyg‘onadi. Natijalarini umumlashtirib, byudjet tashkilotlarida ichki audit xizmati faoliyatining asosiy yo‘nalishlari shakllantirildi (1-rasm).



1-rasm. Byudjet tashkilotlarida ichki audit xizmati faoliyati yo‘nalishlari.[1]

Yuqoridagi rasmdan ko‘rinib turibdiki, ichki audit faoliyatini uch yo‘nalishda olib borish maqsadga muvofiq, bunda birinchi navbatda xarajatlarni to‘g‘ri rejalashtirishini o‘rganishdan boshlanadi va ular bo‘yicha tegishli audit amallari bajariladi. Keyingi navbatda esa smetalar doirasida mablag‘lar sarflanishi holati yuzasidan audit dalillari to‘planadi va uchinchi navbatda byudjet tashkiloti zimmasiga yuklatilgan vazifani samarali bajarish holati o‘rganiladi. Byudjet tashkiloti ta’lim muassasasi bo‘lsa, ta’lim jarayonini amaldagi normativ hujjatlar talablari doirasida tashkil etilishi, faoliyat natijalari tahlil etiladi.

1-jadval

«O‘zneftgazqazibchiqarish» AJning 2023-yildagi asosiy moliyaviy ko‘rsatkichlari bajarilishi tahlili[2]

[1] Mualliflarning ilmiy-tadqiqot asosidagi ishlanmasi.
[2] “O‘zneftgazqazibchiqarish” AJning moliyaviy hisobot ma’lumotlari asosida mualliflar tomonidan tuzilgan.

	Ko‘rsatkichlar	Salmog‘i, %	Prognoz ko‘rsatkichlar	Haqiqatda	Foizda bajarilishi	SMK
	A	B	C	D	E	ExB/100
1	Foizlar, soliqlar va amortizatsiya chegirilgunga qadar foyda	2	4 739 720	6 153 613	129,8	2,6
2	Xarajatlarning daromadlarga nisbati koeffitsienti	2	0,9	0,8	91,5	1,8
3	Jalb qilingan kapital rentabelligi	2	0,06	0,08	136,7	2,7
4	Xususiy kapital rentabelligi	2	0,2	0,3	133,9	2,7
5	Aksiyadorlik kapitali rentabelligi	2	114,5	128,2	111,9	2,2
6	Aktivlar rentabelligi	15	-0,04760	0,02570	51,4	7,7
7	Mutlaq likvidlik koeffitsiyenti	12	0,04147	0,02673	13,4	1,6
8	Moliyaviy mustaqillik koeffitsiyenti	12	0,96438	1,74010	174,0	20,9
9	Kreditorlik qarzlarining aylanuvchaligi, kunda	12	453	392	115,4	13,9
10	Debitorlik qarzlarining aylanuvchanligi, kunda	12	164	131	125,8	15,1
11	Qoplash koeffitsiyenti	12	0,5	0,5	38,9	4,7
12	Dividend chiqishi koeffitsiyenti	5	0,8	0,5	69,6	3,5
13	Debitorlik qarzlarining kamayish ko‘rsatkichi (o‘rnatilgan topshiriqqa nisbatan % da)	0	2,0	15,4	13,2	1,3
JAMI		**100**				**80,7**

1-jadval ma’lumotlaridan ko‘rinib turibdiki, «O‘zneftgazqazibchiqarish» AJning 2023-yildagi asosiy moliyaviy ko‘rsatkichlari bajarilishi 80,7 foizni tashkil etadi, 19,3 foiz esa bajarilmagan.

Ichki auditorlarning qayd etishicha, ilk beshta koeffitsiyentni hisoblab chiqishda hisob-kitoblar “O‘zbekneftgazqazibchiqarish” AJ ijro apparati ko‘rsatkichlari bo‘yicha amalga oshirilgan. Bizningcha, ushbu hisob-kitoblarni qayd etilmagan MHXSga muvofiq tuzilgan konsolidatsiyalangan moliyaviy hisobot asosida tuzish zarur. Jamiyat boshqarmasi apparatining 2023-yildagi faoliyati samaradorlikning muhim va qo‘shimcha samaradorliklarini hisob-kitob qilish jarayonida asosiy ko‘rsatkichlar 80,7 foizni, qo‘shimcha ko‘rsatkichlar esa 105,9 foizni, ya’ni o‘rtachasi 93,3 foizni tashkil etadi. Bundan ko‘rishimiz mumkinki, samaradorlikning muhim ko‘rsatkichlari “yetarli darajada” bajarilishi “O‘zbekneftgazqazibchiqarish” AJning ijro organi faoliyati samaradorligi ijobiy natija bilan belgilanadi.

Ichki audit xizmati hisobotining yakuniy qismida korxonaning ijro etuvchi organi va tarkibiy bo‘linmalari faoliyatiga, shuningdek likvidligiga umumiy baho berish maqsadida, O‘zbekiston Respublikasi Vazirlar Mahkamasining 2015-yil 28-iyuldagi “Davlat ulushi bo‘lgan aksiyadorlik jamiyatlari va boshqa xo‘jalik yurituvchi subyektlar faoliyati samaradorligini baholash mezonlarini joriy etish to‘g‘risida”gi 207-sonli qarorida samaradorlikning muhim ko‘rsatkichlarini aniqlash maqsadga muvofiq (1-jadval).

Ichki audit xizmati tomonidan xo‘jalik yurituvchi subyekt faoliyatiga baho berishda samaradorlikning muhim ko‘rsatkichlarini aniqlash lozim va buning natijasida kuzatuv kengashi tomonidan subyekt rahbariyatini ish jarayonini baholash imkoniyati oshadi. Shuningdek, ichki audit xizmati mavjud va mavjud bo‘lmagan korxonalarning faoliyatini o‘rganish, ichki audit xizmati tashkil etilmagan subyektlarda ichki nazorat tizimida yuzaga kelishi mumkin bo‘lgan muammolarni tahlil qilish va ularni bartaraf etish uchun ichki audit xizmatini tuzish maqsadga muvofiq.

XULOSA VA TAKLIFLAR

Xo‘jalik yurituvchi subyektlarda ichki audit xizmati hisobotini tayyorlashda uni o‘tkazish jarayonining ketma-ketlik bosqichlarining tuzilishi muhim hisoblanadi va uning shakli ishlab chiqildi. Ichki audit xizmatini tashkil etishda muallif tomonidan taklif qilingan ichki auditni o‘tkazish bosqichlarini qo‘llash natijasida uni hujjatlashtirish jarayonida ichki audit reja va dasturini o‘z vaqtida tuzish, ichki audit xarajatlar smetasini tayyorlash, ichki audit xizmati xodimlari lavozim yo‘riqnomasini ishlab chiqish, kunlik ish jarayonlarini amalga oshirish, ichki audit xizmati hisobotini tuzish hamda kuzatuv kengashiga taqdim etishda ketma-ketlik asosida bajarilishi ta’minlanadi.

Ichki audit xizmatining xo‘jalik yurituvchi subyektlar uchun samaradorlik ko‘rsatkichlari tizimi va uni aniqlash uslubiyati yaratildi hamda amaliyotga qo‘llash uchun tavsiya etildi. Buning natijasida kuzatuv kengashi tomonidan ichki auditorlar ish natijalarini baholash va nazorat qilish imkoniyati yanada oshadi.

Ichki audit standartlari respublikamizda ichki audit sohasini rivojlantirish uchun asosiy me’yoriy-huquqiy hujjat bo‘lishiga imkoniyat yaratadi. Buning natijasida ichki auditorlar tomonidan ichki audit standartlarining keng qo‘llanilishi amaliyotdagi muammolarning o‘z vaqtida hal etish imkonini beradi.

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IMPROVEMENT OF THE MECHANISM OF CONDUCTING INTERNAL AUDIT IN BUDGETARY ORGANIZATIONS

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Annotation. In international practice, many studies are conducted aimed at improving and developing the methodology for conducting internal audits and international standards of internal audit. The article examines the features of using international standards of internal audit in the activities of the internal audit service of budgetary organizations, compliance with established requirements and existing problems in their implementation in our republic, as well as the author's approaches and proposals for their elimination. Deep integration and globalization of the economy require the development and implementation of international standards of internal audit in international practice. Today, the active formation of internal audit as a separate structure as a result of the increasing role of internal audit in corporate governance in attracting foreign investments, including in state-owned economic entities, leads to the effective use of internal audit in world practice as an important tool for protecting business, minimizing risks, and implementing comprehensive control.

Keywords: *budget, budget organizations, audit, internal audit, funds, control, state budget, budget system, financing, budget revenues, budget expenditures, local budget, fiscal policy.*

BYUDJET TASHKILOTLARIDA ICHKI AUDITNI O'TKAZISH MEXANIZMINI TAKOMILLASHTIRISH

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Annotatsiya. Xalqaro amaliyotda ichki auditorlik tekshiruvlarini o‘tkazish uslubiyatini va ichki auditning xalqaro standartlarini takomillashtirish hamda rivojlantirish bo‘yicha ko‘plab tadqiqotlar olib borilmoqda. Ushbu maqolada byudjet tashkilotlarining ichki audit xizmati faoliyatida ichki auditning xalqaro standartlaridan foydalanish xususiyatlari, belgilangan talablarga rioya qilish hamda respublikamizda amaliyotga joriy etishdagi mavjud muammolar hamda ularni bartaraf etish bo‘yicha yondashuvlar va takliflar o‘rganilgan. Iqtisodiyotning chuqur integratsiyalashuvi va globallashuvi xalqaro amaliyotda ichki auditning xalqaro standartlarini ishlab chiqish va amaliyotga joriy etishni talab etmoqda. Bugungi kunda xorijiy investitsiyalarni jalb qilishda, jumladan, davlat boshqaruvidagi xo‘jalik subyektlarida ham ichki auditning korporativ boshqaruvdagi rolining ortib borishi natijasida alohida tuzilma sifatida faol shakllanib borishi jahon amaliyotida ichki auditning biznesni himoya qilish, risklarni minimallashtirish va kompleks nazoratni amalga oshirishning muhim vositasi sifatida samarali qo‘llanilishiga olib kelmoqda.

Kalit so‘zlar: *byudjet, byudjet tashkilotlari, audit, ichki audit, pul mablag‘lari, nazorat, davlat byudjeti, byudjet tizimi, moliyalashtirish, byudjet daromadlari, byudjet xarajatlari, mahalliy byudjet, soliq-byudjet siyosati.*

СОВЕРШЕНСТВОВАНИЕ МЕХАНИЗМА ПРОВЕДЕНИЯ ВНУТРЕННОГО АУДИТА В БЮДЖЕТНЫХ ОРГАНИЗАЦИЯХ

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Аннотация. В международной практике проводится множество исследований, направленных на совершенствование и разработку методологии проведения внутренних аудитов и международных стандартов внутреннего аудита. В статье исследуются особенности использования международных стандартов внутреннего аудита в деятельности службы внутреннего аудита бюджетных организаций, соблюдение установленных требований и существующие проблемы при их внедрении в нашей республике, а также авторские подходы и предложения по их устранению. Глубокая интеграция и глобализация экономики требуют разработки и внедрения в международную практику международных стандартов внутреннего аудита. Сегодня активное

формирование внутреннего аудита как отдельной структуры в результате повышения роли внутреннего аудита в корпоративном управлении при привлечении иностранных инвестиций, в том числе в государственные хозяйствующие субъекты, обусловливает эффективное использование внутреннего аудита в мировой практике как важного инструмента защиты бизнеса, минимизации рисков, осуществления всестороннего контроля.

Ключевые слова: *бюджет, бюджетные организации, аудит, внутренний аудит, фонды, контроль, государственный бюджет, бюджетная система, финансирование, доходы бюджета, расходы бюджета, местный бюджет, налогово-бюджетная политика.*

KIRISH

Xalqaro amaliyotda ichki audit xizmatini tashkil etish borasidagi umumiy tartib va mezonlarni ishlab chiqish ichki audit xizmati faoliyatini muvofiqlashtiruvchi Ichki auditorlar Instituti (The Institute of Internal Auditors, IIA) tomonidan amalga oshiriladi hamda ushbu xalqaro tashkilot 170 dan ortiq davlatlarning 185 mingdan ortiq a’zolarini o‘z ichiga birlashtiradi (http://www.aasb.com – International Auditing and Assurance Standards Board sayti ma’lumoti). Iqtisodiy rivojlangan davlatlar tajribasi va sohadagi ilmiy yutuqlarini tahlil etish shuni ko‘rsatadiki, byudjet tashkilotlarida ichki audit faoliyatini muvofiqlashtiruvchi me’yoriy hujjatlarni xalqaro talablarga uyg‘unlashtirish, ichki audit institutining faoliyat samaradorligini oshirish, samarali boshqaruv tizimini shakllantirish va investorlarni jalb etishda ichki audit xizmatining biznes risklarini pasaytirishga qaratilgan mavqeini oshirish muhim omil hisoblanadi.

O‘zbekistonda amalga oshirilayotgan keng ko‘lamli islohotlar ichki auditning nazariy va huquqiy asoslari, ichki audit xizmatini tashkil etish mexanizmlarini xalqaro standartlar talablari asosida takomillashtirish hamda ichki audit samaradorligini baholashning uslubiy asoslarini ishlab chiqishni talab qilmoqda. O‘zbekiston Respublikasini innovatsion rivojlantirish strategiyasida “xalqaro tajribani hisobga olgan holda korporativ huquqni rivojlantirish va korporativ boshqaruvning zamonaviy prinsiplarini joriy etish” muhim vazifalardan biri etib belgilangan. Mazkur vazifalarning bajarilishini ta’minlashda ichki audit faoliyatini tartibga soluvchi me’yoriy-huquqiy tizimni xalqaro standartlarga mos ravishda rivojlantirish, xalqaro standartlar asosida ichki auditni tashkil etish va uni takomillashtirish dolzarb ahamiyat kasb etadi.

MAVZUGA DOIR ADABIYOTLAR TAHLILI

Iqtisodiyotni yanada rivojlantirish va liberallashtirish sharoitida byudjet tashkilotlarining ichki audit xizmati hisob-kitoblar o‘z vaqtida va to‘g‘ri yuritilishiga,

ularning iqtisodiy faoliyati yaxshilanishiga xizmat ko‘rsatadi. Bundan ko‘rinib turibdiki, xo‘jalik yurituvchi subyektlar faoliyatini rivojlantirish va moliyaviy jihatdan mustahkamlashda ichki audit xizmatining o‘rni beqiyosdir. Shu bois, byudjet tashkilotlarining ichki audit xizmatini ilmiy jihatdan o‘rganish hamda iqtisodchi-olimlarning ham bu boradagi fikrlari va ilmiy qarashlarini keltirib o‘tish maqsadga muvofiqdir. Xususan, Ichki auditorlar instituti (The institute of internal auditors) tomonidan berilgan ta’rifga ko‘ra, Ichki audit – bu tashkilot faoliyatini takomillashtirishga qaratilgan mustaqil va xolis kafolatlar va maslahatlar berish faoliyati. Ichki audit risklarni boshqarish, nazorat va korporativ boshqaruv jarayonlarining samaradorligini baholash va yaxshilashga tizimli va izchil yondashish orqali tashkilotga o‘z maqsadlarini amalga oshirishda ko‘maklashadi.

Xorijlik iqtisodchi olim Y. Voropayev “Ichki auditning asosiy maqsadi – subyekt menejerlariga zimmalaridagi majburiyatlarni samarali bajarishda, korxona va uning tarkibiy tuzilmalari oldida turgan maqsad va vazifalarga eng samarali tarzda erishish uchun korxona aktivlaridan samarali foydalanayotganlariga yetarlicha ishonch hosil qilishlarida yordam berish”dir, deya ta’kidlab o‘tgan (Воропаев Ю., 2006: 17-20). Demak, yuqoridagi fikrga e’tibor qaratilsa, haqiqatan ham, ichki audit xizmatining maqsadi korxonada sodir bo‘layotgan barcha muomalalar to‘g‘ri rasmiylashtirilishini nazorat qilish hisoblanadi.

S. Jminkoning fikriga ko‘ra, “Ichki auditning moliyaviy hisobotni tekshirish va soliqlarni minimallashtirishga yo‘naltirilgan funksiyasi korxona faoliyatining barcha jihatlarini qamrab olish funksiyasiga ko‘chib o‘tayotgani kuzatilmoqda” (Жминько С., 2008: 316).

Shuningdek, A. Ibragimov ichki auditning ahamiyati va zarurati boshqaruv funksiyalarini tahlil qilish bilan bog‘liq bo‘lishini ta’kidlab o‘tgan (Ибрагимов А., 2002: 42).

Bundan ko‘rinib turibdiki, ichki auditning mohiyati, asosan, korxona boshqaruv tizimiga ko‘maklasha oladigan faoliyat turi ekanligi bilan namoyon bo‘ladi.

Bu borada iqtisodchi va professor A. Karimov tashqi va ichki auditning asosiy ikkita o‘zaro farqli jihatlari mavjudligini ta’kidlaydi: birinchidan, tashqi audit korxonaning moliyaviy hujjatlari to‘g‘riligini tasdiqlashga, ichki audit esa asosiy e’tiborni korxonaning mavjud nazorat tizimi va uning turli bo‘linmalaridagi ishlab chiqarish, marketing, savdo-sotiq, moliya va hokazolarning holatini aniqlashga asoslanadi; ikkinchidan, tashqi audit, birinchi navbatda, korxona mijozlari hisoblangan iste’molchi, kreditor, soliq organlari va boshqa foydalanuvchilar manfaatlarini inobatga oladi. Ichki audit, birinchi navbatda, korxona boshqaruvi manfaatlariga qaratilgan bo‘lib, samarali ichki audit tizimi tashqi auditga sarflanadigan xarajatlarni qisman kamaytirishga xizmat qiladi (Каримов А., 2008: 152).

S. Jminko tomonidan ichki auditning asosiy tamoyillari sifatida quyidagilar e’tirof etilgan: birinchidan, mustaqillik va obyektivlik. Mustaqillik tushunchasi bir muncha tashkiliy mazmunga ega va ichki audit xizmatining korxonada bo‘ysunuvchanligi darajasidan kelib chiqib aniqlanadi. Obyektivlik tushunchasi ichki auditorning shaxsiy fazilati – baho va xulosa berishda hissiyotga berilmasligi tushuniladi. Ikkinchidan, kafolatlash va maslahatlar berish. Ichki audit faoliyatining mijozlarga kafolat va maslahatlar berish ko‘lami sezilarli darajada kengaydi va bugungi kunda quyidagi sohalarni o‘z ichiga olgan: tavakkalchilik xavflarini boshqarish, ichki nazorat, korporativ boshqaruv. Kafolatlarni taqdim etish mustaqil ravishda baholashni amalga oshirish va tizimlar, jarayonlar, muomalalar samaradorligi haqida fikr bildirish maqsadida auditorlik dalillarini obyektiv tahlil qilishdan iborat. Maslahat berishning kafolat berishdan asosiy farqi shundaki, maslahat taqdim etilishi kerak bo‘lgan holatlarda auditorning ish hajmi mijoz tomonidan belgilanadi (Жминько С., 2008: 316).

Keltirilgan ta’riflarga asoslanib, quyidagicha xulosaga kelish mumkin, ichki audit xizmatining asosiy vazifasi xo‘jalik yurituvchi subyektning moliyaviy va boshqa faoliyatining turli yo‘nalishlarini tekshirishdan, ularni erkin va xolis baholashdan iboratdir.

TADQIQOT METODOLOGIYASI

Tadqiqotda ilmiy abstraksiyalash, guruhlash, qiyoslash, retrospektiv va istiqbolli, empirik tahlil va boshqa uslublardan foydalanildi. Maqolada qiyosiy taqqoslash usulida jahon amaliyotida byudjet tashkilotlarida ichki audit xizmatini tashkil etishni rivojlantirish usullarining tashkiliy-huquqiy asoslarini mamlakatimizdagi mavjud asoslar bilan taqqoslab, tegishli xulosalar shakllantirildi.

TAHLIL VA NATIJALAR

Ta’kidlash lozimki, ishonchli va samarali ichki nazorat tizimini yaratish va samarali ishlashini ta’minlash uchun ichki auditorlar emas, balki, subyekt boshqaruvi mas’uldir. Ichki audit natijasida aniqlangan kamchiliklarni bartaraf etish tashkilot rahbarining vazifasi, qanday bartaraf etilishini nazorat qilish esa ichki audit xizmatining zimmasida bo‘ladi. Demak, byudjet tashkilotlarining taftish komissiyasi va ichki audit xizmati samaradorlikka erishish va faoliyatining qonuniy amalga oshirilishini ta’minlash maqsadida moliyaviy nazorat olib boruvchi tuzilmalardir. Shu sababli, ichki audit xizmati va taftish komissiyasi tashkil etilishi va faoliyat yuritishi jihatidan keskin bir-biridan farq qiladi hamda ular o‘rtasidagi farqli jihatlari quyidagi 1-jadvalda keltirilgan.

1-jadval

Ichki audit xizmati va taftish komissiyasi faoliyatidagi farqli jihatlar[3]

Ko‘rsatkichlar	**Taftish komissiyasi**	**Ichki audit Xizmati**
O‘tkazish davriyligi	Yil davomida kamida bir marta	Har chorakda va yillik
Maqsad	Jamiyatning moliyaviy-xo‘jalik faoliyati ustidan nazoratni amalga oshirish	Korxonaning moliyaviy holatini baholash va kuzatuv kengashini ishonchli ma’lumot bilan ta’minlash
Vazifalar	Jamiyatning moliyaviy-xo‘jalik faoliyatini tekshirish	Kamchiliklar o‘z vaqtida aniqlanishi va bartaraf etilishini amalga oshirish
Subyektlar	Jamiyatning moliyaviy-xo‘jalik faoliyati	Jamiyatning boshqaruv tizimi, moliyaviy-xo‘jalik faoliyati
Tashkil etilishi	Aksiyadorlarning umumiy yig‘ilishi	Kuzatuv kengashi tavsiyasiga ko‘ra
Huquqiy bazasi	“Aksiyadorlik jamiyatlari va aksiyadorlarning huquqlarini himoya qilish to‘g‘risida”gi qonun	“Korxonalardagi ichki audit xizmati to‘g‘risida”gi nizom
Faoliyat natijasi yuzasidan hisobot	Taftish komissiyasi xulosasi	Ichki audit xizmati hisoboti (yig‘ma hisobot)
Taqdim etish shakli	Aksiyadorlarning umumiy yig‘ilishiga	Kuzatuv kengashiga

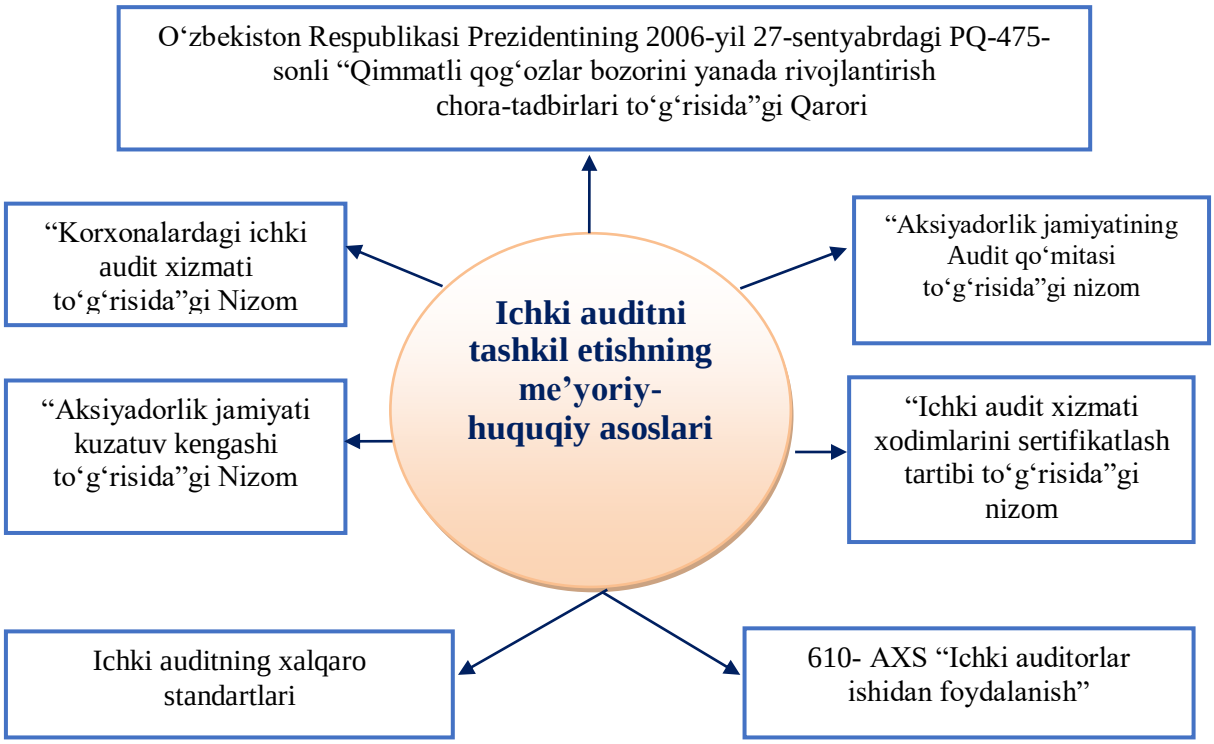
Ushbu jadvaldan ko‘rinib turibdiki, ichki audit xizmati kuzatuv kengashiga bo‘ysunadi, lekin, taftish komissiyasi esa aksiyadorlar umumiy yig‘ilishiga bo‘ysunadi. Taftish komissiyasining funksiyalari ichki auditga qaraganda farq qiladi. Shuning uchun, bugungi kunda amaliyotda ichki audit xizmati kuzatuv kengashiga, taftish komissiyasi esa to‘g‘ridan-to‘g‘ri aksiyadorlar umumiy yig‘ilishiga bo‘ysunadi. Shu sababli, ichki audit bo‘limiga qo‘shimcha ravishda taftish komissiyasi ish natijalarini ham nazorat qilishni majburiyatiga kiritish maqsadga muvofiq.

Yuqoridagilardan kelib chiqqan holda, respublikamizda ichki audit xizmatini tashkil etishda xorijiy investor ishtirokidagi subyektlarda ularning ahamiyatini oshirish, har bir subyektda ichki audit xizmatining javobgarligini yanada kuchaytirish hamda xizmat tomonidan taqdim etiladigan yig‘ma hisobot natijalari asosida kuzatuv kengashi tavsiyasiga ko‘ra ijroiya organi faoliyatidagi kamchiliklarni o‘z vaqtida bartaraf etish va ichki auditning mustaqilligi tamoyilini yanada mustahkamlash

[3] Mualliflar tomonidan tuzilgan.

lozim. Natijada ichki auditorlarga e’tibor yanada ortib, xo‘jalik yurituvchi subyektlar faoliyatini o‘rganish natijalariga qiziqish uyg‘onadi.

Shuni e’tiborga olib, respublikamizda bugungi kunda ichki auditni tashkil etishning me’yoriy-huquqiy asoslari shakllantirilgan (1-rasm).



1-rasm. Ichki audit xizmatini tashkil etishning me’yoriy-huquqiy bazasini shakllantirish tartibi[4]

Auditorlik xizmatini quyidagi ichki audit reglamentlari bilan ta’minlash lozim: ichki audit xizmati nizomi, mutaxassislarning lavozim yo‘riqnomalari, bo‘lim va uning mutaxassislarining kalendar rejalari, auditorlik tekshiruvlari savollari bo‘yicha uslubiy qo‘llanmalar, ichki audit standartlari, ichki audit jarayonlari bo‘yicha normalar (qoidalar), ichki audit uslubi va auditorlik dalillarini olish bo‘yicha uslubiy yo‘l-yo‘riqlar, auditorlik tekshiruvlari va natijalarni tatbiq etish bo‘yicha uslubiy tavsiyalar.

Ichki audit boshqaruvning maqsadlariga erishishni ta’minlash (kafolati)ga yo‘naltirilgan boshqaruv vositasidir. Buning uchun ichki audit rahbariyatni olib borilgan tahlil, muayyan bo‘lim faoliyatining samaradorligini baholash natijalari, tavsiya va axborot bilan ta’minlaydi. Xo‘jalik yurituvchi subyekt rahbariyati ichki audit natijalaridan mavjud resurslar va ishchi qonunlar doirasida boshqaruv va joriy ishlarni olib borish maqsadida foydalanadi.

[4] Mualliflar tomonidan tuzilgan.

Ichki audit bo‘limi yoki xizmati ishining samaradorligi xo‘jalik yurituvchi subyektning faoliyati tartibga solinganligi va uning nazorati qat’iyligiga bog‘liq bo‘ladi. Ichki auditorlarning ishlab chiqarish va xizmat ko‘rsatish faoliyatida muvaffaqiyatga erishishi esa, ko‘p jihatdan, ular ushbu nazorat va tartibga bo‘ysunishiga bog‘liq. Ba’zan, barchasini oldindan nazarda tutib bo‘lmasligi tufayli ekstremal sharoitlarda qaror qabul qilish zarurati paydo bo‘ladi, biroq, faoliyatning umumiy tartibini amalga oshirishi zarur bo‘lgan amallar algoritmini oldindan belgilab qo‘yish va tartibga solish samaraliroq hisoblanadi.

Ichki audit xizmati faoliyati samaradorligini quyidagi formula bo‘yicha hisoblash mumkin:

$$Эф_{alohida\ tuzilmaviybo'linma} = \sum_{j=1}^{n} k_j X_j / q,$$

Bu yerda, j – samaradorlik ko‘rsatkichlaridan biri;

kj – samaradorlikning j-ko‘rsatkichining solishtirma qiymati;

Xj – j-ko‘rsatkichning miqdor bahosi;

n – ko‘rsatkichlar soni;

q – yagona baholash shkalasi chegarasi miqdori.

Agar ichki audit xizmati tarkibiga bir nechta bo‘linma kirsa, u holda samaradorlikning umumiy ko‘rsatkichi quyidagi formula bo‘yicha hisoblanadi:

$$Ef\wedge = (Ef, + Ef_2 + Ef_3 + \ldots + Ef_p) / p,$$

Bu yerda, n – bo‘linmalar soni.

Yuqoridagi formulalar orqali ichki audit xizmati faoliyatining samaradorligi aniqlanadi va kelajakda uning qo‘llanilishi natijalaridan yanada samarali foydalanishga erishiladi.

Byudjet tashkilotlarining umumiy yillik faoliyati auditorlik tekshiruvi obyekti bo‘lsa-da, ishchi kuchi ozligi va vaqtdan oqilona foydalanish uchun auditning xalqaro standarti talablaridan kelib chiqqan holda, muhimlilik kabi ko‘rsatkichlardan foydalanadi. Ichki audit tekshiruvi tizimi samarali ishlashi tahliliy ishlarning samaradorligiga, tahlilning chuqurligi va masala qanchalik har tomonlama qamrab olinganligiga bog‘liq. Shu sababli, tahlil jarayonida ma’lumotlarni to‘plash va saqlashning yangi usullaridan – kompyuter texnologiyalaridan foydalanish maqsadga muvofiq. Tahlil ishlarini soddalashtirish uchun, alohida usullardan foydalanib, ular asosida maxsus ishlab chiqilgan jadvallarni to‘ldirish va keyinchalik jadval ko‘rsatkichlari yordamida qiyoslash, baholash hamda umumlashtirish lozim.

Byudjet tashkilotlarida Ichki audit bo‘limi tomonidan boshqaruv tizimining muhim elementi bo‘lgan moliyaviy tahlilni o‘tkazish darajasi, ko‘p jihatdan, unda shakllantiriladigan va qo‘llaniladigan axborot bazasining sifati hamda baholash

usullariga bog‘liq bo‘lib, tadqiqot maqsadlariga mos bo‘lishi talab etiladi. Bu esa, o‘z navbatida, xo‘jalik yurituvchi subyektlarning moliyaviy-iqtisodiy faoliyatini tahlil qilish nuqtai nazaridan muhim ahamiyatga ega hisoblanadi (2-jadval).

2-jadval

Xo‘jalik yurituvchi subyektlar faoliyatini tahlil qilish bosqichlari[5]

	Taomillar	Tahlilni o‘tkazish maqsadi	Izoh
1.	Tadqiqot obyekti va subyekti hamda tahlil qilish usul va shakllarini tanlab olinishi	Xo‘jalik yurituvchi subyektlar faoliyatini tahlil qilishning tadqiqot maqsadiga mosligi bo‘yicha qaror qabul qilish	Ichki audit dasturida keltirib o‘tish
2.	Ma’lumotlarni yig‘ish, guruhlash, umumlashtirish va rasmiylashtirish	Tahlil ishlarini mukammal olib borish uchun zarur axborot bazasini shakllantirish, ishlab chiqarish faoliyatiga ta’sir etuvchi omillarni ta’sir doirasi bo‘yicha guruhlash, umumlashtirish va rasmiylashtirish.	
3.	Tahlil natijalarini talqin qilish, xulosa va takliflarni ifodalash	xo‘jalik yurituvchi subyektlarni rivojlantirish, ko‘zlangan natijalarga erishishi uchun olingan tahlil natijalarini iqtisodiy talqin etish orqali xulosa va takliflar ishlab chiqish	Ichki audit xizmati hisobotida aks ettirish
4.	Boshqaruv qarorlarini qabul qilishda xulosa va takliflardan foydalanish	Xo‘jalik yurituvchi subyektlarning ishlab chiqarish faoliyatini takomillashtirish uchun tahlil natijalari va taklif etilgan tavsiyalardan foydalanish	

Hozirgi kunda byudjet tashkilotlari faoliyatini buxgalteriya hisobi va tahlil jarayonlariga ichki zaxiralarni safarbar qilish usullarini aniqlash sifatida qarashga oid tasavvurlar ancha o‘zgardi. Uning maqsadi, ta’sir doirasi, resurslaridan foydalanishni optimallashtirish hamda xo‘jalik yurituvchi subyektlar faoliyatining samaradorligini oshirishga doir yangi boshqaruv qarorlarini ishlab chiqish va ularning maqsadga muvofiqligini asoslashdagi roliga nisbatan ham o‘zgardi.

Ma’lumki, O‘zbekiston Respublikasi Prezidentining “Aksiyadorlik jamiyatlarida zamonaviy korporativ boshqaruv uslublarini joriy etish chora-tadbirlari to‘g‘risida”gi Farmoniga muvofiq, 2015-2018-yillarda barcha aksiyadorlik jamiyatlari yillik moliyaviy hisobotni nashr etishi va xalqaro audit standartlari hamda moliyaviy hisobotning xalqaro standartlariga muvofiq, tashqi auditni o‘tkazishi shart. Bundan ko‘rinib turibdiki, xo‘jalik yurituvchi subyektlar moliyaviy hisobotlarni milliy standartlar asosida yuritishi va xalqaro standartlar asosida nashr ettirishi lozim. Moliyaviy koeffitsiyentlarni aniqlash tartibi O‘zbekiston Respublikasi Vazirlar

[5] Mualliflar tomonidan tuzilgan.

Mahkamasining 2015-yil 28-iyuldagi 207-sonli Qarorida qat’iy belgilangan.

3-jadval

“Toshkentdonmahsulotlari” AJning moliyaviy holatini ichki auditda tahliliy amallardan foydalanish tartibi[6]

	Ko‘rsatkichlar	2019 y.	2020 y.	2021 y.	2022 y.	2023 y.
1	To‘lov qobiliyati koeffitsiyenti	1,07	1,09	1,05	0,98	1,023
2	O‘z mablag‘i manbalari bilan ta’minlanish koeffitsiyenti	0,06	0,08	0,05	-0,02	0,3
3	Xarajatlar rentabelligi koeffitsiyenti	0,01	0,03	0,01	0,01	0,04
4	Aktivlar rentabelligi koeffitsiyenti	0,01	0,03	0,01	0,01	0,01
5	O‘z aylanma mablag‘larini qarzga olingan aylanma mablag‘larga nisbati koeffitsiyenti	0,26	0,29	0,28	0,24	0,303
6	Ishlab chiqarish quvvatlaridan foydalanish koeffitsiyenti	0,80	0,81	0,58	0,64	0,625
7	Asosiy vositalarning eskirish koeffitsiyenti	0,43	0,44	0,40	0,36	0,39

Yuqorida keltirilgan 3-jadval ma’lumotlari asosida, to‘lov qobiliyati koeffitsiyenti, o‘z mablag‘i manbalari bilan ta’minlanish koeffitsiyenti, xarajatlar rentabelligi koeffitsiyenti, aktivlar rentabelligi koeffitsiyenti, o‘z aylanma mablag‘larini qarzga olingan aylanma mablag‘larga nisbati koeffitsiyenti, asosiy vositalarning eskirish koeffitsiyentlarining o‘zgarish dinamikasiga e’tibor qaratadigan bo‘lsak, keyingi yillarda, ishlab chiqarish quvvatlaridan foydalanish koeffitsiyentidan tashqari, barcha koeffitsiyentlarda kamayish tendensiyasi kuzatilmoqda. Bu esa xo‘jalik yurituvchi subyektning ichki audit xizmati faoliyati samaradorligi ijobiy emasligini ko‘rsatadi.

Ichki audit boshqaruv funksiyasi hisoblanib, boshqaruv bilan uzviy bog‘langan, boshqaruv qarorlarini ishlab chiqishda ular o‘zaro ta’sirda bo‘ladi. Xo‘jalik yurituvchi subyektlarda ichki audit uchun axborot barcha bo‘limlardan olinadi, bu axborot chorak va yil yakunlari bo‘yicha bo‘limlarning faoliyatini tekshirish va yig‘ma hisobot tayyorlash uchun asos bo‘ladi.

XULOSA

Yirik xo‘jalik yurituvchi subyektlar, ya’ni aksiyadorlik jamiyatlarida ichki auditga ehtiyoj yuqoriligidan kelib chiqib, rahbariyat quyi boshqaruv tizimi va tashkilot faoliyatining kundalik nazorati bilan shug‘ullanmaydi. Ichki audit esa, ushbu faoliyat to‘g‘risida ma’lumot beradi hamda boshqaruvchilarning hisobotlari ishonchliligi darajasini aniqlaydi. Ichki audit, avvalo, resurslar behuda sarflanishining

[6] “Toshkentdonmahsulotlari” AJning 2008-2017-yillardagi hisobotlari ma’lumotlari asosida hisoblangan.

oldini olish va korxona uchun imkoniyatlarni aniqlash, o‘zgarishlarni amalga oshirish uchun kerak. Buning uchun mulk egalari va rahbariyatga tashkilot aktivlarining sezilarli darajada tejalishiga olib keladigan biznes tizimini boshqarish va tashkil etishni tartibga solish bo‘yicha tavsiyalar berish zarur. Shuningdek, ichki auditning mavjudligi mulk egalari uchun zarur. Sababi, ular jamiyatdagi bevosita ish yurituvidan uzoqlashadilar, boshqaruv professional menejerlar qo‘liga o‘tadi va oxir-oqibat, kapitalning xalqaro bozorlarga qisqa yoki o‘rta muddatda chiqish rejalarini yaratish zaruratini keltirib chiqaradi.

Xususan, eng katta fond birjalarining qonun-qoidalari subyektda ichki auditning mavjudligini talab etadi va ularni qimmatli qog‘ozlar bozoriga chiqish uchun shart-sharoit yaratib beradi. Ichki audit xizmatini tashkil etish bo‘yicha xorij tajribasi mamlakatimizda qo‘llanilishi ichki audit rivojlanishiga katta hissa qo‘shadi.

Byudjet tashkilotlarida ichki auditni o‘tkazish mexanizmini takomillashtirib borish esa bu boradagi xalqaro standartlar, xorijiy tajribalarni izchil o‘rganib borgan holda yuqori samaradorlikni ta’minlash omillaridan maqsadli va tizimli foydalanishga yo‘naltirilishi bilan ahamiyatlidir.

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RESEARCH OF THE DEVELOPMENT TENDENCIES OF THE TOURISM SECTOR OF OUR COUNTRY

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Annotation. This article highlights the statistical trends and factors shaping the tourism industry in Uzbekistan, focusing on key indicators such as tourism opportunities, tourist arrivals, infrastructure development, and government initiatives. The article also provides a comprehensive statistical analysis of the dynamics and factors contributing to the development of Uzbekistan's tourism sector. Special attention is paid to tourism potential, tourist flows, infrastructure growth, and government initiatives related to visa liberalization. The measures aimed at promoting Uzbekistan's rich cultural heritage, historical sites, and national branding efforts are highlighted. In the article a SWOT analysis is used to assess the strengths, weaknesses, opportunities, and threats within the sector. The discussion also covers regional comparative indicators, eco-tourism prospects, and post-pandemic recovery factors. Additionally, the article outlines government reforms, investment projects, international tourism forums, and new tourism initiatives. The importance of digital marketing, infrastructure modernization, support for local entrepreneurs, and professional training are emphasized to ensure the sustainable growth of Uzbekistan's tourism industry.

Key words: *Tourism development, statistical research, tourist arrivals, economic impact, infrastructure growth, visa liberalization, SWOT analysis, sustainable tourism, comparative analysis, regional tourism, data collection, eco-tourism.*

MAMLAKATIMIZ TURIZM SOHASINI RIVOJLANISH TENDENSIYALARINI TADQIQ ETISH

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Annotatsiya. Ushbu maqolada O'zbekistonda turizm imkoniyatlari, sayyohlar kelishi, infratuzilmani rivojlantirish va hukumat tashabbuslari kabi asosiy ko'rsatkichlarga e'tibor qaratilgan holda mamlakatdagi turizm sohasini

shakllantiruvchi statistik tendensiyalar va omillar tahlil qilingan. Maqolada, shuningdek, O‘zbekiston turizm sohasining rivojlanish dinamikasi va omillari chuqur statistik tahlil qilinadi. Asosiy e’tibor turizm imkoniyatlari, sayyohlar oqimi, infratuzilma rivoji va hukumatning viza rejimlarini liberallashtirish kabi tashabbuslariga qaratilgan. O‘zbekistonning boy madaniy merosi, tarixiy obidalari va milliy brendini targ‘ib qilishga qaratilgan chora-tadbirlar yoritilgan. Maqolada SWOT tahlili orqali turizmning kuchli va zaif tomonlari, imkoniyatlar hamda tahdidlar aniqlandi. Tahlillarda mintaqaviy solishtirma ko‘rsatkichlar, ekologik turizm imkoniyatlari va pandemiyadan keyingi tiklanish omillari muhokama qilingan. Shu bilan birga, sohada amalga oshirilayotgan davlat islohotlari va investitsiya loyihalari, jumladan, xalqaro turistik forumlar, yangi turizm turlarini rivojlantirish bo‘yicha amalga oshirilayotgan loyihalar haqida batafsil ma’lumot keltirilgan. Muallif tomonidan turizm sohasining barqaror rivojlanishini ta’minlash uchun raqamli marketingdan foydalanish, infratuzilmani modernizatsiya qilish, mahalliy tadbirkorlarni qo‘llab-quvvatlash va malakali kadrlarni tayyorlash zaruriyati haqida fikr-mulohazalar ham bildirilgan.

Kalit so‘zlar: *Turizmni rivojlantirish, statistik tadqiqotlar, turistlarning kelishi, iqtisodiy ta’sir, infratuzilmaning o‘sishi, vizalarni erkinlashtirish, SWOT tahlili, barqaror turizm, qiyosiy tahlil, mintaqaviy turizm, ma’lumotlar yig‘ish, ekoturizm.*

ИССЛЕДОВАНИЕ ТЕНДЕНЦИЙ РАЗВИТИЯ ТУРИСТИЧЕСКОЙ СФЕРЫ НАШЕЙ СТРАНЫ

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Аннотация. В статье освещаются статистические тенденции и факторы, формирующие туристическую отрасль в Узбекистане, с упором на такие ключевые показатели, как туристические возможности, туристические прибытия, развитие инфраструктуры и правительственные инициативы. В статье также представлен комплексный статистический анализ динамики и факторов, способствующих развитию туристического сектора Узбекистана. Особое внимание уделяется туристическому потенциалу, туристическим потокам, росту инфраструктуры и правительственным инициативам, связанным с либерализацией визового режима. Освещены меры, направленные на продвижение богатого культурного наследия Узбекистана, исторических мест и усилий по национальному брендингу. В статье используется SWOT-анализ для оценки сильных и слабых сторон, возможностей и угроз в секторе. Обсуждение

также охватывает региональные сравнительные показатели, перспективы экотуризма и факторы восстановления после пандемии. Кроме того, в статье описываются правительственные реформы, инвестиционные проекты, международные туристические форумы и новые туристические инициативы. Подчеркивается важность цифрового маркетинга, модернизации инфраструктуры, поддержки местных предпринимателей и профессиональной подготовки для обеспечения устойчивого роста туристической отрасли Узбекистана.

Ключевые слова: *Развитие туризма, статистические исследования, прибытие туристов, экономическое влияние, рост инфраструктуры, либерализация визового режима, SWOT-анализ, устойчивый туризм, сравнительный анализ, региональный туризм, сбор данных, экотуризм*.

KIRISH

Bugungi kunda turizm sohasi dunyo iqtisodiyotida eng jadal rivojlanayotgan tarmoqlardan biri bo‘lib, mamlakatlarning ijtimoiy-iqtisodiy taraqqiyotiga sezilarli ta’sir ko‘rsatmoqda. Xususan, turizm sektori yangi ish o‘rinlari yaratish, milliy daromadni oshirish va xalqaro maydonda madaniy aloqalarni mustahkamlash kabi yo‘nalishlarda muhim ahamiyat kasb etadi. Shu boisdan turizm sohasi ko‘plab davlatlar strategik rivojlanish rejasining ustuvor yo‘nalishlaridan biriga aylangan.

O‘zbekiston Respublikasida ham turizmni rivojlantirish davlat siyosatining muhim yo‘nalishlaridan biri sifatida belgilangan. Davlat rahbariyati tomonidan sohaga oid qator islohotlar va loyihalar amalga oshirilayotgani, tarixiy obidalar, tabiiy manzillar va madaniy merosni asrab-avaylash, sayyohlik infratuzilmasini rivojlantirish borasidagi tashabbuslar milliy turizmni yangi bosqichga olib chiqmoqda. Ayniqsa, so‘nggi yillarda e’lon qilingan qonun hujjatlari, investitsiya dasturlari va xalqaro hamkorlikni kengaytirishga qaratilgan chora-tadbirlar mamlakatimiz turizm sohasining yangi rivojlanish vazifalarini belgilab bermoqda.

O‘zbekiston Davlat statistika qo‘mitasi ma’lumotlariga ko‘ra, so‘nggi yillarda mamlakatimizga kelayotgan xalqaro sayyohlar soni sezilarli darajada oshgan. 2016-yilda O‘zbekiston 2 millionga yaqin xorijlik mehmonni qabul qildi. 2019-yilga kelib, bu raqam 6,7 milliondan oshdi, bu islohotlar natijasida kuchli o‘sish tendensiyasini aks ettiradi va xalqaro turizm uchun ochiqlikni oshiradi. Biroq, 2020-yilda global COVID-19 pandemiyasi turizm sektorida keskin pasayishga olib keldi, sayyohlarning kelishi taxminan 1,5 million kishiga qisqardi. 2023-yilning yanvar-dekabr oylarida 6,6 mln nafar chet el fuqarolari turistik maqsadlarda O‘zbekistonga tashrif buyurgan. Statistika agentligi xabariga ko‘ra, ushbu ko‘rsatkich o‘tgan yilning mos davri bilan solishtirilganda 1,4 mln nafarga yoki 26,6 foizga oshgan.

Ushbu o‘sish tendensiyasini bir qancha omillar bilan bog‘lash mumkin,

jumladan, 80 dan ortiq mamlakatlar uchun viza tartibining yumshatilgani, yangi turistik diqqatga sazovor joylarning rivojlanishi va O‘zbekistonni madaniy va tarixiy joy sifatida targ‘ib qilish bo‘yicha marketing harakatlarining yaxshilanishi va hokazo.

O‘zbekistonda turizmni rivojlantirish tendensiyalari bo‘yicha statistik tadqiqotlarning dolzarbligi uning asosli qarorlarini shakllantirish, rivojlanish imkoniyatlarini aniqlash va sohadagi muammolarni hal qilishdagi muhim ishtiroki bilan izohlanadi. Turistlarning tashrifi va infratuzilmaning o‘sishi kabi asosiy ko‘rsatkichlarni tahlil qilish orqali manfaatdor tomonlar viza islohotlari va infratuzilmaga sarmoya kiritish kabi hukumat tashabbuslarining samaradorligini baholashlari mumkin bo‘ladi. Statistik tadqiqotlar, shuningdek, turizmning kelajakdagi modellarini bashorat qilish, marketing strategiyalarini yo‘naltirish va resurslarni taqsimlashni yaxshilashga yordam beradi, natijada esa O‘zbekiston turizm sanoatining barqaror o‘sishini ta’minlaydi va uning global raqobatbardoshligini oshiradi.

MAVZUGA OID ADABIYOTLAR TAHLILI

O‘zbekistonda turizmning rivojlanish tendensiyalarini iqtisodiy, madaniy va siyosiy jihatlari bo‘yicha bir qancha olimlar muhim tadqiqotlar olib borishgan.

Ushbu sohadagi asosiy tadqiqotchi olimlar sifatida Nurislom Tuxliyev, Abdurahmon Abdurahmonov, Dilshod Karimov va boshqalarni e’tirof etish mumkin.

Nurislom Tuxliyevning tadqiqotlari O‘zbekistondagi turizmning iqtisodiy ta’siriga qaratilgan bo‘lib, uning mintaqaviy rivojlanish va iqtisodiyotni diversifikatsiya qilishdagi o‘rnini yoritib beradi. Olimning tadqiqotlarida ko‘pincha turizm o‘sishini o‘lchash uchun statistik usullardan foydalanish va barqaror turizmning ahamiyatini uchratish mumkin. Shuningdek, turizm sarmoyalari mintaqaviy taraqqiyotga qanday yordam berishi mumkinligi, xususan, Samarqand, Buxoro va Xiva kabi tarixiy ahamiyatga ega shaharlarni o‘rganishda ham muhim izlanishlar olib borilgan (Tuxliyev N., 2020).

Abdurahmon Abdurahmonov O‘zbekistonda turizmni rivojlantirishda ilmiy va amaliy jihatdan katta hissa qo‘shgan. Uning tadqiqotlari vizani liberallashtirish va infratuzilmani rivojlantirishga qaratilgan bo‘lib, bu islohotlar sayyohlar kelishining ko‘payishiga qanday olib kelganini ko‘rsatadi (Abdurakhmanov A., 2021).

Abdurahmonovning tadqiqotlari davlat tashabbuslarining mamlakatni xalqaro sayyohlar uchun ochish va uning madaniy va ekoturizm yo‘nalishi sifatidagi nufuzini oshirishdagi ta’sirini ko‘rsatadi (Abdurahmonov A., 2021).

O‘zbekistonda turizmning iqtisodiy foydalari haqida tadqiqot olib borgan yana bir olim Dilshod Karimovdir. Karimov ishida ko‘pincha turizmning O‘zbekiston yalpi ichki mahsulotiga qo‘shgan hissasi va bandlik darajasi o‘rganiladi. Uning tadqiqotlari turizmning iqtisodiyotning turli tarmoqlariga, jumladan mehmondo‘stlik,

transport va mahalliy xizmatlarga multiplikativ ta’sirini chuqur tahlil qiladi. Karimov o‘z asarlarida o‘sishni davom ettirish va uzoq muddatli iqtisodiy foydani ta’minlash uchun turizm infratuzilmasiga sarmoya kiritishni davom ettirish zarurligini tadqiq etadi (Karimov D., 2022).

Bu olimlar o‘zlarining jamoaviy tadqiqotlari orqali O‘zbekistonda turizmni rivojlantirish dinamikasini tushunishga katta hissa qo‘shdilar, bunda asosiy e’tibor iqtisodiy ta’sirlar, siyosat islohotlari va barqaror o‘sish strategiyalariga qaratiladi.

Ularning faoliyati O‘zbekistonning jahon turizm xaritasida asosiy yo‘nalish sifatidagi mavqeini yanada oshirishga intilayotgan kompaniyalar va manfaatdor tomonlar uchun asos bo‘lib xizmat qiladi.

TADQIQOT METODOLOGIYASI

O‘zbekiston Respublikasida turizmni rivojlantirish tendensiyalari bo‘yicha statistik tadqiqotlar o‘tkazish metodologiyasi turizm sohasining turli jihatlarini tahlil qilishning miqdoriy va sifat usullari kombinatsiyasini o‘z ichiga oladi.

O‘zbekistonda turizmni rivojlantirish tendensiyalari bo‘yicha statistik tadqiqotlarni o‘tkazishda miqdoriy va sifat usullaridan birgalikda foydalaniladi.

Ma’lumotlarni yig‘ish manfaatdor tomonlar bilan suhbatlar o‘tkazish bilan bir qatorda Davlat statistika agentligi va Turizm qo‘mitasi kabi rasmiy manbalardan ikkinchi darajali ma’lumotlarni to‘plashga qaratilgan.

Qiyosiy tahlil O‘zbekistonning qo‘shni mamlakatlarga nisbatan turizm ko‘rsatkichlarini, regressiya tahlili esa turizm va iqtisodiy o‘sish o‘rtasidagi bog‘liqlikni baholaydi. Bundan tashqari, SWOT tahlil turizm sohasidagi kuchli, zaif tomonlar, imkoniyatlar va tahdidlarni o‘rganish imkoniyatini beradi. Klaster tahlili turli turistik hududlarni toifalarga ajratadi va ARIMA kabi prognozlash modellari tarixiy ma’lumotlarga asoslangan kelajakdagi o‘zgarishlarni bashorat qilish uchun ishlatiladi. Ushbu qo‘shma usullar O‘zbekistonning turizmni rivojlantirish tendensiyalarini har tomonlama tushunish imkonini beradi.

TAHLIL VA NATIJALAR

2017-yildan bugunga qadar O‘zbekistonda prezident Shavkat Mirziyoyev boshchiligida turizm sohasida yirik islohotlar olib borilmoqda. O‘tgan 6 yil mobaynida qanday oraliq natijalarga erishildi?

Ayni paytda 93 xorijiy davlat fuqarolari uchun vizasiz kirish, 56 davlat uchun elektron kirish vizasi, 47 davlat uchun besh kunlik tranzit vizasiz kirish, shuningdek, 76 davlat uchun turistik viza berishning yengillashtirilgan tartibi belgilandi.

55 yoshga to‘lgan va turizm maqsadida 30 kundan ortiq bo‘lmagan muddatga O‘zbekistonga keluvchi Xitoy, AQSh va Vetnam fuqarolari uchun vizasiz kirish rejimi joriy qilindi.

Bundan tashqari, «Vatandosh», «Student visa», «Academic visa», «Medical visa» va «Pilgrim visa» kabi yangi kirish viza turlari belgilandi.

Har bir xorijiy turistning respublika hududida bevosita sayohat xarajatlaridan tashqari sarflaydigan o‘rtacha mablag‘ summasi 2017-yilda 197 AQSh dollarini tashkil qilgan bo‘lsa, bu ko‘rsatkich 2023-yilda 400 AQSh dollariga yetdi va turizm eksporti hajmi 2023-yil 9 oyida 1,72 mlrd dollarga yetdi.

Mehmon o‘rinlari soni 2017-yildagi 37 mingtadan 3,4 barobarga ko‘payib, 128 mingtaga yetdi. Joylashtirish vositalari soni 2017-yildagi 767 tadan 2023-yilda 5,5 mingtaga yetkazildi.

2017-yilda 749 ta turistik tashkilot va turagentlar faoliyati yo‘lga qo‘yilgan bo‘lsa, hozirgi kunda ularning soni 2 404 taga yetdi.

Gid-ekskursovodlar soni esa esa 574 tadan 2864 taga yetdi.

Respublikaning turizm salohiyati yuqori bo‘lgan fuqarolar yig‘inlariga «Turizm mahallasi», «Turizm qishlog‘i» va «Turizm ovuli» maqomini berish va ularni qo‘llab-quvvatlash mexanizmlari joriy qilindi.

Mamlakatimizda birinchi bo‘lib Samarqand tumani Konigil qishlog‘ida 52 ta hunarmandchilik va dam olish maskanlari mavjud bo‘lgan «turizm qishlog‘i» tashkil etildi va 200 nafardan ortiq mahalliy aholi ish bilan ta’minlandi.

2021-yilda turizm sohasidagi investitsiya loyihalari doirasida umumiy qiymati 11,4 trln. so‘m bo‘lgan mablag‘lar o‘zlashtirilib, 495 ta loyiha amalga oshirildi. Davlat investitsiya dasturi doirasida mahalliy hokimliklar bilan birgalikda umumiy qiymati 1,2 mlrd. AQSh dollari bo‘lgan 62 ta loyihada, 562,7 mln dollar investitsiya o‘zlashtirilib, 31 ta loyiha ishga tushirildi.

2022-yilda turizm sohasida jami qiymati 22,1 trln. so‘mlik 735 ta loyihalar ishga tushirilib, tarmoqda qo‘shimcha 23 mingga yaqin yangi ish o‘rni yaratildi. Tadbirkorlikni rivojlantirish, investitsiya jalb qilish hamda raqobatbardosh xizmatlarni yo‘lga qo‘yishga berilgan e’tibor natijasida turizm bozorimizga Hilton, Marriott, Hyatt, Wyndham, Intercontinental Hotels Group va Accor kabi yetakchi mehmonxona brendlari kirib kelmoqda. Ular nafaqat poytaxt Toshkent, balki, Buxoro, Samarqand va Xiva shaharlariga ham qiziqish bildirib, o‘z faoliyatlarini tashkil qilmoqda. Markaziy Osiyo davlatlarining madaniy merosini bir-biriga o‘zaro bog‘liq sifatida targ‘ib qilish bo‘yicha tashabbusiga asosan UNESCOning «Xiva deklaratsiyasi» qabul qilindi.

Islom hamkorlik tashkilotining joriy yildagi XI sessiyasida Xiva 2024-yil «Islom dunyosining turizm poytaxti» deb e’lon qilindi.

Turkiy davlatlar tashkilotining Turizm vazirlari yig‘ilishida Qo‘qon shahriga «Ilk turizm poytaxti» nomi berildi.

Ispaniyaning Madrid shahrida o‘tkazilgan UNWTOning 24-sessiyasida ilk

marotaba BMT tarkibiga kiruvchi tashkilotlarning 25-Bosh assambleyasini 2023-yilda qadimiy Samarqandda o‘tkazish to‘g‘risida qaror qabul qilindi.

UNWTO O‘zbekistonni eng tez turizm sohasi rivojlanayotgan 20 mamlakat ichida 4-o‘rinda e’tirof etdi. «Jahon musulmon sayyohlari indeksi» reytingida 32-o‘rindan 22-o‘ringa ko‘tarilib, «eng jozibador» hamda «xavfsizlik va bag‘rikenglik darajasi yuqori» bo‘lgan 10 ta mamlakat qatoriga kirdi.

Yuqorida keltirib o‘tilgan raqamlar va o‘zgarishlar ham mamlakatimizning turizm imkoniyatlari qay darajada yuqori ekanligidan dalolat bermoqda.

O‘zbekiston Respublikasida turizm sohasini rivojlanib borish tendensiyalarini statistik tadqiq etishda ma’lumotlar yig‘ish (DATA COLLECTION) usulidan foydalanish muhim ahamiyat kasb etadi. Bunda O‘zbekiston Davlat statistika agentligi va Jahon sayyohlik tashkiloti (UNWTO) kabi xalqaro tashkilotlar manbalaridan raqamli ma’lumotlar to‘planadi.

Yig‘ilgan ma’lumotlar turistlarning kelishi, turizm bilan bog‘liq daromadlar va bandlik ko‘rsatkichlarini o‘z ichiga olishi mumkin. Ushbu ma’lumotlar qulay foydalanish uchun jadval formatida tuzilishi maqsadga muvofiq.

1-jadval

2023-yilda O‘zbekistonga turistik maqsadda eng ko‘p tashrif buyurgan davlatlar

Davlatlar	Tashrif buyuruvchilar soni (ming nafar)
Tojikiston	2 155,2
Qirg‘iziston	1 757,1
Qozog‘iston	1 333,3
Rossiya	714,3
Turkiya	106,5
Turkmaniston	100,3
Xitoy	42,5
Hindiston	45,5
Janubiy Koreya	37,1
Germaniya	29,6
Italiya	25,6
AQSh	23
Fransiya	18,6
Buyuk Britaniya	16,2
Ispaniya	15,2
Belarus	15,1
Ozarboyjon	14,7
Yaponiya	12,4

Manba: O‘zbekiston Respublikasi Prezidenti huzuridagi statistika agentligi ma’lumotlari (https://stat.uz/uz/)

Ta’riflovchi statistika ham asosiy usullardan biri bo‘lib, o‘rtacha o‘sish sur’atining asosiy ma’lumotlarni umumlashtiradi (Dwyer, Forsyth, 2020). Bular turizm tendensiyalarining umumiy holatini yoritib berishga yordam beradi. Bu usulda quyidagi formuladan foydalanish mumkin:

$$\text{Mean} = \frac{\sum X_i}{n}$$

bunda, X_i har yilgi turistlar soni va n yillar soni.

Yoki o‘sish sur’atini hisoblashda quyidagi formuladan foydalanish ham mumkin (Butler, 2018):

$$\text{Growth Rate} = \frac{\text{Current Year} - \text{Previous Year}}{\text{Previous Year}} \times 100$$

Qiyosiy tahlil usulida O‘zbekistonning turizm yo‘nalishlari boshqa mamlakatlar bilan taqqoslanadi. Masalan, O‘zbekistonning sayyohlar kelishini Qozog‘iston bilan solishtirish nisbiy ko‘rsatkichlarni aniqlashga yordam beradi.

2-jadval

O‘zbekiston boshqa mamlakatlarning turistlar salohiyatining solishtirma tahlili

Mamlakat	Turistlar soni (million nafar, 2023-yil)	YaIM hissasi (%)
O‘zbekiston	7.5	3.0
Qozog‘iston	10.2	3.5
Qirg‘iziston	5.1	2.8
Tojikiston	2.3	1.5
Turkmaniston	1.8	1.2
Ozarbayjon	9.7	4.0

Manba: O‘zbekiston Respublikasi Prezidenti huzuridagi Statistika agentligining ma’lumotlari asosida muallif tomonidan shakllantirildi.

2023-yilda O‘zbekistonga sayyohlar kelishi sezilarli darajada o‘sib, 7,5 million kishiga yetdi va mamlakat yalpi ichki mahsulotiga 3,0 foiz hissa qo‘shdi.

Qozog‘iston 10,2 million sayyoh bilan mintaqada yetakchilik qildi va yalpi ichki mahsulotning eng yuqori hissasi 3,5%. Ozarbayjon ham 9,7 million tashrif buyuruvchi va YaIMga 4,0 foiz hissa qo‘shgan holda o‘zining sayyohlik yo‘nalishi sifatida o‘sib borayotgan jozibadorligini ko‘rsatib, yuqori natijalarga erishdi.

Qirg‘iziston va Tojikiston kamroq sayyohlarni jalb qildi, mos ravishda 5,1 million va 2,3 million, YaIM ulushi 2,8 va 1,5 foizni tashkil etdi. Atigi 1,8 million sayyoh va yalpi ichki mahsulotga 1,2 foiz hissa qo‘shgan Turkmaniston mintaqadagi qo‘shnilariga nisbatan turizm infratuzilmasi va siyosati jihatidan kam

rivojlanganligicha qolmoqda. Ushbu qiyosiy tahlil O‘zbekiston, Qozog‘iston va Ozarbayjon mintaqada yetakchilik qilayotgan Markaziy Osiyo mamlakatlari bo‘ylab turizm ko‘rsatkichlaridagi farqni ko‘rsatadi.

Tanlanma kuzatuv usuli qimmatli ma’lumotlar berishi mumkin bo‘lgan asosiy sohalar yoki ko‘rsatkichlarga yo‘naltirish uchun zarurdir (Sharpley R., 2019). Turizm sohasidagi tadqiqotlarda u har tomonlama, ammo keraksiz ma’lumotlarni yig‘ish uchun kuch sarflamasdan, muhim o‘zgarishlarni aniqlashga yordam berib, muayyan hududlar, demografiya yoki o‘zgarishlarni samarali kuzatish imkonini beradi. Bu usul, ayniqsa, vaqt va resurslar cheklangan bo‘lsa, maqsadli, yuqori sifatli ma’lumotlarni ta’minlab, qarorlar qabul qilish va tuzatishlar kiritishda samaraliroq bo‘lganda foydalidir (Чернышев А., 2020).

Masalan, O‘zbekiston Respublikasi hududiga kirish va chiqish turizmi bo‘yicha navbatdagi tanlanma kuzatuvlar asosida 2024-yilning may oyidan boshlab Respublika hududlarida xorijiy turistlar o‘rtasida so‘rovnomalar o‘tkazilib kelinmoqda. So‘rovnoma Birlashgan Millatlar Butunjahon turizm tashkiloti (UNWTO) tavsiyasi asosida 2018-yildan buyon kamida har ikki yilda bir marta o‘tkazilmoqda.

3-jadval

O‘zbekiston turizm sanoati SWOT tahlili

Strengths	Weaknesses
Boy madaniy va tarixiy meros (masalan, Samarqand, Buxoro, Xiva) Ko‘pgina mamlakatlar uchun vizani liberallashtirish kabi hukumat tashabbuslari Xalqaro xabardorlikni oshirish va marketing kampaniyalari Qadimgi Ipak yo‘lida strategik joylashuvi	Qishloq joylarda rivojlanmagan infratuzilma Cheklangan yuqori darajadagi turar joy va xizmatlar Turizm va mehmondo‘stlik sohasida malakali ishchilarning yetishmasligi Turizmning mavsumiyligi (ma’lum oylarda eng yuqori cho‘qqilarga chiqadi)
Opportunities	**Threats**
Ekologik turizm va sarguzasht turizmining o‘sishi Havo aloqasi va transport infratuzilmasini kengaytirish Raqamli sayyohlik platformalari uchun potensial Yangi turistik diqqatga sazovor joylar va xizmatlarning rivojlanishi	Qo‘shni mamlakatlarning mintaqaviy raqobati (Qozog‘iston, Ozarbayjon) Global pandemiya yoki iqtisodiy inqirozlar tufayli iqtisodiy beqarorlik Turizmning nazoratsiz o‘sishi tufayli atrof-muhitning buzilishi Turizm faoliyatiga ta’sir qiluvchi siyosiy yoki tartibga solishdagi o‘zgarishlari

Aytish kerakki, mazkur kuzatuvlar O‘zbekiston Respublikasi hududiga kirish va chiqishga oid turizm bo‘yicha tanlanma kuzatuv o‘tkazish tartibini belgilaydi.

Shuningdek, respublika eksportida turizm hajmining to‘liq hisobga olinishini, turizm statistikasi ko‘rsatkichlari va turizm yordamchi hisobini shakllantirishni ta’minlaydi.

Kuzatuv natijasi asosida turistlar oqimi, turistlarning safar maqsadi va davomiyligi, respublika hududida chet ellik turistlarning hamda va chet elga safar qilgan O‘zbekiston rezidentlarining amalga oshirgan sarf-xarajatlari tarkibi kabi ma’lumotlar shakllanadi.

SWOT tahlili turizmning ichki kuchli va zaif tomonlarini, shuningdek, tashqi imkoniyatlar va tahdidlarni baholaydi (Павлова Л., 2019).

O‘zbekistonning turizm sektori bir qancha kuchli tomonlarga ega, xususan, uning boy madaniy merosi va hukumatning strategik tashabbuslari, jumladan, xalqaro sayyohlar sonini o‘ziga jalb etayotgan vizani liberallashtirish. Biroq, qishloq joylarida infratuzilmaning rivojlanmaganligi va mehmondo‘stlik sohasida malakali ishchi kuchining yetishmasligi kabi zaif tomonlar sektor salohiyatiga to‘sqinlik qilmoqda.

Rivojlanish uchun imkoniyatlar, ayniqsa ekoturizm va havo aloqalarini kengaytirishda saqlanib qolmoqda. O‘zbekiston tashrif buyuruvchilar tajribasini oshirish uchun raqamli turizm platformalarini ishlab chiqishdan ham foyda ko‘rishi mumkin. Boshqa tomondan, Qozog‘iston va Ozarbayjon kabi qo‘shni mamlakatlarning mintaqaviy raqobati kabi tahdidlar, shuningdek, potensial iqtisodiy yoki ekologik xavflar jiddiy muammolarni keltirib chiqaradi. O‘zining kuchli va imkoniyatlaridan foydalanish uchun O‘zbekiston o‘zining zaif tomonlarini bartaraf etishi va strategik rejalashtirish va turizmni barqaror rivojlantirish orqali tashqi tahdidlarni yumshatishi kerak.

O‘zbekistonda turizmni rivojlantirish tendensiyalarini statistik tadqiq qilishda qator muammolar bo‘lib, ularning ba’zilarini ko‘rib chiqamiz:

– Keng qamrovli ma’lumotlarning yo‘qligi. Turizm bo‘yicha ishonchli va izchil ma’lumotlar ko‘pincha parchalangan yoki to‘liq emas, ayniqsa qishloq hududlarida. Markazlashtirilgan ma’lumotlar tizimlarining yo‘qligi aniq statistik tahlilga to‘sqinlik qilishi mumkin.

– Turizmning mavsumiyligi. O‘zbekistonda turizm juda mavsumiy bo‘lib, ko‘pchilik tashrif buyuruvchilar ma’lum oylarda keladi. Bu turizm tendensiyalari va iqtisodiy ta’sirni yil davomida muvozanatli baholashni ta’minlashda qiyinchiliklar tug‘diradi.

– Siyosatdagi tezkor o‘zgarishlar. Viza qoidalari yoki turizmni rivojlantirish dasturlari kabi hukumat siyosatidagi tez-tez o‘zgarishlar uzoq muddatli tendensiyalarni kuzatishni qiyinlashtirishi mumkin, chunki bu siyosatlarning ta’sirini o‘lchash uchun vaqt kerak bo‘ladi.

– Qishloq joylarda rivojlanmagan infratuzilma. Kam rivojlangan sayyohlik yo‘nalishlaridagi infratuzilmaning to‘liq bo‘lmaganligi ushbu hududlardan

ma’lumotlarning nomuvofiq to‘planishiga olib keladi, bu esa asosiy turistik markazlardan tashqari hududlarda turizmning to‘liq salohiyatini baholashni qiyinlashtiradi.

– Tashqi iqtisodiy va siyosiy omillar: Global iqtisodiy beqarorlik, pandemiyalar va mintaqaviy geosiyosiy muammolar turizm tendensiyalariga keskin ta’sir ko‘rsatadi, bu esa ichki siyosat va turizmni rivojlantirish tashabbuslarining ta’sirini ajratishni qiyinlashtiradi.

– Ma’lumot to‘plashda cheklangan malakali mutaxassislar. Turizm ma’lumotlarini to‘plash va statistik tadqiqotlarda malakali mutaxassislarning yetishmasligi noto‘g‘ri yoki eskirgan ma’lumotlarga olib keladi, bu esa tadqiqot natijalarining ishonchliligiga ta’sir qilishi mumkin.

– Turistik segmentlarning xilma-xilligi. Turizm turlarining o‘sib borayotgan xilma-xilligi (masalan, madaniy, ekoturizm, sarguzasht) ko‘proq segmentlangan ma’lumotlarni to‘plashni talab qiladi, tegishli ma’lumotlarni to‘plash va tahlil qilish murakkabligini oshiradi.

Bu muammolar O‘zbekistonda turizmni rivojlantirish bo‘yicha statistik tadqiqotlarning aniqligi va ishonchliligini ta’minlash uchun ma’lumotlar infratuzilmasini takomillashtirish, ilmiy tadqiqotlarda professional ko‘nikmalarni oshirish va ko‘proq moslashuvchan usullar zarurligidan dalolat beradi.

XULOSA VA TAKLIFLAR

Xulosa qilib aytganda, O‘zbekistonda turizmni rivojlantirish tendensiyalarining statistik tadqiqotlari ushbu sohaning jadal sur’atlar bilan o‘sib borayotganini ham, foydalanilmagan salohiyatini ham ko‘rsatib beradi.

O‘zbekistonga boy madaniy meros, hukumatning strategik tashabbuslari va xalqaro qiziqishning ortib borayotgani sabab sayyohlar kelishi sezilarli darajada oshdi. Biroq, rivojlanmagan infratuzilma, mavsumiylik va ma’lumotlar to‘plashdagi cheklovlar kabi muammolar mamlakatning turizm salohiyatini to‘liq ro‘yobga chiqarishga to‘sqinlik qilmoqda.

Takliflar:

– Ma’lumotlar to‘plashni yaxshilash: turizm bo‘yicha markazlashtirilgan va keng qamrovli ma’lumotlar tizimini yaratish tendensiyalarni aniq tahlil qilish uchun juda muhimdir. Bu shahar va qishloq joylaridan, shuningdek, ekoturizm, madaniy turizm va sarguzasht turizmi kabi turli segmentlardan ma’lumotlarni birlashtirishni o‘z ichiga oladi.

– Infratuzilmani yaxshilash: qishloq turizmi infratuzilmasiga, shu jumladan transport va turar joylarga investitsiyalar sayyohlarni unchalik taniqli bo‘lmagan hududlarga jalb qilish uchun zarur. Bu sayyohlik yo‘nalishlarini diversifikatsiya qilish va iqtisodiy foydani mamlakat bo‘ylab bir tekis taqsimlash imkonini beradi.

– Malakali mehnatni rag‘batlantirish: Turizm mutaxassislari uchun, xususan, mehmondo‘stlik va ma’lumotlarni boshqarish bo‘yicha ta’lim va o‘quv dasturlarini ishlab chiqish, yuqori sifatli xizmat ko‘rsatish va ma’lumotlarni to‘plash imkoniyatlarini yaxshilaydi.

– Barqaror rivojlanish: O‘zbekiston ekologik turizmni rivojlantirish bilan birga o‘zining madaniy va tabiiy merosini saqlab qolish uchun barqaror turizm amaliyotiga ustuvor ahamiyat berishi kerak. Bu nozik hududlarda turistik faoliyatni tartibga solish va sayohatlarni rag‘batlantirishni o‘z ichiga oladi.

– Raqamli platformalardan foydalanish: raqamli marketing va sayyohlik platformalarini kengaytirish O‘zbekistonning global ko‘rinishini oshiradi va xalqaro sayyohlar uchun qulay foydalanish imkonini beradi. Raqamli vositalar, shuningdek, ma’lumotlar to‘plashni yaxshilashi va shaxsiy sayyohlik tajribasini taklif qiladi.

Ushbu muammolarni hal qilish va paydo bo‘layotgan imkoniyatlardan foydalanish orqali O‘zbekiston Markaziy Osiyodagi yetakchi turizm yo‘nalishi sifatidagi o‘z mavqeini yanada mustahkamlash, iqtisodiy o‘sish va madaniyatni saqlab qolish imkonini beradi.

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MACROECONOMIC ANALYSIS OF MULTILATERAL AND REGIONAL TRADE AGREEMENTS ON THE ECONOMY OF UZBEKISTAN: THE EXAMPLE OF THE WTO AND THE EAEU

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Annotation. This article highlights the macroeconomic impact of multilateral and regional trade agreements on the economy of Uzbekistan, focusing on two major international structures: the World Trade Organization (WTO) and the Eurasian Economic Union (EAEU). The study examines the opportunities and challenges associated with Uzbekistan's participation in these trade agreements, analyzing their impact on trade liberalization, foreign direct investment, economic growth, and industrial diversification. It analyzes the WTO's multilateral approach, which emphasizes non-discrimination and trade facilitation, as well as the EAEU's regional integration, which serves to foster deeper economic cooperation among member states. The article also highlights the potential benefits and risks of further integration into global and regional economies by assessing Uzbekistan's strategic position in this framework. Particular attention is paid to the impact on key sectors such as agriculture, manufacturing, and services, as well as the impact of domestic policies aimed at supporting sustainable economic development. The study provides recommendations for Uzbekistan to maximize the benefits of international economic integration and minimize potential risks.

Keywords: *Uzbekistan, WTO, EAEU, macroeconomic analysis, trade agreements, economic integration, GDP, trade liberalization, investment*

KO‘P TOMONLAMA VA MINTAQAVIY SAVDO BITIMLARINING O‘ZBEKISTON IQTISODIYOTIGA MAKROIQTISODIY TAHLILI: JST VA YOII MISOLI

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Annotatsiya. Ushbu maqolada ko‘p tomonlama va mintaqaviy savdo shartnomalarining O‘zbekiston iqtisodiyotiga makroiqtisodiy ta’siri ko‘rib chiqilib, asosiy e’tibor ikki asosiy xalqaro tuzilmalar: Jahon Savdo Tashkiloti (JST) va Yevroosiyo Iqtisodiy Ittifoqi (YOII)ga qaratiladi. Tadqiqot O‘zbekistonning ushbu

savdo kelishuvlarida ishtirok etishi bilan bog‘liq imkoniyatlar va muammolarni o‘rganadi, ularning savdoni erkinlashtirish, to‘g‘ridan-to‘g‘ri xorijiy investitsiyalar, iqtisodiy o‘sish va sanoat diversifikatsiyasiga ta’sirini tahlil qiladi. Unda JSTning diskriminatsiyaga yo‘l qo‘ymaslik va savdoni osonlashtirishga urg‘u bergan ko‘p tomonlama yondashuvi, shuningdek a’zo davlatlar o‘rtasida chuqurroq iqtisodiy hamkorlikni rivojlantirishga xizmat qiluvchi YOII mintaqaviy integratsiya tahlil qilinadi. Maqolada O‘zbekistonning ushbu doiradagi strategik o‘rnini baholash orqali global va mintaqaviy iqtisodiyotlarga keyingi integratsiyaning potensial foydalari va xavf-xatarlari ta’kidlangan. Qishloq xo‘jaligi, ishlab chiqarish va xizmat ko‘rsatish kabi muhim tarmoqlarga ta’siri hamda barqaror iqtisodiy rivojlanishni qo‘llab-quvvatlashga qaratilgan ichki siyosatning ta’siriga alohida e’tibor qaratilgan. Tadqiqot O‘zbekistonga xalqaro iqtisodiy integratsiyadan maksimal foyda olish va potensial xavflarni minimallashtirish bo‘yicha tavsiyalar beradi.

Kalit so‘zlar: *O‘zbekiston, JST, YOII, makroiqtisodiy tahlil, savdo kelishuvlari, iqtisodiy integratsiya, YaIM, savdoni erkinlashtirish, sarmoya*

МАКРОЭКОНОМИЧЕСКИЙ АНАЛИЗ МНОГОСТОРОННИХ И РЕГИОНАЛЬНЫХ ТОРГОВЫХ СОГЛАШЕНИЙ НА ЭКОНОМИКУ УЗБЕКИСТАНА: ПРИМЕР ВТО И ЕАЭС

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Аннотация. В данной статье рассматривается макроэкономическое влияние многосторонних и региональных торговых соглашений на экономику Узбекистана с акцентом на две крупные международные организации: Всемирную торговую организацию (ВТО) и Евразийский экономический союз (ЕАЭС). В исследовании рассматриваются возможности и проблемы, связанные с участием Узбекистана в этих торговых соглашениях, анализируется их влияние на либерализацию торговли, прямые иностранные инвестиции, экономический рост и диверсификацию промышленности. В нем анализируется многосторонний подход ВТО, который делает упор на недискриминацию и упрощение процедур торговли, а также региональную интеграцию ЕАЭС, которая служит развитию более глубокого экономического сотрудничества между государствами-членами. В статье освещаются потенциальные выгоды и риски дальнейшей интеграции в мировую и региональную экономику путем оценки стратегического положения Узбекистана в этом контексте. Особое

внимание уделяется влиянию на такие важные сектора, как сельское хозяйство, производство и услуги, а также влиянию внутренней политики, направленной на поддержку устойчивого экономического развития. В исследовании представлены рекомендации для Узбекистана, позволяющие максимизировать выгоды от международной экономической интеграции и минимизировать потенциальные риски.

Ключевые слова: *Узбекистан, ВТО, ЕАЭС, макроэкономический анализ, торговые соглашения, экономическая интеграция, ВВП, либерализация торговли, инвестиции.*

KIRISH

Tez rivojlanayotgan jahon iqtisodiyotida savdo kelishuvlari mamlakatlarning iqtisodiy trayektoriyasini shakllantirishda hal qiluvchi ahamiyatga ega bo‘ldi. Xalqaro maydonda iqtisodiy mavqeini oshirishga intilayotgan O‘zbekiston kabi davlatlar uchun ko‘p tomonlama va mintaqaviy savdo kelishuvlarining ta’sirini tushunish juda muhim. So‘nggi o‘n yilliklar davomida savdo shartnomalari an’anaviy ikki tomonlama kelishuvlardan murakkab ko‘p tomonlama tuzilmalarga aylandi. Bunday tuzilmalarning eng yorqin namunalari orasida Jahon Savdo Tashkiloti (JST) va Yevroosiyo Iqtisodiy Ittifoqi (YOII) O‘zbekistonning iqtisodiy siyosati, xalqaro munosabatlari va umumiy iqtisodiy rivojlanishiga ta’sir ko‘rsatadi.

Markaziy Osiyoning chorrahasida joylashgan O‘zbekiston o‘zining boy tabiiy resurslari, malakali ishchi kuchi va kengayib borayotgan sanoat bazasidan foydalanish uchun strategik mavqega ega. Biroq, o‘z salohiyatiga qaramay, mamlakat jahon iqtisodiyotiga integratsiyalashuvi bilan bog‘liq ko‘plab muammolarga duch kelmoqda, jumladan, tarkibiy o‘zgarishlar, eksportni diversifikatsiya qilish, raqobatbardosh ishlab chiqarishlarni tashkil etish zarur. Ushbu muammolarni hal qilish uchun O‘zbekiston turli mintaqaviy va xalqaro savdo bloklari bilan hamkorlik aloqalarini o‘rnatishga intildi. Ulardan eng muhimi uning YOIIga a’zoligi va JSTga to‘laqonli a’zo bo‘lishga intilishidir.

JST doirasidagi kabi ko‘p tomonlama savdo shartnomalari xalqaro savdoni tartibga soluvchi qoidalar va asoslarni o‘rnatib, savdoga globallashgan yondashuvni ifodalaydi. Ushbu bitimlar savdo to‘siqlarini kamaytirish, raqobatni rivojlantirish va davlatlar o‘rtasida iqtisodiy hamkorlikni rivojlantirishga qaratilgan. 2025-yil holatiga ko‘ra 166 ta a’zo davlatni o‘z ichiga olgan JST savdoni tartibga soluvchi global organ sifatida faoliyat yuritadi va unga a’zo davlatlar uchun qo‘llaniladigan savdo qoidalari tizimini belgilaydi. Bunday kelishuvlar orqali mamlakatlar eksport imkoniyatlarini kengaytirishga, xorijiy sarmoyalarni jalb qilishga va iqtisodiy o‘sishni rag‘batlantirishga intiladi.

Boshqa tomondan, Rossiya, Belarus, Qozog‘iston, Armaniston va Qirg‘iziston kabi davlatlarni o‘z ichiga olgan YOII kabi mintaqaviy savdo kelishuvlari ma’lum bir mintaqa doirasida iqtisodiy integratsiyani rivojlantirishga qaratilgan. YOII mintaqaviy integratsiya tashabbusining yorqin namunasidir, uning maqsadi tovarlar, xizmatlar, mehnat va kapital uchun yagona bozor yaratish, unga a’zo davlatlar o‘rtasida yaqinroq iqtisodiy aloqalarni o‘rnatish. YOII mamlakatlari bilan geografik va madaniy jihatdan bog‘langan O‘zbekiston uchun bunday kelishuvlar savdo aloqalarini kengaytirish, infratuzilmani yaxshilash va mintaqaviy bozorlarga chiqish imkoniyatlarini kengaytiradi.

Mazkur tadqiqot ushbu ikki xil turdagi savdo bitimlarining – JST va YOIIning O‘zbekiston iqtisodiyotiga makroiqtisodiy ta’sirini tahlil qilishga qaratilgan. O‘zbekistonning ushbu kelishuvlarda ishtirok etishi bilan bog‘liq imkoniyatlar va muammolarni o‘rganib, ushbu tadqiqot bunday savdo asoslari savdo balansi, YaIM o‘sishi, bandlik, inflyatsiya va to‘g‘ridan-to‘g‘ri xorijiy investitsiyalar kabi turli makroiqtisodiy o‘zgaruvchilarga qanday ta’sir qilishini o‘rganadi. Bundan tashqari, tadqiqot kengroq geosiyosiy va iqtisodiy kontekstni hisobga olgan holda O‘zbekistonning ushbu kelishuvlarda ishtirok etishining strategik ahamiyatini ko‘rib chiqadi.

MAVZUGA OID ADABIYOTLAR TAHLILI

Ko‘p tomonlama hamda mintaqaviy savdo shartnomalari uzoq vaqtdan beri keng qamrovli ilmiy tadqiqotlar mavzusi bo‘lib kelgan. JSTga a’zolikning iqtisodiy ta’siri bo‘yicha tadqiqotlar shuni ko‘rsatadiki, qo‘shilish odatda savdo oqimlarining o‘sishiga, iqtisodiy samaradorlikning oshishiga va to‘g‘ridan-to‘g‘ri xorijiy investitsiyalar oqimining oshishiga olib keladi (Baldwin, 2006; Bagwell & Staiger, 2010). Biroq, JSTga a’zo bo‘lish afzalliklari qiyinchiliklardan holi emas. Mamlakatlar global raqobatga moslashishlari kerak, bu esa sanoatning ayrim tarmoqlarida sektorlar almashinuvi va ish o‘rinlarining yo‘qolishiga olib kelishi mumkin (Felbermayr va boshqalar, 2010). Shuningdek, Mario Larch, Roberta Piermartini va V. Yotovlarning ilmiy izlanishlarida JSTga a’zo bo‘lgan davlatlarning o‘zaro tovar ayirboshlash hajmi 171 foizga, a’zo va a’zo bo‘lmagan davlatlar o‘rtasidagi savdoni esa taxminan 88 foizga oshganligini ko‘rsatadi (Larch M., Monteiro J.A., Piermartini R., Yotov Y., 2019). JSTga a’zo bo‘lgan davlatning iqtisodiy rivojlanishi kamida besh yil davomida 2,5 foizga oshadi (Tang M., Wei S., 2009). O‘tish davridagi mamlakatlarning JST tajribasini ijobiy deb hisoblash kerak. Bitimlar bozorga kirish barqarorligini sezilarli darajada yaxshilaydi, ular korrupsiyani yo‘q qilishga va davlat daromadlarini sezilarli darajada yo‘qotmasdan boshqaruvni yaxshilashga yordam beradi. Bundan tashqari, JST to‘lov balansi inqirozlarini

yaxshiroq boshqarish uchun ichki siyosatni kuchaytirishda ham ijobiy rol o‘ynagan (Drabek Z., Bacchetta M., 2004).

Boshqa tomondan, YOII kabi mintaqaviy savdo shartnomalari o‘ziga xos dinamikaga ega. Gritsenko va Kuzmin (2018) tomonidan olib borilgan tadqiqotlar shuni ko‘rsatadiki, YOIIga a’zolik savdo aloqalarini yaxshilash, tariflarni pasaytirish va Rossiya va boshqa a’zo mamlakatlar bozorlariga kirishni osonlashtirish orqali Markaziy Osiyo mamlakatlari uchun muhim iqtisodiy imkoniyatlar yaratishi mumkin. Biroq, tanqidchilar mintaqaviy savdo kelishuvlari ko‘pincha asimmetrik imtiyozlarni o‘z ichiga oladi, deb ta’kidlaydilar. O‘zbekiston kabi kichikroq iqtisodlar bozorga kirishning tengsizligi va yirikroq a’zo davlatlarga qaramlik tufayli ma’lum sektorlarda kamchiliklarga duch kelishi mumkin (Shumylo-Tapiola, 2014).

TADQIQOT METODOLOGIYASI

Ushbu tadqiqotda O‘zbekiston savdo shartnomalarining makroiqtisodiy ta’sirini baholash uchun statistik ma’lumotlardan foydalanildi. Tahlilda JST va YOII a’zoligining O‘zbekiston yalpi ichki mahsuloti o‘sishi, savdo balansi, inflyatsiya sur’atlari va to‘g‘ridan-to‘g‘ri xorijiy investitsiyalar oqimiga ta’sirini miqdoriy baholash uchun vaqt seriyali ma’lumotlar va panel ma’lumotlar modellari kombinatsiyasidan foydalaniladi. Buning uchun Jahon banki, Xalqaro valyuta jamg‘armasi (XVJ) va O‘zbekiston Davlat statistika qo‘mitasi ma’lumotlaridan foydalaniladi.

Ushbu tahlilning empirik modeli savdoning gravitatsion modeliga asoslanadi, bu O‘zbekiston va boshqa JST va YOII a’zo davlatlari o‘rtasidagi ikki tomonlama savdo oqimlarini baholash imkonini beradi.

TAHLIL VA NATIJALAR

JSTga a’zo bo‘lish JST va a’zo davlat o‘rtasida intensiv muzokaralarni talab qiladigan siyosiy jarayondir. Qo‘shilgan mamlakat o‘z iqtisodiyotini xalqaro raqobat uchun ochishi talab qilinadi va qo‘shilish shartlari har bir holatda farq qilishi mumkin bo‘lsa-da, o‘z bozorlariga erkin kirishni ta’minlashga rozi bo‘ladi.

Mamlakat JSTga a’zo bo‘lganidan so‘ng, savdoni yanada cheklashga yo‘l qo‘yilmaydi, aks holda mamlakat savdo sheriklarining oqibatlariga duch kelishi mumkin, chunki amalda liberallashtirish qaytarilmasdir. JSTga yangi a’zo bo‘lgan davlatlarning tajribasi shuni ko‘rsatadiki, ularning JSTga a’zo bo‘lishidan iqtisodiy foyda ayniqsa uzoq muddatda sezilishi mumkin. Biroq, qo‘shilishning darhol siyosiy foydalari bor, chunki u qo‘shilayotgan mamlakat hukumatiga o‘z qonunchiligini yaxshilashga va JST qonunchiligi bo‘yicha majburiyatlarga murojaat qilish orqali o‘zini manfaatli guruhlardan himoya qilishga yordam beradi. Darhaqiqat, qo‘shilish hukumatga bozor tamoyillariga qat’iy rioya qilishga, barqaror savdo va sarmoyaviy

muhitni yaratishga yordam beradi (Zdenek D., Marc B., 2009). O‘zbekistonda allaqachon proteksionizm bilan kechgan liberallashtirishga oid urinishlar bo‘lgan. Shu bois O‘zbekistonning yangi rahbariyati liberallashtirish islohotlarini davom ettirish bo‘yicha e’lon qilingan qat’iylik tez orada amaliy harakatga aylanishiga ishonch hosil qilishi kerak. JSTga a’zo bo‘lish islohot jarayoni muvaffaqiyatli bo‘lishini va keyinchalik uni qaytarib bo‘lmasligini ta’minlash uchun juda muhimdir.

Raqobat uchun bozorlarni ochish.

Hozirgi vaqtda O‘zbekiston tashqi savdosi o‘rtacha import tariflari bo‘yicha Janubiy Kavkaz va Markaziy Osiyoning boshqa davlatlariga qaraganda ancha yopiq (1-jadvalga qarang).

1-jadval

O‘zbekistonning bojxona to‘lovlari taqqoslanganda

Davlatlar	**Import tarif stavkasi (min-max) %**	**O‘rtacha tarif stavkasi, hamma mahsulotlar, %**	**O‘rtacha qo‘llaniladigan tarif stavkasi, barcha mahsulotlar %**
Armaniston	0-100	7-8	6.36
Ozarbayjon	0-15	8.52	8.52
Belorus	0-100	7.8	6.02
Gruziya	0-30	1.47	0.43
Qozog‘iston	0-100	7.8	6.91
Qirg‘iziston	0-100	7.8	5.33
Moldova	0-75	5.6	5.41
Rossiya	0-100	7.8	5.33
Tojikiston	0-15	6.14	6.14
Turkmaniston	10-100	5.43	Mavjud emas
Ukraina	0-60	10	4.08
O‘zbekiston	0-30	14.2	13.66

Manba: World Bank ma’lumotlaridan olingan

O‘zbekiston import uchun 0-30% oralig‘ida bojlar qo‘llaydi. Birlamchi yoki oraliq tovarlar uchun nol yoki pastroq bojlar va yakuniy mahsulotlar uchun yuqori stavkalar qo‘llaniladi. Mahalliy ishlab chiqarilgan tovarlar bilan raqobatlashadigan ayrim mahsulotlarga qo‘shimcha importga xos aksiz bojlari solinadi. Masalan, avtomobillarga qo‘llaniladigan bojlar (import tarifi va maxsus aktsiz solig‘i) avtomobilning import qiymatining 100% dan oshadi. O‘rtacha tarif stavkalarini ko‘rsatadigan quyidagi raqamlar to‘liq voqeani aytib bermaydi, chunki ular savdo uchun tarifsiz to‘siqlarni hisobga olmaydi. Yuqorida aytib o‘tilganidek, O‘zbekiston o‘tmishda (1996-2003, 2007-2016) import hajmini kamaytirish uchun valyuta ayirboshlash cheklovlarini qo‘llagan. Import cheklovlari ichki narxlarning oshishiga olib keldi va bozorlarga salbiy ta’sir ko‘rsatdi va ba’zi korxonalar kulrang iqtisodiyotga o‘tishdi. Valyuta birjalaridagi cheklovlar ham investorlarni mamlakatdan uzoqlashtirdi, chunki xorijiy ishlab chiqaruvchilar o‘z daromadlarini vataniga qaytarish imkoniyatlari haqida tashvishlanishdi. Qonun ustuvorligi va korrupsiya sohasidagi boshqaruvning yomon ko‘rsatkichlari ham O‘zbekistonga to‘g‘ridan-to‘g‘ri xorijiy investitsiyalar (TTXI)ning nisbatan past bo‘lishiga sabab bo‘ldi.

Savdoni erkinlashtirish va iqtisodiy o‘sish: O‘zbekistonning JSTga a’zo bo‘lishi tariflarning pasaytirilishiga va bir qancha sohalarning liberallashuviga olib keldi. Jahon banki (2021) ma’lumotlariga ko‘ra, JSTga a’zo bo‘lish O‘zbekistonning savdo ochiqligini oshirishi va jahon bozorlariga yaxshi chiqish imkonini berishi kutilmoqda. Dastlabki hisob-kitoblarga ko‘ra, O‘zbekistonning JSTga a’zo davlatlar bilan savdo aylanmasi a’zo bo‘lganidan keyin qariyb 15 foizga oshgan.

Yalpi ichki mahsulotning o‘sishi nuqtai nazaridan ekonometrik tahlil JSTga a’zolik va O‘zbekistonning iqtisodiy ko‘rsatkichlari o‘rtasida ijobiy bog‘liqlik mavjudligini ko‘rsatadi. Savdo to‘siqlarining bartaraf etilishi resurslarni yanada samarali taqsimlash, sanoat ishlab chiqarishni ko‘paytirish va eksportni diversifikatsiya qilishni rag‘batlantirish imkonini berdi.

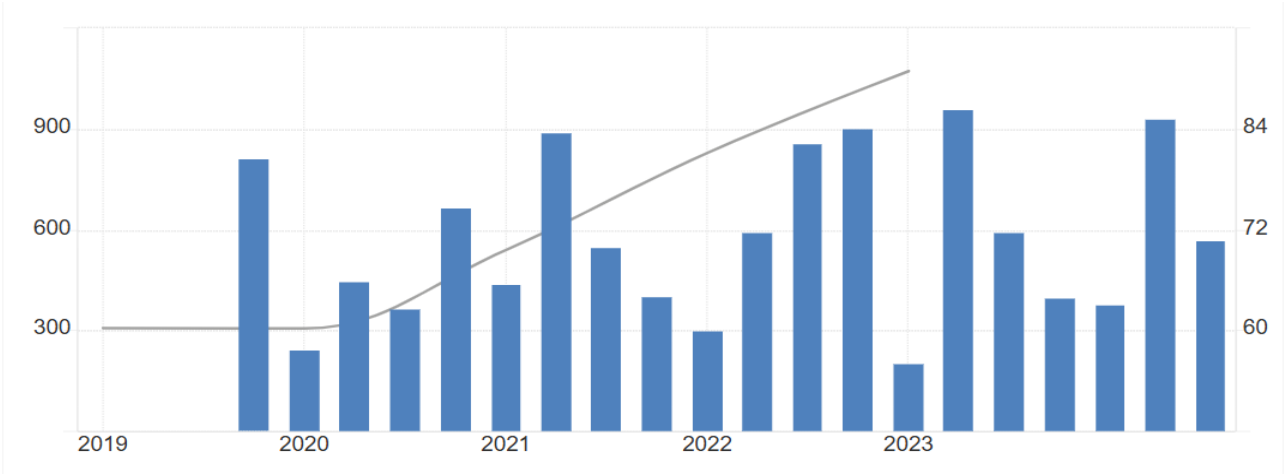
Inflyatsiya va ichki sanoatga ta’siri: Imtiyozlarga qaramay, JST doirasidagi savdoni liberallashtirish, ayniqsa, narxlarning o‘zgaruvchanligi ko‘rinishidagi muammolarni keltirib chiqardi. JST a’zolaridan arzonroq tovarlar importi ko‘paydi, bu esa, ayniqsa, oziq-ovqat va iste’mol tovarlari sektorida inflyatsiya bosimiga olib keldi. Biroq, uzoq muddatli ta’sir ijobiy bo‘lishi kutilmoqda, chunki raqobat ichki bozorda mahsuldorlikni oshiradi va narxlarni pasaytiradi.

Mahalliy sanoat, xususan, qishloq xo‘jaligi va ishlab chiqarishda xorijiy firmalarning kuchli raqobatiga duch keldi. Biroq, bu sektorlar ilg‘or texnologiyalardan foydalanish va raqobatbardosh narxlardan ham foyda ko‘rdi va natijada samaradorlikni oshirishga hissa qo‘shdi.

To‘g‘ridan-to‘g‘ri xorijiy investitsiyalar: JSTga a’zo bo‘lish to‘g‘ridan-to‘g‘ri xorijiy investitsiyalar oqimining ko‘payishi bilan ham bog‘liq bo‘lib, O‘zbekiston a’zo bo‘lgandan so‘ng xorijiy investitsiyalar sezilarli darajada oshib borishi prognoz qilinmoqda. A’zolik natijasida investorlar ishonchining ortishi va kengroq bozorga kirishning yaxshilanishi bilan bog‘lash mumkin, bu esa O‘zbekistonni xalqaro kapital uchun jozibador manzilga aylantiradi. Quyidagi 2-jadvalda so‘nggi yillarda O‘zbekistonga kiritilgan to‘g‘ridan to‘g‘ri xorijiy investitsiyalar hajmini ko‘rishimiz mumkin.

2-jadval

O‘zbekistonga kiritilgan to‘g‘ridan to‘g‘ri xorijiy investitsiyalar va YaIMning o‘sish ko‘rsatkichi, 2019-2024-yillar, mln. Doll.



O‘zbekiston JSTga a’zo bo‘lish natijasida yuzaga keladigan ma’lum xavflarga duch kelishi mumkin, chunki savdoni erkinlashtirish g‘oliblar va yutqazuvchilarni keltirib chiqaradi. Iste’molchilar tanlovning ko‘payishi, tovarlar sifatining yaxshilanishi va narxlarning pasayishidan foyda ko‘radi. Bundan tashqari, mamlakat xizmat ko‘rsatish sohasini liberallashtirishdan foyda ko‘radi. Masalan, moliya va qurilish sohalarida xizmatlar bozoriga kirish imkoniyatini berish mamlakatga to‘g‘ridan-to‘g‘ri investitsiyalarni ko‘paytirishi va shu bilan yangi ish o‘rinlari va o‘sish imkoniyatlarini yaratishi mumkin. Boshqa tomondan, importning ortishi bilan raqobatlashayotgan ishlab chiqaruvchilar yutqazuvchi tomonda bo‘lib, zaif tarmoqlar bozorni tark etishga majbur bo‘ladi. Bu qisqa muddatda mahalliy sanoat uchun yo‘qotishlarni keltirib chiqarishi mumkin. Shunday bo‘lsa-da, mamlakat uzoq muddatda yaxshiroq ahvolda bo‘lishi mumkin, chunki u raqobatbardosh ustunlik sohalariga ixtisoslashadi. Deyarli barcha mahalliy sanoat tarmoqlari, ayniqsa qattiq himoyalangan sanoat, raqobat kuchayishi mumkin bo‘lgan tarmoqlar qatoriga kiradi. Avtomobilsozlik, kimyo va to‘qimachilik sanoati hamda qishloq xo‘jaligi sohalari zarar ko‘rishi mumkin bo‘lganlar qatoriga kiradi. Ishsizlikning ko‘payishi nuqtai nazaridan ijtimoiy oqibatlar qo‘shimcha moliyaviy yuklarni keltirib chiqaradi. Bu

yerda davlat investitsiyalarini ko‘paytirish yoki ishsizlik sxemalarini kuchaytirish yechim bo‘la oladi. Bundan tashqari, O‘zbekiston JSTga a’zo bo‘lganidan keyin tuzatish xarajatlariga duch keladi, bu esa tashqi savdo bilan shug‘ullanuvchi institutlarga katta sarmoya kiritishni talab qiladi. Oshkoralik va qonun ustuvorligini ta’minlash, mulk huquqini himoya qilish, shuningdek, boshqaruv institutlari sifatini oshirish muammoli bo‘ladi. Bundan tashqari, JSTga a’zo bo‘lish xorijiy raqobatning kuchayishi ta’sir ko‘rsatadigan yon manfaat guruhlari tomonidan qarshilikka duch kelishi mumkin. Bunday holda, hukumat islohotlar bo‘yicha o‘z majburiyatlarini sinab ko‘rishi va proteksionistik manfaatlar guruhlari bilan muzokaralar olib borish uchun yechimlarni topishi kerak bo‘ladi. Xatarlar va imkoniyatlarni tegishli metodologiya va usullar bilan baholash kerak.

YOIIga a’zolikning makroiqtisodiy ta’siri

Mintaqaviy savdo integratsiyasi: YOIIga a’zolik Rossiya, Qozog‘iston va boshqa a’zo davlatlar bilan yaqinroq iqtisodiy aloqalarni kuchaytirdi. O‘zbekistonda YOII mamlakatlariga, xususan, to‘qimachilik, qishloq xo‘jaligi va mineral xomashyo kabi sohalarga eksport hajmi sezilarli darajada oshdi. Savdo to‘siqlarining olib tashlanishi va yagona tarif siyosatining joriy etilishi ittifoq doirasidagi savdo oqimining silliq kechishi va bozorga kirishning yaxshilanishiga yordam berdi.

Investitsiyalar va iqtisodiyotni diversifikatsiya qilish: YOII muhim savdo imkoniyatlarini taqdim etsa-da, Rossiya bozoriga haddan tashqari qaramlik nuqtai nazaridan muammolarni ham keltirib chiqardi. O‘zbekiston mintaqaviy iqtisodiyotga yanada integratsiyalashgani sari ayrim tarmoqlarga, xususan, energetika va xomashyoga tarkibiy jihatdan qaramlik xavfi mavjud. Buni yumshatish uchun O‘zbekiston o‘zining sanoat bazasini diversifikatsiya qilishi va YOIIning yirik a’zolaridan kelib chiqadigan iqtisodiy zarbalar ta’sirini kamaytirishi kerak.

3-jadval

O‘zbekistonning YOII davlatlari bilan 2024-yildagi tashqi savdo aylanmasi, mln. doll.

Davlatlar	Eksport hajmi		Import hajmi		Tashqi savdo aylanmasi
Rossiya	3400	5 327	7300	10 659	10,700
Qozog‘iston	1300		2600		3,900
Qirg‘iziston	477		263		740
Belarus	150		496		646

Manba:statistika ma’lumotlari asosida muallif ishlanmasi



O‘zbekistonning YOIIga a’zo davlatlar bilan 2024-yilning yanvar-noyabr oylaridagi tashqi savdo aylanmasi 11,1%ga oshib, $15,9 mlrd. tashkil etdi.

Siyosatning oqibatlari va tavsiyalari: Natijalar shuni ko‘rsatadiki, JST va YOIIga a’zo bo‘lish O‘zbekistonning makroiqtisodiy ko‘rsatkichlariga ijobiy ta’sir ko‘rsatgan bo‘lsa-da, sektor zaifligi va inflyatsiya bosimi bo‘yicha muammolar saqlanib qolmoqda.

XULOSA VA TAKLIFLAR

Ushbu maqolada ko‘p tomonlama va mintaqaviy savdo shartnomalarining O‘zbekiston iqtisodiyotiga ta’siri batafsil makroiqtisodiy tahlil qilingan bo‘lib, uning JSTga kirishi va YOII a’zoligiga e’tibor qaratiladi. Ikkala kelishuv ham savdo, yalpi ichki mahsulotning o‘sishi va to‘g‘ridan-to‘g‘ri inflyatsiyaning oshishiga hissa qo‘shgan bo‘lsa-da, inflyatsiya va tarmoqqa bog‘liqlik kabi muammolar saqlanib qolmoqda. Ushbu xatarlarni yumshatishga qaratilgan strategik siyosatni qabul qilish orqali O‘zbekiston uzoq muddatli barqaror o‘sish va rivojlanish uchun ushbu savdo kelishuvlarining barcha imkoniyatlaridan foydalanishi mumkin.

O‘zbekistonning JST tomon borayotgan yo‘li bozor islohotlarining sekin sur’ati tufayli uzoq davom etmoqda. Mamlakat tashqi zarbalarga javoban proteksionizmni tanladi. Proteksionistik siyosat, garchi iqtisodiy inqiroz davrida ma’lum afzalliklarga ega bo‘lsa-da, chuqur bozor islohotlarini o‘tkazishga imkon bermagani uchun, umuman olganda, yuqori xarajatlarni keltirib chiqardi. Tashqi savdo cheklanganligicha qolmoqda va mamlakatning to‘g‘ridan-to‘g‘ri xorijiy investitsiyalar uchun jozibadorligi mintaqaning qolgan qismiga nisbatan past. Biroq, rahbariyat o‘zgarishi bilan davom etayotgan islohotlarda optimizm bor. Jahon Savdo

Tashkilotiga a’zo bo‘lish O‘zbekistonga sobiq Sovet Ittifoqining boshqa davlatlariga qaraganda ko‘proq foyda keltirishi mumkin. O‘zbekiston iqtisodiy jihatdan ancha yopiq va mintaqa davlatlari orasida aholi jon boshiga to‘g‘ridan-to‘g‘ri xorijiy investitsiyalar oqimi bo‘yicha eng past o‘rinda turadi. Import bojlarini pasaytirish iste’molchilarga ko‘proq tanlov imkoniyatini beradi va takomillashtirilgan huquqiy va institutsional baza tufayli investitsion oqimlar oshishi mumkin. Eng muhimi, JSTga a’zo bo‘lish mamlakatning orqaga chekinishini qiyinlashtiradigan, balki imkonsiz bo‘lsa ham, bozor islohotlarini chuqurlashtirish imkonini beradi.

O‘zbekistondagi iqtisodiy islohotlar tarixini hisobga olsak (islohotlar ortidan proteksionizm), islohotlarning orqaga qaytish xavfini istisno etib bo‘lmaydi.

Shu bois quyidagi tavsiyalar taklif etiladi:

– JSTga a’zo bo‘lish bo‘yicha muzokaralar olib borilishi kerak;

– Ichki bozorlarda raqobatni ta’minlash uchun import bojlarini kamaytirish kerak;

– Tashqi savdo va investitsiyalar to‘g‘risidagi qonunchilikni xalqaro standartlarga mos ravishda takomillashtirish kerak;

– Tashqi ishtirokchilar zaruratga qarab texnik va moliyaviy yordam ko‘rsatuvchi O‘zbekistonning savdo siyosati islohotlarini kuchli qo‘llab-quvvatlash;

– Eksportni diversifikatsiya qilishni kuchaytirish: Kattaroq bozorlarga chiqish foydali bo‘lsa-da, O‘zbekiston bir nechta sektorlarga qaramlikni kamaytirish uchun o‘z eksportini diversifikatsiya qilishga e’tibor qaratishi kerak;

– Ichki sanoatga sarmoya kiritish: Savdoni liberallashtirish tufayli kuchaygan raqobat O‘zbekistondan texnologik innovatsiyalar va asosiy tarmoqlarda, xususan, qishloq xo‘jaligi va ishlab chiqarishda samaradorlikni oshirishga sarmoya kiritishni talab qiladi;

– Inflyatsiya tendensiyalarini kuzatish: siyosatchilar o‘sishni to‘xtatmasdan iste’molchilarni himoya qiluvchi maqsadli fiskal va pul-kredit siyosati orqali importning ko‘payishining inflyatsiya ta’sirini boshqarishi kerak;

– To‘g‘ridan-to‘g‘ri investitsiyalarni jalb qilish: JST va YOII a’zoligidan to‘liq foyda olish uchun O‘zbekiston infratuzilma, boshqaruv va biznesni tartibga solishni takomillashtirishga e’tibor qaratgan holda qulay investitsiya muhitini yaratishda davom etishi kerak;

– O‘zbekistonning savdo siyosatini isloh qilish va JSTga a’zo bo‘lishiga ko‘maklashish tashqi subyektlarning siyosiy hujjatlarida (masalan, Yevropa Ittifoqining Markaziy Osiyoga nisbatan strategiyasida) o‘z aksini topishi kerak.

JSTga a’zo bo‘lish O‘zbekiston uchun bozor islohotlarini ilgari surish va ularni qaytarib bo‘lmaydigan qilish uchun muhim ahamiyatga ega. Ochiq, oshkora va

rivojlanayotgan iqtisodiyotga ega bo‘lgan O‘zbekiston JSTga a’zo bo‘lganidan keyin xalqaro biznes uchun yanada jozibador bo‘ladi.

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ORGANIZATIONAL MODELS IN TOURISM AND THEIR INFLUENCE ON THE EFFICIENCY OF TOURIST RESOURCE MANAGEMENT

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Annotation. Organizational management models in tourism play a crucial role in ensuring the successful development, sustainability, and competitiveness of tourist destinations worldwide. Each of these models impacts various aspects of tourism. Moreover, tourism plays a vital role in stimulating economic growth. The influx of local and international tourists creates new jobs in tourism-related sectors, contributes to the development of small businesses, and increases the demand for local products and services. This, in turn, brings significant benefits not only to a specific country but also to regional economies. Additionally, promoting collaborative management, joint efforts by government agencies, the private sector, and the public, enhances the efficiency of tourism development. This approach has been widely applied in international practice and has led to significant achievements in the tourism sector of many countries. Utilizing innovations, designing proper marketing strategies, and fostering international cooperation can ensure the competitiveness of tourist destinations. International experience demonstrates that organizations implementing successful management models consistently adopt advanced approaches to develop tourism. These include the use of digital technologies, ensuring sustainability, and expanding customer-oriented services to achieve significant progress. This article analyzes various management models and studies the activities of organizations that have effectively applied these models in international practice.

Key words: *management models, destination management organizations, public-private partnerships, community tourism, tourism clusters, destination marketing organization, regional tourism organizations, tourism cooperatives, government, private sector.*

TURIZMDA TASHKILIY MODELLAR VA ULARNING TURISTIK RESURSLARNI BOSHQARISH SAMARADORLIGIGA TA’SIRI

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Annotatsiya. Turizmda tashkiliy boshqaruv modellari dunyo bo‘ylab turistik manzillarning muvaffaqiyatli rivojlanishi, barqarorligi va raqobatbardoshligini ta’minlashda katta ahamiyatga ega. Ushbu modellarning har biri turizmning turli jabhalariga ta’sir ko‘rsatadi. Bundan tashqari, iqtisodiy o‘sishni rag‘batlantirishda turizm muhim ahamiyat kasb etadi. Mahalliy va xalqaro sayyohlarning oqimi turizm bilan bog‘liq sohalarda yangi ish o‘rinlarini yaratadi, kichik biznesni rivojlantirishga hissa qo‘shadi va mahalliy mahsulotlar hamda xizmatlarga bo‘lgan talabni oshiradi. Bu, o‘z navbatida, nafaqat muayyan mamlakat, balki mintaqaviy iqtisodiyotga sezilarli foyda keltiradi. Shuningdek, hamkorlikda boshqaruvni rag‘batlantirish, ya’ni davlat organlari, xususiy sektor va jamoatchilikning birgalikdagi sa’y-harakatlari orqali turizm sohasini rivojlantirish samaradorligini oshiradi. Ushbu yondashuv xalqaro tajribada keng qo‘llanilib, ko‘pgina mamlakatlarda turizm sohasida sezilarli yutuqlarga olib kelgan. Innovatsiyalarni qo‘llash, marketing strategiyalarini to‘g‘ri ishlab chiqish va xalqaro miqyosda hamkorlik qilish orqali turistik manzillar raqobatbardoshligini ta’minlash mumkin. Xalqaro tajriba shuni ko‘rsatadiki, muvaffaqiyatli boshqaruv modellarini qo‘llagan tashkilotlar doimiy ravishda turizmni rivojlantirishga xizmat qiluvchi ilg‘or yondashuvlarni joriy etmoqda. Ular raqamli texnologiyalarni qo‘llash, barqarorlikni ta’minlash va mijozlarga yo‘naltirilgan xizmatlarni kengaytirish orqali sezilarli yutuqlarga erishmoqda. Ushbu maqolada turli xil boshqaruv modellari tahlil qilingan, xalqaro tajribada mazkur modellarni samarali qo‘llay olgan tashkilotlar faoliyati o‘rganilgan.

Kalit so‘zlar: *boshqaruv modellari, turistik manzillarni boshqaruvchi tashkilotlar, davlat-xususiy sherikchilik, hamjamiyatga asoslangan turizm, turizm klasterlari, turizm manzillar marketing tashkiloti, mintaqaviy turizm tashkilotlari, turizm kooperatsiyalari, hukumat, xususiy sektor.*

ОРГАНИЗАЦИОННЫЕ МОДЕЛИ В ТУРИЗМЕ И ИХ ВЛИЯНИЕ НА ЭФФЕКТИВНОСТЬ УПРАВЛЕНИЯ ТУРИСТИЧЕСКИМ РЕСУРСОМ

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Аннотация. Модели организационного управления в туризме играют ключевую роль в обеспечении успешного развития, устойчивости и конкурентоспособности туристических направлений по всему миру. Каждая из этих моделей оказывает влияние на различные аспекты туризма. Кроме того, туризм имеет важное значение для стимулирования экономического роста.

Поток местных и международных туристов создаёт новые рабочие места в сферах, связанных с туризмом, способствует развитию малого бизнеса и увеличивает спрос на местные товары и услуги. Это, в свою очередь, приносит значительную пользу не только отдельной стране, но и региональной экономике. Кроме того, продвижение совместного управления, то есть объединение усилий государственных органов, частного сектора и общества, повышает эффективность развития туризма. Такой подход широко применяется в международной практике и привёл к значительным достижениям в туристическом секторе многих стран. Использование инноваций, грамотная разработка маркетинговых стратегий и международное сотрудничество могут обеспечить конкурентоспособность туристических направлений. Международный опыт показывает, что организации, применяющие успешные модели управления, постоянно внедряют передовые подходы для развития туризма. Это включает в себя использование цифровых технологий, обеспечение устойчивости и расширение клиентоориентированных услуг для достижения значительных успехов. В данной статье проанализированы различные модели управления, а также изучена деятельность организаций, эффективно применяющих эти модели в международной практике.

Ключевые слова: *модели управления, организации по управлению туристическими дестинациями, государственно-частное партнерство, общественный туризм, туристические кластеры, маркетинговая организация туристических дестинаций, региональные туристические организации, туристические кооперативы, правительство, частный сектор.*

KIRISH

Turizm sanoati barqarorlik, jamoatchilik ishtiroki va atrof-muhitni muhofaza qilish bilan bog‘liq muhim muammolarga yechim bo‘la olgan holda jahon iqtisodiyotiga katta hissa qo‘shayotgan dinamik va ko‘p qirrali sanoat hisoblanadi (Астанакулов О., 2024). Turizm yo‘nalishlarini samarali boshqarish iqtisodiy rivojlanishni atrof-muhitni muhofaza qilish va ijtimoiy mas’uliyat bilan muvozanatlashtira oladigan strategik asoslar va tashkiliy modellarni talab qiladi.

Turizmdagi tashkiliy boshqaruv modellari Turistik manzillarni boshqaruvchi tashkilotlar (DMO), Davlat-xususiy sherikchilik (PPP), Turistik manzillar marketingi tashkiloti, Mintaqaviy turizm tashkilotlari (RTO), Hamjamiyatga asoslangan turizm (CBT), Milliy turizm tashkiloti, Turizm klasterlari, Turizm kooperatsiyalari kabi boshqaruv usullarini o‘z ichiga oladi. Klasterlar, mintaqaviy turizm tashkilotlari (RTO) va turizm kooperativlari ham shular jumlasidandir. Ushbu modellar turizm siyosatini shakllantirish, turistik yo‘nalishlarni targ‘ib qilish, infratuzilmani

rivojlantirish, tashrif buyuruvchilar tajribasini oshirish va barqaror turizm amaliyotlarini rivojlantirishda muhim rol o‘ynaydi.

Davlat hokimiyati organlari, xususiy sektor manfaatdor tomonlari, mahalliy hamjamiyat va nodavlat tashkilotlar (NNT) o‘rtasidagi strategik hamkorlik orqali ushbu modellar turizm sektoridan maksimal foyda olishga, shu bilan birga madaniy meros, tabiiy muhit va mahalliy iqtisodiyotga salbiy ta’sirlarni kamaytirishga qaratilgan.

Sayyohlik sanoati samarali tashkiliy boshqaruv modellarini tushunish va amalga oshirish turizm rivojlanishini optimallashtirish, o‘ziga xosligi va resurslarini saqlab qolish hamda mahalliy hamjamiyat va tashrif buyuruvchilar uchun ijobiy ijtimoiy-iqtisodiy ta’sir ko‘rsatishga intilayotgan yo‘nalishlar uchun juda muhimdir. Shuning uchun ushbu modellarning qanday ishlashi, ularning turistik resurslarga ta’siri va global miqyosda turizmni barqaror rivojlantirish strategiyalariga qo‘shayotgan hissalarini har tomonlama o‘rganish dolzarb ahamiyatga ega.

ADABIYOTLAR TAHLILI

Turizmda boshqaruv va boshqaruv modellariga oid bir qancha ilmiy tadqiqotlar mavjud. Xususan, D. Buhalis, C. Costa “Turizm menejmenti dinamikasi” asarida turizmdagi boshqaruv modellarini tahlil qilib bergan. G. Lohmann “Turizm nazariyasi: konsepsiya, modellar va tizimlar” asarida turizmda boshqaruvning modellarini izohlab bergan. Bundan tashqari, turizmda tashkiliy modellar B. Lubbe, S. Page, M. Curcija, N. Breaky, S. Drimi kabi olimlarning tadqiqotlarida tahlil qilingan. S. Pike, S.J. Page turistik manzillarni boshqaruvchi tashkilotlar, G. Singh, M.S. Khan davlat-xususiy sherikchilik, E. Okaaki hamjamiyatga asoslangan turizm, A. Peiro-Signes turizm klasterlari, X. Yang, K. Hung turizm kooperatsiyalari modellarini o‘z tadqiqotlarida tahlil qilgan. O‘zbek tadqiqotchilaridan K. Xomidov, T.M. Shokirovna, S. Ro‘ziyev, R. Raxmonovalarning ilmiy ishlarida turizmda boshqaruvga oid masalalar o‘rganilgan. Adabiyotlar xilma-xilligiga qaramay, turizmda tashkiliy modellarning o‘ziga xos xususiyatlari va ularning turistik resurslarni boshqarishga ta’siri haqida ma’lumotlar yetarlicha emas.

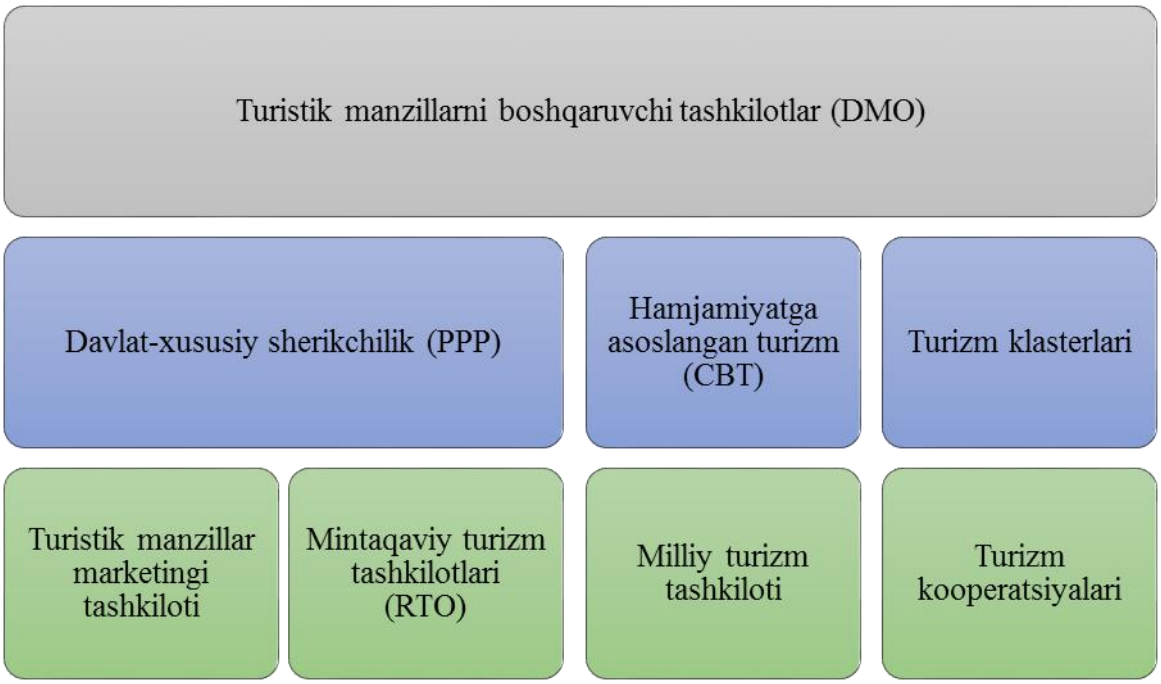
TADQIQOT METODOLOGIYASI

Turizmda tashkiliy boshqaruv modellarini o‘rganishda, birinchi navbatda, ilmiy adabiyotlar ko‘rib chiqildi: turizm sanoatida tashkiliy boshqaruv modellari doirasida mavjud ilmiy adabiyotlar, soha hisobotlari va amaliy tadqiqotlar tahlil qilindi. Keyin esa keys tadqiqoti tahlili amalga oshirildi. Bunda turizmda turli tashkiliy boshqaruv modellarining amalga oshirilishi va natijalarini tahlil qilish uchun turli mintaqalarning tajribasi tahlil qilindi. Muvaffaqiyat omillari, duch kelgan qiyinchiliklar va ularning samaradorligi va qo‘llanilishi to‘g‘risida tushunchaga ega

bo‘lish uchun har bir amaliy tadqiqotdan olingan natijalar baholandi. Shu bilan birgalikda, tadqiqot ishi davomida kuzatish, qiyoslash, tizimli va qiyosiy tahlil kabi usullardan foydalanildi. Turli yondashuvlarni o‘zida mujassam etgan turli xil metodologiyadan foydalangan holda, ushbu tadqiqot turizmdagi tashkiliy boshqaruv modellari va ularning turistik resurslar, barqarorlik va raqobatbardoshlikka ta’siri haqida keng qamrovli tushuncha berishga qaratilgan.

TAHLIL VA NATIJALAR

So‘nggi yillarda butun dunyoda turizmni rivojlantirish va undan maksimal foyda olish tendensiyasi kuzatilmoqda (Astanakulov O., Soxibova M., 2023). Shu sababli mazkur sektorning boshqaruvini samarali yo‘lga qo‘yish muhim ahamiyat kasb etadi. Tashkiliy modellar bir nechta sabab tufayli iqtisodiyotda muhim rol o‘ynaydi. Masalan, ishlab chiqarish korxonalarida operatsiyalarni tartibga solish, resurslarni samarali taqsimlash orqali iqtisodiy o‘sish va raqobatbardoshlikni oshirish uchun zarur hisoblangan mahsuldorlikni oshirishga yordam beradi. Ayrim tashkiliy modellar, masalan, yassi tashkiliy tuzilmalar (iyerarxik darajasi kichik yoki umuman yo‘q) tezkor qaror qabul qilishni rag‘batlantirish orqali innovatsiyalarni tez qabul qiladi va joriy qiladi. Tashkiliy modellar har bir kompaniya yoki tashkilotning iqtisodiy jihatdan taraqqiy etishi uchun asos hisoblanadi. Ular biznesning samarali ishlashi, samarali innovatsiyalar kiritilishi, risklarni boshqarishi va umumiy iqtisodiy farovonlikka hissa qo‘shishi uchun asos bo‘lib xizmat qiladi.



1-rasm. Turistik resurslarni boshqarish modellari

Mehmondo‘stlik sanoatida turistik faoliyatni tuzilmalash va turistik resurslarni boshqarish uchun bir nechta tashkiliy modellar mavjud (1-rasm). Ushbu modellar

menejment, manfaatdir tomonlar va zarur muvofiqlashtirish darajasi kabi omillarga qarab farqlanishi mumkin (Reinhold S., Florian J., Dejan K., 2017: 462-482).

Turistik manzillarni boshqaruvchi tashkilotlar (Destination Management Organization) – ma'lum bir yo'nalishning strategik menejmenti va marketingini nazorat qilish orqali turizm sektorida muhim rol o'ynaydi (Manente M., Valeria M., 2006: 228-237). Ushbu tashkilotlar quyidagi funksiyalarni bajaradi:

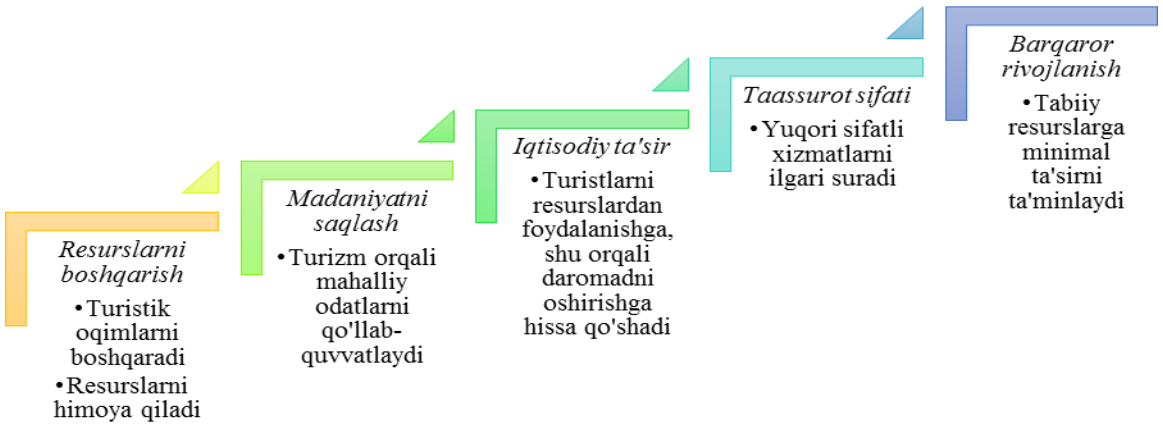
1. Strategik rejalashtirish: turistik destinatsiyalarni boshqaruvchi tashkilotlar o'zlariga tegishli manzillarda turizmni targ'ib qilish hamda rivojlantirish uchun uzoq muddatli strategiyalarni ishlab chiqadi, masalan, maqsadli bozorlarni aniqlash, marketing maqsadlarini belgilash yoki reklama kompaniyalarini tashkil etish.

2. Marketing va reklama: ushbu tashkilotlar reklama, ijtimoiy tarmoqlar, xalqaro ko'rgazmalar va sayyohlik agentliklari bilan o'zaro hamkorlik orqali potensial sayyohlar uchun mo'ljallangan manzilni turistik bozorga taqdim etadi.

3. Infratuzilmani rivojlantirish: tashrif buyuruvchi sayyohlarning turistik manzildan olgan taassurotini yaxshilash uchun infratuzilmani takomillashtirish, qulayliklar yaratish va ko'rsatilayotgan xizmatlarni yaxshilash uchun mahalliy hokimiyat va korxonalar bilan hamkorlik olib boradi.

4. Sayyohlarga xizmat ko'rsatish: tashrif buyuruvchilarga diqqatga sazovor joylar, joylashtirish vositalari, ovqatlanish shoxobchalari, tadbirlar va turistik manzillarga oid ma'lumotlar beradi.

5. Barqaror turizmga hissa qo'shish: turistik destinatsiyalarni boshqaruvchi tashkilotlar tabiiy va madaniy resurslarni asrab-avaylash, "mas'uliyatli" turlarni rag'batlantirish kabi chora-tadbirlar orqali barqaror turizm amaliyoti uchun hissa qo'shmoqda.



2-rasm. Turistik destinatsiyalarni boshqaruvchi tashkilotlarning turistik resurslarga ta'siri.

Turistik destinatsiyalarni boshqaruvchi tashkilotlarning turistik resurslarga ta’siri 2-rasmda aks ettirilgan.

Hozirda samarali faoliyat olib borayotgan DMOlarga VisitScotland, Tourism Australia, Cape Town Tourismni misol qilib keltirish mumkin.

Visit Scotland Shotlandiyada turizmni targ‘ib qilish uchun mas’ul milliy turizm tashkilot hisoblanadi. U turistlarga manzillarga oid axborotlarni taqdim qiladi, mahalliy biznesni qo‘llab-quvvatlaydi va tashrif buyurgan sayyohlarning manzillardan taassurotini yaxshilash strategiyalarini ishlab chiqadi. Tourism Australia milliy turistik tashkilot, Avstraliyani xalqaro miqyosda sayohat uchun manzil sifatida targ‘ib qilishga mas’ul.

Davlat-xususiy sherikchilikka asoslangan model (Public-Private Partnerships) – davlat/davlat sektori subyektlari va xususiy sektor korxonalari/tashkilotlari o‘rtasidagi hamkorlikka asoslanadi (Franco M., Cristina E., 2010: 600-612). Turizmda ushbu modeldan turistik yo‘nalishlar va diqqatga sazovor joylarni rivojlantirish, boshqarish hamda targ‘ib qilish uchun har ikkala sektorning ustuvor jihatlarini ishga solishda foydalaniladi.

Turizmda ushbu modeldan foydalanilganda quyidagi vazifalar bajariladi:

1. Qo‘shma investitsiyalar: PPP ko‘p hollarda turizm infratuzilmasiga qo‘shma sarmoyalarni o‘z ichiga oladi. Bu holda hukumat moliyalashtirish yoki rag‘batlantirish bilan ta’minlaydi, xususiy sektor esa tajriba, boshqaruv qobiliyati va kapital qo‘shadi.

2. Rivojlanish va boshqaruv: Xususiy sektor joylashtirish vositalari, dam olish maskanlari, istirohat bog‘lari, transport kabi turizm resurslarini rivojlantirish va boshqarishda mas’uliyatni o‘z zimmalariga oladi, bu esa rentabellik va mijozlar ehtiyojini qondirishga qaratilgan samarali foydalanish va texnik xizmat ko‘rsatish imkoniyatini beradi.

3. Marketing va reklama: sayyohlarni jalb qilish maqsadida marketing va reklama tadbirlarida hukumat va xususiy sektor o‘zaro hamkorlik olib boradi. Hukumat organlari maqsadli brending va marketing kompaniyalarini taqdim etadi, xususiy sektor esa maqsadli auditoriyaga samarali erishish uchun marketing tarmoqlaridan foydalanadi.

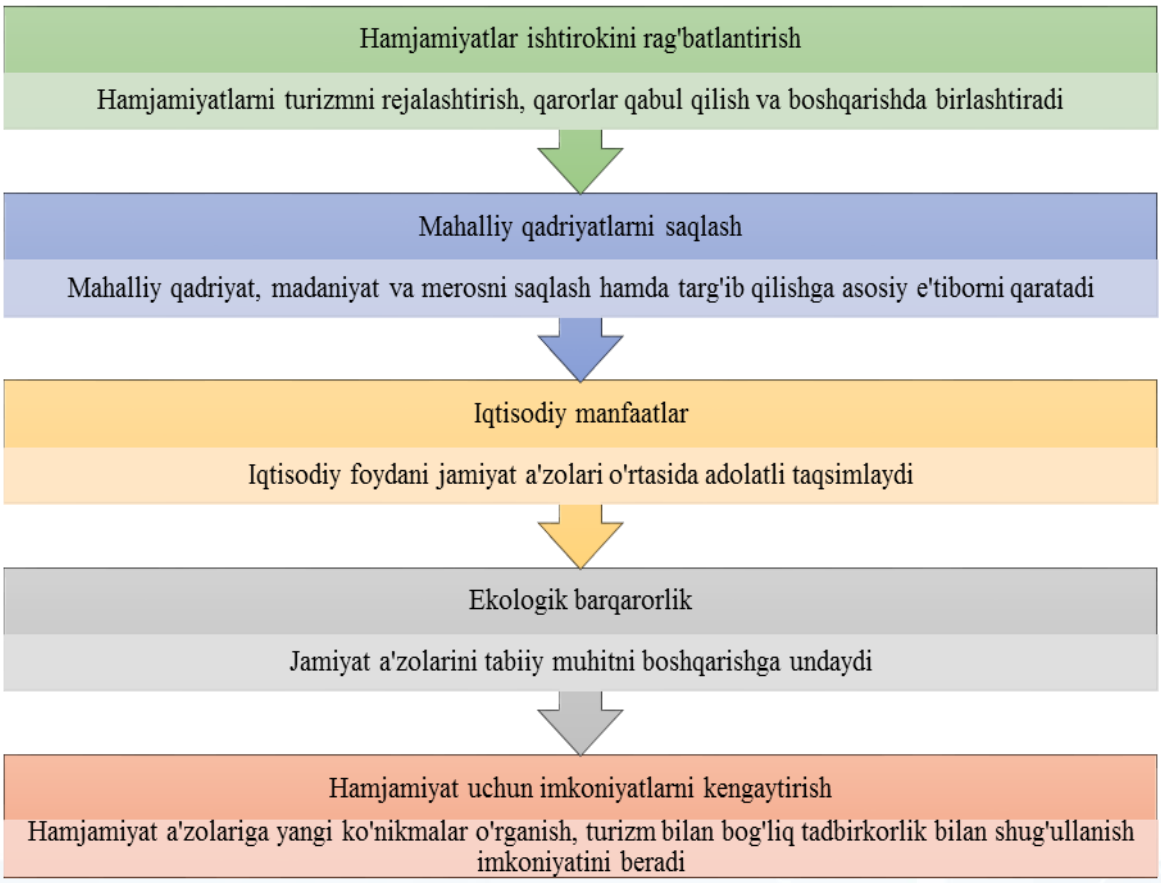
4. Sifat kafolati: davlat-xususiy sherikchilik modeli xizmat ko‘rsatish, infratuzilmani saqlash va tashrif buyuruvchilar tajribasida yuqori standartlarni joriy etish orqali turistik resurslar sifatini oshirishga olib keladi. Faoliyatda xususiy sektor ishtiroki operatsiyalarda innovatsiya va samaradorlikni oshirishga xizmat qiladi.

5. Barqaror turizmni rag‘batlantirish: ushbu model tabiiy va madaniy resurslarni asrashga qaratilgan “mas’uliyatli” turizmni rag‘batlantiradi, misol uchun,

ekologik infratuzilmani joriy etadi, jamoatchilikni jalb qiladi hamda tabiatni muhofaza qiladi.

PPP modeliga asoslanib boshqariladigan turizm resurslariga Singapurdagi Marina Bay Sands (Las Vegas Sands korporatsiyasi va Singapur davlat idoralarini o‘z ichiga olgan konsorsium), Perudagi Machu Pikchu (Peru hukumati, mahalliy hokimiyat organlari va xususiy turizm operatorlari tomonidan sherikchilik asosida boshqariladi), Yaponiyaning Osaka shahrida joylashgan Universal Studios (Universal Parks & Resorts, Osaka shahri va mahalliy korxonalar hamkorligida boshqariladi), Velsdagi Snowdonia National Parkni (Buyuk Britaniya hukumati, mahalliy hokimiyat organlari, tabiatni muhofaza qilish tashkilotlari va xususiy biznes korxonalari tomonidan boshqariladi) misol tariqasida keltirish mumkin. Ushbu misollar turizmda davlat va xususiy sektor o‘rtasidagi hamkorlik turizmda samaradorlik va innovatsiyalar, turistik resurslarni oshirish, iqtisodiy o‘sishni ta’minlash va barqaror rivojlanishni rag‘batlantirish uchun samarali ekanligini ko‘rsatib beradi.

Hamjamiyatga asoslangan turizm (Community-Based Tourism) modeli – turizmni rivojlantirish va uning samarali faoliyat yuritishida mahalliy hamjamiyat ishtirokiga asoslangan boshqaruv modeli hisoblanadi (Okazaki E., 2008: 511-529). 3-rasmda CBTning faoliyat ko‘rsatish strukturasi aks etgan.



3-rasm. Hamjamiyatga asoslangan turizm faoliyati

Ushbu modellarga misol qilib quyidagilarni keltirish mumkin:

1. G Advanturesga tegishli hamjamiyat turizm loyihalari. Ushbu loyihalar dunyo bo‘ylab ko‘plab mamlakatlar, jumladan, Peru, Kenya, Nepalni o‘z ichiga oladi. Aslida G Advantures 100 dan ortiq mamlakatlarga arzon kichik guruhlar uchun quruqlik, dengiz va daryo sayohatlarining keng tanlovini taklif etuvchi tashkilot. U barqaror turizm tashabbuslarini rivojlantirish uchun doimiy ravishda mahalliy hamjamiyatlar bilan hamkorlik qiladi.

2. Sapa O’Chau, Vetnam. Vetnamning shimolidagi Sapa viloyatida mahalliy Hmong hamjamiyatining a’zosi Shu Tan tomonidan asos solingan Sapa O‘chau, Hmong oilalari tomonidan mezbonlik qiladigan trekking sayohatlari va joylashtirish vositalarini taklif qiladi. Ushbu tashkilot turizmdan tushgan tushumni mahalliy bolalar uchun ta’lim stipendiyalari va jamoat loyihalariga qayta investitsiyalaydi.

Turizm klasterlari – turizm bilan bog‘liq korxonalar, tashkilotlar va ma’lum bir yo‘nalishdagi qo‘llab-quvvatlovchi infratuzilmalarning geografik konsentratsiyasini anglatadi (Peiró-Signes A., 2015: 155-167). Mazkur menejment modeli raqobat-bardoshlikni oshirish, turistlarni jalb qilish va turistik resurslarni barqaror boshqarish uchun turli manfaatdor tomonlar o‘rtasidagi hamkorlikka asoslangan.

Turistik klasterlar turli xil yuqori sifatli xizmatlar, diqqatga sazovor joylar va tadbirlarni taklif qilish orqali sayyohlar taassurotini yaxshilaydi, turistlar takomillashtirilgan turistik infratuzilma va ixcham geografik hududdagi turli xil resurslardan foydalanish imkoniyatiga ega bo‘ladi. Shuningdek, klasterlar joylashtirish vositalari, ovqatlanish shoxobchalari, xarid va tadbirlarga pul sarflash imkoniyati mavjud sayyohlarni jalb qila olish orqali iqtisodiy o‘sishni rag‘batlantiradi, hamda mahalliy urf-odatlar, san’at va merosni namoyish etish orqali madaniyatni saqlashga hissa qo‘shadi. Bundan tashqari, turistik klasterlar transport tarmoqlari, mehmonxonalar, turizm inshootlari va dam olish uchun qulaylik yaratuvchi qo‘shimcha omillar kabi infratuzilmani takomillashtirishga qaratilgan sarmoya kiritishni rag‘batlantiradi.

Xalqaro tajribada muvaffaqiyatli faoliyat olib borayotgan turizm klasterlariga AQShning Florida shtatidagi Orlando shahrini misol qilib keltirish mumkin. Mazkur klaster asosiy fokusi mavzuli parklar (Theme parks) bo‘lib, u yerda butun dunyoga mashhur Walt Disney World Resort, Universal Orlando Resort va SeaWorld Orlando joylashgan. Orlando diqqatga sazovor joylar, mehmonxonalar, restoranlar va ko‘ngilochar manzillarni qo‘llab-quvvatlash bilan birga, har yili millionlab tashrif buyuruvchilarni jalb qiladigan mustahkam turizm klasterini tashkil qiladi.

Turistik manzil marketingi tashkilotlari – sayyohlarni jalb qilish uchun ma’lum turistik yo‘nalishni targ‘ib qilish va sotishga qaratilgan turizmni boshqarish modeli

hisoblanadi (Pike S., Stephen J., 2014: 202-227). Model milliy turizm kengashlaridan tortib mahalliy hokimiyat organlarigcha bo‘lgan turli darajalarda ishlaydi.

Ushbu tashkilotlar rag‘batlantiruvchi strategiyalar ishlab chiqadi va amalga oshiradi, bozor tadqiqotlarini olib boradi, turizm biznesining boshqa ishtirokchilari bilan turizmni rivojlantirish uchun hamkorlik qiladi, turistlarga xizmat ko‘rsatadi.

Turizm resurslariga turistik marketing tashkilotlarining ta’siri quyidagilarda namoyon bo‘ladi:

1. Iqtisodiy o‘sish: tashkilotlar joylashtirish vositalari, ovqatlanish shoxobchalari, xaridlar va turli turistik tadbirlar uchun pul sarflash qobiliyatiga ega sayyohlarni jalb eta olish orqali iqtisodiy o‘sishni ta’minlaydi. Mazkur o‘sish mahalliy biznesni qo‘llab-quvvatlaydi, yangi ish o‘rinlarini yaratadi hamda soliq tushumlariga hissa qo‘shadi.

2. Turistik manzil brendingi: samarali turistik manzil marketing tashkilotlari noyob madaniy, tabiiy va rekreatsion manzillarning o‘ziga xos brendini yaratadi va turizm bozorida targ‘ib qiladi.

3. Infratuzilmani rivojlantirish: marketing tashkilotlari transport tarmoqlari, joylashtirish vositalari va turistlar uchun turli qulayliklarni yaratuvchi infratuzilmani takomillashtirishga ta’sir qiladi.

Turistik manzil marketing tashkiloti modeliga misol sifatida Birlashgan Arab Amirliklaridagi Dubai Tourism yoki Kosta-Rikadagi Costa Rica Tourism Boardni keltirish mumkin.

Dubai Tourism Dubayni global turizm va biznes markazi sifatida targ‘ib qiladi. Butun dunyodan turistlar va ishbilarmonlarni jalb qilish maqsadida shaharning diqqatga sazovor manzillari, jumladan, Burj Xalifa, Dubai Mall kabi hashamatli kurortlar va madaniy tajribalarni sayyohlar e’tiboriga taqdim qiladi.

Mintaqaviy turizm tashkilotlari (Regional Tourism Organizations) – shahardan katta, ammo milliy miqyosdan kichik, ma’lum geografik mintaqalarda sayyohlikni rag‘batlantirish va maqsadli rivojlanishni boshqarishga qaratilgan tashkilotlar hisoblanadi. Mintaqaviy turizm tashkilotlarining eng asosiy vazifalari quyidagilardan iborat (4-rasm).

Mintaqaviy turizm tashkilotlariga Destination BC (Britaniya Kolumbiyasi, Kanada), Swiss Tourism (Shveysariya), Visit Cornwall (Kornval, Birlashgan Qirollik) ni misol qilib keltirish mumkin.

Milliy turizm tashkiloti (National Tourism Organization) – milliy darajada mehmondo‘stlik sanoatini strategik boshqarish, ilgari surish va rivojlantirish uchun mas’ul bo‘lgan asosiy tashkilot hisoblanadi (Domínguez V., Trinidad E., Simon D., 2018: 2895-2906). Mazkur tashkilotlar mamlakat turizm sektorini shakllantirish va sohaning siyosatini ishlab chiqishda muhim rol o‘ynaydi. Ular turizmni strategik

rejalashtiradi, mamlakatni turistik manzil sifatida targ‘ib qilish uchun marketing kompaniyalarini amalga oshiradi, sayyohlar uchun imtiyozlarni ishlab chiqish va tendensiyalarni aniqlash uchun bozorda tadqiqotlarni o‘tkazadi.



4-rasm. Mintaqaviy turizm tashkilotlarining vazifalari (Zahra A., Chris R., 2007: 854)

Milliy turizm tashkilotlariga Buyuk Britaniyaning VisitBritain, Yaponiyaning Japan National Tourism Organization, Yangi Zelandiyaning Tourism New Zealand kabi tashkilotlarini misol qilib keltirish mumkin.

Turizm kooperatsiyalari – ma’lum bir mintaqa yoki yo‘nalishdagi turizm faoliyatini birgalikda boshqarish va ilgari surish uchun turizm korxonalari, jamoalar yoki manfaatdor tomonidan tashkil etilgan tashkilotlardir (Mohamad Nor H., Amran H., 2013: 315-328). Mazkur model hamkorlik, imtiyozlarni adolatli taqsimlash va barqaror rivojlanishga alohida urg‘u beradi.

Turizm kooperatsiyalariga quyidagilarni misol qilib keltirish mumkin:

1. Fair Trade Tourism (Janubiy Afrika). Ushbu kooperatsiya Janubiy Afrikadagi bir qator mintaqalarni o‘z ichiga oladi. Adolatli savdo turizmi halol savdo tamoyillariga amal qiluvchi turistik korxonalarni (joylashtirish vositalari, turlar, turistik tadbirlar) sertifikatlash orqali mas’uliyatli turizmni rivojlantiradi.

2. Community-Based Tourism in Thailand (Tailandda joylashgan bir qator qishloq jamoalari). Tailanddagi hamkorlikka asoslangan ushbu kooperatsiya mahalliy qishloq aholisini o‘z ichiga oladi, aholi turistlarga vaqtincha qolish uchun uy-joy, ekskursiyalar va an’anaviy hunarmandchilik namunalarini taklif qiladi.

Har bir tashkiliy model o‘zining afzalliklari va turizmning turli yo‘nalish hamda maqsadlariga mos keladi. Samarali turizmni tashkil etish va boshqarish uchun turizm maqsadi yoki mintaqaning o‘ziga xos xususiyatlaridan kelib chiqib yuqorida

keltirilgan modellarning kombinatsiyasini o‘z ichiga oladigan usullardan foydalaniladi.

XULOSA

Xulosa qilib aytganda, turizmdagi tashkiliy boshqaruv modellari mamlakatning turistik manzillarini rivojlantirish, tashrif buyuruvchilarda turistik manzildan qoladigan taassurotini yaxshilash va barqaror turizm amaliyotini shakllantirishda muhim ahamiyat kasb etadi. Har bir model o‘ziga xos xususiyat va afzalliklariga ega, hamda sayyohlik sanoatini boshqarishning turli jihatlariga e’tibor beradi.

Yuqorida tadqiq qilingan menejment modellari turistik resurslarni boshqarishdagi yondashuvlarning xilma-xilligini o‘zida aks ettiradi, ularning har biri muayyan yo‘nalish ehtiyojlarini qondirish, sayyohlar tajribasini yaxshilash va eng asosiysi barqaror o‘sishni ta’minlash uchun mo‘ljallangan.

Samarali tashkiliy boshqaruv modellari mehmondo‘stlik sanoati yo‘nalishlarining barqaror rivojlanishi va muvaffaqiyatining asosi hisoblanadi. Mamlakat ushbu modellar ko‘rinishidagi turli yondashuvlarni qo‘llash orqali quyidagilarga erishishi mumkin:

1. Tashrif buyuruvchilarning sayohatdan taassurotlarini yaxshilash va boshqarish;
2. Iqtisodiy o‘sish;
3. Atrof-muhitni muhofaza qilish;
4. Infratuzilmani rivojlantirish;
5. Hamkorlik;
6. Global raqobatbardoshlik.

Hamkorlik, innovatsiyalar va resurslarni mas’uliyatli boshqarishni o‘z ichiga olgan ushbu modellar butun dunyo bo‘ylab sayyohlik yo‘nalishlarining uzoq muddatli muvaffaqiyati va barqarorligiga hissa qo‘shadi.

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DEVELOPMENT OF BANKING SERVICES IN THE CONTEXT OF CORPORATE TRANSFORMATION: ESSENCE AND ANALYSIS OF INDICATORS

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Annotation. The article delves into the crucial aspect of competitiveness in banking services amidst ongoing corporate transformations. The importance of evaluating both real and potential banking services is emphasized, that institutions can provide to their clients. This evaluation is grounded in an in-depth analysis of the theoretical and methodological foundations of banking activities, enriched by a comprehensive review of both domestic and international practices. The study highlights the evolving landscape of banking services, including innovations such as mobile banking, remote banking, and the integration of cutting-edge technologies like blockchain and artificial intelligence. Furthermore, the article outlines key performance indicators relevant to banking, such as net profit and payment services, underscoring the implications of these developments for bank-client relationships and overall service quality. This comprehensive approach aims to equip banks with the necessary insights to enhance their service offerings in an increasingly competitive market.

Key words: *bank, banking services, remote banking, mobile banking, bank-client, Internet bank, SMS banking, bank net profit, payment services, money transfers, blockchain technology, artificial intelligence.*

KORPORATIV TRANSFORMATSIYA SHAROITIDA BANK XIZMATLARINI RIVOJLANTIRISH: TAVSIF VA KO‘RSATKICHLAR TAHLILI

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Annotatsiya. Maqolada davom etayotgan korporativ o‘zgarishlar sharoitida bank xizmatlarida raqobatbardoshlikning muhim jihati ko‘rib chiqiladi. Institutlar o‘z mijozlariga ko‘rsatishi mumkin bo‘lgan real va potensial bank xizmatlarini baholash muhimligi ta’kidlangan. Ushbu baholash bank faoliyatining nazariy va uslubiy asoslarini chuqur tahlil qilishga asoslangan, mahalliy va xalqaro amaliyotni har tomonlama ko‘rib chiqish bilan boyitilgan. Tadqiqotda bank xizmatlarining

rivojlanayotgan manzarasi, jumladan, mobil banking, masofaviy banking kabi innovatsiyalar hamda blokcheyn va sun'iy intellekt kabi ilg'or texnologiyalar integratsiyasi o'rganiladi. Bundan tashqari, maqolada sof foyda va to'lov xizmatlari kabi bank faoliyatiga tegishli asosiy ko'rsatkichlar ko'rsatilgan bo'lib, ushbu o'zgarishlarning bank-mijoz munosabatlari va umumiy xizmat sifatiga ta'siri ta'kidlanadi. Ushbu keng qamrovli yondashuv banklarni tobora raqobatbardosh bozor sharoitida xizmatlar taklifini oshirish uchun zarur bo'lgan tushunchalarni izohlashga qaratilgan.

Kalit so'zlar: *bank, bank xizmatlari, masofaviy bank xizmatlari, mobil-banking, bank-mijoz, internet-banking, SMS-banking, bankning sof foydasi, to'lov xizmatlari, pul o'tkazmalari, blokcheyn texnologiyasi, sun'iy intellekt.*

РАЗВИТИЕ БАНКОВСКИХ УСЛУГ В УСЛОВИЯХ КОРПОРАТИВНОЙ ТРАНСФОРМАЦИИ: СУЩНОСТЬ И АНАЛИЗ ПОКАЗАТЕЛЕЙ

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Аннотация. Статья углубляется в важнейший аспект конкурентоспособности банковских услуг в условиях продолжающихся корпоративных преобразований. Подчеркивается важность оценки как реальных, так и потенциальных банковских услуг, которые учреждения могут предоставлять своим клиентам. Эта оценка основана на глубоком анализе теоретических и методологических основ банковской деятельности, обогащенном всесторонним обзором как отечественной, так и международной практики. Исследование подчеркивает развивающийся ландшафт банковских услуг, включая такие инновации, как мобильный банкинг, удаленный банкинг, а также интеграцию передовых технологий, таких как блокчейн и искусственный интеллект. Кроме того, в статье излагаются ключевые показатели эффективности, имеющие отношение к банковскому делу, такие как чистая прибыль и платежные услуги, подчеркивая последствия этих разработок для отношений между банком и клиентом и общего качества обслуживания. Этот комплексный подход направлен на то, чтобы снабдить банки необходимыми знаниями для улучшения своих предложений услуг на все более конкурентном рынке.

Ключевые слова: *банк, банковские услуги, дистанционное банковское обслуживание, мобильный банкинг, банк-клиент, интернет-банк, SMS-банкинг,*

чистая прибыль банка, платежные услуги, денежные переводы, технология блокчейн, искусственный интеллект.

KIRISH

Bank faoliyati transformatsiyasi innovatsion texnologiyalarga asoslangan holda xizmat turlari va qamrovini oshirish, mijozga ofis va masofaviy tarzda xizmat ko‘rsatishning mobil banking kabi tizimli instutitsional omillarini o‘z ichiga qamrab oladi.

Shu nuqtai nazardan O‘zbekiston Respublikasi Prezidentining 2022-yil 28-yanvardagi “2022-2026-yillarga mo‘ljallangan Yangi O‘zbekistonning taraqqiyot strategiyasi to‘g‘risida”gi PF-60-son farmonida moliya-bank sohalarida ishlab chiqarish va operatsion jarayonlarni avtomatlashtirish, bank xizmatlari onlayn turlarini kengaytirish hamda kredit ajratish bo‘yicha tahlillarni avtomatik tarzda amalga oshirish bo‘yicha baholash tizimlarini joriy etish va sun’iy intellektni mamlakatimizda muvaffaqiyatli qo‘llash yuzasidan “Sun’iy intellekt texnologiyalarini 2023-2030-yillarda rivojlantirish strategiyasi” ishlab chiqilishi, O‘zbekiston Respublikasi Prezidentining 2020-yil 12-maydagi “2020-2025-yillarga mo‘ljallangan O‘zbekiston Respublikasining bank tizimini isloh qilish strategiyasi to‘g‘risida”gi PF-5992-son farmonida[7] yuqori texnologiyali moliyaviy xizmatlarni taqdim etuvchi (“fin-tex”kabi) kompaniyalar faoliyati yo‘lga qo‘yilishi, kraudfanding va boshqa muqobil instrumentlar joriy qilinishi orqali xizmat ko‘rsatish jarayonlari raqamlashtirilishi bank xizmatlarining innovatsion rivojlanishiga omil bo‘lmoqda.

Hozirgi globallashuv jarayonida jadal kechayotgan korporativ transformatsiya sharoitida bank xizmatlari raqobatbardoshligini o‘zida namoyon etuvchi asosiy sifat belgisi bu bankning o‘z mijozlariga taklif eta oladigan real va potensial xizmatlari majmui sanalishi nuqtai nazaridan yondashilib, xorijlik va milliy iqtisodchi-olimlarning mavzuga daxldor qarashlari va tajribalar zamirida amalga oshirilgan tahlilga asoslangan holda bank xizmatlarini rivojlantirishga yo‘naltirilgan transformatsiya jarayonlarining konseptual asoslari tadqiq etildi.

MAVZUGA OID ADABIYOTLAR TAHLILI

Tijorat banklarida amalga oshirilayotgan transformatsion jarayonlar ko‘plab iqtisodchi olimlar va amaliyot sohasi mutaxassislarining tadqiqotlarda o‘z ifodasini topgan. Xususan, bank sektoridagi transformatsion jarayonlar nuqtai nazaridan K. Edelman, H. Bachman, A. Kumar Saha va A. Ier hamkorligida ishlab chiqilgan “2023 banking and capital markets outlook” tadqiqot ishida tijorat banklari g‘oyalar va raqamli instrumentlar asosida xizmat ko‘rsatishning yangi modellarini ishlab

[7] Ўзбекистон Республикаси Президентининг 2020 йил 12 майдаги “2020 - 2025 йилларга мўлжалланган Ўзбекистон Республикасининг банк тизимини ислоҳ қилиш стратегияси тўғрисида”ги ПФ-5992- сон Фармони. https://lex.uz/en/docs/4811025

chiqishlari zarurligiga e’tibor qaratilgan. Y. O. Shashkina tomonidan tayyorlangan “Iqtisodiyotning bank sektorini transformatsiyalashga moliyaviy texnologiyalarning ta’siri: xorijiy va milliy tajriba” nomli ilmiy tadqiqot ishida “Moliyaviy texnologiyalar ta’siri ostida bank sektorining tranformatsiyasi – bank faoliyatining tashkiliy va boshqaruv yo‘nalishlariga tegishli bo‘lgan yangi raqamli texnologiyalarning paydo bo‘lishi hisobiga bank sektoridagi tuzilmaviy o‘zgarishlar tarzida talqin etilgan.

Banklar faoliyatini o‘rganish, shu jumladan ularning raqobatbardoshligini oshirishga qaratilgan tadqiqotlar X. Allen, R. L. Miller, D. D. Van-Huz, B. King, J. Klark, J.Sinki va boshqalar tomonidan amalga oshirilgan.

Bu o‘rinda moliyaviy texnologiyalar moliya sektorida innovatsion mahsulot va xizmatlarni yaratish imkonini beruvchi unikal instrumentlar majmuasining funksionalligi nazarda tutiladi. Shuni alohida qayd etish o‘rinliki, bank sektorida eng ko‘p qo‘llaniladigan texnologiyalar sirasiga sun’iy intellekt, katta hajmli ma’lumotlar bazasi, taqsimlangan reestr, bulutli hisob-kitoblar, virtual va qo‘shilgan reallik, buyumlar interneti va mobil texnologiyalar kabilar kiradi.

Bank sektoridagi transformatsion jarayonlar sektorning institutsion transformatsiyasi, bank xizmatlarini ko‘rsatish kanallari transformatsiyasi va biznes-modellar transformatsiyasi kabilarni qamrab oladi. Ko‘rib chiqilayotgan yo‘nalishlar nuqtai nazaridan, moliyaviy texnologiyalar bir tomondan, bank xizmatlarini ko‘rsatishda raqobatni mustahkamlash va bank xizmatlari sifati oshishiga samarali ta’sir etuvchi, ikkinchi tomondan esa, bank faoliyati va uning istiqboli uchun ehtimollikka ko‘ra, salbiy ta’sirga ega risklar omili sifatida talqin etilishi mumkin” (Кинг Б., 2020: 18).

TADQIQOT METODOLOGIYASI

Maqolada O‘zbekiston bank tizimini transformatsiyalash sharoitida bank xizmatlarini takomillashishi yuzasidan iqtisodchi olimlar va soha vakillarining fikr-mulohazalari bibliografik yondashuv asosida o‘rganilganligi, tijorat banklarining yillik hisobotlari, shuningdek, O‘zbekiston Respublikasi Markaziy banki, “Axbor-Reyting” reyting agentligi ma’lumotlariga, ekspert baholash, tizimli yondashuv, qiyosiy tahlil orqali amalga oshirilgan jarayonlar tadqiqiga asoslanib, e’tiborga molik xulosa va tavsiyalar ishlab chiqilganligini keltirib o‘tish mumkin.

TAHLIL VA NATIJALAR

Kelajak bankini mazmun-mohiyatan “talabga mos bank” (inglizcha: embedded bank - integratsiyalashgan bank) tarzida talqin etish mumkin (Кинг Б., 2020: 18). Ushbu yondashuvning mohiyati mijozning katta ma’lumotlar bazasi, sun’iy intellektdan foydalangan holda tahlil qilinadigan ehtiyojlarini chuqur anglash va unga

eng maqbul vaqtda bank xizmatlarini taklif qilishdir. Ushbu yondashuvni amalga oshirish uchun bank xizmatlari tovarlar va xizmatlarni taqdim etishning yangi kanallariga “singdirilgan” va borgan sari bu raqamli xizmat ko‘rsatish kanallari (onlayn do‘konlar, ko‘chmas mulk bozoridagi takliflar agregatorlari, onlayn ta’lim va boshqalar) orqali mujassamlashgan instrumentariylari majmuasi samarali qo‘llanilishini nazarda tutadi.

Tijorat banklarida masofaviy bank xizmatlarini rivojlantirish maqsadida bank tizimi faoliyatida raqamli texnologiyalarni qo‘llash jarayoni jadal kechmoqda. 2022-yil 1-yanvar holatiga ko‘ra, mamlakatimizda masofaviy bank xizmatlaridan foydalanuvchi jismoniy shaxslar soni 19 234 mingtani tashkil etgan bo‘lsa, bu ko‘rsatkich 2023-yil 1-yanvar holatiga esa 28 045 mingtaga yetdi yoki 1,46 barobarga oshdi. Shu bir yil davomida jismoniy shaxslarning masofaviy bank xizmatlaridan foydalanish ko‘rsatkichi o‘rtacha hisobda 23 432 mingtani tashkil qildi (1-jadval).

1-jadval.

Masofaviy bank xizmatlaridan foydalanuvchi jismoniy shaxslar sonining tasviriy statistikasi (ming)[8]

Variable	Obs	Mean	Std. Dev.	Min	Max
MBXfoydala~i	12	23432	3076.508	19234	28045

Yuqoridagi jadval ma’lumotlariga ko‘ra, 2022-2023-yillar davomida masofaviy bank xizmatlaridan foydalanuvchi jismoniy shaxslarning soni o‘rtacha miqdorda (Standart og‘ish[9]) 3077 taga o‘zgargan.

Aholining masofaviy bank xizmatlaridan foydalanish ko‘rsatkichining ortishiga sabab sifatida, bir tomondan, muomalaga chiqarilgan bank plastik kartalari sonini, boshqa tomondan, bank tizimi faoliyatiga raqamli texnologiyalarni qo‘llash tajribasini keltirib o‘tish mumkin.

Xususan, tijorat banklari tomonidan muomalaga chiqarilgan bank plastik kartalari soni 2022-yil 1-yanvar holatiga ko‘ra, 27 105 mingtani tashkil etib, 2023-yil 1-yanvar holatiga kelib 1,24 barobarga oshdi va 33 549 mingtani tashkil qildi (2-jadval). 2-jadval ma’lumotlariga ko‘ra, 2022-2023-yillar davomida muomalaga chiqarilgan bank plastik kartalari soni o‘rtacha miqdorda (Standart og‘ish) 2096 taga o‘zgarib borgan.

[8] https://cbu.uz/uz/statistics/ O‘zbekiston Respublikasi Markaziy bankining Statistik byulleteni, 2022-yil ma’lumotlaridan foydalanib Stata dasturi orqali muallif tomonidan tuzildi.

[9] Standart og‘ish - bu ma’lumotlar to‘plamidagi o‘zgaruvchanlikning o‘rtacha miqdori.

2-jadval.

Muomalaga chiqarilgan bank plastik kartalari sonining tasviriy statistikasi (ming)[10]

Variable	Obs	Mean	Std. Dev.	Min	Max
Plastikkar~i	12	29817	2096.935	27105	33549

Tijorat banklari tomonidan mijozlarga taklif etilayotgan masofaviy bank xizmatlaridan “Bank-mijoz”, “Internet-banking”, “SMS-banking” hamda “Mobil-banking” shakllari mijozlar tomonidan keng foydalanilmoqda. Sababi, ularning barchasi har ikkala tomonning o‘zaro manfaatli sheriklik asosida faoliyat yuritishida qo‘l keladi hamda vaqtni tejaydi.

Bank-mijoz - bank tizimida hisob raqamiga ega bo‘lgan yuridik va yuridik shaxs maqomiga ega bo‘lmagan yakka tartibdagi tadbirkorlar tomonidan kompyuter qurilmasi orqali o‘z hisob raqamlarini kuzatish va tasarruf etish bo‘yicha dasturiy majmua.

Internet-banking - bu Internet orqali bank operatsiyalarini amalga oshirishga imkon beradigan dasturiy ta’minot to‘plami[11].

SMS-banking - yuridik va yuridik shaxs maqomiga ega bo‘lmagan yakka tartibdagi tadbirkorlarni uyali (mobil) telefon raqamlari orqali bank hisob raqamlari aylanmalari va qoldiqlari haqidagi ma’lumotlarni SMS shaklida xabardor qilish xizmati.

Mobil-banking - Bank tizimida hisob raqamiga ega bo‘lgan yuridik va yuridik shaxs maqomiga ega bo‘lmagan yakka tartibdagi tadbirkorlar tomonidan mobil qurilma orqali o‘z hisob raqamlarini kuzatish va tasarruf etish bo‘yicha dasturiy majmua[12].

Statistika ma’lumotlariga ko‘ra, 2023-yil yakunida, masofaviy bank xizmatlaridan (internet-banking va mobil-banking xizmat turlari yordamida bank hisob varaqlaridagi pul mablag‘larini boshqarish, USSD-so‘rov yordamida bank plastik kartalaridagi mablag‘larni boshqarish, SMS-xabarnoma yordamida hisob varaqdagi pul mablag‘lari harakati haqida ma’lumot olish) foydalanuvchilar soni 44 099 mingtani tashkil qilgan[13]. Bugungi kunda bank sohasida aholiga bank

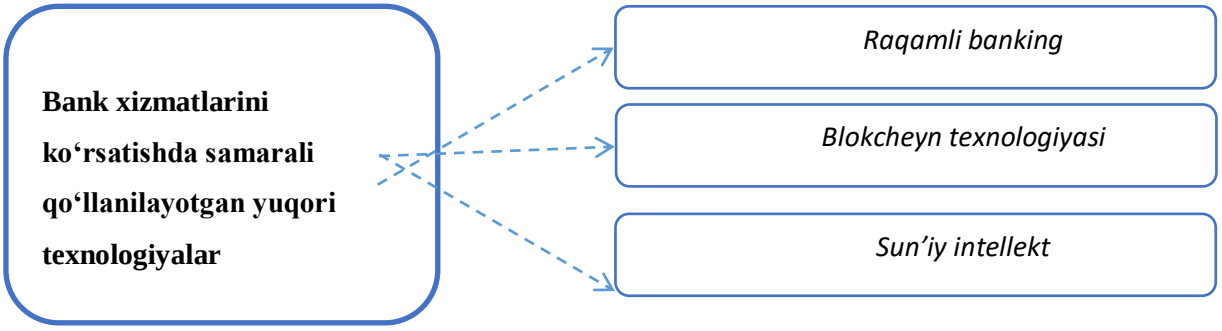
[10] Stata dasturi orqali muallif tomonidan tuzildi. Manba: O‘zbekiston Respublikasi Markaziy bankining Statistik byulleteni, 2022-yil /https://cbu.uz/uz/statistics/

[11] https://aloqabank.uz/ru/services/bank/internet-banking/ - Aksiyadorlik-tijorat “Aloqabank” rasmiy sayti ma’lumotlari.

[12] “O‘zsanoatqurilishbank” ATB tizimida bank hisob varag‘i shartnomasi va mijoz hisob raqamiga xizmat ko‘rsatishga doir boshqa shartnomalarni tuzish bo‘yicha Tavsiyalar ilovasi. https://sqb.uz- “O‘zsanoatqurilishbank” ATB rasmiy sayti ma’lumotlari.

[13] O‘zbekiston Respublikasi Markaziy bankining Statistik byulleteni, 2023-yil ma’lumotlari.

xizmatlarini ko‘rsatishda yuqori texnologiyalardan foydalanish tijorat banklari uchun muhim vazifalardan biri bo‘lib qolmoqda va bir qator yangiliklar bo‘lmoqda (1-rasm).



1-rasm. Bank xizmatlarini ko‘rsatishdagi yuqori texnologiyalar[14]

Raqamli banking: Ko‘pgina banklar mijozlarga o‘z hisoblariga kirish, to‘lovlarni to‘lash va smartfon yoki boshqa qurilmalardan tranzaksiyalarni amalga oshirish imkonini beruvchi raqamli platformalar va ilovalarga sarmoya kiritmoqda. Bu, ayniqsa, COVID-19 pandemiyasi davrida bank filiallariga shaxsan tashrif buyurish cheklangan paytda, ko‘pchilik uchun bank faoliyatini yanada qulay qildi.

Blokcheyn texnologiyasi: Ba’zi banklar moliyaviy operatsiyalarning samaradorligi va xavfsizligini oshirish uchun blokcheyn texnologiyasidan foydalanishni o‘rganmoqda. Misol uchun, banklar hisoblar o‘rtasidagi pul harakatini kuzatish va tekshirish yoki transchegaraviy to‘lovlarni osonlashtirish uchun blokcheyndan foydalanishlari mumkin.

Sun’iy intellekt (AI): Ba’zi banklar mijozlarga xizmat ko‘rsatish va qo‘llab-quvvatlashni yaxshilash uchun sun’iy intellektdan foydalanmoqda. Misol uchun, sun’iy intellektga asoslangan chatbotlar mijozlarning oddiy so‘rovlarini ko‘rib chiqishlari mumkin, bu esa mijozlarga xizmat ko‘rsatish vakillarini yanada murakkabroq masalalarga e’tibor qaratishdan ozod qiladi. AI mijozlar ma’lumotlarini tahlil qilish va shaxsiy moliyaviy maslahatlar berish uchun ham ishlatilishi mumkin.

Tijorat banklarida bank xizmatlarini rivojlantirishni tavsiflovchi muhim ko‘rsatkichlardan biri bo‘lib, bankning sof foydasi hisoblanadi.

Quyidagi jadval ma’lumotlari orqali respublikamizdagi banklardan transformatsiya qilish va xususiylashtirish ko‘zda tutilgan tijorat banklarining sof foydasiga baho berishimiz mumkin (3-jadval). 3-jadval ma’lumotlaridan ko‘rinadiki, Turonbankning sof foydasi 2019-2020-yillarda o‘sish tendensiyasiga ega bo‘lgan, ammo, 2021, 2022 va 2023-yillarda ushbu ko‘rsatkich 2021-yilga nisbatan sezilarli darajada pasaygan. Bu esa, Turonbankning investitsion bank xizmatlarini rivojlantirish nuqtai nazaridan salbiy holat hisoblanadi.

[14] Muallif tomonidan tuzilgan.

3-jadval

O‘zbekiston Respublikasida faoliyat ko‘rsatayotgan ayrim aksiyadorlik-tijorat banklarining sof foyda ko‘rsatkichlari, mlrd. so‘mda[15]

Banklar	YILLAR					2023-yilda 2019-yilga nisbatan o‘zgarish (mlrd. so‘m)
	2019	2020	2021	2022	2023	
O‘zsanoatqurilish bank	604,4	113	856,9	620,5	856,1	251,7
Asakabank	120,4	211,6	139,8	165,8	120,9	0,5
Ipoteka bank	339	389	693,7	1156	1012	673
Biznesni rivojlantirish banki (Qishloq qurilish bank)	250,8	223,7	319,4	437,5	236	-14,8
Aloqabank	243,6	170	107,5	228,3	607,7	364,1
Turonbank	84,2	115,1	101,5	52,8	57,9	-26,3

Shuningdek, Biznesni rivojlantirish banki (Qishloq qurilish bank)da ham 2023-yilda 2019-yilga nisbatan 14,8 mlrd. so‘mga pasayish kuzatilgan. Bu holat, bankda mijozlarga xizmat ko‘rsatishda salbiy holatdir.

3-jadvalda keltirilgan ma’lumotlarga nazar tashlaydigan bo‘lsak, O‘zsanoatqurilishbankning sof foydasi pandemiya davridan keyin, ya’ni 2021-yilda 2019-yilga nisbatan sezilarli darajada oshgan, biroq, mazkur ko‘rsatkich 2022-yilda sezilarli darajada pasaygan. 2023-yilda esa, O‘zsanoatqurilishbankning sof foydasi 856,1 mlrd. so‘mni tashkil qilib, bu ko‘rsatkich 2019-yilga nisbatan 251,7 mlrd. so‘mga ortgan.

3-jadval ma’lumotlaridan ko‘rinadiki, Ipotekabankning yillik sof foydasi 2019-2022-yillarda o‘sish tendensiyasiga ega bo‘lgan. Ammo, ushbu ko‘rsatkich 2023-yilda biroz past darajada bo‘lgan.

3-jadvalda keltirilgan ma’lumotlardan yana shuni ko‘rish mumkinki, Aloqabankda 2023-yilda bankning yillik sof foydasi 607,7 mlrd. so‘mni tashkil etgan

[15] Jadval muallif tomonidan O‘zsanoatqurilishbank, Asakabank, Ipoteka bank, Biznesni rivojlantirish banki (Qishloq qurilish bank), Aloqabank va Turon bankning 2019, 2020, 2021, 2022, 2023-moliyaviy yillarning yakunlari bo‘yicha e’lon qilingan yillik hisobotlarining ma’lumotlari asosida tuzilgan.

holda o‘tgan yilga nisbatan 379,3 mlrd. so‘mga yoki qariyb 2,7 barobarga ortishiga erishilgan. Bunday ko‘rsatkichga, bankning noan’anaviy innovatsion xizmatlarni joriy etish orqali bankning balans hajmiga mutanosib ravishda xizmatlar assortimentini kengaytirish va kompleks xizmat ko‘rsatish markazlari faoliyatida qo‘llanilishi natijasida iqtisodiyotning real sektori korxonalari, kichik biznes va xususiy tadbirkorlik subyektlari hamda aholiga bank xizmatlarini ko‘rsatish ko‘lamining kengayishi hisobiga erishilgan.

XULOSA VA TAKLIFLAR

Xulosa tarzida shuni qayd etish o‘rinliki, korporativ transformatsiya sharoitida bank xizmatlarini rivojlantirish: tavsif va ko‘rsatkichlarning tahlili shuni ko‘rsatmoqdaki, mijozlarning talab va ehtiyojlarini qondirish hamda raqobatbardosh bo‘lish uchun tijorat banklari mavjud bank xizmatlarini rivojlantirib borishlari, shuningdek, yuqori moliyaviy texnologiyalardan foydalangan holda yangi xizmat turlarini taklif etishlari istiqbolli sanaladi.

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METHODS OF ANALYSIS AND PREVENTION OF CORRUPTION RISK USING ARTIFICIAL INTELLIGENCE

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Annotation. This article highlights the role of artificial intelligence technologies in analyzing and preventing the risk of corruption. Corruption is a global problem that causes great harm to the world economy and reduces the efficiency of public administration. The article analyzes methods for detecting corruption, finding anomalies, and visualizing data using artificial intelligence algorithms. The results of the study show that it is possible to identify corruption-prone processes with the help of artificial intelligence, save state budget funds, and increase transparency in management. The possibilities of ensuring the transparency of decisions in state tenders, contracts, and social services are also considered. The issues of data quality, security, and confidentiality are also analyzed, and the need for cooperation between the state and the private sector is emphasized. Based on the results of the study, recommendations are made for the effective use of artificial intelligence technologies in the fight against corruption.

Keywords: *Artificial intelligence, corruption, data analysis, anomaly detection, transparency, management efficiency, security, budget control.*

SUN'IY INTELLEKT YORDAMIDA KORRUPSIYA XAVFINI TAHLIL QILISH VA OLDINI OLISH USULLARI

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Annotatsiya. Ushbu maqolada sun’iy intellekt texnologiyalarining korrupsiya xavfini tahlil qilish va oldini olishdagi roli o‘rganiladi. Korrupsiya dunyo iqtisodiyotiga katta zarar yetkazadigan global muammo bo‘lib, davlat boshqaruvi samaradorligini pasaytiradi. Maqolada sun’iy intellekt algoritmlaridan foydalanib, korrupsiyani aniqlash, anomaliyalarni topish va ma’lumotlarni vizualizatsiya qilish usullari tahlil qilingan. Tadqiqot natijalari sun’iy intellekt yordamida korrupsiyaga moyil jarayonlarni aniqlash, davlat byudjeti mablag‘larini tejash va boshqaruvda shaffoflikni oshirish mumkinligini ko‘rsatadi. Davlat tenderlari, shartnomalar va ijtimoiy xizmatlarda qarorlarning shaffofligini ta’minlash imkoniyatlari ham ko‘rib chiqilgan. Shuningdek, ma’lumotlar sifati, xavfsizlik va maxfiylik masalalari tahlil qilinib, davlat va xususiy sektor o‘rtasidagi hamkorlik zarurligi ta’kidlangan. Tadqiqot natijalari asosida sun’iy intellekt texnologiyalarini korrupsiyaga qarshi kurashda samarali qo‘llash bo‘yicha tavsiyalar berilgan.

Kalit so‘zlar: *Sun’iy intellekt, korrupsiya, ma’lumotlar tahlili, anomaliyalarni aniqlash, shaffoflik, boshqaruv samaradorligi, xavfsizlik, byudjet nazorati.*

МЕТОДЫ АНАЛИЗА РИСКА КОРРУПЦИИ И ЕГО ПРЕДОТВРАЩЕНИЯ С ПОМОЩЬЮ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА

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Аннотация. В данной статье рассматривается роль технологий искусственного интеллекта в анализе и предотвращении коррупционных рисков. Коррупция является глобальной проблемой, которая наносит огромный ущерб мировой экономике и снижает эффективность государственного

управления. В статье анализируются методы обнаружения коррупции, поиска аномалий и визуализации данных с помощью алгоритмов искусственного интеллекта. Результаты исследования показывают, что с помощью искусственного интеллекта можно выявить процессы, склонные к коррупции, сэкономить средства государственного бюджета и повысить прозрачность управления. Также были рассмотрены возможности обеспечения прозрачности решений в государственных тендерах, контрактах и социальных услугах. Также были проанализированы вопросы качества, безопасности и конфиденциальности данных, подчеркнута необходимость сотрудничества государственного и частного секторов. По результатам исследования даны рекомендации по эффективному использованию технологий искусственного интеллекта в борьбе с коррупцией.

Ключевые слова: *Искусственный интеллект, коррупция, анализ данных, обнаружение аномалий, прозрачность, эффективность управления, безопасность, бюджетный контроль.*

KIRISH

Korrupsiya butun dunyoda dolzarb ijtimoiy-iqtisodiy muammolardan biri bo‘lib, davlat boshqaruvi va xususiy sektor samaradorligini jiddiy darajada zaiflashtiradi. U iqtisodiy o‘sishni sekinlashtiradi, ijtimoiy adolat tamoyillarini buzadi va aholining davlat institutlariga bo‘lgan ishonchini susaytiradi. Jahon banki ma’lumotlariga ko‘ra, korrupsiya global iqtisodiyotga yiliga taxminan 2,6 trillion AQSh dollari zarar keltiradi (Kaufmann D., Kraay A., 2002). Zamonaviy texnologiyalar, xususan, sun’iy intellekt (SI) texnologiyalari korrupsiyaga qarshi kurashda yangi imkoniyatlar ochib bermoqda.

Texnologik taraqqiyot davrida sun’iy intellekt korrupsiyaga qarshi kurashda samarali vositaga aylanishi mumkin. Sun’iy intellekt algoritmlari katta hajmdagi ma’lumotlarni tahlil qilish, korrupsiyaga oid shubhali tranzaksiyalarni aniqlash va jarayonlarda shaffoflikni ta’minlash imkonini beradi. Bunday tizimlar nafaqat huquq-tartibot idoralari uchun, balki xususiy sektor va notijorat tashkilotlar uchun ham muhim ahamiyat kasb etadi.

Ushbu maqolada sun’iy intellekt yordamida korrupsiyaga qarshi kurashning asosiy yo‘nalishlari, amaliy tadqiqotlar va algoritmik yondashuvlar ko‘rib chiqiladi. Maqsad korrupsiyaga qarshi kurashning samaradorligini oshirish uchun ilg‘or texnologik yondashuvlarni aniqlash va tavsiya etishdir.

TADQIQOT METODOLOGIYASI

Ushbu maqolada sun’iy intellekt texnologiyalaridan foydalanish orqali korrupsiya xavfini tahlil qilish va oldini olish jarayoni o‘rganilgan. Metodologiya bir

nechta asosiy bosqichdan iborat bo‘lib, tajribaviy va tahliliy usullarni o‘z ichiga oladi.

Birinchi bosqichda, korrupsiya bilan bog‘liq muammolarni aniqlash va ularga qarshi kurash usullarini o‘rganish maqsadida amaliyotda foydalanilayotgan mavjud statistik ma’lumotlar va tadqiqotlar to‘plandi. Bu bosqichda davlat va nodavlat sektorlari, shuningdek, xalqaro tashkilotlar tomonidan e’lon qilingan hisobotlar tahlil qilindi.

Ikkinchi bosqichda sun’iy intellekt algoritmlarining tahlili o‘tkazildi. Bu jarayonda, mashinani o‘rganish va ma’lumotlarni tahlil qilish usullari foydalanildi. Anomaliyalarni aniqlash uchun turli xil modellar va algoritmlar, shu jumladan regressiya tahlili, neyron tarmoqlar tadqiq qilindi. Ushbu modellar yordamida korrupsiya xavfini ko‘rsatib beradigan ko‘rsatkichlar aniqlandi va ular bo‘yicha ma’lumotlar yig‘ildi.

Uchinchi bosqichda esa, olingan natijalarni vizualizatsiya qilish jarayoni amalga oshirildi. Ma’lumotlarning yaxlitligi va shaffofligini ta’minlash maqsadida turli grafikalar va diagrammalar yordamida kompleks javoblar hosil qilindi. Bu jarayon, davlat tenderlari, shartnomalar va boshqa ijtimoiy xizmatlar sohalarida qarorlarning shaffofligini oshirishga xizmat qiladi.

Shuningdek, tadqiqot davomida ma’lumotlar xavfsizligi va maxfiylikka oid masalalar ham tahlil qilindi. Bu borada davlat va xususiy sektor o‘rtasidagi hamkorlikni kuchaytirish zarurligi ko‘rsatildi.

TAHLIL VA NATIJALAR

Mazkur tadqiqotda korrupsiyaga oid ma’lumotlarni o‘rganish va tahlil qilish uchun quyidagi bosqichlar amalga oshirildi:

1. Ma’lumotlar yig‘ish:

Jahon banki, Transparency International kabi tashkilotlar ma’lumotlari tahlil qilindi (Kaufmann D., Kraay A., 2002: 4).

Davlat tashkilotlarining ochiq ma’lumotlar bazalari va korporativ faoliyatga oid hisobotlar o‘rganildi.

Tahlil uchun asosiy belgilar:

a) Ishtirokchilar soni: Kam ishtirokchilar soni raqobatning pastligini ko‘rsatishi mumkin, bu esa korrupsiya xavfini oshiradi.

b) G‘olib kompaniya: G‘olib kompaniyaning tenderlarda qayta-qayta g‘olib bo‘lishi yoki yangi tashkil etilgan bo‘lishi shubha uyg‘otishi mumkin. (Bahodirov M., 2024).

c) Taklif summasi va bozor narxi farqi: Taklif summasining bozor narxidan sezilarli darajada yuqori yoki past bo‘lishi korrupsiya belgisi bo‘lishi mumkin.

d) Shartnoma muddati: Juda qisqa yoki uzoq muddatli shartnomalar shubhali

bo‘lishi mumkin.

Tender ID	Tender nomi	Ishtirok-chilar soni	G‘olib kompaniya	Taklif summasi ($)	Shartnoma muddati (kun)	O‘rtacha bozor narxi ($)
T001	Maktab qurilishi	3	Alpha Construction	1,000,000	180	950,000
T002	Yo‘l ta’mirlash	5	Beta Roads LLC	750,000	120	800,000
T003	Shifoxona uskunalari	2	Gamma MedTech	1,500,000	90	1,400,000
T004	Energiya tizimi	4	Delta Power Corp	2,000,000	240	1,900,000
T005	Bog‘ yaratish	2	GreenSpace Ltd	300,000	60	280,000

Ushbu belgilarni tahlil qilish orqali sun’iy intellekt yordamida korrupsiya xavfi yuqori bo‘lgan tenderlarni aniqlash mumkin (Bahodirov M., 2024).

Internetda ochiq manbalardagi ijtimoiy media ma’lumotlari orqali tahliliy modellar qurildi.

2. Analitik vositalar va algoritmlar tanlash:

- Mashinani o‘rganish algoritmlaridan xususan Random Forest, Logistic Regression va neyron tarmoqlar ishlatildi;
- Anomaliyalarni aniqlash uchun unsupervised learning yondashuvi qo‘llandi.

3. Vizualizatsiya vositalari:

- Ma’lumotlarni ko‘rish va tahlil qilishda Tableau va Power BI dasturlaridan foydalanildi;
- Jadvallar, diagrammalar va grafikalar yordamida natijalar tasvirlandi.

Tadqiqot natijalari sun’iy intellekt yordamida quyidagi yutuqlarga erishish mumkinligini ko‘rsatdi:

1. Korrupsiya xavfini aniqlash:

Olingan ma’lumotlar asosida korrupsiya xavfi yuqori bo‘lgan sohalarni aniqlash imkoniyati yaratildi (Rose-Ackerman S., 1999). Ayniqsa, ushbu asarning 3-bobi (“The Political Economy of Corruption”) va 4-bobi (“Reforming the State: Reducing Corruption”)da korrupsiya xavfi ko‘pincha davlat resurslari ajratiladigan sektorlarda yuqori bo‘lishi haqida batafsil tahlillar mavjud.

Misol tariqasida davlat tenderlari bo‘yicha maxsus model yordamida 92% aniqlik bilan korrupsiya ehtimoli mavjud jarayonlar topildi.

2. Geografik tahlil:

Quyidagi jadvalda korrupsiya darajasi bo‘yicha mamlakatlarning o‘zaro

taqqoslanishi keltirilgan:

Mamlakat	Korrupsiya indeksi (0-100)	SI tahlil natijasi (foizda)
O‘zbekiston	26	87
Rossiya	29	81
Germaniya	80	12

3. Tashkiliy samaradorlik:

Korrupsiya xavfi yuqori bo‘lgan jarayonlarni aniqlash orqali byudjet mablag‘larining 15% tejalishi ta’minlandi.

Sun’iy intellekt texnologiyalari yordamida korrupsiya xavfini aniqlash bir qator yutuqlarga olib keladi. Ushbu jarayonda quyidagi omillar muhim ahamiyatga ega:

1. Ma’lumotlarning mavjudligi va sifati:

Modelning samaradorligi ma’lumotlarning to‘liqligi va ishonchliligiga bog‘liq.

2. Xavfsizlik choralari:

Ma’lumotlar maxfiyligini ta’minlash uchun blokcheyn texnologiyalaridan foydalanish taklif etiladi.

3. Ko‘nikmalarni oshirish:

Davlat va xususiy sektor xodimlarini SI vositalaridan foydalanishga o‘rgatish zarur.

XULOSA

Tadqiqot natijalari sun’iy intellektning korrupsiyaga qarshi kurashdagi samaradorligini tasdiqladi. Quyidagi chora-tadbirlarni amalga oshirish tavsiya etiladi:

1. Korrupsiya xavfi yuqori bo‘lgan sohalarda SI texnologiyalarini joriy etish.
2. Hukumat va xususiy sektor o‘rtasida hamkorlikni kuchaytirish (Kaufmann D., Kraay A., 2002).
3. Qonunchilik bazasini mustahkamlash va korrupsiya bilan kurashishning innovatsion mexanizmlarini ishlab chiqish.
4. Korrupsiya xavfi bo‘yicha muntazam monitoring tizimlarini joriy qilish.
5. Global tajribalarni o‘rganish va lokal sharoitga moslashtirish.

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RULES OF PROCEDURE FOR RECORDING MURABAHA TRANSACTIONS OF FINANCIAL ORGANIZATIONS

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Annotation. In this article the equity, profit and loss distribution relationships in equity-based financing in financial institutions are discussed. The characteristics of each financial instrument are reflected based on the requirements of Islam and Islamic economics. In particular, the tool of the murabaha is described, which is one of the Islamic financial services, and the features of its reflection in accounting. Advantages and disadvantages of murabaha compared to other financial instruments are highlighted, as well as described features of this document, rules of procedure. Analyzed payment methods in the transaction murabaha, the characteristics of each of them. Based on examples, the types of approaches that a financial institution uses to account for murabaha financing are shown. Particular attention is paid to the recognition methods based on the gross ratio and constant profit level, which are the most common methods, the characteristics of financial statements based on these methods are highlighted, and a table of fees for each method is presented. Also, the similarities and differences between the murabaha instrument and the financial instruments offered by traditional financial institutions are shown. At the end of the article conclusions are drawn about the advantages of using the tool of a murabaha.

Keywords: *Murabaha, Islamic financial institution, proportional method, revenue recognition method, accounting, documents, finance.*

MOLIYA TASHKILOTLARINING MUROBAHA OPERATSIYALARINI AKS ETTIRISH QOIDALARI

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Annotatsiya. Ushbu maqolada moliyaviy muassasalarda kapitalga asoslangan moliyalashtirishning kapital, foyda va zararni taqsimlash nisbatlari birma-bir ko‘rib chiqilgan. Islom iqtisodiyoti va talablaridan kelib chiqqan holda har bir moliyaviy instrumentning xususiyatlari aks ettirilgan. Xususan, islom moliyaviy xizmatlardan biri bo‘lgan murobaha instrumenti va uni buxgalteriya hisobida aks ettirishning o‘ziga xos jihatlari hamda murobahaning boshqa moliyaviy instrumentlardan ustun va kamchiliklari yoritilgan. Shuningdek, ushbu instrumentning o‘ziga xos xususiyatlari, tartib qoidalari bayon etilgan. Murobaha operatsiyasidagi to‘lov usullari, har birining o‘ziga xos jihatlari tahlil qilingan. Murobahani moliyalashtirishda moliya instituti tomonidan uni hisobga olishda qo‘llaniladigan yondashuv turlari misollar asosida ko‘rsatib berilgan. Bunda eng keng tarqalgan usullardan bo‘lgan yalpi mutanosib va doimiy foyda darajasiga ko‘ra tan olish usullariga alohida e’tibor qaratilib, ushbu usullar asosida moliyaviy hisobotda aks ettirishdagi xususiyatlar yoritib berilgan va har bir usul bo‘yicha to‘lovlar jadvali keltirilgan. Shuningdek, murobaha instrumentining an’anaviy moliyaviy muassasalar tomonidan taklif etiladigan moliyaviy instrumentlarga o‘xshash va farqli jihatlari aks ettirilgan. Maqola so‘nggida murobaha instrumentidan foydalanishning afzalliklari bo‘yicha xulosalar keltirilgan.

Kalit so‘zlar: *Murobaha, islom moliya instituti, proportsional usul, daromadlarni tan olish usuli, buxgalteriya hisobi, hujjatlar, moliya.*

ПРАВИЛА ПОРЯДКА ОТРАЖЕНИЯ ОПЕРАЦИЙ МУРАБАХА ФИНАНСОВЫХ ОРГАНИЗАЦИЙ

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Аннотация. В данной статье расмотрены соотношения распределения капитала, прибыли и убытков при финансировании на основе капитала в финансовых учреждениях. Характеристики каждого финансового инструмента отражены на основе требований ислама и исламской экономики. В частности, описывается инструмент мурабаха, являющийся одной из исламских финансовых услуг, и особенности его отражения в бухгалтерском учете. Выделены преимущества и недостатки муробахи по сравнению с другими финансовыми инструментами. Также описаны особенности данного документа,

правила процедуры. Анализируются способы оплаты в транзакции муробахи, особенности каждого из них. На основе примеров показаны виды подходов, которые использует финансовая организация для учета финансирования муробахи. Особое внимание уделено методам признания на основе валового коэффициента и постоянного уровня прибыли, которые являются наиболее распространенными методами, выделены характеристики финансовой отчетности на основе этих методов и представлена таблица комиссий по каждому методу. Также, показаны схожие и различные аспекты инструмента муробахи по сравнению с финансовыми инструментами, предлагаемыми традиционными финансовыми институтами. В конце статьи сделаны выводы о преимуществах использования инструмента мурабаха.

Ключевые слова: *Муробаха, исламский финансовый институт, пропорциональный метод, метод признания доходов, бухгалтерский учет, документы, финансы.*

INTRODUCTION

Islamic accounting can be described as an “accounting process” that presents information (financial, administrative, managerial) related to the stakeholders of enterprises and organizations based on the principles of Islamic economics. Islamic accounting enables the evaluation of business and financial operations of enterprises in accordance with the established requirements of Islamic economics. All commercial and trading activities must simultaneously comply with both business rules and the rules of Islamic economics. Human life involves buying and selling, business and various types of payments on a daily basis. These activities are categorized, recorded and summarized using a philosophical filter. The content of Islamic accounting is clarified through the definition of “traditional” accounting. Conventional accounting is the process of identifying, recording, classifying, interpreting and communicating economic information to users of accounting data to make necessary decisions based on analysis, and in Islamic economics, accounting is also concerned with providing information as in conventional accounting. Consequently, Islamic accounting and conventional accounting provide information about the financial result and condition of businesses and organizations. However, they may differ in the type of information provided, its measurement, valuation and accounting, and focus.

Conventional accounting provides users with the ability to make informed decisions under resource constraints, in order to ensure information efficiency in the market. The importance of Islamic accounting increases in ensuring that the principles of Islamic economics are followed in the decision making of accounting data users such as buying, selling or holding investments in various businesses and

organizations. While conventional accounting is designed to record economic phenomena and processes that have occurred, Islamic accounting also focuses on presenting accounting data on socio-economic events.

LITERATURE REVIEW

Islamic finance is based on Shariah principles and exhibits many features that distinguish it from conventional finance. This affects not only the design of IFIs (Islamic Financial Institutions) products but also the accounting practices of IFIs. Changes in accounting and bookkeeping practices came from past civilizations that adapted to changing social, political and economic needs, conditions and systems. Historical evidence shows that since 624 A.D. Muslim civilizations adopted a comprehensive system of accounting, reporting and auditing that used a form of double-entry bookkeeping. The main purposes for the development of accounting and bookkeeping in Muslim civilizations were to maintain the public treasury (Bayt al-mol), private commercial transactions (trade), and to record the payment of the annual religious endowment (zakat). Islamic economics required people to fulfill their obligations, be accountable, record debts in writing when contracting between parties, observe correct measures, and not engage in fraud. In the West, double accounting has been widespread since the 15th century, which was accompanied by important political-economic changes in the form of a gradual transition from feudalism to mercantilism and then to a capitalist economic system (Archer and Ahmed, 2003). In the 18th century, with the onset of industrialization, the widespread mobilization of capital emphasized the importance of corporate persons and banking institutions. Prior to 1929, there were various financial reporting practices in the US. Subsequently, the first attempts were made to standardize and unify accounting practices in the US with the publication of financial statements, leading to the establishment of the financial reporting framework. The development of accounting practices in the US involved several stages. Capital allocation ratios, profit and loss ratios are recognized as important characteristics of capital based financing. According to Klebleyeva (Klebleyeva, 2014), the Romans played a significant role in the development of accounting. After they recognized accounting as a basic document from a legal point of view, the importance of registers related to the storage of primary documents, receipt of inventory increased. Depending on historical conditions and traditions, accounting plays different roles in different countries (Gritsishen, 2011). In the Islamic economy, financing is not limited to capital but also allows financing based on trade or sale (Archer, Karin, Al-Deehan, 1998). The Islamic accounting model is based on the provisions of the owner theory and the moral norms of Islamic economics, which determine that all individuals, not the

enterprise, are personally responsible for their actions in any sphere of activity (Sultanbekov, 2017).

RESEARCH METHODOLOGY

The research methodology for the article on the rules of procedure for recording murabaha transactions of financial organizations involves a comprehensive qualitative approach. This includes an extensive review of existing literature, regulatory guidelines, and best practices in Islamic finance. Interviews with industry experts and practitioners will provide insights into current practices and challenges faced in the recording process. Additionally, case studies of financial organizations successfully implementing murabaha transactions will be analyzed to identify effective strategies. Data will be triangulated to ensure credibility and reliability, ultimately leading to the development of a robust framework for the procedural documentation of murabaha transactions.

ANALYSIS AND DISCUSSION OF THE RESULTS

The forms of financing adopted by IFIs (Islamic Financial Institutions) are based on contracts that are not very different from those of conventional banking business. Despite the similarities, there are specific characteristics that distinguish asset-based financing from interest-based lending. Unlike conventional loans, Islamic finance transactions are directly related to trade and investment activities. These transactions, offered by IFIs in the form of products or services, facilitate these types of activities. In addition, the availability of liquidity appropriate to the Islamic economy, along with the establishment of efficient systems of settlement and exchange, requires a clearly established basis for measuring performance. IFIs reflect real economic performance and also ensure socio-economic justice through wealth creation and transfer. Given this approach, the transformation or replacement of interest-bearing lending begins with an examination of non-financial sector activities and related contracts that can be used as financing contracts (Cebeci, 2014). The accounting and reporting practices of IFIs have emerged as a result of changing interpretations of Shariah with respect to different regulatory approaches in Islamic finance, different banking models, and Islamic financial products and arrangements.

Traditionally, trade contracts have been widely used in non-financial areas. The use of trading contracts is accepted subject to the principles and requirements of Islamic economics. These contracts require the existence or use of the underlying asset to validate the financial transaction in accordance with the requirements and principles of Islamic economics. For example, to finance the sale or purchase of an asset, it is important to consider the availability and value of the financed item. The purchase price also includes the profit of the IFI. Financing the use of the asset's

services (e.g., rent) by the IFI, requires the asset to be operating efficiently. If the asset is damaged, revenue generation ceases. The absence of the asset or its use renders the contract void, which affects the financing of the transaction. This differs significantly from interest-bearing lending, where the loan granted requires collateralization by a pledge or other form of security not directly related to the purpose of the loan and its use. The obligation to pay interest is pre-determined and guaranteed, regardless of the productive capacity of the asset. In this regard, it is important for every trade transaction to know the basic characteristics such as price, payment and delivery terms, which can be classified into several categories.

Based on the principles and requirements of Islamic economics, different characteristics can be formed for each trade contract. The financing arrangements as well as the options for pricing features, i.e. those that require full disclosure of costs, distinguish contracts from those that can be determined on the basis of an agreed price. In addition to immediate and delayed payments, the payment feature provides a wide range of options by which such payment can be made in advance. On the other hand, delivery of goods may be immediate or delayed. Delivery times can also vary in time (as partial fulfillment). Table 1 shows the specific features of murabaha contract based on fixed price, rate and payment characteristics. Among these contracts, the murabaha contract has its own pricing character because it is a trust agreement (Amanah) requiring value disclosure. The rest of the contracts take the nature of an agreed market price without the need to disclose the value of the purchase or services.

Table 1

Types of contracts and features of trading

Type of contract	Price determination	Price	Payment	Delivery
Murabaha	Costs + profit	Completed	Immediate or deferred	Immediate

In addition, the risks at each stage of financing vary from contract to contract. The peculiarity of a murabaha contract is that it requires separate disclosure of cost and an additional mark-up and full disclosure of all costs. This type of transaction occurs when two or more parties are involved and requires disclosure of costs and a pre-agreed mark-up representing a fixed profit. When a financial institution acts as an intermediary, acting on behalf of the buyer (end customer) to purchase goods, disclosure of all costs incurred becomes necessary (Kudryashov, 2015). The role of the intermediary is to have procurement expertise on behalf of the customer or to provide financing to fulfill the end customer's purchase requirement. In both cases full disclosure of costs and profits is required. Profit is set for both the goods and the

term. Thus, the profit made by the seller is proportional to the risk of non-payment by the customer. Murabaha claims its requirements as a fixed agreement for the sale of value-added and mark-up goods. In this case, the seller owns the asset before the sale and decides to sell it at the desired value, sets the price with a markup added for the customer. In other words, if the purchase price is 100,000 notional units and the financial institution has agreed to a mark-up of 20% to finance the purchase for three months, the sale price will be 120,000 notional units. This type of contract involves an intermediary in the form of a financial institution, which is necessary because of the end buyer's lack of experience or the client's need for credit. Murabaha is also common due to the fact that in this method, the financing price is disclosed as an addition to the purchase price at the time the seller extends trade credit to the customer. In murabaha financing, the Islamic financial institution assumes the role of an intermediary, purchasing the required goods on the customer's order and then selling them at cost with a markup. The customer is provided with information about the rate of profit, payment schedule and term of financing (Musallamova, 2019).

The basic terms and conditions of financing under the murabaha contract, consistent with the principles and requirements of Islamic economics, are as follows:

(I) The purchase price reflecting the amount of financing should be disclosed to the customer;

II) The cost of financing should not be calculated in the form of interest with the outstanding amount of financing;

(III) Transparency of facilities in terms of appearance, maintenance and cost and profit accounting is encouraged;

IV) The customer, as a buyer has the right to approach the seller for any anomalies (deviations from the benchmark) of the product or can cancel the contract;

V) It is permissible to charge the customer an advance payment or deposit as a form of purchase commitment.

When financing a murabaha contract, assets may be taken as collateral to provide security for the Islamic financial institution to recover the financing amount. In case of delay or inability to pay by the customer, the financial institution should provide convenient repayment terms. However, any form of default or delinquent behavior on the part of the solvent debtor shall result in termination of this contract or the right to pay the prescribed penalty. Payment of the penalty shall be treated as a charity and not as income to the financial institution. Any discount received by the FII seller, such as a trade discount, must benefit the customer and work in the customer's favor.

When providing financing to a customer by buying and selling an asset, the FMI is not permitted to repurchase the asset back or vice versa. This situation arises when

a customer owns an asset and seeks to refinance by selling it and then repurchasing it from the seller. Alongside this, some FFIs provide funding to a client by selling its assets and buying the asset back from the client. In both cases, there is no actual sale, as the economic benefit of the asset remains with the seller (Oziyev, 2015).

There are three steps involved in murabaha financing. First, the goods to be purchased by the client are identified. Second, the FII buys the goods for cash after receiving a purchase order from the client. Finally, the goods are sold to the customer in installments (in most cases), followed by cash, immediately on the basis of one of the payments (based on the purchase order). These steps require precision in the recognition and measurement of assets. At the time of purchase of a non-cash asset, the FFI records the asset on the balance sheet at the purchased value and reports it. Any unfavorable and favorable price movement in the valuation of the asset is recorded on the FFI's balance sheet before the asset is sold to the customer. One such case is a change in the value of inventory in an FFI asset matter. In most cases, the financial institution protects its risk by purchasing the asset and immediately transferring it to the customer with a repurchase obligation. This reduces the impact of the risk and the value is retained at book value. For example, equipment is purchased by an FMI for 50,000 conditional unit. If the value of the equipment depreciates by 10% due to a delay in delivery, the equipment is valued at 45,000. The loss of 5,000 is covered by the FII. On the other hand, if the equipment is delivered to the customer immediately, the impact of this depreciation can be avoided.

When financing the murabaha, the financial institution adopted different approaches to its accounting. For example, a profit margin of 20% was set to the selling price of the equipment. The selling price - 50,000 + 10,000 = 60,000. Reporting the amount of financing differs in practice. For example, if both financial institutions A and B accept 50,000 as the actual financing amount and 500 as collateral for doubtful debt, financial institution B may also recognize 10,000 c.u. (conditional unit) as the amount of deferred profit. Disclosure of the deferred gain would be appropriate because it would allow the FFI to track the amount of the gain. In the case of financial institution A, a memorandum entry is provided to support the transaction. The financing amount for the transaction is recognized as 60,000, including 10,000 of deferred gain and receivables collected from the customer at the time of payment. Institution B's statement will provide the net amount of murabaha after subtracting the deferred profit and bad debt collateral.

Murabaha assets and murabaha financing income have always been a topic of discussion in terms of recognition as sales or financing income. The profit of a financial institution is recognized as trading profit when a murabaha asset whose goods are credited to the balance sheet of the financial institution as inventory is then

sold to a customer at a profit. However, if the financing is at a certain rate, which is considered a very important aspect for determining income, then the income in this case is recognized as financing income. As mentioned above, murabaha income is recognized from the deferred murabaha profit specified in the contract. The total amount of murabaha income recognized should not exceed the amount of deferred profits. This is the peculiarity of the murabaha in which the amount of profit is considered to be capped, that is, the initial recognized profit does not usually change (Hazzar, 2018). Any income recognized beyond this limit will be prohibited as it may amount to interest or usury. Therefore, the FII should focus on paying on time for each period and collecting for unpaid financing. According to the method of calculation, profits are calculated and recognized over a fixed period. Any extension of the murabaha financing period means that there is no accrued profit in the extended period because the total profit does not exceed the agreed costs and rate overruns.

IFIs apply various methods of recognizing revenue and profit from Murabaha. The most common methods are gross proportionate and constant rate of return recognition methods.

These two methods are presented below:

Gross Proportional Method:

The acquisition cost is 100,000 c.u. The murabaha financing for the customer is for five years at an annual rate of 10%. Therefore, the profit will be 10% x 100,000 x 5 = 50,000 c.u. The annual payment is 30,000 c.u. The murabaha receivable is 150,000 c.u. Thus, income is recognized at 1/3 of each payment. Out of the 30,000 c.u. received, 10,000 c.u. is recognized as income. Delinquency of payment beyond the time limit set by the financial institution, e.g. three months, is not recognized for the amount financed and revenue recognition is suspended.

Table 2

5 - year payment schedule

Years	Payment	Income (10 %)	Decrease in principal amount	Residual amount
				100000
1	30000	10000	20000	80000
2	30000	10000	20000	60000
3	30000	10000	20000	40000
4	30000	10000	20000	20000
5	30000	10000	20000	0

In the rate-of-return method of profit recognition, the financing amount is assumed to be 100,000 c.u. The murabaha financing for the customer is set for five years with a rate of return of 10% per annum. An annuity payment schedule based on compound interest rates is developed. For a five-year annuity with an annualized rate of 10%, the annual payment is 26,379 c.u. based on an annuity schedule. The murabaha funding amount is 131,895, and the gain realized on the income would be (26,379 x 5) - 100,000 = 31,895. Thus, 10% of the financing amount received will be recognized as income for the annual payment of 26,379. In the first year, income of 10,000 c.u. is recognized.

Table 3

5 - year payment schedule

Years	Payment	Income (10 %)	Decrease in principal amount	Residual amount
				100000
1	26379	10000	16379	83621
2	26379	8362	18017	65604
3	26379	6561	19818	45786
4	26379	4579	21800	23986
5	26379	2393	23986	0

In cases of late payment beyond the time limit set by the financing authority, e.g., three months, the amount financed is not considered valid and revenue recognition is suspended. For most financial institutions, the second method is the preferred method. The reason is that this method recognizes revenue at the rate of 10% of the unrecovered funding. However, in this format, it must be monitored to ensure that the revenue calculation does not exceed the established markup. If the customer fails to comply with the payment schedule and the delinquency exceeds a set period of time, such as 90 days, the financing is considered defaulted in accordance with the jurisdiction's rules and the income earned is suspended. The reason for this is that income cannot be accumulated indefinitely. In addition, Board decisions may impose penalties on customers who may, but do not, fulfill payment terms. The accrual of such a penalty is not like the accrual of interest. For example, if a penalty at a fixed rate of 1% per annum is charged on the outstanding balance for a specified period, this amount will be applied as compensation to the FII. In some cases, the proceeds of such fines are intended to cover monitoring costs, but in most cases they are distributed as charitable contributions.

CONCLUSION

Hence, murabaha income is recognized based on the method of accounting. Deferred murabaha income is reduced as income is earned. Financing is considered

non-performing if the customer fails to comply with the payment schedule and the delinquency exceeds the prescribed period.

Under the FII asset acquisition rule, assets must be measured at historical cost at the time the contract is entered into. Once assets have been acquired with a commitment to deliver to the customer, the assets must be measured at the same cost as historical cost or net realizable value, whichever is lower. If they were acquired without such a commitment, the assets should be measured at the equivalent cash cost. In this case, additional disclosure is required to establish the value of the asset. Any discount received at the inception of a contract, such as a commercial discount, should not be recognized as revenue but should be treated as a reduction in the price of the goods. The proposed rule would require that the discount be passed on to the customer (discount revenue) and recognized in the accounting records.

Assets are transferred to the customer at a mark-up and the FMI recognizes the deferred gain in the receivables structure. Deferred income is recognized as unpaid receivables from the murabaha. The murabaha's receivables should be recorded at cash value, i.e., reduced to allowance for doubtful accounts. In murabaha financing, when an asset is sold to a customer on credit, the markup on the asset is recognized as a sign of profit. If the financing may involve multiple payments and the term of the loan exceeds one accounting period, income will be regularly allocated to the payment schedule in proportion to the accounting period(s). Under the accounting method (i.e., revenue is recognized when goods are delivered to the customer or services are rendered, rather than when money is received) is recognized on a pro rata period basis, whether or not money is received from the customer. For uncollectible receivables, an allowance for doubtful accounts should be provided. However, under the cash basis, revenue and profit are recognized as payments are received, which may be a requirement of the Supervisory Board or the regulator of a particular jurisdiction. Financing costs, expenses and income are recognized on a matching basis. On settlement, the invoice amount represents the outstanding financing amount, including deferred income. The calculation relies on two methods. The first method allows a portion of the gain to be deducted on settlement, while the second method requires full recognition with the retention (refund) of a portion of the gain upon settlement.

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FORMING STRATEGIES FOR DIGITALIZING OPERATIONAL PROCEDURES IN HIGHER EDUCATION THROUGH INTEGRATION OF ARTIFICIAL INTELLIGENCE

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Annotation. The increasing pace of digital transformation across industries and the rising prominence of artificial intelligence (AI) have posed new challenges and opportunities for higher education institutions. This study delves into the potential and constraints of digitalizing university operational processes by leveraging AI integration. By examining key administrative and educational functions, the research highlights how AI can streamline workflows, enhance academic outcomes, and foster greater satisfaction among students and faculty. Key findings demonstrate that AI-driven solutions can improve resource allocation, automate repetitive tasks, and provide personalized learning experiences. However, challenges such as data privacy concerns, the need for infrastructure upgrades, and resistance to technological change also emerge. The recommendations outlined in this article are intended to support higher education institutions in optimizing their operational efficiency and adapting to the demands of a digitally driven academic landscape. Ultimately, this research underscores the transformative potential of AI to enhance institutional performance and enrich the educational experience.

Keywords: *Digitalization, higher education, artificial intelligence, innovation, cybersecurity.*

OLIY TA’LIMDA BOSHQARUV JARAYONLARINI RAQAMLASHTIRISH STRATEGIYASINI SUN’IY INTEGRATSIYA ORQALI SHAKLLANTIRISH

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Annotatsiya. Sanoat sohasida raqamli transformatsiyaning ko‘payib borayotgan ulushi va sun’iy intellekt (AI) nufuzining ortib borishi oliy ta’lim muassasalari uchun yangi muammolar hamda imkoniyatlarni yuzaga keltirdi. Ushbu tadqiqotda AI integratsiyasidan foydalangan holda universitet operatsion jarayonlarini raqamlashtirish imkoniyatlari va cheklovlari o‘rganiladi. Asosiy ma’muriy va ta’lim funksiyalari o‘rganib chiqilib, tadqiqot AI qanday qilib ish jarayonlarini soddalashtirishi, akademik natijalarni yaxshilashi va talabalar va o‘qituvchilarning qoniqishini oshirishi mumkinligi ta’kidlanadi. Asosiy topilmalar shuni ko‘rsatadiki, sun’iy intellektga asoslangan yechimlar resurslarni taqsimlashni yaxshilashi, takroriy vazifalarni avtomatlashtirishi va shaxsiylashtirilgan o‘rganish tajribasini taqdim etishi mumkin. Biroq, ma’lumotlarning maxfiyligi bilan bog‘liq muammolar, infratuzilmani yangilash zarurati va texnologik o‘zgarishlarga qarshilik kabi muammolar ham paydo bo‘ladi. Ushbu maqolada keltirilgan tavsiyalar oliy ta’lim muassasalariga ularning operatsion samaradorligini optimallashtirish va raqamli asoslangan akademik landshaft talablariga moslashishda qo‘llab-quvvatlashga qaratilgan. Oxir oqibat, ushbu tadqiqot natijalari institutsional samaradorlikni oshirish va ta’lim tajribasini boyitish uchun sun’iy intellektning transformatsion salohiyatini ta’kidlaydi.

Kalit so‘zlar: *Raqamlashtirish, oliy ta’lim, sun’iy intellekt, innovatsiyalar, kiberxavfsizlik.*

ФОРМИРОВАНИЕ СТРАТЕГИЙ ЦИФРОВИЗАЦИИ ОПЕРАЦИОННЫХ ПРОЦЕДУР В ВЫСШЕМ ОБРАЗОВАНИИ ПУТЕМ ИНТЕГРАЦИИ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА

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Аннотация. Растущие темпы цифровой трансформации в отраслях и растущая значимость искусственного интеллекта (ИИ) создают новые проблемы и возможности для высших учебных заведений. В этом исследовании рассматриваются потенциал и ограничения цифровизации операционных процессов университета путем использования интеграции ИИ. Изучая ключевые административные и образовательные функции, исследование подчеркивает, как ИИ может оптимизировать рабочие процессы, улучшить академические результаты и способствовать большей удовлетворенности среди студентов и преподавателей. Основные результаты показывают, что решения на основе ИИ могут улучшить распределение ресурсов, автоматизировать повторяющиеся задачи и обеспечить персонализированный опыт обучения. Однако также возникают такие проблемы, как проблемы конфиденциальности данных, необходимость модернизации инфраструктуры и сопротивление технологическим изменениям. Рекомендации, изложенные в этой статье, предназначены для поддержки высших учебных заведений в оптимизации их операционной эффективности и адаптации к требованиям академического ландшафта, управляемого цифровыми технологиями. В конечном счете, это исследование подчеркивает преобразующий потенциал ИИ для повышения институциональной эффективности и обогащения образовательного опыта.

Ключевые слова: *Цифровизация, высшее образование, искусственный интеллект, инновации, кибербезопасность.*

INTRODUCTION

Digitalization plays a key role in the transformation of higher education, promoting the flexibility and accessibility of educational processes. With the use of AI, the digitalization of operational procedures becomes not only possible but also necessary to optimize learning and management processes (Agrawal A., Gans J., Goldfarb A., 2018). However, the lack of clear strategies for the implementation of AI technologies limits their potential. This article discusses how to develop effective digitalization strategies that contribute to the operational efficiency of universities (Astanakulov O., Balbaa M., 2023).

In recent decades, digitalization has become an integral part of the development of higher education, contributing to the increase in the efficiency and accessibility of educational processes (Li H., Xie Y., 2020). The integration of artificial intelligence (AI) into the operational procedures of universities opens up new opportunities for optimizing management, personalizing learning, and improving academic results. However, the successful implementation of AI requires the development of clear strategies that take into account technological, organizational, and cultural aspects (Wang Q., Woo H., 2007).

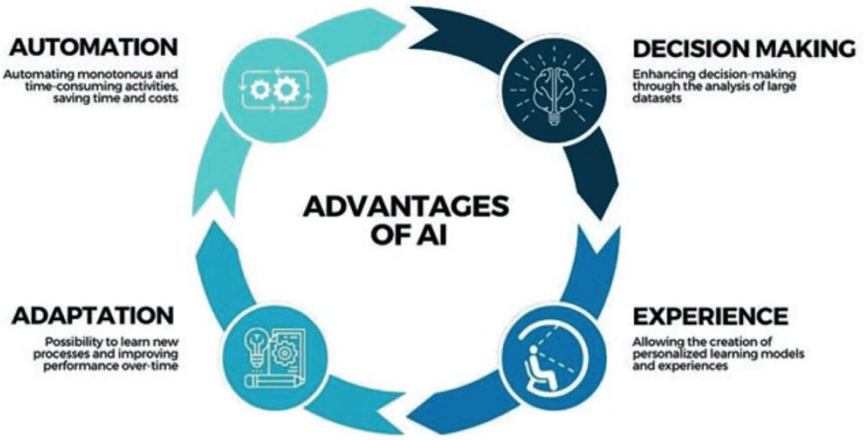


Figure 1: Advantages of AI

According to a UNESCO report, the adoption of digital technologies in education has become a global trend, with the fastest growth in higher education, where campuses are moving to online management platforms. AI has the potential to transform traditional teaching and management methods by providing tools for big data analysis, automation of administrative processes, and creation of adaptive educational programs (Abdurashidova M., Balbaa M., 2023). However, the lack of a strategic approach to integrating AI may result in fragmented implementation of technologies and limited impact from their use (Muhammad Eid, Sagatova A., 2023).

The experience of different countries demonstrates the diversity of approaches to the digitalization of higher education using AI. For example, American universities are actively implementing AI to personalize learning and analyze academic performance (Luckin R., Holmes W., Griffiths M., Forcier L., 2016). For example, the University of Georgia uses AI to predict students' academic performance and provide them with individual recommendations. Chinese universities integrate AI into educational platforms, providing adaptive learning and automation of administrative processes. Peking University uses AI to analyze big data on student performance, which allows developing individual curricula (Zhang D., Wang H., 2016). And in the EU, the emphasis is on the ethical aspects of using AI in education. The European Commission has developed guidelines for the ethical use of AI, emphasizing the importance of transparency and data protection (Holmes W., Bialik M., Fadel C., 2019).

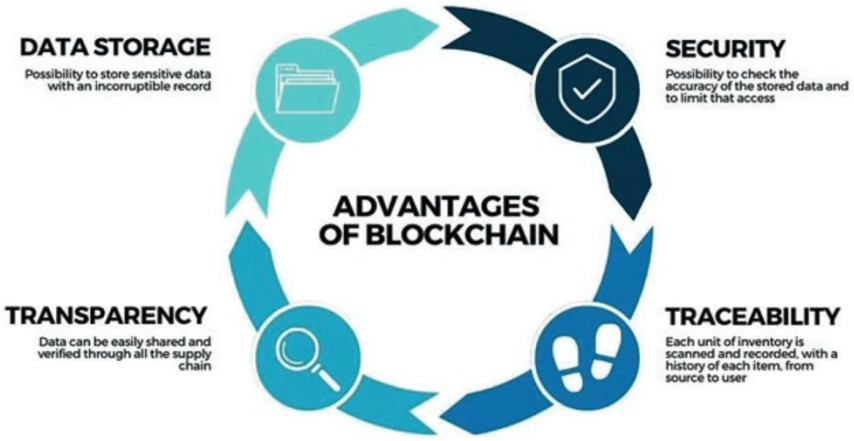


Figure 2: Advantages of Blockchain

However, despite positive examples, many universities face challenges in integrating AI due to the lack of technological infrastructure, qualified personnel, and clear implementation strategies (Luckin R., 2017). The purpose of this article is to identify key factors influencing the successful digitalization of operational procedures in higher education through the integration of AI and to develop recommendations for the formation of effective strategies.

RESEARCH METHODOLOGY

A mixed approach combining quantitative and qualitative methods was used to analyze the strategies and practices used in successful examples of university digitalization. The quantitative analysis was based on statistical data on the performance of universities after the introduction of AI. The qualitative analysis included interviews with representatives of the administrative and academic staff. The methodology also includes a comparative analysis of the best global practices, such as the automation of educational process management and the use of predictive models to optimize the workload of teachers.

ANALYSIS AND RESULTS

The study found that a successful digitalization strategy is based on five key components:

- **Technological infrastructure**: adequate technical base and software for AI implementation;
- **Data Management**: Efficient processing and management of student and faculty data;
- **Culture of Innovation**: Supporting a culture of innovation and adapting teachers to digital methods;

• **Cybersecurity**: Data protection and privacy, which is a critical aspect when implementing AI;

Legal and ethical framework: taking into account legal and ethical aspects such as access to data and protection from discrimination.

Table 1: Students' Perception about ChatGPT

Items	Descriptive statistics and levels of agreement for the scale	Mean	sd	Disagree %	Neutral %	Agree %
1.	ChatGPT's answers are always accurate.	2.38	0.973	**56.5**	30.3	13.2
2.	ChatGPT is connected to the web and searches for information in real-time.	3.43	1.208	20.3	23.2	**56.5**
3.	ChatGPT has been trained in several languages, but its best performance is in English.	3.52	0.911	8.1	**47.8**	44.1
4.	ChatGPT helps me understand information better.	3.31	0.966	15.7	40.5	**43.8**
5.	Artificial intelligence in education enables personalized learning.	3.28	1.031	21.4	37.3	41.3
6.	ChatGPT can replace interaction with teachers and classmates.	1.62	0.885	**84.1**	11.9	4.0
7.	ChatGPT can be used as a tool to enhance learning.	3.56	1	13.8	27.6	**58.6**
8.	I feel comfortable using ChatGPT to get help with all academic tasks.	2.54	1.133	**47.8**	31.6	20.6
9.	ChatGPT helps me retain information better.	2.79	1.037	31.9	45.9	22.2

AI enables the automation of administrative procedures, which saves time and money. For example, automated recording and grading systems improve the accuracy of records and reduce the likelihood of errors. Predictive AI models also help improve educational planning, preventing teacher overload and improving the quality of teaching.

Table 2: ICT Tools Used in University Classes in 2015 and 2017

	2015 (n=1694)		2017 (n=1932)	
ICT tools used	% In-class	% Outside class	% In-class	% Outside class
PowerPoint or other slides	86.3	44.6	91.0	48.2
Web-based educational materials and videos	38.7	26.5	53.7	31.4
LMS	20.5	17.5	31.6	28.8
Collaboration tools (Google Docs, Share Point, Office 365, etc.)	-	8.5	21.6	17.4
File Sharing Tools	12.7	11.7	21.0	17.1

AI is also actively used to personalize learning and develop adaptive educational programs. For example, big data analytics allows you to predict student needs and offer additional learning resources to improve academic performance. AI can also support feedback systems by analyzing performance data and helping teachers evaluate the effectiveness of teaching methods.

A successful digitalization strategy in higher education is based on the following five key components:

- **Technological infrastructure**: Creation of a reliable technical base and implementation of modern software for AI integration. Steps are being taken in Uzbekistan to develop a digital ecosystem. For example, it is planned to launch the edu.uz digital ecosystem in the field of higher and professional education, science and innovation by 2025;
- **Data Management**: Efficient processing and management of student and teacher data. Uzbekistan is developing strategies to create a single "DATAHUB" to integrate and improve all information systems by 2025;
- **Innovation Culture**: Supporting the culture of innovation and adapting teachers to digital methods. Uzbekistan is implementing measures to digitally transform education and science, including sharing experiences between ministries and universities in creating and developing modern platforms for developing software products and tools;
- **Cybersecurity**: Data protection and privacy, which is a critical aspect when implementing AI. Uzbekistan is taking steps to ensure the security of digital data as part of its digital transformation strategy;
- **Legal and ethical framework**: Taking into account legal and ethical aspects, such as access to data and protection from discrimination. Uzbekistan has approved the Strategy for the Development of Artificial Intelligence Technologies until 2030, which provides for the development of a regulatory framework for the use of AI

The integration of AI into administrative procedures of universities in Uzbekistan facilitates the automation of processes, which saves time and financial resources. For example, automated recording and assessment systems improve the accuracy of records and reduce the likelihood of errors. Predictive AI models help improve the planning of the educational process, preventing teacher overload and improving the quality of teaching. In Uzbekistan, steps are being taken to introduce AI technologies in various areas, including education.

AI is actively used to personalize learning and develop adaptive educational programs. Big data analytics allows predicting student needs and offering additional learning resources to improve academic performance. AI can also support feedback systems by analyzing academic performance data and helping teachers evaluate the

effectiveness of teaching methods. Uzbekistan is taking steps to introduce AI technologies into the educational process, including attracting leading foreign experts and scientists to train in the field of AI and its application technologies.

Thus, the integration of AI into the operational procedures of universities in Uzbekistan contributes to the increase in the efficiency of administrative and educational processes, improvement of academic performance and increase in the satisfaction of students and teachers.

DISCUSSION

One of the main limitations is the lack of technological training and qualifications of personnel. Not all teachers and administrators are ready to use AI, which complicates its implementation. There are also a number of technical and legal restrictions related to the processing of students' personal data. It is also important to consider cultural aspects - teachers and students are not always ready to adapt to new technologies (Baker R., Inventado P., 2014).

For successful implementation of AI in the operational processes of universities, it is recommended:

1. **Improve the qualifications of personnel**, focusing on the development of AI and digital technologies;
2. **Invest in infrastructure**: provide the university with the necessary technical equipment;
3. **Create an ethical framework**: Develop guidelines for the use of AI for educational purposes to avoid discrimination and privacy violations.

The introduction of artificial intelligence (AI) into the operational processes of universities faces a number of limitations that are typical both for Uzbekistan and for the leading countries of the world:

Lack of technological training and skills: Many teachers and administrators do not have the necessary skills to effectively use AI. In Uzbekistan, this problem is particularly acute, as evidenced by the need to train specialists in the field of AI and digital technologies. Leading countries such as the United States and China also have a shortage of qualified personnel, but they are actively investing in educational programs on AI, which helps to reduce this gap (Abderrahmane Bettayeb, Muhammad Eid, 2023).

Technical and legal restrictions: Processing students' personal data requires compliance with strict regulations. In Uzbekistan, the legal framework in this area is still in the process of formation, which may slow down the implementation of AI (Brynjolfsson E., McAfee A., 2014). EU countries have strict regulations, such as GDPR, that ensure data protection, but also complicate the implementation of AI.

Cultural aspects: The willingness of teachers and students to adapt to new technologies varies. In Uzbekistan, traditional teaching methods prevail, which can cause resistance to change. In leading countries, there is a higher degree of acceptance of innovations, but there are also cases of resistance from the academic community.

For successful implementation of AI in the operational processes of universities, it is recommended:

Developing professional development: Establishing training programs for teachers and administrators on AI and digital technologies. Uzbekistan should develop national professional development programs similar to initiatives in the United States, where universities offer specialized AI courses for educators (Baker R., Inventado P., 2014).

Investment in infrastructure: Providing universities with the necessary technical equipment, including modern computers, software, and access to high-speed Internet. Uzbekistan needs to increase public and private investment in educational infrastructure, following the example of China, where significant funds are being spent on the digitalization of educational institutions.

Establishing an ethical framework: Developing standards for the use of AI for educational purposes to prevent discrimination and privacy violations. Uzbekistan should take into account international experience, such as UNESCO's recommendations on the ethical use of AI in education, and adapt them to the national context.

The comparative analysis shows that despite differences in development levels and resources, all countries face similar challenges in implementing AI in higher education. Uzbekistan can learn from the experiences of leading countries, adapting their strategies to its own conditions and needs.

CONCLUSION AND RECOMMENDATIONS

The integration of artificial intelligence (AI) into higher education has significant potential to improve the efficiency of operational procedures, enhance the quality of education, and streamline administrative processes. However, successful implementation of AI requires a well-thought-out strategy and an integrated approach. Insufficient technological training of teachers and administrative staff is a significant obstacle to the implementation of AI. It is necessary to develop and implement advanced training programs aimed at mastering digital technologies and AI tools. In Uzbekistan, steps are being taken in this direction, including attracting leading foreign experts and scientists for training in the field of AI and its application technologies.

Providing universities with the necessary technical resources, including modern computers, software and access to high-speed Internet, is critical. Uzbekistan plans to launch the edu.uz digital ecosystem in the field of higher and professional education, science and innovation by 2025, which demonstrates the desire to develop digital infrastructure.

The introduction of AI should be accompanied by the development of a regulatory framework that ensures the protection of personal data and the prevention of discrimination. Uzbekistan has approved the Strategy for the Development of Artificial Intelligence Technologies until 2030, which provides for the development of a regulatory framework for the use of AI.

Resistance to change from teachers and students can slow down the implementation of AI. It is important to develop a culture of innovation, encouraging openness to new technologies and teaching methods. In Uzbekistan, events are being held on the digital transformation of education and science, including the exchange of experience between ministries and universities in the creation and development of modern platforms for the development of software products and tools.

Thus, the successful integration of AI into higher education requires coordinated efforts to train personnel, develop infrastructure, create a regulatory framework, and form a culture of innovation. Only an integrated approach will allow us to fully realize the potential of AI and ensure its effective use in the educational sphere.

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MATHEMATICAL MODELING OF A RING GAS PIPELINE IN THE PRESENCE OF A SECTION WITH UNIFORM GAS OFFTAKE

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Annotation. The paper discusses the problems of mathematical modeling of an annular gas pipeline in the presence of a section with uniform track gas extraction. When designing an urban distribution network of gas pipelines and a gas collection collector, they often refer to the ring structure of the gas pipeline network. The solution of the problem that arises in the design and hydraulic calculation of the ring network is demonstrated. The distribution of gas pressure and other parameters along the ring network is determined. It is limited to considering only the friction force, which is determined from the solution of the system of equations of conservation of momentum and mass of gas, as well as the equation of state of real gases.

Keywords: *ring gas pipeline, gas collection collector, ring set, friction forces, momentum and masses of gas, equations of state of real gases.*

HALQALI GAZ QUVURINING BIR MAROMDA GAZ HAYDOVCHI QISM MAVJUDLIGIDAGI MATEMATIK MODELLANISHI

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Annotatsiya. Maqolada gaz qazib olish bir xil bo‘lgan uchastka mavjud bo‘lganda halqali gaz quvurini matematik modellashtirish muammolari ko‘rib chiqiladi. Gaz quvurlarining shahardagi taqsimlash tarmog‘ini va gaz yig‘uvchi kollektorni loyihalashda ko‘pincha gaz quvurlari tarmog‘ining halqa tuzilishi metodi ko‘proq qo‘llaniladi. Halqali tarmoqni loyihalash va gidravlik hisoblashda yuzaga keladigan muammoning yechimi ko‘rsatilgan. Gaz bosimi va boshqa parametrlarning halqa tarmog‘i bo‘ylab taqsimlanishi aniqlanadi. Maqolada tadqiqot ishlari gaz impulslari va massasining saqlanish tenglamalari tizimini, shuningdek, haqiqiy gazlar holati tenglamasini hal qilishdan aniqlangan ishqalanish kuchini ko‘rib chiqish bilan chegaralanadi.

Kalit so‘zlar: *halqa gaz quvuri, gaz yig‘uvchi kollektor, halqa to‘plami, ishqalanish kuchlari, gazning impuls va massalari, haqiqiy gazlar holati tenglamalari.*

МАТЕМАТИЧЕСКОЕ МОДЕЛИРОВАНИЕ КОЛЬЦЕВОГО ГАЗОПРОВОДА С ГАЗОДВИЖНЫМ УЧАСТКОМ ОДНОВРЕМЕННО

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Аннотация. В статье рассматриваются вопросы математического моделирования кольцевого газопровода при наличии участка с равномерной газодобычей. При проектировании городской газораспределительной сети и газосборного коллектора чаще всего применяется метод проектирования кольцевой газопроводной сети. Представлено решение проблемы, возникающей при проектировании и гидравлическом расчете кольцевой сети. Определено распределение давления газа и других параметров по кольцевой сети.

Исследовательская работа в статье ограничивается рассмотрением системы уравнений сохранения импульса и массы газа, а также силы трения, определяемой из решения уравнения состояния реальных газов.

Ключевые слова: *кольцевой газопровод, газосборник, кольцевая сборка, силы трения, импульс и масса газа, уравнения состояния реальных газов.*

INTRODUCTION

When modeling the distribution network of gas pipelines, the concept of "route offtake" is used. The total offtake from certain points of the gas pipeline, located along the length L of the gas pipeline section, is divided by the length L and thus the intensity of the route offtake is introduced. Various problems combining concentrated and route offtake of gas are considered and solved in (Korotaev Y., Shirkovsky A., 1997).

When designing an urban distribution network of gas pipelines and a gas collection manifold, the ring structure of the gas pipeline network is often referred to. Below we demonstrate the solution of an exemplary problem that arises in the design and hydraulic calculation of a ring network.

RESEARCH METHODOLOGY

Let us assume that the ring, starting from the point of gas supply counterclockwise to the length l_1, and clockwise to the length l_3 passes through an uninhabited area. Gas is off taken only in the section of length l_2. Thus, the length of the ring is $L = l_1 + l_2 + l_3$. The diameter of the gas pipeline is the same everywhere and equal to D. The intensity of the gas supply is M_0, and the value of the pressure at the supply point is p_0. Then the uniform gas extraction in the second section is $m = M_0 / l_2$ $[kg\ m^{-1}\ s^{-1}]$.

It is required to determine the distribution of gas pressure along the ring network.

Let us turn to the quasi-one-dimensional equations of state of gas in a pipeline, the solution to which will be used in the future for the problem posed.

If we restrict ourselves to considering only the friction force, the gas-dynamic state of gas in the pipeline section is determined from the solution to the system of equations for the conservation of momentum and mass of gas, and the equation of state of real gases (Korotaev Y., Shirkovsky A., 1997):

$$\begin{cases} \dfrac{dp}{dx} + \rho \dfrac{\lambda w^2}{2D} = 0, \\ M = M_0 - mx = \rho w F,\ p = Z \rho R T. \end{cases} \tag{1}$$

It was assumed here that at the beginning of the route offtake $x=0$, the pressure is $p_в$, and the flow rate is M_0. We also assume that diameter D, cross section f of the pipe, the super-compressibility coefficient Z, temperature T, and gas constant R have constant values. For $m>0$, there is route offtake of gas, and for $m=0$, there is a gas transport without offtake (for $m<0$, we can pose the problem of a horizontal gas well, and for $\rho=const$ - the problem of drainage and a horizontal oil well).

ANALYSIS AND RESULTS

Let us start solving the auxiliary problem of system (1) for a linear section with length l, where gas is off taken along the route.

To obtain a universal solution, we assume that the friction resistance coefficient is determined by the generalized Leibenson formula (4) (Loitsyansky L., 2003):

$$\lambda=\varsigma\left(\frac{k}{D}\right)^{\theta}\mathrm{Re}^{n}. \qquad (2)$$

We express the density ρ and mass-average velocity of the gas flow through pressure

$$\rho=\frac{p}{ZRT},\ w=\frac{M_0-mx}{\rho f}=\frac{ZRT}{f}\frac{M_0-mx}{p}.$$

Then the Reynolds criterion represents the following variable:

$$\mathrm{Re}=\frac{wD}{\nu}=\frac{ZRTD}{\nu f}\frac{M_0-mx}{p},$$

where ν is the kinematic viscosity of gas. According to the given value of the Reynolds criterion, the friction resistance coefficient also takes the following (variable in x and p) value:

$$\lambda=\varsigma\left(\frac{M_0-mx}{p}\right)^{n},$$

where $\varsigma=\varsigma\left(\frac{k}{D}\right)^{\theta}\left(\frac{ZRTD}{\nu f}\right)^{n}$ is a constant coefficient.

We introduce the values of ρ, w, and λ into the first equation of system (1) and obtain the equation for the pressure distribution:

$$p^{1+n}\frac{dp}{dx}+\frac{\varsigma ZRT}{2Df^{2}}\left(M_0-mx\right)^{2+n}=0.$$

If at the starting point x, the pressure value is $P_в$, then the solution to the last equation has the following form:

$$p^{2+n}(x)=p_в^{2+n}+\Lambda\left[\left(M_0-mx\right)^{3+n}-M_0^{3+n}\right]=p_в^{2+n}+\Lambda\left(M^{3+n}(x)-M_0^{3+n}\right),$$

where $\Lambda = \dfrac{\varsigma ZRT(2+n)}{2m(3+n)Df^2}$.

This solution for a linear section is true for $x \le \dfrac{M_0}{m}$. Moreover, if the end of the linear section coincides with M_0/m, then a dead-end mode is considered, and for $L < M_0/m$ - the transit transport of gas with flow rate $M_0 - Lm$ is considered.

If there is no route offtake (i.e. $m = 0$), then the solution to the equation for the pressure distribution for $\Lambda_1 = \dfrac{\varsigma ZRT(2+n)}{2Df^2}$ takes the following form:

$$p^{2+n}(x) = p_в^{2+n} - \Lambda_1 M_0^{2+n} x.$$

Such a solution can also be obtained from the previous solution for $m \to 0$; we restrict ourselves to the first term of the expansion of the right-hand side in mx.

After the solution to the auxiliary problem is obtained, we proceed to the solution to the problem posed.

Since $l_1 \ne l_3$, gas consumption in the first M_1 and third M_3 sections will be different. However, considering equality $M_0 = M_1 + M_3$ and uniform route offtake, it is possible to determine the points of zero flow velocity $L_П$ in the ring network, depending on M_1 of the right arc side. In the counterclockwise direction, the gas travels the distance of l_1 without losing mass, and then there is an off-take with intensity m . Then the flow rate M_1 is off taken in a section with length M_1/m, so in the counterclockwise direction $L_П = l_1 + M_1/m$. Accordingly, in the clockwise direction, this distance is $L - L_П = l_Л = l_3 + M_3/m$.

Since the auxiliary formulas are obtained for x ascending in direction of gas flow, we will conduct hydraulic calculations separately for each arc (Sennova E., Sidler V., 1987).

In the counterclockwise direction

$$p_1^{2+n} - p_в^{2+m} = \Lambda_1 M_1^{2+n} l_1,$$

$$p_c^{2+n} - p_1^{2+n} = \frac{\Lambda_1}{m(3+n)}\left(M^{3+n}(L_П) - M_1^{3+m}\right) = \frac{-\Lambda_1 M_1^{3+n}}{m(3+n)},$$

where we use the zero flow rate condition for $x = L_П$, and Λ is expressed by Λ_1 .

Hence, for the sector with counterclockwise gas flow the following holds

$$p_c^{2+n} - p_в^{2+n} = \Lambda_1 M_1^{2+n}\left(1 - \frac{M_1}{m(3+n)}\right).$$

In the clockwise direction

$$p_2^{2+n} - p_в^{2+m} = \Lambda_1 M_2^{2+n} l_3,$$
$$p_c^{2+n} - p_2^{2+m} = -\Lambda_1 M_2^{3+n} / \left(m(3+n)\right).$$

Adding term by term, we obtain

$$p_c^{2+n} - p_в^{2+n} = \Lambda_1 M_2^{2+m} \left(\left| 1 - \frac{M_2}{m(3+n)} \right| \right).$$

Since the differential pressure squared in the right and left arcs of the ring, bounded by the inlet point and point $M = 0$, have the same values, we obtain an equation that is transcendental in form:

$$M_1^{2+n} \left((3+n) l_1 m - M_1 \right) = M_2^{2+n} \left((3+n) l_3 m - M_2 \right).$$

Or taking into account $M_2 = M_0 - M_1$, we have

$$(3+n) m \left(l_1 M_1^{2+n} - l_3 \left(M_0 - M_1 \right)^{2+n} \right) = M_1^{3+n} - \left(M_0 - M_1 \right)^{3+n}.$$

For a laminar flow regime, when the Stokes formula $\lambda = 64/\mathrm{Re}$ is used for the drag coefficient (Khujaev I., Fayziev R., Hamdamov M., 2023), this equation takes on the following linear form:

$$2m \left(l_1 M_1 - l_3 \left(M_0 - M_1 \right) \right) = M_1^2 - \left(M_0 - M_1 \right)^2 = 2 M_0 M_1 - M_0^2.$$

From here we find

$$M_1 = \frac{2 m l_3 M_0 - M_0^2}{2mL - 4M_0}.$$

For a developed turbulent flow around a rough surface $(n = 0)$, the equation has the third order and can be solved by known analytical methods. In other cases, the transcendental equation is solved numerically, for example, using the dichotomy method.

The problem of equality of arc lengths $l_1 = l_3$ is simply solved when the pressure drop to the section with linear gas offtake is the same for the left and right arcs. Then the lowest pressure is reached at $L_{П} = L_{Л} = L/2$, and the gas flow rates along the arcs are the same: $M_1 = M_2 = M_0/2$.

After solving the problem of determining M_1 and M_2, it is possible to determine the pressure distributions over the ring network.

The case of $l_1 = l_3 = 0$ is of particular interest. As in the case of $l_1 = l_3 \neq 0$, here we have hydraulic symmetry, i.e. on both arcs, the distribution of pressure and flow rates will be the same. The distribution of pressure along the arcs under a developed turbulent flow regime, as already noted, is described by the following formula:

$$p(x) = \sqrt{p_0^2 + \Lambda \left(-3 M_0^2 m x + 3 M_0 m^2 x^2 - m^3 x^3 \right)},$$

and the lowest pressure is achieved at $L_{П} = L_{Л} = L/2$ and, due to $mL_{П} = mL_{Л} = M_0/2$, is:

$$p(L_{П}) = \sqrt{p_0^2 - \frac{7}{8}\Lambda M_0^3}.$$

At the same time, when distributing gas in a linear structure of the network, we have

$$p(L) = \sqrt{p_0^2 - \Lambda M_0^3} < p(L_{П}),$$

which proves the usefulness of the ring method of organizing gas distribution.

If it is impossible to specify in advance the connection points of consumers, or the number of connections is large enough, then the "route offtake" approach proves useful. Moreover, the flow regime is usually assumed laminar. It is difficult to substantiate such an assumption. For example, we can take the smallest value of the Reynolds criterion according to the data $\mu = 12{,}3 \cdot 10 - 6\ H\ s\ m^{-2}$, $D = 0{,}012\ m$, $\rho = 1{,}205 \cdot 0{,}70 \cdot 3 \approx 2{,}5 kg\ m^{-3}$ (Khujaev I., Hamdamov M., 2021). Then

$$\mathrm{Re} = \frac{wD}{\nu} = \frac{wD\rho}{\mu} \approx \frac{7{,}0 \cdot 0{,}012 \cdot 2{,}5}{12{,}3 \cdot 10^{-6}} \approx 1{,}75 \cdot 10^4.$$

This value is much higher than the critical Reynolds number. That is, it can be noted that the assumption of a laminar flow regime is associated with a simplification of the computational process. However, these formulas can be safely used in the pipeline transport of fluids.

Let us consider the laminar flow regime.

As $\alpha \to 0$ (transition to a horizontal gas pipeline), we obtain

$$p' = -\frac{8\pi\nu}{f^2} M_0 (1 - \beta x),$$

hence, the following solution

$$p(x) = p_0 - \frac{8\pi\nu}{f^2} M_0 \frac{(1 - \beta x)^2 - 1}{2\beta}.$$

Considering $\beta = \frac{m}{M_0} = \frac{Q}{LM_0}$, where Q is the total route offtake from the section, we transform the solution for the entire length of the section:

$$p_0 - p_K = \frac{8\pi\nu}{f^2}\frac{\left(M_0 - \beta M_0 x\right)^2 - M_0^2}{2\beta M_0} = \frac{8\pi\nu}{f^2}\frac{M_K^2 - M_0^2}{2Q}L =$$

$$= \frac{8\pi\nu}{f^2}\frac{\left(M_K + M_0\right)\left(M_K - M_0\right)}{2\left(M_K - M_0\right)}L = \frac{8\pi\nu}{f^2}\frac{M_K + M_0}{2}L =$$

$$= \frac{8\pi\nu}{f^2}\frac{2M_0 - Q}{2}L = \frac{8\pi\nu}{f^2}\left(M_0 - \frac{Q}{2}\right)L.$$

This formula states that at a uniform route offtake from a linear section of a gas pipeline with total intensity *Q*, the pressure drop decreases by $\frac{8\pi\nu}{F^2}\frac{Q}{2}L$ as compared to the case without route offtake.

Now let us imagine a ring with one supply node and *N* sections of route offtake with different intensities. The total offtakes at the sites are $q_1, q_2, q_3, ..., q_{N-1}, q_N$; the lengths of sections - $l_1, l_2, l_3, ..., l_{N-1}, l_N$; the cross-sectional area of the sections - $f_1, f_2, f_3, ..., f_{N-1}, f_N$. To select pressure values, we use indices from 0 to *N*. In this case, indices from 0 to *N* correspond to the same gas supply section.

Let us assume that in sector $x_* = \theta l_K$ from the starting point of the *K*-th section in the counterclockwise direction, the lowest static gas pressure for the ring is reached. Then the flow direction changes in sector $x_* = \theta l_K$. In the first section, counterclockwise, the inlet flow is M_1. Pressure drops in elementary sections 1, 2, 3, ..., *K*-1 and in the first sector of the *K*-th section are written in the following form (Khujaev I., Hamdamov M., 2021):

$$p_0 - p_1 = \frac{8\pi\nu l_1}{f_1^2}\left(M_1 - \frac{q_1}{2}\right),$$

$$p_1 - p_2 = \frac{8\pi\nu l_2}{f_2^2}\left(M_1 - q_1 - \frac{q_2}{2}\right),$$

$$p_2 - p_3 = \frac{8\pi\nu l_3}{f_3^2}\left(M_1 - q_1 - q_2 - \frac{q_3}{2}\right),...$$

$$p_{K-2} - p_{K-1} = \frac{8\pi\nu l_{K-1}}{f_{K-1}^2}\left(M_1 - q_1 - q_2 - q_3 - ... - q_{K-2} - \frac{q_{K-1}}{2}\right),$$

$$p_{K-1} - p_* = \frac{8\pi\nu\theta l_K}{f_K^2}\left(M_1 - q_1 - q_2 - q_3 - ... - q_{K-2} - q_{K-1} - \frac{\theta q_K}{2}\right).$$

This system of equations contains *K*+2 unknown quantities $p_1, p_3, ..., p_{K-1}, p_*, M_1, \theta$. Let us try to reduce the number of unknowns. First, we define the relationship between unknowns M_1 and θ.

The flow rate M_1 during the passage of the 1st section decreased by q_1, passing the 2nd section - by q_2, passing the 3rd section - by q_3, ..., and passing the K-1th section - by q_{K-1}. In the K-th section, the mass flow rate decreases by q_{K-1} and turns to zero. Therefore, the relationship between M_1 and θ has the following form:

$$M_1 = q_1 + q_2 + q_3 + ... + q_{K-1} + \theta q_K .$$

In this regard, the formulas for the pressure drop in elementary sections are written in the following form:

$$p_0 - p_1 = \frac{8\pi\nu l_1}{f_1^2}\left(\frac{q_1}{2} + q_2 + q_3 + ... + q_{K-1} + \theta q_K\right),$$

$$p_1 - p_2 = \frac{8\pi\nu l_2}{f_2^2}\left(\frac{q_2}{2} + q_3 + ... + q_{K-1} + \theta q_K\right),$$

$$p_2 - p_3 = \frac{8\pi\nu l_3}{f_3^2}\left(\frac{q_3}{2} + q_4 + ... + q_{K-1} + \theta q_K\right),...$$

$$p_{K-2} - p_{K-1} = \frac{8\pi\nu l_{K-1}}{f_{K-1}^2}\left(\frac{q_{K-1}}{2} + \theta q_K\right),$$

$$p_{K-1} - p_* = \frac{8\pi\nu\theta l_K}{f_K^2}\frac{\theta q_K}{2}.$$

We move to total counterclockwise pressure drop by summing up the following formulas:

$$p_0 - p_* = 8\pi\nu\left[q_1\frac{l_1}{2f_1^2} + q_2\left(\frac{l_1}{f_1^2} + \frac{l_2}{2f_2^2}\right) + q_3\left(\frac{l_1}{f_1^2} + \frac{l_2}{f_2^2} + \frac{l_3}{2f_3^2}\right) + \right.$$

$$+ ... + q_{K-1}\left(\frac{l_1}{f_1^2} + \frac{l_2}{f_2^2} + \frac{l_3}{f_3^2} + ... + \frac{l_{K-2}}{f_{K-2}^2} + \frac{l_{K-1}}{2f_{K-1}^2}\right) +$$

$$\left. + \theta q_K\left(\frac{l_1}{f_1^2} + \frac{l_2}{f_2^2} + \frac{l_3}{f_3^2} + ... + \frac{l_{K-2}}{f_{K-2}^2} + \frac{l_{K-1}}{f_{K-1}^2} + \frac{\theta l_K}{2f_K^2}\right)\right].$$

There are only two unknowns in this equation.

We do the same for the clockwise direction:

$$p_N - p_{N-1} = \frac{8\pi\nu l_N}{f_N^2}\left((1-\theta)q_K + q_{K+1} + q_{K+2} + ... + q_{N-2} + q_{N-1} + \frac{q_N}{2}\right),$$

$$p_{N-1} - p_{N-2} = \frac{8\pi\nu l_{N-1}}{f_{N-1}^2}\left((1-\theta)q_K + q_{K+1} + q_{K+2} + ... + q_{N-2} + \frac{q_{N-1}}{2}\right),$$

$$p_{N-2}-p_{N-3}=\frac{8\pi\nu l_{N-2}}{f_{N-2}^2}\left((1-\theta)q_K+q_{K+1}+q_{K+2}+\ldots+q_{N-3}+\frac{q_{N-2}}{2}\right),\ldots$$

$$p_{K+2}-p_{K+1}=\frac{8\pi\nu l_{K+2}}{f_{K+2}^2}\left((1-\theta)q_K+q_{K+1}+\frac{q_{K+2}}{2}\right),$$

$$p_{K+1}-p_K=\frac{8\pi\nu l_{K+1}}{f_{K+1}^2}\left((1-\theta)q_K+\frac{q_{K+1}}{2}\right),$$

$$p_K-p_*=\frac{8\pi\nu(1-\theta)l_K}{f_K^2}\frac{(1-\theta)q_K}{2}.$$

We calculate the total pressure drop in the clockwise direction:

$$p_N-p_*=$$

$$=8\pi\nu\left[(1-\theta)q_K\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{f_{N-1}^2}+\frac{l_{N-2}}{f_{N-2}^2}+\ldots+\frac{l_{K+2}}{f_{K+2}^2}+\frac{l_{K+1}}{f_{K+1}^2}+\frac{(1-\theta)l_K}{2f_K^2}\right)+\right.$$

$$+q_{K+1}\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{f_{N-1}^2}+\frac{l_{N-2}}{f_{N-2}^2}+\ldots+\frac{l_{K+2}}{f_{K+2}^2}+\frac{l_{K+1}}{2f_{K+1}^2}\right)+$$

$$+q_{K+2}\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{f_{N-1}^2}+\frac{l_{N-2}}{f_{N-2}^2}+\ldots+\frac{l_{K+2}}{2f_{K+2}^2}\right)+\ldots+$$

$$\left.+q_{N-2}\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{f_{N-1}^2}+\frac{l_{N-2}}{2f_{N-2}^2}\right)+q_{N-1}\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{2f_{N-1}^2}\right)+q_N\frac{l_N}{2f_N^2}\right].$$

In this equation, the number of unknowns is also two and it is necessary to take into account equality $p_0=p_N$. Then from the two equations, it is possible to determine unknowns p_* and θ. Considering the transitivity of the equalities, we compose an equation for θ. Equating the right sides of the total pressure drop counterclockwise and clockwise, eliminating constant factors $8\pi\nu$ and denoting

$$A_0=q_1\frac{l_1}{2f_1^2}+q_2\left(\frac{l_1}{f_1^2}+\frac{l_2}{2f_2^2}\right)+q_3\left(\frac{l_1}{f_1^2}+\frac{l_2}{f_2^2}+\frac{l_3}{2f_3^2}\right)+$$

$$+\ldots+q_{K-1}\left(\frac{l_1}{f_1^2}+\frac{l_2}{f_2^2}+\frac{l_3}{f_3^2}+\ldots+\frac{l_{K-2}}{f_{K-2}^2}+\frac{l_{K-1}}{2f_{K-1}^2}\right),$$

$$A_N=q_{K+1}\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{f_{N-1}^2}+\frac{l_{N-2}}{f_{N-2}^2}+\ldots+\frac{l_{K+2}}{f_{K+2}^2}+\frac{l_{K+1}}{2f_{K+1}^2}\right)+$$

$$+q_{K+2}\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{f_{N-1}^2}+\frac{l_{N-2}}{f_{N-2}^2}+\ldots+\frac{l_{K+2}}{2f_{K+2}^2}\right)+\ldots+$$

$$+q_{N-2}\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{f_{N-1}^2}+\frac{l_{N-2}}{2f_{N-2}^2}\right)+q_{N-1}\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{2f_{N-1}^2}\right)+q_N\frac{l_N}{2f_N^2},$$

we obtain

$$A_0+\theta q_K\left(\frac{l_1}{f_1^2}+\frac{l_2}{f_2^2}+\frac{l_3}{f_3^2}+\ldots+\frac{l_{K-2}}{f_{K-2}^2}+\frac{l_{K-1}}{f_{K-1}^2}+\frac{\theta l_K}{2f_K^2}\right)=A_N+$$

$$+(1-\theta)q_K\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{f_{N-1}^2}+\frac{l_{N-2}}{f_{N-2}^2}+\ldots+\frac{l_{K+2}}{f_{K+2}^2}+\frac{l_{K+1}}{f_{K+1}^2}+\frac{(1-\theta)l_K}{2f_K^2}\right).$$

We divide the terms with $\theta^2,\ \theta,\ \theta^0$:

$$\theta^2 q_K\frac{l_K}{2f_K^2}-\theta^2 q_K\frac{l_K}{2f_K^2}+\theta q_K\left(\frac{l_1}{f_1^2}+\frac{l_2}{f_2^2}+\frac{l_3}{f_3^2}+\ldots+\frac{l_{K-2}}{f_{K-2}^2}+\frac{l_{K-1}}{f_{K-1}^2}\right)+$$

$$+\theta q_K\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{f_{N-1}^2}+\frac{l_{N-2}}{f_{N-2}^2}+\ldots+\frac{l_{K+2}}{f_{K+2}^2}+\frac{l_{K+1}}{f_{K+1}^2}\right)+\theta q_K\frac{l_K}{f_K^2}=$$

$$=A_N-A_0+q_K\left(\frac{l_N}{f_N^2}+\frac{l_{N-1}}{f_{N-1}^2}+\frac{l_{N-2}}{f_{N-2}^2}+\ldots+\frac{l_{K+2}}{f_{K+2}^2}+\frac{l_{K+1}}{f_{K+1}^2}+\frac{l_K}{2f_K^2}\right).$$

Thus, in sector θl_K of the K-th section in the counterclockwise direction, the pressure reaches its lowest value in the ring. In this section, the mass flow rate and gas velocity are equal to zero. There remains the question of determining the number of K of the section with the lowest static pressure in the ring gas pipeline. We will schematically present changes in the mass flow rate and pressure of gas in this gas pipeline (Fig. 1).

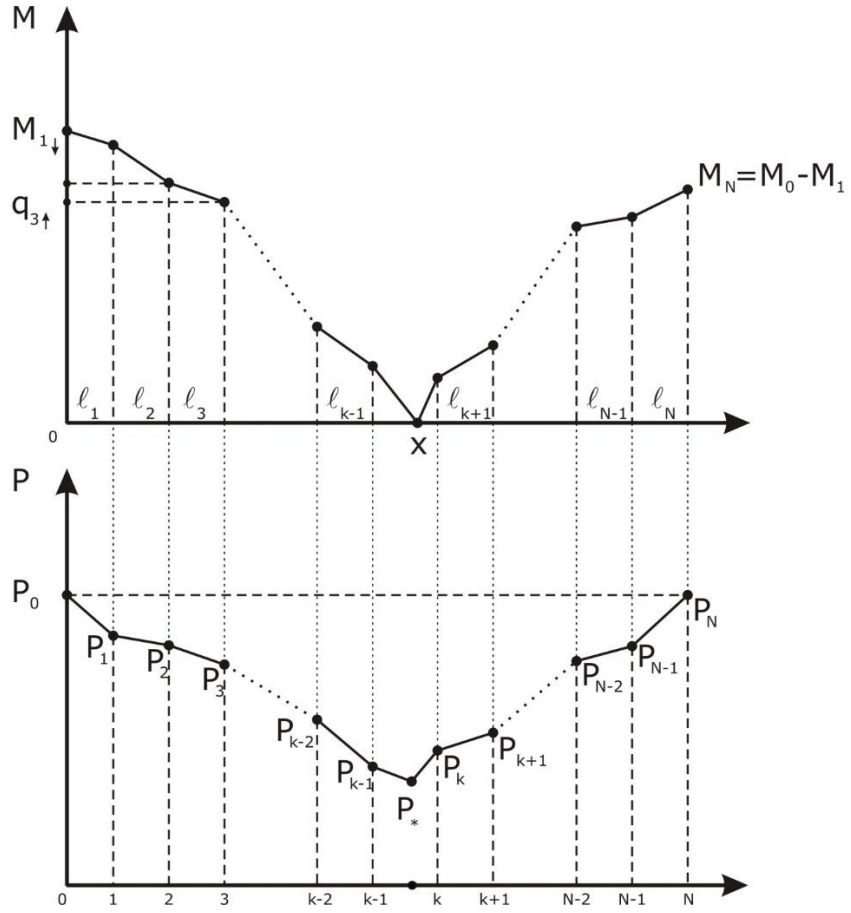


Fig. 1. Schematic representations of route changes in the mass flow rate and static pressure of gas in a ring gas pipeline during route offtake with different intensities in elementary sections

Note that in all elementary sections of the ring, except for the section with the lowest pressure in the network, the absolute value of the pressure change is $\frac{8\pi\nu}{f^2}\frac{M_K + M_H}{2}L$ (in this expression, M_H, M_K are the inlet and outlet gas flow rates in the elementary section). In the section with the lowest pressure, this change is less than $\frac{8\pi\nu}{f^2}\frac{M_K + M_H}{2}L$.

Let us assume that the section with the lowest pressure coincided with the K-1 point (i.e. $\theta = 0$ in the pressure drop formulas). In this case, the absolute value of the pressure change in the K-th section is also $\frac{8\pi\nu}{f_K^2}\frac{M_{K-1} + M_K}{2}l_K$. Here, condition $p_0 - p_* = p_N - p_*$ is fulfilled. Therefore, to determine the number of the sector with the lowest pressure section in the ring, it is necessary to check the difference $\varphi_K = (p_0 - p_*)_K - (p_N - p_*)_K$, where $(p_0 - p_*)_K$, $(p_N - p_*)_K$ are calculated for $\theta = 0$.

If the value of K is taken less than the actual value, then $\varphi_K > 0$; if the value of K is taken more than the actual value, then $\varphi_K < 0$. This statement is substantiated by the fact that with an increase in flow rate in some direction, the pressure drop in this direction will be intense and vice versa.

A similar reasoning is used for the case when section x_* turns out to be inside the K-th elementary section (i.e., $0 < \theta < 1$). In this case, conditions $\varphi_{K-1} > 0$ and $\varphi_K < 0$ hold. It is easy to verify that $\varphi_j > 0$ holds for $\varphi_{K-1} > 0$ and $\varphi_K < 0$; a decrease in M_1 leads to a decrease in counterclockwise pressure drop when compared to the actually expected one. Here, $M_N = M_0 - M_1$ increases, causing an intense clockwise pressure drop compared to the actually expected one. Accordingly, it turns out that $\varphi_j > 0$.

Similar statements can be used to prove that conditions $\varphi_j < 0$ are appropriate for $j = K+1, K+2, ..., N-1, N$.

CONCLUSIONS AND OFFERS

Thus, the number of the elementary section K with the lowest static pressure in the ring is determined. The value of θ is determined by the above formula. Knowing the value of θ, it is possible to determine the values of the mass flow in the points, starting from $M_1 = q_1 + q_2 + q_3 + ... + q_{K-1} + \theta q_K$ in the counterclockwise direction, and starting from $M_N = M_0 - M_1$, in the clockwise direction. The values of pressure in the nodes of the ring and the lowest value of pressure in the rings are determined according to the above formulas for the pressure drop.

In certain elementary sections of the ring, there may be no gas offtake along the route. For these areas, $q_j = 0$ should be taken.

By using different cross-sectional areas f_j for different sections, we have created conditions for optimizing the diameter and thickness of pipes in terms of reducing capital investments and operating costs.

Solving this problem, we localized point x_* and determined the value of the lowest static pressure p_* in the ring. The value of p_* can be lower bounded; it is necessary to ensure the minimum permissible pressure value at the consumer connection points. In these cases, we can re-apply the algorithm with new values of p_0.

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