

**BANK ISHIDA AXBOROT TEXNOLOGIYALARI FUNKTSIYALARI. KREDIT
OPERATSIYALARINING AXBOROT TIZIMLARI**

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Annotatsiya Ushbu maqolada bank sohasida axborot texnologiyalari va univrovjlantirishning asosiy yo‘nalishlari ko‘rib chiqiladi.

Kalit so’zlar: Mijoz-bank, Internet-banking, mobil banking

Annotation This article examines information technologies in the banking sector and the main directions of its development.

Keywords: Customer-bank, Internet-banking, mobile banking

Kirish

Axborot texnologiyalaridan keng foydalanish ob'ektiv zaruratga aylandi. Ularning ahamiyati an'anaviy ravishda katta bo'lgan sohalardan biri bu moliya sektoridir. Ishonch bilan aytish mumkinki, axborotlashtirish jarayoni bank ishi kelajakda ham davom etadi. Bank sohasida yaqin kelajakda taklif etilayotgan mahsulot va xizmatlar sifati va ishonchlilagini oshirish, hisob-kitob operatsiyalari tezligini oshirish, mijozlarning bank mahsulotlaridan elektron foydalanishini tashkil etish tendentsiyalari ustunlik qiladi. Bu, bиринчи navbatda, banklarning moliyaviy bozorlarda raqobatdosh ustunliklarga erishish istagi bilan bog'liq.

Axborot banki texnologiyasi - shaxsiy va kompyuter texnologiyalaridan foydalangan holda boshqaruva qarorini tayyorlash, qabul qilish va amalga oshirishni ta'minlash uchun ma'lumotlarni to'plash, ro'yxatga olish, uzatish, saqlash va qayta ishslash usullariga asoslangan bank ma'lumotlarini konvertatsiya qilish jarayoni.

Zamonaviy axborot texnologiyalaridan foydalanish banklardagi biznes jarayonlarga tubdan ta'sir ko'rsatadi va o'zgartiradi, ularni tubdan boshqa darajaga olib chiqadi.

Bank texnologiyalari biznesni har tomonlama avtomatlashtirishni ta'minlovchi axborot texnologiyalari bilan uzviy bog'liqdir. Zamonaviy bank texnologiyalari bank biznesini qo'llab-quvvatlash va rivojlantirish vositasi sifatida bir qator fundamental tamoyillar asosida yaratilgan:

- modulli qurilish printsipi, bu keyinchalik kengaytma bilan ma'lum bir buyurtma uchun tizimlarni sozlashni osonlashtiradi;
- turli tashqi tizimlar bilan o'zaro aloqada bo'lishga qodir bo'lgan texnologiyalarning ochiqligi, dasturiy-apparat platformasini tanlash va uning boshqa apparat vositalariga o'tkazilishini ta'minlash;

- bank tizimining modullarini sozlash va ularni muayyan bank ehtiyojlari va shartlariga moslashtirishda moslashuvchanlik;
- biznes-jarayonlarning rivojlanishi bilan tizimning funktsional modullarini kengaytirish va murakkablashtirishni ta'minlaydigan miqyoslilik.
- real vaqt rejimida ma'lumotlarga ko'p foydalanuvchilar kirishi va funksiyalarni yagona axborot makonida amalga oshirish;
- bank va uning biznes jarayonlarini modellashtirish, biznes jarayonlarini algoritmik sozlash imkoniyati;
- biznes jarayonlarini reinjiniring qilish asosida tizimni doimiy rivojlantirish va takomillashtirish.

Hozirgi kunda ommabop texnologiyada rivojlanishning uchta asosiy yo'nalishini ajratib ko'rsatish mumkin: "Mijoz-bank" tizimi, Internet-banking va mobil banking.

Mijoz-Bank tizimi yordamida bank mijozlari uydan yoki ofisdan turib turli operatsiyalarni amalga oshirishlari mumkin: hisobvaraqlarni boshqarish, hisobvaraqlar holati va boshqa bank ma'lumotlarini olish, hisob-kitob va boshqa hisobvaraqlardan to'lovlarni amalga oshirish va xizmatlar uchun haq to'lash hamda plastik kartochkalar, shuningdek, boshqa operatsiyalarni amalga oshirish.

Mobil banking - simsiz ularish texnologiyasidan foydalangan holda mobil telefon yoki noutbuk yordamida bevosita bank xizmatlarini olish. Ushbu texnologiya Internet saytlaridan ma'lumotlarni Internetga ulangan mobil telefonlarga o'tkazish imkonini beradi. Ushbu tizim kirishning yanada erkinligini ta'minlaydi. Mobil telefondan foydalananidan bank xizmatlari iste'molchilari orasida birinchi o'rinni Skandinaviya mamlakatlari egallaydi va mutaxassislarning fikriga ko'ra, yaqin kelajakda mijozlarning 40% dan ortig'i mobil xizmat ularning hisoblari.

Bank axborot texnologiyalarini rivojlantirishning eng istiqbolli yo'nalishi internet-banking hisoblanadi. Masofaviy xizmat ko'rsatish tizimlarining rivojlanishi bank xizmatlarini ko'rsatishning turli hajmlari va shakllari tizimlarini yaratishga olib keldi: Internet-bank, Internet-mijoz, uy banki, telebank, mobil bank yoki WAP xizmati. Ushbu tizimlar yordamida deyarli har qanday, bundan mustasno kassa xizmati, bank mijozlarining talablari. Nafaqat G'arbda, balki Rossiyada ham ko'proq fond bozori ishtirokchilari (banklar va brokerlik kompaniyalari) brokerlik xizmatlarini rivojlantirishning yangi istiqbolli yo'nalishini o'zlashtirmoqdalar, bu esa jismoniy shaxslarga Rossiya va xalqaro valyuta va aktsiyalarga kirishni ta'minlashdan iborat. bozorlar (Internet savdosi).

Zamonaviy elektron tijorat tizimi ikkita asosiy yo'nalishni o'z ichiga oladi: B2B (biznesdan biznesga), bu erda banklar moliyaviy xizmatlarning asosiy ijrochisi va sotuvchisi sifatida ishlaydi va B2C (biznesdan mijozga) - tovar va xizmatlarni sotish. jismoniy shaxslar, bu erda kredit tashkilotlari moliyaviy vositachi sifatida ishlaydi. Mijozlarga xizmat ko'rsatishning so'nggi texnologiyalari yordamida bitta menejer juda ko'p mijozlar bilan faol ishlay oladi. Kredit tashkilotlarining samaradorligi va ko'p

funksiyaliligin kengaytirish bilan bog'liq eng muhim tendentsiya byudjet tizimlarini yaratish va bank resurslarini moliyaviy boshqarishga kompleks yondashuv bo'ldi. Shubhasiz, rus tilining shakllanishi bank sektori bugungi kungacha davom etmoqda. Biroq, bankning kelajagi axborot texnologiyalari bilan qolishi aniq. Hayotning tabiiy qonunlariga ko'ra, eng kuchlisi omon qoladi. Bugungi iqtisodiy sharoitda, allaqachon keng rivojlanayotgan va axborot texnologiyalari faoliyatiga sarmoya kiritayotgan banklar va moliya institutlari omon qolish va omon qolish uchun mo'ljallangan. Rossiya bank tizimi dunyoga birlashmoqda va G'arb raqobatchilariga qarshi kurashni zamonaviy yuqori darajadagi axborot texnologiyalariga tayanmasdan tasavvur qilib bo'lmaydi. Shunday qilib, yangi elektron texnologiyalar banklarga mijozlar bilan munosabatlarni o'zgartirishga va foyda olish uchun yangi vositalarni topishga yordam beradi. Bank ishi kompyuter tizimlari bugungi kunda amaliy tarmoq dasturiy ta'minotining eng tez rivojlanayotgan sohalaridan biri hisoblanadi. Kelajak iqtisodiyoti bilan bir qatorda hamma joyda keng tarqalgan avtomatlashtirish – narsalar interneti (IoT) ham keladi. Vitaliy Pateshman, BSS savdo direktori, shuningdek, mijozlar bilan elektron muloqot orqali daromadlarni oshirish va xarajatlarni kamaytirish haqida gapiradi. Bu kompaniya, xususan, mavjud va potentsial mijozlar bilan o'zaro aloqalarni birlashtiradigan "Elektron ofis" ishlab chiqaradi. Raqamli bankni yaratish jarayonlarni soddalashtirish, yangi tashkiliy madaniyat va bozor tezligini qo'llab-quvvatlaydigan va shaxsiylashtirishni taklif qiluvchi moslashuvchan IT yechimlarini talab qiladi. TAdviser so'rovida qatnashgan TOP30 ta bankning 75 foizi raqamlashtirish bo'yicha vazifalar yagona platformada to'planishi kerak, deb hisoblaydi.

Integratsiya imkoniyatlarini kengaytirish

Boshqa IT innovatsiyalar qatorida ekspertlar, xususan, integratsiya xizmatlarining kengayishi va yangi to'lov tizimlarining paydo bo'lishini alohida ta'kidlaydilar.

R-Style Softlab kompaniyasining RS-Bank bank dasturiy ta'minoti bo'limi direktori o'rinosari Maksim Bolyshevning so'zlariga ko'ra, integratsiya imkoniyatlarini rivojlantirish, masalan, GIS GMP va GIS uy-joy kommunal xizmatlari bilan elektron ma'lumotlar almashinuvini tashkil etishni o'z ichiga olishi mumkin. Bu har qanday shaxsga, hatto ma'lum bir bankning mijizi bo'lmasa ham, unda kerakli to'lovni amalgalashirish va xizmatlar uchun to'lov qarzlarini aniqlash imkonini beradi.

Vitaliy Pateshmanning fikricha, GIS uy-joy-kommunal xizmatlari bilan o'zaro aloqalarni rivojlantirish kommunal xizmatlar bilan ishslashda mijozlarning fikrlarini o'zgartiradi.

FOYDALANILGAN ADABIYOTLAR:

1. qizi Sharopova, M. M. (2023). RSA VA EL-GAMAL OCHIQ KALITLI SHIFRLASH ALGORITMI ASOSIDA ELEKTRON RAQMLI IMZOLARI. RSA OCHIQ KALITLI SHIFRLASH ALGORITMI ASOSIDAGI ELEKTRON RAQAMLI IMZO. Educational Research in Universal Sciences, 2(10), 316-319.
2. Sharopova, M. M. qizi . (2023). JAVA TILI YORDAMIDA OB'EKTGA YUNALTIRILGAN DASTURLASH ASOSLARI BILAN TANISHISH. GOLDEN BRAIN, 1(34), 111–119.
3. Sharopova, M. (2023). CHOOSE: COMPOSITION OR INHERITANCE. Science and innovation in the education system, 2(13), 96-102.
4. Sharopova, M. (2023). JAVA PROGRAMMING IN THE LANGUAGE HERITAGE TO DO SYNTAX. Current approaches and new research in modern sciences, 2(12), 82-87.
5. Sharopova, M. (2023). ARRAY AND ARRAYS INSTALLATION. Development of pedagogical technologies in modern sciences, 2(12), 102-107.
6. Sharopova, M. (2023). CLASSES AGAIN APPLY. Solution of social problems in management and economy, 2(13), 106-111.
7. qizi Sharopova, M. M. (2023). INTRODUCING" PROGRAM CONTROL OPERATORS" IN THE JAVA PROGRAMMING LANGUAGE. Multidisciplinary Journal of Science and Technology, 3(5), 222-231.
8. qizi Sharopova, M. M. (2023). Working with folders in the JAVA programming language. Multidisciplinary Journal of Science and Technology, 3(5), 232-236.
9. Sharopova, M. (2024). CREATION OF A DATABASE FOR THE SYSTEM PLATFORM OF NON-GOVERNMENT EDUCATIONAL CENTERS. Current approaches and new research in modern sciences, 3(1), 185-191.
10. Sharopova, M. (2024). DSA ERI STANDARD. ELECTRONIC DIGITAL SIGNATURE OF GOST R 34.10-94. Theoretical aspects in the formation of pedagogical sciences, 3(1), 169-178.
11. Sharopova, M. (2024). COLLECTORS.(OBJECT CONTAINERS). Development of pedagogical technologies in modern sciences, 3(1), 93-101.
12. Sharopova, M. (2024). JAVA PROGRAMMING IN THE LANGUAGE FLOWING INPUT AND RELEASE. Solution of social problems in management and economy, 3(1), 84-93.
13. Quvvatov, B. (2024). SQL DATABASES AND BIG DATA ANALYTICS: NAVIGATING THE DATA MANAGEMENT LANDSCAPE. Development of pedagogical technologies in modern sciences, 3(1), 117-124.

14. Quvvatov, B. (2023). ALGEBRAIK ANIQLIGI YUQORI BOLGAN KVADRATUR FORMULARAR. UMUMLASHGAN TRAPETSIYALAR QOIDASI. Академические исследования в современной науке, 3(7), 137-142.
15. Bobokulova, M. (2024). BLOOD ROTATION OF THE SYSTEM PHYSICIST BASICS. Инновационные исследования в науке, 3(1), 64-74.
16. Bobokulova, M. (2024). THE ROLE OF NANOTECHNOLOGY IN MODERN PHYSICS. Development and innovations in science, 3(1), 145-153.
17. Boboqulova, M. X. (2023). STOMATOLOGIK MATERIALLARNING FIZIK-MEXANIK XOSSALARI. Educational Research in Universal Sciences, 2(9), 223-228.
18. Xamroyevna, B. M. (2023). ORGANIZM TO ‘QIMALARINING ZICHLIGINI ANIQLASH. GOLDEN BRAIN, 1(34), 50-58.
19. Bobokulova, M. K. (2023). IMPORTANCE OF FIBER OPTIC DEVICES IN MEDICINE. Multidisciplinary Journal of Science and Technology, 3(5), 212-216.
20. Khamroyevna, M. B. (2023). PHYSICO-CHEMICAL PROPERTIES OF BIOLOGICAL MEMBRANES, BIOPHYSICAL MECHANISMS OF MOVEMENT OF SUBSTANCES IN THE MEMBRANE. Multidisciplinary Journal of Science and Technology, 3(5), 217-221.
21. Bobokulova, M. K. (2024). TOLALI OPTIKA ASBOBLARINING TIBBIYOTDAGI AHAMIYATI. GOLDEN BRAIN, 2(1), 517–524.
22. Boboqulova, M. (2024). FIZIKA O`QITISHNING INTERFAOL METODLARI. B CENTRAL ASIAN JOURNAL OF EDUCATION AND INNOVATION (T. 3, Выпуск 2, сс. 73–82).
23. Boboqulova, M., & Sattorova, J. (2024). OPTIK QURILMALARDAN TIBBIYOTDA FOYDALANISH. B INNOVATIVE RESEARCH IN SCIENCE (T. 3, Выпуск 2, сс. 70–83).
24. Boboqulova, M. (2024). FIZIKAVIY QONUNIYATLARNI TIRIK ORGANIZMDAGI JARAYONLARGA TADBIQ ETISH . B MODELS AND METHODS IN MODERN SCIENCE (T. 3, Выпуск 2, сс. 174–187).
25. Boboqulova, M. (2024). IONLOVCHI NURLARNING DOZIMETRIYASI VA XOSSALARI. B DEVELOPMENT AND INNOVATIONS IN SCIENCE (T. 3, Выпуск 2, сс. 110–125).
26. Boboqulova, M. (2024). KVANT NAZARIYASINING TABIATDAGI TALQINI. B ACADEMIC RESEARCH IN MODERN SCIENCE (T. 3, Выпуск 7, сс. 68–81).
27. Muxtaram Boboqulova Xamroyevna. (2024). GEYZENBERG NOANIQLIK PRINTSIPINING UMUMIY TUZILISHI . TADQIQOTLAR.UZ, 34(3), 3–12.

28. Muxtaram Boboqulova Xamroyevna. (2024). THERMODYNAMICS OF LIVING SYSTEMS. Multidisciplinary Journal of Science and Technology, 4(3), 303–308.
29. Muxtaram Boboqulova Xamroyevna. (2024). QUYOSH ENERGIYASIDAN FOYDALANISH . TADQIQOTLAR.UZ, 34(2), 213–220.
30. Xamroyevna, M. B. (2024). Klassik fizika rivojlanishida kvant fizikasining orni. Ta'liming zamонавиy transformatsiyasi, 6(1), 9-19.
31. Xamroyevna, M. B. (2024). ELEKTRON MIKROSKOPIYA USULLARINI TIBBIYOTDA AHAMIYATI. PEDAGOG, 7(4), 273-280.
32. Муродов, О. (2024). РАЗРАБОТКА АВТОМАТИЧЕСКОЙ СИСТЕМЫ УПРАВЛЕНИЯ ТЕМПЕРАТУРЫ И ВЛАЖНОСТИ В ПОМЕЩЕНИЯХ. В CURRENT APPROACHES AND NEW RESEARCH IN MODERN SCIENCES (T. 3,
33. Murodov, O. (2024). INNOVATIVE INFORMATION TECHNOLOGIES AND NEW METHODS AND TOOLS FOR THEIR APPLICATION IN TODAY'S EDUCATION. В CENTRAL ASIAN JOURNAL OF EDUCATION AND INNOVATION (T. 3, Выпуск 2, сс. 83–92).
34. Murodov Oybek Turakulovich. (2024). Development of an automated system for controlling temperature and humidity in production rooms. Multidisciplinary Journal of Science and Technology, 4(3), 403–409.
35. Murodov Oybek Turakulovich. (2024). Development of an automated system for controlling temperature and humidity in production rooms. Multidisciplinary Journal of Science and Technology, 4(3), 819–826.
36. Murodov Oybek Turaqulovich. (2024). Development of an automated parameter control system rooms and workshops based on cloud technologies. Multidisciplinary Journal of Science and Technology, 4(3), 827–835.
37. Murodov Oybek Turakulovich. (2024). BASIC PRINCIPLES AND RULES OF INNOVATIVE PEDAGOGICAL TECHNOLOGIES IN THE EDUCATIONAL PROCESS. Multidisciplinary Journal of Science and Technology, 4(3), 836–843.
38. Murodov Oybek Turaqulovich. (2024). APPLIED TO THE CURRENT TRAINING PROCESS REQUIREMENTS. Multidisciplinary Journal of Science and Technology, 4(3), 844–850.
39. Murodov Oybek To'raqulovich. (2024). IMPROVING THE TEACHING PROCESS OF IT AND INFORMATION TECHNOLOGIES BASED ON AN INNOVATIVE APPROACH. Multidisciplinary Journal of Science and Technology, 4(3), 851–859.
40. Sadriddinovich, J. T. (2024). ANALYSIS OF PSYCHOLOGICAL DATA IN ADOLESCENTS USING SPSS PROGRAM. PEDAGOG, 7(4), 266-272.

41. Akhmedova, Z., & Rahmatova, N. (2024). LMS (LEARNING MANAGEMENT SYSTEM) LEARNING MANAGEMENT SYSTEM FEATURES. *Science and innovation in the education system*, 3(1), 85-94.
42. Akhmedova, Z. (2024). CREATION OF A DATABASE FOR THE SYSTEM PLATFORM OF NON-GOVERNMENT EDUCATIONAL CENTERS. *Development of pedagogical technologies in modern sciences*, 3(1), 106-116.
43. Akhmedova, Z. (2024). IPHONE OPERATIONAL IN THE SYSTEM MOBILE APPLICATIONS TO CREATE INTENDED PROGRAMMING ENVIRONMENTS. *Current approaches and new research in modern sciences*, 3(1), 111-121.
44. Axmedova, Z. I. (2024). LEARNING MANAGEMENT SYSTEM IMKONIYATLARI. *GOLDEN BRAIN*, 2(1), 509-516.
45. Axmedova, Z. I. (2023). MA'LUMOTLAR BAZASI BOSHQARISH TIZIMLARI. *GOLDEN BRAIN*, 1(34), 40-49.
46. Akhmedova, Z. (2023). CREATION AND PLACEMENT OF INTERACTIVE ELEMENTS. *Solution of social problems in management and economy*, 2(13), 120-128.
47. Ikromovna, A. Z. (2023). Programming Environments for Creating Mobile Applications on the Android Operating System. *American Journal of Public Diplomacy and International Studies* (2993-2157), 1(10), 305-309.
48. Akhmedova, Z. (2023). EDUCATIONAL MANAGEMENT SYSTEMS,
49. ELECTRONIC EDUCATION: TASKS AND OPPORTUNITIES. *Theoretical aspects in the formation of pedagogical sciences*, 2(21), 171-177.
50. Ikromovna, A. Z. (2023). SQL (STRUCTURED QUERY LANGUAGE) CAPABILITIES OF THE STATISTICAL DATABASE LANGUAGE. *Multidisciplinary Journal of Science and Technology*, 3(5), 274-280.
51. Ikromovna, A. Z. (2023). SQL (STRUCTURED QUERY LANGUAGE) STATISTICAL PACKAGES OF CAPABILITIES. *Best Journal of Innovation in Science, Research and Development*, 2(12), 781-787.
52. Zulkumor, A. (2022). IMPLEMENTATION OF INTERACTIVE COURSES IN THE EDUCATIONAL PROCESS. *ILMIY TADQIQOT VA INNOVATSIYA*, 1(6), 128-132.
53. Axmedova, Z. (2023). MOODLE TIZIMI VA UNING IMKONIYATLARI. *Development and innovations in science*, 2(11), 29-35.