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The Diffusion of Non-banking Services in the Bulgarian Banking Market

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Abstract. *Traditional banks in Bulgaria are gradually shifting towards a more diversified service offering, incorporating features such as mobility services, investment options, leasing services, insurance offerings and other lifestyle related features, incorporated in digital channels predominantly. Digitalization of core banking products has emerged as a key enabler of this transformation, providing platforms for seamless service integration and enhanced customer experiences in an emerging ecosystem landscape. Analysis of this trend on the Bulgarian banking market is not currently available.*

These developments reflect the ecosystem business development approach, described in the literature, as a broader digital transformation shaping the financial industry worldwide. The new EU legislation related to open finance (FIDA and PSD 3), the Digital Euro and the strengthened IT risk management with DORA, creates and additional pressure to incumbent banks to innovate and offer value added financial services to remain relevant.

The study analyzes the diffusion of non-banking services in the Bulgarian banking market. The findings reveal different behavior regarding digital adoption and introduction of non-banking services. Market leaders are leveraging advanced digital functionalities to enhance customer experiences, while mid-level and lagging performers have opted out for other strategic differentiators, however, they are confronted with challenges in terms of market performance and customer satisfaction. Alongside the digitalization market leaders implement non-banking services.

Keywords: non-banking services diffusion, digital transformation, Bulgarian banking market, trends in banking, banking ecosystem development, banking market leaders' strategy, customer-centric innovation.

Introduction

The banking industry is undergoing a profound transformation driven by rapid technological advancements and shifting consumer preferences. The accelerating disruptive effect of information technologies (IT) on value chains and business models is abolishing existing speed limits across industries (Grasser et al, 2018). Across the globe, financial institutions are extending their offerings beyond traditional banking products to include a range of non-banking services, aimed at embedding themselves into customers' daily lives (Sirakova-Yordanova, 2024). This trend is also visible in the Bulgarian banking sector, where the integration of non-banking services (NBS) is used as a market differentiator, especially by market leaders.

Bulgaria is a unique testbed for banking and fintech sector transformation from an eco-system perspective (Radev and Penev, 2024). Bulgarian companies have been instrumental for different pioneering developments worldwide such as transformation of a mobile phone into a POS terminal (initially Blackberry and then iPhone – both done by Datecs) and for developing mobile payment technologies (Software Group Bulgaria). At the same time the prevailing studies of Bulgarian banking system focuses on systemic risk measurement (Radev, 2023) or credit risk management (Boutchaktchiev, 2023).

The transition toward digital banking in Bulgaria has been shaped by the dual forces of competition among incumbent banks and international fintechs and the growing convergence of

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mobile technology with various other services. In the last 20 years household credit (share of total credit) increased relatively to the business from 38,4% in 2005 to 44,4% in September 2024. If we add the remittances, it is obvious that retail banking has a growing impact on banks' decisions to innovate. Mobile banking applications are evolving into comprehensive platforms that not only facilitate financial transactions but also provide added conveniences beyond pure banking such as personal finance management and investment tools, insurances, mobility services and even environmental impact calculators. These innovations are reshaping customer expectations and driving higher engagement, particularly among youngsters (including under the age of 18) and tech-savvy demographics, leading to client loyalty and enhanced engagement.

However, the diffusion of non-banking services is uneven across the Bulgarian market. (Sirakova-Yordanova, 2024). While some leading banks, such as United Bulgarian Bank (UBB) and Unicredit Bulbank, have established themselves as pioneers with extensive offerings, smaller institutions often lag behind, constrained eventually by limited resources and strategic focus. This disparity draws the attention of examining the level of adoption of non-banking services by banks on the market and its correlation to overall digitalization of core products, market share and customer loyalty.

This article delves into the diffusion of non-banking services within the Bulgarian banking market, analyzing different behavioral patterns of banks related to their digital maturity and non-banking banking service offerings mainly related to the retail. By investigating the interplay between digitalization, non-banking service adoption, and market dynamics, this study seeks to provide insights into the strategic opportunities and challenges faced by financial institutions in Bulgaria. The article contributes to a deeper understanding of how non-banking services can drive innovation and competitiveness in an increasingly digital financial landscape.

Literature review

This literature review examines the root causes that predetermine the strategy of banks to expand their offerings towards non-banking services and cooperate in ecosystems to create stickiness for clients throughout the holistic customer journeys. The recent key EU regulatory developments (already in force or in consultation phase) —DORA (Digital Operational Resilience Act), the Digital Euro, FIDA (Financial Data Access Regulation), and PSD3 (Revised Payment Services Directive)—are also playing a pivotal role in shaping this transformation. While these regulations impose compliance challenges, they also accelerate the shift towards open, digital, and resilient financial ecosystems.

On the background of the technological developments and digital boom worldwide (and specifically on the Asian market) traditional banks in the financial sector are seeking opportunities to transform and leapfrog. There is a growing saturation concerning banks' traditional retail and corporate banking business. New partnerships focus on "beyond banking" solutions, which emphasizes the transformation of banks towards solution providers that are able to provide services beyond the scope of traditional banking services. (Junghanns et al, 2019). This leads "future proof banks to connect to partners to be able to offer customers the best products and services available in the market (Junghanns et al, 2019). Those banks embrace ecosystems, collaborating with diverse organizations that provide digitally accessed, multi-industry solutions based on emerging technologies. (Sengupta et al, 2019). Ecosystem is defined as an interconnected set of services enabling users to fulfil a variety of needs in one integrated experience with the following characteristics (Sengupta et al, 2019):

- Ecosystems act as gateways that reduce the friction customers encounter when they have to switch between related services. Users can acquire a variety of products and services by having access to a single platform.
- Ecosystems use network effects that give companies a strategic scale advantage. For instance, Nest, the maker of an ecosystem of smart-home products, provides customers with a monthly report that details their energy usage and allows them to compare it with their neighbors'.
- Ecosystems integrate data that helps companies create value-added products and services, and superior experiences, for their customers. For instance, a bank might use its users' locations and spending trends to offer merchant-specific coupons.

The 2017 Global Banking Annual Review by McKinsey (Dietz et al, 2017) argues that traditional banking incumbents that successfully orchestrated an ecosystem strategy, by building partnerships and monetizing data, could improve profitability; and that those that went further to build their own platforms could elevate return on equity (ROE) by capturing share in non-core markets. Authors deliberate that banks already possess three vital ingredients for ecosystem success, starting with the customer's trust. Research shows that among the companies that are likely to be participants in the integrated economy, banks are not only near the top of the most-trusted list, but also several times more trusted than social media firms, telcos, technology companies, and retailers. Customer data is stated as another essential ingredient. Most banks hold vast, unique data sets about both retail and corporate clients: transactions, demographics, income, call-center notes and chat transcripts, and website usage logs. And with their strong position on trust, banks are expected to be able to obtain more consistent consent to use that data than most other companies. Further, by combining their financial data with other customer data sets, banks can develop deeper insights into the preferences and behavior of consumers. In the report the authors underline that already in 2017 Banks around the world have started to capitalize on their customers' trust and data to build distinctive, end-to-end customer experiences in which they offer both banking and other services. It also explains why the ecosystem strategy is so powerful for banks. Primarily because it puts them firmly on a path to improving profit in their core business in two ways. First, a powerful platform will help retain customers and improve cross-selling. Second, with a network of partners and a digitally sophisticated platform, banks can acquire customers for a fraction of the cost they are used to. Partners with big customer bases present extraordinary opportunities. With rich data, banks can develop insightful underwriting strategies.

According to Faschnacht (2021) "banks must get engaged in ecosystems and invest in mobile platforms as a part of their digital transformation strategy." The author stresses on banks specialization in "intimate relationship management" based on confidentiality and trust. However, the next generation client is entirely mobile and digital, seeking fully individualized 24/7 solutions, combining leisure with business and expecting always an exciting experience. Additionally, the European Payment Services Directive (PSD2) requires banks to allow third parties to access account information and payment services via electronic interfaces, called open APIs. This policy already paved the way for open banking and forces traditional banks to open up their business models and processes to third parties with wide-ranging consequences. Faschnacht (2021) recommends adaptation of banks' models towards ecosystem management based on monetization of transaction data. According to the author the "super-apps" model represents a successful example to leverage open banking and to create value from digital ecosystems by bringing together various industry players.

Dutta (2020) sees the risk of disintermediation for banks as a real thread. It is not only FinTechs taking care of customers' banking needs, but also third-party aggregators drive the customers away from their banks. Therefore, banks and financial services firms need to establish a portfolio of digital platforms to offer digital financial solutions. Open Banking is referred to as a possible answer to the reality where open banking is seen as a platform-based business approach in which data, processes, and business functionalities are shared by an ecosystem of banks, customers and third-party players, FinTechs and partners (Dutta, 2020). Moreover, Dutta (2020) defines the bank of tomorrow as a "customer-centered platform." as retail customers want banks to enable integrating e-commerce, social media and retail payments. Customers also want banks to enable switching seamlessly across digital platforms.

The report "The open revolution is here competing through collaboration in financial services" [1] (Deloitte, 2021) underlines that financial services providers will increasingly be competing on technology-driven innovations. The winners will meet the customers' demand for easy and personalized transactions, accessed through a single point. The capability needed to provide these services is secured by the open banking. Open banking is defined as a "platform-based ecosystem approach where data, processes, and functionalities are made available to and shared with various players, including but not limited to banks, customers, third-party developers, FinTech companies, and other partners." In this endeavor, the management of APIs connectivity and partner enablement is crucial.

Worldwide examples of traditional banks that have engaged into ecosystem cooperation and provision of non-banking services include[2] banks such as DBS Bank in Singapore (collaborating in several ecosystems including travel, property, automotive and education), Ping An, China (finance, health, motor, real estate and smart city ecosystems), Westpac, Australia (Buy-Now-Pay-Later leader Afterpay – their first partner for its banking-as-a-service (BaaS) offering) and the Spanish digital bank BBVA (a major partner to Uber), which operates in USA and Mexico as well.

The list of banks that have adopted the strategy of "beyond banking" and ecosystem creation and/or collaboration could be extended with many other examples, such as Revolut, Sberbank, OTP Bank, WeBank, KBC Bank (Sirakova-Yordanova, 2024). The European banking industry recently experienced a spike in the ecosystem-based business models (Reiter, 2024). The factors behind this development are 1) regulatory changes, such as the European Union's Payment Service Directive (PSD2) that initiated a push toward more open business models in banking 2) technological disruptions have fostered the emergence of specialized digital firms along the industry value chain, gradually eroding the advantages of vertically integrated models (such companies in Bulgaria are Iris Solutions, Paysera and Evrostrust Technologies); 3) large technology firms (e.g., Alphabet, Meta Platforms,, and Amazon) have intensified their efforts to enter attractive segments of the financial services industry. These industry trends triggered the strategic reorientation of established banks to move from standalone products to integrated value propositions (Reiter, 2024).

The transformational process of banks towards creation and/or participation in digital ecosystems, subject to the current analysis, is above all predetermined and steered by the changing consumer behaviors and expectations. A new paradigm emerged defining the business models around the needs of the customer versus the previous focus on the service provider (Figure 1).

[1] "The open revolution is here Competing through collaboration in financial services", Deloitte, 2021

[2] Building digital ecosystems and driving the future of banking, EY

"A change in paradigm is redefining the way consumers are serviced by breaking the silos of offerings and creating one-stop-shop ecosystems to fulfil customer's wants and needs. In this new paradigm, banks will succeed where they can embed their products and services at the point of need"(Pugh, 2022).

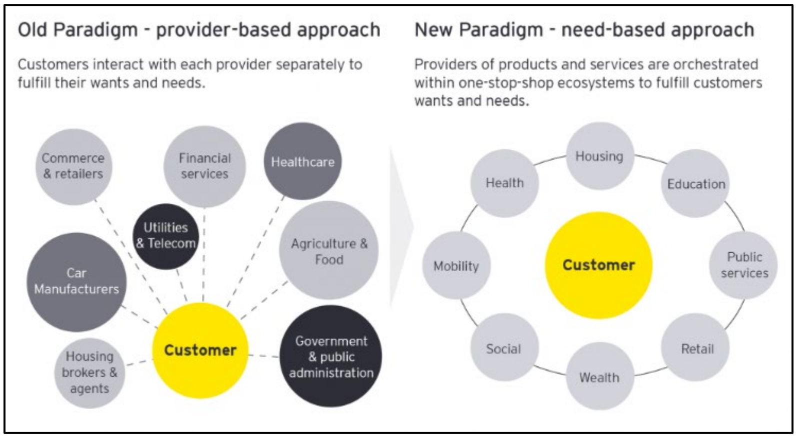

Figure 1

Source: Pugh (2022).

The literature review suggests that banks must be able to focus attention on its customers and their requests, trying to understand what their needs and requirements are, placing itself more and more, not as a simple bank, but as a multiservice platform, in order to earn over time an important competitive advantage (Stefanelli et al., 2023). And indeed, many financial institutions envision their future operations as digital platforms complemented by a few physical branches, embodying the concept of open banking (Rousseau, 2019; Camerinelli, 2020 in Stefaneli et al, 2023).

Bulgarian banks emerged as trusted partners to SMEs in the overall management of EU funds and lately providing digital calculators for carbon footprint (i.e. UBB).

The potential new non-banking services, which could emerge soon include adaptable payment orders on clients' demand, which could integrate with accounting systems for automated accounting or check-out integrators through PSD2 based apps which would by-pass major credit-card authentication and would provide cheaper direct debit e-commerce payments.

Methodology

The banks on the Bulgarian banking market are undergoing a process of digital transformation with different level of digitalization of core banking propositions. Hand in hand with this development and in line with the ecosystem development approach for sustainable banking business, we also observe a trend of banks going beyond core banking propositions in their mobile banking applications – the main retail oriented digital channel, however, with different pace of adoption among players.

This study's objective is to explore the diffusion of non-banking services by all operating banks on the Bulgarian banking market. It aims to:

- Categorize banks based on their adoption of digital and non-banking services with a focus on the mobile banking application.

- Analyze the correlation between the digitalization of core banking offerings, non-banking services propositions and market share.
- Provide strategic recommendations to enhance competitiveness of the different categories of banks.

The research method used is descriptive analysis based on searches in public sources of information (official websites and app stores), observation of app usage by different users and in-depth interviews with bank employees from the digital transformation and development departments of largest banks. 52 proxy indicators have been identified to measure the digitalization of core banking tools and products (used to define DIGI index) and the non-banking services offerings in the mobile applications of the banks (used to define NBS index).

The scope of the research is encompassing all 17 registered and operating banks on the Bulgarian market (the registered branches of foreign banks are not analyzed).

The dataset includes detailed information on Bulgarian banks (as of January 2025), including:

- DIGI index: Measures the digitalization of core banking products over 25 indicators.
- NBS index: Quantifies non-banking services offered within mobile applications over 27 indicators.
- Market Share (MS): Proportion of total banking assets held by each bank (data used is for full 2023 year[3]).

Results and discussions

Bulgarian banks have different strategies and performance regarding digitalization and non-banking service introductions.

Table 1. Categories of banks based on level of digitalization of core banking products and integration of non-banking services (NBS)

Category	Digitalization (DIGI INDEX)	Non-Banking Services (NBS INDEX)	Market Share (%)	Key Observations	Banks
Category 1: Low Digitalization, Minimal NB Services	2–4	0–2	~2.9%	Basic functionality; caters to niche segments; lacks differentiation.	Bulgarian Development Bank EAD , D Commerce Bank, Tokuda Bank
Category 2: Low to moderate digitalization, Minimal NB Services	6–9	1–4	~8.8%	Moderate digital presence but lacks service diversification.	Allianz Bank Bulgaria, Texim Bank, Central Cooperative Bank (CCB), Municipal Bank
Category 3: Moderate digitalization, minimal NB services	10–15	1–4	~9.0%	Balanced offerings; competitive in niche areas; minimal customer engagement beyond banking.	Bulgarian-American Credit Bank, TBI Bank, Investbank, International Asset Bank, ProCredit Bank

[3]BNB Statistis, 2023

Category	Digitalization (DIGI INDEX)	Non-Banking Services (NBS INDEX)	Market Share (%)	Key Observations	Banks
Category 4: High Digitalization, Moderate NB Services	16–20	5	~30.3%	Advanced digital capabilities; moderate non-banking adoption in mobile; strategy for partnerships	DSK Bank, Postbank
Category 5: High Digitalization, Comprehensive NB Services	20–22	9–13	~46.9%	Market leaders; robust ecosystems combining banking and lifestyle solutions.	United Bulgarian Bank (UBB), UniCredit Bulbank, First Investment Bank (FiBank)

Source: Authors' own research.

Banks in Category 5 have the top 3 cumulative ranks of digitalization and non-banking services (31, 33 and 35 index points) and represents almost half of the market (UBB and Unicredit Bulbank are the 1st and 3rd banks and FiBank holds the 5th position by assets) Unicredit and UBB first embraced the digital identification & authentication of the local start up Evrotrust and introduced digital onboarding of retail clients in its mobile applications at the end of 2019 and beginning of 2020 respectively. UBB also pioneered the pre-approved mobile consumer loan – a fully digital process with disbursement within hours (2021). FiBank first introduced card experience in mobile application for youngsters below 18. With regard to non-banking services, UBB was the first on the market with a focus on mobility services, introducing the e-vignette payment in mobile app in 2021, followed by FiBank on the same year and Unicredit in 2024. UBB continued to expand automotive-related services such as EV stations map (2024). In 2024 FiBank & Unicredit released separate car/transport services tabs in their mobile applications to bundle all transport related services at one place. In 2024 Unicredit added features such as payment of taxes and road and parking fines, notification for expiry of technical check of the car, validity of driving license, e-vignette and insurances. Unicredit recently publicly announced that 720K of their clients use digital services on a daily basis[4].

Banks from Category 4 include two distinct market leaders, DSK and Postbank, at 2nd and 4th place by assets respectively, which are also progressively digitizing their core banking offerings (with a slightly slower pace – 21 and 25 index points, compared to banks from Category 5). Those banks demonstrate a more moderate approach toward incorporating non-banking services in their mobile banking applications. The reason for this development could be either the demographics of the customer base (higher share of clients in age category above 60, particularly for DSK) where the added value of non-banking services is expected to be lower or technological & back-end related impediments (high costs for third-party services integration, mobile app performance issues, back-end flexibility, ect.). Instead, DSK Bank and Postbank are observed to engage into partnerships with different market players to strengthen their innovative image and to popularize their core banking offerings in a different than banking context. DSK Bank supports the mobility ecosphere in Bulgaria with its participation in the project of digitalization of the ticketing system of the common transport in the capital Sofia, providing the payment infrastructure. In early 2024

[4] https://manager.bg/%D1%81%D0%BF%D0%B8%D1%81%D0%B0%D0%BD%D0%B8%D0%B5/business-signature/ot-hartia-kam-ekran-

DSK announced a partnership with Cyrcl (e-bikes renting platform), where the focus in again on the payment functionality (virtual POS by DSK). Also in 2024, DSK Bank was popularized as a main partner of the local URBO City – a mobile application that provides easy digital mobility and parking solutions in many cities and resorts in Bulgaria and also operates as a lifestyle application[5]. Additionally, DSK Bank in its attempt to provide a comprehensive customer experience when the client needs a new car or a new home creates the respective platforms novakola.bg and dskhome.bg as a demonstration of holistic ecosystem thinking approach. Postbank announced recently that they will renew their mobile banking application with more features and new services to be launched in 2025[6]. Also, Postbank implemented a gamification approach for employee retention and improvement of efficiency, described in Mushmov and Dragneva (2023).

Banks from Category 3 represent a mixture of banks with moderate to high digitalization (with two players in this category – ProCredit and TBI Bank with highest score in terms of digitalization) and less non-banking services, incorporated in the mobile banking applications. The total index points vary from 11 to 19, with an average of 14,8. TBI Bank is highly focused on commercial credits through embedded financing tools and it is the only bank on the market with integrated shopping marketplace in its mobile banking application. TBI focuses not only on online shoppers (and related commercial credits) but also on online retailers to which TBI offers easy integration as a credit payment tool on installments. ProCredit bank is a highly digitalized bank with a primary specialization on servicing business clients in the SME segment and hence, the non-banking offerings dedicated toward the retail audience seems to be with less relevance for this bank. The rest of the stack are three small Bulgarian owned banks that are striving to remain relevant on their niche markets and to respond to their clients' needs in terms of digital propositions and non-banking services in line with the direction set by the market leaders.

Banks from Category 2 primarily consist of smaller, local institutions that exhibit low to moderate levels of digitalization and offer minimal non-banking services. These banks are niche players with limited market shares and are currently focused on digitizing their core product offerings. The limited emphasis on non-banking services can be attributed to prioritizing the digital transformation of core banking products at this stage. The range of total index points is between 7 and 13 with an average of 10,25. The high integration costs of non-banking services are not offset by economies of scale, due to the low market share of these banks.

Category 1 consists of three banks with little customer demand towards digitalization or non-banking services. Bulgarian Development Bank is a credit institution 100%-owned by the Bulgarian state, which in 2022 had 20 clients holding 90% of its portfolio[7], hence no particular need to provide neither additional digital, nor non-banking services. Tokuda Bank is a small bank that was acquired by Bulgarian-American Credit Bank in 2024 and is undergoing a merger process and recently disabled its mobile banking application. D Commerce Bank is a niche player with less than 1% market share, servicing business clients predominantly. It demonstrates very low pace of digitalization. D Commerce Bank released a mobile banking application only in October 2024.

Analysis of relationships:

- The inclusion of NBS in mobile banking applications of banks goes hand in hand with the strategy of intense digitalization of core banking offerings. (Figure 2)

[5] New era for city services with URBO City, supported by DSK and Visa

[6] https://www.postbank.bg/en/Digitalno-bankirane/Novo-Mobilno-bankirane

[7] https://offnews.bg/ikonomika/shefat-na-bbr-90-ot-portfejla-e-daden-na-20-firmi-781738.html

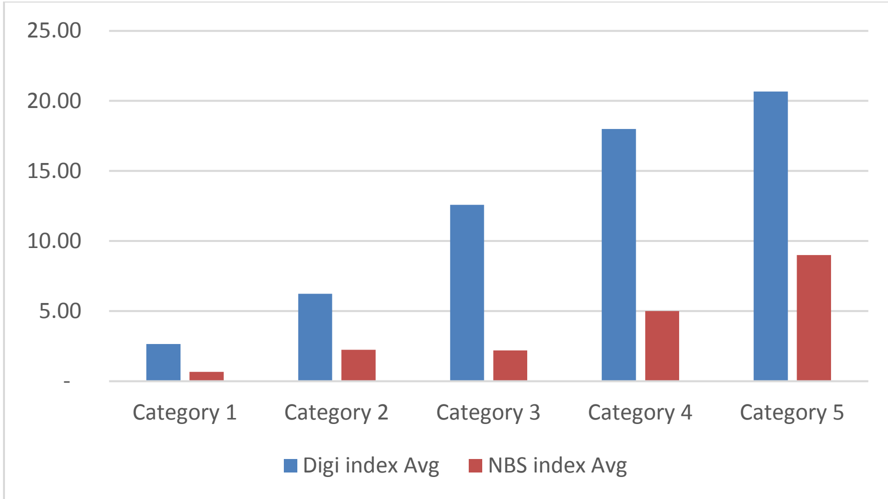

Figure 2. Comparison of categories by average Digi index & NBS index

Source: Authors' own research.

- Banks in categories with higher levels of digitalization and non-banking service index dominate the market (Figure 3) and benefit from enhanced customer retention and engagement (Figure 5).
- Lower categories represent banks with lower market penetration and certain specialization or local players, servicing specific group of clients.

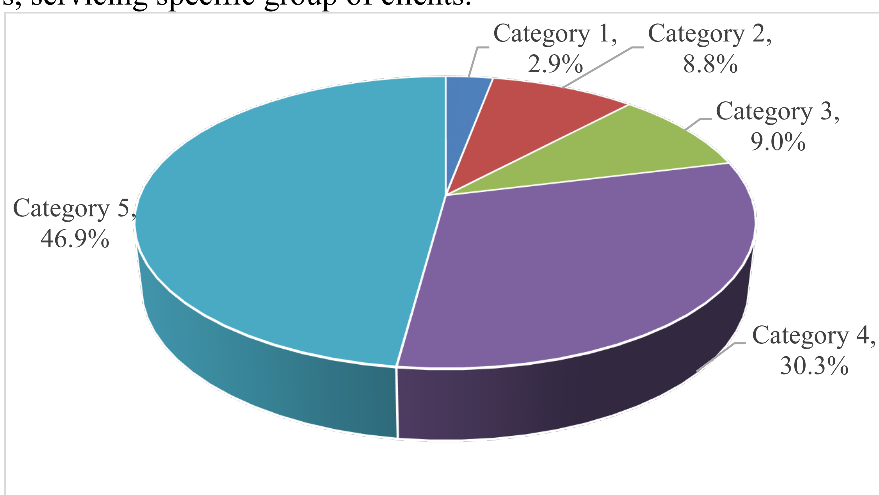

Figure 3. Market share in total asset value by categories (as of end of 2023)

Source: Authors' own research.

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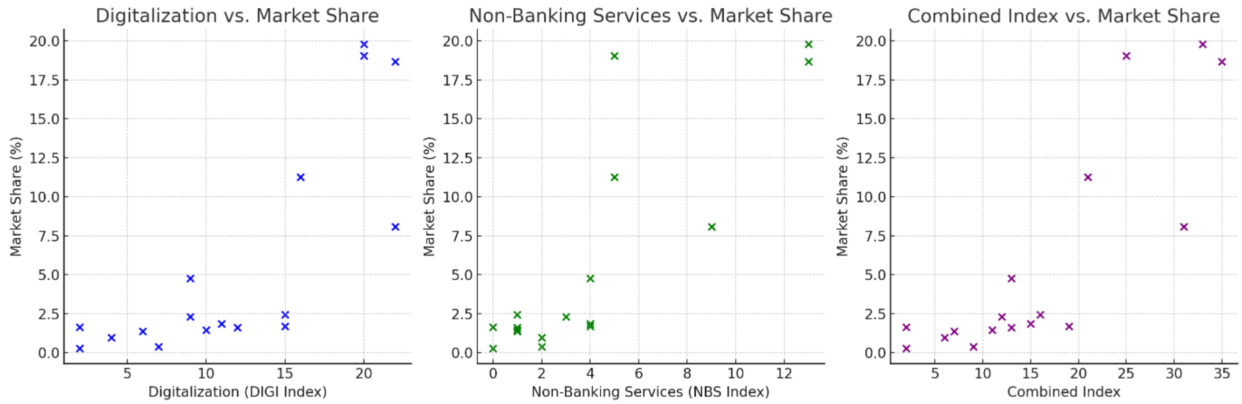

Figure 4. Scatter Plots

Source: Authors' own research.

The scatter plot analysis demonstrates the following relationships:

- There is a statistically significant positive correlation (*p-value* is 0.005) between the level of digitalization (DIGI Index) and Market share or investing in advanced digital platforms directly correlates with greater market presence.
- A moderate positive correlation (*p-value* is 0.032) is observed between the breadth of non-banking services (NBS Index) and market share. Banks holding larger market shares are increasingly offering a broader range of non-banking services.
- The strongest and significant correlation (*p-value* is 0.001) is observed between the Combined Index and Market share. Banks excelling in both digitalization and non-banking services are clear market leaders.

The correlation matrix (Figure 5) provides insights into the relationships between Digitalization (DIGI Index), Non-Banking Services (NBS Index), and app rankings (Google Play Rating and Apple Store Rating as of December 20, 2024). All p-values are less than 0.01. The key observations are:

- **Digitalization and App Ratings:** Better digital capabilities significantly enhance user satisfaction. Both Google Play (0.93) and Apple Store ratings (0.93) show a very strong positive correlation with digitalization.
- **Non-Banking Services and App Ratings:** Banks offering diverse non-banking services tend to have higher app ratings, but the impact is slightly weaker compared to digitalization. Moderate to strong correlations with Google Play (0.67) and Apple Store ratings (0.68) are observed.
- **Digitalization and Non-Banking Services:** Banks with advanced digital infrastructure are more likely to offer robust non-banking services, indicating complementary development. Strong positive correlation (0.88) is observed.

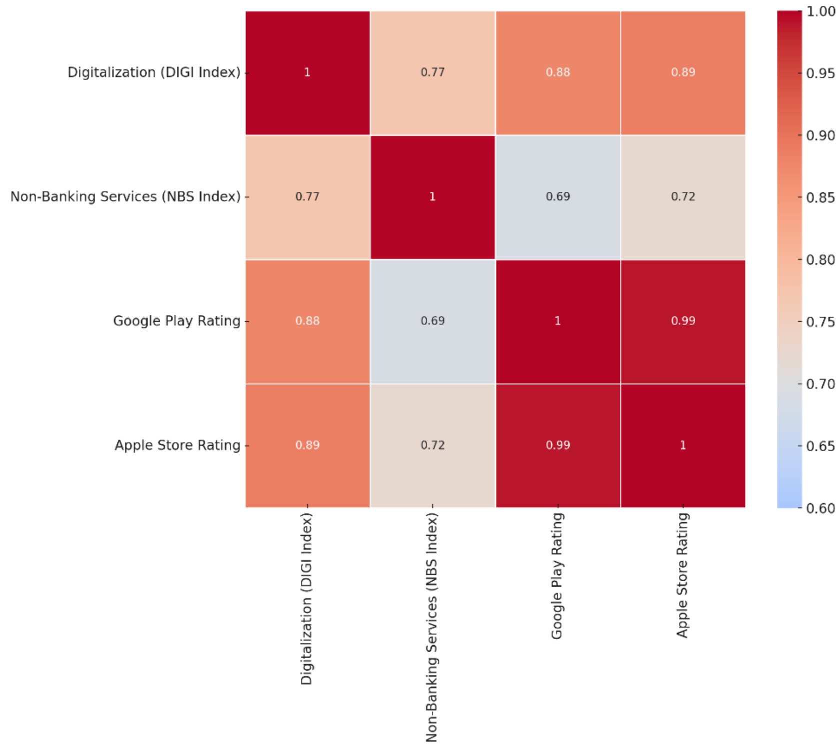

Figure 5. Correlation Matrix: Digitalization, Non-Banking services, and App ratings

Source: Authors' own research.

Main considerations:

Categories 4 and 5 illustrate the advantages of integrating digital platforms with diverse service portfolios with the inclusion of NBS. These banks not only command a significant market share but also enjoy high customer satisfaction, as reflected in their app ratings. Categories 1 and 2, by contrast, highlight the challenges faced by traditional banks with limited digital and NBS capabilities. The low market share and poor app ratings in these categories suggest that customers increasingly value digital convenience and diversified offerings.

A synergistic approach, combining digital platforms with diverse service offerings, is the strategy that goes hand in hand with market leadership and high customer satisfaction. Banks that simultaneously enhance digital infrastructure and non-banking service diversity enjoy the highest app store ranking of their mobile banking applications.

Conclusion

The diffusion of NBS in the Bulgarian market demonstrates the transformative potential of digitalization in reshaping traditional banking landscapes. As observed, banks that combine robust digital platforms with diverse service portfolios command a significant market share and enjoy higher customer satisfaction. Categories 4 ("established players") and category 4 ("innovative leaders") provide a roadmap for success, leveraging digital tools and NBS to address evolving customer demands.

Collaboration with fintechs, regtechs, investment in customer-centric digital tools, and diversification of service portfolios will be critical for banks aiming to strengthen their market positions and to remain relevant. Digital transformation and broadening service horizons of

Bulgarian banks improves their operational efficiency and strengthens their position within the ecosystem as holistic solutions providers. The evolving EU regulatory framework—including DORA, the Digital Euro, FIDA, and PSD3, alongside with MiCA (Markets in Crypto-Assets Regulation), Electronic Identification, Authentication, and Trust Services regulation (eIDAS) and the AI Act—is reshaping the financial industry, pushing banks beyond their traditional roles. These regulations collectively foster greater digital resilience, open finance, and competition, compelling banks to reinvent their business models. Banks that adapt proactively, embedding compliance, personalization, and embedding comprehensive customer journeys within their platforms, will thrive as holistic financial service providers. Ultimately, the ability to differentiate through innovation, regulatory agility, and customer-centric strategies will determine which banks sustain relevance in this increasingly competitive and tech-driven financial landscape.

Future research should focus on longitudinal tracking of digitalization and converging services in the ecosystems. These advancements will have a profound effect on the banking industry by differentiation and personalization in response to the dynamic needs of customers and open finance trends.

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