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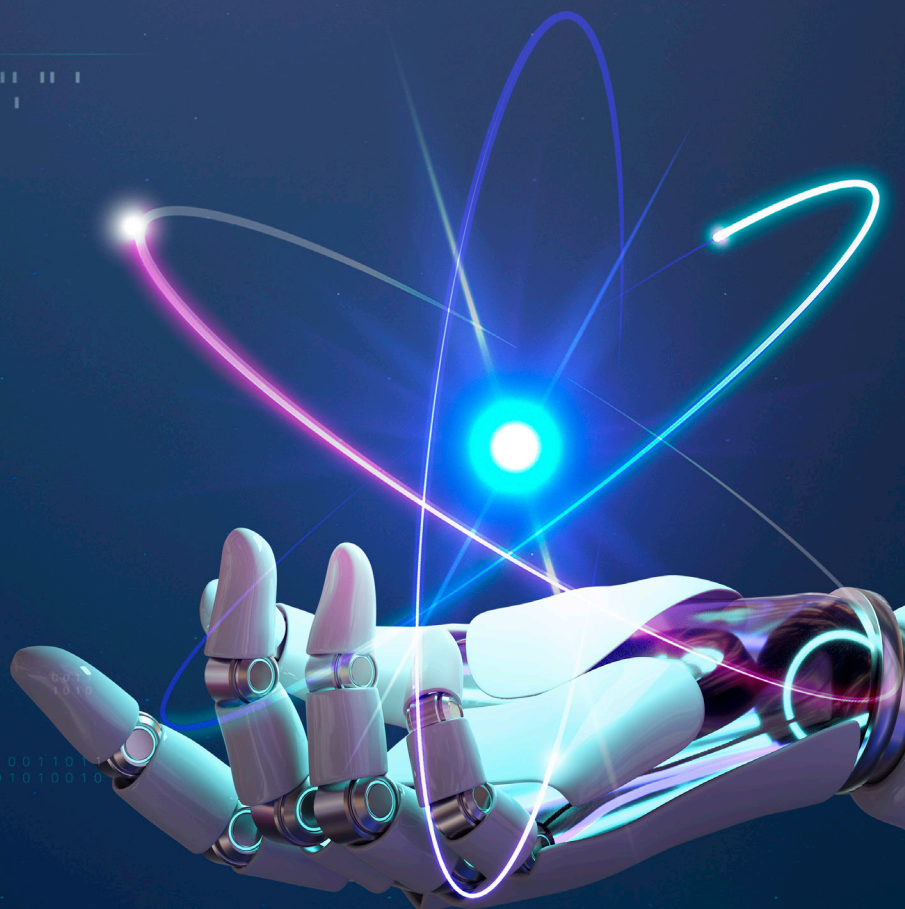
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UZOQ MUDDATLI AKTIVLAR BILAN BOG'LIQ XARAJATLARNI STRATEGIK BOSHQARUV HISOBIDA AKS ETTIRISH: NAZARIY ASOSLAR VA TASNIF TIZIMI

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Annotatsiya. Ushbu maqolada uzoq muddatli aktivlar bilan bog'liq xarajatlarni strategik boshqaruv hisobida to'liq va to'g'ri aks ettirish masalalari tahlil qilinadi. Qishloq xo'jaligi mahsulotlari ishlab chiqaruvchi "Green Heaven" mas'uliyati cheklangan jamiyati (Toshkent viloyati) misolida dastlabki investitsiya, ekspluatatsiya, texnik xizmat ko'rsatish, modernizatsiya va utilizatsiya xarajatlarining strategik boshqaruv hisobida tasnifi va aks ettirilishi o'rganiladi. Maqolada faoliyatga asoslangan xarajatlar hisobi (ABC) va hayotiy sikl xarajatlari (LCC) metodologiyasiga asoslangan yangicha tasnif tizimi taklif etiladi va uning amaliy tatbiqi natijalari keltiriladi.

Kalit so'zlar: uzoq muddatli aktivlar, strategik boshqaruv hisobi, xarajatlar tasnifi, hayotiy sikl xarajatlari (LCC), faoliyatga asoslangan xarajatlar (ABC), qishloq xo'jaligi, biologik aktivlar, IAS 16, IAS 41, xarajatlarni boshqarish.

Abstract. This article analyses the issues of fully and accurately reflecting long-term asset-related costs in strategic management accounting. Using the example of "Green Heaven" limited liability company (Tashkent region), a producer of agricultural products, the classification and reflection of initial investment, operation, maintenance, modernisation and disposal costs in strategic management accounting are examined. The article proposes a novel classification system based on activity-based costing (ABC) and life-cycle costing (LCC) methodology and presents the results of its practical application.

Keywords: long-term assets, strategic management accounting, cost classification, life-cycle costing (LCC), activity-based costing (ABC), agriculture, biological assets, IAS 16, IAS 41, cost management.

Аннотация. В данной статье анализируются вопросы полного и точного отражения затрат, связанных с долгосрочными активами, в стратегическом управленческом учёте. На примере общества с ограниченной ответственностью "Green Heaven" (Ташкентская область), производящего сельскохозяйственную продукцию, рассматриваются классификация и отражение первоначальных инвестиций, эксплуатационных расходов, затрат на техническое обслуживание, модернизацию и утилизацию в стратегическом управленческом учёте. В статье предлагается новая система классификации, основанная на методологиях учёта затрат по видам деятельности (ABC) и затрат жизненного цикла (LCC), а также приводятся результаты её практического применения.

Ключевые слова: долгосрочные активы, стратегический управленческий учёт, классификация затрат, затраты жизненного цикла (LCC), учёт затрат по видам деятельности (ABC), сельское хозяйство, биологические активы, IAS 16, IAS 41, управление затратами.

KIRISH

Zamonaviy bozor iqtisodiyoti sharoitida korxonalar uzoq muddatli aktivlardan samarali foydalanish masalasi tobora muhim ahamiyat kasb etmoqda. Ayniqsa, biologik aktivlarning mavjudligi, faoliyatning mavsumiy tabiati va murakkab xarajat tuzilmasi xos bo'lgan qishloq xo'jaligi sohasida uzoq muddatli aktivlar bilan bog'liq xarajatlarni strategik boshqaruv hisobida to'g'ri aks ettirish nafaqat moliyaviy hisobotlar sifatini, balki investitsiya qarorlarining puxtaligini ham belgilaydi [1].

Xalqaro amaliyotda uzoq muddatli aktivlar bilan bog'liq xarajatlarni hayotiy sikl xarajatlari (LCC) [2] va faoliyatga asoslangan xarajatlar hisobi (ABC) [3] konsepsiyalari asosida strategik boshqaruv hisobiga kiritish tobora keng tarqalmoqda. Biroq O'zbekiston qishloq xo'jaligi korxonalarida ushbu zamonaviy metodologiyalarning tatbiq etilishi hali ham yetarli darajada emas.

"Green Heaven" mas'uliyati cheklangan jamiyati Toshkent viloyatining Qibray tumanida 38 gektar yer maydonida faoliyat yuritadi. Jamiyat asosiy uch yo'nalishda ixtisoslashgan: poliz va sabzavot ekinlari yetishtirish va sotish (daromadning 48%), intensiv bog'dorchilik — olma, shaftoli, uzum navlari (31%), qayta ishlash va

qadoqlash — pomidor pastasi, quritilgan mevalar (21%). Yillik aylanma 14,8 mlrd so'mni tashkil etadi. Mazkur maqola ushbu korxona misolida uzoq muddatli aktivlar bilan bog'liq xarajatlarning nazariy asoslarini o'rganish, ularning tasnif tizimini takomillashtirish va amaliy tatbiq natijalari asosida ilmiy tavsiyalar ishlab chiqishga qaratilgan.

MAVZUGA OID ADABIYOTLAR SHARHI

Uzoq muddatli aktivlar bilan bog'liq xarajatlarni strategik boshqaruv hisobida aks ettirishning nazariy asoslari xorijiy olimlar tomonidan turli jihatlaridan tadqiq etilgan. Porter [4] qiymat zanjiri konsepsiyasida har bir faoliyat bo'g'ini bo'yicha xarajatlarni aniq taqsimlash va ularga tahliliy yondashuv strategik ustunlikni ta'minlashning asosi sifatida ko'rsatiladi.

Cooper va Kaplan [3] tomonidan ishlab chiqilgan faoliyatga asoslangan xarajatlar hisobi (ABC) metodologiyasi xarajatlarni faoliyat turlari va xarajat omillari kesimida taqsimlash imkonini beradi. Ularning tadqiqotlari shuni ko'rsatadiki, an'anaviy umumlashtirilgan xarajatlar hisobi ko'pincha mahsulot yoki aktiv bo'yicha haqiqiy xarajatlarni noto'g'ri aks ettiradi.

Hayotiy sikl xarajatlari (LCC) konsepsiyasi Drury [2] va Bromwich [5] tadqiqotlarida chuqur yoritilgan. Bromwichning ta'kidlashicha, strategik boshqaruv hisobi aktivni xarid qilishdan tortib utilizatsiyagacha bo'lgan barcha bosqichlarda yuzaga keladigan xarajatlarni kompleks ko'rib chiqishi zarur. Biologik aktivlarni alohida tasnif sifatida ajratish va IAS 41 [6] standartiga muvofiq hisobga olish masalasi esa Argilés va Slof (2001) hamda Herbohn va Herbohn (2006) tomonidan tadqiq etilgan.

O'zbekiston iqtisodiy adabiyotlarida Pardayev A.X. va Pardayeva Z.A. [7] boshqaruv hisobining nazariy asoslarini o'rgangan. Muammoning o'rganilganlik darajasiga e'tibor qaratilganda, tadqiqot yo'nalishida salmoqli natijalarga erishgan quyidagi xorijiy yetuk mutaxassis-olimlarning ilmiy tadqiqotlari atroflicha o'rganib chiqildi: K. Drury, A. Apcher, B. Nildz, X. Anderson, D. Koldvell, G. Antoni, S. Davidson, V. Nordxauss, P. Samuelson, Ch. Xorngren, J. Foster. Mamlakatimizda ham mustaqillik yillarida boshqaruv hisobi va uning ayrim soha hamda muammolariga bag'ishlangan adabiyotlar, ilmiy maqolalar, o'quv va uslubiy qo'llanmalar chop etilmoqda. Bular jumlasiga A. Abdug'aniyev, N. Abdusalomova, A. Avloqulov, A. Karimov, U. Kostayev, B. Masudov, D. Mamadiyarov, X. Ortiqov, M. Pardayev, A. Pardayev, N. Rizayev, B. Xasanov, I. G'iyosov, B. Eshnayevarning tadqiqotlarini kiritish mumkin.

Adabiyotlar tahlili shuni ko'rsatadiki, O'zbekistonda peyzaj dizayni, ko'chatchilik va agrobiznes sohasidagi korxonalarda uzoq muddatli aktivlar xarajatlari LCC va ABC metodologiyalari asosida tasniflab, strategik boshqaruv hisobiga kiritish masalasi yetarlicha o'rganilmagan.

TADQIQOT METODOLOGIYASI

Ushbu tadqiqotda me'yoriy hujjatlar tahlili qo'llanildi: IAS 16 "Mulk, jihozlar va uskunalari" [8], IAS 38 "Nomoddiy aktivlar", IAS 41 "Qishloq xo'jaligi" [6], IFRS 16 "Ijaralar", O'zbekiston Respublikasining "Buxgalteriya hisobi to'g'risida"gi Qonuni [9] talablari asosida qishloq xo'jaligi korxonalari uchun xarajatlarni tasniflash mezonlari aniqlangan.

Qiyosiy tahlil usulidan foydalanib, "Green Heaven" MChJning 2022–2024-yillardagi moliyaviy ma'lumotlari asosida an'anaviy xarajatlar hisobi va LCC/ABC [3][2] metodologiyasiga asoslangan takomillashtirilgan yondashuv taqqoslandi. Tadqiqotning empirik bazasini korxonaning ichki moliyaviy hisobotlari, asosiy vositalar kartochkalari, texnik xizmat ko'rsatish smeta hujjatlari va inventarizatsiya dalolatnomalari tashkil etdi. Induksiya va deduksiya, monografik yondashuv hamda iqtisodiy-statistik tahlil metodlari qo'llanildi.

TAHLIL VA NATIJALAR

"Green Heaven" MChJning 2024-yil yakuniga ko'ra uzoq muddatli aktivlari uch asosiy guruhdan iboratligi aniqlandi: biologik aktivlar (ko'p yillik bog'lar, poya ekinlari), moddiy uzoq muddatli aktivlar va nomoddiy aktivlar. Amaldagi hisob amaliyotida ushbu aktivlarning ayrimlari xalqaro standartlar talablariga to'liq mos tasniflanmagani aniqlandi.

1-jadval

“Green Heaven” MChJ uzoq muddatli aktivlari tarkibi va amaldagi xarajatlar hisobi holati (2024-yil, mln so'm)

Aktiv guruhi	Balans qiymati (mln so'm)	Ulushi (%)	To'g'ri standart	Amaldagi xarajatlar hisobi holati
Ko'p yillik bog'lar (olma, shaftoli, uzum)	3 840	33,6	IAS 41	Asosiy vositalar sifatida, LCC hisoblanmagan
Irrigatsiya tizimi va inshootlar	2 160	18,9	IAS 16	To'g'ri tasniflangan, ta'mir xarajatlari alohida
Qishloq xo'jaligi texnikasi	1 920	16,8	IAS 16	To'g'ri, ammo texnik xizmat LCC siz
Sovutish va qayta ishlash uskunalari	1 480	12,9	IAS 16	To'g'ri, energiya xarajatlari ABC siz
Omborxona va ishlab chiqarish binolari	1 250	10,9	IAS 16	To'g'ri tasniflangan
Agrotexnik bilimlar bazasi va navlar litsenziyasi	480	4,2	IAS 38	Joriy xarajat sifatida hisobdan chiqarilgan
Ijaraga olingan yer uchastkasi huquqi	310	2,7	IFRS 16	Balansda aks ettirilmagan
JAMI	11 440	100		

Manba: “Green Heaven” MChJ 2024-yil moliyaviy hisobotlari asosida muallif tuzgan.

Jadvaldan ko'rinib turibdiki, korxonada 480 mln so'mlik agrotexnik bilimlar bazasi va navlar litsenziyasi joriy xarajat sifatida hisobdan chiqarilgan, nomoddiy aktiv sifatida tan olinmagan. Bundan tashqari, 310 mln so'mlik ijaraga olingan yer uchastkasi huquqi IFRS 16 bo'yicha foydalanish huquqi aktivi sifatida balansda aks ettirilmagan. Natijada korxonaning aktivlar qiymati 790 mln so'm miqdorida (6,9%) to'liq aks ettirilmagan [8].

Uzoq muddatli aktivlar bilan bog'liq xarajatlarni strategik boshqaruv hisobida to'g'ri aks ettirish uchun ularning hayotiy sikl bosqichlariga mos ravishda tasniflanishi zarur [2]. Muallif tomonidan taklif etilgan tasnif tizimida xarajatlar besh asosiy guruhga ajratiladi: dastlabki investitsiya xarajatlari; ekspluatatsiya va ishlatish xarajatlari; texnik xizmat ko'rsatish va ta'mirlash xarajatlari; modernizatsiya va yangilash xarajatlari; tugatish va utilizatsiya xarajatlari. “Green Heaven” MChJda irrigatsiya tizimi ushbu tasnif tizimining amaliy tatbiqiga yaqqol misol bo'ladi.

2-jadval

“Green Heaven” MChJ irrigatsiya tizimi bo'yicha LCC tahlili (2016–2031 yillar, 15 yillik hayotiy sikl)

Xarajat guruhi	Xarajat turi	Yillik miqdori (mln so'm)	15 yillik jami (mln so'm)	
1. Dastlabki investitsiya	Xarid, o'rnatish, ishga tushirish	—	1 280	25,8
2. Energiya va ish haqi xarajatlari	Elektr energiya, operator	186	2 790	56,2
3. Texnik xizmat va ta'mirlash	Filtrlar, quvurlar, nasos	42	630	12,7
4. Modernizatsiya	Avtomatlashtirilgan monitoring	—	170	3,4
5. Tugatish xarajatlari (prognoz)	Demontaj, utilizatsiya	—	90	1,8
JAMI LCC			4 960	100

Manba: “Green Heaven” MChJ texnik hujjatlari va muallif hisoblamalari asosida tuzilgan.

LCC tahlili natijalari shuni ko'rsatmoqdaki, irrigatsiya tizimining dastlabki xarid narxi (1 280 mln so'm) umumiy 15 yillik hayotiy sikl xarajatlarning atigi 25,8 foizini tashkil etadi. Asosiy xarajat ulushi (56,2 foiz) energiya va operatsion xarajatlarga to'g'ri keladi [2]. Amaldagi hisob tizimida esa faqat dastlabki investitsiya va texnik xizmat xarajatlarning bir qismi aks ettirilgan, energiya xarajatlari esa umumiy xarajatlar tarkibida ko'rsatilmog'da.

“Green Heaven” MChJda sovutish va qayta ishlash uskunalaridan turli faoliyatlarda — sabzavotlarni saqlash, mevalarni qayta ishlash, qadoqlashda — bir vaqtning o'zida foydalaniladi. ABC metodologiyasini [3] tatbiq etish uchun muallif tomonidan ushbu uskunalar bilan bog'liq xarajatlar faoliyat turlari va xarajat omillari (cost drivers) kesimida tahlil qilindi.

3-jadval

“Green Heaven” MChJ sovutish va qayta ishlash uskunalari bo'yicha ABC tahlili (2024-yil)

Faoliyat turi	Energiya xarajati (mln so'm)	Amortizatsiya ulushi (mln so'm)	Texnik xizmat ulushi (mln so'm)	Jami ABC (mln so'm)
Sabzavotlarni saqlash (65% vaqt)	121,4	117,0	46,8	285,2
Mevalarni qayta ishlash (22% vaqt)	41,1	39,6	15,8	96,5
Qadoqlash (13% vaqt)	24,3	23,4	9,4	57,1
JAMI	186,8	180,0	72,0	438,8
Amaldagi tizimda: barcha xarajatlar umumiy (mln so'm)	186,8	180,0	72,0	438,8 (taqsimlanmagan)

Manba: “Green Heaven” MChJ texnik xizmat jurnallari va buxgalteriya hisobi asosida muallif hisoblab chiqargan.

ABC tahlili natijalari ko'rsatmoqdaki, sabzavotlarni saqlash faoliyati umumiy uskunalar xarajatlarning 65,0 foizini, mevalarni qayta ishlash 22,0 foizini, qadoqlash esa 13,0 foizini tashkil etadi. Amaldagi tizimda esa bu xarajatlar taqsimlanmagan holda bitta umumiy summa sifatida aks ettirilgan [3]. Bu holat har bir mahsulot turi bo'yicha haqiqiy tannarxni aniqlash va resurslardan foydalanish samaradorligini oshirish bo'yicha boshqaruv qarorlarini qabul qilishni murakkablashtiradi.

Muallif tomonidan taklif etilgan LCC va ABC metodologiyalarini birlashtirgan takomillashtirilgan xarajatlar hisobi tizimini “Green Heaven” MChJda joriy etishning moliyaviy natijalari uch yillik (2022–2024) ma'lumotlar asosida tahlil qilindi.

4-jadval

LCC/ABC tizimini joriy etishning “Green Heaven” MChJ moliyaviy ko'rsatkichlariga ta'siri (2022–2024)

Ko'rsatkich	2022-yil	2023-yil	2024-yil (yangi tizim)	2022–2024 o'zgarish
Jami aktivlar balans qiymati (mln so'm)	9 180	10 310	11 440	+24,6%
LCC asosida hisoblangan yillik hayotiy sikl xarajatlari (mln so'm)	Hisoblanmagan	Hisoblanmagan	1 248	+1 248
ABC taqsimlash asosida aniqlangan eng yuqori xarajatli faoliyat	Aniqlanmagan	Aniqlanmagan	Sabzavot saqlash (65%)	Aniqlandi
Nomoddiy aktivlar va foydalanish huquqlari balansdagi ulushi (%)	0	0	6,9	+6,9 pp
Aktivlar rentabelligi (ROA, %)	22,4	20,8	17,6	–4,8 pp*
Irrigatsiya tizimi bo'yicha qabul qilingan yangi investitsiya qarori	—	—	Energiya samaradorligi oshirildi	Qaror asoslandi

* ROA pasayishi: avval aktivlar past ko'rsatilganligi sababli rentabellik sun'iy ravishda yuqori edi. Yangi tizimda haqiqiy ko'rsatkich aniqlandi. Manba: «Green Heaven» MChJ moliyaviy hisobotlari va muallif hisoblamalari asosida tuzilgan.

LCC va ABC tizimlarini joriy etish natijasida “Green Heaven” MChJda irrigatsiya tizimining haqiqiy hayotiy sikl xarajatlari 4 960 mln so'm ekanligi aniqlandi va bu ma'lumot asosida energiya tejamkorligi borasida investitsiya qarori qabul qilindi. Sovutish uskunalari xarajatlarning sabzavot saqlash faoliyatiga to'g'ri keladigan 65,0 foizlik ulushi aniqlangach, ushbu faoliyat tannarxini optimallashtirishga qaratilgan chora-tadbirlar belgilandi [3].

XULOSA VA TAKLIFLAR

Ushbu tadqiqot “Green Heaven” mas'uliyati cheklangan jamiyati misolida uzoq muddatli aktivlar bilan bog'liq xarajatlarni strategik boshqaruv hisobida to'g'ri tasniflash va aks ettirishning nazariy asoslari, metodologik yondashuvlari va amaliy tatbiq natijalarini tizimli o'rganishga bag'ishlangan.

Birinchidan, uzoq muddatli aktivlar bilan bog'liq xarajatlarni an'anaviy amortizatsiya doirasida emas, balki hayotiy sikl bo'yicha besh guruhga (dastlabki investitsiya, ekspluatatsiya, texnik xizmat, modernizatsiya,

utilizatsiya) tasniflash strategik boshqaruv hisobining asosiy metodologik talabi hisoblanadi [2]. “Green Heaven” MChJdagi irrigatsiya tizimi misolida ko'rsatilganidek, dastlabki xarid narxi umumiy 15 yillik hayotiy sikl xarajatlarining atigi 25,8 foizini tashkil etadi. Bu holat investitsiya qarorlarini faqat boshlang'ich xarid narxiga tayanib qabul qilish yetarli asos bo'la olmasligini ko'rsatadi. LCC tizimi korxonaga aktivni xarid qilish bosqichida uning butun xizmat muddati mobaynidagi umumiy xarajatlarni aniq hisoblash, energiya samaradorligi yuqori uskunalarini tanlash va uzoq muddatda operatsion xarajatlarni sezilarli kamaytirish imkonini beradi.

Ikkinchidan, ABC metodologiyasini [3] tatbiq etish qishloq xo'jaligi korxonalarida xarajatlarni faoliyat turlari kesimida aniq taqsimlash imkonini beradi. “Green Heaven” MChJda ushbu metodologiyani joriy etish natijasida sabzavot saqlash faoliyatining asosiy xarajat markazi ekanligi (65,0 foiz) aniqlandi va maqsadli optimallashtirishga zamin yaratildi. Amaldagi tizimda esa 438,8 mln so'mlik uskunalar xarajatlari taqsimlanmagan holda umumiy summa sifatida aks ettirilgan edi, bu esa har bir mahsulot turi bo'yicha haqiqiy tannarxni aniqlash va boshqaruv qarorlarini asoslashga to'sqinlik qilmoqda edi.

Uchinchidan, nomoddiy aktivlar (agrotexnik bilimlar bazasi, nav litsenziyalari) va foydalanish huquqlarini (ijaraga olingan yer uchastkasi) balansdagi o'z o'rniga kiritish strategik boshqaruv hisobining muhim tarkibiy qismi hisoblanadi [8]. “Green Heaven” MChJda 790 mln so'mlik ushbu aktivlarni balansda aks ettirish korxona aktivlarining haqiqiy qiymatini aniqlashda muhim o'rin tutdi. Ushbu aktivlarning balansda aks ettirilmasligi hisobot axborotining to'liqligiga ta'sir ko'rsatadi, moliyalashtirish imkoniyatlarini baholashni murakkablashtiradi hamda strategik qarorlar uchun zarur axborot bazasining to'liq shakllanishiga salbiy ta'sir ko'rsatadi.

To'rtinchidan, takomillashtirilgan xarajatlar hisobi tizimini joriy etish korxona ROA ko'rsatkichini 22,4 foizdan 17,6 foizgacha tushirdi, biroq bu pasayish ijobiy baholanadi — avval aktivlar past ko'rsatilganligi sababli rentabellik ko'rsatkichi aktivlar to'liq aks ettirilmaganligi sababli nisbatan yuqoriroq ko'ringan edi, yangi tizimda haqiqiy holat aks ettirildi. Bu natija investorlar va rahbariyat uchun haqiqiy samaradorlikni baholashda ancha ishonchli axborot bazasini shakllantirdi. Shuningdek, irrigatsiya tizimi bo'yicha energiya samaradorligini oshirish yo'nalishida asosli investitsiya qarori qabul qilindi, bu esa LCC tizimining amaliy qaror qabul qilishga bevosita ta'sirini isbotlaydi.

Amaliy tavsiyalar sifatida quyidagilarni taklif etish mumkin: (1) O'zbekiston qishloq xo'jaligi korxonalari uchun uzoq muddatli aktivlar hayotiy sikl xarajatlarini LCC metodologiyasi asosida hisoblashning sohasiy uslubiy ko'rsatmalarini ishlab chiqish; (2) ABC metodologiyasini qishloq xo'jaligi korxonalari uchun moslashtirib tatbiq etish bo'yicha namuna hujjatlarini yaratish va keng tarqatish; (3) sohada faoliyat yurituvchi buxgalterlar va moliya mutaxassislarini LCC va ABC metodologiyalari bo'yicha malaka oshirish dasturlarini kengaytirish. Kelajakdagi tadqiqotlar uchun O'zbekistonning turli mintaqalaridagi qishloq xo'jaligi korxonalari bo'yicha keng qamrovli empirik tadqiqot o'tkazish, shuningdek, biologik aktivlarning adolatli qiymatda baholanishiga ko'ra hayotiy sikl xarajatlari tuzilmasining o'zgarishini o'rganish tavsiya etiladi.

FOYDALANILGAN ADABIYOTLAR RO'YXATI

1. Kaplan R.S., Norton D.P. The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment. — Boston: Harvard Business School Press, 2001. — 416 p.
2. Drury C. Management and Cost Accounting. 7th ed. — London: Cengage Learning, 2008. — 775 p.
3. Cooper R., Kaplan R.S. Activity-based systems: Measuring the costs of resource usage // Accounting Horizons. — 1992. — Vol. 6, No. 3. — P. 1–13.
4. Porter M.E. Competitive Advantage: Creating and Sustaining Superior Performance. — New York: Free Press, 1985. — 557 p.
5. Bromwich M. The case for strategic management accounting: The role of accounting information for strategy in competitive markets // Accounting, Organizations and Society. — 1990. — Vol. 15, No. 1–2. — P. 27–46. DOI: 10.1016/0361-3682(90)90011-I.
6. IFRS Foundation. IAS 41 Agriculture. — URL: <https://www.ifrs.org/issued-standards/list-of-standards/ias-41-agriculture/>
7. Pardayev A.X., Pardayeva Z.A. Boshqaruv hisobi: darslik. — Toshkent: “Iqtisod-Moliya”, 2019. — 556 b.
8. IFRS Foundation. IAS 16 Property, Plant and Equipment. — URL: <https://www.ifrs.org/issued-standards/list-of-standards/ias-16-property-plant-and-equipment/>
9. O'zbekiston Respublikasining “Buxgalteriya hisobi to'g'risida”gi Qonuni. O'RQ-404-son, 13.04.2016. — URL: <https://lex.uz/docs/-2931253>
10. IFRS Foundation. IAS 38 Intangible Assets. — URL: <https://www.ifrs.org/issued-standards/list-of-standards/ias-38-intangible-assets/>
11. IFRS Foundation. IFRS 16 Leases. — URL: <https://www.ifrs.org/issued-standards/list-of-standards/ifrs-16-leases/>
12. Argilés J.M., Slob E.J. New opportunities for farm accounting // European Accounting Review. — 2001. — Vol. 10, No. 2. — P. 361–383. DOI: 10.1080/09638180126640.
13. Herbohn K., Herbohn J. International Accounting Standard (IAS) 41: What are the implications for reporting forest assets? // Small-scale Forest Economics, Management and Policy. — 2006. — Vol. 5, No. 2. — P. 175–189. DOI: 10.1007/s11842-006-0009-1.

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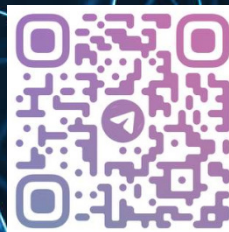
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