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THE IMPACT OF FINTECH TECHNOLOGIES ON ACCOUNTING AND THE BANKING-FINANCIAL SYSTEM

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Abstract. The rapid development of Financial Technology (FinTech) is significantly influencing accounting practices and the banking-financial system. Digital payment systems, artificial intelligence, blockchain technology, and automated financial platforms are accelerating accounting processes while improving accuracy and transparency. In accounting, the ability to process information in real time has emerged, reducing human-related errors. In the banking and financial sector, FinTech solutions contribute to enhancing customer service quality, ensuring faster and more secure transactions, and improving the efficient management of financial resources.

Keywords: FinTech, Accounting, Banking and Financial System, Digital Technologies, Blockchain, Artificial Intelligence, Automation, Financial Innovation, Electronic Payments, Cybersecurity.

Introduction. The development of modern financial markets has fundamentally transformed the information and algorithmic foundations of banking services through technological convergence. Today, the stability and competitiveness of financial institutions are determined not only by the volume of their capital but also by their ability to effectively adopt and utilize FinTech technologies. Digital transformation processes are reshaping traditional banking models, directing them toward cognitive finance and decentralized systems.

At the same time, the assessment of innovations and their integration into banking ecosystems still lacks a unified scientific framework. Therefore, the development of a comprehensive system of indicators for measuring technological transformation remains a relevant research issue.

Studies of banking innovations indicate that traditional accounting indicators cannot fully reflect the actual economic value created by technological advancements. Consequently, factors such as technological adaptability, digital infrastructure, and adaptive capacity should also be considered in the evaluation process.

Main Directions for Assessing Banking Innovations

Direction	Key Indicators	Description
Technological Infrastructure	APIs, Open Banking, IT Systems	Reflects the bank's level of digital adaptability
Financial Efficiency	ROI, Cost-Benefit Analysis	Measures the economic outcomes of innovations
Customer Ecosystem	User Experience (UX), Digital Loyalty, Net Promoter Score (NPS)	Indicates customers' utilization of digital services

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Cybersecurity	MTTR, Security Metrics	Reflects system stability and protection levels

In recent years, academic research on the implementation of FinTech technologies in the banking sector has expanded significantly. Digital transformation

contributes to improving service quality, reducing operational costs, and enhancing customer experience. Research commonly employs efficiency, risk management, and customer satisfaction as key evaluation criteria.

Furthermore, FinTech is widely recognized as a major driver of banking competitiveness. Mobile banking, artificial intelligence, and digital platforms create broader opportunities for attracting and retaining customers. Certain studies also emphasize cybersecurity and data protection as critical areas of concern.

International practices in evaluating banking innovations are based on a comprehensive approach. Technological readiness, infrastructure development, and regulatory environments are considered key factors. In addition, financial indicators such as Key Performance Indicators (KPIs) and Return on Investment (ROI) are extensively applied.

Research Methodology. The research methodology is based on systems analysis, hierarchical approaches, and Multi-Criteria Decision Analysis (MCDA). The primary objective is to integrate various indicators into a unified "FinTech Integration Index." This approach enables a comprehensive assessment of banking innovations.

Components of the Research Methodology

Results and Discussion. The findings suggest that banking innovations should be evaluated through a multi-layered assessment system. Each bank can be analyzed through four key components representing its "digital DNA." This framework enables the identification of technological challenges and facilitates the assessment of the economic contribution of individual innovation projects.

Radar analysis demonstrates that all dimensions must remain balanced. Weakness in one component can reduce overall performance and efficiency. Therefore, innovation processes

Method	**Purpose**	**Outcome**
Hierarchical Analysis	Classification of indicators into different levels	Systematic evaluation model
Delphi Method	Expert assessment	Determination of weighting coefficients
MCDA	Multi-criteria decision-making	Selection of optimal indicators
Statistical Normalization	Standardization of data measurements	Enhanced comparability

require continuous monitoring and evaluation.

Human capital also plays a vital role in innovation-driven development. If employees lack sufficient digital competencies, even advanced technologies may fail to deliver the expected outcomes. Consequently, investment in workforce training and digital skill development is essential for successful FinTech integration.

Conclusion. In conclusion, technological convergence processes within modern financial markets are fundamentally transforming the functional structure of banking systems. The rapid development of FinTech technologies is driving banking services toward a new stage characterized by digitalization, automation, and algorithm-based management.

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These developments indicate that traditional financial indicators alone are insufficient for evaluating banking performance. The analysis confirms that effective management of banking innovations requires a comprehensive, multi-dimensional, and hierarchical metric system. Such an approach enables the assessment of technological infrastructure, financial performance, customer ecosystems, and cybersecurity as interconnected components of a unified framework.

Furthermore, the study highlights the importance of human capital and digital competencies in evaluating innovative activities. Employees' technological adaptability directly influences the speed and effectiveness of innovation implementation within banking institutions.

Overall, the proposed metric framework supports the transition of banking decision-making processes toward a data-driven model. This transformation contributes to accelerating digitalization, reducing investment risks, and enhancing compliance with international FinTech standards, thereby strengthening the competitiveness and sustainability of the banking sector.

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