

How Do Banks and Retail Networks Collaborate to Adopt to Market Changes in the Era of Technological Singularity

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ABSTRACT

The rapid development of digital technologies and the increasing integration of artificial intelligence (AI) and automation systems are reshaping financial and retail markets. In response to these shifts, banks and retail networks are strengthening their collaboration to adapt to evolving consumer behaviors, technological advancements, and new regulatory frameworks. Key challenges include rising consumer expectations, the growing influence of AI-driven decision-making, and the integration of financial and retail services into digital platforms. According to a 2023 McKinsey & Company report, 73% of consumers expect personalized offers based on an analysis of their purchasing and transactional behaviors. This study aims to identify the strategies used by banks and retail networks to collaborate and adapt to market changes driven by technological transformation. The key research questions include:- What collaboration models are being implemented in response to advancing digitization?- Which technologies have the most significant impact on bank-retail cooperation?

A qualitative case study analysis was conducted on major banks and retail networks operating in the Polish market, including PKO BP, Santander Bank Polska, ING Bank Śląski, and retail chains such as Biedronka, Lidl, and Żabka. The research methodology included document analysis (industry reports, strategies of banks and retail chains) and database content analysis, focusing on financial and technological innovations. The study revealed that AI-driven solutions and data analytics play a crucial role in the collaboration between banks and retail networks, enabling them to respond effectively to changing market conditions. Several dominant trends were identified: 1. Integration of Buy Now, Pay Later (BNPL) payment models – platforms such as Allegro Pay and Twisto saw a 42% increase in BNPL transactions in 2023. 2. Open banking and API integration – 58% of Polish banks have implemented open APIs, enabling seamless integration with retail applications and streamlining shopping processes (e.g., mBank's integration with PayU and Blik).

The collaboration between banks and retail networks in the era of technological singularity is an essential strategy for adapting to market changes and maintaining competitive advantage. The study results indicate that in the coming years, further convergence of the financial and retail sectors is expected, potentially leading to new hybrid business models."

Keywords: AI-driven analytics; digital retail networks; digital transformation; fintech innovation; payment integration; transaction security