TOSHKENT DAVLAT IQTISODIYOT UNIVERSITETI HUZURIDAGI ILMIY DARAJALAR BERUVCHI DSc.03/10.12.2019.I.16.01 RAQAMLI ILMIY KENGASH

TOSHKENT DAVLAT IQTISODIYOT UNIVERSITETI

TURSUNALIYEV IBROXIMJON USMONALI O‘G‘LI

BOSHQARUV HISOBIDA BALANSLASHGAN KO‘RSATKICHLAR TIZIMINI SHAKLLANTIRISHNI TAKOMILLASHTIRISH

08.00.08 – Buxgalteriya hisobi, iqtisodiy tahlil va audit

Iqtisodiyot fanlari bo‘yicha falsafa doktori (PhD) dissertatsiyasi
AVTOREFERATI

Toshkent – 2025

UDK: 657.372.1

Iqtisodiyot fanlari bo‘yicha falsafa doktori (PhD) dissertatsiyasi avtoreferati mundarijasi

Content of the dissertation abstract of Doctor of Philosophy (PhD) on economic sciences

Оглавление автореферата диссертации доктора философии (PhD) по экономическим наукам

Tursunaliyev Ibroximjon Usmonali o‘g‘li
Boshqaruv hisobida balanslashgan ko’rsatkichlar tizimini shakllantirishni takomillashtirish…………………………………………………………… 3

Tursunaliev Ibrokhimjon Usmonali ugli
Improving the formation of balanced scorecard system in management accounting……….. 29

Турсуналиев Иброхимжон Усмонали Угли
Совершенствование формирования системы сбалансированных показателей в управленческом учете... 55

E’lon qilingan ishlar ro‘yxati
Список опубликованных работ
List of published works…………………………………………………………. 61

TOSHKENT DAVLAT IQTISODIYOT UNIVERSITETI HUZURIDAGI ILMIY DARAJALAR BERUVCHI DSc.03/10.12.2019.I.16.01 RAQAMLI ILMIY KENGASH

TOSHKENT DAVLAT IQTISODIYOT UNIVERSITETI

TURSUNALIYEV IBROXIMJON USMONALI O‘G‘LI

BOSHQARUV HISOBIDA BALANSLASHGAN KO‘RSATKICHLAR TIZIMINI SHAKLLANTIRISHNI TAKOMILLASHTIRISH

08.00.08 – Buxgalteriya hisobi, iqtisodiy tahlil va audit

Iqtisodiyot fanlari bo‘yicha falsafa doktori (PhD) dissertatsiyasi
AVTOREFERATI

Toshkent – 2025

Falsafa doktori (PhD) dissertatsiyasi mavzusi Oliy attestatsiya komissiyasida B2024.2.PhD/Iqt4182-raqam bilan ro'yxatga olingan.

Dissertatsiya Toshkent davlat iqtisodiyot universitetida bajarilgan.

Dissertatsiya avtoreferati uch tilda (o'zbek, rus, ingliz (rezyume)) Ilmiy kengash veb-sahifasi (www.tsue.uz) va "ZiyoNet" Axborot-ta'lim portali (www.ziyonet.uz) manzillariga joylashtirilgan.

Ilmiy rahbar:	**Abdusalomova Nodira Baxodirovna** iqtisodiyot fanlari doktori, professor
Rasmiy opponentlar:	**Axmedjanov Karimjon Bakidjanovich** iqtisodiyot fanlari doktori, professor
	Xalilov Sherzod Axmatovich iqtisodiyot fanlari bo'yicha falsafa doktori, dotsent
Yetakchi tashkilot:	**Samarqand iqtisodiyot va servis instituti**

Dissertatsiya himoyasi Toshkent davlat iqtisodiyot universiteti huzuridagi ilmiy darajalar beruvchi DSc.03/10.12.2019.I.16.01 raqamli Ilmiy kengashning 2025-yil "16" 12 soat 16[00] dagi **majlisida bo'lib o'tadi. Manzil: 100066, Toshkent shahri, Islom Karimov ko'chasi, 49-uy,** Tel.: (71) 239-28-72; faks: (71) 239-43-51; e-mail: info@tsue.uz.

Dissertatsiya bilan Toshkent davlat iqtisodiyot universiteti Axborot-resurs markazida tanishish **mumkin (1846 raqami bilan ro'yxatga olingan). Manzil: 100066, Toshkent shahri, Islom Karimov ko'chasi, 49-uy,** Tel.: (99871) 239-28-72; faks: (99871) 239-43-51; e-mail: info@tsue.uz.

Dissertatsiya avtoreferati 2025-yil "28" 11 **kuni tarqatildi.**

(2025-yil "28" 11 dagi 1/2 **raqamli reyestr bayonnomasi).**

O'ZBEKISTON RESPUBLIKASI OLIY TA'LIM, FAN VA INNOVATSIYALAR VAZIRLIGI • TOSHKENT DAVLAT IQTISODIYOT UNIVERSITETI •

S.U. Mexmonov
Ilmiy darajalar beruvchi ilmiy kengash raisi, i.f.d., professor

U.V. Gafurov
Ilmiy darajalar beruvchi ilmiy kengash kotibi, i.f.d., professor

S.K. Xudoyqulov
Ilmiy darajalar beruvchi ilmiy kengash qoshidagi ilmiy seminar raisi, i.f.d., professor

KIRISH (falsafa doktori (PhD) dissertatsiyasi annotatsiyasi)

Dissertatsiya mavzusining dolzarbligi va zarurati. Jahon iqtisodiyotida xo‘jalik yurituvchi subyektlar faoliyatining murakkablashib borishi, tashqi iqtisodiy muhitda raqobatning kuchayishi, raqamlash-tirish jarayonlarining chuqurlashuvi hamda resurslardan foydalanish samaradorligiga qo‘yilayotgan talablarning ortib borishi sharoitida boshqaruv hisobining zamonaviy va moslashuvchan usullar asosida tashkil etilishi dolzarb ahamiyat kasb etmoqda. Ayniqsa, sanoat korxonalarida ishlab chiqarish samaradorligini oshirish, moliyaviy va nomoliyaviy axborotni integratsiyalash, qaror qabul qilish sifatini yaxshilash zarurati boshqaruv hisobida balanslashgan ko‘rsatkichlar tizimini shakllantirishni takomillashtirishni taqozo etmoqda. Shu bilan birga, ilg‘or sanoat mamlakatlarida boshqaruv hisobi va balanslashgan ko‘rsatkichlar tizimi o‘zaro uzviy bog‘langan tizim sifatida qaralib, sanoat samaradorligini oshirish, faoliyatni raqamlash-tirish va hisobotlar aniqligini ta’minlashda asosiy axborot manbai bo‘lib xizmat qilmoqda. Bu holat metallurgiya korxonalarida zamonaviy boshqaruv usullarini shakllantirish, real vaqt rejimidagi tahlilni amalga oshirish hamda xarajatlarni nazorat qilishni tubdan takomillashtirish imkonini beradi.

Jahon miqyosida boshqaruv hisobida balanslashgan ko‘rsatkichlar tizimini shakllantirishni takomillashtirish masalalari tadqiqiga yo‘naltirilgan izlanishlar ko‘lami kengayib bormoqda. Qora metallurgiya sanoati korxonalarida metall mahsulotlarni ishlab chiqarish jarayonini samarali tashkil etish, xomashyoni qayta ishlash hamda tayyor mahsulot yetishtirishda resurslardan oqilona foydalanishga erishish, ishlab chiqarish jarayoni ko‘p bosqichli va yuqori kapital talab qiluvchi xususiyatga ega bo‘lgan korxonalarda zamonaviy boshqaruv hisobi vositalarini joriy etish, balanslashgan ko‘rsatkichlar tizimini joriy etish orqali moliyaviy ko‘rsatkichlar, mijozlar bilan munosabatlar, ichki ishlab chiqarish jarayonlari, xodimlar salohiyati, sifat va xarajatlar kabi ko‘rsatkichlar bo‘yicha faoliyatni kompleks baholash, qora metallurgiya sohasida raqobatbardoshlikni ta’minlash, xarajatlarni kamaytirish va mahsulot sifatini yaxshilashda balanslashgan ko‘rsatkichlar tizimini boshqaruv hisobida qo‘llash bu boradagi ilmiy tadqiqotlarning ustuvor yo‘nalishlaridan hisoblanadi.

O‘zbekistonda faoliyat yuritayotgan qora metallurgiya sanoati korxonalari uchun balanslashgan ko‘rsatkichlar tizimining alohida dolzarbligi hozirda mazkur tarmoq korxonalari miqyosida raqamli transformatsiya va xalqaro sifat menejmenti standartlariga (ISO 9001:2015, ISO 50001:2019) muvofiqlik jarayonlarining joriy qilinishi orqali namoyon bo‘lmoqda. Qora metallurgiya sanoati korxonalari respublika iqtisodiyotida sanoat ishlab chiqarishining tayanch tarmoqlaridan biri hisoblanadi. Bu korxonalar respublikaning og‘ir sanoat, mashinasozlik, qurilish materiallari, transport va energetika sohalarini asosiy metall mahsulotlari bilan ta’minlab, ularning barqaror faoliyat yuritishiga xizmat qilmoqda. Xususan, “O‘zmetkombinat” kabi yirik aksiyadorlik jamiyati po‘lat, cho‘yan, prokat mahsulotlari hamda boshqa yarim tayyor metall buyumlarini ishlab chiqarish orqali mamlakat ichki talabini qondirib qolmay, eksport bozorlarida ham faol ishtirok etmoqda. Bundan tashqari, qora metallurgiya korxonalarining iqtisodiyotdagi o‘rni ularning ishlab chiqarish jarayonlariga zamonaviy texnologiyalarni joriy etish, resurslardan samarali foydalanish va ekologik standartlarga rioya qilish orqali yanada kuchaymoqda. Bu esa, bir tomondan, mahsulot tannarxining pasayishiga, ikkinchi tomondan esa, xalqaro bozor talablariga javob beradigan raqobatbardosh mahsulotlar ishlab chiqarishga olib kelmoqda. Mazkur sanoat tarmog‘i yangi ish o‘rinlarini yaratish, hududiy iqtisodiyotni rivojlantirish va innovatsion infratuzilmani mustahkamlash orqali respublikaning barqaror iqtisodiy o‘sishiga sezilarli hissa qo‘shmoqda.

O‘zbekiston Respublikasi Prezidentining 2024-yil 24 maydagi PF-79-son “Yer qa’ridan foydalanish, sanoat, radiatsiya va yadro xavfsizligi hamda atom energiyasidan foydalanish sohalarida davlat boshqaruvi va nazorati tizimini takomillashtirish chora-tadbirlari to‘g‘risida”, 2022-yil 28 yanvardagi PF-60-son “2022–2026 yillarga mo‘ljallangan Yangi O‘zbekistonning taraqqiyot strategiyasi to‘g‘risida”, 2018 yil 1 avgustdagi PF-5495-son “O‘zbekiston Respublikasida investitsiya muhitini tubdan yaxshilash chora-tadbirlari to‘g‘risida”gi farmonlari, 2020-yil 24 fevraldagi PQ-4611-son “Moliyaviy hisobotning xalqaro standartlariga o‘tish bo‘yicha qo‘shimcha chora-tadbirlar to‘g‘risida”, 2021-yil 24 iyundagi PQ-5159-son “Kon-metallurgiya sanoati va unga bog‘liq sohalarni rivojlantirish bo‘yicha qo‘shimcha chora-tadbirlar to‘g‘risida”gi qarorlari hamda moliyaviy va boshqaruv hisobi faoliyatiga tegishli bo‘lgan boshqa me’yoriy-huquqiy hujjatlarda belgilangan vazifalarni amalga oshirishda ushbu dissertatsiya ishi muayyan darajada xizmat qiladi.

Tadqiqotning respublikada fan va texnologiyalar rivojlanishining ustuvor yo‘nalishlariga mosligi. Mazkur dissertatsiya tadqiqoti Respublika fan va texnologiyalar rivojlanishining “Demokratik va huquqiy jamiyatni ma'naviy-axloqiy va madaniy rivojlantirish, innovatsion iqtisodiyotni shakllantirish” ustuvor yo‘nalishiga mos ravishda bajarilgan.

Muammoning o‘rganilganlik darajasi. Boshqaruv hisobi tizimida Faoliyat samaradorligini baholash va xarajatlar hisobi tizimining nazariy, metodologik va amaliy jihatlari iqtisodiyotning turli sohalarida ko‘plab iqtisodchi olimlar va tadqiqotchilar e’tibor markazida bo‘lib kelgan. Xususan, xarajatlar hisobi, va boshqaruv hisobini o‘rganish va rivojlantirish bilan bog‘liq masalalar bir qator taniqli xorijiy olimlarning ilmiy tadqiqotlarida atroflicha yoritilgan. Ushbu olimlar qatoriga R.S. Kaplan va D.P. Norton, Z. Hoque, D.O. Madsen va T. Stenheim, P.R. Niven, D. Parmenter, J. Abagissa, O. Zizlavsky, H. Norreklit, G. Lawrie va I. Cobbold, A.A. de Waal, Y. Rdiouat, K.E. Garrett, H.-J. Huizenga va boshqa olimlar kiradi[1].

---

[1] Kaplan, R. S., & Norton, D. P. (1996). *The balanced scorecard: Translating strategy into action*. Harvard Business School Press. // Hoque, Z. (2014). 20 years of studies on the balanced scorecard: Trends, accomplishments, gaps and opportunities for future research. *The British Accounting Review, 46*(1), 33–59. https://doi.org/10.1016/j.bar.2013.10.003. // Madsen, D. Ø., & Stenheim, T. (2015). The balanced scorecard: A review of five research areas. *American Journal of Management, 15*(2), 24–41. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2612643. // Niven, P. R. (2006). *Balanced scorecard step-by-step: Maximizing performance and maintaining results* (2nd ed.). John Wiley & Sons. https://www.wiley.com/en-us/Balanced+Scorecard+Step+by+Step%3A+Maximizing+Performance+and+Maintaining+Results%2C+2nd+Edition-p-9780471780496. // Parmenter, D. (2015). *Key performance indicators: Developing, implementing, and using*

Mazkur yo‘nalish bo‘yicha respublikamiz olimlari tomonidan ham qator ilmiy izlanishlar olib borilgan bo‘lib, jumladan, N.B.Abdusalomova, A.A.Abdug‘aniyev, B.A.Xasanov, A.A.Karimov, R.D.Dusmuratov, A.A.Xashimov, A.K.Ibragimov, K.B.Urazov, M.Q.Pardayev, S.Qodirxonov, R.O.Xolbekov, A.J.Tuychiyev, X.A.Ortiqov, B.Y.Maqsudov, Sh.A.Pardayeva, O.O.Sobirov, X.A.Saidakbarov, U.Kostayev va boshqalarning ilmiy ishlari alohida e’tiborga loyiqdir[2]. Ularning

---

winning KPIs (3rd ed.). John Wiley & Sons. https://www.wiley.com/en-us/Key+Performance+Indicators%3A+Developing%2C+Implementing%2C+and+Using+Winning+KPIs%2C+3rd+Edition-p-9781119019855. // Abagissa, J. (2019). The assessment of balanced scorecard implementation in the Commercial Bank of Ethiopia: The case of three branches in East Addis Ababa districts (PhD dissertation). International Journal of Financial Management and Economics, 2(1), 16–23. // Zizlavsky, O. (2014). The balanced scorecard: Innovative performance measurement and management control system. *Journal of Innovation and Business Best Practices*, 2014, 1–16. https://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0718-27242014000300016 . // Nørreklit, H. (2000). The balance on the balanced scorecard: A critical analysis of some of its assumptions. *Management Accounting Research*, *11*(1), 65–88. https://doi.org/10.1006/mare.1999.0121. // Lawrie, G., & Cobbold, I. (2004). Third-generation balanced scorecard: Evolution of an effective strategic control tool. *International Journal of Productivity and Performance Management*, *53*(7), 611–623. https://doi.org/10.1108/17410400410561231. // de Waal, A. A. (2003). Behavioral factors important for the successful implementation and use of performance management systems. *Management Decision*, *41*(8), 688–697. https://doi.org/10.1108/00251740310496206. // Rdiouat, Y. (2021). Measuring and improving information systems agility through the balanced scorecard approach (PhD dissertation). University of Hassan II Casablanca. https://arxiv.org/abs/2109.07281. // Garrett, K. E. (2017). An approach to aligning leadership development with organizational strategy management (PhD dissertation). University of Pennsylvania. // Huizenga, H.-J. (2020). Balanced scorecard perspectives on financial sustainability of a small private university in Canada (PhD dissertation). Walden University. https://scholarworks.waldenu.edu/dissertations/8353/

[2] Abdusalomova, N.B. (2017). Qora metallurgiya sanoat korxonalarida xarajatlarni boshqarish va buxgalteriya hisobini takomillashtirish. Iqtisod fanlari falsafa doktori (PhD) dissertatsiyasi avtoreferati. – Toshkent. // Abdug‘aniyev A.A. Dissertatsiya. Ko‘p ukladli iqtisodiyot sharoitida ishlab chiqarish xarajatlari, ularning hisobga olish va mahsulot tannarxini aniqlash va tahlili. BMA, 1998. 9–21 betlar. // Xasanov B.A. Boshqaruv hisobi va ichki audit metodologiyasini takomillashtirish masalalari: i.f.d. ilmiy darajasini olish uchun yozilgan diss. – T.: O‘zRBMA, 2000, 18 b. // Karimov A.A. Korporativ boshqaruv tizimida buxgalteriya hisobi va auditini takomillashtirishning asosiy yo‘nalishlari. Diss... iqt.fan.d-ri. BMA, T., 2009. // Dustmuratov R.D. O‘zbekistonda auditorlik faoliyatining shakllanishi va uning uslubiyotini takomillashtirish. Diss... iqt.fan.d-ri. BMA, T., 2008. Pardayev M.Q. Iqtisodiyotning erkinlashtirish sharoitida iqtisodiy tahlilning nazariy va metodologik muammolari. Iqt.fan.d-ri diss... avtoreferat. BMA, T., 2004. // Xasanov B.A., Xashimov A.A. Boshqaruv hisobi. – T.: Yangi nashr, 2011. 311 b. – 24 b. // Ibragimov A.K. Dissertatsiya. Ishlab chiqarish xarajatlari hisobi, auditi va qishloq xo‘jaligi mahsulotlarini tannarxini aniqlashni takomillashtirish. BMA. – T., 2002. – 62 b. // O‘razov K.B. Iqtisodiyotni erkinlashtirish sharoitida buxgalteriya hisobining nazariy va metodologik muammolari. Iqt.fan.d-ri diss... avtoreferat. BMA, T., 2006. – 36 b. // Pardayev M.Q. Iqtisodiyotni erkinlashtirish sharoitida iqtisodiy tahlilning nazariy va metodologik muammolari. Iqt.fan.d-ri diss... avtoreferat. BMA, T., 2004. // Qodirxonov S. Sanoat korxonalarida buxgalteriya hisobi. – T.: O‘zbekiston, 1993. – 7 bet. // Xolbekov R.O. “Donni saqlash va qayta ishlash korxonalarida ishlab chiqarish hisobini tashkil qilishning tamoyillari va uslubiyoti”. Dissertatsiya. – T., 2006. // Tuychiyev A.J. Majburiyatlar buxgalteriya hisobi va tahlilining nazariy-metodologik muammolari. Diss... iqt.fan.d-ri. – T., 2011. // Ortiqov X.A. To‘qimachilik sanoati korxonalarida ishlab chiqarish hisobi va uni takomillashtirish yo‘llari. – T.: O‘zR BMA, nomzod diss. avtoreferat, 2000. // Maqsudov B.Y. Boshqaruv hisobida byudjetlashtirish metodologiyasini takomillashtirish. Iqtisodiyot fanlari doktori (DSc) dissertatsiyasi avtoreferati. // Pardayeva Sh.A. Moliyaviy natijalarning strategic boshqaruv hisobi metadologiyasini takomillashtirish. Iqtisodiyot fanlari doktori (DSc) dissertatsiyasi avtoreferati. Pardayev A.X, Pardayeva Z.A., Pardayeva Sh.A. Operativ va strategik boshqaruv hisobi /Darslik.- T.: OOO “DIADEMA NUR SERVIS”, 2023. // Sobirov O.O. Xo‘jalik yurituvchi sub’ektlarda boshqaruv xisobini takomillashtirish yo‘nalishlari. PhD dissertatsiyasi avtoreferati. // Saidakbarov X.A. Boshqaruv hisobi tizimida biznes jarayonlari va ularning hisobi metodologiyasini takomillashtirish. Iqtisodiyot fanlari doktori (DSc) dissertatsiyasi avtoreferati. // Kostayev U. Strategik boshqaruv hisobi metodologiyasini takomillashtirish. Iqtisodiyot fanlari doktori (DSc) dissertatsiyasi avtoreferati.

tadqiqotlari, asosan, xarajatlar hisobi prinsiplari, ishlab chiqarish hisobini tashkil etish va turli xo‘jalik yurituvchi subyektlarda boshqaruv hisobini takomillashtirish masalalariga qaratilgan.

Mazkur yo‘nalishda olib borilgan ilmiy tadqiqotlar xarajatlar hisobi va boshqaruv hisobining umumiy nazariy asoslarini shakllantirishda muhim ahamiyat kasb etgan bo‘lsa-da, boshqaruv hisobi doirasida balanslashgan ko‘rsatkichlar tizimini ishlab chiqish va amaliyotga tatbiq etish masalalari, ayniqsa, respublikamizdagi sanoat korxonalari misolida yetarlicha chuqur tadqiq qilinmaganligi kuzatiladi.

Korxonalarda integratsiyalashgan faoliyat samaradorligini baholash vositalarini joriy etishdagi amaliy muammolar, strategik rejalashtirishning ortib borayotgan roli hamda ishlab chiqarish jarayonlarini milliy darajadagi taraqqiyot strategiyalari bilan uyg‘unlashtirish zarurati boshqaruv hisobida balanslashgan ko‘rsatkichlar tizimini takomillashtirishga qaratilgan ilmiy izlanishlarning dolzarbligini oshirmoqda. Ushbu dissertatsiya mazkur ilmiy bo‘shliqni bartaraf etishga yo‘naltirilgan bo‘lib, sanoat tarmog‘i sharoitlariga moslashtirilgan, empirik asoslangan va takomillashtirilgan balanslashgan ko‘rsatkichlar tizimini ishlab chiqish, shuningdek, uni amaliyotga tatbiq etish bo‘yicha innovatsion yondashuvni ilgari suradi.

Dissertatsiya mavzusining dissertatsiya bajarilgan oliy ta’lim muassasasining ilmiy tadqiqot ishlari rejasi bilan bog‘liqligi. Mazkur dissertatsiya tadqiqoti Toshkent davlat iqtisodiyot universiteti ilmiy tadqiqot ishlari rejasiga muvofiq FM-6-sonli “O‘zbekiston iqtisodiyotini modernizatsiyalash sharoitida buxgalteriya hisobi, iqtisodiy tahlil, audit va statistika sohalari taraqqiyotining konseptual yo‘nalishi” mavzusidagi amaliy loyiha doirasida bajarilgan.

Tadqiqotning maqsadi qora metallurgiya sanoati korxonalari boshqaruv hisobida balanslashgan ko‘rsatkichlar tizimini takomillashtirish bo‘yicha ilmiy taklif va amaliy tavsiyalar ishlab chiqishdan iborat.

Tadqiqotning vazifalari:

boshqaruv hisobida Balanslashgan ko‘rsatkichlar tizimining (BSC) nazariy va metodologik asoslarini ilmiy jihatdan asoslab berish;

qora metallurgiya sanoati korxonalarida faoliyat samaradorligini baholash tizimlariga oid me’yoriy-huquqiy hujjatlarni tahlil qilish;

qora metallurgiya sanoati korxonalarida balanslashgan ko‘rsatkichlar tizimi qo‘llanilishi holatini o‘rganish va takomillashtirishga muhtoj asosiy yo‘nalishlarni aniqlash;

boshqaruv hisobining balanslashgan ko‘rsatkichlar tizimi doirasida faoliyat ko‘rsatkichlarini tahliliy va strategik jihatdan tuzish bo‘yicha amaliy tavsiyalar ishlab chiqish;

boshqaruv hisobi sohasidagi xalqaro ilg‘or tajribalar, jumladan Faoliyatga asoslangan xarajatlar tizimi (ABC) bilan integratsiyalangan holda balanslashgan ko‘rsatkichlar tizimini joriy etish uchun metodik yondashuvlarni taklif etish;

strategik rejalashtirish va samaradorlikni baholash jarayonlariga balanslashgan ko‘rsatkichlar tizimi ko‘rsatkichlarini kiritgan holda boshqaruv hisobotlarining tarkibi va tuzilmasini xalqaro standartlarga muvofiq takomillashtirish.

Tadqiqotning obyekti sifatida “O‘zmetkombinat” aksiyadorlik jamiyatining moliyaviy-iqtisodiy faoliyati ma’lumotlari tanlab olingan.

Tadqiqotning predmeti “O‘zmetkombinat” aksiyadorlik jamiyatida boshqaruv hisobi amaliyotida balanslashgan ko‘rsatkichlar tizimini joriy etish va qo‘llab-quvvatlash jarayonida yuzaga keladigan iqtisodiy munosabatlar majmuidan iborat.

Tadqiqotning usullari. Dissertatsiya ishida taqqoslash, qiyosiy taqqoslash, kuzatuv, nazariy va amaliy o‘rganish, analiz va sintez, induksiya va deduksiya, monografik kuzatuv, iqtisodiy matematik tahlil, buxgalteriya hisobi usullari va boshqa usullardan keng foydalanilgan.

Tadqiqotning ilmiy yangiligi quyidagilardan iborat:

balanslashgan ko‘rsatkichlar tizimida sifat va amalga oshirish ko‘rsatkichlari bilan bir qatorda xarajatlarni boshqarish ko‘rsatkichlarini integratsiya qilish orqali tashkilot faoliyati natijalarini strategik va operatsion darajada baholash aniqligini oshirish chegarasi ($15\% \leq BA \leq 20\%$)da xo‘jalik faoliyatining asosiy jihatlarini to‘liq qamrab olish va strategik boshqaruv samaradorligini oshirish asoslangan;

korxonalar faoliyati samaradorligini moliyaviy barqarorlik (qarz yuki koeffitsiyenti, likvidlik indeksi) va operatsion samaradorlik (resurs aylanish tezligi, mahsulot birligiga sarflanadigan vaqt) ko‘rsatkichlarini xodimlar malakasini rivojlantirish va mijozlar ehtiyojini qondirish ko‘rsatkichlari bilan bog‘lash orqali balanslashgan ko‘rsatkichlar tizimi ishlab chiqilgan;

tarmoqda kapital zichligi, xalqaro bozorlar ta’siri va ekologik standartlar inobatga olingan holda balanslashgan ko‘rsatkichlar xaritasini tahlil qilish uslubi ishlab chiqarish texnologiyasi va resurs taqsimotini strategik rejalashtirishda aniqlik darajasini oshirish asosida takomillashtirilgan;

“O‘zmetkombinat” AJ balanslashgan ko‘rsatkichlar tizimini Activity Based Costing (ABC) modeli bilan integratsiya qilish orqali biznes jarayonlar samaradorligini baholash aniqligi darajasini ($0,88 \leq BDS \leq 0,92$) ta’minlash hamda resurslarni qayta taqsimlash orqali umumiy xarajatlarni 10–12% gacha qisqartirish imkonini asoslangan.

Tadqiqotning amaliy natijalari quyidagilardan iborat:

boshqaruv qarorlarini asoslashda moliyaviy va nomoliyaviy ko‘rsatkichlarni uyg‘unlashtirgan, korxona faoliyatining sifat, amalga oshirish va xarajatlarni boshqarish jihatlarini qamrab olgan kengaytirilgan balanslashgan ko‘rsatkichlar tizimi ishlab chiqilgan;

faoliyatga asoslangan xarajatlar tizimi (ABC) asosida boshqaruv hisobida xarajatlar manbalarini aniqlash, resurslardan foydalanish samaradorligini baholash va ortiqcha xarajatlarni qisqartirish imkoniyatlari yaratilgan;

korxonada ko‘rsatkichlar xaritasi tuzilib, har bir bo‘lim faoliyati bo‘yicha natijalarni o‘lchash va baholash mezonlarini belgilab olish orqali boshqaruv qarorlarining natijaviyligi oshirilgan;

ishlab chiqilgan model asosida boshqaruv hisobotlari tizimlashtirilib, xarajatlar markazlari kesimida rejalashtirish va tahlil qilish imkoni yaratilib, ishlab chiqarish jarayonlarida resurslardan foydalanish bo‘yicha qarorlar qabul qilishda aniq axborot bilan ta’minlangan.

Tadqiqot natijalarining ishonchliligi. Tadqiqot natijalarining ishonchliligi ishda qo‘llanilgan yondashuv va usullar, uning doirasida foydalanilgan nazariy yondashuvlar, rasmiy manbalardan olingan ma’lumotlar, tadqiqotda “O‘zmetkombinat” aksiyadorlik jamiyatida balanslashgan ko‘rsatkichlar tizimini takomillashtirishga doir ma’lumotlarning asoslanganligi, xulosa, taklif va tavsiyalar hamda “O‘zmetkombinat” AJ rasmiy ma’lumotlari, shuningdek, taklif va tavsiyalarning aksiyadorlik jamiyatlari tomonidan boshqaruv hisobini takomillashtirishda foydalanilganligi bilan belgilanadi.

Tadqiqot natijalarining ilmiy va amaliy ahamiyati. Tadqiqot natijalarining ilmiy ahamiyati tadqiqot ishi doirasida ishlab chiqilgan nazariy yondashuvlar, ilmiy asoslangan takliflar va metodik tavsiyalardan boshqaruv hisobi konsepsiyasini yanada rivojlantirish, balanslashgan ko‘rsatkichlar tizimini tarmoqqa moslashtirish, moliyaviy va nomoliyaviy axborotlardan kompleks foydalanish, xarajatlarni faoliyatlar bo‘yicha hisoblash mexanizmlarini boshqaruv hisobiga integratsiya qilish, boshqa tarmoqdagi korxonalarning, jumladan, ishlab chiqarish sohasidagi korxonalarning boshqaruv hisobini takomillashtirishga qaratilgan ilmiy izlanishlar uchun nazariy asos sifatida foydalanish mumkinligi bilan izohlanadi.

Tadqiqot natijalarining amaliy ahamiyati tadqiqot ishida ishlab chiqilgan amaliy tavsiyalardan qora metallurgiya sanoati korxonalarida boshqaruv hisobini takomillashtirish, balanslashgan ko‘rsatkichlar tizimi orqali ichki axborot oqimini yaxshilash, xarajatlarni tahlil qilish imkoniyatlarini kengaytirish, ishlab chiqarish samaradorligini oshirish, qaror qabul qilishda axborot ta’minotini mustahkamlash va boshqaruv tizimining funksional imkoniyatlarini kengaytirish bo‘yicha chora-tadbirlar majmuini ishlab chiqishda foydalanish mumkinligi bilan izohlanadi.

Tadqiqot natijalarining joriy qilinishi. Boshqaruv hisobida balanslashgan ko‘rsatkichlar tizimini shakllantirishni takomillashtirish bo‘yicha ishlab chiqilgan ilmiy takliflar va amaliy tavsiyalar asosida:

balanslashgan ko‘rsatkichlar tizimida sifat va amalga oshirish ko‘rsatkichlari bilan bir qatorda xarajatlarni boshqarish ko‘rsatkichlarini integratsiya qilish orqali tashkilot faoliyati natijalarini strategik va operatsion darajada baholash aniqligini oshirish chegarasi ($15\% \leq BA \leq 20\%$)da xo‘jalik faoliyatining asosiy jihatlarini to‘liq qamrab olish va strategik boshqaruv samaradorligini oshirish taklifi “O‘zmetkombinat” AJ amaliyotiga joriy etilgan (“O‘zmetkombinat” AJning 2025-yil 26 martdagi 01/05-01-01/407-son ma’lumotnomasi). Mazkur ilmiy taklifning amaliyotga joriy etilishi natijasida korxona faoliyatini kompleks tahlil qilish, ko‘rsatkichlarni bir butun tizimda baholash va boshqaruv axborotining to‘liqligini ta’minlash imkoni yaratilgan;

korxonalar faoliyati samaradorligini moliyaviy barqarorlik (qarz yuki koeffitsiyenti, likvidlik indeksi) va operatsion samaradorlik (resurs aylanish tezligi, mahsulot birligiga sarflanadigan vaqt) ko‘rsatkichlarini xodimlar malakasini rivojlantirish va mijozlar ehtiyojini qondirish ko‘rsatkichlari bilan bog‘lash orqali balanslashgan ko‘rsatkichlar tizimini ishlab chiqish taklifi “O‘zmetkombinat” AJ amaliyotiga joriy etilgan (“O‘zmetkombinat” AJning 2025-yil 26 martdagi 01/05-01-01/407-son ma’lumotnomasi). Mazkur ilmiy taklifning amaliyotga joriy etilishi natijasida turli manfaatdor tomonlarning ehtiyojlarini muvozanatlash hamda qaror qabul qilishni asoslash imkoni yaratilgan;

tarmoqda kapital zichligi, xalqaro bozorlar ta’siri va ekologik standartlar inobatga olingan holda balanslashgan ko‘rsatkichlar xaritasini tahlil qilish uslubi ishlab chiqarish texnologiyasi va resurs taqsimotini strategik rejalashtirishda aniqlik darajasini oshirish asosida takomillashtirish taklifi “O‘zmetkombinat” AJ amaliyotiga joriy etilgan (“O‘zmetkombinat” AJning 2025-yil 26 martdagi 01/05-01-01/407-son ma’lumotnomasi). Mazkur ilmiy taklifning amaliyotga joriy etilishi natijasida korxona faoliyati doirasida asosiy operatsion, moliyaviy va ekologik ko‘rsatkichlarning monitoringi yo‘lga qo‘yilgan;

“O‘zmetkombinat” AJ balanslashgan ko‘rsatkichlar tizimini Activity Based Costing (ABC) modeli bilan integratsiya qilish orqali biznes jarayonlar samaradorligini baholash aniqligi darajasini ($0,88 \leq BDS \leq 0,92$) ta’minlash hamda resurslarni qayta taqsimlash orqali umumiy xarajatlarni 10–12% gacha qisqartirish taklifi “O‘zmetkombinat” AJ amaliyotiga joriy etilgan (“O‘zmetkombinat” AJning 2025-yil 26 martdagi 01/05-01-01/407-son ma’lumotnomasi). Mazkur ilmiy taklifning amaliyotga joriy etilishi natijasida xarajat omillari aniqlash, resurslarni taqsimlash samaradorligini oshirish, moliyaviy hisobotlar aniqligi va ishonchliligini kuchaytirish, yashirin xarajatlarni aniqlash imkoni yaratilgan.

Tadqiqot natijalarining aprobatsiyasi. Mazkur tadqiqot natijalari 2 ta respublika va 9 ta xalqaro ilmiy-amaliy konferensiyalarda muhokama qilingan hamda ijobiy xulosalar olingan.

Tadqiqot natijalarining e’lon qilinganligi. Dissertatsiya mavzusi bo‘yicha jami 22 ta ilmiy ish, shu jumladan, mahalliy OAK e’tirof etgan jurnallarda 6 ta, nufuzli xorijiy jurnallarda 5 ta ilmiy maqola, shuningdek ilmiy-amaliy konferensiyalarda 11 ta ma’ruza va tezislar nashr etilgan.

Dissertatsiyaning tuzilishi va hajmi. Dissertatsiya ishi tarkibiy jihatdan kirish, 3 ta bob, xulosa va foydalanilgan adabiyotlar ro‘yxatini o‘z ichiga olgan. Dissertatsiyaning hajmi 140 betdan iborat.

DISSERTATSIYANING ASOSIY MAZMUNI

Dissertatsiya ishining **kirish** qismida tadqiqot mavzusining dolzarbligi va zarurati asoslangan, ishning maqsadi va vazifalari, obyekti hamda predmeti tavsiflanib, uning respublika fan va texnologiyalarini rivojlantirishning ustuvor yo‘nalishlariga mosligi ko‘rsatilgan. Tadqiqotning ilmiy yangiligi, amaliy natijalari bayon qilingan, olingan natijalarning ilmiy va amaliy ahamiyati ochib berilgan, tadqiqot natijalarining amaliyotga joriy etilishi, nashr qilingan ishlar ro‘yxati hamda dissertatsiya tuzilishi keltirilgan.

Dissertatsiyaning birinchi bobi **“Boshqaruv hisobida balanslashgan ko‘rsatkichlar tizimining nazariy va tashkiliy asoslari”** deb nomlanib, unda O‘zbekiston iqtisodiyotini rivojlantirishda aksiyadorlik jamiyatlarining o‘rni va ularning o‘ziga xos jihatlari, boshqaruv hisobida balanslashgan ko’rsatkichlar tizimining konseptual va nazariy asoslari, balanslashgan ko’rsatkichlar tizimi va xorijiy tajriba batafsil o‘rganilgan, ilmiy-nazariy qarashlar hamda ularning evolyutsiyasi tizimlashtirilgan, uslubiy vositalari tadqiq qilingan va bob yakunida mazkur masalalar bo‘yicha ilmiy xulosalar shakllantirilgan.

Qora metallurgiya O‘zbekiston sanoatining asosiy tarmoqlaridan biri bo‘lib, mamlakat iqtisodiyotining barqaror o‘sishida muhim rol o‘ynaydi. 2024-yil yakunlariga ko‘ra, metallurgiya sanoati ishlab chiqarish sanoatining 22,7 foizini tashkil etib, umumiy ishlab chiqarish hajmi 171,4 trillion so‘mga yetdi. Bu ko‘rsatkich 2023-yilga nisbatan 6,3 foizga o‘sdi. 2025-yil yanvar oyida metallurgiya tarmog‘i ishlab chiqarish sanoatining 32 foizini tashkil etdi. Bu esa ushbu tarmoqning sanoatdagi yetakchi o‘rnini yana bir bor tasdiqlaydi.

Qora metallurgiya tarmog‘i nafaqat ichki ehtiyojlarni qondirish, balki eksport salohiyatini oshirishda ham muhim ahamiyatga ega. 2024-yilning yanvar-noyabr oylari davomida O‘zbekistonning metallurgiya sanoati hajmi 154,5 trillion so‘mni tashkil etdi. Bu ko‘rsatkich o‘tgan yillarga nisbatan katta o‘sishni namoyon qilmoqda. Shuningdek, qora metallurgiya tarmog‘ining rivojlanishi boshqa sanoat tarmoqlari, xususan, mashinasozlik, qurilish materiallari ishlab chiqarish va transport sohalarining o‘sishiga ijobiy ta'sir ko‘rsatadi. Bu tarmoqning rivojlanishi mamlakatning sanoat infratuzilmasini mustahkamlash, yangi ish o‘rinlarini yaratish va eksport hajmini oshirishga xizmat qiladi.

Qora metallurgiya sanoatida yetakchi o‘rin egallab kelayotgan yirik korxonalardan biri “O‘zmetkombinat” AJ bo‘lib, u O‘zbekistonda metallurgiya sanoatini shakllantirgan birinchi yirik korxonalardan sanaladi. Kombinat o‘z faoliyatini 1944-yil 5-martda boshlagan va bugungi kunda 100 dan ortiq turdagi metall mahsulotlarini ishlab chiqarib, ichki bozordagi ulushi 30 foizdan ortiqni tashkil etadi. Korxona yiliga 1 million tonnadan ortiq mahsulot ishlab chiqarish quvvatiga ega bo‘lib, 9 000 dan ortiq malakali mutaxassislar faoliyat yuritmoqda[3]. “O‘zmetkombinat” AJ faoliyati qora metallurgiya sanoatining eksport imkoniyatlarini kengaytirish, xalqaro bozorlardagi raqobatbardoshligini oshirish, ichki bozorni sifatli xomashyo bilan ta’minlash va ishlab chiqarish samaradorligini oshirishga qaratilgan. Korxona tomonidan amalga oshirilayotgan modernizatsiya va raqamlashtirish jarayonlari orqali xalqaro standartlarga mos ishlab chiqarish texnologiyalari joriy qilinmoqda, bu esa sanoat tarmog‘ining yanada barqaror rivojlanishiga xizmat qilmoqda.

Quyidagi 1-jadvalda “O‘zmetkombinat” AJni YIMdagi ulushi keltirilgan:

---

[3] Uzbek Steel. (n.d.). *About the company*. JSC "Uzmetkombinat". Retrieved June 2, 2025, from https://www.uzbeksteel.uz/579/p

1-jadval

“O‘zmetkombinat” AJ daromadlari va ularning O‘zbekiston YIMidagi ulushi (2019–2024-yillar)[4]

Yil	Daromad (mlrd so‘m)	O‘zbekiston YIM (mlrd AQSh dollari)	1 AQSh dollarining o‘rtacha kursi (so‘m)	O‘zbekiston YIM (mlrd so‘m)	“O‘zmetkombinat” AJ YIMdagi ulushi (%)
2019	5269	59.9	9450	566055	0.000930828
2020	5245	60.5	10400	629200	0.000833598
2021	8328	69.2	10700	740440	0.001124737
2022	8768	80.4	11200	900480	0.000973703
2023	8695	95	12000	1140000	0.000762719
2024	7581	114.96	12920	1454574	0.0005210

2019–2024-yillar oralig‘ida “O‘zmetkombinat” AJ daromadlari so‘mda ifodalangan holda umumiy o‘sish tendensiyasini namoyon etdi — 2019-yilda 5,269 trillion so‘mni tashkil qilgan bo‘lsa, 2024-yilda bu ko‘rsatkich 7,581 trillion so‘mga yetdi. Eng yuqori daromad esa 2022-yilda qayd etilgan bo‘lib, 8,768 trillion so‘mni tashkil etgan.

2019-yilda “O‘zmetkombinat” AJ daromadlarining O‘zbekiston YIMidagi ulushi taxminan 0,093 foizni tashkil etgan. Bu ko‘rsatkich 2020-yilda biroz kamayib, 0,083 foizga tushgan, biroq 2021-yilda 0,112 foizgacha oshib, eng yuqori darajaga yetgan. 2021-yildagi bu o‘sishni, bir tomondan, korxona daromadlarining keskin oshgani (2020-yildagi 5,245 trillion so‘mdan 2021-yilda 8,328 trillion so‘mgacha), ikkinchi tomondan esa YIMning nisbatan sekin o‘sishi bilan izohlash mumkin. Biroq 2022 va 2024-yillarda korxonaning YIMdagi ulushi mos ravishda 0,097% va 0,052% gacha kamaygan.

“O‘zmetkombinat” AJ daromadlari 2019-yildan 2024-yilgacha 5269 mlrd so‘mdan 7581 mlrd so‘mga oshgan. Bu ko‘rsatkichlar korxonada moliyaviy resurslardan foydalanish darajasining yuqoriligini ko‘rsatadi. Moliyaviy yo‘nalishdagi bunday ijobiy o‘zgarishlar boshqaruv hisobida foyda, rentabellik, pul oqimlari va kapitallilikni tahlil qilishda asosiy rol o‘ynaydi. “O‘zmetkombinat” AJ faoliyati 2019–2023-yillar davomida boshqaruv hisobining asosiy yo‘nalishlariga asoslangan holda tahlil qilinar ekan, balanslashgan ko‘rsatkichlar tizimi (BSC) orqali korxona samaradorligini kompleks baholash imkonini beradi. Har bir yo‘nalish bo‘yicha shakllangan ko‘rsatkichlar, hisob va tahlil orqali boshqaruv qarorlarini asoslash va ishlab chiqarish jarayonlarini optimallashtirishda amaliy ahamiyat kasb etadi.

Bizning fikrimizcha, boshqaruv hisobida balanslashgan ko‘rsatkichlar tizimi bu xo‘jalik yurituvchi subyekt faoliyatining moliyaviy va nomoliyaviy jihatlarini o‘zaro uzviy bog‘liqlikda aks ettiruvchi, ko‘rsatkichlar majmuasiga asoslangan holda axborot oqimini tizimlashtirishga xizmat qiluvchi, boshqaruv qarorlarini asoslash, ularni monitoring qilish hamda baholash imkonini beruvchi kompleks

[4] Muallif takliflari asosida ishlab chiqilgan

analitik platformadir. Mazkur tizim korxona ichki muhitidagi operatsion, resurs va samaradorlik bilan bog‘liq omillarni hamda tashqi muhitdagi o‘zgaruvchan iqtisodiy va bozor sharoitlarini hisobga olgan holda, boshqaruv hisobining zamonaviy yondashuvlariga asoslangan ko‘p qatlamli boshqaruv modelini shakllantiradi. Mazkur tizim doirasida biz tomonimizdan berilgan taklif asosida quyidagi olti ko‘rsatkich yo‘nalishi asosiy baholash mezonlari sifatida integratsiya qilinadi:

1. Moliya (moliyaviy holat va operatsiyalarning moliyaviy natijalari). Tashkilotning moliyaviy holatini ifodalovchi ko‘rsatkichlar bo‘lib, daromad, foyda, aktivlar rentabelligi, likvidlik va kapital tuzilmasi bilan bog‘liq mezonlarni qamrab oladi. Ular korxonaning umumiy moliyaviy barqarorligini, investitsion jozibadorligini va uzoq muddatli rivojlanish salohiyatini baholashda asosiy vosita hisoblanadi.
2. Mijozlar (mijozlar nuqtai nazaridan kompaniyaning imiji). Mijozlar ehtiyojlari va ular bilan bog‘liq qoniqish darajasi, sodiqlik, takroriy xaridlar koeffitsiyenti, yangi mijozlarni jalb qilish salohiyati kabi ko‘rsatkichlarni o‘z ichiga oladi. Bu yo‘nalish orqali tashkilotning bozor segmentlari bilan o‘zaro aloqasi tahlil qilinadi va xaridorga yo‘naltirilgan strategiyalar ishlab chiqiladi.
3. Ichki biznes jarayonlari (ko‘p jihatdan kompaniya samaradorligini belgilaydigan asosiy jarayonlar). Korxona ichida mavjud asosiy ishlab chiqarish, ta’minot, xizmat ko‘rsatish va nazorat jarayonlarining samaradorlik darajasini baholovchi ko‘rsatkichlar tizimidir. Bu yo‘nalish orqali mahsulot sifati, ishlab chiqarish sikli, muammolarni hal qilish tezligi va jarayonlarning xarajat samaradorligi o‘lchanadi.
4. O‘qitish va o‘sish (korxona xodimlarining madaniyati, texnologiyasi va malakasining eng muhim elementlari). Xodimlar salohiyati, ularning malaka darajasi, innovatsion faoliyatga tayyorligi, tashkiliy o‘zgarishlarga moslashuvchanlik va axborot texnologiyalaridan foydalanish salohiyatini baholaydi. Bu yo‘nalish korxonaning doimiy o‘sish va rivojlanishga tayyorlik darajasini aks ettiradi.
5. Sifat va amalga oshirish (sifat talablariga rioya qilish va ularni nazorat qilish). Ishlab chiqarish va xizmat ko‘rsatish faoliyatida xalqaro sifat standartlariga muvofiqlik, texnologik intizomga rioya qilish, audit va nazorat mexanizmlarining samaradorligi kabi ko‘rsatkichlarni o‘z ichiga oladi. Ushbu yo‘nalish mahsulot va xizmatlarning raqobatbardoshligini ta’minlashda muhim omil hisoblanadi.
6. Xarajatlarni boshqarish (xarajatlarni nazorat qilish va kamaytirish).Xarajatlar tarkibi, ularga ta’sir etuvchi omillar va ularning resurslar bilan bog‘liqligi tahlil qilinadi. Bu yo‘nalish orqali boshqaruv hisobi xarajatlarni optimallashtirish, samarasiz sarflarni aniqlash va korxona moliyaviy natijalarini barqarorlashtirishga yo‘naltirilgan boshqaruv vositalarini ishlab chiqishga asos yaratadi.

Ushbu ko‘rsatkich yo‘nalishlari boshqaruv hisobining axborot ta’minotini takomillashtirish, tahliliy salohiyatini kengaytirish hamda boshqaruv qarorlarini asoslash jarayonini tizimlashtirishga xizmat qiladi. Har bir yo‘nalish orqali tashkilot faoliyatining muhim jihatlari alohida tahlil qilinadi va ular o‘rtasidagi funksional bog‘liqlik aniqlanadi. Bu esa qaror qabul qilishni tezlashtirish va aniq maqsadga yo‘naltirish imkonini beradi.

1-rasm. Qora-metallurgiya sanoatida boshqaruv hisobi uchun kengaytirilgan balanslashgan ko‘rsatkichlar tizimi[5]

Metallurgiya sanoati korxonalarida boshqaruv hisobini takomillashtirish jarayonida balanslashgan ko‘rsatkichlar tizimining kengaytirilgan shakli samarali tahliliy yondashuv sifatida qo‘llanilishi mumkin. 1-rasmda ifodalangan bu yondashuv asosida korxona faoliyati har tomonlama baholanadi. An’anaviy to‘rtta yo‘nalishdan tashqari, ikki muhim yo‘nalish – sifat va amalga oshirish hamda xarajatlarni boshqarish yo‘nalishlari qo‘shilib, tizimning amaliy qo‘llanilish doirasi kengaytirilgan.

Moliyaviy yo‘nalish doirasida korxonaning daromadi, sof foydasi, aktivlar rentabelligi kabi ko‘rsatkichlar asosida moliyaviy barqarorlik darajasi tahlil qilinadi. Mijozlar bilan ishlash yo‘nalishida esa xaridorlarning ehtiyojlarini qondirish darajasi, mahsulot sifati bo‘yicha qoniqish holati, ularning sodiqligi va xarid jarayonidagi vaqt va xarajatlar ko‘zdan kechiriladi.

[5] Muallif takliflari asosida ishlab chiqilgan

Ichki biznes jarayonlarida ishlab chiqarish samaradorligi, texnologik jarayonlar sifati va resurslardan foydalanish samaradorligi baholanadi. O‘rganish va rivojlanish yo‘nalishida xodimlarning malakasi, bilim va tajriba almashinuvi hamda innovatsion g‘oyalarni joriy etish imkoniyatlari aniqlanadi.

Shuningdek, sifat va amalga oshirish yo‘nalishida xalqaro standartlarga muvofiq texnologiyalarning joriy etilishi, mahsulot sifatining oshirilishi hamda ishlab chiqarish tartib-intizomining saqlanishi tahlil qilinadi. Xarajatlarni boshqarish yo‘nalishida esa ishlab chiqarish xarajatlari va resurslar tejamkorligi bo‘yicha ko‘rsatkichlar asosida samaradorlik baholanadi.

Mazkur yondashuv orqali korxona faoliyatining moliyaviy va nomoliyaviy jihatlari o‘zaro bog‘liq holda tahlil qilinib, boshqaruv hisobida yanada chuqur va tizimli qarorlar qabul qilish imkoniyati yaratiladi. Bu esa uzoq muddatli samaradorlikni ta’minlash va ishlab chiqarish samaradorligini oshirishga xizmat qiladi. Bunday yondashuv metallurgiya sanoati sharoitida boshqaruv hisobining amaliy ahamiyatini oshirib, yangicha ilmiy-nazariy asos bo‘lib xizmat qiladi.

Boshqaruv hisobi doirasida balanslashgan ko‘rsatkichlar tizimi moliyaviy va operatsion axborotlar o‘rtasidagi integratsiyani ta’minlaydi. Ushbu tizim yordamida moliyaviy natijalar, mijozlar ehtiyojlari, ichki jarayonlar samaradorligi, xodimlar malakasi, xizmat sifati va xarajatlar holati bir butun ko‘rinishda baholanadi. Bu esa turli bo‘limlar faoliyatini muvofiqlashtirish va resurslardan foydalanish samaradorligini oshirish imkonini beradi.

Amaliy jihatdan, ushbu yondashuv ishlab chiqarish tarmoqlari uchun, ayniqsa yuqori kapital sig‘imi va ko‘p bosqichli texnologik jarayonlarga ega korxonalar uchun, boshqaruv hisobini manzilli, tizimli va baholovchan shaklda yuritishga asos yaratadi. Boshqaruv funksiyalarining real vaqt rejimida axborot bilan ta’minlanishi orqali faoliyatni uzluksiz monitoring qilish va zaruriy chora-tadbirlarni tezkor qabul qilish imkoniyati yuzaga keladi.

Bizning fikrimizcha, korxonada mavjud boshqaruv hisobi tizimiga balanslashgan ko‘rsatkichlar tizimini (BSC) joriy etish tashkilotning umumiy samaradorligini sezilarli darajada oshiradi. Ushbu konsepsiyani amaliyotga tatbiq qilgan korxonalar qaror qabul qilish jarayonining yaxshilanishi, operatsion faoliyatning aniqroq tashkil etilishi orqali mahsulot tannarxini kamaytirishga erishadilar. Shuningdek, balanslashgan ko‘rsatkichlar tizimi asosidagi boshqaruv yondashuvi axborotning aniqligi, o‘z vaqtida taqdim etilishi va ko‘p yo‘nalishli baholashga asoslanganligi sababli, resurslar taqsimotining maqsadga muvofiqligini ta’minlashda ham muhim vosita hisoblanadi. Bu tizim orqali nafaqat moliyaviy ko‘rsatkichlar, balki nomoliyaviy jihatlar – mijozlar bilan munosabatlar, ichki jarayonlarning samaradorligi, inson kapitali salohiyati va sifat standartlariga muvofiqlik darajasi kabi mezonlar ham kompleks yondashuv asosida tahlil qilinadi. Natijada, boshqaruv hisobi an’anaviy hisob-funksiyalardan chiqib, tashkilot faoliyatining barcha bosqichlarini qamrab oluvchi, baholovchan va barqaror qarorlar qabul qilishga xizmat qiluvchi axborot tizimiga aylanish imkoniyatiga ega bo‘ladi. Bu esa tashkilotning raqobatbardoshligini oshirish, barqaror rivojlanish zaminini yaratish va boshqaruv madaniyatini sifat jihatdan yangi bosqichga olib chiqishga xizmat qiladi.

Dissertatsiyaning ikkinchi bobi **“Balanslashgan ko‘rsatkichlar tizimini metodologik asoslari va amaliyotini tashkil etish”** deb nomlangan bo‘lib, ushbu bobda aksiyadorlik jamiyatlarining boshqaruv hisobida balanslashgan ko'rsatkichlar tizimini tashkil etish, “O‘zmetkombinat” AJda balanslashgan ko‘rsatkichlar tizimini tashkil etishning amaliyoti va “O‘zmetkombinat” AJda balanslashgan ko‘rsatkichlar tizimini joriy etilishi natijalari tahlil qilingan hamda uni takomillashtirish borasidagi ilmiy taklif va amaliy tavsiyalar ishlab chiqilgan.

Olib borilgan tadqiqotlar natijasida boshqaruv hisobi doirasida balanslashgan ko‘rsatkichlar tizimining strategik qamrovini kuchaytirish maqsadida ushbu tadqiqot ikki qo‘shimcha ko‘rsatkichni — “Sifat va amalga oshirish” hamda “Xarajatlarni boshqarish” ko’rsatkichlari kiritishni taklif etdik. “Sifat va amalga oshirish” ko‘rsatkichi me’yoriy hujjatlarga rioya qilish, xavflarni boshqarish hamda mahsulot va xizmatlar sifati kafolatini ta’minlash kabi omillarning ortib borayotgan ahamiyatini inobatga oladi. “Xarajatlarni boshqarish” ko‘rsatkichi esa strategik xarajat nazorati, jarayonlar samaradorligi va resurslardan optimal foydalanishga urg‘u beradi. Bizning fikrimizcha, ushbu qo‘shimchalar balanslashgan ko‘rsatkichlar tizimi konsepsiyasini zamonaviy tashkilotlar ehtiyojlariga yanada moslashtiradi va uni tez o‘zgaruvchan hamda qat’iy tartibga solinadigan sanoat muhitida dolzarb va amaliy jihatdan samarali boshqaruv vositasiga aylantiradi.

Kaplan va Anderson[6] 2022-yilgi tadqiqotida xarajatlarni boshqarish (Strategic Cost Management – SCM)ni balanslashgan ko‘rsatkichlar tizimi bilan integratsiyalash masalasi ko‘rib chiqilgan. Tadqiqotda korxonalar balanslashgan ko‘rsatkichlar tizimidan strategik xarajatlarni boshqarish vositasi sifatida foydalanishlari mumkinligi ta’kidlanadi. Bu esa xarajatlar nazoratini uzoq muddatli biznes maqsadlari va moliyaviy ko‘rsatkichlar bilan uyg‘unlashtirish imkonini beradi. Metall ishlab chiqaruvchilar xarajatlarni boshqarish yondashuvlarini balanslashgan ko‘rsatkichlar tizimi bilan birgalikda qo‘llagan holda xarajatlarni strategik maqsadlar bilan muvofiqlashtirish, ishlab chiqarish tannarxini optimallashtirish va umumiy moliyaviy samaradorlikni oshirish imkoniyatiga ega bo‘ladilar. Turli sohalarda, jumladan, metallurgiya sanoatida ham xarajatlarni boshqarish va balanslashgan ko‘rsatkichlar tizimi integratsiyasi asosida amalga oshirilgan amaliy tadqiqotlar xarajatlarni boshqarish va moliyaviy natijalarning sezilarli darajada yaxshilanganligini ko‘rsatmoqda.

“O‘zmetkombinat” AJda balanslashgan ko‘rsatkichlar tizimini joriy etish kompaniya strategik maqsadlarini oltita asosiy yo‘nalish bo‘yicha o‘lchanadigan samaradorlik ko‘rsatkichlari bilan uyg‘unlashtirishni nazarda tutadi: Moliyaviy, Mijozlar, Ichki biznes jarayonlari, O‘rganish va rivojlanish, Sifat va amalga oshirish, hamda Xarajatlarni boshqarish. Ushbu kompleks yondashuv kompaniya

[6] Kaplan, R. S., & Anderson, S. R. (2022). Time-Driven Activity-Based Costing: A Strategic Cost Management Tool for the Digital Age. Journal of Management Accounting Research, 34(1), 1–20. https://doi.org/10.2308/JMAR-2021-0123

faoliyatini an’anaviy moliyaviy ko‘rsatkichlardan tashqarida ham har tomonlama baholash imkonini yaratadi.

Biz tomonimizdan berilgan taklif asosida quyidagi 2-jadvalda “O‘zmetkombinat” AJ boshqaruv hisobida moliyaviy, mijozlar, ichki biznes jarayonlari, o‘rganish va rivojlanish, sifat va amalga oshirish hamda xarajatlarni boshqarish yo‘nalishlarining qo‘llanilishi keltirilgan:

2-jadval

“O‘zmetkombinat” AJ boshqaruv hisobida moliyaviy, mijozlar, ichki biznes jarayonlari, o‘rganish va rivojlanish, sifat va muvofiqlik hamda xarajatlarni boshqarish yo‘nalishlarining qo‘llanilishi[7]

Ko‘rsatkichlar	Strategik maqsadlar	Asosiy samaradorlik ko‘rsatkichlari (KPI)	Loyihalar/ tashabbuslar
Moliyaviy	-Rentabellikni maksimal darajada oshirish -Aktivlardan foydalanishni optimallashtirish	- Daromad o‘sish sur’ati - Sarmoyaning rentabelligi (ROI) -Ishlab chiqarish quvvatidan foydalanish darajasi	-2021–2025-yillarda ishlab chiqarish quvvatlarini kengaytirish dasturi -Xarajatlarni nazorat qilish choralari
Mijozlar	-Mijozlar qoniqishini oshirish -Bozor ulushini kengaytirish	- Mijozlar qoniqish indeksi - Bozor ulushi - Mijozlarni saqlab qolish ko‘rsatkichi	-Eksport bozorlarini kengaytirish -Mijozlar fikrini yig‘ish va tahlil qilish
Ichki biznes jarayonlari	-Operatsion samaradorlikni oshirish - Mahsulot sifatini yaxshilash	-Ishlab chiqarish samaradorligi - Yetkazib berish muddati - Yaroqsiz mahsulot koeffitsiyenti	-Quyish va prokat sexi qurilishi -Jarayonlarni avtomatlashtirish
O‘rganish va rivojlanish	-Xodimlar salohiyatini mustahkamlash -Innovatsiyalarni rivojlantirish	-Xodimlarning o‘quv dasturlarida ishtiroki - Innovatsiyalarni joriy etish darajasi -Xodimlarning ishtirok darajasi	-O‘quv dasturlarini amalga oshirish -Yangi texnologiyalarni joriy etish
Sifat va amalga oshirish	-Mahsulot sifatini barqaror saqlash -Me’yoriy hujjatlarga rioya qilish	-Standart talablariga javob beruvchi mahsulotlar ulushi -Muvofiqlikdan chetlanish holatlari soni	-Mahsulotlarni sertifikatlash -Auditlar va sifatni yaxshilash tashabbuslari
Xarajatlarni boshqarish	-Ishlab chiqarish xarajatlarini optimallashtirish -Xarajatlar shaffofligini oshirish	-Har bir tonna ishlab chiqarish tannarxi -Xarajatlar farqi (cost variance) -Byudjetga rioya qilish darajasi	-Strategik xarajatlarni boshqarish -Funksional xarajat tahlili

2019–2024-yillar davomida “O‘zmetkombinat” AJ moliyaviy ko‘rsatkichlari dastlabki o‘sish davri va keyingi qiyinchiliklarni ifodalaydi. Likvidlilik ko‘rsatkichlari davr mobaynida barqaror bo‘lib kelgan bo‘lsa-da, 2024-yilda pasayib, qisqa muddatli to‘lov qobiliyatining susayganini bildiradi. Moliyaviy tayanch 2023-yilgacha ortib borgan, ya’ni qarz mablag‘laridan foydalanish

[7] Muallif takliflari asosida ishlab chiqilgan

kuchaygan, biroq 2024-yilda keskin kamayishi qarz va oʻz mablagʻi oʻrtasidagi muvozanatning sogʻlomlashganini koʻrsatadi. Rentabellik 2021-yilda eng yuqori darajaga chiqqan: oʻz mablagʻi rentabelligi 45 foiz, aktivlar rentabelligi esa 9,6 foiz boʻlgan. Bu kompaniya mablagʻ va aktivlardan samarali foydalanganini anglatadi. Keyingi yillarda bu koʻrsatkichlarning pasayishi daromadlilikni saqlab qolish, samaradorlikni oshirish va moliyaviy barqarorlikni mustahkamlash zarurligini koʻrsatmoqda.

Quyidagi 3-jadvalda asosiy moliyaviy koʻrsatkichlar nisbati 2019–2024-yillar uchun keltirilgan:

3-jadval

“Oʻzmetkombinat” AJning asosiy moliyaviy koʻrsatkichlar nisbati (2019–2024)[8]

Koʻrsatkich	Formulasi	2019	2020	2021	2022	2023	2024
Joriy likvidlik koeffitsiyenti (Current Ratio)	Joriy aktivlar / Joriy majburiyatlar	1,883 / 1,491 = 1.20	1,679 / 1,527 = 1.10	2,000 / 1,600 = 1.25	2,200 / 1,870 = 1.18	2,300 / 2,000 = 1.15	3,162 / 2,873 = 1.10
Qarz va kapital nisbati (Debt-to-Equity Ratio)	Umumiy majburiyatlar / Kapital	2,263 / 1,536 = 1.47	2,762 / 1,725 = 1.60	3,100 / 2,040 = 1.52	3,500 / 2,110 = 1.66	3,750 / 2,200 = 1.71	7,442 / 6,943 = 1.07
Xususiy kapital rentabelligi (ROE, %)	Sof foyda / Kapital × 100	366 / 1,536 * 100 = 23.8%	212 / 1,725 * 100 = 12.6%	1,664 / 2,040 * 100 = 45.0%	1,437 / 2,110 * 100 = 34.8%	843 / 2,200 * 100 = 18.0%	904 / 6,943 ×100 = 13.0%
Aktivlar rentabelligi (ROA, %)	Sof foyda / Umumiy aktivlar × 100	366 / 3,799 * 100 = 8.5%	212 / 4,334 * 100 = 4.9%	1,664 / 4,800 * 100 = 9.6%	1,437 / 5,200 * 100 = 8.1%	843 / 5,650 * 100 = 5.7%	904 / 14,385 ×100 = 6.3%

Chuqurroq tahlil olib borish maqsadida yana uchta aksiyadorlik jamiyatining asosiy moliyaviy koʻrsatkichlari oʻrganilib, ularning natijalari “Oʻzmetkombinat” AJ bilan qiyoslandi. 4-jadvalda 2020–2024-yillar davomida ushbu uchta aksiyadorlik jamiyatining asosiy moliyaviy koʻrsatkichlari keltirilgan. Tahlil natijalari shuni koʻrsatadiki, korxonalar oʻrtasida sezilarli farqlar mavjud. “Navoiy kon-metallurgiya kombinati” AJda joriy likvidlilik koeffitsiyenti asosan 1 atrofida boʻlib, qisqa muddatli barqarorlikni ta’minlagan. Qarz va kapital nisbati 0,5–0,8 oraligʻida shakllanib, moliyaviy barqarorlikning saqlanganidan dalolat beradi. Rentabellik koʻrsatkichlari yuqori boʻlib, xususan, oʻz mablagʻi rentabelligi (ROE) 2020-yildagi 15,5 foizdan 2024-yilda 44,4 foizgacha oshgan, aktivlar rentabelligi (ROA) esa 9,6 foizdan 24,1 foizgacha yetgan. “Olmaliq kon-metallurgiya kombinati” AJda dastlabki yillarda likvidlilik koʻrsatkichlari nisbatan barqaror boʻlgan boʻlsa-da, 2023–2024-yillarda keskin pasayib, 1 dan past darajada qayd etilgan. Qarz va kapital nisbati yillardan-yillarga oʻzgarib, 2023-yilda 2,99 gacha koʻtarilgan. Rentabellik koʻrsatkichlari yuqori boʻlib, 2020–2023-yillarda ROE 28,1 foizdan 53,5 foizgacha oʻsgan, biroq 2024-yilda 32,4 foizgacha tushgan. Aktivlar rentabelligi esa 10–17 foiz oraligʻida saqlanib qolgan. “Oʻzikkilamchiranglmetall” AJ esa doimiy ravishda eng past natijalarni qayd

[8] Muallif takliflari asosida ishlab chiqilgan

etgan. Joriy likvidlilik koeffitsiyenti 1 atrofida bo‘lsa-da, qarz va kapital nisbati yuqori (1,48–1,65) bo‘lib qolgan. Rentabellik juda past darajada shakllangan: ROE 2,3–6,9 foiz oralig‘ida, ROA esa 1,1–3,1 foiz oralig‘ida bo‘lib, bu korxonaning samaradorligi sust va moliyaviy barqarorligi zaif ekanini ko‘rsatadi.

4-jadval

Uchta aksiyadorlik jamiyatlarining asosiy moliyaviy ko‘rsatkichlari nisbati[9]

“Navoiy kon-metallurgiya kombinati” AJ						
Ko‘rsatkich	**Formulasi**	**2020**	**2021**	**2022**	**2023**	**2024**
Joriy likvidlik koeffitsiyenti (Current Ratio)	Joriy aktivlar / Joriy majburiyatlar	**1.08**	**0.75**	**1.07**	**1.09**	**1.01**
Qarz va kapital nisbati (Debt-to-Equity Ratio)	Umumiy majburiyatlar / Kapital	**0.62**	**0.53**	**0.82**	**0.82**	**0.85**
Xususiy kapital rentabelligi (ROE, %)	Sof foyda / Kapital × 100	**15.5%**	**21.9%**	**20.3%**	**31.3%**	**44.4%**
Aktivlar rentabelligi (ROA, %)	Sof foyda / Umumiy aktivlar × 100	**9.6%**	**14.4%**	**11.1%**	**17.2%**	**24.1%**
“Olmaliq kon-metallurgiya kombinati” AJ						
Ko‘rsatkich	**Formulasi**	**2020**	**2021**	**2022**	**2023**	**2024**
Joriy likvidlik koeffitsiyenti (Current Ratio)	Joriy aktivlar / Joriy majburiyatlar	1.17	1.15	1.14	0.62	0.51
Qarz va kapital nisbati (Debt-to-Equity Ratio)	Umumiy majburiyatlar / Kapital	0.96	1.06	1.78	2.99	2.19
Xususiy kapital rentabelligi (ROE, %)	Sof foyda / Kapital × 100	28.1%	31.0%	42.0%	53.5%	32.4%
Aktivlar rentabelligi (ROA, %)	Sof foyda / Umumiy aktivlar × 100	14.3%	17.0%	15.1%	10.8%	10.2%
“O‘zikkilamchiranglimetall” AJ						
Ko‘rsatkich	**Formulasi**	**020**	**021**	**022**	**023**	**024**
Joriy likvidlik koeffitsiyenti (Current Ratio)	Joriy aktivlar / Joriy majburiyatlar	1.05	1.12	1.08	1.04	1.06
Qarz va kapital nisbati (Debt-to-Equity Ratio)	Umumiy majburiyatlar / Kapital	1.48	1.56	1.62	1.59	1.65
Xususiy kapital rentabelligi (ROE, %)	Sof foyda / Kapital × 100	6.9%	2.4%	2.6%	2.3%	2.5%
Aktivlar rentabelligi (ROA, %)	Sof foyda / Umumiy aktivlar × 100	3.1%	1.1%	1.2%	1.1%	1.2%

“O‘zmetkombinat” AJ bilan solishtirilganda farqlar aniq ko‘zga tashlanadi. “Navoiy KMK”da joriy likvidlilik koeffitsiyenti asosan 1 atrofida shakllanib, qisqa muddatli barqarorlikni ko‘rsatgan. “Olmaliq KMK”da esa 2023-yildan boshlab keskin pasayib, 1 darajasidan ancha pastga tushgan. Qarz mablag‘laridan foydalanish darajasi bu korxonalarda nisbatan past bo‘lsa-da, “Olmaliq KMK”da 2023-yilda 2,99 gacha ko‘tarilib, yuqori qarzga qaramlikni ifodalagan. Rentabellik ko‘rsatkichlari bo‘yicha “Navoiy KMK” va “Olmaliq KMK” 2020–2024-yillarda yuqori natijalarni qayd etgan, xususan, ROE 20–50 foiz oralig‘ida, ROA esa 10–24

[9] Muallif takliflari asosida ishlab chiqilgan.

foizgacha yetgan. “O‘zikkilamchiranglmetall” AJ esa doimiy ravishda eng past natijalarni namoyon etib, ROE 2–7 foiz, ROA esa 1–3 foiz oralig‘ida qolgan.

Ushbu korxonalar bilan taqqoslaganda, “O‘zmetkombinat” AJ nisbatan kichikroq daromad bazasida faoliyat yuritadi, biroq ko‘proq barqarorlikni namoyon etadi. 2024-yilda sof foyda marjasi deyarli 12 foizga yetgan, operatsion pul oqimi izchil ortib 700 milliard so‘mga chiqqan va aktivlar rentabelligi (ROA) 6–8 foiz atrofida sog‘lom darajada saqlangan. Bu shuni ko‘rsatadiki, eng yirik korxona bo‘lmagan taqdirda ham, “O‘zmetkombinat” o‘z tengdoshlariga qaraganda yuqori samaradorlik va barqaror foydalilikni ta’minlab, moliyaviy barqarorlik nuqtayi nazaridan qulayroq mavqega ega.

“O‘zmetkombinat” AJda balanslashgan ko‘rsatkichlar tizimining joriy etilishi strategik maqsadlar bilan operatsion faoliyat samaradorligi o‘rtasida aniq uyg‘unlikni ta’minladi. Moliyaviy o‘sish, mijozlar qoniqishi, ichki jarayonlar samaradorligi, xodimlar salohiyatini rivojlantirish, sifatni ta’minlash hamda xarajatlarni boshqarishga qaratilgan yondashuv orqali korxona barqaror o‘sish uchun mustahkam poydevor yaratdi. Keyingi besh yillik prognozlar “O‘zmetkombinat” AJning innovatsiyalar, operatsion mukammallik va bozor yetakchiligi yo‘lidagi qat’iy harakatlarini tasdiqlaydi va korxonaning global metallurgiya sanoatidagi uzluksiz muvaffaqiyatini ta’minlaydi.

“O‘zmetkombinat” AJning iqtisodiy samaradorligiga biz tomonimizdan taklif qilingan balanslashgan ko‘rsatkichlar tizimi oltita ko‘rsatkichini ta’sirini regressiya tahlilini qilib chiqdik. Tadqiqotimiz davomida ikkilamchi va birlamchi ma’lumotlar qo‘llanilgan. Empirik tahlilda amalga oshirilgan regressiya tahlili asosan Oddiy Kvadratlar Usuli (Ordinary Least Squares – OLS)ga tayanadi. Tanlab olingan ko‘rsatkichlar — ya’ni, korxona qiymati, moliyaviy yo‘nalish, mijozlar yo‘nalishi, ichki biznes jarayonlari, o‘rganish va rivojlanish, sifat va muvofiqlik hamda xarajatlarni boshqarish bo‘yicha ma’lumotlar “O‘zmetkombinat” AJ uchun 2017-yilning birinchi choragidan 2023-yilning to‘rtinchi choragigacha bo‘lgan davrni qamrab oladi.

Tadqiqot davomida olib borilgan tahlillarimiz De Geuser va boshq. (2009)[10] hamda Okoye va boshq. (2017)[11] tomonidan ta’kidlangan farazga tayanadi. Unga ko‘ra, balanslashgan ko‘rsatkichlar tizimining to‘rtta o‘lchovi o‘rtasida kuchli sabab-oqibat bog‘liqligi mavjud bo‘lib, ushbu bog‘liqlik tashkilotning faoliyat samaradorligi va qiymat yaratish jarayoniga sezilarli darajada ta’sir ko‘rsatadi.

Ushbu g‘oyalarni empirik jihatdan sinab ko‘rish maqsadida tadqiqotda kompaniya qiymati (firm value) natijaviy o‘zgaruvchi (Y) sifatida, balanslashgan ko‘rsatkichlar tizimining to‘rtta o‘lchovi esa mustaqil o‘zgaruvchilar sifatida qaralgan model ishlab chiqildi. Ushbu bog‘liqliklarni baholashda o‘zgaruvchilar

---

[10] De Geuser, F., Mooraj, S., & Oyon, D. (2009). Does the Balanced Scorecard add value? Empirical evidence on its effect on performance. European Accounting Review, 18(1), 93–122. https://doi.org/10.1080/09638180802481698

[11] Okoye, E. I., Odum, A. N., & Odum, C. (2017, September). Effect of Balanced Scorecard on Firm Value: The Case of Quoted Manufacturing Companies in Nigeria. In Proceedings of the 2017 International Conference on African Entrepreneurship and Innovation for Sustainable Development (AEISD) (Chapter 4). https://www.semanticscholar.org/paper/Effect-of-Balanced-Scorecard-on-Firm-Value%3A-The-of-Okoye-Odum/35bbecdef86270c7b2afd5291fc15ebc7636c6ac

o‘rtasidagi chiziqli munosabatlarning kuchi va yo‘nalishini aniqlash uchun regressiya tenglamasi qo‘llanilgan. Model quyidagicha ifodalanadi:

Y – Kompaniya qiymati (firm value)

X_1 – balanslashgan ko‘rsatkichlar tizimining moliyaviy o‘lchovi

X_2 – balanslashgan ko‘rsatkichlar tizimining mijozlar o‘lchovi

X_3 – balanslashgan ko‘rsatkichlar tizimining ichki jarayonlar o‘lchovi

X_4 – balanslashgan ko‘rsatkichlar tizimining o‘rganish va rivojlanish o‘lchovi.

Quyidagi 5-jadvalda “O‘zmetkombinat” AJda balanslashgan ko‘rsatkichlar tizimi doirasida moslashtirilgan asosiy samaradorlik ko‘rsatkichlari keltirilgan:

5-jadval

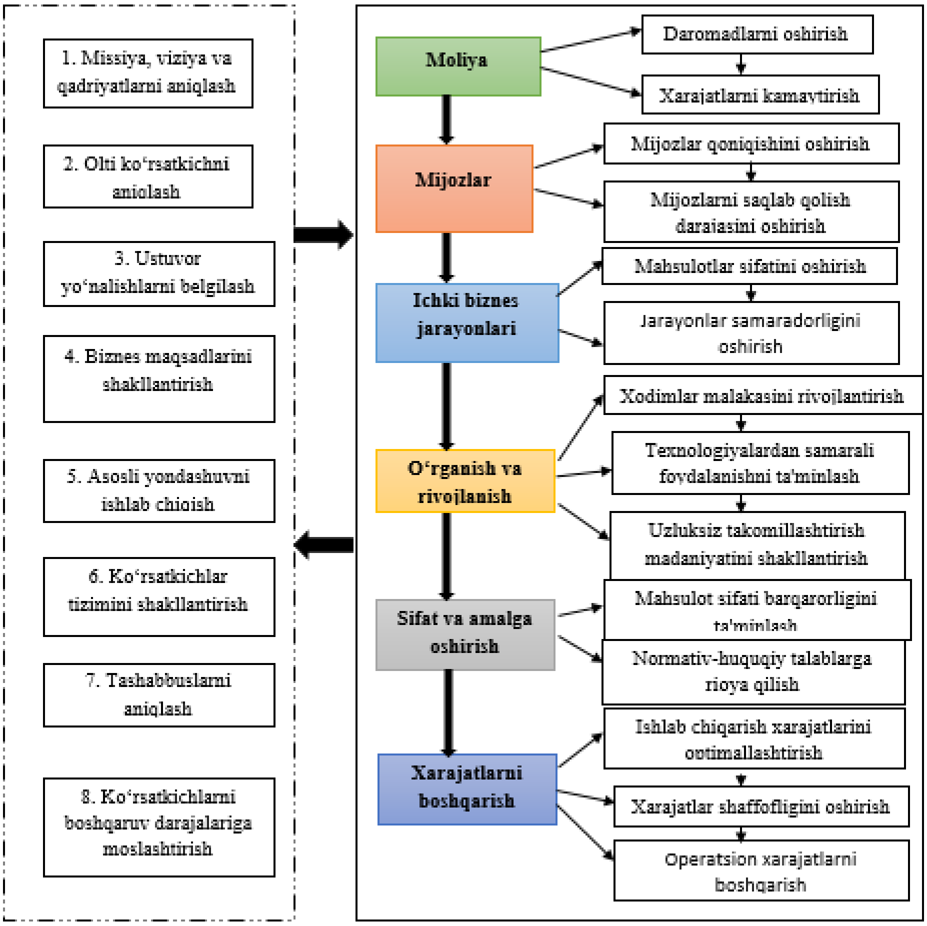
“O‘zmetkombinat” AJda Balanslashgan ko‘rsatkichlar tizimi doirasida moslashtirilgan asosiy samaradorlik ko‘rsatkichlari[12]

O‘zgaruvchilar	Ko‘rsatkichlar (Metrics)	Tavsif	Manba
Kompaniya qiymati	Kapital (Equity)	Aksiyadorlarning umumiy kapitalini kompaniya qiymatining ko‘rsatkichi sifatida ifodalaydi.	Moliyaviy hisobotlar
Moliyaviy yo‘nalish	Sof foyda (Net profit)	Daromaddan barcha xarajatlar chegirib tashlangandan so‘ng qolgan sof daromad miqdori.	Moliyaviy natijalar hisobotlari
Mijozlar yo‘nalishi	Mijozlarni saqlab qolish darajasi	Belgilangan davr ichida saqlab qolingan mijozlar ulushi, sodiqlik darajasini aks ettiradi.	CRM tizimi / Mijoz so‘rovlari
Ichki biznes jarayonlari	Operatsion samaradorlik	Ish jarayonlari va resurslardan foydalanish samaradorligini o‘lchaydi.	Ichki operatsion hisobotlar
O‘rganish va rivojlanish	Xodimlar qoniqish indeksi	Xodimlarning ishga jalb etilishi va motivatsiyasini aks ettiruvchi qoniqish darajasini ifodalaydi.	Xodimlar so‘rovlari / HR hisobotlari
Sifat va amalga oshirish	Mijoz shikoyatlari soni	Qabul qilingan shikoyatlar soni yoki ulushi, mahsulot/xizmat sifati ko‘rsatkichini bildiradi.	Mijozlarga xizmat ko‘rsatish jurnali
Xarajatlarni boshqarish	Sotilgan mahsulotlar tannarxi (COGS)	Kompaniya tomonidan ishlab chiqarilgan tovarlar tannarxining to‘g‘ridan-to‘g‘ri xarajatlari, xarajat samaradorligini ko‘rsatadi.	Moliyaviy natijalar hisobotlari

Regressiya tahlili metodologiyasi har ikkala — har bir yo‘nalishning alohida ta’sirini baholovchi oddiy regressiyalar va barcha o‘zgaruvchilarni birgalikda tahlil qiluvchi ko‘p omilli regressiya modelini o‘z ichiga oladi. Oddiy regressiya natijalari shuni ko‘rsatadiki, Ichki biznes jarayonlari ($R^2 = 0.712$) va O‘rganish va rivojlanish ($R^2 = 0.718$) yo‘nalishlari kompaniya qiymati bilan eng kuchli individual musbat bog‘liqlikka ega. Ko‘p omilli regressiya modeli esa balanslashgan ko‘rsatkichlar tizimining umumiy modeli kompaniya qiymatidagi o‘zgarishlarning 91.2 foizini tushuntirib bera olishini ko‘rsatmoqda ($R^2 = 0.912$). Barcha yo‘nalishlar orasida xarajatlarni boshqarish faqatgina 1 foizlik ahamiyat darajasida statistik jihatdan ishonchli va ijobiy ta’sir ko‘rsatgan yagona omil sifatida aniqlangan. Modelning ishonchliligi (robustligi) bir qator diagnostik testlar orqali tasdiqlandi: geteroskedastiklik aniqlanmadi (White testi, Breusch–Pagan

[12] Muallif takliflari asosida ishlab chiqilgan

testi), muqobil (omitted) o‘zgaruvchilar mavjud emasligi Ramsey RESET testi orqali tasdiqlandi, va qoldiqlarning normal taqsimlanishi Skewness/Kurtosis testi orqali aniqlangan.



2-rasm. Balanslashgan ko‘rsatkichlar xaritasining tahliliy usuli[13]

Quyidagi 2-rasmda biz tomonimizdan taklif qilingan balanslashgan ko‘rsatkichlar xaritasining tahliliy usuli keltirilgan. Xaritada balanslashgan ko‘rsatkichlar tizimini shakllantirish bosqichlari va olti asosiy yo‘nalish bo‘yicha funksional maqsadlar ifodalangan. Mazkur yondashuv tashkilotning missiyasi, vazifa va qadriyatlaridan boshlab, maqsadli ko‘rsatkichlar tizimini shakllantirish hamda uni boshqaruv darajalariga moslashtirishgacha bo‘lgan uzviy jarayonni qamrab oladi. Xarita moliyaviy natijalar, mijozlar ehtiyojini qondirish, ichki jarayonlar samaradorligi, xodimlar salohiyatini rivojlantirish, sifat va muvofiqlikka rioya etish hamda xarajatlarni boshqarish kabi ustuvor maqsadlarni tizimli tarzda integratsiyalash imkonini beradi. Shu orqali tashkilot strategiyasini amaliy faoliyat bilan uyg‘unlashtirishga xizmat qiluvchi konseptual tahliliy vosita sifatida namoyon bo‘ladi.

Biz tomonimizdan berilgan taklif natijalari shuni isbotlaydiki, “O‘zmetkombinat” AJ uchun moslashtirilgan va statistik jihatdan asoslangan Balanslashgan ko‘rsatkichlar tizimi nafaqat samaradorlikni baholash tizimi, balki

[13] Muallif takliflari asosida ishlab chiqilgan

kompaniya qiymatini tushuntirish va oshirishga xizmat qiluvchi strategik boshqaruv vositasi sifatida ham faol ishlaydi.

Dissertatsiyaning **“Balanslashgan ko‘rsatkichlar tizimini takomillashtirish yo‘nalishlari”** deb nomlangan uchinchi bobida balanslashgan ko‘rsatkichlar tizimi metodologiyasini takomillashtirish, boshqaruv hisobidagi balanslashgan ko‘rsatkichlar tizimining o‘rni va xo‘jalik yurituvchi subyektlarda balanslashgan ko‘rsatkichlar tizimi samaradorligini oshirish yo‘nalishlari bo‘yicha ishlab chiqilgan ilmiy taklif hamda amaliy tavsiyalar o‘z ifodasini topgan.

Quyidagi 6-jadvalda an’anaviy balanslashgan ko‘rsatkichlar tizimi va AI-asosida (AI-sun’iy intellekt) takomillashtirilgan balanslashgan ko‘rsatkichlar tizimi o‘rtasidagi farqlar keltirilgan:

6-jadval

An’anaviy BSC va AI-asosida takomillashtirilgan BSC o‘rtasidagi farqlar[14]

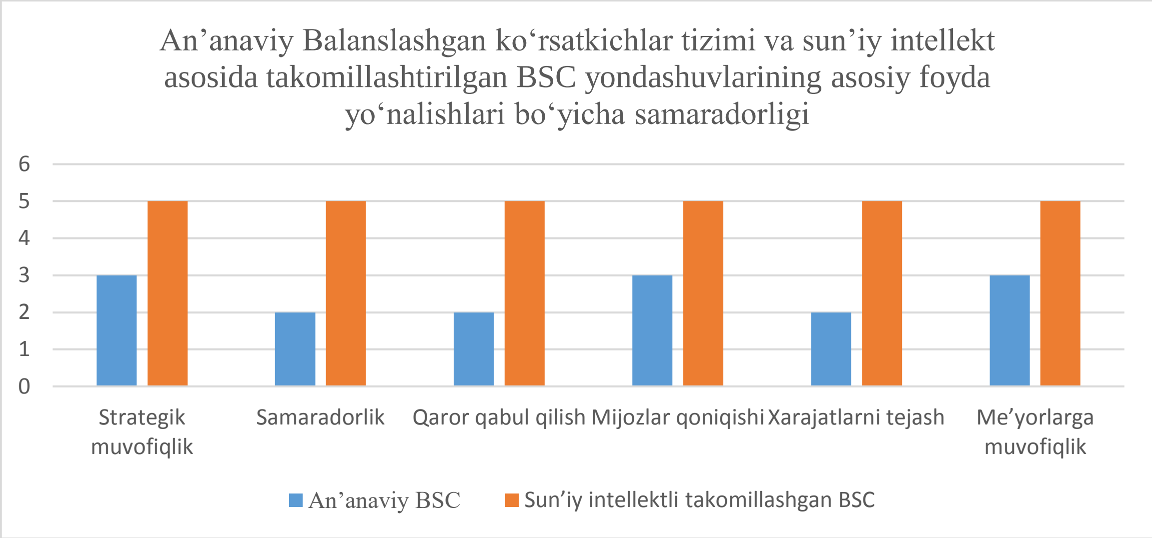
Jihatlari	An’anaviy BSC	Sun’iy intellekt asosidagi takomillashtirilgan BSC
Ma’lumotlardan foydalanish	Retrospektiv tahlil qilish	Real vaqtli monitoring va bashoratli (predictive) tahlillar
Moslashtirish	Sanoatga xos moslashuvning cheklanganligi	“O‘zmetkombinat” AJga moslashtirilgan, oltita yo‘nalishni qamrab oladi
Qaror qabul qilish	Reaktiv yondashuv (ya'ni voqealarga faqat sodir bo‘lgandan keyin javob qaytarish)	Sun’iy intellektga asoslangan tahlillar orqali proaktiv yondashuv
Samaradorlik	Asosiy ko‘rsatkichlarni (KPI) qo‘lda kuzatib borish	Ma’lumotlarni avtomatik yig‘ish va tahlil qilish
Masshtablilik	Cheklangan	Sun’iy intellekt integratsiyasi orqali yuqori darajadagi masshtablilik

Bizning fikrimizcha tadqiqotimiz natijalari o‘z ta’sir doirasini metallurgiya sohasidan tashqariga ham kengaytiradi. Sun’iy intellekt bilan boyitilgan balanslashgan ko‘rsatkichlar tizimi murakkab operatsion jarayonlarga va samaradorlikni baholash ehtiyojlariga ega sohalar uchun kengaytirilishi mumkin bo‘lgan samarali yechim sifatida namoyon bo‘ladi. Uning real vaqt rejimida qaror qabul qilishni qo‘llab-quvvatlashi va strategik harakatlarni barqaror rivojlanish maqsadlari bilan uyg‘unlashtirish qobiliyati zamonaviy korxonalar uchun muhim boshqaruv vositasi bo‘lib xizmat qiladi. Shunga o‘xshash tizimlarni joriy etgan korxonalar operatsion aniqlik, strategik moslashuvchanlik va manfaatdor tomonlar qoniqishini oshirish orqali sezilarli raqobat ustunligiga ega bo‘lishlari mumkin.

9-jadvalda an’anaviy balanslashgan ko‘rsatkichlar tizimi va “O‘zmetkombinat” AJda joriy etilgan sun’iy intellekt asosidagi takomillashtirilgan balanslashgan ko‘rsatkichlar tizimi o‘rtasidagi asosiy farqlar yoritib berilgan. Sun’iy intellekt integratsiyasi real vaqt rejimida monitoring qilish, bashoratli tahlillar olib borish va ma’lumotlarni avtomatik tahlil qilish imkonini yaratib, an’anaviy balanslashgan ko‘rsatkichlar tizimining orqaga qarab tahlil qiluvchi va

[14] Muallif takliflari asosida ishlab chiqilgan

qo‘lda boshqariladigan yondashuvini almashtiradi. Ushbu yangi model yuqori darajadagi moslashtirish, kengaytirilgan masshtablilik va samaradorlikni ta’minlaydi. Mazkur transformatsiya tashkilotda strategik muvofiqlikni, javob berish tezligini va faoliyat samaradorligini sezilarli darajada yaxshilaydi.



3-rasm. An’anaviy Balanslashgan ko‘rsatkichlar tizimi va sun’iy intellekt bilan takomillashtirilgan BSC yondashuvlarining asosiy foyda yo‘nalishlari bo‘yicha samaradorligi[15]

3-rasmda keltirilgan diagramma an’anaviy balanslashgan ko‘rsatkichlar tizimi hamda sun’iy intellekt asosida takomillashtirilgan balanslashgan ko‘rsatkichlar tizimining strategik muvofiqlik, samaradorlik, qaror qabul qilish, mijozlar qoniqishi, xarajatlarni tejash va me’yoriy muvofiqlik kabi olti asosiy foyda yo‘nalishlari bo‘yicha samaradorligini taqqoslaydi. Vizual ma’lumotlar shuni ko‘rsatadiki, sun’iy intellekt bilan integratsiyalashgan balanslashgan ko‘rsatkichlar tizimi barcha baholangan yo‘nalishlarda an’anaviy modeldan ustunlikka ega. Xususan, strategik muvofiqlik nuqtai nazaridan, takomillashtirilgan balanslashgan ko‘rsatkichlar tizimi tashkilot faoliyatini uzoq muddatli strategik maqsadlar bilan aniqroq uyg‘unlashtirish qobiliyatiga ega ekanligini namoyon etadi.

“O‘zmetkombinat” AJda Faoliyatga asoslangan xarajatlar tizimini (ABC) balanslashgan ko‘rsatkichlar tizimiga integratsiya qilish strategik samaradorlikni boshqarishda yangi bosqichni anglatadi. An’anaviy yondashuvda metallurgiya kabi og‘ir sanoat tarmoqlarida xarajatlar tuzilmasi murakkab va shaffof emas bo‘lib, ko‘pincha bilvosita xarajatlarning umumlashtirilgan taqsimoti natijasida asosiy xarajat omillari to‘liq aniqlanmaydi. ABC ushbu muammoni xarajatlarni aniq faoliyatlar va xarajat obyektlariga bog‘lash orqali bartaraf etadi va mahsulot, xizmat hamda mijoz segmentlari bo‘yicha haqiqiy xizmat ko‘rsatish tannarxini aniqlash imkonini beradi. Balanslashgan ko‘rsatkichlar tizimi bilan birgalikda qo‘llanganda esa — bu yondashuv moliyaviy, mijozlar, ichki jarayonlar, o‘rganish va rivojlanish, muvofiqlik hamda xarajatlarni boshqarish yo‘nalishlari bo‘yicha

[15] Muallif takliflari asosida ishlab chiqilgan

ko‘p o‘lchovli tahlillarga asoslangan, ma’lumotlarga tayanilgan boshqaruv qarorlarini qabul qilish imkonini yaratadi.

7-jadval

2019–2024-yillarda “O‘zmetkombinat” AJda ABC–BSC integratsiyasining asosiy samaradorlik ko‘rsatkichlariga strategik ta’siri[16]

Ko‘rsatkich	2019	2024	Strategik izoh
Daromad (mlrd so‘m)	5,270	7,581	Foydali jarayonlar va mijozlar segmentatsiyasi asosida o‘sish ta’minlandi
Sof foyda (mlrd so‘m)	366	904	ABC asosidagi xarajat nazorati orqali xarajatlar ortishiga qaramay rentabellik saqlab qolindi
Investitsiya loyihalari (mlrd so‘m)	517	8,853	ABC xarajat markazlari tahliliga asoslangan holda taqsimlandi
Energiya tannarxi (USD/birikma)	100	78	ABC ko‘rsatmalari asosida yuqori xarajatli jarayonlarga modernizatsiya kiritilib pasaytirildi
Xaridlar samaradorligi (%)	70	92	Yetkazib beruvchi va logistika samaradorligini ABC orqali kuzatish asosida yaxshilandi
Zarar yetganlik darajasi (%)	1.5	0.4	ABC yondashuvi asosida sifatni yaxshilash orqali kamaytirildi
Issiqxona gazlari qisqarishi (%)	0	12	Xarajat samarador va muvofiq ishlab chiqarish liniyalari orqali ta’minlandi
Mijozlar qoniqishi (%)	75	93	ABC asosidagi mijozlar segmentatsiyasi orqali oshirildi
Yetkazib berish muddati (kunlarda)	7.5	5.8	ABC yo‘naltirilgan yetkazib berish zanjiri takomillashuvi orqali kamaytirildi

Quyidagi 7-jadval 2019–2024-yillar davomidagi “O‘zmetkombinat” AJning moliyaviy xo‘jalik faoliyatining amaliy tahlili ushbu integratsiyalashgan yondashuvning amaliy samarasini tasdiqlaydi. Mazkur davr mobaynida kompaniya daromadlari 5,27 trillion so‘mdan 7,6 trillion so‘mgacha oshgan bo‘lsa, sotilgan mahsulotlar tannarxi 4,09 trillion so‘mdan 6,04 trillion so‘mgacha ko‘tarilgan. Yuqori daromad o‘sishi saqlanib qolgan bo‘lsa-da, kompaniya rentabelligini saqlab qolish ko‘p jihatdan faoliyatga asoslangan xarajatlar tahlili (ABC) orqali olingan tahliliy ma’lumotlar bilan bog‘liq bo‘ldi. Ushbu tahlillar qaysi ishlab chiqarish faoliyatlari va mijozlarga xizmat ko‘rsatish shartnomalari qiymatga nisbatan ortiqcha xarajatlarni keltirib chiqarayotganini aniqlab berdi. Natijada 2021–2022-yillarda strategik xarajatlarni qisqartirish tashabbuslari yo‘lga qo‘yildi, xususan, ABC aniqlagan yuqori xarajatli va past samaradorlikka ega jarayonlarga avtomatlashtirish investitsiyalari yo‘naltirildi.

Oxirgi yillardagi ilmiy ishlarni kuzatish natijasida shu narsa ma’lum bo‘ldiki, biz erishgan natijalar olimlar erishgan natijalarga muvofiq ekanligini ko‘rsatdi. Psarras va boshq. (2022)[17] ta’kidlaganidek, ABC–BSC integratsiyasi moliyaviy va nomoliyaviy ko‘rsatkichlar bo‘yicha tahliliy shaffoflikni oshirish orqali strategiyani samarali amalga oshirishning analitik asosini mustahkamlaydi. Marques va Oliveira (2024)[18] esa sun’iy intellekt asosida takomillashtirilgan ABC

---

[16] Muallif takliflari asosida ishlab chiqilgan

[17] Psarras, J., Kapsalis, G., & Antypas, K. (2022). Integrating activity-based costing with balanced scorecard through intelligent systems: A case study in manufacturing. Journal of Accounting and Organizational Change, 18(3), 427–448. https://doi.org/10.1108/JAOC-04-2021-0053

[18] Marques, P., & Oliveira, T. (2024). Artificial intelligence in performance management: Enhancing the balanced scorecard with predictive costing models. Technological Forecasting and Social Change, 198, 122958.

tizimlari tor joylar (bottlenecks) va qiymat yo‘qotishlarini avtomatik aniqlashga qodir bo‘lib, bu dinamik balanslashgan ko‘rsatkichlar tizimi boshqaruv panellari bilan mukammal uyg‘unlashishini ta’kidlaydi. Olib borgan tadqiqotlarimiz natijalariga ko‘ra, korxona misolida ishlab chiqilgan integratsiyalashgan yondashuv moliyaviy barqarorlik, xarajatlar monitoringi va samaradorlik ko‘rsatkichlari o‘rtasidagi uzviy bog‘liqlikni amalda tasdiqladi, bu esa ilgari surilgan ilmiy yondashuvlar bilan to‘liq mos kelishini ko‘rsatadi.

XULOSA

Ushbu dissertatsiya doirasida olib borilgan tadqiqotlar asosida quyidagi xulosalar shakllantirildi:

Olib borilgan tadqiqotlar asosida, korxona boshqaruv hisobida balanslashgan ko‘rsatkichlar tizimini takomillashtirish yo‘lida sifat va amalga oshirish ko‘rsatkichlari hamda xarajatlarni boshqarish ko‘rsatkichlarini yagona tizimda integratsiyalash muhim ahamiyat kasb etishi aniqlandi. Balanslashgan ko‘rsatkichlar tizimida sifat va amalga oshirish ko‘rsatkichlari bilan bir qatorda xarajatlarni boshqarish ko‘rsatkichlarini integratsiya qilish orqali tashkilot faoliyati natijalarini strategik va operatsion darajada baholash aniqligini oshirish chegarasi ($15\% \leq BA \leq 20\%$)da xo‘jalik faoliyatining asosiy jihatlarini to‘liq qamrab olish va strategik boshqaruv samaradorligini oshirish asoslangan;

O‘tkazilgan tadqiqotlar natijasida kompaniya faoliyatining moliyaviy barqarorlik, operatsion samaradorlik, xodimlarni rivojlantirish va mijozlar ehtiyojini qondirish kabi asosiy yo‘nalishlarini kompleks baholash imkonini beruvchi, o‘zaro bog‘liq ko‘rsatkichlar tizimiga asoslangan takomillashgan balanslashgan ko‘rsatkichlar tizimi ishlab chiqildi. Mazkur tizim boshqaruv hisobining kompleks va tizimli asosda takomillashuvi yo‘lidagi muhim amaliy natija sifatida e’tirof etilishi mumkin.

Tadqiqot natijalariga ko‘ra, kapitalning yuqori zichligi, xalqaro bozorlarning ta’siri, ekologik standartlar va qoidalar, shuningdek, ishlab chiqarish texnologiyalariga bo‘lgan ehtiyojni inobatga olgan holda balanslashgan ko‘rsatkichlar xaritasini shakllantirishning tahliliy yondashuvi ishlab chiqildi. Mazkur yondashuv boshqaruv hisobini amaliy va konseptual jihatdan takomillashtirish yo‘lida muhim ilmiy yangilik sifatida qaraladi.

Tadqiqot natijalari asosida balanslashgan ko‘rsatkichlar tizimini faoliyat asosidagi xarajatlar hisobi (Activity Based Costing — ABC) bilan integratsiyalash bo‘yicha takomillashtirilgan yondashuv ishlab chiqildi. Taklif etilgan integratsiyalashgan tizim boshqaruv hisobi amaliyotida innovatsion yondashuv sifatida e’tirof etilishi mumkin.

Tadqiqot doirasida boshqaruv qarorlarini asoslashda moliyaviy va nomoliyaviy ko‘rsatkichlarni uyg‘unlashtirishga xizmat qiluvchi, korxona faoliyatining sifat va amalga oshirish hamda xarajatlarni boshqarish jihatlarini kompleks tarzda qamrab olgan kengaytirilgan balanslashgan ko‘rsatkichlar tizimi

---

https://doi.org/10.1016/j.techfore.2023.122958 ishlab chiqildi. Mazkur tizim boshqaruv hisobining zamonaviy talablarga moslashtirilgan shakli sifatida, amaliyotga joriy etilishi mumkin boʻlgan muhim ilmiy yangilik sifatida e’tirof etiladi.

Tadqiqot natijalari shuni koʻrsatadiki, faoliyatga asoslangan xarajatlar tizimi (ABC) asosida boshqaruv hisobini takomillashtirish xarajatlar manbalarini aniq identifikatsiya qilish, resurslardan foydalanish samaradorligini baholash hamda ortiqcha xarajatlarni kamaytirish imkoniyatlarini yaratadi. “Oʻzmetkombinat” AJ misolida balanslashgan koʻrsatkichlar tizimini faoliyatga asoslangan xarajatlar (ABC) modeli bilan integratsiya qilish biznes jarayonlar samaradorligini baholash aniqligi darajasini ($0{,}88 \leq BDS \leq 0{,}92$) ta’minlash, resurslarni maqbul qayta taqsimlash orqali umumiy xarajatlarni 10–12 foizgacha qisqartirish imkonini beradi. Ushbu natija ABC tizimining boshqaruv qarorlarini qoʻllab-quvvatlovchi samarali mexanizm sifatidagi ahamiyatini ilmiy jihatdan asoslab beradi.

Tadqiqot doirasida korxonada koʻrsatkichlar xaritasi ishlab chiqilib, har bir boʻlim faoliyatini samarali baholash imkonini beruvchi aniq natija koʻrsatkichlari va baholash mezonlari belgilandi. Ushbu yondashuv orqali faoliyat natijalarining doimiy monitoringi yoʻlga qoʻyilib, boshqaruv hisobida funksional tahlil va natijaga yoʻnaltirilgan qaror qabul qilish jarayonlari kuchaytirildi. Natijada, boshqaruv qarorlarining maqsadga yoʻnaltirilganligi va amaliy natijadorligi oshdi hamda korxona ichki muvofiqlik va samaradorlik tamoyillariga asoslangan boshqaruv tizimiga ega boʻldi. Bu esa, oʻz navbatida, resurslardan oqilona foydalanish va umumiy faoliyat unumdorligini ta’minlashga xizmat qiladi.

Ishlab chiqilgan yondashuv asosida boshqaruv hisobotlari tizimlashtirilib, xarajatlar markazlari kesimida rejalashtirish va tahlil qilish imkoniyatlari kengaytirildi. Ushbu yondashuv ishlab chiqarish jarayonlarida resurslardan foydalanish samaradorligini baholash hamda xarajatlarni maqbullashtirishga xizmat qiluvchi analitik axborot bilan boshqaruvni ta’minladi. Natijada, qaror qabul qilish jarayonlarida aniqlik, tezkorlik va maqsadga yoʻnaltirilganlik darajasi oshdi, bu esa korxonaning ichki jarayonlarini yanada samarali boshqarishga asos boʻldi.

SCIENTIFIC COUNCIL AWARDING OF THE SCIENTIFIC DEGRESS DSc.03/10.12.2019.I.16.01 AT THE TASHKENT STATE UNIVERSITY OF ECONOMICS

TASHKENT STATE UNIVERSITY OF ECONOMICS

TURSUNALIEV IBROKHIMJON USMONALI UGLI

IMPROVING THE FORMATION OF BALANCED SCORECARD SYSTEM IN MANAGEMENT ACCOUNTING

08.00.08 – Accounting, Economic analysis and Audit

ABSTRACT
of the Dissertation for the degree of Doctor of Philosophy (PhD) in Economics

Tashkent – 2025

The topic of doctor dissertation (Doctor of Philosophy) was registered under the number B2024.2.PhD/Iqt4182 at the Supreme Attestation Commission.

The dissertation has been accomplished at the Tashkent State University of Economics.

The abstract of the dissertation is posted in three languages (Uzbek Russian and English (resume)) on the website of the Scientific Council (www.tsue.uz) and on the website of "Ziyonet" informational and educational portal (www.ziyonet.uz).

Scientific advisor:	**Abdusalomova Nodira Baxodirovna** Doctor of Economics, Professor
Official opponents:	**Axmedjanov Karimjon Bakidjanovich** Doctor of Economics, Professor
	Xalilov Sherzod Axmatovich Doctor of Philosophy in Economics, Associate Professor
Leading organization:	**Samarkand Institute of Economics and Service**

The defense of the dissertation will take place on 12 "16" at 16^00 at the meeting of Scientific Council DSc.03/10.12.2019.I.16.01 at Tashkent State University of Economics of the Republic of Uzbekistan. Address: 100066, Tashkent city, I.Karimov street, building 49, phone: (99871) 239-28-72; fax: (99871) 239-43-51, E-mail: tsue_info@tsue.uz.

The doctoral dissertation (PhD) can be reviewed at the Information Resource Center of Tashkent State University of Economics (registered under the number 1896). Address: 100066, Tashkent city, I. Karimov street, building 49, phone: (99871) 239-28-72, fax: (99871) 239-43-51, E-mail: tsue_info@tsue.uz.

The abstract of dissertation sent out on "28" 11 2025.
(mailing report № 112 on "28" 11 2025).

O'ZBEKISTON RESPUBLIKASI OLIY TA'LIM, FAN VA INNOVATSIYALAR VAZIRLIGI * TOSHKENT DAVLAT IQTISODIYOT UNIVERSITETI *

S.U. Mekhmonov
Chairman of the Scientific council for awarding scientific degrees, Doctor of Economics, Professor

U.V. Gafurov
Scientific secretary of the Scientific council for awarding scientific degrees, Doctor of Economics, Professor

S.K. Khudoykulov
Chairman of the scientific seminar under the Scientific council for awarding scientific degrees
Doctor of Economics, professor

INTRODUCTION (abstract of the thesis of the Philosophy Doctor (PhD))

Relevance and necessity of the dissertation topic. In the context of increasing complexity in the operations of economic entities worldwide, intensifying competition in the external economic environment, the deepening of digitalization processes, and rising demands for resource use efficiency, the organization of management accounting based on modern and flexible methods has become a matter of criticial importance. Particularly in industrial enterprises, the need to enhance production efficiency, integrate financial and non-financial information, and improve the quality of managerial decision-making necessitates further development of the balanced scorecard (BSC) system. In advanced industrialized countries, management accounting and the balanced scorecard are considered an integrated framework that serves a key source of information for improving industrial performance, advancing digital transformation, and ensuring reporting accuracy. This, in turn, enables metallurgical enterprices to establish modern management practices, conduct real-time analysis, and significantly improve cost control mechanisms.

Globally, research focused on improving the formation and implementation of balanced scorecard systems within management accounting is steadily expanding. In the ferrous metallurgy industry, achieving efficient organization of metal production processes, rational use of raw materials and resources, and high-quality finished products requires the introduction of advanced management accounting tools. Through the implementation of the balanced scorecard framework, enterprises can conduct comprehensive performance assessments across multiple dimensions, including financial results, customer relations, internal production processes, employee capacity, quality, and cost indicators. This approach enhances competitiveness in the ferrous metallurgy sector by reducing costs, improving product quality, and ensuring strategic alignment of operational activities. As a result, the use of the balanced scorecard within management accounting has emerged as a priority research direction in this field.

For enterprises operating in Uzbekistan's ferrous metallurgy industry, the balanced scorecard system holds particular relevance in light of ongoing digital transformation initiatives and efforts to comply with international quality management standards (ISO 9001:2015, ISO 50001:2019). These enterprises represent a key pillar of the national industrial structure, supplying essential metal products to heavy industry, machinery manufacturing, construction materials, transport, and energy sectors, thereby supporting their stable functioning. Notably, major joint-stock companies such as "Oʻzmetkombinat" not only meet domestic demand for steel, cast iron, and rolled products but also actively participate in export markets. Furthermore, the strategic role of ferrous metallurgy enterprises in the national economy is reinforced through the adoption of modern production technologies, efficient resource utilization, and adherence to environmental standards. These measures contribute both to lowering production costs and to manufacturing competitive products that meet international market requirements. The sector also makes a significant contribution to the country's sustainable economic growth by creating new jobs, stimulating regional development, and strengthening innovation infrastructure.

This research also aligns with the strategic objectives set out in several key policy documents, including Presidential Decree No. PF-79 of May 24, 2024, “On Measures to Improve the System of State Governance and Control in the Field of Subsoil Use, Industrial, Radiation and Nuclear Safety, and the Use of Atomic Energy”; Presidential Decree No. PF-60 of January 28, 2022, “On the Development Strategy of New Uzbekistan for 2022–2026”; and Presidential Decree No. PF-5495 of August 1, 2018, “On Measures to Radically Improve the Investment Climate in the Republic of Uzbekistan.” It is also consistent with Resolution No. PQ-4611 of February 24, 2020, “On Additional Measures for the Transition to International Financial Reporting Standards,” and Resolution No. PQ-5159 of June 24, 2021, “On Additional Measures for the Development of the Mining and Metallurgy Industry and Related Sectors,” along with other regulatory documents governing financial and management accounting. This dissertation aims to contribute, at least in part, to the effective implementation of these strategic priorities.

Compliance of the research with the priority directions of the development of science and technology in the republic. This dissertation research has been conducted in alignment with the priority direction of the Republic’s scientific and technological development, namely “Spiritual, moral, and cultural development of a democratic and legal society, and the formation of an innovative economy”.

The Degree of Study of the Problem. The theoretical, methodological, and practical aspects of performance measurement and cost accounting in various sectors of the economy have long been the focus of attention among economists and scholars. In particular, issues related to the study and development of cost accounting, strategic control, and management accounting systems have been explored by several prominent foreign researchers, including Kaplan R.S., and Norton D.P., Hoque Z., Madsen D.O., and Stenheim T., Niven P.R., Parmenter D., Abagissa J., Zizlavsky O., Nørreklit H., Lawrie G., & Cobbold I., de Waal A.A., Rdiouat Y., Garrett K.E., Huizenga H.J. and others[19].

[19] Kaplan, R. S., & Norton, D. P. (1996). *The balanced scorecard: Translating strategy into action*. Harvard Business School Press. // Hoque, Z. (2014). 20 years of studies on the balanced scorecard: Trends, accomplishments, gaps and opportunities for future research. *The British Accounting Review, 46*(1), 33–59. https://doi.org/10.1016/j.bar.2013.10.003. // Madsen, D. Ø., & Stenheim, T. (2015). The balanced scorecard: A review of five research areas. *American Journal of Management, 15*(2), 24–41. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2612643. // Niven, P. R. (2006). *Balanced scorecard step-by-step: Maximizing performance and maintaining results* (2nd ed.). John Wiley & Sons. https://www.wiley.com/en-us/Balanced+Scorecard+Step+by+Step%3A+Maximizing+Performance+and+Maintaining+Results%2C+2nd+Edition-p-9780471780496. // Parmenter, D. (2015). *Key performance indicators: Developing, implementing, and using winning KPIs* (3rd ed.). John Wiley & Sons. https://www.wiley.com/en-us/Key+Performance+Indicators%3A+Developing%2C+Implementing%2C+and+Using+Winning+KPIs%2C+3rd+Edition-p-9781119019855. // Abagissa, J. (2019). The assessment of balanced scorecard implementation in the Commercial Bank of Ethiopia: The case of three branches in East Addis Ababa districts (PhD dissertation). International Journal of Financial Management and Economics, 2(1), 16–23. // Zizlavsky, O. (2014). The balanced scorecard: Innovative performance measurement and management control system. *Journal of Innovation and Business Best Practices*, 2014, 1–16. https://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0718-27242014000300016 . // Nørreklit, H. (2000). The balance on the balanced scorecard: A critical analysis of some of its assumptions. *Management Accounting Research, 11*(1), 65–88. https://doi.org/10.1006/mare.1999.0121. // Lawrie, G., & Cobbold, I. (2004). Third-generation balanced scorecard: Evolution of an effective strategic control tool. *International Journal of Productivity and Performance Management, 53*(7), 611–623.

Notable contributions to this field have also been made by leading Uzbek scientists, including N.B. Abdusalomova, A.A. Abduganiyev, B.A. Khasanov, A.A. Karimov, R.D. Dusmuratov, A.A. Xashimov, A.K. Ibragimov, K.B. Urazov, M.Q. Pardayev, S. Qodirxonov, R.O. Xolbekov, A.J. Tuychiev, and Kh.A. Ortiqov, B.Y.Maqsudov, Sh.A.Pardayeva, O.O.Sobirov, X.A. Saidakbarov, U.Kostayev[20]. Their research has largely focused on the general principles of cost accounting, production accounting, and the improvement of management accounting in various business entities.

Although scientific research conducted in this direction has played an important role in shaping the general theoretical foundations of cost accounting and management accounting, the issues related to the development and practical implementation of the Balanced Scorecard within the framework of management accounting—particularly using the example of industrial enterprises in the Republic—have not been sufficiently and thoroughly studied.

The practical challenges associated with introducing tools for evaluating integrated operational efficiency in enterprises, the growing importance of strategic planning, and the necessity of aligning production processes with national-level

---

https://doi.org/10.1108/17410400410561231. // de Waal, A. A. (2003). Behavioral factors important for the successful implementation and use of performance management systems. *Management Decision, 41*(8), 688–697. https://doi.org/10.1108/00251740310496206. // Rdiouat, Y. (2021). Measuring and improving information systems agility through the balanced scorecard approach (PhD dissertation). University of Hassan II Casablanca. https://arxiv.org/abs/2109.07281. // Garrett, K. E. (2017). An approach to aligning leadership development with organizational strategy management (PhD dissertation). University of Pennsylvania. // Huizenga, H.-J. (2020). Balanced scorecard perspectives on financial sustainability of a small private university in Canada (PhD dissertation). Walden University. https://scholarworks.waldenu.edu/dissertations/8353/

[20] Abdusalomova, N.B. (2017). Qora metallurgiya sanoat korxonalarida xarajatlarni boshqarish va buxgalteriya hisobini takomillashtirish. Iqtisod fanlari falsafa doktori (PhD) dissertatsiyasi avtoreferati. – Toshkent. // Abdug'aniyev A.A. Dissertatsiya. Ko'p ukladli iqtisodiyot sharoitida ishlab chiqarish xarajatlari, ularning hisobga olish va mahsulot tannarxini aniqlash va tahlili. BMA, 1998. 9–21 betlar. // Xasanov B.A. Boshqaruv hisobi va ichki audit metodologiyasini takomillashtirish masalalari: i.f.d. ilmiy darajasini olish uchun yozilgan diss. – T.: O'zRBMA, 2000, 18 b. // Karimov A.A. Korporativ boshqaruv tizimida buxgalteriya hisobi va auditini takomillashtirishning asosiy yo'nalishlari. Diss... iqt.fan.d-ri. BMA, T., 2009. // Dustmuratov R.D. O'zbekistonda auditorlik faoliyatining shakllanishi va uning uslubiyotini takomillashtirish. Diss... iqt.fan.d-ri. BMA, T., 2008. Pardayev M.Q. Iqtisodiyotning erkinlashtirish sharoitida iqtisodiy tahlilning nazariy va metodologik muammolari. Iqt.fan.d-ri diss... avtoreferat. BMA, T., 2004. // Xasanov B.A., Xashimov A.A. Boshqaruv hisobi. – T.: Yangi nashr, 2011. 311 b. – 24 b. // Ibragimov A.K. Dissertatsiya. Ishlab chiqarish xarajatlari hisobi, auditi va qishloq xo'jaligi mahsulotlarini tannarxini aniqlashni takomillashtirish. BMA. – T., 2002. – 62 b. // O'razov K.B. Iqtisodiyotni erkinlashtirish sharoitida buxgalteriya hisobining nazariy va metodologik muammolari. Iqt.fan.d-ri diss... avtoreferat. BMA, T., 2006. – 36 b. // Pardayev M.Q. Iqtisodiyotni erkinlashtirish sharoitida iqtisodiy tahlilning nazariy va metodologik muammolari. Iqt.fan.d-ri diss... avtoreferat. BMA, T., 2004. // Qodirxonov S. Sanoat korxonalarida buxgalteriya hisobi. – T.: O'zbekiston, 1993. – 7 bet. // Xolbekov R.O. "Donni saqlash va qayta ishlash korxonalarida ishlab chiqarish hisobini tashkil qilishning tamoyillari va uslubiyoti". Dissertatsiya. – T., 2006. // Tuychiyev A.J. Majburiyatlar buxgalteriya hisobi va tahlilining nazariy-metodologik muammolari. Diss... iqt.fan.d-ri. – T., 2011. // Ortiqov X.A. To'qimachilik sanoati korxonalarida ishlab chiqarish hisobi va uni takomillashtirish yo'llari. – T.: O'zR BMA, nomzod diss. avtoreferat, 2000. // Maqsudov B.Y. Boshqaruv hisobida byudjetlashtirish metodologiyasini takomillashtirish. Iqtisodiyot fanlari doktori (DSc) dissertatsiyasi avtoreferati. // Pardayeva Sh.A. Moliyaviy natijalarning strategic boshqaruv hisobi metadologiyasini takomillashtirish. Iqtisodiyot fanlari doktori (DSc) dissertatsiyasi avtoreferati. Pardayev A.X, Pardayeva Z.A., Pardayeva Sh.A. Operativ va strategik boshqaruv hisobi /Darslik.- T.: OOO "DIADEMA NUR SERVIS", 2023. // Sobirov O.O. Xo'jalik yurituvchi sub'ektlarda boshqaruv xisobini takomillashtirish yo'nalishlari. PhD dissertatsiyasi avtoreferati. // Saidakbarov X.A. Boshqaruv hisobi tizimida biznes jarayonlari va ularning hisobi metodologiyasini takomillashtirish. Iqtisodiyot fanlari doktori (DSc) dissertatsiyasi avtoreferati. // Kostayev U. Strategik boshqaruv hisobi metodologiyasini takomillashtirish. Iqtisodiyot fanlari doktori (DSc) dissertatsiyasi avtoreferati.

development strategies have heightened the relevance of scientific research aimed at improving the Balanced Scorecard system within management accounting. This dissertation seeks to address this scientific gap by proposing an empirically grounded, context-specific, and enhanced Balanced Scorecard system tailored to the conditions of the industrial sector, along with an innovative approach for its practical implementation.

The relevance of the dissertation topic to the scientific research activities of the higher education institution. This dissertation research has been carried out within the framework of the practical project FM-6 entitled “The Conceptual Direction of the Development of Accounting, Economic Analysis, Auditing, and Statistics in the Context of Modernizing Uzbekistan’s Economy,” in accordance with the scientific research plan of Tashkent State University of Economics.

The purpose of the research. The purpose of this research is to develop scientific proposals and practical recommendations for improving the Balanced Scorecard system within management accounting at ferrous metallurgy industry enterprises.

Objectives of the research:

to scientifically substantiate the theoretical and methodological foundations of the Balanced Scorecard (BSC) within management accounting;

to analyze the regulatory and legal documents related to performance evaluation systems in ferrous metallurgy industry enterprises;

to examine the current state of balanced scorecard implementation in ferrous metallurgy enterprises and identify the main areas in need of improvement;

to develop practical recommendations for designing performance indicators within the Balanced Scorecard framework in management accounting from both analytical and strategic perspectives;

to propose methodological approaches for implementing the Balanced Scorecard system integrated with international best practices in management accounting, including the Activity-Based Costing (ABC) system;

to improve the structure and content of management reporting in accordance with international standards by incorporating Balanced Scorecard indicators into strategic planning and performance evaluation processes.

The object of the research is the financial and economic activities of “O‘zmetkombinat” Joint Stock Company.

The subject of the research comprises the economic relations that arise in the process of implementing and maintaining the Balanced Scorecard system within the management accounting practices of industrial enterprises, particularly in the context of strategic performance evaluation and decision-making at “O‘zmetkombinat” Joint Stock Company.

Research Methods. The dissertation extensively employs various research methods, including comparison, comparative analysis, observation, theoretical and practical study, analysis and synthesis, induction and deduction, monographic observation, economic and mathematical analysis, accounting methods, and other relevant approaches.

Scientific novelty of the research consists of the following:

the integration of cost management indicators into the balanced scorecard (BSC) alongside quality and implementation indicators has been substantiated to increase the accuracy of evaluating organizational performance at the strategic and operational levels within the range of $15\% \leq BA \leq 20\%$, ensuring full coverage of key aspects of business activity and improving the effectiveness of strategic management;

a balanced scorecard system has been developed that links indicators of financial stability (debt burden ratio, liquidity index) and operational efficiency (resource turnover rate, time spent per unit of product) with indicators of employee skill development and customer satisfaction;

the method of analyzing the balanced scorecard map has been improved by taking into account capital intensity, the influence of international markets, and environmental standards, thereby increasing the accuracy of strategic planning for production technology and resource allocation;

it has been substantiated that integrating the balanced scorecard system of "O‘zmetkombinat" JSC with the activity-based costing (ABC) model makes it possible to ensure an accuracy level of $0.88 \leq BDS \leq 0.92$ in assessing the efficiency of business processes and to reduce total costs by 10–12% through resource reallocation.

The practical results of the research consist of the following:

An expanded Balanced Scorecard framework has been developed that integrates financial and non-financial indicators, encompassing the quality, implementation, and cost management dimensions of enterprise operations. This integrated approach provides a more comprehensive foundation for evidence-based managerial decision-making.

Based on the Activity-Based Costing (ABC) methodology, the system enables the identification of cost drivers, evaluation of resource utilization efficiency, and creation of opportunities to reduce excessive expenditures.

A performance indicator map has been constructed for the enterprise, establishing measurable criteria for evaluating outcomes across each department. This allows for more targeted performance assessments and improves the effectiveness of managerial decisions.

Furthermore, the reporting model has been systematized to facilitate planning and analysis by cost centers, ensuring the availability of accurate and timely information for decision-making on resource utilization within production processes.

The reliability of the research results is determined by the approaches and methods applied in the study, the theoretical frameworks utilized, the use of data from official sources, the substantiation of information related to the improvement of the Balanced Scorecard system at the joint-stock company "O‘zmetkombinat," as well as the validity of the conclusions, proposals, and recommendations. Furthermore, it is reinforced by the use of official data from "O‘zmetkombinat" JSC and the practical application of the proposed recommendations by joint-stock companies in enhancing their management accounting systems.

Scientific and practical significance of the research results. The scientific significance of the research results lies in the theoretical approaches, scientifically grounded proposals, and methodological recommendations developed within the scope of the study, all of which contribute to the further advancement of the management accounting concept. Specifically, the scientific solutions proposed—such as the adaptation of the Balanced Scorecard system to the sector, the comprehensive use of financial and non-financial information, and the integration of activity-based cost calculation mechanisms into management accounting—may serve as a theoretical foundation for future scientific research aimed at improving management accounting in enterprises of other sectors, particularly those in the manufacturing industry.

The practical significance of the research results is reflected in the fact that the practical recommendations developed in the study support the improvement of management accounting in ferrous metallurgy enterprises. In particular, they contribute to enhancing internal information flows through the Balanced Scorecard system, expanding opportunities for cost analysis, increasing production efficiency, strengthening information support for decision-making, and developing a set of measures to expand the functional capabilities of the management system.

Implementation of the research results. Based on the scientific proposals and practical recommendations developed for improving the formation of the Balanced Scorecard system in management accounting:

The proposal to integrate cost management indicators into the Balanced Scorecard (BSC) alongside quality and implementation indicators, aimed at increasing the accuracy of evaluating organizational performance at the strategic and operational levels within the range of $15\% \leq BA \leq 20\%$, has been implemented in the practice of O‘zmetkombinat JSC (O‘zmetkombinat JSC Reference No. 01/05-01-01/407 dated March 26, 2025). As a result of the implementation of this scientific proposal, the possibility of conducting a comprehensive analysis of the enterprise’s activities, evaluating indicators within a single system, and ensuring the completeness of management information has been created.

The proposal to develop a Balanced Scorecard system by linking financial stability indicators (debt burden ratio, liquidity index) and operational efficiency indicators (resource turnover rate, time spent per unit of product) with employee skill development and customer satisfaction indicators has been implemented in the practice of O‘zmetkombinat JSC (O‘zmetkombinat JSC Reference No. 01/05-01-01/407 dated March 26, 2025). As a result of the implementation of this scientific proposal, it has become possible to balance the needs of various stakeholders and justify decision-making.

The proposal to improve the method of analyzing the Balanced Scorecard map by taking into account capital intensity, the impact of international markets, and environmental standards to increase the accuracy of strategic planning of production technology and resource allocation has been implemented in the practice of O‘zmetkombinat JSC (O‘zmetkombinat JSC Reference No. 01/05-01-01/407 dated March 26, 2025). As a result of the implementation of this scientific proposal, monitoring of key operational, financial, and environmental indicators within the enterprise’s activities has been established.

The proposal to integrate the Balanced Scorecard system of O‘zmetkombinat JSC with the Activity-Based Costing (ABC) model to ensure an accuracy level of $0.88 \leq BDS \leq 0.92$ in evaluating the efficiency of business processes and reduce total costs by 10–12% through resource reallocation has been implemented in the practice of O‘zmetkombinat JSC (O‘zmetkombinat JSC Reference No. 01/05-01-01/407 dated March 26, 2025). As a result of the implementation of this scientific proposal, it has become possible to identify cost factors, improve the efficiency of resource allocation, strengthen the accuracy and reliability of financial reporting, and detect hidden costs.

Approbation of the research results. The results of this research were presented and positively evaluated at 9 international and 2 national scientific-practical conferences.

Publication of the research results. A total of 22 scientific works have been published on the topic of the dissertation, including 6 articles in journals recognized by the Higher Attestation Commission of Uzbekistan, 5 articles in internationally peer-reviewed journals, and 11 papers and thesis presented at scientific-practical conferences.

Structure and volume of the dissertation. The dissertation consists of an introduction, three chapters, a conclusion, and a list of references. The total volume of the dissertation is 140 pages.

MAIN CONTENT OF THE DISSERTATION

The **introduction** of the dissertation substantiates the relevance and necessity of the research topic, outlines the aim and objectives of the study, and describes its object and subject. It also demonstrates the alignment of the research with the priority directions for the development of science and technology in the Republic. The section presents the scientific novelty and practical outcomes of the study, elaborates on the scientific and practical significance of the findings, and provides information on the implementation of the research results, the list of published works, and the structure of the dissertation.

The first chapter of the dissertation, entitled **“Theoretical and organizational bases of balanced scorecard system in management accounting”** examines the role and specific characteristics of joint-stock companies in the development of Uzbekistan’s economy. It explores the conceptual and theoretical foundations of the Balanced Scorecard system in joint-stock companies, studies the Balanced Scorecard system and international experiences in detail, systematizes scientific and theoretical approaches along with their evolution, and analyzes methodological tools. At the end of the chapter, scientific conclusions are formulated based on the issues discussed.

Ferrous metallurgy is one of the key sectors of Uzbekistan’s industry and plays a crucial role in the sustainable growth of the national economy. As of the end of 2024, the metallurgical industry accounted for 22.7% of the total manufacturing sector, with an overall production volume reaching 171.4 trillion UZS. This figure represents a 6.3% increase compared to 2023. In January 2025, the share of the metallurgy sector rose to 32% of industrial manufacturing, further confirming the industry's leading position within the sector.

The ferrous metallurgy sector is significant not only in meeting domestic demand but also in enhancing the country's export potential. During the period from January to November 2024, the volume of Uzbekistan's metallurgical industry amounted to 154.5 trillion UZS, demonstrating substantial growth compared to previous years. Moreover, the development of the ferrous metallurgy sector positively influences other industrial branches, such as mechanical engineering, construction materials production, and the transport industry. The growth of this sector contributes to strengthening the country's industrial infrastructure, creating new jobs, and increasing export volumes.

The following Table 1 presents the share of "O'zmetkombinat" JSC in the Gross Domestic Product (GDP):

Table 1

O'zmetkombinat JSC Revenue and Its Estimated Share in Uzbekistan's GDP (2019–2024)[21]

Year	Revenue (UZS bn)	Uzbekistan GDP (USD bn)	UZS/USD rate (approx)	Uzbekistan GDP (UZS bn)	O'zmetkombinat Share of GDP (%)
2019	5269	59.9	9450	566055000	0.000930828
2020	5245	60.5	10400	629200000	0.000833598
2021	8328	69.2	10700	740440000	0.001124737
2022	8768	80.4	11200	900480000	0.000973703
2023	8695	95	12000	1140000000	0.000762719
2024	7581	114.96	12920	1454574	0.0005210

One of the leading enterprises in the ferrous metallurgy industry is the joint-stock company "O'zmetkombinat," which is recognized as one of the first large-scale enterprises that laid the foundation for the metallurgical industry in Uzbekistan. The plant commenced operations on March 5, 1944, and currently produces more than 100 types of metal products, accounting for over 30% of the domestic market share. With an annual production capacity exceeding one million tons, the company employs over 9,000 highly qualified specialists[22]. The operations of "O'zmetkombinat" JSC aim to expand the export potential of the ferrous metallurgy sector, increase its competitiveness in international markets, supply the domestic market with high-quality raw materials, and enhance production efficiency. Through ongoing modernization and digitalization processes, the enterprise is implementing production technologies that comply with international standards, thereby contributing to the sustainable development of the

[21] Developed on the basis of the author's proposals

[22] Uzbek Steel. (n.d.). *About the company*. JSC "Uzmetkombinat". Retrieved June 2, 2025, from https://www.uzbeksteel.uz/579/p

industrial sector.

Between 2019 and 2024, the revenues of “O‘zmetkombinat” JSC, expressed in Uzbek soums, demonstrated a general upward trend—from 5.269 trillion UZS in 2019 to 7.581 trillion UZS in 2023. The highest revenue figure was recorded in 2022, amounting to 8.768 trillion UZS.

In 2019, the share of “O‘zmetkombinat” JSC’s revenues in Uzbekistan’s GDP was approximately 0.093%. This figure slightly declined to 0.083% in 2020, but reached its peak in 2021 at 0.112%. This increase in 2021 can be explained by two factors: a sharp rise in the company’s revenues (from 5.245 trillion UZS in 2020 to 8.328 trillion UZS in 2021), and relatively slower GDP growth during the same period. However, in 2022 and 2024, the company’s share in GDP decreased to 0.097% and 0.052%, respectively.

The growth in revenues from 5.269 trillion UZS in 2019 to 7.581 trillion UZS in 2024 illustrates the company’s high level of financial resource utilization. These positive financial developments play a critical role in the analysis of profitability, cash flows, and capital structure within management accounting. When analyzing the performance of “O‘zmetkombinat” JSC over the 2019–2024 period based on key areas of management accounting, the Balanced Scorecard (BSC) approach allows for a comprehensive assessment of enterprise efficiency. The indicators formed under each strategic perspective, along with accounting and analysis, serve as practical tools for substantiating management decisions and optimizing production processes.

In our view, the Balanced Scorecard (BSC) in management accounting represents a comprehensive analytical platform that reflects the financial and non-financial aspects of an economic entity’s activities in an interrelated manner. It serves to systematize information flows based on a set of integrated performance indicators, providing the basis for justifying, monitoring, and evaluating managerial decisions. This system forms a multi-layered management model grounded in modern approaches to management accounting, taking into account internal operational, resource, and efficiency factors, as well as the dynamic economic and market conditions of the external environment.

Within this framework, we propose the integration of six strategic performance perspectives as the core evaluation criteria:

1. Financial Perspective (financial condition and results of operations). This includes indicators reflecting the organization’s financial position, such as revenue, profit, return on assets, liquidity, and capital structure. These metrics are essential for assessing overall financial stability, investment attractiveness, and long-term growth potential.

2. Customer Perspective (company image from the customer’s point of view). This encompasses customer needs and satisfaction levels, loyalty, repeat purchase rates, and the ability to attract new customers. It allows the organization to analyze its relationship with market segments and develop customer-oriented strategies.

3. Internal Business Processes (key processes largely determining company efficiency). This perspective evaluates the effectiveness of core internal processes

such as production, supply, service, and control. It includes indicators measuring product quality, production cycle time, responsiveness to issues, and process cost efficiency.

4. Learning and Growth (the most critical elements of employee culture, technology, and skills). It assesses employee potential, skill levels, readiness for innovation, adaptability to organizational changes, and capacity for using information technologies. This direction reflects the organization's readiness for continuous growth and development.

5. Quality and Execution (adherence to and control over quality standards). This includes compliance with international quality standards in production and service delivery, adherence to technological discipline, and the effectiveness of audit and control mechanisms. It is a key factor in ensuring the competitiveness of products and services.

6. Cost Management (control and reduction of costs). This involves analyzing the composition of costs, influencing factors, and their relationship with resources. It serves as the foundation for developing management tools aimed at optimizing costs, identifying inefficiencies, and stabilizing financial outcomes.

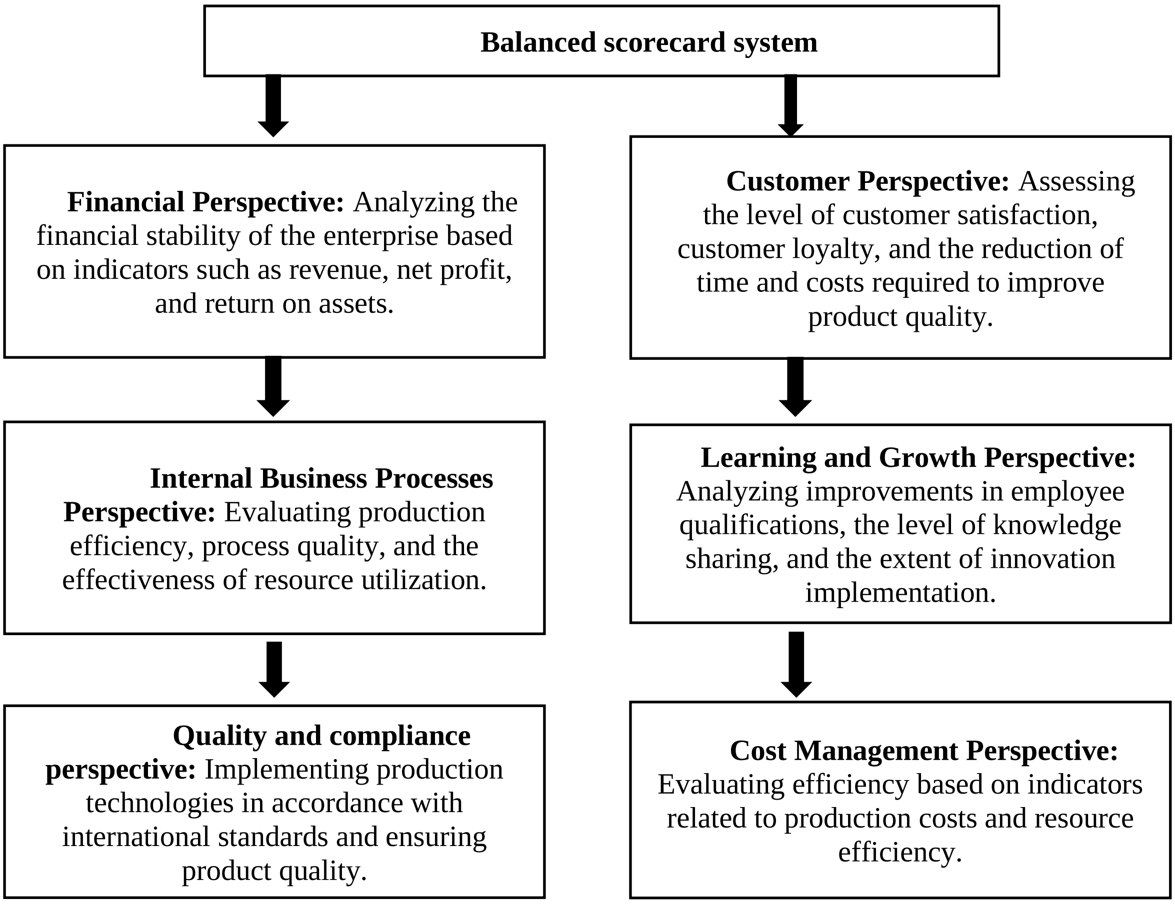


Figure 1. An expanded balanced scorecard system for management accounting in the ferrous metallurgy industry.[23]

These six perspectives contribute to improving the informational support of management accounting, expanding its analytical capacity, and systematizing the

[23] Developed on the basis of the author's proposals

process of decision-making justification. Each perspective enables a focused analysis of specific aspects of organizational performance, while also identifying functional interconnections among them. This facilitates more rapid and goal-oriented managerial decisions.

In the process of improving management accounting in metallurgical industry enterprises, the expanded form of the balanced scorecard system can serve as an effective analytical approach. As illustrated in Figure 1, this approach allows for a comprehensive evaluation of enterprise performance. In addition to the traditional four perspectives, two essential directions—quality and execution, and cost management—have been added, thereby broadening the practical application of the system.

Within the financial perspective, the level of financial stability is analyzed based on indicators such as revenue, net profit, and return on assets. In the customer perspective, factors such as customer satisfaction, product quality perceptions, loyalty, and time and cost associated with the purchasing process are examined.

The internal business processes perspective evaluates production efficiency, the quality of technological processes, and the effectiveness of resource utilization. The learning and growth perspective identifies opportunities for improving employee qualifications, knowledge and experience sharing, and the implementation of innovative ideas.

In addition, the quality and execution perspective focuses on the implementation of technologies in compliance with international standards, the enhancement of product quality, and the maintenance of production discipline. The cost management perspective assesses efficiency based on indicators related to production costs and resource savings.

This approach enables an integrated analysis of the financial and non-financial aspects of enterprise performance, thus creating the opportunity to adopt more in-depth and systematic decisions within management accounting. It contributes to long-term effectiveness and enhances production efficiency. Such an approach increases the practical significance of management accounting in the context of the metallurgy industry and serves as a new scientific-theoretical foundation.

Within management accounting, the balanced scorecard system ensures integration between financial and operational information. Through this system, financial results, customer needs, internal process efficiency, employee qualifications, service quality, and cost structures are evaluated in a unified manner. This facilitates coordination between different departments and enhances the efficiency of resource utilization.

Practically, this approach provides a foundation for targeted, systematic, and evaluative management accounting, especially for enterprises with high capital intensity and multi-stage technological processes. Real-time access to information for management functions allows for continuous monitoring of operations and timely adoption of necessary measures.

In our view, the integration of the balanced scorecard system (BSC) into the existing management accounting framework of an enterprise significantly enhances overall organizational effectiveness. Enterprises that implement this concept achieve reductions in product cost through improved decision-making and more accurate organization of operational activities. Furthermore, due to its emphasis on data accuracy, timeliness, and multidimensional evaluation, the BSC-based management approach serves as a key instrument for ensuring the purposeful allocation of resources. Through this system, not only financial indicators but also non-financial dimensions—such as customer relations, internal process efficiency, human capital capacity, and compliance with quality standards—are analyzed from a comprehensive perspective. As a result, management accounting transforms from a traditional accounting function into an evaluative and decision-support information system that encompasses all stages of organizational activity. This transformation contributes to enhancing organizational competitiveness, creating a foundation for sustainable development, and advancing the quality of management culture to a new level.

The second chapter of the dissertation, entitled **"Methodological basis and practice of organizing balanced scorecard system"** focuses on the establishment of the Balanced Scorecard system within the management accounting of joint-stock companies. It analyzes the practice of implementing the balanced scorecard system at "O'zmetkombinat" JSC, examines the results of its application, and develops scientific proposals and practical recommendations aimed at improving the system.

As a result of the conducted research, in order to enhance the strategic scope of the Balanced Scorecard within the framework of management accounting, this study proposes the inclusion of two additional perspectives—"Quality and Compliance" and "Cost Management." The Quality and Compliance perspective reflects the growing importance of adherence to regulatory requirements, risk management, and the assurance of product and service quality. The Cost Management perspective emphasizes strategic cost control, process efficiency, and optimal resource utilization. In our view, these additions further align the Balanced Scorecard concept with the needs of modern organizations, transforming it into a more relevant and practically effective management tool in rapidly changing and highly regulated industrial environments.

In their 2022 study, Kaplan and Anderson[24] examined the integration of Strategic Cost Management (SCM) with the Balanced Scorecard. The research highlights that enterprises can use the Balanced Scorecard as a tool for managing strategic costs, enabling the alignment of cost control practices with long-term business objectives and financial performance indicators. Metal producers, by applying cost management approaches in conjunction with the Balanced Scorecard, are able to align costs with strategic goals, optimize production costs,

[24] Kaplan R.S., Anderson S.R. (2022). Time-Driven Activity-Based Costing: A Strategic Cost Management Tool for the Digital Age. Journal of Management Accounting Research, 34(1), 1–20. https://doi.org/10.2308/JMAR-2021-0123

and improve overall financial performance. Empirical studies conducted across various industries, including the metallurgical sector, confirm that integrating cost management with the Balanced Scorecard significantly enhances both cost efficiency and financial results.

Based on our proposed framework, Table 2 below presents the application of the Financial, Customer, Internal Business Processes, Learning and Growth, Quality and Compliance, and Cost Management perspectives within the management accounting system of "O'zmetkombinat" JSC:

Table 2

Application of financial, customer, internal business processes, learning and growth, quality and compliance, cost management perspectives in management accounting of "O'zmetkombinat" AJ[25]

Perspective	Strategic Objectives	Key Performance Indicators (KPIs)	Initiatives/Projects
Financial	– Maximize profitability – Optimize asset utilization	– Revenue growth rate – ROI – Production capacity utilization rate	– Investment program to expand capacity (2021–2025) – Cost control measures
Customer	– Enhance customer satisfaction – Increase market share	– Customer satisfaction index – Market share – Customer retention rate	– Export market expansion – Feedback collection and analysis
Internal Business Processes	– Improve operational efficiency – Enhance product quality	–Production efficiency – Lead time – Defect rate	– Construction of Foundry and Rolling Complex – Process automation
Learning and Growth	– Strengthen employee competencies – Foster innovation	– Training participation rate – Innovation adoption – Employee engagement score	– Training programs – Implementation of new technologies
Quality and Compliance	– Maintain product quality – Adhere to regulations	– Percentage of products meeting standards – Number of non-compliance incidents	– Certification of products – Audits and quality improvement initiatives
Cost Management	– Optimize production costs – Improve cost transparency	– Cost per ton of production – Cost variance – Budget adherence	– Strategic cost management – Functional cost analysis

The implementation of the Balanced Scorecard system at "O'zmetkombinat" JSC is aimed at aligning the company's strategic objectives with performance indicators measurable across six key perspectives: Financial, Customer, Internal Business Processes, Learning and Growth, Quality and Compliance, and Cost Management. This comprehensive approach enables a multidimensional evaluation of the company's performance beyond traditional financial metrics.

O'zmetkombinat JSC's financial ratios from 2019 to 2024 reflect a period of both growth and subsequent challenges. Liquidity remained relatively stable for most of the period but slipped back in 2024, pointing to tighter short-term solvency. The company's leverage rose steadily until 2023, indicating heavier

[25] Developed on the basis of the author's proposals

reliance on borrowed funds, but in 2024 it dropped sharply, suggesting a healthier balance between debt and equity. Profitability peaked in 2021 with very strong returns on both equity and assets, showing high efficiency in using capital and resources, yet this momentum slowed in later years as both ROE and ROA declined. Overall, the company reached its strongest performance in 2021 but has since experienced weaker profitability and tighter liquidity, underlining the need to improve efficiency, sustain earnings, and reinforce resilience in the years ahead.

Table 3 below presents the key financial ratio indicators for the years 2019–2024:

Table 3

Key Financial Ratios of "O'zmetkombinat" JSC (2019–2024)[26]

Ratio	Formula	2019	2020	2021	2022	2023	2024
Current Ratio	Current Assets / Current Liabilities	1,883 / 1,491 = 1.20	1,679 / 1,527 = 1.10	2,000 / 1,600 = 1.25	2,200 / 1,870 = 1.18	2,300 / 2,000 = 1.15	3,162 / 2,873 = 1.10
Debt-to-Equity Ratio	Total Liabilities / Equity	2,263 / 1,536 = 1.47	2,762 / 1,725 = 1.60	3,100 / 2,040 = 1.52	3,500 / 2,110 = 1.66	3,750 / 2,200 = 1.71	7,442 / 6,943 = 1.07
Return on Equity (ROE, %)	Net Profit / Equity * 100	366 / 1,536 * 100 = 23.8%	212 / 1,725 * 100 = 12.6%	1,664 / 2,040 * 100 = 45.0%	1,437 / 2,110 * 100 = 34.8%	843 / 2,200 * 100 = 18.0%	904 / 6,943 ×100 = 13.0%
Return on Assets (ROA, %)	Net Profit / Total Assets * 100	366 / 3,799 * 100 = 8.5%	212 / 4,334 * 100 = 4.9%	1,664 / 4,800 * 100 = 9.6%	1,437 / 5,200 * 100 = 8.1%	843 / 5,650 * 100 = 5.7%	904 / 14,385 ×100 = 6.3%

For a deeper analysis, the key financial indicators of three other joint-stock companies were examined and compared with the performance of "O'zmetkombinat" JSC. Table 4 presents the key financial indicators of these three companies for the period 2020–2024. The analysis shows that there are significant differences among the enterprises. At the Navoi Mining and Metallurgical Company JSC, the current ratio remained around 1, ensuring short-term stability. The debt-to-equity ratio ranged between 0.5 and 0.8, indicating the preservation of financial stability. Profitability indicators were high, with return on equity (ROE) increasing from 15.5 percent in 2020 to 44.4 percent in 2024, while return on assets (ROA) rose from 9.6 percent to 24.1 percent over the same period.

At the Almalyk Mining and Metallurgical Complex JSC, liquidity indicators were relatively stable in the early years but declined sharply in 2023-2024, falling below 1. The debt-to-equity ratio fluctuated across the years, peaking at 2.99 in 2023. Profitability indicators were also high, with ROE rising from 28.1 percent in 2020 to 53.5 percent in 2023, before decreasing to 32.4 percent in 2024. ROA remained within the range of 10–17 percent.

[26] Developed on the basis of the author's proposals

Table 4

Key Financial Ratios of three joint-stock companies from 2020 to 2024[27]

JSC "Navoi Mining and Metallurgical Company"						
Ratio	**Formula**	**2020**	**2021**	**2022**	**2023**	**2024**
Current Ratio	Current Assets / Current Liabilities	**1.08**	**0.75**	**1.07**	**1.09**	**1.01**
Debt-to-Equity	Total Liabilities / Equity	**0.62**	**0.53**	**0.82**	**0.82**	**0.85**
Return on Equity (ROE)	Net Profit ÷ Equity × 100	**15.5%**	**21.9%**	**20.3%**	**31.3%**	**44.4%**
Return on Assets (ROA)	Net Profit ÷ Total Assets × 100	**9.6%**	**14.4%**	**11.1%**	**17.2%**	**24.1%**
JSC "Almalyk Mining and Metallurgical Complex"						
Ratio	**Formula**	**2020**	**2021**	**2022**	**2023**	**2024**
Current Ratio	Current Assets ÷ Current Liabilities	1.17	1.15	1.14	0.62	0.51
Debt-to-Equity	Total Liabilities ÷ Equity	0.96	1.06	1.78	2.99	2.19
Return on Equity (ROE, %)	Net Profit ÷ Equity × 100	28.1%	31.0%	42.0%	53.5%	32.4%
Return on Assets (ROA, %)	Net Profit ÷ Total Assets × 100	14.3%	17.0%	15.1%	10.8%	10.2%
JSC "O‘zikkilamchiranglimetall"						
Ratio	**Formula**	**2020**	**2021**	**2022**	**2023**	**2024**
Current Ratio	Current Assets ÷ Current Liabilities	1.05	1.12	1.08	1.04	1.06
Debt-to-Equity	Total Liabilities ÷ Equity	1.48	1.56	1.62	1.59	1.65
Return on Equity (ROE, %)	Net Profit ÷ Equity × 100	6.9%	2.4%	2.6%	2.3%	2.5%
Return on Assets (ROA, %)	Net Profit ÷ Total Assets × 100	3.1%	1.1%	1.2%	1.1%	1.2%

By contrast, O‘zikkilamchiranglimetall JSC consistently recorded the weakest performance. Although its current ratio hovered around 1, the debt-to-equity ratio remained high (1.48–1.65). Profitability was very low: ROE ranged between 2.3 and 6.9 percent, while ROA remained within 1.1–3.1 percent. These figures indicate low efficiency and weak financial stability for the company.

Compared with "O‘zmetkombinat" JSC, the differences are evident. At Navoi MMC, the current ratio remained around 1, reflecting short-term stability. At Almalyk MMC, however, it declined sharply from 2023 onward, falling well below 1. While the level of leverage was relatively low in these enterprises, at Almalyk MMC it rose to 2.99 in 2023, indicating high dependence on debt financing. In terms of profitability, both Navoi MMC and Almalyk MMC recorded strong results between 2020 and 2024, with ROE ranging between 20 and 50 percent and ROA reaching up to 24 percent. By contrast, O‘zikkilamchiranglimetall JSC consistently showed the weakest performance, with ROE remaining between 2 and 7 percent and ROA between 1 and 3 percent.

[27] Developed on the basis of the author's proposals

Compared with these, O‘zmetkombinat JSC operates on a smaller revenue base but demonstrates stronger consistency. Its net profit margin rose to nearly 12% in 2024, operating cash flow increased steadily to UZS 700 billion, and ROA stayed at a healthy 6–8%. This shows that, while not the biggest, O‘zmetkombinat maintains higher efficiency and more stable profitability than its peers, positioning it more favorably in terms of resilience.

The implementation of the Balanced Scorecard system at “O‘zmetkombinat” JSC has ensured a clear alignment between strategic objectives and the efficiency of operational activities. Through a comprehensive approach focused on financial growth, customer satisfaction, internal process efficiency, employee capability development, quality assurance, and cost management, the company has established a solid foundation for sustainable growth. Forecasts for the next five years confirm “O‘zmetkombinat” JSC’s strong commitment to innovation, operational excellence, and market leadership, ensuring its continued success in the global metallurgical industry.

To evaluate the economic efficiency of “O‘zmetkombinat” JSC, we conducted a regression analysis assessing the impact of the six Balanced Scorecard (BSC) perspectives we proposed. The study employed both primary and secondary data sources. The empirical analysis was based primarily on the Ordinary Least Squares (OLS) method. The selected indicators—namely, firm value, financial perspective, customer perspective, internal business processes, learning and growth, quality and compliance, and cost management—cover the period from the first quarter of 2017 to the fourth quarter of 2023 for “O‘zmetkombinat” JSC.

The analysis is grounded in the hypothesis highlighted by De Geuser et al. (2009) and Okoye et al. (2017), which suggests a strong causal relationship among the four original BSC dimensions. This relationship significantly influences organizational performance and value creation.

To empirically test these assumptions, a model was developed in which firm value (Y) was treated as the dependent variable, while the four traditional BSC dimensions served as independent variables. A regression equation was used to assess the strength and direction of the linear relationships among the variables. The model is represented as follows:

Y – Firm Value

X_1 – Financial Perspective of the Balanced Scorecard

X_2 – Customer Perspective of the Balanced Scorecard

X_3 – Internal Business Processes Perspective of the Balanced Scorecard

X_4 – Learning and Growth Perspective of the Balanced Scorecard

The model also includes a constant term, coefficients, and a residual error component to account for unexplained variance. This approach allows for a systematic understanding of the role of the Balanced Scorecard in ensuring organizational success.

Table 5 below presents the core performance indicators adapted within the Balanced Scorecard framework at “O‘zmetkombinat” JSC:

Table 5

Key Performance Metrics Aligned with Balanced Scorecard Perspectives in O'zmetkombinat JSC[28]

Variables	Metrics	Description	Source
Firm's value	Equity	Represents the total shareholders' equity as a measure of the firm's value.	Financial Statements
Financial perspective	Net profit	The amount of income remaining after all expenses are deducted from revenues.	Income Statement
Customer perspective	Customer Retention Rate	Percentage of customers retained over a specific period, reflecting loyalty.	CRM Systems/Customer Surveys
Internal Business Processes	Operational Efficiency	Measures the productivity of business processes and resource utilization.	Internal Operational Reports
Learning and Growth	Employee Satisfaction Index	Reflects employee satisfaction levels, indicating engagement and motivation.	Employee Surveys/HR Reports
Quality and Compliance	Customer Complaints	Number or percentage of complaints received, indicating product/service quality.	Customer Service Logs
Cost Management	Cost of Goods Sold (COGS)	Direct costs of producing goods sold by the company, indicating cost efficiency.	Income Statement

In this study, the dependent variable is defined as firm value (measured by the amount of capital), which is explained through the following six independent variables corresponding to the strategic perspectives of the Balanced Scorecard system:

Firm's value = $\beta_0 + \beta_1$ * Financial perspective + β_2 * Customer perspective + β_3 * Internal Business Processes + β_4 * Learning and Growth + β_5 * Quality and Compliance + β_6 * Cost Management + ϵ

The regression methodology includes both simple regressions (analyzing each perspective's isolated effect) and a multiple regression model (evaluating their combined impact). Simple regression results indicate that Internal Business Processes ($R^2 = 0.712$) and Learning and Growth ($R^2 = 0.718$) perspectives have the strongest individual positive relationships with firm value. The multiple regression model demonstrates that the full BSC model explains 91.2% of the variance in firm value ($R^2 = 0.912$). Among all perspectives, Cost Management shows the only statistically significant positive impact on firm value at the 1% significance level. Model robustness was confirmed through diagnostic tests: no heteroscedasticity was detected (White's Test, Breusch–Pagan Test), no omitted variable bias was identified (Ramsey RESET Test), and residual normality was confirmed (Skewness/Kurtosis Test). The findings substantiate that the Balanced Scorecard model, adapted and statistically validated for O'zmetkombinat JSC, serves not only as a performance measurement framework but also as a strategic management tool capable of explaining and enhancing firm value. The research

[28] Developed on the basis of the author's proposals

demonstrates the critical role of cost efficiency and operational improvements in sustaining enterprise growth within the metallurgical sector.

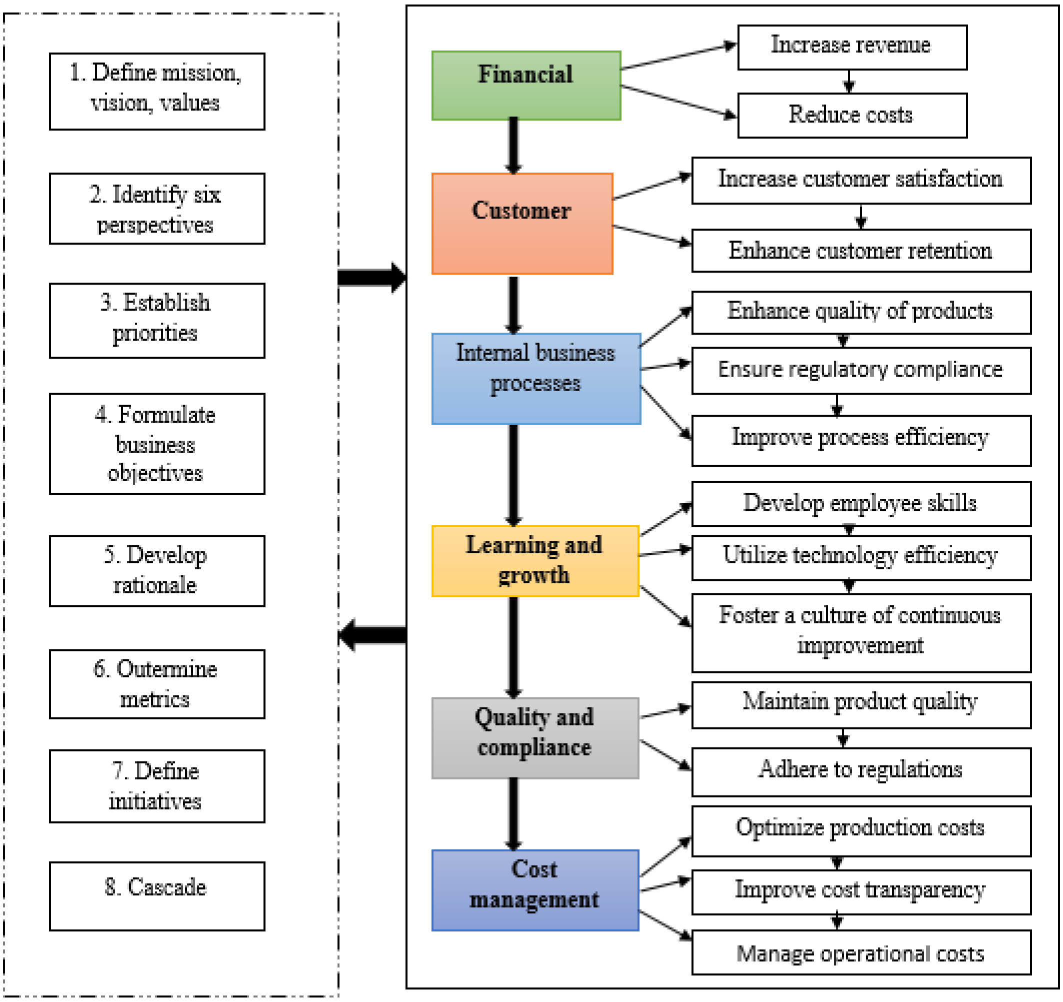


Figure 2. Analytical approach to the balanced scorecard map.[29]

Figure 2 above presents the analytical approach of the Balanced Scorecard map proposed by the authors. The map outlines the stages of forming the Balanced Scorecard system and defines functional objectives across six key perspectives. This approach captures a coherent process starting from the organization's mission, vision, and values, through the development of a targeted indicator system, and its alignment with different levels of management. The map enables the systematic integration of strategic goals related to financial performance, customer satisfaction, internal process efficiency, employee capability development, compliance with quality standards, and cost management. As such, it serves as a conceptual analytical tool for aligning organizational strategy with operational execution.

The results of our proposed model demonstrate that the customized and statistically grounded Balanced Scorecard system for "O'zmetkombinat" JSC

[29] Developed on the basis of the author's proposals

functions not only as a performance evaluation framework, but also as a strategic management tool that explains and enhances firm value.

The third chapter of the dissertation, entitled **"Directions for improving balanced scorecard system"** presents the development of scientific proposals and practical recommendations aimed at enhancing the methodology of the Balanced Scorecard system, strengthening the role of the balanced scorecard system in management accounting, and improving the effectiveness of the balanced scorecard system within business entities.

In our view, the results of this study extend their influence beyond the metallurgical sector. An AI-enhanced Balanced Scorecard system emerges as an effective solution that can be adapted to industries characterized by complex operational processes and performance evaluation needs. Its ability to support real-time decision-making and align strategic actions with sustainable development goals positions it as a vital management tool for modern enterprises. Organizations that implement such systems can gain significant competitive advantages by improving operational precision, strategic adaptability, and stakeholder satisfaction.

Table 6 below presents the differences between the traditional Balanced Scorecard system and the AI-enhanced Balanced Scorecard system:

Table 6

The differences between the traditional Balanced Scorecard (BSC) and the improved AI-enhanced BSC[30]

Aspect	Traditional BSC	Improved BSC with AI
Data Usage	Retrospective analysis	Real-time monitoring and predictive insights
Customization	Limited industry-specific adaptation	Tailored to O'zmetkombinat JSC with six perspectives
Decision-Making	Reactive	Proactive with AI-driven analytics
Efficiency	Manual tracking of KPIs	Automated data collection and analysis
Scalability	Limited	High scalability with AI integration

Table 9 highlights the key differences between the traditional Balanced Scorecard system and the AI-based enhanced Balanced Scorecard system implemented at "O'zmetkombinat" JSC. The integration of artificial intelligence enables real-time monitoring, predictive analytics, and automated data analysis, thereby replacing the retrospective and manually driven approach of the traditional Balanced Scorecard.

This new model provides a high level of adaptability, enhanced scalability, and improved efficiency. The transformation significantly enhances strategic alignment, responsiveness, and operational performance within the organization.

[30] Developed on the basis of the author's proposals

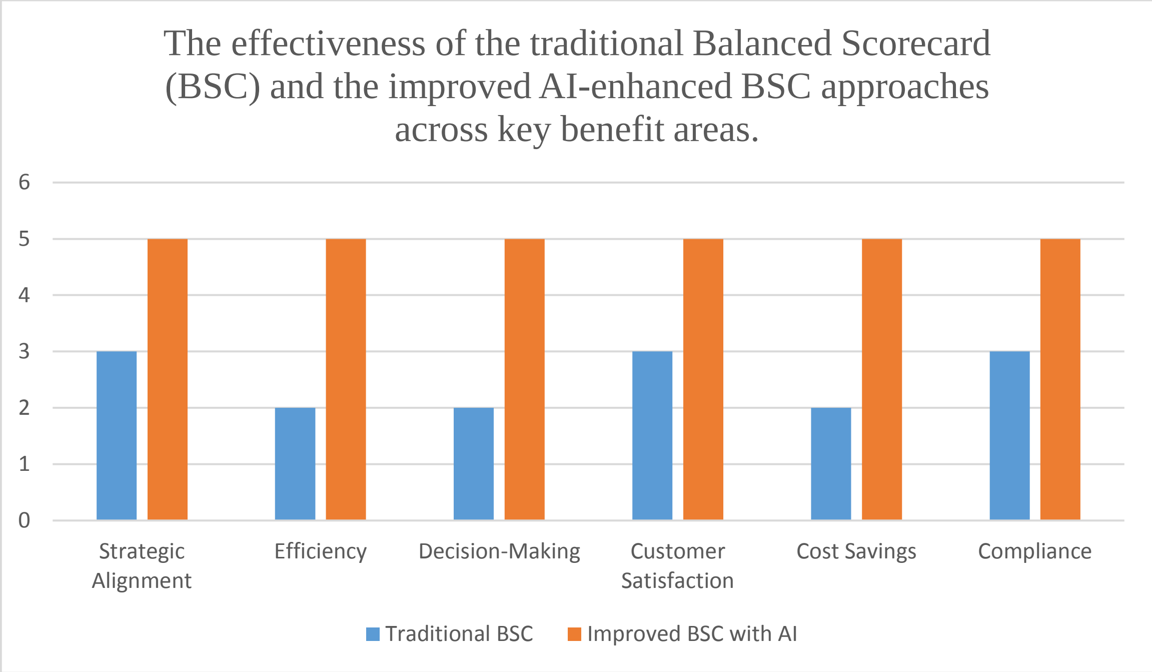


Figure 3. The effectiveness of the traditional Balanced Scorecard (BSC) and the improved AI-enhanced BSC approaches across key benefit areas.[31]

The diagram presented in Figure 3 compares the effectiveness of the traditional Balanced Scorecard system and the AI-enhanced Balanced Scorecard system across six key benefit dimensions: strategic alignment, efficiency, decision-making, customer satisfaction, cost savings, and regulatory compliance. The visual data clearly demonstrate that the AI-integrated Balanced Scorecard system outperforms the traditional model in all evaluated dimensions. In particular, with regard to strategic alignment, the enhanced system shows a superior ability to align organizational activities more precisely with long-term strategic objectives.

At “O‘zmetkombinat” JSC, the integration of the Activity-Based Costing (ABC) system into the Balanced Scorecard represents a new phase in managing strategic effectiveness. Under traditional approaches, the cost structures in heavy industries such as metallurgy are often complex and opaque, with indirect costs typically allocated in a generalized manner, resulting in incomplete identification of key cost drivers. ABC addresses this issue by linking costs directly to specific activities and cost objects, enabling accurate determination of the true cost of serving products, services, and customer segments. When applied in conjunction with the Balanced Scorecard, this approach supports data-driven decision-making based on multidimensional analyses across financial, customer, internal processes, learning and growth, compliance, and cost management perspectives.

[31] Developed on the basis of the author’s proposals

Table 7

Strategic Impact of ABC-BSC Integration on Key Performance Metrics at O‘zmetkombinat JSC (2019–2024)[32]

Metric	2019	2024	Strategic Interpretation
Revenue (bn UZS)	5,270	7,581	Growth supported by profitable process and customer realignment
Net Income (bn UZS)	366	904	Maintained despite rising costs due to ABC-informed cost control
Investment Projects (bn UZS)	517	8,853	Allocated based on ABC cost center analysis
Energy Cost per Unit (USD)	100	78	Lowered via ABC-guided upgrades in high-cost processes
Procurement Efficiency (%)	70	92	Improved through ABC tracking of supplier and logistics efficiency
Defect Rate (%)	1.5	0.4	Dropped through ABC-guided quality improvement
GHG Reduction (%)	0	12	Achieved by aligning cost-effective and compliant production units
Customer Satisfaction (%)	75	93	Increased via ABC-driven customer segmentation
Delivery Time (days)	7.5	5.8	Decreased through ABC-optimized fulfillment pathways

The practical analysis of “O‘zmetkombinat” JSC’s financial and operational performance during 2019–2024 confirms the effectiveness of the integrated approach. Over this period, the company’s revenue increased from 5.27 trillion UZS to 7.6 trillion UZS, while the cost of goods sold rose from 4.09 trillion UZS to 6.04 trillion UZS. Although high revenue growth was maintained, the company’s profitability was sustained largely due to the analytical insights derived from Activity-Based Costing (ABC). These analyses identified which production activities and customer service contracts were generating disproportionate costs relative to value. As a result, during 2021–2022, strategic cost-reduction initiatives were launched—particularly through investments in automation for processes flagged by ABC as high-cost and low-efficiency.

A review of recent academic literature confirms that our findings are consistent with those of other scholars. As Psarras et al. (2022) emphasized, ABC–BSC integration strengthens the analytical foundation for strategy execution by increasing transparency in both financial and non-financial metrics. Marques and Oliveira (2024) further note that AI-enhanced ABC systems can automatically detect bottlenecks and value losses, making them highly compatible with dynamic Balanced Scorecard dashboards.

Our empirical results at the enterprise level demonstrate the practical interconnection between financial stability, cost monitoring, and performance indicators—thereby fully aligning with these advanced academic perspectives.

[32] Developed on the basis of the author’s proposals

CONCLUSION

The following conclusions were formed as a result of the research conducted in this dissertation:

Based on the conducted research, it was determined that integrating quality and implementation indicators together with cost management indicators into a unified framework plays a crucial role in improving the Balanced Scorecard system in enterprise management accounting. The integration of cost management metrics alongside quality and implementation indicators within the Balanced Scorecard enhances the accuracy of evaluating organizational performance at both strategic and operational levels within the range ($15\% \leq BA \leq 20\%$). This integration provides comprehensive coverage of key aspects of economic activity and strengthens the effectiveness of strategic management.

As a result of the research, an improved Balanced Scorecard system was developed based on an interrelated set of indicators that enables a comprehensive assessment of the company's core performance areas, including financial stability, operational efficiency, employee development, and customer satisfaction. This system can be considered a significant practical outcome in the advancement of management accounting on a complex and systematic basis.

According to the findings, an analytical approach to designing the Balanced Scorecard map was developed by taking into account capital intensity, the influence of international markets, environmental regulations and standards, and the need for advanced production technologies. This approach is regarded as an important scientific contribution to the practical and conceptual improvement of management accounting.

Based on the results of the study, an enhanced approach was developed for integrating the Balanced Scorecard with Activity-Based Costing (ABC). The proposed integrated system can be recognized as an innovative approach in management accounting practice.

Within the framework of the research, an expanded Balanced Scorecard system was developed that harmonizes financial and non-financial indicators for managerial decision-making and integrates the dimensions of quality, implementation, and cost management into a comprehensive framework. This system is considered an important scientific innovation and a modernized form of management accounting that can be applied in practice.

The research results indicate that improving management accounting based on the Activity-Based Costing (ABC) system enables the precise identification of cost drivers, the evaluation of resource utilization efficiency, and the identification of opportunities for reducing excess costs. In the case of “Uzmetkombinat” JSC, integrating the Balanced Scorecard with the ABC model ensures business process evaluation accuracy within the range ($0.88 \leq BDS \leq 0.92$), and allows overall cost reduction by 10–12 percent through optimal reallocation of resources. This outcome scientifically substantiates the importance of the ABC system as an effective mechanism for supporting managerial decision-making.

During the research, an indicator map was developed for the enterprise, specifying concrete performance indicators and evaluation criteria that enable effective assessment of each department's activities. This approach established continuous monitoring of performance outcomes and strengthened functional analysis and result-oriented decision-making processes in management accounting. Consequently, the relevance and practical effectiveness of managerial decisions increased, and the enterprise developed a management system grounded in internal coherence and efficiency principles. This, in turn, contributes to the rational use of resources and the overall improvement of operational productivity.

Based on the developed approach, management reports were systematized, and the possibilities for planning and analysis across cost centers were expanded. This approach provided management with analytical information essential for assessing the efficiency of resource utilization in production processes and optimizing costs. As a result, the accuracy, timeliness, and goal-oriented nature of decision-making increased, forming a foundation for more efficient management of the enterprise's internal processes.

НАУЧНЫЙ СОВЕТ DSc.03/10.12.2019.I.16.01 ПО ПРИСУЖДЕНИЮ УЧЕНЫХ СТЕПЕНЕЙ ПРИ ТАШКЕНТСКОМ ГОСУДАРСТВЕННОМ ЭКОНОМИЧЕСКОМ УНИВЕРСИТЕТЕ

ТАШКЕНТСКИЙ ГОСУДАРСТВЕННЫЙ ЭКОНОМИЧЕСКИЙ УНИВЕРСИТЕТ

ТУРСУНАЛИЕВ ИБРОХИМЖОН УСМОНАЛИ УГЛИ

СОВЕРШЕНСТВОВАНИЕ ФОРМИРОВАНИЯ СИСТЕМЫ СБАЛАНСИРОВАННЫХ ПОКАЗАТЕЛЕЙ В УПРАВЛЕНЧЕСКОМ УЧЕТЕ

“08.00.08 – Бухгалтерский учет, экономический анализ и аудит”

АВТОРЕФЕРАТ
по диссертации для получения доктора философии (PhD) по экономическим наукам по специальности

Ташкент – 2025

Тема диссертации доктора философии (PhD) зарегистрирована Высшей аттестационной комиссией под номером B2024.2.PhD/Iqt4182.

Диссертация выполнена в Ташкентском государственном экономическом университете.

Автореферат диссертации на трех языках (узбекский, русский, английский (резюме)) размещен на веб-странице Научного совета

Научный руководитель:	**Абдусаломова Нодира Баходировна** доктор экономических наук, профессор
Официальные оппоненты:	**Ахмеджанов Каримжон Бакиджанович** доктор экономических наук, профессор **Халилов Шерзод Ахматович** доктор философии по экономическим наукам, доцент
Ведущая организация:	**Самаркандский институт экономики и сервиса**

Защита диссертации состоится "16" 12 2025 г. в 16⁰⁰ часов на заседании Научного совета при Ташкентском государственном экономическом университете. Адрес: 100066, г. Ташкент, ул. Ислама Каримова, д. 49, тел.: (71) 239-28-72; факс: (71) 239-43-51; e-mail: инфо@tsue.uz.

С диссертацией можно ознакомиться в Информационно-ресурсном центре Ташкентского государственного экономического университета (зарегистрирована под номером 1846). Адрес: 100066, г. Ташкент, ул. Ислама Каримова, д. 49, тел.: (99871) 239-28-72; факс: (99871) 239-43-51; e-mail: инфо@tsue.uz.

Автореферат диссертации разослан "28" 11 2025 г.

(Протокол реестра № 112 «28» 11 2025 г.)

O'ZBEKISTON RESPUBLIKASI OLIY TA'LIM, FAN VA INNOVATSIYALAR VAZIRLIGI TOSHKENT DAVLAT IQTISODIYOT UNIVERSITETI

С.У. Мехмонов
Председатель Научного совета по присуждению ученых степеней, д.э.н., профессор

У.В. Гафуров
Секретарь Научного совета, по присуждению ученых степеней, д.э.н., профессор

С.К. Худойкулов
Председатель научного семинара при Научном совете по присуждению ученых степеней, д.э.н., профессор

ВВЕДЕНИЕ (аннотация диссертации доктора философии (PhD))

Целью исследования заключается в разработке научных предложений и практических рекомендаций по совершенствованию системы сбалансированных показателей в управленческом учете предприятий черной металлургии.

Задачи исследования:

научное обоснование теоретико-методологических основ системы сбалансированных показателей (bsc) в управленческом учете;

анализ нормативно-правовых документов, регулирующих системы оценки эффективности деятельности предприятий черной металлургии;

изучение текущего состояния применения системы сбалансированных показателей на предприятиях черной металлургии и выявление основных направлений, требующих совершенствования;

разработка практических рекомендаций по аналитическому и стратегическому формированию показателей деятельности в рамках системы сбалансированных показателей в управленческом учете;

предложение методических подходов к внедрению системы сбалансированных показателей с учетом международного передового опыта в области управленческого учета, в том числе в интеграции с системой калькулирования затрат на основе видов деятельности (abc);

совершенствование состава и структуры управленческой отчетности в соответствии с международными стандартами за счет включения показателей системы сбалансированных показателей в процессы стратегического планирования и оценки эффективности.

Объектом исследования выбрана финансово-экономическая деятельность акционерного общества “Узметкомбинат”.

Предметом исследования является совокупность экономических отношений, возникающих в процессе внедрения и функционирования системы сбалансированных показателей в управленческом учете акционерного общества “Узметкомбинат”.

Методы исследования. В диссертационной работе широко использованы методы сравнения, сопоставительного анализа, наблюдения, теоретического и практического изучения, анализа и синтеза, индукции и дедукции, монографического наблюдения, экономико-математического анализа, бухгалтерского учета и другие методы.

Научная новизна исследования заключается в следующем:

научно обоснована интеграция показателей качества, выполнения и управления затратами в систему сбалансированных показателей, что обеспечивает повышение точности оценки результатов деятельности организации на стратегическом и операционном уровнях в пределах ($15\% \leq ba \leq 20\%$), комплексный охват ключевых аспектов хозяйственной деятельности и повышение эффективности стратегического управления;

разработана система сбалансированных показателей, увязывающая показатели финансовой устойчивости (коэффициент долговой нагрузки, индекс ликвидности) и операционной эффективности (скорость оборота ресурсов, время, затрачиваемое на единицу продукции) с показателями развития квалификации персонала и удовлетворенности клиентов;

усовершенствована методика анализа карты сбалансированных показателей с учетом капиталоемкости отрасли, влияния международных рынков и экологических стандартов, что обеспечивает повышение точности стратегического планирования производственных технологий и распределения ресурсов;

обоснована возможность достижения точности оценки эффективности бизнес-процессов на уровне ($0{,}88 \leq bds \leq 0{,}92$) и снижения общих затрат на 10–12% за счет интеграции системы сбалансированных показателей с моделью activity based costing (abc) на примере ао “Узметкомбинат”.

Практические результаты исследования следующие:

разработана расширенная система сбалансированных показателей, интегрирующая финансовые и нефинансовые индикаторы, охватывающая аспекты качества, исполнения и управления затратами в деятельности предприятия;

на основе системы калькулирования затрат по видам деятельности (abc) в управленческом учете созданы возможности для точной идентификации источников затрат, оценки эффективности использования ресурсов и сокращения избыточных расходов;

в организации сформирована карта показателей, что позволило установить критерии измерения и оценки результатов по каждому подразделению и повысить результативность управленческих решений;

на основе разработанной модели систематизирована управленческая отчетность, обеспечены возможности планирования и анализа по центрам затрат, а также предоставлено точное информационное обеспечение для принятия решений по использованию ресурсов в производственных процессах.

Достоверность результатов исследования. Достоверность результатов исследования обеспечивается применением обоснованных подходов и методов, использованием официальных источников данных, анализом фактических материалов, связанных с совершенствованием системы сбалансированных показателей в ао “Узметкомбинат”, а также подтверждается практической реализацией разработанных выводов, предложений и рекомендаций.

Научная-практическая значимость результатов исследования. Научная и практическая значимость результатов исследования заключается в том, что разработанные теоретические подходы, научно обоснованные предложения и методические рекомендации могут быть использованы для дальнейшего развития концепции управленческого учета, адаптации системы сбалансированных показателей к отраслевой специфике, интеграции механизмов учета затрат по видам деятельности и комплексного использования финансовой и нефинансовой информации, а также как теоретическая основа для научных исследований в области совершенствования управленческого учета на промышленных предприятиях.

практическая значимость результатов исследования заключается в возможности использования разработанных рекомендаций для совершенствования управленческого учета на предприятиях черной металлургии, улучшения внутреннего информационного потока с помощью системы сбалансированных показателей, расширения возможностей анализа затрат, повышения производственной эффективности, усиления информационного обеспечения управленческих решений и расширения функциональных возможностей системы управления.

Внедрение результатов исследования. На основе разработанных научных предложений и практических рекомендаций по совершенствованию формирования системы сбалансированных показателей в управленческом учете:

предложение по интеграции показателей управления затратами с показателями качества и выполнения в систему сбалансированных показателей для повышения точности оценки результатов деятельности организации на стратегическом и операционном уровнях в пределах (15% ≤ ba ≤ 20%) и повышения эффективности стратегического управления внедрено в практику ао «узметкомбинат» (справка ао «узметкомбинат» № 01/05-01-01/407 от 26 марта 2025 г.), что обеспечило комплексный анализ деятельности предприятия, целостную оценку показателей и полноту управленческой информации;

предложение по разработке системы сбалансированных показателей, увязывающей показатели финансовой устойчивости и операционной эффективности с развитием квалификации персонала и удовлетворенностью клиентов, внедрено в практику ао «узметкомбинат» (справка № 01/05-01-01/407 от 26 марта 2025 г.), что позволило сбалансировать интересы различных стейкхолдеров и повысить обоснованность управленческих решений;

предложение по совершенствованию методики анализа карты сбалансированных показателей с учетом капиталоемкости отрасли, влияния международных рынков и экологических стандартов внедрено в практику ао «узметкомбинат» (справка № 01/05-01-01/407 от 26 марта 2025 г.), что обеспечило мониторинг ключевых операционных, финансовых и экологических показателей деятельности предприятия;

предложение по интеграции системы сбалансированных показателей с моделью activity based costing (abc) для достижения точности оценки эффективности бизнес-процессов на уровне (0,88 ≤ bds ≤ 0,92) и сокращения общих затрат на 10–12% внедрено в практику ао «узметкомбинат» (справка № 01/05-01-01/407 от 26 марта 2025 г.), что позволило повысить точность идентификации факторов затрат, эффективность распределения ресурсов, достоверность финансовой отчетности и выявление скрытых расходов.

Апробация результатов исследования. Результаты исследования были обсуждены на 2 республиканских и 9 международных научно-практических конференциях и получили положительные отзывы.

Публикация результатов исследования. По теме диссертации опубликовано 22 научные работы, в том числе 6 статей в журналах, признанных вак республики, 5 статей в престижных зарубежных журналах, а также 11 докладов и тезисов на научно-практических конференциях.

Структура и объём диссертации. Диссертация состоит из введения, трех глав, заключения и списка использованной литературы. общий объем диссертации составляет 140 страниц.

E’LON QILINGAN ISHLAR RO‘YXATI
СПИСОК ОПУБЛИКОВАННЫХ РАБОТ
LIST OF PUBLISHED WORKS

I bo‘lim (I часть, part I)

1. Tursunaliev I. (2023, Sep.). The importance of strategic cost management and its implementation in manufacturing industries: A case study of metal producing industries in Uzbekistan “Iqtisodiyot va innovatsion texnologiyalar” (Economics and Innovative Technologies) ilmiy elektron jurnali. 5/2023, sentyabr-oktyabr (№ 00067). pp.106–113.

2. Tursunaliev I.U. (2024, February 22). Enhancing organizational performance and decision-making through the implementation of a balanced scorecard framework. International Journal of Education, Social Science & Humanities. Finland Academic Research Science Publishers. SSN: 2945-4492 (online) | (SJIF) = 7.502 Impact factor. Volume-12| Issue-1| 2024 Published: |22-01-2024, pp.98–106. https://doi.org/10.5281/zenodo.10464218

3. Tursunaliev I.U. (2024, January). Organization of balanced scorecard system in the management accounting of the enterprise. Galaxy International Interdisciplinary Research Journal (GIIRJ), 12(1), pp.347–354.

4. Tursunaliev I.U. (2024, January). Methodological foundations of the organization of balanced scorecard system based on the international standards. International Multidisciplinary Research in Academic Science (IMRAS), 7(1), pp.473–485. https://doi.org/10.5281/zenodo.10573408

5. Tursunaliev I.U. (2025, April 30). The role of balanced scorecards in cost management accounting. American Journal of Business Management, 3(4), pp.12–21. https://doi.org/10.5281/zenodo.15171483

6. Tursunaliev I.U. (2025, April 30). The practice of organizing and implementing balanced scorecard system in “O‘zmetkombinat” JSC. American Journal of Education and Learning, 3(4), pp.232–245. https://doi.org/10.5281/zenodo.15169149

7. Tursunaliev I.U. (2024, February). The application of balanced scorecard system as a comprehensive performance measurement framework for joint stock companies. Iqtisodiy taraqqiyot va tahlil, 2, pp.223–229.

8. Tursunaliev I.U. (2024). Conceptual and theoretical foundations of balanced scorecard system in joint-stock companies. Iqtisodiyot va ta’lim, 1, pp.187–191.

9. Tursunaliev I.U. (2023, September–October). Improving the efficiency of the balanced scorecard system in economic entities. Iqtisodiyot va innovatsion texnologiyalar (Economics and Innovative Technologies), 5, pp.48–52.

10. Tursunaliev I.U. (2025, March 15). Balanced scorecard integration with activity-based costing for enhanced cost management. Pedagog Respublika Ilmiy Jurnali, 8(3), pp.23–33. http://www.bestpublication.org/

11. Tursunaliev I.U. (2025, March 13). Evaluating the effectiveness of balanced scorecards in achieving cost leadership strategies. So‘nggi ilmiy-tadqiqotlar nazariyasi, 8(3), pp.29–42.

II bo‘lim (II часть, part II)

1. Tursunaliev I.U. (2023, November 9). The role of balanced scorecard indicators in management accounting: A literature review. In Problems and Trends in the Development of the Innovation Economy: International Experience and Russian Practice. Proceedings of the 10th International Scientific-Practical Conference (pp. 5–8).

2. Tursunaliev I.U. (2023, November 16). The significance of strategic management in enhancing accounting information system quality in insurance companies in Uzbekistan. In The Role of Insurance in Sustainable Economic Development: Trends, Problems, and Solutions. Proceedings of the International Scientific-Practical Conference (pp. 149–150). – Tashkent.

3. Tursunaliev I.U. (2023, December 25). The role of joint stock companies in the development of the economy of Uzbekistan and their specific aspects. «Теория и практика бухгалтерского учета в условиях интеграции: состояние, проблемы и перспективы развития» по результатам IX международной научно-практической интернет-конференции преподавателей и аспирантов. 25 декабря 2023 г. с.68–72.

4. Tursunaliev I.U. (2023, December 23). Improving the methodology of balanced scorecard system: A literature review. In Innovative Developments and Research in Education. International Scientific-Online Conference, Part 24. Collections of Scientific Works (pp. 53–57). – Canada.

5. Tursunaliev I.U. (2023, December 25). The role of key performance indicators in the balanced scorecard framework. In Innovation in the Modern Education System. Part 36. Collections of Scientific Works (pp. 85–88). – Washington, USA.

6. Tursunaliev I.U. (2023, December 29). Evaluating the effectiveness of balanced scorecard implementation in organizations. In Prospects and Main Trends in Modern Science: A Collection of Scientific Works of the International Scientific Online Conference (Part 7, pp. 8–10). – Madrid, Spain: CESS.

7. Tursunaliev I.U. (2024, October 27–29). Impact of artificial intelligence (AI) on management decision-making. In Proceedings of the 17th International Conference on Knowledge, Economy & Management (pp. 249–254). İstanbul Sabahattin Zaim University & Tashkent State University of Economics. ISBN 978-605-06675-9-2.

8. Tursunaliev I.U. (2024, October 18–19). The effectiveness of activity-based costing in driving environmental cost management within manufacturing companies: A literature review. Yashil buxgalteriya hisobi va raqamlashtirish barqaror iqtisodiy rivojlanishning eng yangi vektorlari sifatida: Xalqaro ilmiy-amaliy konferensiya materiallari to‘plami (pp. 174–178). Tashkent State University of Economics.

9. Tursunaliev I.U. (2024, July 8–9). How can management accounting frameworks be adapted to effectively measure and report on Scope 3 greenhouse gas emissions? Global biznes va savdodagi oʻzgaruvchan trendlar: Xalqaro ilmiy-amaliy konferensiya materiallari toʻplami (pp. 155–164). –T.: Tashkent State University of Economics.

10. Tursunaliev I.U. (2023, December 15). The implementation challenges of the balanced scorecard system. “Zamonaviy ta’lim tizimini rivojlantirish va unga qaratilgan kreativ gʻoyalar, takliflar va yechimlar” mavzusidagi 60-sonli respublika ilmiy-amaliy on-line konferensiyasi materiallari toʻplami, 15-dekabr, 2023-yil, 60-son. pp.99–101.

11. Tursunaliev I.U. (2023, December 15). The balanced scorecard: A comprehensive approach to performance management. “Zamonaviy ta’lim tizimini rivojlantirish va unga qaratilgan kreativ gʻoyalar, takliflar va yechimlar” mavzusidagi 60-sonli respublika ilmiy-amaliy on-line konferensiyasi materiallari toʻplami. 15-dekabr, 2023-yil 60-son. pp.96–98.

Avtoreferat “Innovatsion rivojlanish nashriyot-matbaa uyi” davlat unitar korxonasida tahrirdan oʻtkazilib, oʻzbek, rus va ingliz tillaridagi matnlari oʻzaro muvofiqlashtirildi.

Bosishga ruxsat etildi: 10.11.2025.
Bichimi 60x84$^{1/16}$ “Times New Roman”
garniturada raqamli bosma usulda bosildi.
Shartli bosma tabog‘i 4,0. Adadi 100 nusxa. Буюртма № 195.
“Innovatsion rivojlanish nashriyot-matbaa uyi” davlat unitar
korxonasi bosmaxonasida chop etildi.
Manzil: 100174, Toshkent sh., Talabalar ko‘chasi, 96/1-uy.
Telefonlar: (+998) 97-705-90-35, (+998) 99-920-90-35