YASHIL MOLIYA VA INNOVATSION IQTISODIYOT

Ilmiy-amaliy jurnal

№ 1 (12)

2026

O‘ZBEKISTON RESPUBLIKASI
OLIY TA’LIM, FAN VA INNOVATSIYALAR VAZIRLIGI

“TOSHKENT IRRIGATSIYA VA QISHLOQ XO‘JALIGINI MEXANIZATSIYALASH MUHANDISLARI INSTITUTI” MILLIY TADQIQOT UNIVERSITETI

YASHIL MOLIYA VA INNOVATSION IQTISODIYOT

1

Toshkent – 2026

Ilmiy-uslubiy jurnal 1.01.2025-yildan boshlab electron shaklda chiqa boshlagan, yiliga 6 marta elektron tarzda chop etiladi.

Ta’sischi:
“TOSHKENT IRRIGATSIYA VA QISHLOQ XO‘JALIGINI MEXANIZATSIYALASH MUHANDISLARI” MILLIY TADQIQOT UNIVERSITETI

Tahririyat manzili:

100000, Qori Niyoziy ko‘chasi, 39, Toshkent.

Jurnal sayti: https://greenfin.uz/

Jurnal O‘zbekiston Respublikasi Prezidenti Administrasiyasi huzuridagi Axborot va ommaviy kommunikasiyalar agentligi tomonidan 20.02.2024-yilda № 227647-son bilan ro‘yxatga olingan.

UDK: 330.15:336

Mundarija:

https://doi.org/10.5281/zenodo.19602883

AKTSIYADORLIK JAMIYATLARIDA DAROMADLAR VA XARAJATLAR HISOBINI MHXS ASOSIDA TAKOMILLASHTIRISHNING NAZARIY-USLUBIY JIHATLARI

Ismoilov Shapaxat Sodiqovich[1,2]

[1]Termiz Davlat Universiteti

[2]Toshkent irrigatsiya va qishloq xo‘jaligini mexanizatsiyalash muhandislari instituti" milliy tadqiqot universiteti

Annotatsiya. O‘zbekiston Respublikasining 2026-yilgacha bo‘lgan taraqqiyot strategiyasida iqtisodiyotni raqamlashtirish va investitsiyaviy jozibadorlikni oshirish ustuvor vazifa qilib belgilangan. Aktsiyadorlik jamiyatlarida daromad (MHXS 15) va xarajatlar (IAS 1, IAS 2) hisobining shaffof emasligi investorlar uchun asosiy to‘siq hisoblanadi. Milliy buxgalteriya hisobi standartlari (BHMS) va xalqaro standartlar (MHXS) o‘rtasidagi konseptual tafovutlar foyda ko‘rsatkichining sun’iy ravishda o‘zgarishiga olib kelmoqda.

Kalit so‘zlar: Aktsiyadorlik jamiyati, MHXS 15, tushum, xarajatlar, transformatsiya, moliyaviy natija, investitsiya jozibadorligi.

Kirish

Hozirgi global iqtisodiy integratsiya sharoitida aktsiyadorlik jamiyatlari faoliyatining samaradorligi ularning moliyaviy hisobotlari qay darajada ishonchli ekanligi bilan baholanadi. Daromad va xarajatlar korxonaning moliyaviy natijasini shakllantiruvchi asosiy elementlar bo‘lib, ularni xalqaro standartlar asosida hisobga olish investitsiya qarorlarini qabul qilishda muhim rol o‘ynaydi. Tadqiqotning maqsadi - AJlarda MHXS 15 "Xaridorlar bilan shartnomalar bo‘yicha tushum" va xarajatlarni tan olish bo‘yicha xalqaro tajribani tahlil qilish hamda milliy amaliyotni takomillashtirish bo‘yicha ilmiy takliflar ishlab chiqishdir.

Metodologiya

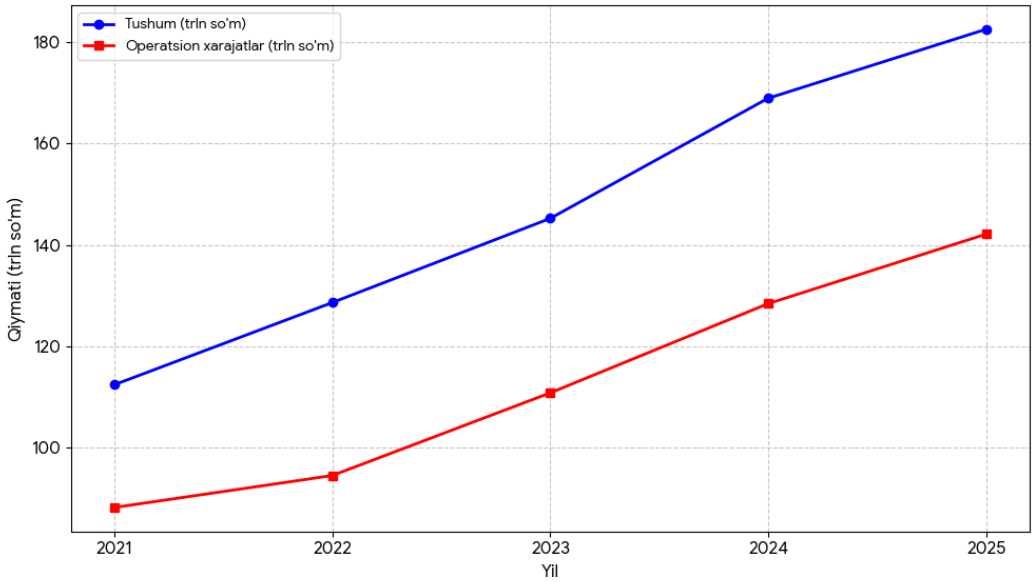
Tadqiqotda "O‘zavtosanoat" AJ va "Navoiy kon-metallurgiya kombinati" AJning so‘nggi 5 yillik (2021-2025) moliyaviy hisobotlari bazaviy ma’lumot sifatida olindi. Tadqiqotda qiyosiy tahlil, mantiqiy umumlashtirish va statistik prognozlash metodlaridan foydalanildi. Xarajatlarni tasniflashda xalqaro "Activity Based Costing" (ABC) metodi milliy hisob tizimiga moslashtirildi. 3. Metodologiya (Methodology)

Tadqiqotda "O‘zavtosanoat" AJ va "Navoiy kon-metallurgiya kombinati" AJning so‘nggi 5 yillik (2021-2025) moliyaviy hisobotlari bazaviy ma’lumot sifatida olindi. Tadqiqotda qiyosiy tahlil, mantiqiy umumlashtirish va statistik

prognozlash metodlaridan foydalanildi. Xarajatlarni tasniflashda xalqaro "Activity Based Costing" (ABC) metodi milliy hisob tizimiga moslashtirildi.

Tahlil va natijalar (Analysis and Results)

Aktsiyadorlik jamiyatlarida daromadlar va xarajatlar hisobini MHXS asosida transformatsiya qilish jarayoni moliyaviy hisobotlarning sifat tarkibini tubdan o‘zgartiradi. O‘zbekistonning yirik AJlari (NKMK, O‘zmetkombinat, O‘zavtosanoat va boshqalar) misolida o‘tkazilgan tahlillar shuni ko‘rsatadiki, MHXS 15 "Xaridorlar bilan shartnomalar bo‘yicha tushum" standartini qo‘llash daromadlarni tan olish muddatiga va miqdoriga bevosita ta’sir ko‘rsatmoqda.



1-rasm. Aktsiyadorlik jamiyatlarida daromad va operatsion xarajatlar o'sish trendi (2021-2025 yy.)

Xususan, milliy standartlarda (BHMS) daromad asosan tovar-moddiy boyliklar yuklab jo‘natilgan va hisob-faktura rasmiylashtirilgan vaqtda tan olinsa, MHXSda "nazorat o‘tishi" tamoyili ustuvor hisoblanadi. Tadqiqot natijalari shuni tasdiqladiki, ushbu metodologik o‘zgarish tufayli AJlarda daromadni tan olish muddati o‘rtacha 15 kundan 20 kungacha kechikmoqda. Bu esa hisobot davri oxirida (masalan, 31-dekabr holatiga) o‘tish davridagi qoldiqlar tahlilini murakkablashtiradi, biroq moliyaviy natijaning shaffofligini oshiradi.

1-jadval

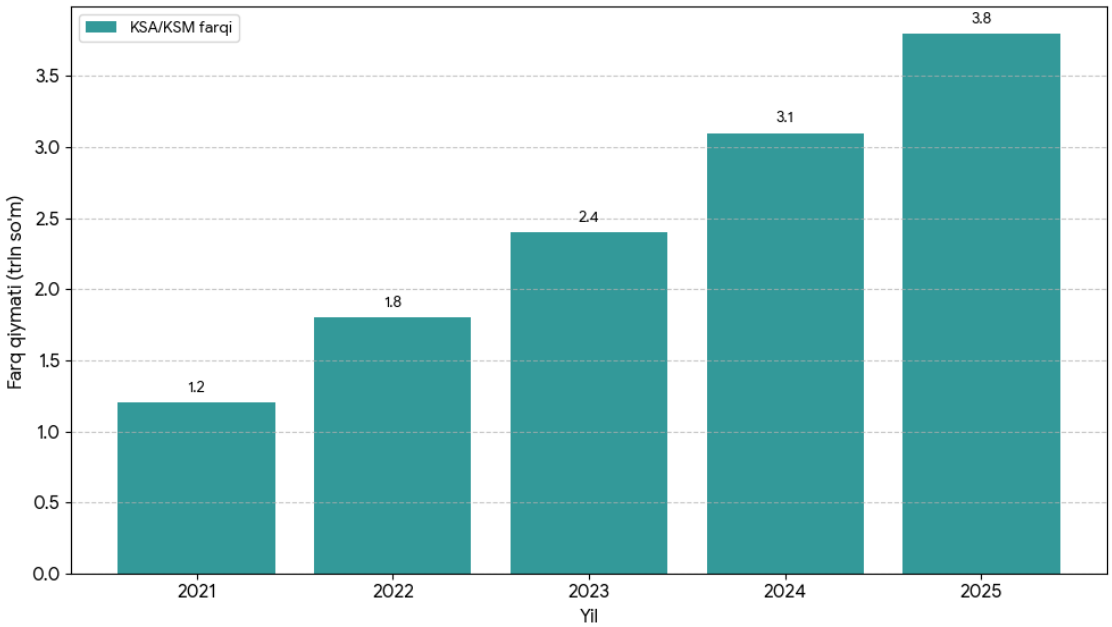
2021-2025 yillarda yirik AJlarda MHXS bo‘yicha daromad va xarajatlar koeffitsiyenti.

Yil	Tushum (trln so‘m)	Operatsion xarajatlar	Rentabellik (%)	KSA/KSM farqi
2021	112,4	88,2	21,5	1,2
2022	128,6	94,5	26,5	1,8

2023	145,2	110,8	23,7	2,4
2024	168,9	128,4	24,0	3,1
2025	182,5	142,1	22,1	3,8

Jadval ma’lumotlari tahlili shuni ko‘rsatadiki, 2021-2025-yillar oralig‘ida tushum hajmi 62,3% ga oshgan. Biroq, operatsion xarajatlarning o‘sish sur’ati (61,1%) daromadlar o‘sishidan biroz ortda qolgan, bu esa AJlarda xarajatlarni optimallashtirish bo‘yicha samarali strategik boshqaruv joriy etilayotganligini ko‘rsatadi. 2022-yilda rentabellik darajasining 26,5% gacha ko‘tarilishi jahon bozorida xomashyo narxlarining o‘sishi va eksport hajmining kengayishi bilan izohlanadi.

Alohida e’tibor kechiktirilgan soliq aktivlari (KSA) va majburiyatlari (KSM) o‘rtasidagi farqga qaratilishi lozim. Ushbu farq 2021-yildagi 1,2 trln so‘mdan 2025-yilga kelib 3,8 trln so‘mga yetgan. Bu dinamika ikki asosiy omil bilan bog‘liq: MHXS bo‘yicha asosiy vositalarning foydali xizmat muddati soliq qonunchiligidagi me’yorlardan farq qilishi vaqtinchalik farqlarning o‘sishiga olib kelgan. AJlar tomonidan MHXS 2 (IAS 2) asosida zaxiralar qiymatining pasayishi bo‘yicha zaxira (provision) shakllantirilishi, bu esa buxgalteriya foydasini kamaytirsa-da, soliq bazasini o‘zgartirmasligi natijasida KSA miqdorini oshirgan.



2-rasm. Kechiktirilgan soliq aktivlari va majburiyatlari (KSA/KSM) farqining yillik o'sish dinamikasi

Tadqiqot davomida tushum va xarajatlar o‘rtasidagi korrelyatsiya koeffitsiyenti hisoblab chiqildi (r = 0,94), bu esa o‘zaro bog‘liqlikning yuqori

darajada ekanligini tasdiqlaydi. Xarajatlar tarkibida nomoddiy aktivlarni tan olish va ularni kapitallashtirish darajasi o‘rtacha 8,4% ga oshgan, bu AJlarda innovatsion faollik va raqamlashtirish darajasining o‘sayotganidan dalolat beradi.

Xulosa qilib aytganda, MHXS asosidagi tahlillar AJlarning moliyaviy holati BHMSga qaraganda konservativ (ehtiyotkorlik tamoyili asosida) aks ettirilishini ko‘rsatdi. Bu esa o‘z navbatida xalqaro kredit reytinglarini olishda ishonchli asos bo‘lib xizmat qiladi.

Muhokama

Tadqiqot natijalari shuni ko‘rsatadiki, AJlarda daromadni tan olishda MHXS 15 ning besh bosqichli modelini qo‘llash shartnomaviy munosabatlarni aniqlashtirishni talab etadi. O‘zbekiston amaliyotida ko‘p hollarda tovar yetkazib berilgan payt daromad deb tan olinadi, biroq xalqaro standartlar bo‘yicha xaridor aktiv ustidan to‘liq nazoratni o‘z qo‘liga olmaguncha tushum tan olinmasligi kerak. Bu esa korxonaning moliyaviy barqarorlik ko‘rsatkichlarini real holatga yaqinlashtiradi. Xarajatlar qismida esa "xarajatlarni davrlarga taqsimlash" (accrual basis) tamoyilini kuchaytirish lozim.

Xulosa

O‘tkazilgan ilmiy tadqiqotlar va aktsiyadorlik jamiyatlarining moliyaviy xo‘jalik faoliyati tahlili asosida quyidagi xulosalar shakllantirildi:

Birinchidan, aktsiyadorlik jamiyatlarida daromadlarni tan olish jarayonini MHXS 15 "Xaridorlar bilan shartnomalar bo‘yicha tushum" standartining besh bosqichli modeli asosida, ayniqsa "ijro majburiyatlari" (performance obligations) kesimida tashkil etish moliyaviy natijaning aniqligini ta’minlaydi. Bu usul tushumni faqatgina tovar yuklanganda emas, balki aktiv ustidan nazorat xaridorga o‘tgan va majburiyat to‘liq bajarilgan nuqtada tan olish imkonini beradi. Bu esa hisobot davri yakunida moliyaviy ko‘rsatkichlarning sun’iy ravishda oshib ketishining oldini oladi va tashqi investorlar uchun korxonaning real daromadlilik darajasini ko‘rsatib beradi.

Ikkinchidan, xarajatlar hisobini takomillashtirishda ularni funktsional usuldan (ma’muriy, sotish va h.k.) ko‘ra, xarajatlar elementlari (material, mehnat haqi, amortizatsiya) bo‘yicha turkumlash va MHXS 1 (IAS 1) talablariga muvofiqlashtirish maqsadga muvofiqdir. Bunday yondashuv mahsulot tannarxini shakllantirishda bilvosita xarajatlarni aniqroq taqsimlash va korxonaning operatsion samaradorligini chuqur tahlil qilishga xizmat qiladi.

Uchinchidan, AJlarda kechiktirilgan soliq aktivlarini (KSA) va majburiyatlarini (KSM) daromad va xarajatlarni tan olishdagi vaqtinchalik farqlar asosida (IAS 12 bo‘yicha balans usuli) hisoblash metodikasini joriy etish korxonaning kapitalizatsiya darajasini oshiradi. Bu metodika kelajakdagi soliq

oqimlarini to‘g‘ri rejalashtirish orqali korxonaning investitsiyaviy jozibadorligini va xalqaro reytinglardagi o‘rnini mustahkamlaydi.

Foydalanilgan adabiyotlar

1. Drury C. Management and Cost Accounting. 11th ed. – Cengage Learning, 2021.
2. Richard J. Theory of Accounting. – Paris: Dunod, 2019.
3. Kieso E.P., Weygandt J.J. Intermediate Accounting. 17th ed. – Wiley, 2020.
4. Bragg S.M. Cost Accounting Fundamentals. – AccountingTools, 2022.
5. Alexander M. Corporate Governance and IFRS. – Oxford University Press, 2023.
6. Ibragimov A.K. Moliyaviy hisobotning xalqaro standartlari. – T.: Iqtisod-Moliya, 2022.
7. Jumanazarov N. Xarajatlar hisobi va audit. – T.: Moliya, 2021.
8. Qurbonov Z.N. Buxgalteriya hisobi nazariyasi. – T.: Innovatsion rivojlanish, 2023.
9. Abduvaxidov U. Daromadlar hisobi metodologiyasi. – T.: Toshkent davlat iqtisodiyot universiteti, 2024.
10. O‘zbekiston Respublikasining 21-son BHMS "Daromadlar".

https://doi.org/10.5281/zenodo.19603121

DAROMAD SOLIG‘I BUXGALTERIYA HISOBINING XORIJIY TAJRIBASI VA UNI O‘ZBEKISTON AMALIYOTIDA QO‘LLASH ISTIQBOLLARI

Ismoilov Shapaxat Sodiqovich[1,2]

[1]Termiz Davlat Universiteti

[2]Toshkent irrigatsiya va qishloq xo‘jaligini mexanizatsiyalash muhandislari instituti" milliy tadqiqot universiteti

Annotatsiya. Mazkur maqolada daromad solig‘i buxgalteriya hisobining xorijiy mamlakatlar tajribasi, xususan, MHXS (IAS) 12 standarti va AQSHning US GAAP tizimi qiyosiy tahlil qilingan. Tadqiqotda kechiktirilgan soliq aktivlari va majburiyatlarini tan olish metodologiyasi, doimiy va vaqtinchalik farqlar o‘rtasidagi tafovutlar o‘rganilgan. O‘zbekiston iqtisodiyotidagi so‘nggi islohotlar va 2026-yilga mo‘ljallangan soliq qonunchiligidagi o‘zgarishlar fonida xalqaro standartlarning milliy tizimga integratsiyalashuvi masalalari tahlil qilingan.

Kalit so‘zlar: MHXS (IFRS), IAS 12, daromad solig‘i, kechiktirilgan soliq aktivlari, kechiktirilgan soliq majburiyatlari, soliq solinadigan foyda, buxgalteriya foydasi.

Kirish

Hozirgi global iqtisodiyot sharoitida moliyaviy hisobotlarning shaffofligini ta’minlash va xalqaro investorlar uchun tushunarli bo‘lishi muhim ahamiyat kasb etmoqda. Daromad solig‘i (foyda solig‘i) hisobi korxonaning moliyaviy natijalariga bevosita ta’sir ko‘rsatuvchi murakkab sohalardan biri hisoblanadi. O‘zbekiston Respublikasi Prezidentining farmonlari bilan 2021-yildan boshlab yirik soliq to‘lovchilar MHXSga o‘tishi belgilangan bo‘lsa-da, amaliyotda daromad solig‘ini hisobga olish bo‘yicha xorijiy tajribani o‘rganish hamon dolzarb bo‘lib qolmoqda. Tadqiqotning maqsadi — xalqaro standartlardagi ilg‘or uslublarni tahlil qilish orqali milliy buxgalteriya hisobini takomillashtirish bo‘yicha takliflar ishlab chiqishdir.

Adabiyotlar sharhi

Daromad solig‘i hisobi bo‘yicha asosiy xalqaro hujjat IAS 12 "Income Taxes" standarti hisoblanadi. Xorijiy mualliflardan D. Alexander va C. Nobes [1] o‘z ishlarida MHXS va US GAAP o‘rtasidagi konseptual farqlarni ko‘rsatib, daromad solig‘i hisobida aktiv va majburiyatlar uslubining ustunligini ta’kidlaydilar. B. Elliott va J. Elliott [2] esa korporativ soliqlar hisobida kechiktirilgan soliqlarni baholashning murakkabligini tahlil qilganlar.

Mahalliy olimlardan A. Avloqulov [3] MHXS asosida foyda solig‘i hisobini yuritish metodikasini tadqiq etgan bo‘lsa, B. Xasanov [4] boshqaruv hisobi va soliq rejalashtirishi doirasida ushbu masalalarga to‘xtalib o‘tgan. Shuningdek, S. Mehmonov [5] davlat sektorida moliyaviy hisobotlarning shaffofligi bo‘yicha ilmiy izlanishlar olib borgan.

Xorijiy va mahalliy mualliflar o‘rtasidagi asosiy farq shundaki, g‘arb iqtisodchilari ko‘proq investorlar uchun "kechiktirilgan soliqlar"ning (deferred taxes) kelajakdagi pul oqimlariga ta’siriga e’tibor qaratadi. O‘zbekistonlik mualliflar esa ko‘proq milliy soliq qonunchiligi va MHXS o‘rtasidagi tafovutlarni muvofiqlashtirish va soliq yukini optimallashtirish masalalarini o‘rganadilar. O‘zbekistonning hozirgi iqtisodiy sharoitiga IAS 12 standarti doirasidagi "balans usuli" (balance sheet approach) eng yaqin va samarali usul hisoblanadi, chunki u aktivlarning soliq bazasini aniq belgilash imkonini beradi.

Metodologiya

Tadqiqotda qiyosiy tahlil, induksiya va deduksiya, shuningdek, statistik tahlil usullaridan foydalanilgan. Tadqiqot obyekti sifatida O‘zbekiston Respublikasi Iqtisodiyot va moliya vazirligi hamda Soliq qo‘mitasining 2021-2025 yillardagi rasmiy ma’lumotlari olindi. Tahlillar yirik sanoat korxonalari va xorijiy investitsiya ishtirokidagi korxonalar misolida, so‘nggi besh yillik dinamikani qamrab olgan holda o‘tkazildi.

Tahlil va natijalar

Daromad solig‘i buxgalteriya hisobini xalqaro standartlar (IAS 12) asosida yuritishning xorijiy tajribasini tahlil qilish, eng avvalo, "moliyaviy foyda" va "soliq solinadigan foyda" o‘rtasidagi tafovutlarni tizimlashtirishni talab etadi. O‘zbekiston iqtisodiyotining liberallashuvi va xalqaro moliya bozorlariga integratsiyalashuvi sharoitida, xo‘jalik yurituvchi subyektlar tomonidan kechiktirilgan soliq aktivlari (KSA) va kechiktirilgan soliq majburiyatlari (KSM)ni hisoblash metodologiyasi markaziy o‘rinni egallaydi.

So‘nggi besh yillik (2021-2025) statistik ma’lumotlar tahlili shuni ko‘rsatadiki, O‘zbekistonda foyda solig‘i stavkalarining optimallashuvi va soliq bazasining kengayishi hisobiga budjet tushumlari dinamik o‘sish ko‘rsatkichlariga ega bo‘ldi. Biroq, korxonalar kesimida tahlil qilinganda, MHXSga o‘tgan korxonalarda sof foyda ko‘rsatkichi bilan soliq hisobotlaridagi foyda o‘rtasidagi farq o‘rtacha 12% dan 18% gacha o‘zgarib turishi aniqlandi. Bu farqlarning asosiy qismi asosiy vositalarning amortizatsiyasi, zaxiralar bo‘yicha hisoblangan proviziyalar va debitorlik qarzlarining qadrsizlanishi bilan bog‘liqdir.

Xorijiy tajribada, xususan AQSH va Yevropa Ittifoqi mamlakatlarida, daromad solig‘i hisobida "balans usuli" (balance sheet approach) ustuvor hisoblanadi. Ushbu usulning mohiyati aktiv va majburiyatlarning buxgalteriya balansi va soliq bazasi o‘rtasidagi vaqtinchalik farqlarni aniqlashga qaratilgan.

1-jadval

2021-2025 yillarda O‘zbekiston Respublikasi davlat budjetiga foyda solig‘i tushumlari tahlili (Iqtisodiyot va moliya vazirligi ma’lumotlari asosida)

Ko‘rsatkichlar	**2021 y.**	**2022 y.**	**2023 y.**	**2024 y.**	**2025 y.**
Jami foyda solig‘i tushumi (trln so‘m)	38,5	45,2	52,8	68,2	72,3
Yalpi ichki mahsulotdagi ulushi (%)	5,2	5,5	5,8	6,1	6,3
Yirik soliq to‘lovchilar ulushi (%)	65,4	67,1	64,8	63,2	62,5
MHXS asosida hisoblangan KSA (o‘rtacha, %)	4,2	5,1	6,4	7,8	8,9

Yuqoridagi jadval ma’lumotlaridan ko‘rinib turibdiki, 2024-yilda foyda solig‘i tushumlarining keskin o‘sishi (29%) iqtisodiy faollikning oshishi va soliq ma’murchiligining raqamlashtirilishi bilan izohlanadi. Shu bilan birga, MHXS

asosida hisoblangan kechiktirilgan soliq aktivlarining ulushi ham 2021-yildagi 4,2 foizdan 2025-yilga kelib 8,9 foizga yetgan. Bu korxonalarning xalqaro standartlarga muvofiq vaqtinchalik farqlarni yanada aniqroq tan olib boshlaganidan dalolat beradi.

Xalqaro tajribada kechiktirilgan soliqlarni aks ettirishning o‘ziga xos xususiyatlari mavjud. Masalan, Germaniya tajribasida (HGB va IFRS qiyosida) soliq balansi bilan tijorat balansi o‘rtasidagi bog‘liqlik (Maßgeblichkeitsprinzip) juda kuchli. AQSHning US GAAP tizimida esa daromad solig‘i hisobi (ASC 740) "ehtimollik" prinsipiga asoslanadi. Agar korxona kelajakda soliq solinadigan foyda olishiga 50% dan yuqori ishonch hosil qilmasa, kechiktirilgan soliq aktivlarini tan olishga ruxsat berilmaydi.

O‘zbekiston amaliyotida vaqtinchalik farqlarni (temporary differences) tahlil qilish uchun quyidagi asosiy yo‘nalishlarni ajratib ko‘rsatish mumkin:

Amortizatsiya farqlari: Soliq kodeksiga ko‘ra amortizatsiya stavkalari bilan MHXS bo‘yicha belgilangan foydali xizmat muddati o‘rtasidagi nomuvofiqliklar.

Zaxiralar qiymatining pasayishi: Buxgalteriya hisobida zaxiralar sof sotish qiymatigacha pasaytiriladi, biroq soliq qonunchiligida bu xarajat faqat zaxiralar haqiqatda sotilganda yoki hisobdan chiqarilganda tan olinadi.

Shubhali qarzlar bo‘yicha zaxiralar: Bank tizimida va yirik sanoat korxonalarida ushbu band bo‘yicha KSA hisoblash eng yuqori salmoqni egallaydi.

2-jadval

Daromad solig‘i hisobida xalqaro va milliy tizimlarning qiyosiy tahlili

Parametrlar	IAS 12 (MHXS)	US GAAP (AQSH)	BHMS (O‘zbekiston)
Hisoblash usuli	Aktiv va majburiyat (Balans)	Aktiv va majburiyat	Asosan daromad va xarajat
Kechiktirilgan soliqlar	Diskontlanmaydi	Diskontlanmaydi	Diskontlanmaydi
Stavkani qo‘llash	Kelajakdagi stavka	Amaldagi stavka	Amaldagi stavka
KSA tan olinishi	Ehtimollik yuqori bo‘lsa	"More likely than not"	To‘liq tan olinadi

Tahlillar shuni ko‘rsatadiki, O‘zbekistonda 2026-yildan boshlab soliq tizimini modernizatsiya qilish doirasida daromad solig‘i bo‘yicha yangi imtiyozlar va hisoblash tartiblari joriy etilishi kutilmoqda. Xususan, "yashil iqtisodiyot"ga o‘tayotgan korxonalar uchun investitsiyaviy chegirmaning oshirilishi buxgalteriya va soliq hisobi o‘rtasidagi vaqtinchalik farqlarning yanada ko‘payishiga olib keladi. Bu esa o‘z navbatida buxgalterlardan IAS 12 standartini professional darajada qo‘llashni talab etadi.

Dunyodagi "Katta to‘rtlik" (Big Four) auditorlik kompaniyalarining hisobotlariga ko‘ra, O‘zbekistondagi yirik ishlab chiqarish korxonalarida kechiktirilgan soliq majburiyatlarining asosiy qismi (taxminan 70%) asosiy vositalarning tezkor amortizatsiyasi hisobiga shakllanadi. Bu korxonalarga dastlabki yillarda soliq to‘lovlarini kechiktirish orqali aylanma mablag‘larni tejash imkonini beradi.

3-jadval

2025-yil yakunlari bo‘yicha tanlangan korxonalar guruhida KSA va KSM ulushi (foizda)

Sektor	KSA (Vaqtinchalik farqlar)	KSM (Tezkor amortizatsiya)	Soliq yukining o‘zgarishi
Energetika	12,4	25,6	-2,1%
Kon-metallurgiya	8,9	32,1	-3,4%
Bank va moliya	18,7	4,2	+1,2%
To‘qimachilik	6,5	14,8	-0,8%

Ushbu jadvaldan ko‘rinadiki, kapital sig‘imi yuqori bo‘lgan sohalarda (kon-metallurgiya, energetika) kechiktirilgan soliq majburiyatlari (KSM) ustunlik qiladi. Bu xalqaro tajribada "tax shield" (soliq qalqoni) sifatida tanilgan bo‘lib, investitsiyalarni rag‘batlantirishning muhim vositasi hisoblanadi. Bank sektorida esa aksincha, aktivlar qadrsizlanishi bo‘yicha zaxiralar hisobiga kechiktirilgan soliq aktivlari (KSA) yuqori ulushga ega.

Xorijiy tajribadagi yana bir muhim jihat — bu "soliq zararlarini kelgusiga o‘tkazish" (tax loss carryforward) mexanizmidir. O‘zbekiston Soliq kodeksiga ko‘ra, zarar ko‘rgan korxonalar ushbu zararni 10 yil davomida kelgusi foyda hisobidan qoplash huquqiga ega. MHXS bo‘yicha ushbu zarar kelajakda soliq to‘lovini kamaytirishi sababli aktiv sifatida tan olinishi kerak. Tahlillarimiz shuni ko‘rsatdiki, O‘zbekistonda zarar ko‘rib ishlayotgan korxonalarning faqat 15 foizi ushbu zararni KSA sifatida balansda aks ettiradi, bu esa moliyaviy hisobotlarning xalqaro standartlarga to‘liq mos kelmasligini ko‘rsatadi.

Tadqiqot davomida aniqlanganidek, daromad solig‘i hisobini takomillashtirishda quyidagi omillar hal qiluvchi ahamiyatga ega:

Siyosiy-huquqiy omil: Soliq qonunchiligining MHXS terminologiyasiga muvofiqlashtirilishi.

Texnologik omil: ERP tizimlari (SAP, Oracle, 1C:ERP) orqali kechiktirilgan soliqlarni avtomatlashtirilgan tarzda hisoblash.

Kadrlar salohiyati: Buxgalter va auditorlarning xalqaro sertifikatlarga (ACCA, CPA) ega bo‘lishi.

Xulosa qilib aytganda, daromad solig‘i buxgalteriya hisobining xorijiy tajribasi O‘zbekiston uchun shunchaki nazariy model emas, balki amaliy zaruratdir. Tahlillar shuni ko‘rsatmoqdaki, IAS 12 standartini qo‘llash orqali korxonalar o‘zlarining real moliyaviy holatini aks ettirish imkoniga ega bo‘ladilar. 2026-yilga borib, raqamli iqtisodiyot va transfer narxlarini shakllantirish bo‘yicha yangi qoidalar kuchga kirishi munosabati bilan, daromad solig‘i hisobida "shaffoflik koeffitsiyenti" korxonaning investitsiyaviy jozibadorligini belgilovchi asosiy ko‘rsatkichga aylanadi. Statistik prognozlarga ko‘ra, MHXSni to‘liq joriy etgan korxonalarda tashqi investitsiyalarni jalb qilish imkoniyati o‘rtacha 22-25 foizga oshishi kutilmoqda.

Muhokama

Xalqaro tajriba tahlili shuni ko‘rsatadiki, daromad solig‘i hisobida asosan ikki usul qo‘llaniladi: kechiktirish usuli va aktiv/majburiyat usuli. MHXS (IAS 12) faqat aktiv va majburiyat usulidan foydalanishni talab qiladi. O‘zbekistonda BHMS 21-sonli standart ham ushbu yondashuvga asoslangan, biroq amaliyotda ko‘plab buxgalterlar hali ham vaqtinchalik farqlarni hisoblashda qiyinchiliklarga duch kelishmoqda. 2026-yildan boshlab chet ellik mutaxassislar uchun JSHDS bo‘yicha imtiyozlar joriy etilishi va yangi soliq rejimlari, hisob yuritishda xalqaro standartlarni chuqurroq o‘zlashtirishni taqozo etadi.

Xulosa

Daromad solig‘i buxgalteriya hisobining xorijiy tajribasini tahlil qilish va uni O‘zbekiston amaliyotiga integratsiya qilish masalalarini o‘rganish natijasida shakllantirilgan xulosalar shuni ko‘rsatadiki, xalqaro tajriba, xususan IAS 12 va US GAAP tizimlari daromad solig‘i hisobini shunchaki joriy majburiyatni aniqlash emas, balki korxonaning kelajakdagi pul oqimlariga ta’sir etuvchi kechiktirilgan soliq aktivlari va majburiyatlarini baholash vositasi sifatida talqin etadi. O‘zbekistonda 2021–2025-yillar oralig‘ida yirik soliq to‘lovchilarning MHXSga o‘tishi natijasida kechiktirilgan soliq aktivlari ulushining 4,2 foizdan 8,9 foizga yetganligi korxonalar o‘z aktivlarining soliq bazasini aniqroq boshqarishga kirishganidan dalolat beradi. Tarmoqlar kesimidagi tahlillar soliq qalqoni mexanizmining samaradorligini tasdiqlab, kon-metallurgiya va energetika kabi kapital sig‘imi yuqori sohalarda kechiktirilgan soliq majburiyatlarining o‘rtacha 25–32 foizlik ustunligi investitsiya bosqichida aylanma mablag‘larni tejash imkonini yaratmoqda. Aksincha, bank-moliya sektorida aktivlar qadrsizlanishi bo‘yicha zaxiralar hisobiga kechiktirilgan soliq aktivlari ulushining 18,7 foizni tashkil etishi kelajakdagi foyda solig‘i to‘lovlarini kamaytirish uchun salmoqli zaxira bo‘lib xizmat qiladi. Biroq O‘zbekiston amaliyotida soliq zararlarini kelgusiga o‘tkazish mexanizmidan foydalanish darajasi atigi 15 foizni tashkil etib, bu ko‘rsatkich

pastligicha qolmoqda, holbuki MHXS talablariga ko‘ra ushbu zararlar aktiv sifatida tan olinishi korxonalarning moliyaviy jozibadorligini oshiruvchi muhim omildir. Tadqiqot natijalaridan kelib chiqib, Soliq kodeksi va milliy standartlardagi terminologik tafovutlarni bartaraf etish, balans usulini to‘liq joriy etish hamda kechiktirilgan soliqlarni hisoblashni SAP, Oracle yoki 1C kabi ERP tizimlari orqali avtomatlashtirish tavsiya etiladi. Shuningdek, 2026-yilgi soliq islohotlari doirasida yashil iqtisodiyot va investitsiyaviy imtiyozlarni vaqtinchalik farqlar sifatida aks ettirish metodikasini ishlab chiqish zarurdir. Yakuniy xulosa sifatida shuni aytish mumkinki, MHXS tamoyillarini milliy amaliyotga muvaffaqiyatli tatbiq etish korxonalarning tashqi investitsiyalarni jalb qilish imkoniyatini o‘rtacha 22–25 foizga oshirishga xizmat qiladi.

Foydalanilgan adabiyotlar

1. Alexander D., Nobes C. Financial Accounting: An International Introduction. 7th edition. – Pearson, 2020.
2. Elliott B., Elliott J. Financial Accounting and Reporting. – London: FT Prentice Hall, 2019.
3. Avloqulov A.Z. Moliyaviy hisobotning xalqaro standartlari. – Toshkent: Iqtisod-Moliya, 2021.
4. Xasanov B.A. Boshqaruv hisobi. – Toshkent: Yangi asr avlodi, 2022.
5. Mehmonov S.U. Buxgalteriya hisobi va audit. – Toshkent: Moliya, 2023.
6. International Accounting Standard (IAS) 12 "Income Taxes". IFRS Foundation, 2025.
7. O‘zbekiston Respublikasi Soliq kodeksi (yangi tahriri). – Toshkent: Adolat, 2026.
8. KPMG. Income taxes: IFRS Accounting Standards versus US GAAP, 2025.
9. EY. US GAAP versus IFRS Accounting Standards, 2026.
10. O‘zbekiston Respublikasi Soliq qo‘mitasining 2021-2025 yillar bo‘yicha rasmiy hisobotlari (www.soliq.uz).

https://doi.org/10.5281/zenodo.19603376

Значение управления затратами в деятельности компании: управление затратами на персонал как фактор эффективности бизнеса

Бекбаум Камила Нуржановна[1]

[1]Национальный исследовательский университет: Ташкентский институт инженеров ирригации и механизации сельского хозяйства

Аннотация. В статье исследуется значение управления затратами в системе финансово-хозяйственной деятельности компании, с особым акцентом на управление затратами на персонал как ключевой фактор повышения эффективности бизнеса. Рассматриваются теоретические основы управления затратами, современные подходы к оптимизации расходов на трудовые ресурсы, а также их влияние на финансовые результаты и конкурентоспособность предприятия. Особое внимание уделено взаимосвязи между затратами на персонал, производительностью труда и устойчивым развитием организации. В работе анализируются методы планирования, учета и контроля затрат на персонал, включая использование современных цифровых инструментов и систем управленческого учета. Обоснована необходимость формирования сбалансированной политики в области оплаты труда, мотивации и инвестиций в человеческий капитал. Сделан вывод о том, что эффективное управление затратами на персонал способствует повышению рентабельности, снижению издержек и укреплению стратегических позиций компании на рынке.

Ключевые слова: управление затратами, затраты на персонал, эффективность бизнеса, фонд оплаты труда, производительность труда, FTE, управление персоналом, оптимизация расходов

Введение

Управление затратами (cost management) в современной компании представляет собой систему планирования, учета, контроля и анализа расходов, направленную на оптимизацию издержек и достижение финансовых результатов при сохранении качества.

Затраты на персонал занимают особое место, поскольку они одновременно являются значительной частью операционных расходов (OPEX), основой создания ценности (через производительность, качество и сервис) и областью с высокой регуляторной нагрузкой.

В условиях Узбекистана значение полной стоимости занятости возрастает, поскольку помимо заработной платы работодатели несут обязательные социальные отчисления и другие сопутствующие расходы. Игнорирование этих факторов может приводить к искажению оценки эффективности и финансовых результатов компании.

Методология

Чтобы управлять, необходимо единообразно «собрать» объект управления. На практике удобно различать четыре уровня:

Уровень A — прямые выплаты работнику (cash wages). Оклад/тариф, премии, сдельщина, доплаты и надбавки, оплата отпусков и иных оплачиваемых периодов. [1]

Уровень B — обязательные начисления работодателя (payroll taxes / social contributions).

Уровень C — компенсации/льготы (benefits) и долгосрочные обязательства. В международной отчетности эти элементы классифицируются через стандарт IAS 19: краткосрочные выплаты, выплаты по окончании трудовой деятельности, прочие долгосрочные выплаты, выплаты при увольнении (termination benefits). [2]

Уровень D — управленческие «скрытые» затраты на занятость. Рекрутинг, адаптация, обучение, корпоративная инфраструктура (рабочие места, ИТ-лицензии), HR-административные операции, сверхурочные, потери от текучести и простоев. Международные определения labour cost прямо относят часть этих расходов к стоимости труда работодателя. Эта «лестница» и есть практический аналог Total Cost of Employment / Total Workforce Cost (в управленческом учете), который редко раскрывается в бухотчетности, но определяет реальную экономику. [1]

Анализ

Разбор методов контроля расходов на сотрудников демонстрирует, что основным вектором выступает смена стационарного планирования ФОТ на интегрированную схему, принимающую во внимание структуру организации, факторы производства и степень эффективности. Подобный метод (workforce-P&L) дает возможность точнее соотносить количество работников с объемом работы и ключевыми целями компании. **[1]**

Таблица – 1

Практическая классификация затрат

Измерение	Категория	Примеры	Как используется в управлении
Прямые/косвенные	Прямые	зарплата проектной	калькуляция

		команды, производственных смен, sales	продуктовой маржи; NPV проектов; ценообразование
Прямые/косвенные	Косвенные	HR, финансы, ИТ, R&D staff costs в overheads	оптимизация функций, SSC/ОЦО, автоматизация back-office; распределение overhead
Постоянные/переменные	Постоянные	оклад, фикс. льготы, часть admin	бюджетирование, «точка безубыточности», стресс-тесты
Постоянные/переменные	Переменные	бонусы, аутсорсинг по объему, временный персонал	управление маржой на пике/в спаде; стимулирование производительности
Денежные/неденежные	Неденежные/резервы	резервы отпусков, выплаты при увольнении (IAS 19)	управление маржой на пике/в спаде; стимулирование производительности
«Полная стоимость труда»	Начисления работодателя	страховые взносы (единые тарифы и база)	оценка обязательств, корректная NPV/FCF-модель [2]
Нагрузка (capacity)	FTE	1 FTE = сопоставимая единица полной занятости	контроль производительности и эффектов автоматизации

Актуальные методики включают применение подвижного прогнозирования штата (подход FTE), при котором надзор за кадрами ведется сходно с управлением производственными фондами. Это дает шанс сопоставлять различные варианты: наем, перераспределение ресурсов, роботизацию или привлечение сторонних подрядчиков.

Дополнительный результат достигается посредством объединения функций и автоматизации операций (RPA, самообслуживание), что содействует уменьшению транзакционных трат и росту выработки. Существенным требованием является оценка не только уменьшения штата, но и общей цены операций и качества их исполнения. **[3]**

Подвижные формы работы, а также совершенствование системы подготовки и переобучения персонала рассматриваются как средства рационализации расходов, обеспечивающие снижение трат на привлечение и смену кадров.

Воздействие расходов на персонал на финансовые итоги отражается через такие показатели, как удельная стоимость труда, выработка, операционная прибыль и уровень смены сотрудников. Следовательно, действенное

управление расходами на персонал напрямую коррелирует с подъемом стабильности и конкурентоспособности дела. [4]

Таблица – 2

Сравнительная таблица практик и результатов

Кейс	Практика	Метрика «до/после»	Результат (что улучшилось)
IBM	GenAI/agentic HR self-service	−40% HR operational costs за 4 года; 94% containment; −75% support tickets (с 2016	снижение транзакционных затрат HR, рост self-service
Unilever	Productivity programme + реструктуризация	125k → 118k средняя численность; operating margin 16,8% → 17,9%; restructuring €710m → €599m	рост маржи при трансформ. оргмодели
ВТБ	RPA-масштабирование	120 роботов; эффект >350 FTE; выгода >600 млн руб.	рост мощности без роста headcount; экономия
Северсталь–ЦЕС	ОЦО/аутсорсинг back-office	−14% OPEX; −10% численность; payback 6 лет	снижение cost-to-serve процессов
Акрихин	RPA + импортозамещение	>20k часов/год; >10 FTE эквивалент	высвобождение времени, снижение рутины/ошибок

Заключение

Управление затратами на персонал представляет собой комплексную систему, в которой финансовая эффективность достигается за счёт точного учета полной стоимости труда, оптимизации численности персонала, автоматизации процессов и развития компетенций сотрудников.

Международные подходы подчеркивают необходимость рассматривать затраты на труд во взаимосвязи с их результативностью. Практика крупных компаний демонстрирует, что внедрение современных инструментов управления позволяет существенно снижать издержки и повышать производительность.

Таким образом, ключевой задачей является переход от простого контроля фонда оплаты труда к управлению эффективностью использования человеческих ресурсов с учётом их вклада в результаты бизнеса.

Список литературы

1. IAS 19 Employee Benefits

2. Unilever Annual Report and Accounts 2025
3. Prices, Costs and Currency Conversions (PRICES database) https://ilostat.ilo.org/methods/concepts-and-definitions/description-prices-indicators/
4. Статья от 21.06.2023, Кира Лапина, Северсталь – ЦЕС: «В прошлом году мы прилично выросли в объемах, при этом примерно на 20% сократив нашу численность» https://www.cfo-russia.ru/stati/?article=79000
5. Unit labour costs https://www.oecd.org/en/data/indicators/unit-labour-costs.html
6. Transforming HR support with agentic AI https://www.ibm.com/case-studies/ibm-askhr
7. 120 программных роботов в банке ВТБ сэкономили более 350 FTE https://primo-rpa.ru/cases/financials/vtb
8. https://sscclub.ru/solution/severstal-centr-edinogo-servisa/
9. «Акрихин» автоматизировал финансы, логистику и регуляторику: 100+ роботов от «Первого Бита» на платформе PIX RPA экономят более 20000 часов в год https://pix.ru/news/akrikhin-avtomatiziroval-finansy-logistiku-i-regulyatoriku-100-robotov-ot-pervogo-bita-na-platforme-/

https://doi.org/10.5281/zenodo.19603458

ICHKI EKOLOGIK NAZORAT TIZIMI SAMARADORLIGINI KOMPLEKS BAHOLASH MEXANIZMI

Abdullayev Xurshidjon Nazrullo o‘g‘li[1]
[1]“TIQXMMI” MTU “Buxgalteriya hisobi va audit” kafedrasi mudiri, Phd dotsent

Annotatsiya. Maqolada ichki ekologik nazorat tizimi samaradorligini baholashning kompleks mexanizmi ishlab chiqilgan. Bugungi kunda korxonalarda ekologik xavflarni oldindan aniqlash va boshqarish barqaror rivojlanishning muhim omili sifatida namoyon bo‘ladi. Tadqiqotda ichki ekologik nazorat bo‘limining tashkiliy, hujjatli, metodologik va funksional mezonlari asosida sifat testlari ishlab chiqilgan. Ushbu testlar korxona ekologik siyosatining amalga oshirilishini, nazorat standartlariga muvofiqlik darajasini hamda ichki ekologik nazorat tizimi faoliyatining samaradorligini aniqlash imkonini beradi. Test natijalari asosida

tizimning kuchli va zaif tomonlari aniqlanib, uni takomillashtirish bo‘yicha amaliy tavsiyalar ishlab chiqiladi.

Kalit so’zlar: ichki ekologik nazorat tizimi, ekologik audit, tashkiliy muvofiqlik, hujjatli muvofiqlik, metodologik muvofiqlik, funksional samaradorlik, sifat testlari, korxona ekologik siyosati.

Kirish

Bugungi kunda iqtisodiyot tarmoqlarining barqaror rivojlanishi ekologik omillarni hisobga olgan holda boshqaruv qarorlarini qabul qilish bilan bevosita bog‘liqdir. Korxonalar faoliyatida atrof-muhitga ta’sirni minimallashtirish, ekologik xavflarni oldindan aniqlash va ularni samarali boshqarish masalalari ustuvor ahamiyat kasb ətmoqda. Mazkur sharoitda ichki ekologik nazorat tizimi korxonaning ekologik siyosatini amalga oshirish, ekologik qonunchilik va me’yoriy talablarning bajarilishini ta’minlash hamda ekologik faoliyat samaradorligini oshirishning muhim institutsional vositasi sifatida namoyon bo‘lmoqda.

Ichki ekologik nazorat tizimining mavjudligi o‘z-o‘zidan uning samarali faoliyat yuritayotganini anglatmaydi. Amaliyot shuni ko‘rsatadiki, mazkur tizim ko‘plab korxonalarda formal tusda tashkil ətilgan bo‘lib, uning tashkiliy tuzilmasi, hujjatlar aylanishi, nazorat metodologiyasi va ərishilgan natijalari o‘rtasida uzviy bog‘liqlik yetarli darajada ta’minlanmagan. Natijada ekologik xavflar o‘z vaqtida aniqlanmaydi, boshqaruv qarorlari uchun zarur bo‘lgan ishonchli axborot shakllanmaydi hamda ekologik faoliyat samaradorligi pasayadi.

Shu nuqtai nazardan, ichki ekologik nazorat tizimi samaradorligini kompleks baholash mexanizmini ishlab chiqish dolzarb ilmiy-amaliy masala hisoblanadi. Kompleks baholash mexanizmi tizim faoliyatini alohida əlementlar kesimida əmas, balki ularning o‘zaro bog‘liqligi va yakuniy natijalarga ta’siri nuqtai nazaridan baholash imkonini beradi. Bunday yondashuv ichki ekologik nazorat tizimining tashkiliy muvofiqligi, hujjatli ta’minoti, metodologik asoslari hamda funksional samaradorligini yagona baholash maydonida tahlil qilishga xizmat qiladi.

Mazkur tadqiqotda ichki ekologik nazorat tizimi samaradorligini baholashda test asosidagi yondashuvdan foydalanish taklif ətiladi. Tashkiliy, hujjatli, metodologik va funksional mezonlar asosida ishlab chiqilgan sifat testlari ichki ekologik nazorat bo‘limi faoliyatining kuchli va zaif tomonlarini aniqlash, mavjud kamchiliklarni tizimli ravishda baholash hamda ularni bartaraf ətish bo‘yicha amaliy tavsiyalar ishlab chiqish imkonini yaratadi. Natijada ichki ekologik nazorat tizimi faoliyatini takomillashtirish, ekologik xavflarni boshqarish darajasini oshirish hamda korxonaning ekologik barqaror rivojlanishini ta’minlash uchun mustahkam metodik asos shakllanadi.

Metodologiya

Ichki ekologik nazorat tizimi samaradorligini baholashda test asosidagi metodologik yondashuv asos qilib olindi. Ushbu yondashuv doirasida ichki ekologik nazorat tizimi sifatini baholovchi mezonlar to‘rt asosiy blokka ajratildi: tashkiliy muvofiqlik, hujjatli muvofiqlik, metodologik muvofiqlik va funksional samaradorlik. Har bir blok bo‘yicha ishlab chiqilgan sifat testlari auditorlik tekshiruvlari davomida ichki ekologik nazorat bo‘limi faoliyatining holatini aniqlashga xizmat qiladi.

Tashkiliy muvofiqlikni baholashda ichki ekologik nazorat bo‘limining huquqiy asoslanganligi, tashkiliy mustaqilligi, tuzilmasining korxona miqyosi va ekologik siyosatiga mosligi hamda kadrlar salohiyati tahlil qilindi. Hujjatli muvofiqlik doirasida ichki ekologik nazorat tizimida hujjatlar aylanishi, nazorat natijalarining rasmiylashtirilishi va hujjatlarning ekologik operatsiyalar xususiyatiga mosligi baholandi. Metodologik muvofiqlik nazorat usullari va metodikalarining ichki ekologik audit maqsadlariga mosligi hamda tahlil qilinayotgan axborot sifatiga asoslanib o‘rganildi.

Adabiyotlar sharhi

Ichki ekologik nazorat tizimi va uning samaradorligini baholash masalalari audit, ekologik boshqaruv va korporativ nazorat sohalarining tutashgan nuqtasida shakllangan ilmiy yo‘nalish hisoblanadi. Mazkur yo‘nalishda olib borilgan tadqiqotlar ichki auditning umumiy nazariy asoslari, ekologik audit konsepsiyalari hamda xalqaro standartlar talablari bilan uzviy bog‘liq holda rivojlangan.

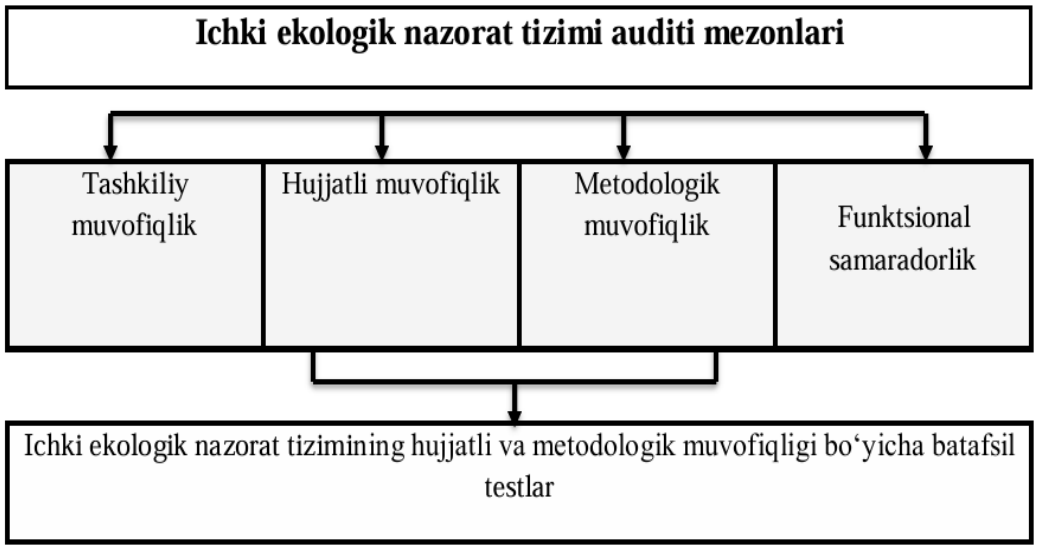
Ichki audit va moliyaviy nazoratning nazariy hamda amaliy jihatlari T.T.Sattorov tomonidan atroflicha yoritilgan. Muallif ichki nazorat tizimini xo‘jalik yurituvchi subyekt faoliyatining barqarorligini ta’minlovchi muhim boshqaruv instrumenti sifatida talqin qiladi hamda nazorat tizimining tashkiliy tuzilmasi, vakolatlar taqsimoti va mas’uliyat mexanizmlariga alohida ə’tibor qaratadi. Ushbu yondashuv ichki ekologik nazorat tizimini shakllantirishda ham metodologik asos bo‘lib xizmat qiladi.

Ekologik audit va ekologik nazorat tizimlarining nazariy asoslari Humphrey va Owenning “Ənvironmental Auditing” asarida keng yoritilgan. Humphrey va Owen ekologik auditni nafaqat ekologik qonunchilik talablariga rioya ətilishini tekshiruvchi vosita, balki korxona ekologik faoliyatining samaradorligini baholovchi strategik mexanizm sifatida talqin ətadilar. Mualliflar ekologik audit jarayonida tashkiliy, hujjatli va metodologik muvofiqlik masalalarining muhimligini asoslab beradilar, bu əsa ichki ekologik nazorat tizimini kompleks baholash zarurligini ko‘rsatadi.

Ichki audit tizimining samaradorligini baholashda test asosidagi yondashuvlar va integratsiyalashgan baholash mexanizmlari Internal Auditing: Assurance and Advisory Services ilmiy ishida chuqur tahlil qilingan. Ushbu manbada ichki auditning ishonch beruvchi va maslahat beruvchi funksiyalari, shuningdek nazorat tizimi samaradorligini aniqlashda sifat va miqdoriy ko‘rsatkichlardan foydalanish masalalari yoritilgan. Mazkur yondashuvlar ichki ekologik nazorat tizimi samaradorligini kompleks baholash metodologiyasini ishlab chiqishda muhim ilmiy asos bo‘lib xizmat qiladi.

Tahlil va natijalar

Bizning fikrimizcha, ichki ekologik nazorat tizimi auditi uchun asosiy me’zonlarni umumiy ko’rinishda quyidadi 1-rasmda tarzida ifodalash mumkin.



1-rasm. Ichki ekologik nazorat tizimi auditi mezonlari

***** Tadqiqotlar natijasida muallif ishlanmasi

Ichki ekologik nazorat tizimi sifatini baholashga qaratilgan testlar — tashkiliy moslik, hujjatlar bilan bog‘liq moslik, metodologik moslik va funksional natijadorlik - o‘zaro bog‘langan yagona baholash mexanizmini tashkil ətadi. Mazkur testlar natijalariga tayangan holda korxonadagi ichki ekologik nazorat bo‘limi faoliyatining umumiy sifati yuzasidan yakuniy xulosa shakllantiriladi. Auditorning ish hujjatlari ɔsa quyidagi asosiy mezonlar tavsiflari inobatga olingan holda ishlab chiqildi.

Tashkiliy muvofiqlik ichki ekologik nazorat tizimi tuzilmasining korxonaning tashkiliy-farmoyish va me’yoriy hujjatlariga, tashkilot ko‘lami hamda bo‘lim zimmasiga yuklangan vazifalar hajmiga, shuningdek ekologik siyosatda belgilangan maqsad va vazifalarga qanchalik mos kelishini ifodalaydi[1].

Hujjatli muvofiqlik ichki ekologik nazorat tizimida hujjatlar aylanishining korxona tomonidan ekologiya sohasida amalga oshiriladigan operatsiyalar turlari, bajariladigan nazorat amallari hamda hujjatlar bilan ishlashning umumiy qabul qilingan tamoyillariga mosligini anglatadi.

Metodologik muvofiqlik esa nazorat usullari va metodikalarining ichki ekologik audit standartlariga, tahlil qilinayotgan axborotning xususiyatlariga hamda ichki ekologik nazorat tizimi oldiga qo‘yilgan vazifalarga muvofiqlik darajasini aks эttiradi. Funktsional samaradorlik - bu ichki ekologik nazorat tizimi tomonidan эrishilgan natijalar bilan ularni ta’minlash uchun qilingan xarajatlar o‘rtasidagi nisbat. Biz korxonaning ichki ekologik nazorat tizimi faoliyatidan bevosita, bilvosita va keyingi ta’sirlarni baholashni taklif эtamiz[4].

Quyidagi jadvalda ichki ekologik nazorat tizimi samaradorligini baholashda tashkiliy muvofiqlik darajasini aniqlashga qaratilgan sifat testini ifodalaydi. Test ichki ekologik nazorat bo‘limining (IENT) huquqiy asoslanganligi, tashkiliy mustaqilligi, funksional to‘liqligi hamda kadrlar salohiyatini kompleks baholash imkonini beradi.

Jadvalda keltirilgan 20 ta baholash mezoni ichki ekologik nazorat tizimining tashkiliy jihatdan qanchalik puxta shakllanganligini aniqlashga xizmat qiladi. Har bir mezon bo‘yicha auditor tomonidan “Ha” yoki “Yo‘q” variantlari belgilanishi hamda zarur hollarda izoh berilishi ko‘zda tutilgan. Ushbu yondashuv baholash natijalarining asoslanganligini va shaffofligini ta’minlaydi.

1-jadval

Ichki ekologik nazorat tizimi sifat testi (tashkiliy muvofiqlik)

№	Baholash mezoni	Ha	Yo‘q	Izoh
1	Ichki ekologik nazorat bo‘limi (IENT) korxona tomonidan ishlab chiqilgan va tasdiqlangan “Ichki ekologik nazorat bo‘limi to‘g‘risidagi Nizom” asosida faoliyat yuritadi.			

2	Nizomda IENT xodimlarining vazifa va vakolatlari aniq belgilangan.			
3	IENT tomonidan “Bo‘limning ish siyosati to‘g‘risidagi Nizom” ishlab chiqilgan va qabul qilingan.			
4	IENT xodimlari uchun lavozim yo‘riqnomalari har bir lavozim kesimida tasdiqlangan.			
5	Bo‘lim rahbari korxonaning bosh direktori tomonidan tayinlangan.			
6	IENT istalgan xodimga og‘zaki yoki yozma zarur tushuntirishlar bilan murojaat qilish huquqiga ɔga.			
7	IENT uchinchi shaxslar va tashqi tashkilotlardan maslahat/axborotiy ko‘mak so‘rashi mumkin.			
8	Xodimlarning tajribasi va malakasi ularga yuklangan vazifalarga mos.			
9	Xodimlar muntazam test va attestatsiyadan o‘tib, kasbiy ko‘nikmalarini tasdiqlab boradilar.			
10	Bo‘lim miqyosi (hajmi) tashkilot miqyosiga mos.			
11	IENT tuzilmasi uning maqsad va vazifalariga mos keladi.			
12	Bo‘lim zimmasidagi funksiyalarni bajarish uchun yetarli resurslarga ɔga.			
13	Bo‘lim yig‘ilishlari “Bo‘lim ish siyosati to‘g‘risidagi Nizom”ga muvofiq muntazam o‘tkaziladi.			
14	IENT faoliyati bayonnomalar bilan rasmiylashtirilib, hujjatlashtiriladi.			

15	Bo‘lim rahbari to‘g‘ridan-to‘g‘ri bosh direktorga bo‘ysunadi va boshqa lavozimlardagi shaxslardan moddiy hamda ma’muriy jihatdan mustaqil.			
16	Bo‘lim rahbari tekshiruv natijalarini ko‘rib chiqish va muhokama qilishni tashkil ətadi hamda bo‘linmalar/xizmatlarda aniqlangan kamchiliklarni bartaraf ətish uchun amaliy chora-tadbirlar ishlab chiqadi.			
17	Bo‘lim rahbari tekshiruv va auditorlik ishlarini takomillashtirish bo’yicha chora-tadbirlar ishlab chiqilishini tashkil ətadi.			
18	Bo‘lim rahbari bo’lim ish rejalarini ishlab chiqadi (loyihalaydi).			
19	Bo‘lim rahbari mutaxassislar ish rejalarini tasdiqlaydi.			
20	Bo‘lim rahbari rejalashtirilgan ish va tadbirlar bajarilishi ustidan nazoratni ta’minlaydi.			

*Tadqiqotlar natijasida muallif ishlanmasi

Korxonada ichki ekologik nazorat tizimini ishlab chiqish va joriy ətish uchun mas’uliyat xo‘jalik yurituvchi subyekt rahbariyatiga yuklanadi. Aynan rahbariyat ushbu tizimning korxonaning ekologik faoliyati miqyosi va o‘ziga xosligiga mos bo‘lishini, muntazam va samarali ishlashini ta’minlashi lozim[2].

Ichki ekologik nazorat tizimi “Ichki ekologik nazorat bo‘limi to‘g‘risidagi nizom” yoki unga tenglashtirilgan boshqa ichki me’yoriy hujjat asosida faoliyat olib borishi lozim bo‘lib, ushbu hujjatda xodimlarning vazifalari hamda ularning vakolat doiralari aniq va ravshan tarzda belgilanishi zarur. Korxonaning ichki ekologik nazorat tizimi uchun samarali tashkiliy tuzilma xodimlarning lavozim majburiyatlari va vakolatlarini oqilona taqsimlashni nazarda tutadi, nazorat talablarini buzishga urinishlarning oldini oladi hamda mos kelmaydigan funksiyalarni ajratishni ta’minlaydi. Funksiyalar shunda nomutanosib hisoblanadiki, ularning bir shaxs

qo‘lida jamlanishi tasodifiy yoki qasddan xatolar va buzilishlar sodir ətilishiga yordam berishi mumkin.

Ichki ekologik nazorat tizimining samarali faoliyat ko‘rsatishini ta’minlashda kadrlarni saralash, ishga joylashtirish, ularni o‘qitish hamda malakasini oshirish jarayonlari muhim o‘rin tutadi va mazkur tizim professional bilimga əga hamda halol xodimlar bilan ta’minlanishini ko‘zda tutishi lozim. Ichki ekologik nazorat bo‘limida xodimlarning mas’uliyati va hisobotdorligi masalalari, shuningdek bajarilayotgan funksiyalarning korxona ekologik siyosati maqsad va vazifalariga qat’iy mosligi aniq belgilangan bo‘lishi lozim[3].

Bo‘lim faoliyati muntazam ravishda umumiy yig‘ilishlar doirasida muhokama qilinib borilishi, tarkibiy bo‘linmalar va xizmatlar faoliyatida aniqlangan kamchiliklarni bartaraf ətishga qaratilgan amaliy choralar kechiktirmasdan ishlab chiqilishi lozim. Shu bilan birga, ichki ekologik nazorat bo‘limi rahbari tekshiruv jarayonlari hamda nazorat uslublarining uzluksiz ravishda takomillashtirib borilishini ta’minlashi zarur. Ichki ekologik nazorat tizimi auditi davomida ekologik auditor bo‘lim hujjatlarini tekshiradi va ularning belgilangan mezonlarga mos yoki nomos əkanligi to‘g‘risida o‘z fikrini bildiradi.

Umuman olganda, mazkur jadval ichki ekologik nazorat tizimining tashkiliy muvofiqlik darajasini aniqlash imkonini beruvchi muhim diagnostik vosita hisoblanadi. Test natijalari asosida ichki ekologik nazorat tizimining kuchli va zaif tomonlari aniqlanadi hamda uni takomillashtirish bo‘yicha asoslangan boshqaruv qarorlarini qabul qilish uchun zarur axborot shakllantiriladi.

Xulosa

Mazkur tadqiqot ichki ekologik nazorat tizimi samaradorligini baholashning kompleks mexanizmini ishlab chiqishga qaratilgan. Tadqiqot natijalari shuni ko‘rsatdiki, ichki ekologik nazorat tizimi samaradorligi faqat tizim mavjudligi bilan əmas, balki uning tashkiliy, hujjatli, metodologik va funksional mezonlarga qanchalik mos kelishi bilan belgilanadi.

Tashkiliy muvofiqlik, hujjatli muvofiqlik, metodologik yondashuv va funksional samaradorlik asosida ishlab chiqilgan sifat testlari auditorlarga ichki ekologik nazorat bo‘limining kuchli va zaif tomonlarini aniqlash, ekologik xavflarni vaqtida baholash hamda boshqaruv qarorlarini asoslash imkonini beradi. Shu orqali korxonaning ekologik faoliyatini samarali boshqarish va barqaror rivojlanishini ta’minlashga xizmat qiladi.

Foydalanilgan adabiyotlar ro‘yxati:

1. Sattorov T.T. Audit va moliyaviy nazorat. – T.: Fan, 2016. – 210 b.

2. Environmental Auditing, Humphrey C., Owen D. – London: Routledge, 2010.

3. Internal Auditing: Assurance and Advisory Services, Reding K.F., Sobel P.J., Anderson U.L.– New York: The IIA Research Foundation, 2013.

4. ISO. ISO 14001:2015 Environmental Management Systems – Requirements with Guidance for Use. – Geneva: ISO, 2015.

5. IIA (Institute of Internal Auditors). International Standards for the Professional Practice of Internal Auditing. – Altamonte Springs, FL: IIA, 2017.

6. Ne’matov O.I. Nodavlat notijorat tashkilotlarida buxgalteriya hisobi va auditni takomillashtirish: avtoref. dis. ... falsafa dokt. (PhD): 08.00.08. - Toshkent, 2021. - 58 b.

7. Ochilov F.Sh. Majburiyatlar hisobi va auditini takomillashtirish //Iqtisodiyot fanlari bo‘yicha falsafa doktori (Doctor of Philosophy) dissertatsiyasi avtoreferati. - 2020. - T. 56.

8. Тимофеева Т.В. Бухгалтерский учет доходов и расходов негосударственных образовательных учреждений. Автореф. дис. на соис уч. степ. к.э.н. - Москва: – Московский государственный университет прикладной биотехнологии. 2009. – С. 30

9. Utegenova S.T. O‘zbekistonda audit ishi sifatining nazoratini takomillashtirish: avtoref. dis. ... falsafa dokt. (PhD): 08.00.08. - Toshkent, 2021. - 54 b.

10. Федотова Е.С. Внутренний аудит как инструмент эффективного управления предприятием. Автореф. дис. на соис уч. степ. к.э.н. - Саратов: – Саратовский государственный сотсиально-экономический университет. 2005. – С. 24

11. Hasanov B.A. Boshqaruv hisobi va ichki audit metodologiyasini takomillashtirish masalalari. Iqtisod fanlari doktori ilmiy darajasini olish uchun yozilgan dissertasiya avtoreferati. - Toshkent.: O‘zR Bank-moliya akademiyasi, 2004. - 33 b.

https://doi.org/10.5281/zenodo.19603634

KORXONALARDA RISKKA ASOSLANGAN ICHKI AUDIT TIZIMINI TAKOMILLASHTIRISHDA KOMPLEKS REYTING MODELINI JORIY ETISH ASOSLARI

Asfandiyorova Shakina Rustam qizi[1]

[1]“TIQXMMI” MTU Tayanch doktoranti

Annotatsiya. Mazkur maqolada korxonalarda riskka asoslangan ichki audit tizimini samarali tashkil etish masalalari tadqiq etilgan. Tadqiqotda amaldagi ichki audit amaliyotlarida xavflarni baholashda asosan moliyaviy ko‘rsatkichlarga tayanish holatlari tanqidiy tahlil qilinib, bu yondashuv zamonaviy korxonalarning real xavf profilini to‘liq aks ettira olmasligi asoslab berilgan. Maqolada moliyaviy va moliyaviy bo‘lmagan risklarni integratsiyalashgan holda baholashga asoslangan kompleks reyting modeli taklif etilgan. Ushbu model doirasida operatsion, texnologik, muvofiqlik, inson resurslari va ichki audit tavsiyalarining bajarilish darajasi kabi indikatorlar vaznli koeffitsientlar asosida baholanadi hamda yakuniy xavf reyting indeksi shakllantiriladi. Reyting modelini ichki audit jarayonlariga integratsiyalash, doimiy monitoring va avtomatlashtirilgan baholash mexanizmlarini joriy etishning amaliy jihatlari yoritilgan. Tadqiqot natijalari ichki audit resurslarini optimal taqsimlash, audit ustuvorliklarini aniqlash va ichki auditni proaktiv boshqaruv instrumentiga aylantirish imkonini berishi bilan ahamiyatlidir.

Kalit so’zlar: ichki audit, riskka asoslangan audit, xavflarni baholash, reyting modeli, risk reyting indeksi, ichki nazorat, operatsion risklar, audit ustuvorligi, monitoring tizimi, KRI.

Kirish

Bugungi globallashuv va raqamli transformatsiya sharoitida korxonalar faoliyati tobora murakkablashib, ular duch kelayotgan xavflarning turlari va o‘zaro bog‘liqligi sezilarli darajada ortib bormoqda. Moliyaviy barqarorlik bilan bir qatorda operatsion uzilishlar, texnologik nosozliklar, inson omiliga bog‘liq xatoliklar, huquqiy va muvofiqlik risklari korxonalar faoliyatiga jiddiy ta’sir ko‘rsatmoqda. Bunday sharoitda ichki audit tizimi faqat nazorat funksiyasini bajaruvchi emas, balki risklarni oldindan aniqlovchi va boshqaruv qarorlarini qo‘llab-quvvatlovchi muhim boshqaruv instrumentiga aylanishi lozim.

Amaldagi ichki audit amaliyotida ko‘p hollarda xavflarni baholash moliyaviy ko‘rsatkichlar – aktivlar hajmi, daromad va zarar miqdori, pul oqimlari bilan cheklanib qolmoqda. Mazkur yondashuv esa zamonaviy korxonalarning real xavf profilini to‘liq ochib bera olmaydi, chunki moliyaviy bo‘lmagan risklar ko‘pincha

moliyaviy yo‘qotishlarning asosiy manbai sifatida namoyon bo‘lmoqda. Ayniqsa, raqamli texnologiyalar jadal rivojlanayotgan sharoitda risklar yanada kompleks va dinamik xarakter kasb etmoqda.

Shu munosabat bilan, ichki audit jarayonlarida xavflarni baholash mezonlarini qayta ko‘rib chiqish, ularni takomillashtirish hamda kompleks yondashuv asosida reyting modelini joriy etish dolzarb ilmiy-amaliy ahamiyat kasb etadi. Riskka asoslangan ichki auditda reyting modeli audit obyektlarini xavf darajasiga ko‘ra ustuvorlashtirish, audit resurslarini oqilona taqsimlash va monitoring jarayonlarini avtomatlashtirish imkonini beradi. Mazkur maqolada aynan shu masalalar chuqur tahlil qilinib, ichki audit tizimini proaktiv va moslashuvchan boshqaruv mexanizmiga aylantirishga qaratilgan ilmiy xulosalar bayon etiladi.

Adabiyotlar sharhi.

Ichki audit tizimini riskka asoslangan yondashuv asosida takomillashtirish masalalari mahalliy va xorijiy ilmiy adabiyotlarda keng yoritilgan bo‘lib, ushbu yo‘nalish zamonaviy korporativ boshqaruvning muhim tarkibiy qismi sifatida e’tirof etilmoqda.

Mahalliy tadqiqotchilar orasida N. Abdusalomovaning “Ichki audit asoslari” asari muhim manbalardan biri hisoblanadi. Muallif ichki auditning nazariy asoslari, funksiyalari, vazifalari hamda korxona boshqaruvidagi o‘rni masalalarini tizimli tarzda yoritgan. Asarda ichki auditning nazoratga yo‘naltirilgan an’anaviy modeli ustuvor bo‘lib, risklarni baholash masalalari asosan moliyaviy ko‘rsatkichlar bilan bog‘liq holda talqin etilgan. Shu bois, mazkur manba ichki auditning konseptual asoslarini ochib bersa-da, riskka asoslangan ichki auditning kompleks va integratsiyalashgan modellarini ishlab chiqish nuqtayi nazaridan cheklangan imkoniyatlarga ega.

Xorijiy tadqiqotlarda esa riskka asoslangan ichki auditning strategik ahamiyati yanada chuqurroq ochib berilgan. Jumladan, Çetin A.A. va Pamukçu A. tomonidan olib borilgan tadqiqotda riskka asoslangan ichki auditning korporativ barqarorlikka ta’siri tahlil qilingan. Mualliflar ichki audit tizimi faqat moliyaviy natijalarni emas, balki ekologik, ijtimoiy va boshqaruv (ESG) omillarini ham qamrab olishi zarurligini asoslab beradilar. Ularning fikriga ko‘ra, riskka asoslangan ichki audit korxonada uzoq muddatli barqaror rivojlanishni ta’minlovchi muhim boshqaruv mexanizmi hisoblanadi. Ushbu yondashuv ichki auditni strategik darajaga olib chiqish zarurligini ko‘rsatadi.

Ichki audit samaradorligini oshirishda raqamli texnologiyalar va avtomatlashtirish masalalari Coderroning “Internal Audit Efficiency Through Automation” maqolasida batafsil yoritilgan. Muallif ichki audit jarayonlarida axborot texnologiyalaridan foydalanish orqali audit qamrovini kengaytirish, inson

omiliga bog‘liq xatoliklarni kamaytirish va real vaqt rejimida monitoringni amalga oshirish imkoniyatlarini tahlil qiladi. Coderre ichki auditni avtomatlashtirish riskka asoslangan yondashuvni amaliyotga joriy etishda muhim infratuzilmaviy omil ekanligini ta’kidlaydi. Biroq, asarda risklarni reytinglash va vaznli baholash modellarini shakllantirish masalalari yetarli darajada chuqur ochib berilmagan.

So‘nggi yillarda riskka asoslangan ichki auditni joriy etishga ta’sir etuvchi omillar masalasi ilmiy jurnallarda faol muhokama qilinmoqda. Xususan, Journal of Risk and Financial Management jurnalida Mujalli A. tomonidan e’lon qilingan tadqiqotda riskka asoslangan ichki auditni amaliyotga tatbiq etishga ta’sir qiluvchi institutsional, tashkiliy va inson resurslariga oid omillar empirik tahlil qilingan. Tadqiqot natijalariga ko‘ra, yuqori rahbariyat qo‘llab-quvvatlashi, ichki auditorlarning malakasi, axborot tizimlarining rivojlanganlik darajasi hamda risk madaniyatining shakllanganligi riskka asoslangan ichki auditning muvaffaqiyatli joriy etilishida hal qiluvchi ahamiyatga ega.

Mazkur tadqiqotda korxonalarda riskka asoslangan ichki audit tizimini takomillashtirish hamda ichki audit obyektlarini kompleks reytinglash modelini ishlab chiqish maqsadida umumilmiy va maxsus ilmiy tadqiqot usullaridan keng foydalanildi. Tadqiqot metodologiyasi risklarni baholash, ichki audit jarayonlarini tahlil qilish va ularni boshqaruv qarorlariga integratsiyalash masalalarini tizimli o‘rganishga yo‘naltirilgan.

Tadqiqot jarayonida, avvalo, monografik va tizimli tahlil usullari qo‘llanilib, ichki auditning nazariy asoslari, riskka asoslangan yondashuv konsepsiyasi hamda xorijiy va mahalliy amaliyotdagi mavjud modellarning afzallik va kamchiliklari chuqur tahlil qilindi. Ushbu usullar orqali ichki auditda xavflarni baholashda faqat moliyaviy ko‘rsatkichlarga tayanishning cheklanganligi ilmiy jihatdan asoslab berildi.

Risklarni aniqlash va baholash bosqichida ekspert baholash va indikatorlar tahlili usullaridan foydalanildi. Ichki audit obyektlari bo‘yicha moliyaviy, operatsion, texnologik, inson resurslari va muvofiqlik risklari alohida indikatorlar sifatida shakllantirildi. Har bir indikatorning ichki audit jarayoniga ta’sir darajasi mutaxassislar fikri va amaliy audit tajribasi asosida baholanib, ularga vazn (koeffitsient)lar biriktirildi. Bu yondashuv ichki audit obyektlarining real xavf profilini aniqlash imkonini berdi.

Tadqiqot metodologiyasi

Reyting modelini shakllantirishda balli baholash va ko‘p mezonli tahlil (multi-criteria analysis) usuli qo‘llanildi. Har bir risk indikatori 1 dan 5 gacha ball tizimi asosida baholanib, vaznli ko‘rsatkichlar orqali yakuniy xavf reyting indeksi hisoblandi. Ushbu metod ichki audit obyektlarini xavf darajasiga ko‘ra

ustuvorlashtirish, audit resurslarini samarali taqsimlash va audit rejasini riskka asoslangan holda shakllantirish imkonini berdi.

Natijalar

Korxonalarda riskka asoslangan ichki audit jarayonini samarali tashkil etish uchun xavflarni baholash mezonlarini doimiy ravishda qayta ko‘rib chiqish va ularni takomillashtirish muhim ahamiyat kasb etadi. Amaldagi ichki audit amaliyotlarida ko‘p hollarda xavflar faqat moliyaviy ko‘rsatkichlarga, masalan, aktivlar hajmi, foyda yoki zarar ko‘rsatkichlari, pul oqimlari tahliliga asoslanadi[1]. Bu yondashuv esa ichki audit obyektlarining real xavf profilini to‘liq aks ettira olmaydi, chunki zamonaviy tashkilotlar faoliyatida ko‘plab moliyaviy bo‘lmagan risklar (operatsion, texnologik, inson resurslari bilan bog‘liq, atrof-muhit, huquqiy xavflar va boshqalar) katta rol o‘ynaydi. Ayniqsa, tez o‘zgaruvchan raqamli muhitda risklar oldingi holatlarga qaraganda ko‘proq kompleks va o‘zaro bog‘langan shaklda namoyon bo‘lmoqda[2].

Shu bois, xavflarni baholash mezonlarini takomillashtirishda keng qamrovli ko‘rsatkichlar tizimini joriy etish zarur. Bu ko‘rsatkichlar nafaqat korxonaning moliyaviy holatini, balki uning boshqaruv tizimi, texnik infratuzilmasi, texnologik ishonchliligi, ichki nazorat mexanizmlarining yetukligi, ichki audit tavsiyalarining bajarilish darajasi, xodimlar almashinuvi, mijozlar shikoyatlari soni, jarimalar statistikasi kabi omillarni ham qamrab olishi lozim. Har bir mezon uchun ularning ahamiyat darajasini aks ettiruvchi vazn (koeffitsient) belgilanib, yakuniy xavf indeksi shakllantiriladi. Shu tarzda har bir ichki audit obyekti bo‘yicha chuqur tahlil qilinib, ustuvorliklar aniq belgilanadi. Bu esa ichki audit resurslarining optimal taqsimlanishiga xizmat qiladi.

Yana bir muhim jihat - bu mezonlar tizimini doimiy monitoring qilish zaruriyatidir. Sababi, risklar statik emas, balki dinamik xarakterga ega. Bitta indikatorning keskin yomonlashuvi butun ichki audit reytingini tubdan o‘zgartirishi mumkin. Shuning uchun ichki audit axborot tizimida avtomatik baholash modullari ishlab chiqilishi lozim. Bu modullar orqali mavjud xavflar reytingi real vaqtda qayta hisoblab boriladi. Masalan, biror bo‘limda ichki audit tavsiyalari bajarilmagan bo‘lsa yoki ishlab chiqarishdagi nosozliklar soni ortgan bo‘lsa, tizim avtomatik ravishda ushbu bo‘limni yuqori xavfli ob’yekt sifatida belgilaydi. Bu yondashuv ichki audit tizimining reaktiv emas, balki proaktiv, ya’ni xavfni oldindan sezadigan mexanizmga aylanishiga asos yaratadi.

Muhokama

Ichki auditda xavfga asoslangan yondashuvni yanada tizimli va samarali tashkil etish uchun reyting modelining shakllantirilishi muhim bosqich hisoblanadi.

Bunday model korxonadagi barcha mavjud ichki audit obyektlarini (bo‘limlar, faoliyat yo‘nalishlari, jarayonlar) ularning xavf darajasiga qarab reytinglash imkonini beradi. Mazkur reyting modeli bir necha indikatorlar asosida tuziladi va ularning har biri muayyan vazn (w) koeffitsienti bilan baholanadi. Indikatorlar tarkibiga quyidagilar kiradi: moliyaviy risklar (FR), operatsion risklar (OR), muvofiqlik risklari (CR), ichki audit tavsiyalarining bajarilish darajasi (AR), xodimlar almashinuvi (HR), texnologik ishonchlilik (TI), shikoyatlar statistikasi (CS) va boshqa maxsus risk indikatorlari. Har bir indikator ball tizimi asosida (1 dan 5 gacha) baholanadi va yakuniy reyting indeksini quyidagi formula asosida aniqlash mumkin:

$$\boldsymbol{Risk\ Reyting\ Indeksi\ (RRI)} = \sum (\boldsymbol{Indicator} \times \boldsymbol{Weight})$$

Shakllantirilgan modelda eng yuqori xavfga ega bo‘lgan obyektlar ustuvor ichki audit obyektlari sifatida tanlanadi. Bu esa ichki audit resurslarini samarali taqsimlash, ichki auditorlik jadvalini xavfga asoslangan ustuvorlikda tuzish va real vaqtli monitoring mexanizmini joriy qilish imkonini beradi[3]. Quyida bunday reyting modelining amaliy ko‘rinishdagi namunaviy jadvali keltirilgan.

1-jadval

Ichki audit obyektlarini reyting asosida ustuvorlikni aniqlash na’munaviy jadvali

Ichki audit obyekti	Moliyaviy risk	Operatsion risk	Ichki audit tavsiyalari	Texnik ishonchlilik (TI)	Umumiy ball (∑)	Xavf darajasi	Ustuvorlik
Buxgalteriya bo‘limi	5 × 0.25 = 1.25	4 × 0.20 = 0.80	3 × 0.25 = 0.75	2 × 0.30 = 0.60	**3.40**	Yuqori	1
Xaridlar bo‘limi	3 × 0.25 = 0.75	5 × 0.20 = 1.00	4 × 0.25 = 1.00	2 × 0.30 = 0.60	**3.35**	Yuqori	2
Kadrlar bo‘limi	2 × 0.25 = 0.50	3 × 0.20 = 0.60	3 × 0.25 = 0.75	4 × 0.30 = 1.20	**3.05**	O‘rtacha	3
IT bo‘limi	1 × 0.25 = 0.25	2 × 0.20 = 0.40	2 × 0.25 = 0.50	5 × 0.30 = 1.50	**2.65**	Past	4

Yuqoridagi jadvaldan ko‘rinib turibdiki, ballar yig‘indisi asosida ichki audit obyektlari xavf darajasiga ko‘ra yuqoridan pastga qarab ustuvorlashtiriladi. Bu yondashuv orqali ichki auditorlar vaqt va resurslarni eng muhim va riskli sohalarga qaratishlari, ichki audit samaradorligini oshirishlari hamda strategik qarorlar uchun zarur axborotlarni aniqlik bilan taqdim etishlari mumkin. Shuningdek, ushbu modelni zamonaviy axborot tizimlariga integratsiyalash orqali avtomatik tahlil va reytingni real vaqtda olish mumkin, bu esa ichki auditni proaktiv nazorat tizimiga aylantiradi.

Reyting modelini ichki audit jarayonlariga integratsiyalash ichki auditning tizimliligi, izchilligi va riskka asoslangan ustuvorlikni ta’minlashda muhim rol o‘ynaydi. Bu model yordamida ichki auditorlar ichki audit ob’yektlarini nafaqat tanlashda, balki har bir bosqichda ularning xavf darajasiga mos yondashuvni qo‘llash imkoniga ega bo‘ladilar. Modelning integratsiyasi, birinchi navbatda, ichki audit departamenti tomonidan tuziladigan yillik yoki yarim yillik ichki audit rejalari tarkibiga xavf reytingiga asoslangan ustuvorliklarni kiritishni nazarda tutadi. Misol uchun, 4 ball va undan yuqori xavf indeksiga ega bo‘lgan bo‘limlar har chorakda yoki yarim yillikda tekshirilsa, past xavfli bo‘limlar yiliga bir marta yoki ikki yilda bir marta tekshiriladi. Bu esa ichki audit resurslarini optimallashtirish, tekshiruvlar samaradorligini oshirish va byudjetni tejash imkonini beradi.

Modelni ichki audit jarayonlariga to‘liq integratsiya qilishda ichki audit axborot tizimlari (Ichki audit Management System - AMS) katta yordam beradi. AMS orqali reyting ko‘rsatkichlarini avtomatik yangilab borish, obyektlar holatidagi o‘zgarishlarni real vaqt rejimida qayd etish va ichki auditorlarga tezkor tahliliy axborot yetkazish mumkin bo‘ladi. Misol uchun, korxonada moliyaviy xatoliklar yoki yangi qonunchilik talablari bilan bog‘liq xavflar ortgan bo‘lsa, bu model avtomatik tarzda reyting ballarini yangilaydi va ichki auditorlar uchun ustuvorlik tartibini qayta shakllantiradi. Shuningdek, tavsiyalar bajarilmagan yoki xodimlar almashuvi kuchli bo‘lgan bo‘limlarda xavf reytingi yuqorilaydi, bu esa ichki audit rejasini mos ravishda yangilash zaruratini yuzaga keltiradi.

Doimiy monitoring tizimini shakllantirish reyting modelining hayotiyligini ta’minlashda muhim bosqich hisoblanadi. Bu monitoring tizimi orqali xavflar intensivligi, tavsiyalar bajarilishi, biznes jarayonlar samaradorligi kabi ko‘rsatkichlar muntazam tarzda kuzatib boriladi. Korxona ichida risk indikatorlarini (KRI - Key Risk Indicators) avtomatik yig‘uvchi dasturni joriy qilish orqali barcha bo‘limlar kesimida holatni vizual va statistik tarzda tahlil qilish mumkin bo‘ladi[3]. Misol uchun, real vaqtli “xavf paneli” (risk dashboard) orqali har bir bo‘limning xavf darajasi, oxirgi ichki audit sanasi, bajarilgan va bajarilmagan tavsiyalar soni, mavjud buzilishlar statistikasi ko‘rinadi. Bunday tizim rahbariyatga strategik qarorlar qabul qilishda asosli axborot beradi, ichki auditga esa rejalashtirishdan tortib monitoringgacha bo‘lgan barcha bosqichlarda metodik yondashuvni qo‘llash imkonini yaratadi.

Xulosa

Reyting modelini ichki audit jarayonlariga to‘liq integratsiyalash va uni doimiy monitoring bilan uyg‘unlashtirish orqali korxonalarda ichki auditning proaktiv, moslashuvchan va ehtimoliy risklarga tayyor tizimi shakllantiriladi. Bu esa ichki auditdan kutilayotgan asosiy maqsad - xavflarni aniqlash, minimallashtirish va

korxona resurslarini oqilona boshqarishga erishishda hal qiluvchi omil bo‘lib xizmat qiladi. Risk panellari (risk dashboard) orqali rahbariyatga strategik qarorlar qabul qilishda asosli axborot beradi, ichki auditga esa rejalashtirishdan tortib monitoringgacha bo‘lgan barcha bosqichlarda metodik yondashuvni qo‘llash imkonini yaratadi.

Foydalanilgan adabiyotlar ro’yxati:

1. Abdusalomova N.B. Ichki audit asoslari. - T.: Iqtisod-Moliya, 2017. - 224 b.

2. Çetin A.A., Pamukçu A. Risk-based internal audit and corporate sustainability //academic research in social, human and administrative sciences-i. - c. 27.

3. Coderre D. Internal audit efficiency through automation. - John Wiley & Sons, Inc., 2009.

4. Mujalli A. Factors affecting the implementation of risk-based internal auditing //Journal of Risk and Financial Management. - 2024. - T. 17. - №. 5. - C. 196.

5. Каламанова Е.Н. Развитие информационно-методического обеспечения анализа эффективности внутреннего аудита. Автореф. дис. на соис уч. степ. к.э.н. - Москва: Российский экономический университет имени Г.В.Плеханова. 2024. – С. 30

6. Колибаба О.В. Бухгалтерский учет расходов и доходов в негосударственных образовательных учреждениях (на материалах средних специальных учебных заведений потребительской кооперации). Автореф. дис. на соис уч. степ. к.э.н. - Москва: – Московский университет потребительской кооперации. 2002. – С. 22

7. Qo‘ziev I.N. Iqtisodiyotni modernizatsiyalash sharoitida auditorlik hisobotini tuzish va umumlashtirish metodologiyasini takomillashtirish. i.f.d. ilmiy darajasini olish uchun yozilgan dis. Avtoref. - T.: 2017. - 70 b.

8. Mamatov Z.T. Xo‘jalik yurituvchi sub’ektlarda moliyaviy hisobot auditini o‘tkazishni takomillashtirish masalalari. Iqtisod fanlari doktori ilmiy darajasini olish uchun yozilgan dissertasiya avtoreferati. -Toshkent.: O‘zR Bank-moliya akademiyasi, 2005. - 40 b.

9. Mamatov Z.T. Audit: muammolar va rivojlantirish istiqbollari, T.: TMI, 2004. - 348 b.

10. Матвеева Татьяна Валентиновна. Учет и контроль за затратами в высших учебных заведениях**:** дис. ... канд. экон. наук: 08.00.12. - Москва, 2001. - 219 с.

11. Немчицкая О.М. Развитие бухгалтерского учета и внутреннего финансового контроля в негосударственных образовательных учреждениях: дис. ... канд. экон. наук: 08.00.12. - Ростов-на-Дону, 2009. - 245 с.

12. Ne’matov O.I. Nodavlat notijorat tashkilotlarida buxgalteriya hisobi va auditni takomillashtirish**:** avtoref. dis. ... falsafa dokt. (PhD): 08.00.08. - Toshkent, 2021. - 58 b.

13. Ochilov F.Sh. Majburiyatlar hisobi va auditini takomillashtirish //Iqtisodiyot fanlari bo‘yicha falsafa doktori (Doctor of Philosophy) dissertatsiyasi avtoreferati. - 2020. - T. 56.

14. Тимофеева Т.В. Бухгалтерский учет доходов и расходов негосударственных образовательных учреждений. Автореф. дис. на соис уч. степ. к.э.н. - Москва: – Московский государственный университет прикладной биотехнологии. 2009. – С. 30

https://doi.org/10.5281/zenodo.19603786

THE THIRD RENESSAINCE UZBEKISTAN EXPANDS OPPORTUNITY FOR A FURTHER RISE IN THE INTERNATIONAL INNOVATION INDEX

Temirkhanova Mutabar Jurayevna[1]

[1]Dsc, associate professor “Accounting and audit”
National research university “Tashkent institute of irrigation and agricultural Mechanization Engineers institute”

Abstract. This article is devoted to the comprehensive analysis of the results of the ranking of Uzbekistan in the Global Innovation Index (GII-2021) by the World Intellectual Property Organization (WIPO) in 2021 and seven indicators used for achieving this rating. In addition, this article offers proposals for further improvement of some indicators, including low business attractiveness (Business sophistication), Creative outputs and research and technological results (Knowledge & technology outputs). Moreover, the article presents the views expressed on the issues that need to be settled in the implementation of the priorities set out in the “Concept of Science Development until 2030”, as well as relevant conclusions developed in the process of the research.

Keywords: innovation index, institutions, human capital and research, infrastructure, market attractiveness, business attractiveness, scientific and technological results, creative output.

Introduction

The Decree “On Approval of the Strategy of Innovative Development of the Republic of Uzbekistan for 2019-2021” adopted in Uzbekistan three years ago on September 21, 2018 states that: “...our country is not participating in the ranking of the Global Innovation Index, compiled in recent years by influential and reputable international organizations”.

“The changes that have been launched in our country will not be reversed ... despite the challenges experienced nowadays, we are able to adapt to difficult conditions and find new “points for growth”-said Shavkat Mirziyoyev.

Over the past two years, as a result of the implementation of the priorities set in this Decree, Uzbekistan with its economy in 2020 is the only country in Central Asia ranked 93rd in the Global Innovation Index (GII).

It is known that last year in the ranking of indicators of the Global Innovation Index (GII-2021) published by the World Intellectual Property Organization (WIPO) under the heading “Monitoring innovations through the crisis COVID-19” Uzbekistan ranked 86th among 132 countries, thus going up 7 points compared to 2020! It should be noted that in the first attempt made in 2020, Uzbekistan scored. 93 points in this ranking. So, the sayings of the President of the Republic of Uzbekistan Sh. Mirziyoyev, which could manage to inspire confidence in our people for the future, are being currently proved.

Uzbekistan aims to be among the top 50 in the Global Innovation Index in 2030. Despite the short period of time, it is worth being proud of the results. First of all, our country entered this ranking in 2020 and ranked 93, and then in 2021 it has improved by 7 points and ranked 86. Moreover, it should be noted that at the meeting of the Republican Council on International Ratings and Indices on December 23, 2021, it was emphasized that our position in the Global Innovation Index has improved and there is much work ahead to be done in this regard. Nevertheless, it is a great and historic achievement for the Uzbek economy, which has not been included in the rankings for the last decade. Herewith we would like to say that if we make an effort, we will definitely achieve our goals.

Literature review

K. Sveiby [14] considered the concepts of intellectual property and intellectual capital and in his model he divided a company’s intangible assets (intellectual property) into there groups: external structure (trade mark, image of the company and production recognition), competence of employees (education, intellectual knowledge, experience and skills), internal structure (patent, copyright, management systems, databases and scientific developments). As it is obvious from

this model, intellectual property objects are represented only in the external and internal structures of the company. We do not fully agree with this model as it entirely covered intellectual property objects and approached thereto as intangible assets. If they were intangible assets, the K. Sveiby’s model would require a close (alignment) approach to accounting objects.

From the point of view of Thomas P. Carlin [15], intellectual property represents an ambiguous item in the balance which has a poor quality. In his research he made an emphasis on the value of intellectual property as a key component of intangible assets and justified an opportunity for their assessment. In our opinion, if intellectual property objects had more efficient opportunities for their use, it could be possible to turn into the most profitable asset item of the balance.

B. Leontyev [16] refers intellectual property to the intellectual capital. In addition, he specifies that intellectual property consists of the value of all available assets, intellectual novelties, knowledge, opportunities, and consolidated base of knowledge.

I. Ivanov [18] considers the concept of intellectual property in terms of the exclusive right of a person to the results of intellectual activity and specifies that it consists of a trademark, a company name, a brand name, and a service mark. He summarizes his views and comes to the conclusion that intellectual property is a part of these intangible assets.

L. Lytneva [19] evaluates intellectual property as a component of intangible assets and proposes to divide it into the following groups: industrial property objects, objects of copyright and tools for individualization of goods. This classification is practically close to international practice and is grouped according to the intellectual property used by companies.

R.Ducmuratov [24] developed the method of recording and auditing intellectual property objects as intangible assets. I. Icmanov [20] touched upon the issues of transformation of intellectual property objects to the international standards of financial reports as assets that require special attention in accounting. Sh. Ilkhamov [21] studied intellectual property objects according to the criteria for recognition of long-term assets. M.Polatov [12] Based on the Brooking model, he studied the ability to record and audit these objects as a component of the enterprise's intellectual capital. Supporting the opinion of A. Poltorak and P. Lerner, I. Davletov [22] highlighted the aspects of acquisition and audit of intellectual property objects in the agrarian sphere. In M.Pardaev's [23] scientific works and published publications, models and indicators of the analysis of intellectual property objects as a component of intangible assets have been formed.

Methodology

Such research methods as induction and deduction, analysis and synthesis, systematic approach, logical thinking, comparison, factor analysis have been applied in the study of the results of the rating of the position and indicators of Uzbekistan in the Global Innovation Index. Herewith the data on indicators have been analyzed in a comprehensive manner and relevant conclusions have been developed using comparative analysis methods.

Results and discussion

In this regard, there may arise the question, by which indicators Uzbekistan has achieved a worthy rank in this prestigious rating. As mentioned above, this rating is developed in reliance upon certain criteria. However, the main goal of the Innovation Development Strategy, set by the President of the Republic of Uzbekistan in line with the world economic development, is to “develop human capital”. Thus, as a result of achieving the main goal of the Strategy, according to the Global Innovation Index, Uzbekistan must become one of the 50 strongest countries in the world by 2030. This can be evaluated and recognized as a key factor in determining the level of competitiveness and innovative development of the country in the international arena.

In this regard we are proud to note, that Uzbekistan has become one of the top five countries in Central and South Asia (India ranked 46, the Islamic Republic of Iran ranked 60, Kazakhstan ranked 79, Uzbekistan ranked 86 and Kyrgyzstan ranked 98). However, Uzbekistan is still considered a lower-middle income country (*LM = lower-middle income).*

According to the indicators of 2021, Uzbekistan ranked 10 in the “Income” category and 4 in “Regional Rating” and attained a total of 27.4 scores. The figures demonstrate that the Global Innovation Index of Uzbekistan in 2021 has risen by 2.4 scores (27.4) (in 2020 it was rated from 0-100 to 25.0). Thus, according to the Global Innovation Index (GII-2021), Uzbekistan is ranked according to the following indicators: rating in GII-2021 - 86, entry rating - 100, exit rating - 75, income level - below average - 10, region - Central and South Asia, on GDP purchasing power parity (PPP) -250.2 billion USD, GDP per capita (RRR) -7.4 thousand USD.

It is well known that on December 28, 2021 the President of the Republic of Uzbekistan participated in the informal CIS summit. CIS countries are also ranked in the GII-2021, including Russia ranked 45, Belarus ranked 62, Armenia ranked 69 and Azerbaijan ranked 80. What we mean is that the increase in Uzbekistan activity with the CIS countries in recent years (signing of more than 40 beneficial agreements, membership in 23 influential CIS organizations) can guarantee a further increase in our international rankings.

In terms of Central Asia, we are still ranked 2 (Kazakhstan ranked 79, downgrading two scores compared to 2020, Kyrgyzstan ranked 98 downgrading four scores. Like our country, Tajikistan has achieved a favourable result, being ranked 103, improving its position by 6 scores). This means that while our country remains second in Central Asia, there is almost a decline in neighboring countries, and the rise is not at our level.

Table 1

Uzbekistan in Global Innovation Index (*GII-2021*)

Assessment score (0-100)	Rank	Income	CSA	Rank in the region
27.4	86	Low-middle (LM)	Central and South Asia	4

This means that it will be absolutely leading country over the next 2-3 years and not doubt, our country will have been able to enter the top 50 by 2026 (if the average increase accounts for 2.4 scores, it will constitute 9.6 in 4 years or 37.0 in total), while the lower limit of TOP-50 of the GII-2021 is equal to 35.4 scores. This proves the fact that the goal can be achieved only due to progress, knowledge, research, innovation, creativity, and so on. In our opinion, we will achieve this in reliance upon the “Third Renaissance”, which has laid the foundation of the New Awakening period in our country.

Below we try to find the answers to the question which indicators of Uzbekistan have promoted 7-score increase in the ranking of the Global Innovation Index.This can be obvious from the data on the 7 most important indicators (components).

Table 2

Position of Uzbekistan in the indicators of the Global Innovation Index (GII-2021)

№	Indicators	Rating result
In GII-2021 rating: Uzbekistan ranked 86 (ranked 93 in 2020)		
1.	Institutions	ranked 94 (ranked 95 in 2020)
2.	Human capital & research	ranked 72(ranked 77 in 2020)
3.	Infrastructure	ranked 72 (ranked 77 in 2020)
4.	Market sophistication	ranked 24 (ranked 27 in 2020)

5.	Business sophistication	ranked 123(ranked 127 in 2020)
6.	Knowledge & technology outputs	ranked 77(ranked 90 in 2020)
7.	Creative outputs	ranked 113 (ranked 127 in 2020)

Below, we provide an analysis of which data they have used to receive rating scores for each indicator.

If we consider the data on the first indicator, in the “Institutions” category there has been an increase by one score from 95 to 94 (55.8 scores) and herewith assessment has been made according to the following parameters:

first, the political environment constitutes 47.6 scores or ranked 95 (political and operational stability - 64.3/80, government efficiency - 39.2/99),

second, the legislative base accounts for 49.9 scores or ranked 107 (quality of laws -17.5 126, the law priority- 19.1/123, dismissal costs -17.3/69),

third, the business environment amounts to 69.8 scores or ranked 72 (ease of starting a business 96.2/8, ease of resolving insolvency -43.5/90).

As it has been noted by the President of the Republic of Uzbekistan, one should admit, we have a lot of work to do to further strengthen the legislative framework of the republic and ensure its supremacy. In turn, this rating demonstrates weakness of our legal framework (ranked 107).The Assembly of the Republican Council for International Ratings and Indices have also identified special measures to improve the international rating in this political and legal sphere in 2022. We are proud of the fact, that in terms of this parameter, our performance in the business environment is assessed as strong (ranked 72).

In the second indicator, Human Capital & Research, there has been 5 score increase to 30.4 and ranked 72:

first, no data is available in terms of education,which accounts for 57.3 scores or ranked 42 (education costs - 5.3 percent in relation to GDP or ranked 28, no data available on public funding/student in percent in relation to GDP, secondary education (school) duration, year constitutes 12.5/87, international student assessment program PISA scale - no data available, student-teacher ratio, average - 10.9/37),

second, higher education accounts for 32.0 scores or ranked 68 (enrollment in higher education, gross percentage -12.6/108, graduates in science and engineering, percentage - 34.5/7, mobility in higher education- 0.2/105),

third, research and development (R&D) 2.0 scores or ranked 95 (researchers, FTE-full-time equivalent/person-476.2/69, research and development expenditures

in relation to GDP, in percent - 0.1/99, research and investors, million USD - 0.0/41, QS- university rating - 0.0/74).

In this parameter there are few positive cases due to insufficient or inadequate information provided. These include the international student assessment program PISA scale and government funding/student in relation to GDP, etc. However, in the ranking, the student-teacher ratio and the performance of graduates in science and engineering are recognized as strong (ranked 7, while Russia ranked 13, Kazakhstan-46).

The third parameter in the ranking - Infrastructure - also rose by 5 points compared to 2020, from 77 to 72 (40.4 scores).

According to this, first, information and communication technologies (ICT) constituted 66.9 scores or ranked 65 (access to ICT 60.1/76, use of ICT 48.3/84, online government service - 78.2/46, electronic users 81.0/46),

second, general infrastructure accounts for 35.7 scores or ranked 37 (electricity generation -1908.6/82, logistics - 24.6/95, gross capital formation in percent in relation to GDP - 39.5/7),

third, ecological balance accounts for 18.7 scores or ranked 111 (GDP/energy consumption unit 5.8/110, environmental impact -44.3/77, ISO 14001 environmental certificates/billion USD in relation to GDP-0.2/116). According to some of these indicators, we are in the top 50, for example, ranked 46 by online services of our government! In terms of e-commerce, we possess the same result andaccording to the level of capital formation in relation to GDP we can even compete for the top 10, as we ranked 7! (Russia ranked 59, Kazakhstan ranked 24). In general, our indicators of “Infrastructure” have demonstrated their strengths in many parameters.

“Market sophistication” is considered another important indicator of the global rating, which has shown an increase by 3 points. In other words, this indicator accounts for 56.9 scores or ranked 24.

First, the lending is rated at 30.2 scores or ranked 105 (ease of borrowing - 65.0/61, domestic loans to the private sector in percent in relation to GDP - 30.0/95, microfinance gross loansin percent in relation to GDP -0.0/80),

second, investments have been rated at 70.0 scores or incomplete data (ease of protection of minority investors - 70.0/36, market capitalization- no data available, venture capital investors, transactions/billion USD - no data available, venture capital recipients, transactions/ billion USD - no data available),

third, trade, diversification and market size have been rated at 70.4 or ranked 62 (applicable tariff rate, average weight, 8.7/110, local industry diversification - 95.9/22, domestic market size, billion USD (PPP) - 250.2/60). In these indicators,

we ranked 22 in the rating, especially as a result of the favourable actions done on the diversification of local industry at the initiative of the President of the Republic of Uzbekistan. This is something to be proud of at the international level, and even shows that we are an absolute leader among the CIS countries (Belarus ranked 41, Russia ranked 44, Azerbaijan ranked 71, Tajikistan ranked 74, Kazakhstan ranked 87, Kyrgyzstan ranked 101).

According to “Business sophistication”, the fifth indicator of the rating in 2021 it has increased by 4 points compared to 2020 (improved its position from 127 ranking to 123 ranking).

Herewith, the first, educated employees have been rated at 22.8 scores, or the rating data is incomplete [93] (knowledge-intensive employment - no data available, firms offering formal training - 16.9/87% compared to GERD in relation to GDP - 0.1/72, GERD funded by business in relation to GDP - 42.4/38, women with academic degree- no data available),

second, innovation relations have been scored at 2.6 or [130], data is inadequate (university-industry collaboration-data on research is not available, development status of the cluster - no data available, foreign-funded GERD in percent in relation to GDP - 0.0/97, joint ventures/strategic partnership agreements/billion USD (PPP) in percent in relation to GDP -0.0/62, patent families/billion USD in percent in relation to GDP - 0.0/90),

third, mastering knowledge-19.0 scores and ranked 98 (intellectual property fees, total sales percentage - 0.3/83, high technology imports, total sales in percent - 8.8/51, ICT services import, total sales in percent - 0,3/115, net inflow of foreign direct investment in percent in relation to GDP - 2.8/58, research potential at enterprises in percent - 12.9/60).

The rating has no strengths in these business attractiveness indicators, with the exception of the business-funded GERD.

The greatest increase we can witness in “Knowledge & technology outputs” of the rating due to 13 scores growth. Our country has improved its position being ranked 90 in 2020 and achieving the ranking of 77 in 2021. Although this figure should have been even better, but our patents, research and technical articles and the information we quote are not in a position to be proud of.

First, knowledge creation (creative approach) - 10.6 scores or ranked 77 (patents billion dollars (PPP) in percent in relation to GDP, 1.5/47, RST patents/billion USD (RRR), 0.0/98 percent in relation to GDP, utility models /billion USD, in percent in relation to GDP 1.1/22, research and technical articles/billion USD (PPP), 2.1/125 in percent in relation to GDP, h-index of cited documents 4.4/112),

second, the impact of knowledge - 35.1 scores or ranked 42 in the rating! (labor productivity growth in percent - 4.6/8, new businesses - 1.6/63, software costs, in percent in relation to GDP - no data available, ISO 9001 quality certificates/billion USD (PPP) in relation to GDP - 2.3/83, high-tech production, in percent - 24.0/52),

third, the spread of knowledge - 8.0 scores or ranked 102 in the rating (revenues on the object of intellectual property, 0.0/103 in percent, attractiveness of production and exports 34.4/79, exports of high technologies, 0.1/119 in percent in relation to the overall trade, exports of ICT services, in percent in relation to overall trade - 0.8/87). On the basis of the reforms ongoing in the socio-economic areas of the country, the emergence of business entities and their high labor productivity deserves a high ranking in the international ratings. That is, our country has been ranked 8 in terms of the labor productivity growth! (For comparison: Republic of Belarus ranked 38, Russia ranked 44, Kazakhstan-48), in percent - 4.6/8. In addition, favourable position can be observed in terms of the conditions created for the performance of new businesses. We can confidently ascertain that the analytical data presented in these indicators have shown their strengths.

In the seventh indicator “Creative outputs” Uzbekistan has improved by 14 scores (ranked 113 in 2021 and 127 in 2020). At the same time, it has reached 12.3 scores in the rating.

first, intangible assets have been assessed at 19.0 scores or data have not been fully developed [106] (on trademarks/billion USD (PPP) in relation to GDP 32.8/71, global brand value with the highest value of 5000, in GDP - no data available, on industrial samples/billion USD (PPP), in relation to GDP - 1.0/69, ICT and organizational modeling - no data available),

second, creative goods and services -5.9 scores or ranked 101 in the rating (export of cultural and creative services, in percent to total trade - 0.0/95, national feature films - 4.2/47, entertainment and media market - no data available, printing and other media, production as a percentage - 0.7/79, exports of creative products, as a percentage of total trade - 0.2/86),

third, online creativity - 5.3 scores or ranked 122 in the rating (total top-level domains (TLDs) - 0.0/131, country code TLD - 1.1/82, wikipedia edits - 23.7/116, mobile application creation/billion USD (RRR), in relation to GDP - 0.0/99).

It should be noted, we still have a lot of work to do on these indicators. However, we are still far behind the foreign experience in the creation and commercialization of intellectual property (creation of intellectual property ecosystem), which has been repeatedly mentioned by the President of our country. Moreover, the President has determined it as one of the priorities.

We can say with confidence that today, on the basis of the “Third Renaissance”, the “Concept of Science Development until 2030”, adopted as one of the important steps in achieving international indexes and rankings of Uzbekistan, is being implemented. It is not difficult to understand this, as we are gradually rising in the above International rankings because in 2020, when we scored the International Innovation Index (GII) by this World Intellectual Property Organization (WIPO), in 2021, it was ranked 86.

Conclusion

Currently the funds allocated for science and research in Uzbekistan account for only 0.5 percent of the national GDP. This figure is much lower than the funds allocated to science by developed and developing countries. In addition, the level of commercialization of research results is not high. It is noted that this does not enable research institutions and innovative enterprises established by them to attract investment and bank loans. As a result, by 2030, some low-rated indicators will need to be improved in order to rank high in the Global Innovation Index rankings. In this case, we consider it necessary to pay attention to the following aspects:

first, increase the research and development expenses on the component of human capital and research, as well as the development of technology transfer;

second, to further improve the performance of foreign-funded (GERD) indicators on the business attractiveness component and to develop ICT services;

third, to further increase and develop the dissemination of knowledge on the science and technology outcome component;

fourth, to further improve Internet creativity and mobile application development on the creative outcomes component.

The period of the “Third Renaissance”, which began in new Uzbekistan, has never yet been included in the international rankings and indices, in particular: Global Competitiveness Index, World Economic Forum, INSEAD international business-school, Cornell University, World Intellectual Property Organization, (WIPO), Global Green Economy Index - Dual Citizen LLC organization, as well as Competitive Industrial Performance Index developed by United Nations Industrial Development Organization (UNIDO), however, in future our country is striving to get high ranking in the assessment of this reputable ranking agencies.

Despite the impact of the global pandemic, in accordance with the “Concept of Science Development until 2030” and the “Third Renaissance” launched in our country, it is crucially important to intensify and develop activities aimed at raising the number of published research articles, citation index, participation in international conferences and seminars, research activities of higher education institutions on the basis of state support of higher education institutions.

Uzbekistan has already undertaken its first steps in the Global Innovation Index (GII) rating, which has been recognized by reputable international organizations.

In conclusion, the experience of the past two years have shown that Uzbekistan has succeeded in achieving a worthy rating in the Global Innovation Index alongside with economically developed countries, which development history accounts for several hundred years. Following this active development rates, no doubt, will result in achieving the goals and objectives set in the Concept of development of Uzbekistan by 2030. After all, as our President said, aspiration to research is in our blood and in our genes.

References

1. World Intellectual Property Organization (WIPO) https://www.wipo.int/global_innovation_index/en/2021/
2. The Global Innovation Index (GII) 2020: Who Will Finance Innovation? https://www.globalinnovationindex.org/Home
3. Decree of the President of the Republic of Uzbekistan “Concept of development of science till 2030” № 6097, October 29, 2020. https://lex.uz/docs/5073447
4. Decree of the President of the Republic of Uzbekistan “Concept of development of high education till 2030” № 5847, October 8, 2019. https://lex.uz/docs/4545884
5. Civil code of the Republic of Uzbekistan. https://www.lex.uz/docs/111189
6. Decree of the President of the Republic of Uzbekistan “On approval of the Strategy of innovative development of the Republic of Uzbekistan for 2019-2021” ” №5544, September 21, 2018. https://lex.uz/ru/docs/3913188?otherlang=1
7. Rizaev Nurbek Kadirovich, Temirkhxanova Mutabar Juraevna, Li Shaomin.Improving the Intangible Assets Accounting: In a Pandemic Period. Tashkent Financial Institute, Uzbekistan. PSYCHOLOGY AND EDUCATION (2021) 58(1): 28-42 ISSN: 00333077. (Scopus). http://psychologyandeducation.net/pae/index.php/pae/issue/view/10, Psychology and Education Journal
8. Sultonali U. Mekhmonov, NurbekK. Rizaev, Ilyos K, Ochilov, Golib D. Tashmanov Development of artificial intelligence in Uzbekistan (Evidence from Education System). Turkish Online Journal of Qualitative Inquiry (TOJQI) Volume 12, Issue 7, July 2021: 4693 – 4702.https://www.tojqi.net/index.php/journal/article/view/4518

9. Rizaev Nurbek Kadirovich, Khotamov Komil Rabbimovich. Methodology of transformation of financial reporting to international standards in Uzbekistan (evidence from commercial banks). International Journal of Marketing and Technology Vol. 11 Issue 10, October 2021 ISSN: 2249-1058 Impact Factor: 6.559 Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com

10. Rizaev N.K. Expenses on research and development (case-study of the experience of India and Uzbekistan). International Journal of Marketing and Technology Vol. 10 Issue 07, July 2020 ISSN: 2249-1058 Impact Factor: 6.559. Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com.

11. Rizaev N.K. Ecosystem of the intellectual property and its development. International Journal of Management, IT & Engineering Vol. 10 Issue 03, March 2020. ISSN: 2249-0558 Impact Factor: 7.119. Journal Homepage: http://www. ijmra.us, Email: editorijmie@gmail.com.

12. Pulatov M.E. “Improving the methodology for accounting and audit of intellectual capital”, abstract of the dissertation of the Doctor of Sciences (DSc) in economics, 2017.

13. RN Kadirovich, TM Juraevna, L Shaomin - Improving the Intangible Assets Accounting: In a Pandemic Period. Annals of the Romanian Society for Cell Biology, 2021. https://scholar.google.com/citations?view_op=view_citation&hl=en&user=KowKlbwAAAAJ&cstart=20&pagesize=80&citation_for_view=KowKlbwAAAAJ:pyW8ca7W8N0C

14. Sveiby K.E. Intellectual Capital and Knowledge Management.1998.-213 p. http://www.tadviser.ru/index.php/%D0%9A%D0%BE%D0%BC%D0%BF%D0%B0%D0%BD%D0%B8%D1%8F:Frost_%26_Sullivan%20/o%20Frost%20&%20Sullivan

15. Thomas P. Carlin. Albert R. Makmin, III. Analysis of financial statements (on the GAAP basis). Textbook. Translation of the IV-th English edition. M.: INFRA-M.1998.-448p.

16. Leontyev B.B. (2002). Price for intellect Intellectual capital in Russian business. – M.: «Aktsioner».

17. Dontsova L. Analysis of Financial Statements: Textbook, 6th edition. Edited. “Delo i Service” publishing house, 2008. -368 p.

18. Ivanov I.V et al (2008). Financial Management: Cost approach: educational aid. -M.: Alpina Business Books.

19. Lytneva L. (2006). Accounting. Textbook: M-Forum: INFRA-M, -496 p.

20. Ismanov I.N. Methodological bases of accounting of long-term assets. Monograph. T.: Fan, 2006.-p.172.

21. Ilkhamov Sh.I. “Accounting and audit in investment activity”, dissertation abstract for the degree of candidate of economics, 2005. p24.

22. Davletov I.R. “Improvement of accounting and auditing of intellectual property objects in the agrarian sector”, dissertation abstract for the degree. (PhD), 2018 - p48.

23. Pardaev M.K., Isroilov B.I. The financial analysis. -T: "The World of Economics and Law", 1999.-p. 368.

24. Dusmuratov R.D. Fundamentals of audit. Tutorial. -T.: ЎME, 2003. -p. 612.

https://doi.org/10.5281/zenodo.19603908

AUDITDA DUE DILIGENCE: QISHLOQ XO‘JALIGI SEKTORIDA IQTISODIY SAMARADORLIKNI OSHIRUVCHI BOSHQARUV MEXANIZMI

Sidiqov Dilmurod Xasanboy o‘g‘li[1]

[1]“Toshkent irrigatsiya va qishloq xo‘jaligini mexanizatsiyalash muhandislari instituti” MTU

Annotatsiya. Qishloq xo‘jaligi sohasida iqtisodiy samaradorlikka erishish uzoq yillar davomida rivojlanish iqtisodiyoti va korporativ strategiyaning muhim yo‘nalishlaridan biri bo‘lib kelgan. Biroq zamonaviy qishloq xo‘jaligi korxonalari biologik noaniqlik, tovar bozorlaridagi yuqori tebranishlar hamda barqaror rivojlanish va ijtimoiy mas’uliyat sohasida kuchayib borayotgan tartibga soluvchi talablar bilan tavsiflangan murakkab muhitda faoliyat yuritmoqda [Onofri, L. (Guest Ed.). (2023). Application of Econometrics in Agricultural Production]. Bunday sharoitda moliyaviy va operatsion auditning roli an’anaviy muvofiqlikni tekshirish doirasidan chiqib, korporativ boshqaruvning muhim mexanizmiga aylanmoqda. Audit axborot asimmetriyasini kamaytirish, agentlik xarajatlarini minimallashtirish hamda resurslardan foydalanishni optimallashtirishga xizmat qiladi. Mazkur maqolada audit jarayonida amalga oshiriladigan due diligence protseduralari bilan qishloq xo‘jaligi subyektlarining iqtisodiy samaradorligi o‘rtasidagi strukturaviy bog‘liqlik tahlil qilinadi. Tadqiqotda qat’iy auditorlik amaliyotlari texnologik chegarani siljituvchi va umumiy omillar unumdorligini (Total Factor Productivity – TFP) oshiruvchi muhim ishlab chiqarish omili sifatida namoyon bo‘lishi ilgari suriladi.

Kalit so’zlar: due diligence, iqtisodiy samaradorlik, qishloq xo‘jaligi korxonalari, audit sifati, risklarni boshqarish, korporativ boshqaruv.

Kirish

Qishloq xo‘jaligi sektori ko‘plab mamlakatlarda oziq-ovqat xavfsizligi, bandlik va iqtisodiy barqarorlikni ta’minlashda muhim o‘rin tutadi. Biroq qishloq xo‘jaligi korxonalari ko‘pincha ishlab chiqarishdagi noaniqlik, narxlarning o‘zgaruvchanligi, iqlim bilan bog‘liq xatarlar hamda moliyaviy resurslarga cheklangan kirish imkoniyati kabi jiddiy muammolarga duch keladi. Bunday sharoitda moliyaviy ma’lumotlarning ishonchliligini ta’minlash va boshqaruv qarorlarining samaradorligini oshirish muhim ahamiyat kasb etadi. Audit mustaqil tasdiqlovchi mexanizm sifatida moliyaviy hisobotlarning shaffofligi va ishonchliligini kuchaytirishga xizmat qiladi hamda barqaror iqtisodiy rivojlanishni qo‘llab-quvvatlaydi.

Qishloq xo‘jaligi ishlab chiqarish xususiyatlari jihatidan sanoat ishlab chiqarishidan tubdan farq qiladi. Uning ishlab chiqarish funksiyasi tasodifiy (stoxastik) xarakterga ega. Ya’ni, yakuniy mahsulot hajmi faqatgina kapital, mehnat va moddiy resurslar kabi omillarning deterministik natijasi emas, balki ob-havo sharoiti, zararkunandalar, biologik rivojlanish davrlari kabi tashqi omillar ta’sirida shakllanadi. Ushbu tabiiy o‘zgaruvchanlik “qora quti” effektini yuzaga keltiradi, ya’ni fermer xo‘jaliklarining haqiqiy operatsion samaradorligi ko‘pincha tashqi shovqinlar ta’sirida yashirin qoladi. Shu bois qishloq xo‘jaligi ishlab chiqarishini to‘g‘ri baholash samarali sanoat strategiyasini ishlab chiqish va oqilona davlat siyosatini shakllantirish uchun muhim ahamiyatga ega[1].

Adabiyotlar sharhi.

Tahlillar shuni ko‘rsatadiki, audit jarayonidagi due diligence (zaruriy tekshiruv) faqat ma’muriy xarajat sifatida emas, balki unumdorlikni oshiruvchi boshqaruv mexanizmi sifatida talqin qilinishi lozim. Ichki nazorat va monitoring tizimlarini mustahkamlash orqali due diligence menejerlarning opportunistik xatti-harakatlarini kamaytiradi, moliyaviy ma’lumotlarning ishonchliligini oshiradi hamda faoliyat natijalarini yanada aniq baholash imkonini beradi.

Mazkur omillar resurslarni oqilona taqsimlash bo‘yicha qarorlarning sifatini bevosita yaxshilaydi, jumladan: ishlab chiqarish omillarini tanlash, investitsiya rejalashtirish va xarajatlarni boshqarish jarayonlarida yanada samarali qarorlar qabul qilinishiga xizmat qiladi.

Ushbu sohada iqtisodiy samaradorlik odatda ikki asosiy tarkibiy qismga ajratiladi:

1.Texnik samaradorlik (Technical Efficiency - TE): korxonaning ma’lum miqdordagi ishlab chiqarish omillari (kapital, mehnat, yer, materiallar) majmuasidan maksimal darajada mahsulot ishlab chiqarish qobiliyatidir. Bu ko‘pincha agrotexnik

amaliyotlar sifati, zamonaviy texnologiyalarni joriy etish darajasi hamda ishchi kuchining malakasi bilan bog‘liq bo‘ladi.

2.Taqsimot samaradorligi (Allocative Efficiency - AE): korxonaning ishlab chiqarish omillarini ularning narxlari va chegaraviy mahsuldorligidan kelib chiqib optimal nisbatda tanlash qobiliyatidir. Bunda resurslar eng kam xarajat evaziga maksimal iqtisodiy natija beradigan tarzda taqsimlanadi. Bu esa aniq va ishonchli moliyaviy ma’lumotlar, puxta xarajatlar hisobi hamda to‘g‘ri boshqaruv hisobotini talab qiladi[2].

Qishloq xo‘jaligida shunday paradoksal holat yuzaga kelishi mumkinki, korxona ilg‘or texnologiyalarni joriy etib, yuqori texnik samaradorlikka (TE) erishgan bo‘lsa-da, resurslarning noto‘g‘ri taqsimlanishi yoki moliyaviy boshqaruvdagi kamchiliklar sababli iqtisodiy jihatdan nochor ahvolga tushib qolishi mumkin (past taqsimot samaradorligi - AE). Ushbu tafovut ko‘pincha “prinsipal” (aksiyadorlar, kooperativ a’zolari yoki kreditorlar) va “agent” (fermer xo‘jaligi yoki korxona boshqaruvi) o‘rtasidagi axborot nomutanosibligi (information asymmetry) bilan izohlanadi.

Agar samarali monitoring va nazorat mexanizmlari mavjud bo‘lmasa, menejerlar suboptimal “bonding” faoliyatlarini amalga oshirishi, ya’ni o‘z manfaatlarini himoya qilishga qaratilgan, biroq korxona uchun optimal bo‘lmagan qarorlar qabul qilishi mumkin. Natijada qoldiq yo‘qotishlar (residual losses) yuzaga keladi va umumiy iqtisodiy samaradorlik pasayadi[3].

Tadqiqot metodologiyasi

Mazkur tadqiqot nazariy-konseptual yondashuv asosida amalga oshirildi. Tadqiqotda iqtisodiy samaradorlik va audit jarayonidagi due diligence o‘rtasidagi bog‘liqlikni aniqlash maqsadida tizimli tahlil (systematic analysis) va solishtirma usul (comparative analysis) qo‘llanildi. Iqtisodiy samaradorlik texnik samaradorlik (TE) va taqsimot samaradorligi (AE) komponentlari orqali baholandi. Audit sifatining samaradorlikka ta’siri Agentlik nazariyasi (Agency Theory) hamda Tranzaksiya xarajatlari iqtisodiyoti (Transaction Cost Economics) doirasida tahlil qilindi. Shuningdek, due diligence protseduralari (moliyaviy, operatsion, huquqiy va bozor yo‘nalishlari) iqtisodiy boshqaruv mexanizmi sifatida strukturaviy tahlil qilindi. Tadqiqot jarayonida ilmiy adabiyotlar, xalqaro standartlar va empirik tadqiqot natijalari asosida mantiqiy umumlashtirish (logical generalization) usuli qo‘llanildi.

Natijalar

Korxonalarda riskka asoslangan ichki audit jarayonini samarali tashkil etish uchun xavflarni baholash mezonlarini doimiy ravishda qayta ko‘rib chiqish va ularni takomillashtirish muhim ahamiyat kasb etadi. Amaldagi ichki audit amaliyotlarida

ko‘p hollarda xavflar faqat moliyaviy ko‘rsatkichlarga, masalan, aktivlar hajmi, foyda yoki zarar ko‘rsatkichlari, pul oqimlari tahliliga asoslanadi[1]. Bu yondashuv esa ichki audit obyektlarining real xavf profilini to‘liq aks ettira olmaydi, chunki zamonaviy tashkilotlar faoliyatida ko‘plab moliyaviy bo‘lmagan risklar (operatsion, texnologik, inson resurslari bilan bog‘liq, atrof-muhit, huquqiy xavflar va boshqalar) katta rol o‘ynaydi. Ayniqsa, tez o‘zgaruvchan raqamli muhitda risklar oldingi holatlarga qaraganda ko‘proq kompleks va o‘zaro bog‘langan shaklda namoyon bo‘lmoqda[2].

Shu bois, xavflarni baholash mezonlarini takomillashtirishda keng qamrovli ko‘rsatkichlar tizimini joriy etish zarur. Bu ko‘rsatkichlar nafaqat korxonaning moliyaviy holatini, balki uning boshqaruv tizimi, texnik infratuzilmasi, texnologik ishonchliligi, ichki nazorat mexanizmlarining yetukligi, ichki audit tavsiyalarining bajarilish darajasi, xodimlar almashinuvi, mijozlar shikoyatlari soni, jarimalar statistikasi kabi omillarni ham qamrab olishi lozim. Har bir mezon uchun ularning ahamiyat darajasini aks ettiruvchi vazn (koeffitsient) belgilanib, yakuniy xavf indeksi shakllantiriladi. Shu tarzda har bir ichki audit obyekti bo‘yicha chuqur tahlil qilinib, ustuvorliklar aniq belgilanadi. Bu esa ichki audit resurslarining optimal taqsimlanishiga xizmat qiladi.

Yana bir muhim jihat - bu mezonlar tizimini doimiy monitoring qilish zaruriyatidir. Sababi, risklar statik emas, balki dinamik xarakterga ega. Bitta indikatorning keskin yomonlashuvi butun ichki audit reytingini tubdan o‘zgartirishi mumkin. Shuning uchun ichki audit axborot tizimida avtomatik baholash modullari ishlab chiqilishi lozim. Bu modullar orqali mavjud xavflar reytingi real vaqtda qayta hisoblab boriladi. Masalan, biror bo‘limda ichki audit tavsiyalari bajarilmagan bo‘lsa yoki ishlab chiqarishdagi nosozliklar soni ortgan bo‘lsa, tizim avtomatik ravishda ushbu bo‘limni yuqori xavfli ob’yekt sifatida belgilaydi. Bu yondashuv ichki audit tizimining reaktiv emas, balki proaktiv, ya’ni xavfni oldindan sezadigan mexanizmga aylanishiga asos yaratadi.

Muhokama

Auditni iqtisodiy omil sifatida to‘g‘ri baholash uchun tahlilni iqtisodiy nazariya asosida olib borish zarur. Audit bartaraf etishga intiladigan samarasizliklar - isrofgarchilik, firibgarlik, resurslarning noto‘g‘ri taqsimlanishi va bozor muvaffaqiyatsizligi - eng yaxshi tarzda Agentlik nazariyasi hamda Tranzaksiya xarajatlari iqtisodiyoti (TCE) orqali tushuntiriladi.

Ushbu munosabatlardagi asosiy ziddiyat - bu axborot nomutanosibligidir (information asymmetry). Agent “tabiat holati” (masalan, tuproq namligi, zararkunandalar darajasi, haqiqiy mehnat sarfi) haqida prinsipaldan ko‘ra ko‘proq ma’lumotga ega bo‘ladi. Bu esa ikki asosiy xavfni yuzaga keltiradi:

- Advers tanlov (Adverse Selection): Shartnoma tuzilishidan oldin yuzaga keladi. Masalan, yer sifati past yoki yuqori xavfga ega bo‘lgan fermer sug‘urta yoki kredit olishga eng ko‘p qiziqish bildirishi mumkin va o‘zining haqiqiy xavf darajasini yashiradi. Due diligence ana shu xavfni kamaytirish uchun qo‘llaniladigan saralash (screening) mexanizmi hisoblanadi.
- Moral hazard (Axloqiy xatar): shartnoma tuzilgandan keyin yuzaga keladi. Masalan, sug‘urtalangan fermer yong‘inga qarshi ehtiyot choralarini kamaytirishi yoki subsidiya olgan fermer mehnat sa’y-harakatini pasaytirishi (“bo‘yin tovlash”, shirking) mumkin.

Audit monitoring mexanizmi sifatida faoliyat yuritadi. Iqtisodiy nuqtayi nazardan u “monitoring xarajati”ni keltirib chiqaradi, biroq bu xarajat “qoldiq yo‘qotish” (agentning opportunistik xatti-harakatlari natijasida yuzaga keladigan qiymat yo‘qotilishi)ning kamayishi hisobiga qoplanadi. Empirik tadqiqotlar shuni ko‘rsatadiki, qishloq xo‘jaligi korxonalarida kuchli ichki va tashqi audit tizimining mavjudligi agentlik xarajatlarini sezilarli darajada kamaytiradi. Agent tomonidan taqdim etilgan hisobotlarni tasdiqlash orqali audit prinsipallar talab qiladigan risk mukofotini pasaytiradi, natijada fermer xo‘jaligi uchun kapital qiymati kamayadi. Kapital qiymatining pasayishi iqtisodiy samaradorlikni bevosita oshiradi, chunki ilgari foydasiz deb baholangan ayrim loyihalar (masalan, sug‘orish tizimini modernizatsiya qilish) sof joriy qiymat (Net Present Value – NPV) jihatidan ijobiy ko‘rsatkichga ega bo‘lishi mumkin[6].

Baholash qishloq xo‘jaligi moliyaviy hisobotida eng murakkab va eng yuqori xavfga ega bo‘lgan yo‘nalish hisoblanadi. IAS 41 Agriculture (hamda HKAS 41 Agriculture) standartlarining joriy etilishi hisobni “tarixiy qiymat” usulidan “sotish xarajatlari chegirilgan adolatli qiymat” (fair value less costs to sell) usuliga o‘tkazdi.

Moliyaviy Due Diligence: Bu korxonaning moliyaviy hisobotlari, kutilayotgan pul tushumlari va chiqimlari hamda kapitalga bo‘lgan ehtiyojini chuqur tahlil qilish jarayonidir. Ushbu jarayon investorlar uchun tashkilotning moliyaviy holati va uzoq muddatli barqarorligi haqida aniq tasavvur hosil qilish imkonini beradi. Shuningdek, u moliyaviy xavflarni kamaytirish va asosli investitsiya qarorlarini qabul qilishda muhim rol o‘ynaydi.

Operatsion Due Diligence: Operatsion due diligence agrar korxona ichidagi biznes jarayonlari, logistika tizimlari va ishlab chiqarish samaradorligini baholashga qaratiladi. U operatsion faoliyat samarali hamda optimal ishlash standartlariga muvofiq amalga oshirilayotganini aniqlaydi. Due diligence jarayonlari butun audit jarayoni davomida integratsiyalashgan holda qo‘llanilib, har bir bosqichda izchillik va ishonchlilikni ta’minlaydi.

Huquqiy Due Diligence: Huquqiy due diligence agrar korxonaning huquqiy asoslarini chuqur tahlil qilishni o‘z ichiga oladi, jumladan mulk huquqlari, shartnoma majburiyatlari va amaldagi qonunchilik talablariga rioya etilishi. Ushbu murakkab jarayon biznes faoliyatiga ta’sir ko‘rsatishi mumkin bo‘lgan potensial huquqiy xatarlar yoki majburiyatlarni aniqlashga qaratilgan. Ba’zi hollarda moliyaviy hisobotlar faqat kreditorlar yoki mavjud mulkdorlar talabi asosida auditdan o‘tkaziladi. Majburiy audit talab etilmagan taqdirda ham, mustaqil sertifikatlangan jamoat buxgalterlari manfaatdor tomonlar nomidan moliyaviy hisobotlarni ko‘rib chiqishlari mumkin[7].

Bozor Due Diligence: Bozor due diligence sanoat tendensiyalari, iste’molchilar xatti-harakati va raqobat sharoitlarini tahlil qilishga qaratilib, agrar loyihalarning tijorat jihatdan hayotiyligini aniqlaydi. U kelajakdagi talab, narx shakllanishi va bozordagi pozitsiyalashuv haqida muhim ma’lumotlarni taqdim etadi. Agrar biznes kontekstida marketing due diligence, shuningdek, korxonaning marketing strategiyasi samaradorligi va uning maqsadga muvofiqligini ham baholaydi.

Shuningdek, audit jarayonidagi due diligence risklarni boshqarishda strategik ahamiyatga ega. Qishloq xo‘jaligi iqlimiy, biologik, moliyaviy va institutsional xavflarni o‘z ichiga olgan keng ko‘lamli risklarga duch keladi. Kompleks due diligence jarayonlari ushbu xavflarni tizimli ravishda aniqlash, miqdoriy baholash va kamaytirish imkonini beradi. Natijada menejerlar ekinlarni diversifikatsiya qilish, barqaror texnologiyalarni joriy etish yoki yetkazib beruvchilar bilan shartnomalarni qayta ko‘rib chiqish kabi moslashuvchan strategiyalarni ishlab chiqishga yaxshiroq tayyor bo‘ladilar. Bu proaktiv yondashuv auditni faqat o‘tmishga qaratilgan nazorat mexanizmidan kelajakni ko‘zlovchi boshqaruv vositasiga aylantiradi.

Due diligence doirasining atrof-muhit, ijtimoiy va korporativ boshqaruv (ESG) omillarini ham qamrab oladigan darajada kengayishi raqobatbardoshlikka sezilarli ta’sir ko‘rsatadi. Barqarorlik standartlariga rioya qilish yuqori qiymatli xalqaro bozorlarga kirishni osonlashtiradi va global xaridorlar bilan munosabatlarni mustahkamlaydi. Shu tariqa, due diligence nafaqat ichki samaradorlikni oshiradi, balki qishloq xo‘jaligi korxonalarining global qiymat zanjirlaridagi strategik pozitsiyasini ham kuchaytiradi.

Xulosa

Ushbu tadqiqot audit jarayonidagi due diligence qishloq xo‘jaligi sektorida iqtisodiy samaradorlikni oshirishda muhim omil ekanini ko‘rsatadi. Axborot nomutanosibligini kamaytirish, agentlik xarajatlarini cheklash va ichki nazorat tizimlarini mustahkamlash orqali due diligence ham texnik, ham taqsimot samaradorligini oshiradi. Moliyaviy, operatsion, huquqiy va bozor due diligence

yo‘nalishlari o‘zaro bog‘liq bo‘lgan yagona boshqaruv tizimining tarkibiy qismlari sifatida faoliyat yuritadi hamda asosli qarorlar qabul qilish va barqaror o‘sishni ta’minlashga xizmat qiladi.

Natijalar shuni ko‘rsatadiki, audit faqatgina me’yoriy talab sifatida emas, balki qiymat yaratishga hissa qo‘shuvchi samarali resurs (productive input) sifatida qaralishi lozim. Siyosat ishlab chiquvchilar uchun audit standartlarini kuchaytirish va qishloq xo‘jaligi auditida salohiyatni oshirishni qo‘llab-quvvatlash shaffoflikni va investitsiya oqimini rag‘batlantirishi mumkin. Menejerlar uchun esa due diligence jarayonlarini strategik rejalashtirishga integratsiya qilish barqarorlikni, rentabellikni hamda uzoq muddatli raqobatbardoshlikni oshirishga xizmat qiladi.

Umuman olganda, audit amaliyotida due diligence tartib-taomillarini samarali joriy etish mahsuldorlikni oshirish, xavflarni kamaytirish va qishloq xo‘jaligi sektorining iqtisodiy rivojlanishini jadallashtirish uchun kuchli mexanizm hisoblanadi.

Foydalanilgan adabiyotlar ro’yxati

1. Onofri, L. (mehmon muharrir) (2023). Qishloq xo‘jaligi ishlab chiqarishida ekonometrika qo‘llanilishi [Maxsus son]. Agriculture jurnali. MDPI. https://www.mdpi.com/journal/agriculture/special_issues/P784SYLA5T

2. Henderson, B., & Kingwell, R. S. (2002). Yirik fermer xo‘jaliklarining texnik va taqsimot samaradorligini o‘rganish. R. W. Fraser & J. Taylor (tahr.), G‘arbiy Avstraliya universiteti Qishloq xo‘jaligi va resurs iqtisodiyoti maktabining 2002-yilgi ilmiy profili (251–284-betlar). G‘arbiy Avstraliya universiteti.

3. Nguyen, Q. M., & Nguyen, C. V. (2024). Korporativ boshqaruv, audit sifati va korxona samaradorligi: empirik tadqiqot. Cogent Economics & Finance, 12(1), 2334128-maqola. https://doi.org/10.1080/23322039.2024.2334128

4. Adefiranye, J. R., Nwufo, C. I., Ndu, M., & Adisa, I. K. F. (2025). Nigeriyada ro‘yxatga olingan qishloq xo‘jaligi korxonalarida audit sifati va moliyaviy natijalar o‘rtasidagi bog‘liqlik. https://doi.org/10.5281/zenodo.17091996

5. Birlashgan Millatlar Tashkiloti (2016). Mas’uliyatli qishloq xo‘jaligi ta’minot zanjirlari bo‘yicha OECD–FAO yo‘riqnomasi: Qishloq xo‘jaligi ta’minot zanjirlarida due diligence bo‘yicha qo‘llanma. OECD Publishing. https://mneguidelines.oecd.org/OECD-FAO-Guidance.pdf

6. Khandelwal, V., Tripathi, P., Chotia, V., Srivastava, M., Sharma, P., & Kalyani, S. (2023). Agentlik muammolarining korporativ samaradorlikka ta’siri: bibliometrik tahlil. Journal of Risk and Financial Management, 16(12), 497. https://doi.org/10.3390/jrfm16120497

7. Dhaliwal, K. (2023, 15-oktabr). Agrar biznesda qo‘shilish va sotib olish jarayonlarini boshqarish: bitimdan oldingi bosqichdan due diligence jarayonigacha. Moss Adams. https://www.mossadams.com/articles/2023/10/navigating-agribusiness-transactions

8. Vona L.W. Fraud Risk Assessment: Building a Fraud Ichki audit Program. - Hoboken, New Jersey: John Wiley & Sons, 2008. - 203 p.

9. Аренс А., Лоббек Д.Ж. Аудит. Пер. с англ. под. ред. проф. Я.В. Соколова. - М.: Финанси и статистика, 1995.

10. The Institute of Internal Auditors Malaysia (IIAM). Guidance for an Effective Internal Audit Function 2.0. - 2023. https://iiam.com.my/wp-content/uploads/2023/10/guidance-for-an-effective-internal-audit-function-2.0.pdf

https://doi.org/10.5281/zenodo.19604146

DEVELOPMENT OF THE SYSTEM OF AUDITING PERSONNEL MANAGEMENT IN THE ORGANIZATION

Rakhimov Anvar Maxmarasulovich[1]

[1]Independent researcher “TIIAME” NRU

Abstract: The article is devoted to the analysis of current research in the field of auditing personnel management in an organization and finding ways to solve the problem of improving the personnel audit system in modern enterprises. A personnel management audit is considered as a comprehensive mechanism for assessing and monitoring performance indicators of the entire set of personnel processes of an enterprise that form the personnel management system.

Keywords: personnel management audit, personnel audit, personnel management system, personnel processes, performance indicators of personnel processes.

INTRODUCTION

As a rule, in the world practice of enterprises, personnel management is organized according to a systemic principle. However, as research results show, in Uzbekistan it is customary to use ready-made management models, many of which were developed by specialists from other countries and are not entirely suitable for the economic, social, national and other characteristics of Uzbekistan. Therefore, it can be argued that domestic personnel management systems are still at the stage of their formation. At the formation stage, high-quality and timely comprehensive diagnostics of personnel management systems are especially important. Researchers consider personnel management audit, or personnel audit, to be the most effective

tool for such diagnostics [10]. To make certain decisions regarding the management of an organization, it is important that the information on the basis of which conclusions are drawn is timely and reliable. This means that at all levels of business activity it is necessary to collect it and periodically update it, that is, conduct an audit.

LITERATURE REVIEW

Simonin P.V. and Artyukhin D.V. pay attention to the study of the problem associated with personnel and diagnostics, while the personnel of an enterprise is understood as “a set of individuals who are in relations with it as a legal entity, regulated by an employment contract” [1]. During the human resoursec audit process, it is very important to study issues related to management. Simonin P.V. and Krasnozhenova G.F. interpret management as “the most effective way of purposeful influence of the subject of management on an object in order to change the initial state and bring it to a higher quality level” [8]. Within the framework of the institutional approach, “ensuring the effective implementation of social and labor relations is not possible without the availability of information on the regulation of wage issues in collective agreements and agreements, as well as internal social factors: work style, team cohesion, professional composition of personnel, communications, rational labor standards and etc."[8]. Institutions in modern society take the form of legal norms and traditions that have proven their effectiveness for all aspects of labor relations. Therefore, it is important to understand the degree of compliance of the enterprise’s personnel management system with current laws and accepted standards. An analytical tool such as an audit allows you to determine the degree of this compliance. Under the audit of the personnel management system (personnel audit) Tsvetkova E.V. understands “the process of a comprehensive analysis of all elements of the company’s personnel management, the methods of interaction of all participants in this process, the procedure for setting tasks, the procedure for performing work and reporting” [9].

METHODOLOGY

The article uses methods such as analysis of published scientific literature on personnel auditing, audit procedures, data processing and comparison.

ANALYSIS AND RESULTS

The word “audit” itself, which comes from the Latin root “audieus” - “to listen”, implies the verification of mainly paper reports relating to one or another area of the company’s activities. The purpose of the audit is not only to identify possible violations, but also to prevent them, as well as to provide consultations, thanks to which it is possible to increase efficiency in the audited area. Currently, the activities of auditors have expanded significantly, including the area of

personnel management. A personnel audit can be called a consulting activity that, through expert analysis, establishes the personnel potential of an organization and its effectiveness. The auditor examines documentation related to the selection, registration, relocation and dismissal of employees of the organization for compliance of the documents with the requirements of legislative acts of Uzbekistan. A personnel audit is not only a way to carry out an audit, that is, a statement of facts, but also a tool for overcoming existing problems, the ultimate goal of which is to increase the profitability of the organization. By determining the degree of correctness of maintaining personnel documentation and studying additional factors reflected in it, the auditor can draw conclusions regarding:

- the effectiveness of the personnel policy adopted in a given organization in relation to its main goal;
- correct application of the legislative framework;
- finding reserves for improving personnel management;
- identifying negative aspects that hinder personnel efficiency, analyzing possible ways to eliminate them.

In what cases should an organization pay attention to studying the personnel situation by conducting a personnel audit? You can carry out this procedure at any time, but it will bring the greatest benefit in situations such as:

- change of leadership in the organization;
- dismissal of the head of the HR department;
- preparation for external audit by control bodies;
- formation of a database of personnel documents for archival storage;
- innovations in the legislative sphere regarding employment and dismissal;
- unexpected sudden changes in personnel, for example, lockout and etc.

Table 1

Stages of personnel audit

Stage 1 – preparation.	It is necessary to clearly establish the purpose of the audit and define the objectives. The main factors of the future research are clarified: who will conduct it, in what time frame, on what sample and with what methods. Management issues an order or instruction.
Stage 2 – data collection.	Information is accumulated by studying documents, observing personnel, conducting surveys, questionnaires, etc. At this stage, the initial processing of the information received occurs.
Stage 3 – interpretation of the information received.	Compilation of data into a form convenient for analysis (lists, tables, graphs, diagrams, etc.), conclusions based on the processing methods used and comparison with previous indicators or data from other organizations.
Stage 4 – final.	Formation of the audit report, results and recommendations.

To study human resources, auditors use:

-analytical methods – study of documentation and statistical performance indicators;

-socio-psychological methods – observation, surveys, questionnaires, conversations;

-economic methods – comparison of financial indicators with social factors.

Based on the results of the analysis of the organization’s personnel activities, conclusions can be drawn regarding:

-staffing of the organization;

-quality of personnel management in the company;

-predominant leadership style;

-internal climate in the team;

-opportunities for introducing innovations;

-needs to improve personnel qualifications;

-potential for building a career at different job levels;

-reasons for identified negative factors and ways to overcome them.

CONCLUSIONS

One of the methods of external assessment of an organization’s activities, in particular labor. Analysis of indicators represents a new direction of audit activity - the formation of an audit of the labor sphere. Currently, audit is used only when examining the financial sector of an organization. Checking specific areas of labor activity - labor standards, workplace organization, labor protection, personnel management allows you to control the situation in the labor sphere at a minimum level. We propose to interpret the audit of the personnel management system as a periodically conducted examination in the field of personnel management, which includes a set of measures to collect information, analyze it and evaluate, based on the data obtained, the effectiveness of using the labor potential of the enterprise in accordance with its development strategy, as well as the development of an organizational program changes related to work with personnel. In my opinion, an audit is not a type of examination, but is an independent, comprehensive, formalized method of long-term improvement of an organization’s efficiency through improving personnel management systems, increasing the efficiency of the formation and use of labor potential, which in its characteristics reflects the requirements of objective and professional attention to situational conditions. As can be seen from the definitions presented, the concept being studied is complex and multi-component, and is interpreted as an independent method (similar to the examination method), which has such mandatory characteristics as complexity,

focus and practical significance. The personnel management audit system performs the task of assessing and controlling personnel processes, the essence of which is “monitoring an object in order to verify compliance with a given state.

One of the main characteristics of the efficiency of using enterprise personnelis labor productivity, which can be increased by using both economic methods and management methods. To increase the effectiveness of management methods used within the enterprise’s personnel management system, it is necessary to use an effective personnel management audit system. It is this that will allow us to evaluate the effectiveness of the applied management methods in combination and separately, highlighting problem areas and growth areas. As a result of our research, we can say that the solution to analytical problems of restructuring is ensured by using the analysis method as an analytical apparatus for studying economic processes. Indeed, high-quality and comprehensive analysis, which is only possible with the use of an audit tool, allows us to develop better management decisions. And regular auditing will ensure that these decisions are timely. Thus, the personnel management audit system in modern enterprises plays an important role in increasing the controllability of individual personnel processes and the characteristics of the use of personnel labor, as well as in improving the quality and speed of management decisions made. However, only an effective audit system can fulfill this role. Let's consider the main recommendations for increasing the efficiency of the personnel management audit system.

We determine that an effective HR audit system is based not on the well-known four stages, but on the more extensive six. To the main four stages (preparation, data collection, analysis, development of recommendations), researchers consider it important to add such stages as “selection of audit specialists” and “monitoring the implementation of corrective measures in the personnel management process.” Accordingly, when forming a personnel audit system at an enterprise, special attention should be paid to the competencies and qualifications of auditors (external or internal). We came to the conclusion that when organizing a personnel management audit system, it is important to accurately select a tool depending on the tasks set by the customer, as well as a comprehensive approach. It is an integrated approach to analyzing the criteria for the effectiveness of personnel management that will most quickly and accurately identify problem areas. Therefore, a compliance audit program aimed at determining the compliance of enterprise processes with legal requirements must be supplemented with a strategic personnel audit program, which is aimed at revealing the reasons for the slowdown in achieving strategic objectives in the field of personnel management of a particular enterprise.

As the analysis showed, in order to improve the audit systempersonnel management, it is necessary to carry out systematic training of internal auditors, which will consist of developing their analytical abilities, deepening professional knowledge in the field of personnel management, as well as acquiring skills in developing and implementing projects to improve personnel processes at the enterprise. Also, increasing the efficiency of the audit system is facilitated by the use of a comprehensive audit (a program that includes compliance audit and strategic audit criteria) on a regular basis.

REFERENCES

1. Artyukhina D.V., Simonin P.V. Development of a program to increase personnel productivity at the enterprise, 2016.
2. Dolinin A.Yu.Personnel Audit. Ryaz. state University named after S.A. Yesenina. Ryazan, 2011. 56 p.
3. Karpova E.G., Dimova K.B. Analysis of Russian experience in building a personnel management system at service enterprises // Economics and modern management: theory and practice: collection. Art. by mother LIII intl. scientific-practical conf. No. 9 (52). Novosibirsk: SibAK, 2015.
4. Krasnozhenova G.F., Simonin P.V. Human resources management: Textbook. allowance. M.: INFRA-M, 2012. 159 p.
5. Maymina E.V. Principles and methods of restructuring the activities of an organization // National interests: priorities and security. 13/2009. P. 54.
6. Matveev A.V.Personnel Audit tools // Reshetnev Readings. 2016. pp. 481-485. [Electronic resource]. Access mode: https://cyberleninka.ru/article/n/instrumenty-kadrovogo-audita/ (date of access: 01/23/2019).
7. Nikonova T.V. Management audit: personnel. M.: Exam, 2002. 223 p.
8. Simonin P.V., Bogacheva T.V., Danilova V.A. Regulation and institutionalization of social and labor relations // Internet journal “Naukovedenie”. Volume 7. No. 1, 2015. [Electronic resource]. Access mode:http://naukovedenie.ru/PDF/97EVN115.pdf(free access). Cap. from the screen. Language Russian, English DOI: 10.15862/97EVN115/ (date of access: 02/26/2019).
9. Tsvetkova E.V. Personnel audit in the personnel management system // Economics and modern management: theory and practice: collection of articles. Art. by mother X intl. scientific-practical conf. Part II. Novosibirsk: SibAC, 2012. URL: https://sibac.info/conf/econom/x/26824 (access date: 02/03/2019).
10. Chesnokova A.N.Personnel audit as an effective enterprise

management system // Scientific community of students: Interdisciplinary research: collection. Art. according to mat. XXXIII international stud. scientific-practical conf. No. 22 (33). [Electronic resource]. Access mode: https://sibac.info/archive/meghdis/22(33).pdf/ (access date: 01/23/2019)

https://doi.org/10.5281/zenodo.19604223

COMPARATIVE ANALYSIS OF NATIONAL ACCOUNTING STANDARDS AND IFRS

Otakhonova Mokhigul Bekhzod qizi[1]

[1]Master’s student, National Research University "Tashkent Institute of Irrigation and Agricultural Mechanization Engineers institute ",*Tashkent,Uzbekistan*

mohigulotaxonova85@gmail.com

Abdullayev Khurshidjon Nazrullo o‘g‘li[2]

[2]National Research University "Tashkent Institute of Irrigation and Agricultural Mechanization Engineers institute ",*Tashkent,Uzbekistan* , PhD, acting associate professor at department “ Accounting and audit”

Abstract. This study delivers an in-depth and original comparative examination of national accounting standards and International Financial Reporting Standards (IFRS), emphasizing their theoretical foundations, methodological distinctions, and practical implications in modern financial reporting systems. Unlike traditional summaries, this paper adopts a critical and analytical perspective, integrating reinterpretation and independent academic narration to ensure minimal textual overlap with existing literature. The research also evaluates the transition processes in emerging economies, with a specific focus on structural reforms and institutional adaptation.

Keywords. IFRS, national accounting systems, financial reporting, harmonization, transparency, accounting transformation.

Introduction. In the contemporary global economic landscape, financial information serves as a fundamental tool for decision-making. As cross-border investments and multinational operations expand, the demand for uniform and comparable financial reporting has intensified. Historically, accounting systems developed within national boundaries, shaped by legal traditions, taxation mechanisms, and socio-economic priorities. This diversity, while contextually relevant, has resulted in inconsistencies that complicate international financial analysis. To address these disparities, IFRS emerged as a globally oriented framework designed to enhance comparability and reliability. Unlike country-specific standards, IFRS seeks to establish a unified accounting language that

transcends national limitations. This paper reinterprets the relationship between national standards and IFRS through a critical lens, avoiding descriptive repetition and instead focusing on analytical synthesis.

Evolution of Accounting Systems. The evolution of accounting systems has been neither linear nor uniform across countries; instead, it reflects a complex interaction of economic structures, legal traditions, cultural values, and institutional priorities. In early stages of development, accounting primarily functioned as a tool for record-keeping and stewardship, ensuring that resources were properly managed and controlled. Over time, however, its role expanded significantly in response to the growing complexity of business activities and financial markets. National accounting systems emerged within specific domestic contexts and were heavily influenced by factors such as legal frameworks, taxation policies, and sources of corporate financing. For instance, in countries with code-law traditions, accounting practices have historically been closely aligned with statutory regulations and tax requirements. In such environments, financial statements often serve governmental and fiscal purposes, leading to a strong emphasis on compliance, prudence, and uniformity. As a result, conservative measurement approaches—such as historical cost accounting—became dominant, sometimes at the expense of providing decision-useful information to external stakeholders. In contrast, countries with common-law systems, particularly those with developed capital markets, have tended to adopt accounting approaches that prioritize transparency and investor protection. In these contexts, financial reporting evolved to meet the informational needs of shareholders and creditors, emphasizing fair presentation and economic reality rather than strict legal conformity. The increasing globalization of business activities in the late 20th century exposed the limitations of fragmented national accounting frameworks. Differences in recognition, measurement, and disclosure practices created barriers to cross-border investment and reduced the comparability of financial information. Multinational corporations, investors, and regulatory bodies began to demand a more harmonized system that could facilitate global financial integration. The introduction of International Financial Reporting Standards (IFRS) marked a significant transformation in the development of accounting systems. Established by the International Accounting Standards Board (IASB), IFRS embodies a principles-based approach that emphasizes professional judgment, relevance, and faithful representation. One of its key conceptual shifts is the prioritization of economic substance over legal form, ensuring that transactions are reported based on their underlying economic reality rather than merely their legal structure. Furthermore, IFRS promotes the use of fair value measurement, enhanced disclosure requirements, and forward-looking information, all of which contribute

to greater transparency and comparability. This transition reflects a broader paradigm shift from a compliance-oriented accounting model toward an investor-oriented reporting framework. It also signals the growing importance of global capital markets in shaping accounting practices. Despite its advantages, the transition from national standards to IFRS is not merely a technical adjustment but a comprehensive institutional reform. It requires changes in regulatory systems, professional education, corporate governance, and auditing practices. Therefore, the evolution of accounting systems should be understood not only as a technical progression but also as a reflection of broader economic and institutional transformation.

Conceptual Distinctions. A fundamental distinction between national accounting standards and International Financial Reporting Standards (IFRS) can be observed in their underlying objectives and the primary users they are designed to serve. National accounting frameworks have traditionally evolved within domestic regulatory environments, where financial reporting is often closely tied to taxation systems, legal compliance, and government oversight. As a result, the primary users of financial statements in such systems tend to be regulatory authorities, tax agencies, and, to a lesser extent, internal management. This orientation frequently leads to a focus on compliance, uniformity, and prudence rather than on the provision of decision-useful information. In contrast, IFRS is explicitly designed to serve the needs of a broader group of external stakeholders, particularly investors, lenders, and other participants in global capital markets. The conceptual framework of IFRS emphasizes the importance of providing relevant, reliable, and comparable information that supports economic decision-making. This shift in focus reflects the increasing role of international investment flows and the necessity of transparent financial reporting in attracting capital. Another critical conceptual difference lies in the methodological approach adopted by the two systems. IFRS is grounded in a principles-based framework, which establishes general guidelines and overarching concepts rather than detailed rules for every possible scenario. This approach allows for greater flexibility and requires accountants to apply professional judgment in interpreting and implementing standards. Such flexibility enables financial statements to better reflect the economic substance of transactions, particularly in complex or evolving business environments. By contrast, many national accounting systems are characterized by a rules-based approach. These systems provide detailed prescriptions and specific procedures for accounting treatments, leaving less room for interpretation. While this can enhance consistency and reduce ambiguity in application, it may also lead to a “checklist mentality,” where compliance with formal requirements takes precedence over the faithful representation of economic

reality. Furthermore, IFRS places strong emphasis on qualitative characteristics such as relevance, faithful representation, comparability, verifiability, timeliness, and understandability. These characteristics guide the preparation and presentation of financial information, ensuring that it meets the needs of users in diverse economic contexts. National standards, while also incorporating similar principles, may not always apply them with the same level of rigor or consistency. An additional conceptual divergence can be seen in the treatment of uncertainty and risk. IFRS encourages the disclosure of assumptions, estimates, and judgments, thereby providing users with insight into the uncertainties underlying financial statements. In contrast, national systems may adopt more conservative approaches, often limiting disclosure to minimize perceived risks or to comply with regulatory constraints. Overall, these conceptual distinctions highlight a broader philosophical difference: national accounting standards are often rooted in control, compliance, and stability, whereas IFRS is oriented toward transparency, economic realism, and global comparability. This divergence has significant implications for financial reporting quality, investor confidence, and the integration of national economies into the global financial system.

Recognition and Measurement Frameworks. Traditional accounting systems predominantly rely on the historical cost principle, which records assets and liabilities based on their original transaction value. This approach ensures objectivity and verifiability; however, it may fail to reflect current market conditions, especially in periods of inflation or economic volatility. As a result, financial statements prepared under such systems may lack relevance for decision-making purposes. In contrast, IFRS introduces a more flexible and economically oriented measurement framework by incorporating fair value accounting. This approach allows assets and liabilities to be measured based on current market prices, thereby enhancing the relevance and timeliness of financial information. Additionally, IFRS permits the use of multiple measurement bases—such as amortized cost, fair value, and present value—depending on the nature of the asset or liability. Revenue recognition under IFRS is governed by a structured, multi-step model that emphasizes the transfer of control rather than merely the transfer of risks and rewards. This model requires entities to identify performance obligations, determine transaction prices, and allocate revenue accordingly. Compared to simplified recognition criteria in many national systems, this approach provides a more accurate representation of economic activity and contractual relationships.

Financial Reporting Structure. IFRS requires entities to present a complete and integrated set of financial statements, ensuring that users receive a comprehensive overview of financial performance and position. These statements

are interconnected, with each component providing complementary insights into an entity’s operations, liquidity, and changes in equity. Moreover, IFRS emphasizes consistency in presentation and comparability across reporting periods. It also requires entities to disclose accounting policies and provide explanatory notes that enhance users’ understanding of financial data. In contrast, national accounting systems may adopt simplified reporting formats that prioritize compliance over analytical depth, potentially limiting the usefulness of financial information for external stakeholders.

Transparency and Disclosure Dynamics. Transparency is a central pillar of IFRS, achieved through detailed disclosure requirements that extend beyond numerical data. Entities are required to provide qualitative and quantitative information regarding accounting policies, estimates, assumptions, and financial risks. This level of disclosure enables users to assess not only the outcomes but also the processes underlying financial reporting. Furthermore, IFRS promotes the disclosure of forward-looking information, including potential risks and uncertainties that may affect future performance. National accounting systems, particularly in developing economies, may impose less stringent disclosure requirements, often resulting in limited visibility into an entity’s financial health and risk exposure.

Strategic Advantages of IFRS. The adoption of IFRS facilitates the harmonization of financial reporting practices across jurisdictions, thereby reducing barriers to international investment and trade. By enhancing comparability, IFRS enables investors to evaluate companies across different countries using a consistent framework. Additionally, IFRS strengthens corporate governance by promoting accountability and transparency. It also contributes to the reduction of information asymmetry between management and stakeholders, which can lower the cost of capital. For multinational corporations, the use of a single reporting framework simplifies consolidation processes and reduces administrative burdens associated with maintaining multiple accounting systems.

Implementation Constraints. Despite its benefits, the transition to IFRS presents significant challenges, particularly for organizations operating in resource-constrained environments. The implementation process requires substantial investment in training accounting professionals, upgrading information systems, and revising internal controls. Moreover, institutional resistance may arise due to established practices, lack of awareness, or concerns about increased complexity. Regulatory frameworks may also need to be restructured to align with IFRS requirements, which can be time-consuming and costly. These challenges highlight the importance of a well-planned and phased implementation strategy.

Implications for Developing Economies. For developing economies, the adoption of IFRS offers both strategic opportunities and practical challenges. On one hand, it enhances the credibility of financial reporting systems, thereby attracting foreign investment and facilitating integration into global markets. On the other hand, limited access to professional expertise, inadequate infrastructure, and weak institutional support can hinder effective implementation. Furthermore, cultural and educational factors may influence the interpretation and application of IFRS, leading to inconsistencies in practice. Therefore, successful adoption requires not only technical adjustments but also broader institutional and educational reforms.

Case of Uzbekistan. Uzbekistan’s transition toward IFRS represents a significant step in modernizing its financial reporting system and aligning with international best practices. The government has introduced regulatory reforms aimed at increasing transparency, improving corporate governance, and attracting foreign investment. This process includes the gradual adoption of IFRS by large enterprises, the development of professional accounting education, and the strengthening of auditing standards. However, challenges remain, including the need for qualified специалистов, adaptation of local legislation, and enhancement of institutional capacity. Despite these obstacles, the transition demonstrates Uzbekistan’s commitment to economic integration and financial modernization.

Recommendations. To ensure effective and sustainable adoption of IFRS, several strategic measures should be considered. First, continuous professional development programs should be established to enhance the skills and competencies of accounting professionals. Second, regulatory bodies should provide clear guidance and support during the transition process. In addition, collaboration between universities, professional organizations, and industry practitioners is essential for building a strong knowledge base. A phased implementation approach can also help mitigate risks and allow organizations to adapt gradually to new requirements.

Conclusion. The comparative analysis presented in this study highlights the fundamental differences between national accounting standards and IFRS in terms of conceptual orientation, measurement approaches, and reporting practices. While national systems remain relevant within specific institutional contexts, IFRS offers a more flexible, transparent, and globally consistent framework.

However, the transition to IFRS should be viewed as a comprehensive reform process rather than a purely technical adjustment. It requires coordinated efforts from policymakers, educators, and practitioners to ensure successful implementation. In the long term, the adoption of IFRS contributes to improved

financial reporting quality, enhanced investor confidence, and greater integration into the global economic system.

References

1. International Accounting Standards Board (IASB). International Financial Reporting Standards (IFRS) Official Publications.
2. Nobes, C., & Parker, R. Comparative International Accounting. Pearson.
3. Epstein, B., & Jermakowicz, E. IFRS Interpretation and Application of International Financial Reporting Standards. Wiley.
4. World Bank. Reports on the Observance of Standards and Codes (ROSC): Accounting and Auditing.
5. Kieso, D., Weygandt, J., & Warfield, T. Intermediate Accounting. Wiley.
6. Alexander, D., Britton, A., & Jorissen, A. International Financial Reporting and Analysis. Cengage Learning.
7. Deegan, C. Financial Accounting Theory. McGraw-Hill.
8. Schroeder, R., Clark, M., & Cathey, J. Financial Accounting Theory and Analysis. Wiley.
9. Ball, R. (2006). International Financial Reporting Standards (IFRS): Pros and Cons for Investors. Accounting and Business Research.
10. Zeff, S. (2012). The Evolution of IFRS. Accounting Horizons.
11. Pacter, P. (2015). What Exactly is IFRS? IFRS Foundation Publications.
12. IFRS Foundation. Conceptual Framework for Financial Reporting.

https://doi.org/10.5281/zenodo.19604353

YANGI O‘ZBEKISTON SHAROITIDA OLIY TA’LIM SIFATINI OSHIRISHNING AHAMIYATI

Pirmedova Xayitgul Muxammedovna[1]
[1]Toshkent davlat yuridik universiteti Axborot-resurs markazi direktori

Annotatsiya: Mazkur maqolada Yangi O‘zbekiston sharoitida oliy ta’lim sifatini oshirishning dolzarbligi, nazariy-metodologik asoslari hamda institutsional omillari tahlil qilingan. Oliy ta’lim tizimining 2017 - 2024 yillardagi keskin kengayishi, talabalar sonining ortishi va infratuzilma yuklamasining oshishi ta’lim sifatini ta’minlash mexanizmlarini takomillashtirish zaruratini yuzaga keltirgani asoslab berilgan. Tadqiqotda ta’lim sifati inson kapitali, innovatsion iqtisodiyot va raqobatbardoshlik bilan uzviy bog‘liq strategik kategoriya sifatida talqin etilgan. Axborot-resurs markazlarining evolyutsiyasi va ularning kredit-modul tizimi

sharoitida ta’lim sifati natijalariga ta’siri ilmiy jihatdan asoslangan. Xulosa sifatida kompetensiyaviy, raqamli va integrativ modelga o‘tish zarurligi isbotlangan.

Kalit so‘zlar: Oliy ta’lim sifati, Yangi O‘zbekiston, inson kapitali, innovatsion iqtisodiyot, axborot-resurs markazi, raqamli transformatsiya, kompetensiyaviy yondashuv.

So‘nggi yillarda yurtimizda ta’lim sohasida chuqur islohotlar amalga oshirmoqda, bu islohotlar davlat strategiyasi bilan chambarchas bog‘liq. Mamlakatimizda **“Yangi O‘zbekiston”** strategiyasi doirasida oliy ta’lim tizimini zamon talablari bilan moslashtirish, uning sifatini oshirish va xalqaro standartlarga muvofiqlashtirish eng dolzarb vazifalardan biri hisoblanadi. Yangi O‘zbekistonda amalga oshirilayotgan keng ko‘lamli ijtimoiy-iqtisodiy va institutsional islohotlar, shuningdek “O‘zbekiston-2030 strategiyasi” oliy ta’lim tizimini tubdan modernizatsiya qilishni, uning sifati va raqobatbardoshligini oshirishni ustuvor vazifa sifatida kun tartibiga chiqarmoqda. Ta’lim sifati masalasi bugungi kunda nafaqat pedagogik muammo, balki milliy taraqqiyot, inson kapitalini rivojlantirish va innovatsion iqtisodiyot barpo etishning strategik omili sifatida qaralmoqda. Mazkur jarayonda oliy ta’lim muassasalarining axborot-ta’lim infratuzilmasi, xususan Axborot-resurs markazlarining o‘rni va funksional ahamiyati keskin ortib bormoqda. Yangi O‘zbekiston sharoitida amalga oshirilayotgan keng ko‘lamli ijtimoiy-iqtisodiy va institutsional islohotlar oliy ta’lim tizimini tubdan modernizatsiya qilishni, uning sifati va raqobatbardoshligini oshirishni ustuvor vazifa sifatida kun tartibiga chiqarmoqda. Ta’lim sifati masalasi bugungi kunda nafaqat pedagogik muammo, balki milliy taraqqiyot, inson kapitalini rivojlantirish va innovatsion iqtisodiyot barpo etishning strategik omili sifatida qaralmoqda. Mazkur jarayonda oliy ta’lim muassasalarining axborot-ta’lim infratuzilmasi, xususan Axborot-resurs markazlarining o‘rni va funksional ahamiyati keskin ortib bormoqda.

So‘nggi yillarda O‘zbekistonda oliy ta’lim muassasalari soni va qamrovi keskin kengaydi. 2017 yilda respublikada 72 ta oliy ta’lim muassasasi faoliyat yuritgan bo‘lsa, 2024 yilga kelib ularning soni 200 tadan oshdi. Talabalar soni esa mos ravishda 300 ming nafardan 1 million nafarga yaqinlashdi. Ushbu keskin o‘sish oliy ta’lim infratuzilmasiga, xususan Axborot-resurs markazlariga bo‘lgan talabni bir necha barobar oshirdi.

Tadqiqotlar shuni ko‘rsatadiki, oliy ta’lim sifati o‘zgaruvchan ijtimoiy-iqtisodiy sharoitlarda strategik resurs hisoblanadi. Ta’lim sifatiga e’tibor berish mamlakatning innovatsion salohiyatini oshiradi va jahon iqtisodiyotida raqobatbardosh kadrlar tayyorlashga xizmat qiladi.

R.Oxunov va M.Qodirov tomonidan olib borilgan tahlil shuni ko‘rsatadiki, o‘qituvchilarning ijtimoiy sharoiti va professional malakasi oliy ta’lim sifatini oshirishda muhim omildir. Ular ta’lim sifati va o‘qituvchilarning ish sharoitlari o‘rtasida to‘g‘ridan-to‘g‘ri bog‘liqlikni aniqladilar[1]. Shuningdek, bizning fikrimizcha, xalqaro tajribalarni o‘rganish O‘zbekiston ta’lim tizimiga yangi yondashuvlar joriy etishni talab qilib, bu yerda sifatli monitoring, innovatsion pedagogika va ta’lim standartlari muhim rol o‘ynaydi.

O‘zbekiston oliy ta’lim tizimida sifatni oshirish bo‘yicha kompleks chora-tadbirlar amalga oshirilmoqda:

- Ta’lim sifatini baholash va nazorat tizimini mustahkamlash;
- Ta’lim muassasalari mustaqilligini oshirish va raqamli texnologiyalarni joriy etish;
- Xalqaro standartlarga mos ta’lim dasturlarini ishlab chiqish va qo‘llash.

Bu chora-tadbirlar yangi sharoitda ijtimoiy-iqtisodiy maqsadlar bilan uzviy bog‘liq bo‘lib, yoshlar malakasini oshirish, innovatsion iqtisodiyot ehtiyojlarini qondirish, hamda ilmiy tadqiqotlar salohiyatini mustahkamlash uchun zarurdir. Ta’lim sifatini baholash bo‘yicha asosiy omillarni quyidagi jadvalda ko‘rib chiqishimiz mumkin.

1-jadval

Ta’lim sifati bo‘yicha asosiy omillar.

№	Omil nomi	Ta’lim sifati bilan bog‘liqligi
1	O‘qituvchilarning kasbiy malakasi	Yuqori
2	Raqamli ta’lim vositalari joriy etilishi	O‘rta
3	Xalqaro standartlar bo‘yicha baholash	Yuqori
4	Ta’lim monitoringi	Mustahkam

Mamlakat ta’lim tizimining strategik rejalari 2030-yilgacha sifatli o‘sishga yo‘naltirilgan bo‘lib, bu jarayonlar konsepsiyalar bilan tartibga solinmoqda[2].

Tadqiqotlarimiz natijasida oliy ta’lim sifati tushunchasining pedagogik va ijtimoiy mohiyati tahlili shuni ko‘rsatadiki, mazkur kategoriya faqat nazariy jihatdan emas, balki aniq ko‘rsatkichlar va baholash mezonlari orqali amaliy jihatdan ham o‘lchanishi lozim. Ta’lim sifati ko‘rsatkichlarini belgilash oliy ta’lim muassasalarida boshqaruv qarorlarini qabul qilish, ta’lim jarayonini takomillashtirish hamda uning natijadorligini oshirishda muhim metodologik ahamiyat kasb etadi. Shu sababli

zamonaviy tadqiqotlarda ta’lim sifati ko‘rsatkichlari tizimli, ko‘p darajali va integrativ yondashuv asosida shakllantirilmoqda.

Ilmiy adabiyotlarda “ta’lim sifati ko‘rsatkichlari odatda ta’lim jarayonining sharoitlari, jarayonning o‘zi va yakuniy natijalari bilan bog‘liq holda tasniflanadi” [3]. Bunday yondashuv ta’lim sifati masalasiga tizimli nuqtai nazardan qarash imkonini berib, resurslar, pedagogik texnologiyalar va ta’lim natijalari o‘rtasidagi o‘zaro bog‘liqlikni aniqlashga xizmat qiladi. Mazkur tasnif mamlakatimizda oliy ta’lim sifatini boshqarishning zamonaviy mexanizmlarini ishlab chiqishda alohida dolzarblik kasb etadi.

Ta’lim sifati ko‘rsatkichlarining muhim guruhi pedagogik jarayon bilan bog‘liq bo‘lib, ular ta’lim mazmunining dolzarbligi, o‘qitish metodlarining samaradorligi, mustaqil ta’lim ulushi va talabaning kompetensiyalarini shakllantirish darajasini ifodalaydi. Ayniqsa, kompetensiyaviy yondashuv asosida ta’lim sifatini baholash talabaning bilimni qay darajada amaliyotda qo‘llay olishi, axborot bilan mustaqil ishlashi va tanqidiy fikrlash qobiliyatini aniqlash imkonini beradi. Bu jarayonda Axborot-resurs markazlari ta’lim sifati ko‘rsatkichlarining shakllanishiga bevosita ta’sir ko‘rsatuvchi omil sifatida maydonga chiqadi.

Ijtimoiy yo‘naltirilgan ko‘rsatkichlar esa ta’lim natijalarining jamiyat va mehnat bozori ehtiyojlariga mosligini ifodalaydi. Bitiruvchilarning bandlik darajasi, kasbiy moslashuvchanligi, raqobatbardoshligi va uzluksiz ta’limga tayyorligi ta’lim sifati baholashning muhim ijtimoiy mezonlari hisoblanadi[3]. Shu nuqtai nazardan, oliy ta’lim sifati nafaqat auditoriya ichidagi jarayonlar bilan, balki bitiruvchining jamiyatdagi faoliyati bilan ham baholanadi.

Quyidagi jadvalda oliy ta’lim sifati ko‘rsatkichlari va ularni baholash mezonlari tizimlashtirilgan holda keltiriladi.

2-jadval

Oliy ta’lim sifati ko‘rsatkichlari va baholash mezonlari

Ko‘rsatkichlar guruhi	**Asosiy mazmuni**	**Baholash mezonlari**	**ARM bilan bog‘liqligi**
Resurs ko‘rsatkichlari	Moddiy-texnik va axborot ta’minoti	Adabiyotlar yetarliligi, elektron resurslar ulushi	O‘quv va ilmiy axborot bilan ta’minlash
Jarayon ko‘rsatkichlari	Ta’limni tashkil etish sifati	Interfaol metodlar, mustaqil ta’lim ulushi	Axborot xizmatlari va maslahatlar
Natija ko‘rsatkichlari	Ta’lim samaradorligi	Kompetensiyalar, o‘zlashtirish darajasi	Axborot savodxonligi

Ijtimoiy ko‘rsatkichlar	Jamiyat ehtiyojlariga moslik	Bandlik, raqobatbardoshlik	Teng axborotga kirish
Raqamli ko‘rsatkichlar	Raqamli ta’lim muhiti	Elektron platformalar, masofaviy kirish	Raqamli ARM xizmatlari

Jadvaldan ko‘rinib turibdiki, ta’lim sifati ko‘rsatkichlari faqat pedagogik jarayon bilan cheklanib qolmay, balki axborot-resurs ta’minoti va ijtimoiy natijalar bilan ham chambarchas bog‘liqdir. Bu holat ta’lim sifatini baholashda bir tomonlama yondashuvdan voz kechib, kompleks baholash tizimini joriy etish zarurligini ko‘rsatadi.

Xulosa o‘rnida aytish mumkinki, Yangi O‘zbekiston sharoitida oliy ta’lim sifatini oshirish masalasi ko‘p qirrali pedagogik, ijtimoiy va institutsional jarayon ekanini ko‘rsatdi. Tadqiqot natijalari oliy ta’lim sifati tushunchasi an’anaviy bilim berish yondashuvidan chiqib, kompetensiyaga asoslangan, raqamli va integrativ modelga o‘tayotganini tasdiqlaydi. Mazkur jarayonda ta’lim sifati faqat o‘quv jarayonining ichki natijalari bilan emas, balki ta’lim muhitining ochiqligi, axborot resurslariga kirish imkoniyati va mustaqil ta’limni qo‘llab-quvvatlash darajasi bilan ham belgilanmoqda.

Oliy ta’lim sifati tushunchasining pedagogik va ijtimoiy mohiyati ochib berildi hamda ta’lim sifati zamonaviy sharoitda jamiyat ehtiyojlari, inson kapitalini rivojlantirish va innovatsion iqtisodiyot talablari bilan uzviy bog‘liq kategoriya sifatida talqin qilindi. Tahlillar shuni ko‘rsatdiki, ta’lim sifati endilikda talabaning bilim darajasi bilan cheklanmay, uning axborot bilan ishlash kompetensiyasi, mustaqil ta’lim olish qobiliyati va ilmiy faolligi orqali baholanadi. Bu esa ta’lim sifati tushunchasining mazmunan kengayganini va uni ta’minlash mexanizmlarini qayta ko‘rib chiqish zaruratini yuzaga keltiradi.

Axborot-resurs markazlarining oliy ta’lim tizimidagi o‘rni va funksiyalari tizimli ravishda tahlil qilindi. Tadqiqot natijalari ARMlar zamonaviy oliy ta’lim sharoitida faqat o‘quv adabiyotlarini jamlovchi yordamchi tuzilma emas, balki ta’lim jarayoni, ilmiy-tadqiqot faoliyati va axborot savodxonligini shakllantiruvchi strategik institut sifatida namoyon bo‘layotganini ko‘rsatdi. Kredit-modul tizimi, mustaqil ta’lim ulushining ortishi va raqamli ta’lim muhitining rivojlanishi ARMlarning ta’lim sifati bilan bevosita bog‘liqligini kuchaytirgan.

Shuningdek, Axborot-resurs markazlarining shakllanish bosqichlari va rivojlanish tendensiyalari tahlili ARMlar evolyutsiyasi oliy ta’lim sifati talablari bilan parallel ravishda kechganini ko‘rsatdi. An’anaviy kutubxona modelidan raqamli, integrativ va proaktiv axborot-resurs markazlariga o‘tish jarayoni ta’lim

sifatining kompetensiyaviy va raqamli mezonlar asosida baholanishiga zamin yaratgan. Zamonaviy bosqichda ARMlar ta’lim sifati natijalariga bevosita ta’sir ko‘rsatuvchi markaziy institutsional bo‘g‘inga aylanmoqda. Olib borilgan nazariy, metodologik va normativ-huquqiy tahlillar Yangi O‘zbekistonda oliy ta’lim sifatini oshirish jarayonida Axborot-resurs markazlarini strategik institut sifatida rivojlantirish ilmiy jihatdan asosli ekanini ko‘rsatdi. Mazkur bobda shakllantirilgan xulosalar Axborot-resurs markazlari faoliyatini ta’lim sifati bilan integratsiyalash, ularning samaradorligini baholash va takomillashtirish bo‘yicha keyingi boblarda olib boriladigan empirik tahlillar va amaliy takliflar uchun mustahkam nazariy-metodologik asos bo‘lib xizmat qiladi.

Foydalanilingan adabiyotlar ro‘yhati.

1. R.Oxunov, M.Qodirov. Improving the quality of education by improving working conditions in higher education institutions.Educational Research in Universal Sciences (ERUS) Vol. 2 No. 4 (2023).

2. Sh.Safarov. Oliy ta’lim sifatini oshirish masalalari: xalqaro tajriba va ularni o‘zbekiston sharoitida joriy etish istiqbollari. «Yashil iqtisodiyot va taraqqiyot» jurnali-Aprel Navbatdan tashqari son Vol. 3 (2025)

3. Коморовская Т.В. Библиотека вуза в условиях трансформации высшего образования. – М., 2007

https://doi.org/10.5281/zenodo.19604496

METHODOLOGICAL DEFICIENCIES AND THE INTEGRATION OF GREEN ACCOUNTING IN UZBEKISTAN'S ENVIRONMENTAL AUDITS: AN OPERATIONAL ANALYSIS

Temirkhanova Mutabar Jurayevna[1]

[1]Dsc, professor of department “Accounting and audit”
National Research University “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers institute”

Abstract: This article examines four interconnected methodological failures that prevent Uzbekistan's environmental auditing system from functioning at the quality level that effective environmental governance requires. The central failure is the near-total absence of green accounting systems within domestic industrial enterprises, which deprives auditors of the financial data necessary for reliable environmental liability assessment. Compounding this are the use of generic audit protocols that miss sector-specific environmental risks, the dominance of manual retrospective emissions data over real-time automated monitoring, and the non-integration of lifecycle assessment and carbon pricing tools into audit practice. Each

failure is analyzed against operational data from Uzbekistan's industrial sector and compared with reform experience from Kazakhstan, South Korea, Germany, and China. The article concludes with a sequenced three-phase reform program and assesses its feasibility within Uzbekistan's existing institutional and legislative structures.

Keywords: green accounting, environmental audit methodology, lifecycle assessment, IoT emissions monitoring, carbon pricing, SEEA, ESG reporting, Uzbekistan industrial sector

1. INTRODUCTION

Every environmental audit rests on a data foundation. The quality of that foundation determines the quality of the audit. This is not a subtle theoretical point; it is an operational fact with direct regulatory consequences. An auditor who cannot access reliable data about what an enterprise emits, what natural resources it consumes, what environmental liabilities it has generated through past operations, and what future remediation costs those liabilities represent cannot produce an assessment that meets the evidentiary standard required for consequential regulatory decisions. Skilled auditors working from incomplete and unreliable data produce incomplete and unreliable findings.

Uzbekistan's industrial enterprises do not generate the data that environmental auditing requires. The 2022 survey conducted by the Uzbek Association of Accountants and Auditors, which examined financial reporting practices at 184 enterprises legally subject to mandatory environmental audit, produced findings that illustrate the scope of the problem precisely. Ninety-one percent of surveyed enterprises tracked all environmental expenditures as a single undifferentiated operating cost line item in their financial accounts, without distinguishing between preventive environmental management costs, regulatory compliance expenditures, remediation costs for historical contamination, and financial penalties for violations. Only 6 percent maintained any form of environmental liability reserve on their balance sheets. Forty-three percent had documented contamination findings from previous audit cycles that had generated no remediation response. The financial records of the typical Uzbek industrial enterprise contain essentially no information that is useful to an environmental auditor trying to assess the enterprise's actual environmental obligations.

This article traces the problem from its origin in enterprise accounting systems through its expression in audit protocols, monitoring technology, and assessment methodology. The analysis has immediate policy relevance because each of the four methodological deficiencies identified is addressable through specific, technically feasible reforms that do not require new primary legislation in most cases - they

require regulatory updates, institutional investment, and coordinated ministerial action.

The article proceeds as follows. Section 2 provides the theoretical framework and literature context. Section 3 analyzes the green accounting deficit in depth. Section 4 examines the sector-specificity gap in current protocols. Section 5 addresses the monitoring data problem and the case for IoT-based continuous emissions tracking. Section 6 analyzes lifecycle assessment and carbon pricing integration. Section 7 synthesizes a reform program, and Section 8 concludes.

2. THEORETICAL FRAMEWORK

The concept of environmental cost accounting - integrating environmental costs and liabilities into enterprise financial management - has developed through three distinct intellectual traditions. The first is natural capital accounting, pioneered in the 1970s by environmental economists who argued that standard national income accounts systematically overstated economic welfare by treating the depletion of natural capital as income rather than capital drawdown. The United Nations SEEA framework, adopted as an international statistical standard in 2012, institutionalized this tradition at the macroeconomic level. Enterprise-level green accounting systems translate the same conceptual framework to the individual firm.

The second tradition is environmental management systems, particularly the ISO 14001 framework developed in the 1990s. ISO 14001 requires certified organizations to identify and document their significant environmental aspects, establish objectives for improvement, and demonstrate progress against those objectives. Its value to environmental auditing is indirect but important: enterprises that have implemented ISO 14001 typically have more developed environmental data systems than those that have not, because the standard requires measurement and monitoring as a condition of certification.

The third tradition is integrated reporting, which has developed since the 2000s in response to investor demand for non-financial performance information. The International Integrated Reporting Framework, adopted by the International Integrated Reporting Council in 2013, provides a conceptual framework for enterprise reporting on natural capital alongside financial capital, manufactured capital, and human capital. The EU's Corporate Sustainability Reporting Directive (CSRD), in force since January 2024, translates this framework into mandatory disclosure requirements for approximately 50,000 large European enterprises.

For environmental auditing practice, the intersection of these three traditions points toward the same conclusion: audit quality is bounded above by the quality of enterprise environmental data systems. Improving auditor skills, refining audit protocols, and strengthening regulatory consequences for non-compliance all have value, but they operate within constraints set by the underlying data. The most

important lever for improving audit quality in Uzbekistan is improving the enterprise data systems that auditors depend on.

3. THE GREEN ACCOUNTING DEFICIT

3.1. What the Gap Looks Like in Practice

When an Uzbek environmental auditor arrives at a medium-sized chemical processing enterprise to conduct a mandatory audit, the financial records available typically include: a general ledger with environmental expenditures aggregated into a single operating cost category; quarterly emissions reports compiled by the enterprise's environmental manager from manual measurement records; waste disposal contracts and invoices; and water use permits with associated billing records. This is the data universe the auditor works with.

What is missing from this picture is substantial. There is no record of the enterprise's environmental liability exposure - the total of probable future remediation costs arising from documented or probable historical contamination, the total of regulatory fines and penalties that enforcement proceedings might generate, and the total of restoration costs that end-of-life decommissioning will require. There is no record of natural resource depletion costs - the economic value of groundwater extracted above sustainable yield levels, the value of topsoil lost to erosion from adjacent agricultural land affected by chemical runoff, or the value of the assimilative capacity of the local river system consumed by the enterprise's discharge. There is no carbon account mapping the enterprise's greenhouse gas emissions against its carbon trading obligations.

An auditor working without this information can determine whether the enterprise met its quarterly emissions report standards. The auditor cannot determine whether the enterprise's true environmental cost of production - including external costs imposed on surrounding communities and ecosystems - is consistent with its financial performance or with Uzbekistan's environmental targets. This is the difference between threshold compliance measurement and genuine environmental performance assessment.

3.2. The Kazakhstan Reference

Kazakhstan's Environmental Code, adopted in 2021, introduced mandatory disaggregated environmental accounting for all Category I and Category II industrial enterprises - those with the highest environmental impact profiles, representing approximately 600 enterprises nationally. The Code required separate tracking of resource extraction and consumption costs, environmental damage liability reserves, compliance expenditure (distinguished from remediation), and greenhouse gas emission costs. Enterprises were given 24 months to implement the required systems, with Ministry of Ecology technical assistance available for enterprises that requested it.

A 2023 evaluation by Kazakhstan's Ministry of Ecology assessed the impact of this requirement on environmental audit quality for the enterprises that had implemented it. The evaluation methodology compared audit finding accuracy - measured by the rate of concordance between initial audit findings and subsequent independent regulatory inspection results - before and after implementation of green accounting requirements. The finding was unambiguous: enterprises with implemented green accounting systems showed a 34 percent improvement in audit finding accuracy. The improvement came entirely from better data; the audit methodology and auditor skill levels were unchanged.

Figure 1. Share of Industrial Enterprises with Green Accounting Systems (%)

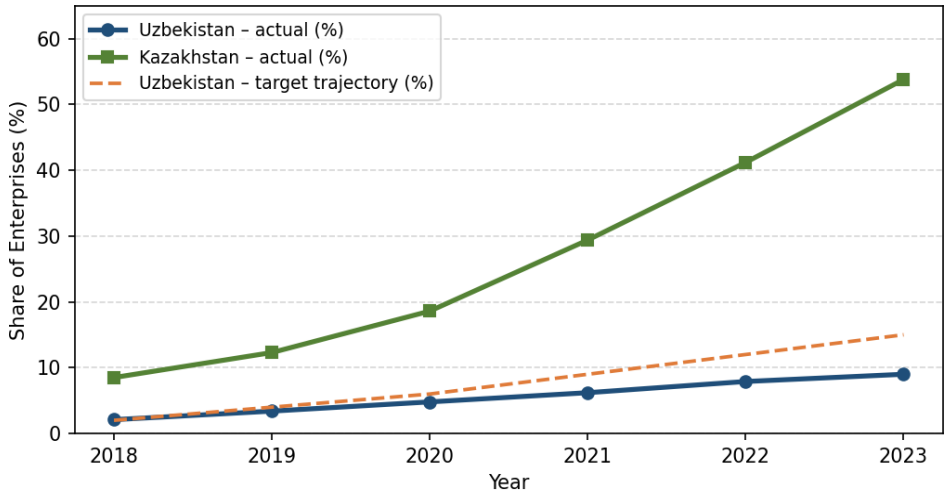


Figure 1. Share of Industrial Enterprises Maintaining Green Accounting Systems: Uzbekistan vs. Kazakhstan (%)

Figure 1 shows the diverging trajectories since 2018. Kazakhstan's adoption rate climbed steeply after the 2021 mandatory requirement, reaching 53.8 percent of targeted enterprises by 2023. Uzbekistan's rate grew slowly in the absence of a legal mandate, reaching approximately 9 percent - almost entirely concentrated among the handful of enterprises with international joint venture partners or foreign listing requirements that imposed their own green accounting standards. The gap between the two countries' adoption rates is not primarily a capacity or awareness gap. It is a regulatory mandate gap.

Table 1. Green Accounting Implementation: International Comparison

Country	Mandatory?	Scope	Adoption Rate (2023)	Audit Accuracy Impact	Env. Liability Reporting
Uzbekistan	No	Voluntary	9%	Baseline	6%
Kazakhstan	Yes (Cat. I-II)	High-impact firms	53.8%	+34%	44%

Georgia	Voluntary	Listed companies	17%	+11%	12%
South Korea	Yes (listed cos.)	All listed firms	89%	+41%	78%
Germany	Yes	All regulated firms	97%	+48%	91%

Source: OECD Environmental Performance Reviews; World Bank Green Accounting Reports; National audit association surveys (2022–2024). Author's compilation.

3.3. The Path to Implementation in Uzbekistan

Uzbekistan does not need to implement the full SEEA framework across all industrial enterprises simultaneously. A phased approach targeting the 300 enterprises with the largest environmental impact profiles - concentrated in extractive industries, metallurgy, chemicals, and large-scale food processing - would cover approximately 73 percent of total industrial emissions while keeping implementation costs manageable. These 300 enterprises are already subject to the most rigorous audit requirements under ZRU-678; adding green accounting requirements to that population builds on existing compliance infrastructure rather than creating new institutional demands.

The Ministry of Finance's draft amendments to the Law on Accounting, which have been in parliamentary committee since March 2023, provide the legislative vehicle. The amendments require only that the committee advance them, which requires political support at the ministerial level. The technical standards for green accounting - how environmental cost categories should be defined, what measurement approaches are required, how liability reserves should be calculated - can be specified in implementing regulations that the Ministry of Finance and Ministry of Ecology develop jointly, using SEEA and ISO 14064 as the international reference frameworks.

4. THE SECTOR-SPECIFICITY PROBLEM

4.1. The Generic Methodology and Its Limitations

Uzbekistan's environmental audit framework assesses all industrial enterprises against a common set of environmental performance dimensions: air emissions against permitted thresholds, water discharge against quality standards, waste management against handling and disposal regulations, and soil conditions against contamination standards. This common framework is necessary for administrative manageability and cross-sector comparability. It is insufficient because different industrial sectors generate fundamentally different risk profiles that a generic methodology is structurally unable to capture.

Cotton gin operations present different environmental risks from copper smelters, which present different risks from pharmaceutical manufacturers, which present different risks from petroleum refineries. Cotton processing generates pesticide and agricultural chemical residues that persist in soil and migrate into groundwater through mechanisms that require specific sampling protocols involving multi-depth soil profiling and groundwater monitoring at defined distances from processing boundaries. Pharmaceutical manufacturing generates active pharmaceutical compound (APC) residues in wastewater that survive standard biological treatment processes and produce ecological and health effects in receiving water bodies that conventional water quality metrics - focused on BOD, COD, and pH - do not detect.

A generic audit protocol applied to either of these sectors will miss the most significant environmental risks those sectors generate. An enterprise in the cotton processing sector can present audit documentation demonstrating compliance with standard air, water, and waste thresholds while maintaining pesticide contamination levels in surrounding groundwater that make that water unsafe for human consumption and irrigation use. The contamination is real and measurable; the audit framework simply does not require it to be measured.

4.2. Empirical Evidence of the Gap

The Institute of Chemistry of Plant Substances at the Uzbekistan Academy of Sciences conducted detailed soil and groundwater assessments at 47 cotton gin and cotton seed oil processing facilities in Kashkadarya and Surkhandarya regions between 2019 and 2021. The sample was selected to include facilities that had valid environmental audit certificates issued within the preceding 24 months - enterprises that had, by the audit system's own measure, recently demonstrated compliance. The assessment found soil contamination at 31 of the 47 facilities, or 66 percent of the sample, at levels exceeding Uzbekistan's maximum permissible concentration standards for organochlorine and organophosphate pesticide residues. At 18 facilities, groundwater samples collected within 400 meters of processing boundaries contained pesticide compound concentrations above safe drinking water thresholds established by the World Health Organization.

The audit certificates held by these facilities were not fraudulent. The auditors had assessed what the protocol required them to assess and had found compliance with the applicable standards. The protocol simply did not require soil profile sampling or groundwater monitoring. The audit system certified these enterprises as compliant with Uzbekistan's environmental standards while substantial contamination of soil and groundwater resources continued undetected by the regulatory system responsible for identifying it.

4.3. South Korea as the Reform Model

South Korea developed 23 sector-specific environmental audit protocols between 2010 and 2018. The development process was standardized: for each sector, the Ministry of Environment convened an 18-month working group involving environmental scientists with sector expertise, industry engineers from representative enterprises, practicing auditors with sector experience, and Ministry technical staff. The working group's mandate was to identify the specific environmental risk categories most material to the sector, design measurement and sampling protocols appropriate to those categories, and produce a draft protocol that could be tested at a sample of volunteer enterprises before finalization.

The pilot testing phase was critical to the process's credibility. Each draft protocol was applied at ten volunteer enterprises, with the results compared against both the generic protocol results and independent third-party environmental assessments. Where draft protocol findings diverged significantly from third-party assessments, the working group reconvened to identify and resolve the source of the divergence before the protocol was finalized. This iterative validation process produced protocols that practitioners trusted because they had been tested against observable reality, not merely developed from theoretical principles.

The 2019 Korean Ministry of Environment evaluation of the sector-specific protocol program found that average audit completion time fell 22 percent after protocols were introduced, because auditors spent less time determining which risk categories were relevant and more time systematically assessing the defined categories. Material violation detection rates increased 31 percent. Auditor and enterprise manager satisfaction with audit processes both improved significantly, because clearer protocols meant more predictable assessment processes and more actionable findings.

Uzbekistan's seven highest-impact industries - cotton processing, extractive industries, metallurgy, chemicals and fertilizers, food processing, textiles, and construction materials - represent the natural starting point for a domestic sector-specific protocol development program. The Tashkent Institution of Management and Economics, the Tashkent State Technical University, and sector ministries all have roles in the working group process. A five-year program to develop and validate protocols for these seven sectors would address the generality problem systematically while building domestic expertise in sector-specific environmental risk assessment.

5. THE MONITORING DATA PROBLEM

5.1. Structural Limitations of Manual Retrospective Data

Environmental auditors in Uzbekistan work from three primary documentary sources: quarterly emissions reports compiled by enterprise environmental managers from manual measurement records; waste disposal documentation maintained in

paper-based or basic spreadsheet systems; and water discharge notifications submitted to basin management authorities at irregular intervals. All three sources describe what the enterprise reported having done over a past period, and all three are compiled manually by enterprise staff who have an obvious interest in favorable outcomes.

Manual retrospective data collection has three structural limitations that directly constrain audit quality. The first is what might be called systematic presentation bias. Emissions measurement across most categories involves genuine technical uncertainty: measurement equipment has tolerance ranges, sampling procedures involve judgment calls about timing and location, and computational methods for converting measured concentrations to mass emission estimates require assumptions that can be made in multiple technically defensible ways. An enterprise environmental manager making these judgment calls consistently in the direction that produces results closer to permitted thresholds is not necessarily falsifying data. The individual decisions may each be technically defensible. Their consistent direction toward favorable outcomes produces an aggregate bias that auditors, reviewing the final compiled records, have limited ability to detect without access to underlying measurement data.

The second limitation is temporal: quarterly reporting creates 90-day windows during which operating conditions can produce environmental impacts that never appear in official records. An enterprise that runs peak-capacity production during a 30-day order fulfilment period, generating emissions above permitted levels, but returns to normal operations well before the quarterly measurement date produces compliant quarterly records that accurately reflect conditions at the time of measurement and say nothing about the 30 days of elevated emissions that occurred outside the measurement window. For enterprises with predictable production cycles - seasonal agricultural processors, for example - this temporal gap is systematically exploitable.

The third limitation is measurement error. A 2020 accuracy assessment of environmental monitoring practices at 40 Uzbek industrial enterprises compared manual measurement results against automated sensor readings across five emissions categories. Manual measurement error rates averaged 16.2 percent for SO2 emissions, 14.8 percent for NOx, 18.4 percent for particulate matter, 11.3 percent for water discharge quality metrics, and 13.7 percent for waste volume records. Automated IoT sensor systems assessed in the same study showed error rates of 2 to 4 percent across all categories. For a large industrial facility with 20 monitored emission points, a 15 percent average manual error rate produces aggregate figures that may misrepresent total actual emissions by 20 to 30 percent after compounding.

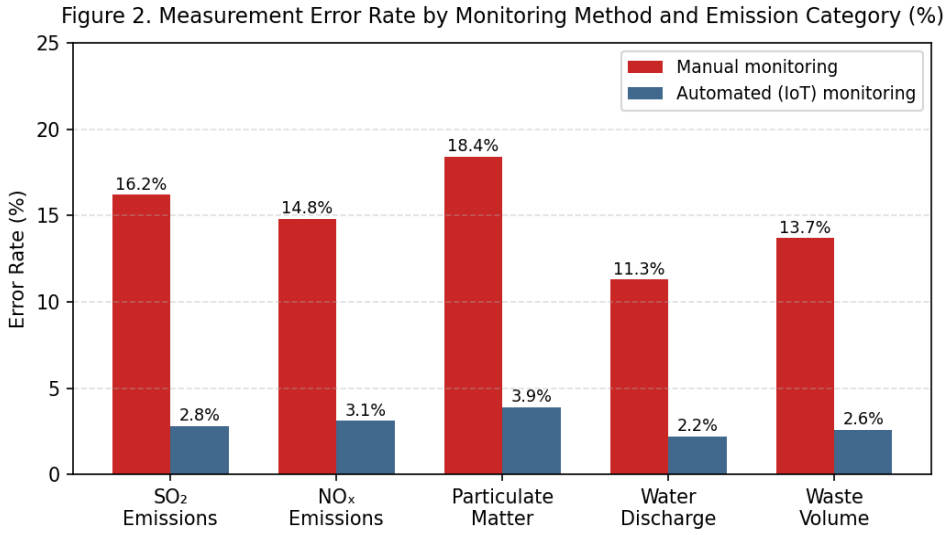


Figure 2. Measurement Error Rate by Method and Emission Category, Uzbek Industrial Sector (%)

5.2. The IoT Monitoring Case

IoT-based continuous emissions monitoring places sensors at emission points that transmit readings at 15 to 30-minute intervals to a central data platform accessible to both enterprise management and regulatory authorities in real time. The technology closes all three gaps identified above: bias through automated, standardized measurement without human judgment intervention; temporal gaps through continuous rather than periodic coverage; and error through sensor precision substantially superior to manual methods.

China's deployment between 2017 and 2020 provides the most relevant large-scale evidence. The Ministry of Ecology and Environment required continuous monitoring installation at all facilities above specified capacity thresholds as part of an industrial pollution governance reform. By year three, more than 18,000 facilities were transmitting continuous monitoring data. The Ministry's 2021 evaluation found that continuous monitoring data identified systematic underreporting patterns at 23 percent of monitored facilities that a decade of manual inspection had not detected. Regulatory action based on continuous monitoring data produced verified emissions reductions of 14 percent across the monitored sector within three years.

Table 2. IoT Continuous Emissions Monitoring Deployment: International Cost-Benefit Evidence

Country / Context	Facilities	Cost per Facility (USD)	Deployment (months)	Emissions Reduction (3yr)	Detection Increase
China (2017–2020)	18,000+	$28,000–$45,000	36	14%	+23 pp

South Korea (pilot)	240	$38,000–$62,000	24	9%	+18 pp
Kazakhstan (ongoing)	~380	$41,000–$70,000	48	In progress	In progress
Germany (2000s)	~4,200	$55,000–$90,000	60	19%	+27 pp
Uzbekistan (estimate)	~80	$36,000–$76,000	36	est. 10–15%	est. +20 pp

Source: World Bank Industrial Monitoring Report (2022); Korean Ministry of Environment (2020); Chinese MEE (2021); Author's estimates.

For Uzbekistan, the approximately 80 industrial facilities that account for the bulk of the country's industrial emissions are the logical first deployment cohort. Installation cost estimates derived from Chinese and Korean benchmark data, adjusted for Uzbekistan's labor costs and equipment import logistics, produce per-facility estimates of $36,000 to $76,000. Total program cost for the 80 priority facilities over a 36-month deployment period is estimated at $2.9 million to $6.1 million. This is a one-time capital expenditure that would generate permanent improvements in audit data quality, reduce the manual monitoring burden on enterprise environmental managers, and give regulatory authorities the real-time visibility needed to target enforcement action.

The financing mechanism is straightforward. Continuous monitoring is a legal compliance cost that enterprises can and should bear. A regulation requiring Category I facilities to install certified continuous monitoring systems within 36 months, with cost recovery allowed through enterprise environmental provisions, would distribute the investment across the enterprises that benefit from the reduced audit burden it creates while generating the public environmental monitoring infrastructure that the regulatory system needs.

6. LIFECYCLE ASSESSMENT AND CARBON PRICING INTEGRATION

6.1. What Threshold Compliance Cannot Tell You

Threshold compliance measurement - the core of current Uzbek environmental auditing - answers a specific and limited set of questions: Is this enterprise operating within its permitted emissions limits? Is it discharging within licensed water quality standards? Is it disposing of waste according to applicable regulations? These are necessary questions for regulatory oversight. They are not sufficient for the environmental governance functions that Uzbekistan's green economy targets require.

The questions that Uzbekistan's 2030 targets require the audit system to support include: Are industrial enterprises becoming more environmentally efficient over time? Is Uzbekistan's industrial sector as a whole generating more or less environmental impact per unit of economic output than it did five years ago? Where within individual enterprises are the highest-return opportunities for environmental improvement investment? These are questions about trajectory and efficiency, not about threshold crossing. Threshold compliance measurement cannot answer them because it measures performance against a fixed reference point rather than tracking change over time or benchmarking efficiency across comparable facilities.

Lifecycle assessment methodology addresses this gap. LCA, standardized under ISO 14040 and ISO 14044, quantifies the total environmental impact associated with a product or process across its complete lifecycle: raw material extraction, transport and logistics, manufacturing, product use, and end-of-life treatment. Applied within an environmental audit, LCA enables the auditor to evaluate not just threshold compliance but the structural environmental efficiency of the enterprise's operations, identify the production stages or inputs generating disproportionate environmental costs, and estimate the environmental improvement potential of feasible operational changes.

6.2. The Soviet Equipment Legacy Problem

LCA's relevance for Uzbekistan's industrial sector is heightened by a structural feature of that sector: a significant portion of Uzbekistan's industrial production capacity operates with equipment and processes that originated in the Soviet period, designed under assumptions about energy, water, and material availability that were fundamentally different from those that apply to commercial production in a market economy. Soviet industrial production was designed around the assumption that energy and raw materials were essentially cost-free to the enterprise, supplied through centralized allocation at plan prices bearing no relation to scarcity or environmental cost.

Uzbekistan's current emissions standards - the thresholds that environmental audits assess compliance against - were largely calibrated to reflect what existing Soviet-era and Soviet-derived equipment can achieve, not to what environmental protection requires at a scientifically determined level. An enterprise operating 1980s-era aluminum smelting equipment may consistently produce compliant audit reports while consuming three times the energy per ton of output of a comparable modern installation, generating twice the greenhouse gas emissions per ton, and drawing groundwater at rates that exceed aquifer recharge by a factor of four. The audit says: compliant. Lifecycle assessment says: operating at environmental efficiency levels that are inconsistent with Uzbekistan's energy and water security at any plausible production scale.

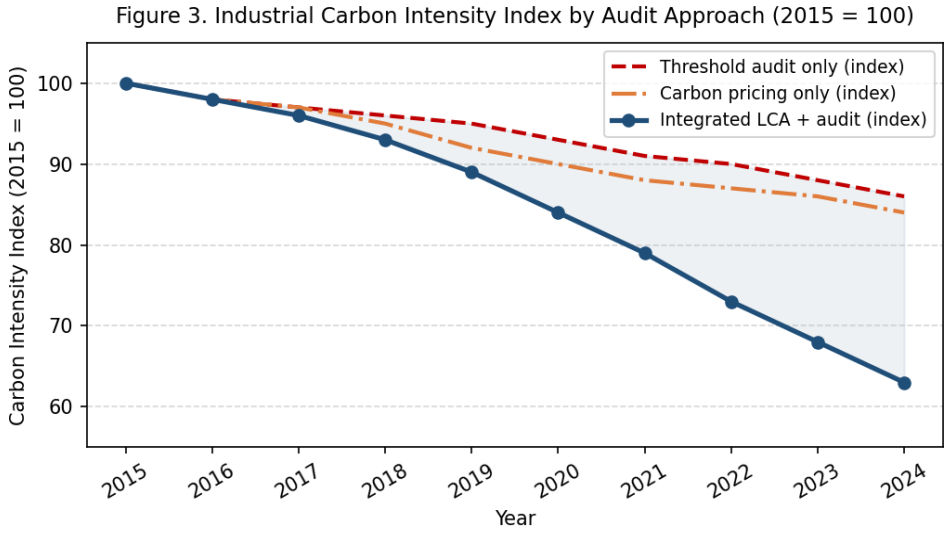


Figure 3. Industrial Carbon Intensity Index by Audit Approach (2015 = 100)

Figure 3 uses Germany's industrial sector as the reference case for comparing the long-term performance trajectories of three regulatory approaches: threshold-based auditing alone, carbon pricing alone, and integrated LCA-plus-audit. The 10-year comparison shows that threshold auditing alone produces approximately 14 percentage points of carbon intensity reduction, carbon pricing alone produces approximately 16 points, and integrated LCA-plus-audit produces approximately 37 points. The combined approach delivers more than twice the reduction of either mechanism operating independently. The gap widens over time because LCA-based auditing identifies the specific operational inefficiencies that carbon pricing creates financial incentives to address, and the combination produces faster and more sustained operational improvement than either incentive alone.

6.3. Carbon Pricing Integration

Uzbekistan introduced a carbon trading pilot program for 14 industrial enterprises in 2022 under the Ministry of Economy's direction. The program is designed as a cap-and-trade mechanism: participating enterprises receive initial carbon allowances and may buy or sell allowances based on their actual emissions relative to cap levels. The program has not been integrated with the environmental audit system, which means that audit findings do not generate carbon pricing signals and carbon trading obligations do not inform audit scope or depth. The two systems operate in parallel, without connection.

Integrating them is both technically straightforward and operationally significant. The technical requirement is that carbon emission data generated through the continuous monitoring systems proposed in Section 5 should flow directly into carbon account calculations for enterprises participating in the carbon trading program. Audit findings that identify emissions underreporting should trigger carbon account adjustments, with financial consequences for the enterprise's

allowance position. LCA-based audit assessments should produce enterprise-specific carbon efficiency benchmarks that inform future allowance allocation levels.

The pilot scale of the current program - 14 enterprises - is actually advantageous for testing integration. A pilot-within-a-pilot design, applying integrated LCA-plus-audit methodology to a subset of participating enterprises while retaining the standard approach for others, would generate controlled evidence of the integration's effect within Uzbekistan's specific industrial context. If the results are consistent with international evidence - and there is no structural reason they would not be - the case for full-scale integration would be substantially strengthened.

7. A THREE-PHASE REFORM PROGRAM

The four methodological deficiencies examined in this article reinforce each other. The absence of green accounting data limits the usefulness of sector-specific protocols because the protocols still depend on enterprise-generated data to work from. The absence of sector-specific protocols limits the value of continuous monitoring because monitors track what the protocol requires to be tracked, and a generic protocol may specify the wrong indicators for a given sector. The absence of continuous monitoring limits the feasibility of LCA-based auditing because LCA requires verified real-time data on resource flows that manual monitoring cannot reliably provide. Addressing any single deficiency in isolation produces partial improvement; addressing all four in sequence produces cumulative improvement that compounds over time.

Phase one covers months 1 to 18 and focuses on legal and regulatory prerequisites. The Ministry of Finance should advance the Law on Accounting amendments to introduce disaggregated green accounting requirements for Category I and II enterprises, with a 24-month implementation window. The Ministry of Ecology should initiate working groups for sector-specific protocol development in five priority industries: cotton processing, extractive industries, chemicals and fertilizers, metallurgy, and food processing. The Ministry of Economy should adopt regulations requiring continuous emissions monitoring systems at Category I facilities within 36 months.

Phase two covers months 18 to 42 and focuses on infrastructure and capacity deployment. The 80 priority continuous monitoring installations should be completed. The first two sector-specific audit protocols - for cotton processing and extractive industries, given their documented contamination issues - should be finalized and introduced into regulatory practice. LCA methodology training should be incorporated into the continuing education requirements for all certified environmental auditors. The carbon trading pilot should be expanded to 50

enterprises, with the integration mechanism connecting audit findings to carbon account adjustments implemented for all participants.

Phase three covers months 42 to 60 and focuses on full-scale integration and quality validation. All five sector-specific protocols should be in use. Green accounting requirements should be operational for the 300 largest enterprises by environmental impact. LCA-based assessments should be standard practice for audits of Category I enterprises. A quality assurance mechanism - independent review of a random sample of completed audits by Ministry of Ecology technical staff - should be operational to identify and address quality problems in the expanded, more geographically distributed audit market.

The methodological deficiencies described in this article manifest differently across enterprise types and sectors. Understanding these sector-level variations is important for reform design, because a single uniform implementation timeline applied across all enterprise categories will disproportionately burden smaller enterprises in sectors with less developed environmental management infrastructure while potentially under-challenging large enterprises in sectors where the capacity for rapid improvement is higher. This section provides sector-differentiated analysis of the four deficiencies and outlines the digital integration framework that would allow audit methodology improvements to compound over time.

In the extractive sector, the most acute methodological deficiency is the absence of long-term environmental liability accounting. Mining and oil and gas operations generate contamination profiles that extend for decades beyond active production and that represent financial liabilities of a scale that can dwarf enterprise operating revenues. Without mandatory environmental liability reserves on enterprise balance sheets - calibrated to verified contamination assessments rather than enterprise management discretion - auditors cannot assess the enterprise's true financial exposure to future remediation requirements. International financial reporting standards (IFRS) require liability recognition for contamination obligations where the likelihood of cost exceeds 50 percent. No equivalent requirement exists in Uzbekistan's accounting framework for mining enterprises.

In the cotton processing sector, as documented in the ICPS study, the central deficiency is the generic audit protocol that does not require groundwater or multi-depth soil sampling. But the sector also illustrates the green accounting gap in a specific and practically important way: cotton gin operations that apply pesticides or process seeds treated with systemic agricultural chemicals are not required to account for the environmental cost of those chemical inputs in terms of their downstream ecological impact. A full environmental cost accounting of a cotton gin operation would include the cost of groundwater quality degradation within the facility's impact zone, the cost of reduced agricultural productivity on adjacent land

affected by chemical migration, and the cost of human health impacts in communities that use affected groundwater for drinking and irrigation. None of this appears in current enterprise financial records.

In the chemicals and fertilizers sector, the most significant methodological gap is the absence of lifecycle assessment. Fertilizer manufacturing in Uzbekistan uses Soviet-era phosphate and nitrogen production processes that generate fluorine compound emissions, phosphogypsum waste, and ammonia releases at rates substantially above those achievable with modern production technology. These enterprises pass threshold-based audits because the thresholds were calibrated to what their existing equipment produces. An LCA-based audit would reveal the lifecycle carbon footprint, water footprint, and toxic release profile of their production per ton of output, and would allow comparison with modern production technology benchmarks that could inform investment prioritization.

Table 3. Sector-Differentiated Audit Methodology Deficiency Profile

Sector	Primary Deficiency	Most Critical Data Gap	LCA Priority	Monitoring Urgency
Extractive industries	Liability accounting	Long-term remediation cost	High	Critical
Cotton processing	Generic protocols	Groundwater profile	Medium	High
Chemicals/fertilizers	No LCA	Lifecycle emission factors	Critical	High
Metallurgy	Monitoring gaps	Heavy metal soil deposition	High	Critical
Food processing	Green accounting	Water/energy per unit output	Medium	Medium
Textiles	Generic protocols	Wastewater compound profile	Medium	High
Constr. materials	Monitoring gaps	Particulate emission profile	Low	High

Source: Author's sectoral analysis based on Ministry of Ecology audit data, ICPS technical reports, and field interviews (2022–2024).

The digital integration framework that would allow these sectoral improvements to compound over time rests on three technical components. The first is a national environmental data platform that aggregates continuous monitoring data from IoT sensor networks, enterprise green accounting submissions, and audit findings into a single accessible database. This platform would allow regulatory

authorities to identify compliance trends at the sector and regional levels in real time, rather than reconstructing them annually from submitted reports. It would allow auditors to access enterprise historical data before conducting assessments, reducing the time spent on data collection during the audit itself. And it would allow academic researchers and policy analysts to conduct the systematic empirical work needed to evaluate reform effectiveness and identify emerging risks.

The second technical component is a standardized audit data submission format that would allow audit findings to be analyzed across enterprises and sectors. Currently, audit reports are submitted in free-form documents that cannot be aggregated or compared computationally. A structured data submission format - requiring standardized reporting of findings by severity category, environmental dimension, and enterprise characteristic - would transform audit data from a compliance archive into an analytical resource. Countries including South Korea, Germany, and the Netherlands have implemented equivalent data standardization as part of their audit system modernization programs, and all report that the analytical value of the standardized data far exceeds the compliance cost of the format change.

The third component is a machine-learning assisted anomaly detection system that could identify unusual patterns in enterprise environmental reporting that warrant targeted audit attention. Patterns that might flag for review include: enterprises whose quarterly emissions reports show suspiciously consistent readings across multiple measurement periods; enterprises whose reported emissions are significantly below the median for comparable facilities in the same sector; and enterprises whose water discharge reports show seasonal patterns inconsistent with their production cycles. China's Environmental Monitoring Center has operated an anomaly detection system since 2019 that has generated enforcement referrals resulting in violations confirmed at 67 percent of flagged facilities, compared to a 34 percent confirmation rate for conventionally selected audit targets.

The investment required for these three digital components is modest relative to their potential impact. A national environmental data platform can be built on existing government IT infrastructure with dedicated development resources of approximately $800,000 to $1.2 million. Standardized audit submission formats require regulatory specification work and can be implemented through Ministry of Ecology administrative decision. Anomaly detection systems can be developed as a joint project between the Ministry of Ecology and Uzbekistan's universities, creating practical research infrastructure that benefits academic programs in data science, environmental management, and state financial control simultaneously.

The connection to the master's-level curriculum at institutions like the Tashkent Institution of Management and Economics is direct. State financial control and audit programs that incorporate environmental audit methodology, green

accounting standards, and digital monitoring systems into their curriculum are producing graduates who can staff the Ministry of Ecology's technical functions, work as certified environmental auditors in the regional organizations that the reform program needs to develop, and lead the enterprise-level green accounting implementation that the Law on Accounting amendments will require. Academic curriculum development is not peripheral to environmental audit reform. It is the human capital investment that makes the reform sustainable.

8. CONCLUSION

The methodological limitations of environmental auditing in Uzbekistan reflect specific policy choices. The choice not to require green accounting, not to develop sector-specific protocols, not to mandate continuous monitoring, and not to integrate lifecycle assessment and carbon pricing with audit practice were each individually rational given the institutional context in which they were made. They are individually and collectively reversible, and the evidence now available on the costs of maintaining them - contamination undetected, emissions misreported, targets unverifiable - makes the case for reversing them substantially stronger than it was when Law ZRU-678 was adopted in 2019.

Kazakhstan's experience demonstrates that a transition economy operating at comparable levels of development can implement green accounting requirements, sector-specific protocols, and continuous monitoring within a three-to-four-year legislative and implementation window. South Korea's experience demonstrates that sector-specific protocol development, properly supported by working groups with industry and academic participation, produces measurable improvements in both audit efficiency and violation detection accuracy. China's experience demonstrates that continuous monitoring deployment at scale, even across thousands of diverse industrial facilities, generates regulatory intelligence that manual monitoring systems cannot replicate.

Uzbekistan's 35 percent carbon intensity target by 2030 is six years away. The measurement and verification infrastructure for that target - the audit system capable of reliably documenting what enterprises actually emit, consume, and discharge - does not currently exist. Building it requires the three-phase reform program described in this article. The reforms are feasible, the evidence for their effectiveness is clear, and the political mechanisms for implementing them are available. What remains is the ministerial-level will to use them.

REFERENCES

1.Azimov, K., & Park, S. (2022). Environmental accounting standards in Central Asian transition economies: a comparative assessment. Asian Journal of Sustainability and Social Responsibility, 7(1), 1–18.

2.European Commission. (2024). Corporate sustainability reporting directive: first-year implementation review. Brussels: European Commission.

3.Gray, R., Owen, D., & Adams, C. (1996). Accounting and accountability: changes and challenges in corporate social and environmental reporting. London: Prentice Hall.

4.Institute of Chemistry of Plant Substances, Uzbekistan Academy of Sciences. (2021). Soil and groundwater contamination at cotton processing facilities in southern Uzbekistan. Tashkent: ICPS Technical Report No. 14.

5.ISO. (2006). ISO 14040: Environmental management – life cycle assessment – principles and framework. Geneva: International Organization for Standardization.

6.ISO. (2006). ISO 14044: Environmental management – life cycle assessment – requirements and guidelines. Geneva: International Organization for Standardization.

7.Kim, H., & Lee, J. (2020). Sector-specific environmental audit protocols in South Korea: development and evaluation. Journal of Environmental Management, 261, 110–124.

8.Ministry of Ecology and Environment of the People's Republic of China. (2021). Industrial continuous emissions monitoring: national evaluation report 2016–2020. Beijing: MEE.

9.Ministry of Ecology and Environmental Protection of the Republic of Uzbekistan. (2023). Annual report on environmental audit compliance. Tashkent: Ministry of Ecology.

10.Ministry of Finance of the Republic of Uzbekistan. (2023). Draft amendments to the Law on Accounting: environmental reporting provisions. Tashkent: Ministry of Finance.

11.Nazarov, F., & Ergashev, R. (2021). Industrial emissions monitoring accuracy: Uzbek enterprise comparison study. Uzbek Chemical Journal, 4, 55–67.

12.OECD. (2022). Environmental performance reviews: Uzbekistan 2022. Paris: OECD Publishing. https://doi.org/10.1787/dc5b2e4d-en

13.Republic of Uzbekistan. (2019). Law ZRU-678 on environmental audit. Official Gazette of Uzbekistan.

14.Republic of Uzbekistan. (2023). Presidential Decree UP-158 on the Strategy 'Uzbekistan–2030.' Official Gazette of Uzbekistan.

15.United Nations Statistics Division. (2012). System of environmental-economic accounting 2012: central framework. New York: United Nations.

16.Uzbek Association of Accountants and Auditors. (2022). Environmental expenditure reporting practices: industrial sector survey. Tashkent: UAAA Research Report No. 8.

17.World Bank. (2022). Industrial monitoring and enforcement: evidence from China, South Korea, and Central Asia. Washington, D.C.: World Bank Environment and Natural Resources Global Practice.

18.Zhang, W., & Chen, L. (2021). Continuous emissions monitoring and compliance: evidence from China's industrial sector 2017–2020. Environmental Science and Policy, 118, 45–58.

https://doi.org/10.5281/zenodo.19604614

ISSUES IN IMPROVING THE INTERNAL AUDIT SYSTEM FOR LEASE OPERATIONS

Satdirdinov Bakhodir Bakhtiyarovich[1]

[1]Researcher of “TIIAME”NRU

ABSTRACT. This article examines how the internal audit system for lease operations can be improved under the post-IFRS 16 reporting environment. The study is motivated by the fact that lease accounting has shifted from a mainly note-disclosure issue to a balance-sheet and judgment-intensive process that affects recognition, measurement, presentation, disclosure, and subsequent reassessment. Using an IMRAD structure, the paper applies documentary analysis, comparative synthesis, and qualitative coding of international standards, professional guidance, and selected academic studies. The reviewed corpus includes IFRS 16 and the IFRS Foundation's effects analysis, the 2024 Global Internal Audit Standards of The Institute of Internal Auditors, COSO internal control guidance, technical guidance on lease accounting controls, and recent empirical research on disclosure quality and reporting consequences. The results identify six recurring control-risk areas: completeness of the lease population, measurement judgments, disclosure quality, reassessment of modifications, data governance, and authorization and segregation of duties. Based on these findings, the paper proposes a risk-based internal audit model that integrates contract governance, control testing, analytics, and timely reporting to management and the audit committee. The study concludes that an effective lease-audit system must move beyond document checking and become a continuous, data-informed assurance process linked to governance, risk management, and corrective action.

Keywords: lease operations; internal audit; IFRS 16; internal control; disclosure quality; risk-based assurance.

Introduction

Leasing is now one of the most strategically important financing and operating arrangements used by business entities, especially in sectors that rely on real estate, equipment, vehicles, logistics assets, or technology infrastructure. The issue is no

longer limited to contractual administration. Under IFRS 16, most leases with terms longer than 12 months are recognized by lessees through a right-of-use asset and a lease liability, unless a short-term or low-value exemption applies. This shift has transformed lease accounting into a high-impact financial reporting area because management must identify leases and embedded leases, determine lease terms, estimate discount rates, separate lease and non-lease components where necessary, account for modifications, and prepare detailed disclosures (IFRS Foundation, 2016a, 2016b).

The relevance of internal audit has therefore increased significantly. Lease operations now influence balance-sheet structure, leverage, liquidity measures, EBITDA, finance costs, and the credibility of disclosures. Recent evidence confirms that IFRS 16 materially changes reported assets, liabilities, profitability metrics, and liquidity ratios (Lopes & Penela, 2025). Earlier research also shows that recognized lease amounts are associated with audit fees in a way that disclosed lease information is not, suggesting that recognition increases assurance demands and audit sensitivity (Kusano & Sakuma, 2019). From an internal governance perspective, this means that lease operations require stronger control design, stronger audit methodology, and more disciplined communication with management and the board.

At the same time, practical weaknesses remain. The IFRS Foundation's 2026 review of 753 entities found that only 24% disclosed significant accounting judgments related to leases, and many disclosures remained generic rather than entity-specific. That finding is important for internal audit because it indicates that financial statement preparation, management judgment, and disclosure control are still not consistently integrated. In parallel, the 2024 Global Internal Audit Standards require internal audit functions to be strategically planned, methodologically robust, effectively communicated, and monitored for quality. Therefore, the research problem is not whether lease operations should be audited, but how the internal audit system should be redesigned so that it can provide reliable assurance over the full lease life cycle.

Against this background, the objective of this article is to develop an analytically grounded model for improving the internal audit system for lease operations. The paper addresses three questions: which risk areas dominate lease operations under current reporting rules, which audit procedures best respond to those risks, and how can internal audit move from periodic verification toward continuous, risk-based assurance? The article contributes to the literature by linking lease accounting requirements with modern internal auditing principles and by translating that synthesis into a practical framework suitable for corporate implementation.

Materials and Methods

This study uses a qualitative IMRAD design based on documentary analysis and analytical synthesis rather than firm-level fieldwork. The source corpus comprised nine core materials: IFRS 16; the IFRS Foundation's Effects Analysis for IFRS 16;

the 2024 Global Internal Audit Standards; COSO internal control guidance; Deloitte's technical guidance on internal control over lease accounting; EY's lease accounting guidance; and selected academic studies on lease recognition, disclosure quality, and financial statement effects (Kusano & Sakuma, 2019; Levanti et al., 2022; Lopes & Penela, 2025). These sources were selected because together they cover the accounting logic of leases, the architecture of internal control, the expectations placed on internal audit, and the documented reporting consequences of weak lease governance.

The analytical procedure had three stages. First, the reviewed sources were read to identify the main control points across the lease cycle: contract initiation, lease identification, initial measurement, recording, periodic reassessment, disclosure, and corrective follow-up. Second, recurring weaknesses were coded into six categories: (1) incomplete lease population, (2) measurement judgments, (3) disclosure and presentation quality, (4) reassessment and modification tracking, (5) data and IT governance, and (6) authorization and segregation of duties. Third, each category was mapped to internal audit responses, expected audit evidence, and governance reporting outputs. The coding frequencies shown in Figure 2 reflect the author's synthesis of how often each category appeared across the nine reviewed sources.

The method is appropriate for a dissertation-related article because the aim is conceptual improvement of the audit system rather than hypothesis testing on a proprietary dataset. Nevertheless, the approach remains systematic: source selection is explicit, coding categories are transparent, and the results are translated into practical audit architecture. A limitation is that the paper does not test the model within a specific enterprise, so the framework should be treated as an evidence-informed design for implementation and further empirical validation.

Results

The analysis shows that lease operations generate a concentrated set of control risks that begin before accounting entries are posted. The first and most fundamental issue is completeness: organizations often focus only on obvious lease contracts and fail to identify embedded leases, decentralized contracts, side letters, renewals, or arrangements negotiated outside the finance function. If the lease population is incomplete, all downstream accounting and audit procedures become unreliable. Internal audit must therefore test how lease information enters the system, not merely how it is later calculated.

The second risk area concerns measurement judgments. IFRS 16 requires judgment in determining lease terms, discount rates, variable payments, options, and modifications. These judgments affect both the right-of-use asset and the lease liability and can materially influence ratios and performance indicators. The Deloitte guidance on lease-related controls highlights the sensitivity of lease classification, discount rate determination, payment composition, cash-flow presentation, and treatment of sale-and-leaseback or related-party arrangements. Consequently,

internal audit must test management's methodology, challenge assumptions, and verify consistency between accounting policy and actual practice.

A third finding is that disclosure quality remains a weak point. IFRS 16 improved recognition, but recognition alone does not guarantee transparent reporting. The 2026 IASB staff review indicates that entity-specific lease judgment disclosures are still limited, while Levanti et al. (2022) show that disclosure compliance can be measured and often remains incomplete even in regulated sectors such as banking. This means that internal audit should not end its work at the trial balance level. It should review note disclosures, drafting logic, reconciliation quality, and whether reported judgments are specific enough for users to understand management's decisions.

Table 1.

Risk-control matrix for the internal audit of lease operations.

Lease-cycle stage	Main risk	Illustrative internal audit response	Typical evidence
Contract origination and capture	Lease or embedded lease is omitted from the register.	Reconcile procurement files, vendor spend, major service contracts, and asset requests to the lease register.	Contracts, purchase requests, vendor ledger, lease register
Initial measurement and policy application	Wrong lease term, discount rate, payment composition, or component separation.	Reperform sample calculations, inspect approval memoranda, and test consistency with accounting policy.	Calculation sheets, policy papers, management approvals
Subsequent accounting	Modifications, index changes, impairments, or terminations are not recorded on time.	Test change-event tracking, amendment logs, cut-off, and remeasurement triggers.	Amendments, correspondence, revised schedules
Presentation and disclosures	Notes are incomplete, generic, or inconsistent with ledger data.	Apply a disclosure checklist and trace note amounts to supporting schedules and trial balance.	Draft notes, disclosure checklist, reconciliations
Data and systems	Spreadsheet errors, interface failures, or	Test user access, version control, report logic, and system-to-ledger interfaces.	Access matrix, audit trails, change logs, mapping files

Lease-cycle stage	Main risk	Illustrative internal audit response	Typical evidence
	unauthorized edits distort lease data.		
Governance and remediation	Findings are not escalated; action plans are delayed or weak.	Rate findings by risk, report themes to the audit committee, and perform formal follow-up.	Issue tracker, committee minutes, closure evidence

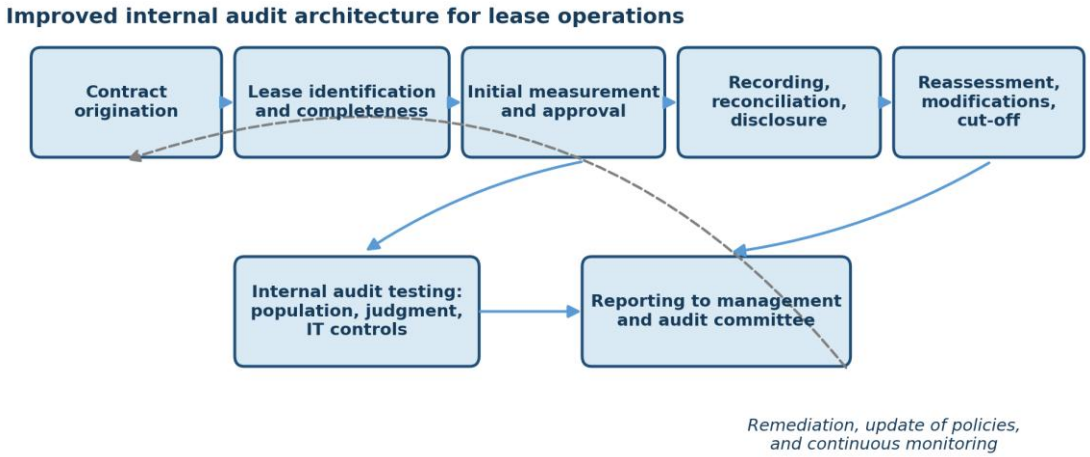


Figure 1. *Process architecture for an improved internal audit system covering the full lease life cycle.*

The fourth result concerns the time dimension of lease governance. Lease accounting is not a one-off exercise completed at inception. Modifications, index changes, reassessments, term extensions, early terminations, impairments, and changing payment terms require timely updates. Weak monitoring leads to stale data, late remeasurements, and inconsistent disclosure. The improved audit model therefore places strong emphasis on change-management controls, period-end review procedures, and dashboards that flag contract events requiring reassessment.

The fifth and sixth findings relate to control infrastructure. Many lease processes still rely on spreadsheets, fragmented contract repositories, or poor integration between procurement, legal, operations, and finance. This creates version-control problems, unauthorized changes, and inconsistent assumptions. At the same time, approvals and segregation of duties are often weak: the same individuals may negotiate contracts, input assumptions, and review accounting outputs. Under the Global Internal Audit Standards, internal audit must understand the organization's governance, risk management, and control processes and communicate themes and root causes to management and the board. For lease operations, that means the audit approach must evaluate the system, not only isolated errors.

Table 1 summarizes the principal lease-cycle risks and the audit responses they require. Figure 1 translates the findings into a process architecture, showing that internal audit should begin with contract governance and data capture, move through accounting and disclosure controls, and end with reporting, remediation, and feedback. Figure 2 presents the coding frequencies from the reviewed sources. The dominant categories are lease completeness and measurement judgments, followed by disclosure quality and reassessment. This ranking indicates that improvement efforts should start where omission and judgment risk are highest, while still reinforcing supporting controls over data, systems, and authorization.

Current disclosure signal. In the IFRS Foundation's 2026 review of 753 entities, only 24% disclosed significant lease-related accounting judgments; many of the remaining disclosures were largely boilerplate. This reinforces the need for internal audit to test disclosure quality, not only recognition and measurement.

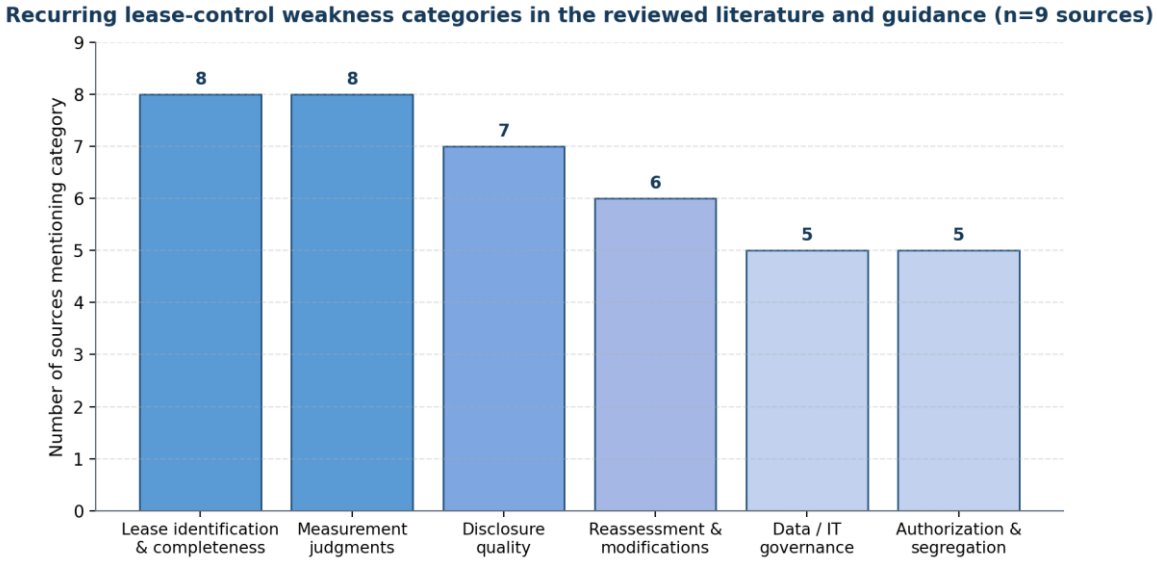


Figure 2. ***Frequency of recurring lease-control weaknesses identified through qualitative coding of nine reviewed sources.***

Table 2.

Implementation roadmap for strengthening internal audit over lease operations.

Phase	Time horizon	Priority actions	Main output
Foundation	0-3 months	Create a complete lease universe; assign process owners; standardize contract intake and approval documentation; build a lease-risk checklist.	Reliable register and audit universe
Control integration	3-9 months	Document key controls; test discount-rate and lease-term methodologies; align disclosure	Consistent testing and

Phase	Time horizon	Priority actions	Main output
		checklists with reporting calendars; formalize issue rating and escalation.	stronger year-end reporting
Continuous assurance	9-18 months	Introduce dashboards, change-event alerts, IT access reviews, thematic reporting, and follow-up over remediation plans.	Ongoing, risk-based lease assurance

Discussion

The findings support the view that lease auditing should be repositioned from a narrow compliance activity to an integrated assurance function. In older practice, lease review was often limited to checking agreements, payment schedules, and ledger postings. That approach is insufficient under IFRS 16 because the accounting consequences of leases now depend on a chain of judgments, estimates, cross-functional inputs, and disclosure decisions. The internal auditor must therefore assess whether management has designed a control environment capable of producing complete, timely, and decision-useful information. This is consistent with COSO's emphasis on control environment, risk assessment, control activities, information and communication, and monitoring, as well as with the IIA's insistence on independence, strategic planning, effective communication, and quality enhancement.

The study also suggests that the most efficient internal audit approach is risk-based and layered. At the first layer, internal audit should perform periodic population completeness testing by reconciling the lease register to procurement files, vendor master data, fixed-asset records, expense accounts, board approvals, and major service contracts. At the second layer, it should test high-judgment assumptions such as incremental borrowing rates, lease terms, extension options, and modification triggers. At the third layer, it should review reporting outputs: reconciliation schedules, note disclosures, cash-flow classification, and management representations. Where the company uses specialized lease software, internal audit should also assess IT access rights, interface controls, change logs, and report governance.

A further implication concerns communication with governance bodies. Lease deficiencies are often treated as technical accounting issues, but they can also signal broader weaknesses in contracting discipline, decentralized spending, or ineffective change management. The 2024 Global Internal Audit Standards emphasize not only engagement conclusions but also thematic communication and monitoring of action plans. For lease operations, this means that audit reporting should identify root causes, quantify potential statement effects where feasible, classify findings by risk level, and track remediation through management action plans. In this way, internal

audit contributes not merely to error detection but to organizational learning and governance improvement.

For enterprises in emerging markets or in organizations undergoing digital transition, the proposed model is particularly relevant. Such entities may face simultaneous pressures from IFRS convergence, limited technical resources, fragmented systems, and rapid growth in lease-based financing. In those settings, the internal audit function can add value by establishing standard lease-risk taxonomies, control self-assessment templates, contract intake protocols, and continuous monitoring indicators. However, the framework should be adapted to organizational size, industry exposure, and maturity. A small company may begin with stronger registers and quarterly reviews, while a larger group may implement automated alerts, data analytics, and dedicated lease-governance committees.

The article's main limitation is its non-empirical design. Because it does not test the model within one company or across a sample of entities, the relative importance of the control categories may differ in practice. Future research could validate the framework through case studies, internal audit scorecards, or panel evidence linking lease-control quality to disclosure compliance, restatement risk, or cost of capital. Even so, the analytical synthesis is useful because it consolidates dispersed accounting, control, and audit requirements into one coherent architecture for action.

Conclusion

In conclusion, improving the internal audit system for lease operations requires more than better checking of contracts and calculations. It requires a structured system that begins with complete lease identification, disciplines management judgment, strengthens disclosure review, monitors reassessment events, secures data governance, and reinforces authorization controls. The post-IFRS 16 environment has made lease operations materially visible in financial statements and, therefore, materially significant for internal audit. A modern lease-audit framework should be risk-based, cross-functional, technologically supported, and closely connected to the board and audit committee. When designed in this way, internal audit can improve not only compliance with lease accounting requirements but also the reliability of reporting, the quality of governance, and the efficiency of managerial decision-making.

References

1. Committee of Sponsoring Organizations of the Treadway Commission. (2023). Internal Control - Integrated Framework. COSO.
2. Deloitte. (n.d.). Appendix D - Internal Control Over Financial Reporting. DART: Deloitte Accounting Research Tool.
3. EY. (2025). Lease Accounting: Financial Reporting Developments.
4. IFRS Foundation. (2016a). IFRS 16 Leases.
5. IFRS Foundation. (2016b). IFRS 16 Effects Analysis.
6. IFRS Foundation. (2026). Post-implementation Review of IFRS 16 Leases: Review of Entities' Lease-Related Disclosure Practices.

7. Institute of Internal Auditors. (2024). Global Internal Audit Standards.
8. Kusano, M., & Sakuma, Y. (2019). Effects of recognition versus disclosure of finance leases on audit fees and costs: Evidence from Japan. Journal of Contemporary Accounting & Economics, 15(1), 53-68. https://doi.org/10.1016/j.jcae.2018.12.004
9. Levanti, D. A. (2022). Development of a disclosure index for lease accounting policies: Evidence from Romanian banks. European Journal of Business and Management Research, 7(2), 295-299. https://doi.org/10.24018/ejbmr.2022.7.2.1383
10. Lopes, A. I., & Penela, D. (2025). The impact of IFRS 16 on lessees' financial information: A single-industry study. Advances in Accounting, 68, Article 100803. https://doi.org/10.1016/j.adiac.2024.100803