

THE DIGITAL BANKING REVOLUTION AND THE PREMISES FOR THE EMERGENCE OF NEOBANKS IN MOLDOVA

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Abstract. The digital banking revolution has profoundly changed the way banks operate today. This transformation is also due to the emergence of neobanks, which have forced traditional banks to adapt to these major changes. The digital banking revolution has been driven by the introduction of digital technologies such as mobile applications, artificial intelligence, and blockchain. All of these have changed the way customers access and interact with banks. Compared to traditional banks, neobanks have excluded branches and/or counters from their infrastructure and offer online services at low cost and with 24/7 accessibility. In the Republic of Moldova, the conditions for the emergence of digital banks are emerging. They are linked to the introduction of technology in banks, financial education, and the need for financial inclusion. The advantages of neobanks over traditional banks are cost, transparency, accessibility, speed, and personalization. However, they also come with a number of disadvantages: lack of physical contact, limited use by the elderly, regulation, limited services when complex banking services are required, and exclusive dependence on technology and the internet. In the Republic of Moldova, in addition to the premises mentioned above, which are specific to all countries, there are also specific local premises, such as migration and the diaspora. The future of neobanks in the Republic of Moldova depends on their ability to adapt to local specifics. The research methods will be description, comparison, analysis and synthesis. At the end of the research, we will present the research findings materialized in conclusions and recommendations.

Keywords: banking, education, information technology, finance, behavior

JEL Classification: G21, G28, G51

1. Introduction

Over the past two decades, the banking sector has undergone a radical transformation, known as the digital banking revolution. This is driven by digitalization. The digital banking revolution represents a major shift in the financial sector. This shift involves moving from traditional business models to digital business models. This transition can be based on moving away from physical branches and delivering financial services through mobile applications, online platforms and emerging technologies, involving personalized offers and solutions. The biggest challenges facing the global economy at the stage of digital transformations remain cybersecurity and regulations.

2. KEY TRENDS IN THE DIGITAL BANKING REVOLUTION

The revolution is characterized by several interconnected trends, which redefine the way banks interact with customers.

Figure 1 details the main trends that the digital revolution is recording.

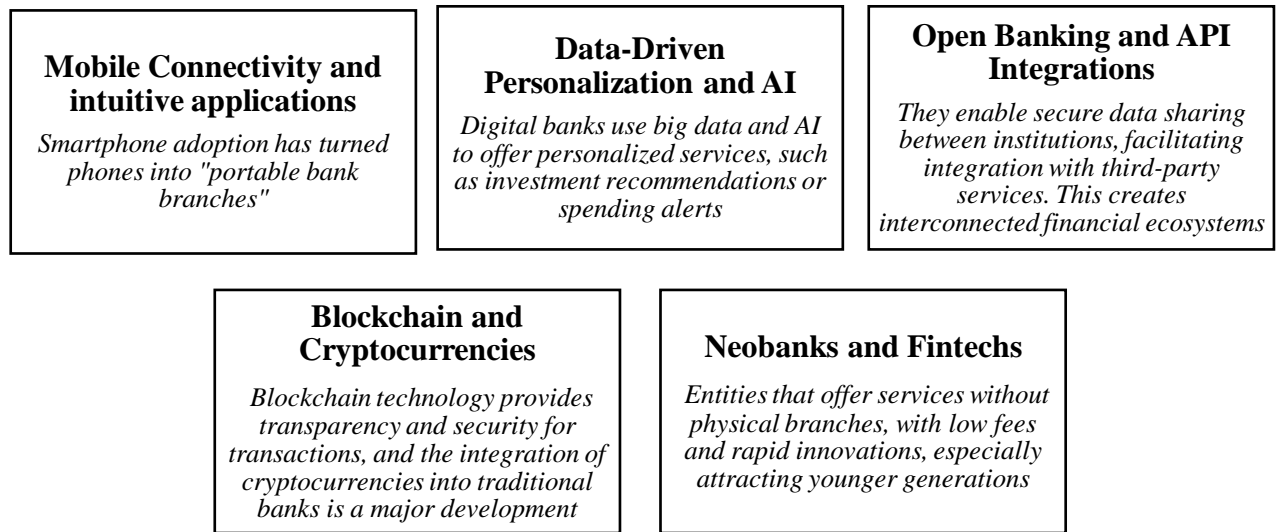


Figure 1. Key Trends in the Digital Banking Revolution

Source: authors own study

Figure 2 shows the trends that Fintechs are working with in collaboration with banks:

- „Open Banking (or BaaS, Banking as a Service) - enables secure data sharing and collaboration between financial institutions, technology companies and customers” (www.squadstack.ai.,2025);
- „Embedded Finance involves the incorporation of financial services and products into non-financial platforms, such as e-commerce sites, mobile applications. Technological advances, such as application programming interfaces (APIs) and cloud computing, have contributed to the rapid growth of integrated finance”; (www.squadstack.ai.,2025);
- „The Internet of Things (IoT) without human intervention, these devices collect and exchange data in real time and perform specific actions, including financial transactions, fraud detection and credit scoring”; (www.squadstack.ai.,2025);
- „Artificial intelligence and machine learning. The fintech industry has leveraged AI and ML to automate tasks such as managing customer data, detecting human errors, recommending management strategies, preventing fraud and performing quality checks. Chatbots and self-learning applications can provide insights into customer behavior and help improve financial services”. (www.squadstack.ai.,2025);

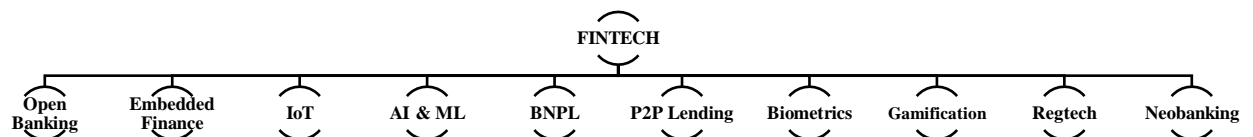


Figure 2. Current Fintech Trends

Source: based on squadstack.ai. (2025)

- *Buy Now Pay Later (BNPL)* – „this emerging fintech trend allows users to make purchases and defer payment over time. With BNPL, customers can divide the total amount into smaller, interest-free installments, usually over a fixed period. It has gained popularity due

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- to its simplicity, fast approval process, and the absence of interest if paid on time” (www.squadstack.ai,2025);
- *Alternative Lending (or P2P Lending)* „is a fintech trend that refers to unconventional lending models and platforms that provide access to credit outside of traditional banks. It includes peer-to-peer lending, crowdfunding, and online lending marketplaces” (www.squadstack.ai,2025);
- *Biometrics* „uses unique physical characteristics, such as fingerprints, facial recognition, voice recognition, or iris scans, to verify and authenticate individuals in financial transactions. The use of biometrics in financial technology has significantly increased security, reduced fraud and improved user experience” (squadstack.ai,2025);
- *Gamification* – „the application of game-like elements such as digital badges and rewards, cashback and vouchers, loyalty points, etc., in financial services engages and motivates users” (www.squadstack.ai,2025);
- *Regtech* „uses technologies such as compliance monitoring, data analytics, risk management tools and reporting systems to facilitate regulatory compliance in the fintech industry” (www.squadstack.ai,2025);
- *Neobanking* – „online banks that operate without physical branches are among the fintech trends. These digital-only banks offer everything a traditional bank offers: online account opening, virtual bank cards, instant payments, budgeting tools and more” (www.squadstack.ai,2025).

Let's analyze the latest developments in fintech and current trends in finance. Next, we will analyze statistical data on different aspects of the development of FINTECHs. They will be structured into several groups:

- *Fintech penetration in global banking revenues* - "Fintech has penetrated only 3% of global banking and insurance revenues, but is growing 3 times faster than traditional banks. By 2030, it is projected to reach 13% of banking revenues" (www.bcg.com, 2025);
- *the size of the global Fintech market* - “The fintech market is valued at \$280 billion in 2025, with a growth projection to \$1,382 billion by 2034. Banks are integrating these solutions to remain competitive” (www.acropolium.com, 2025);
- *Fintech Investments* - "Fintech attracted \$26.7 billion in investment in the Americas, with 1,092 deals, many involving partnerships with banks for payment services and digital banking." (www.kpmg, 2025);
- *AI market in Fintech* - "Valued at \$115.4 billion in 2025 (up from \$14.13 billion in 2024), used by banks for fraud and personalization; projected to reach \$250.98 billion by 2029." (www.siegemedia, 2025);
- *Instant Payments Adoption (FedNow)* - "1,200 financial institutions participate in FedNow in 2025 (up from 400 in 2024), accelerating banks' transition to real-time payments." (www.playd, 2025);
- *number of fintech unicorns* - "414 fintech unicorns by early 2025, many collaborating with banks for embedded finance." (www.fortunly, 2025). "This term "unicorn" was assigned back in 2013 by Aileen Lee, founder of a venture capital investment fund, to the 39 companies that at that time had a value of over 1 billion dollars, and this metaphor was used to emphasize the rarity of such start-ups".(www.diez.md, 2024);
- *Biometrics Market in Banking* - "\$33.5 Billion in 2025, Improving Security and Authentication in Banking Applications” (www.squadstack.ai, 2023);
- *Open banking users* - "From 24.7 million in 2020 to 132.2 million in 2024, with a growing trend in 2025; banks use open banking for collaborations with fintechs"(www.squadstack.ai, 2023).

The digital revolution faces obstacles, which we present in figure 3:

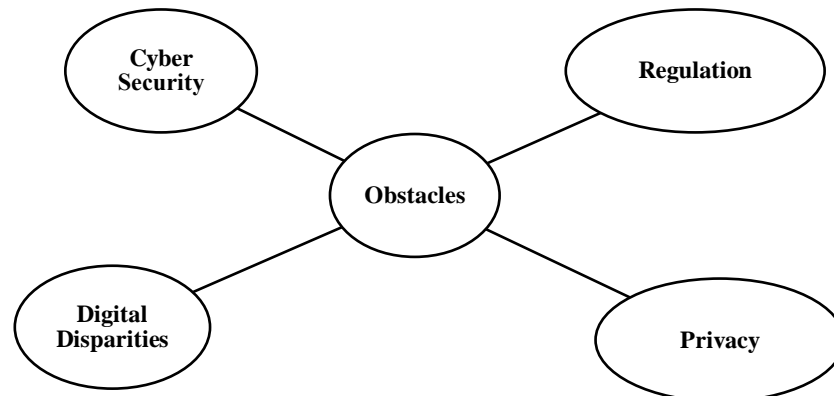


Figure 3. The digital revolution encounters obstacles

Source: authors own study

Although promising, the revolution faces obstacles:

- „*Cyber Security* - the rise in cyberattacks requires investment in security;
- *Regulation*: the European Central Bank impose strict standards to prevent risks, but uneven regulations can stifle innovation in emerging countries.
- *Digital Disparities*: Not everyone has access to the internet, exacerbating inequalities (e.g. in rural areas).
- *Privacy*: The use of data raises ethical concerns, requiring frameworks such as the GDPR” (www.eur-lex.europa.eu, 2018).

3. NEOBANKS AT THE CURRENT STAGE

Neobanks have gained rapid popularity in recent years, attracting millions of users with low fees, intuitive interfaces and fast access to financial services.

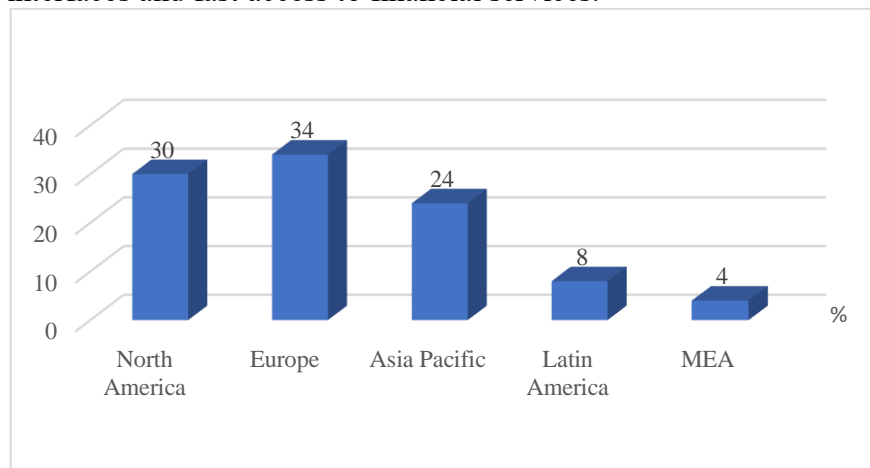


Figure 4. Neobanking Market Share, By Regions, 2024 (%)

Source: based on www.precedenceresearch.com (2025)

Neobanking has become a global phenomenon, with major players growing in different parts of the world. The neobanking market is expanding rapidly and undergoing a major shift.

Europe is the most developed region. While the US and Europe are leaders in this market, other regions, such as Asia Pacific and Latin America, are also seeing growth in neobanking.

Neobanks are a perfect fit for small businesses, digitally savvy individuals, and Generation Z looking for simple and easy-to-use banking services. These customers are often attracted to neobanks because of their cutting-edge technology, low costs, and digital convenience.

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Partnerships between neobanks and traditional banks may increase, reshaping the financial services sector as a whole.

Table 1. Top Neobanks by User Base (2024)

| Neobank | Revolut | N26 | Bunq | Monzo | Straling Bank |
|--------------|-------------------------------|-------------------|-------------------|-------------------|-----------------|
| No. of users | >50 million, (global, Europe) | 9 million, Europe | 9 million, Europe | 9 million, global | 3,5 million, UK |

Source: based on www.sdk.finance (2025)

„Revolut dominates with expansion in 38 countries, offering services such as cryptocurrencies and loans. European non-bank revenues to exceed \$40 billion globally in 2023 (CAGR 32% since 2019)” (www.sdk.finance, 2025).

Europe dominated the neobanking market in 2024. The convenience of online and mobile banking services has led to a growing adoption of digital banking solutions among European consumers.

Below, I present key statistical data on the size of the market. These statistics reflect the evolution and projections until the end of 2034.

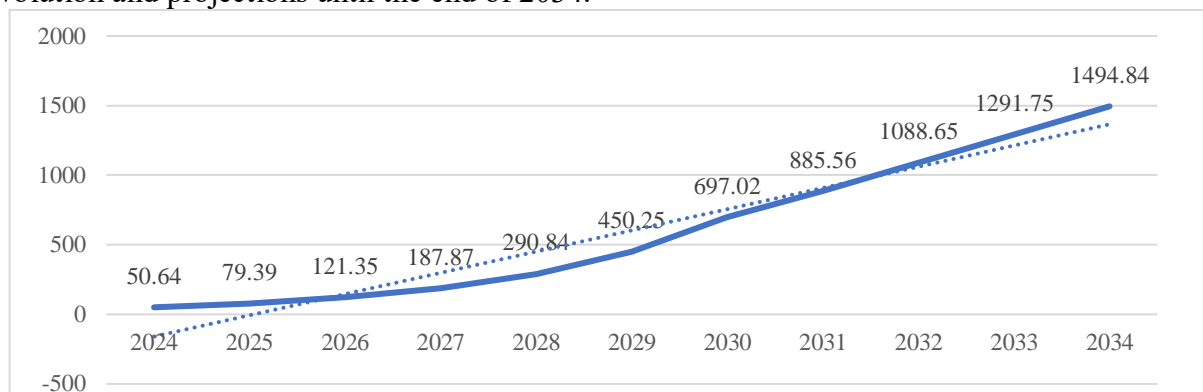


Figure 5. Europe Neobanking Market Size and Growth 2025 to 2034

Source: based on www.precedenceresearch.com (2025)

“The neobank market in Europe has experienced accelerated growth in recent years, driven by mobile technologies, PSD2 (Payment Services Directive 2) regulations and consumer preferences for personalized financial services. According to recent data, Europe dominates the neobanking segment globally, accounting for approximately 31.5% of the global market in 2024. The market value (USD billion) is 50.64, with an annual growth rate of 40.28%” (precedenceresearch.com, 2025).

The revolution is not limited to developed countries; it is influencing emerging economies, providing opportunities for innovation and competition.

4. THE PREMISES FOR THE EMERGENCE OF DIGITAL BANKS IN THE REPUBLIC OF MOLDOVA

Moldova faces challenges such as dependence on remittances and foreign loans, a rigid traditional banking system, and increasing penetration of digital technology.

The digital banking services market in the Republic of Moldova is experiencing rapid growth, driven by European integration, regulations such as alignment with SEPA (Single Euro Payments Area), and the implementation of open banking.

„Moldova is aligning with EU standards: 60% of public services for businesses are available online as of June 2024, including digital payments. Contactless and mobile payments are growing rapidly, with SEPA enabling low-cost transfers. Instant payments became operational in February 2024, and open banking APIs were rolled out in August 2024, allowing third-party providers

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(TPPs) like Revolut Lite (launched in 2023 without an NBM license)” (<https://chambers.com, 2025>).

Percentage of the Population Using Digital Banking Services in the Republic of Moldova:

- *General Financial Inclusion:* „Approximately 70-75% of the adult population (over 18 years) has access to bank accounts or formal financial services, according to BNM and World Bank reports from 2023-2024. Of these, adoption of digital services (e.g., mobile apps, electronic payments) is estimated at 50-60%, driven by the launch of the MIA instant payment system in 2024. This marks an increase from 40% in 2022, fueled by SEPA integration and open banking” (www.interoperable-europe.ec.europa.eu, 2024).
- *„MIA Instant Payments Adoption:* By June 2025, the MIA system has over 600,000 users (including individuals and businesses), processing over 1 million transactions monthly with a cumulative value of 4.8 billion MDL. With a resident population of approximately 2.4 million (per the 2024 Census), this corresponds to a penetration rate of about 25% of the total population or 30-35% of the adult population (estimating 1.8-2 million adults). Additionally, digital payment volumes have surpassed cash withdrawals at ATMs, indicating a behavioral shift toward digital channels” (www.interoperable-europe.ec.europa.eu, 2024);
- *Other Digital Indicators:*
 - a) *Government Electronic Payments (MPay):* Used by over 40% of households for taxes and fines in 2024, per the European Commission Factsheet.
 - b) *Smartphone Penetration:* Approximately 75% of the population in 2024, crucial for mobile banking, though rural internet access limits adoption to 50% in rural areas.

„These estimates are based on the National Financial Inclusion Strategy (SNIF 2030), launched in 2025, which targets 80% digital inclusion by 2030, focusing on financial education and rural access. Challenges include: only 60% of public services are online, and 40% of the population (rural) has limited internet access” (www.bnm.md, 2025).

„The data and analysis regarding the contribution of digital banking to SDG 8 (Decent Work and Economic Growth) in the Republic of Moldova, including statistics on remittances, microfinance, and digital banking adoption, are sourced from credible and publicly available reports. Below are the exact links to the sources referenced, along with a brief description of the specific information each provides. These sources support the claims about remittance volumes (2 billion USD, 13-15% of GDP), MIA instant payment system usage (600,000 users, 4.8 billion MDL transactions), microfinance loans (2.5 billion MDL, 200,000 beneficiaries), SME employment (60% of workforce), digital banking adoption (50-60% of adults, 25% of population), and MPay usage (40% of households)” (www.bnm.md, 2025).

Table 2. Data on digital banking services in the Republic of Moldova

| Digital Indicator | Value 2024-2025 | Details |
|-------------------------------------|-------------------------------|---|
| Online Public Services (Businesses) | 60% (June 2024) | Includes MPay for government transactions |
| Instant Payments | Operational since Feb. 2024 | Aligned with SEPA; expected growth |
| Open Banking (API Rollout) | Launched Aug. 2024 | Enables AIS/PIS services; NBM registration required |
| Contactless/Mobile Payments | CAGR +54.85% (POS, 2019-2023) | Includes NFC, QR, mPOS |
| Digital Wallets & In-App Payments | Growing; Revolut Lite active | Integration with local banks |

Source: based on <https://chambers.com/legal-trends/the-future-of-digital-finance-and-currency-in-moldova> (2025)

To restore confidence after several crises, the National Bank of Moldova (NBM) has implemented strict regulations including the adoption of Basel III standards. However, the

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Moldovan banking system is highly concentrated. The main premise for non-banks is the need for innovation.

The premises for the emergence of non-banks in the Republic of Moldova are:

- *technological factors* – along with other investments, investments in 4G/5G infrastructure, facilitate access to fintech services;
- *economic and socio-demographic factors* – Moldova’s economy is characterized by a high dependence on remittances, and international transfers are expensive through traditional banks. Neobanks offer low commissions (below 1% for transfers), which is a strong economic premise;
- *regulatory framework* – NBM regulations allow non-bank entities to provide financial services. This opens the door for non-banks, allowing licenses for electronic money institutions.

Conclusions

Digital banking is changing finance. It brings efficiency, accessibility, and innovation. Technologies are developing fast. Banks must balance innovation with security and inclusion. In the future, the metaverse and decentralized finance (DeFi) may expand this change. Governments and institutions should promote digital education. They should also create adaptable rules. Future research can study the impact on economic sustainability.

Impact of digital banking:

- *For consumers:* It offers 24/7 access. It has low fees. It supports financial inclusion. However, benefits are greater in urban areas with good internet.
- *For industry:* Traditional banks are digitizing. Some partner with fintech companies. Others merge.
- *Global impact:* In developing economies, it helps with fast money transfers. It supports microfinance. It contributes to Sustainable Development Goals (SDG 8: Decent work and economic growth).

Neobanks offer access through mobile apps or websites. Customers like the accessibility without branches. Neobanks have low costs. So, they offer good interest rates on loans and savings accounts. Often, they have no fees for transactions or account management. Their services are simple and easy to use. Customers prefer neobanks because they are used to digital platforms. These banks attract customers who want low banking costs.

Neobanks focus on customers. They offer personalized services. They add new features, like real-time notifications, budgeting tools, or connections with other financial apps. Customers want convenient and personalized services. Neobanks meet these demands. They change the banking market through innovation and customer focus.

Neobanks can operate globally. They expand their services to many countries. This way, they attract more customers and grow in the neobank market.

Neobanks in Moldova started for many reasons. Technology is improving. The economy needs help. Young people use digital tools a lot. Rules are getting better.

Neobanks can change banking. They lower costs. They make banking easier for more people. This helps with sustainable goals.

The future depends on foreign money and local changes.

To get the most benefits, leaders should support digital learning and online safety. Future studies can look at how neobanks help people in Moldova access banking.

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