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A. Poltorak,
Doctor of Economic Sciences, Professor, Head of the Department of Management
and Marketing, Mykolayiv National Agrarian University, Mykolaiv, Ukraine
ORCID ID: https://orcid.org/0000-0002-9752-9431
A. Ahafonov,
Postgraduate student, Faculty of Management,
Mykolayiv National Agrarian University, Mykolaiv, Ukraine
ORCID ID: https://orcid.org/0009-0004-7480-0163

CONCEPTUAL FOUNDATIONS FOR EVALUATING THE EFFECTIVENESS OF SECURITY-ORIENTED MANAGEMENT IN COMMERCIAL BANKS

А. С. Полторак,
д. е. н., професор, завідувач кафедри менеджменту та маркетингу,
Миколаївський національний аграрний університет, м. Миколаїв, Україна
А. О. Агафонов,
аспірант факультету менеджменту,
Миколаївський національний аграрний університет, м. Миколаїв, Україна

КОНЦЕПТУАЛЬНІ ЗАСАДИ ОЦІНЮВАННЯ ЕФЕКТИВНОСТІ БЕЗПЕКООРІЄНТОВАНОГО УПРАВЛІННЯ КОМЕРЦІЙНИМИ БАНКАМИ

The article examines the conceptual foundations for assessing the effectiveness of security-oriented management of commercial banks in Ukraine. It is determined that the effectiveness of security-oriented management in banking institutions is largely conditioned by the level of their corporate security, which includes financial, informational, economic, personnel, physical, technological, legal, and reputational components. The increasing instability of the financial environment, the development of digital technologies, and the need to comply with international security standards necessitate the continuous improvement and updating of methodological approaches to evaluating banking management effectiveness.

The study systematizes the main methodological approaches to assessing the effectiveness of security-oriented management in commercial banks, including regulatory-oriented approaches, multifactor assessment methods, risk-oriented approaches, economic and mathematical modeling methods, expert-analytical approaches, dynamic analysis methods, technology-oriented approaches, and integrated methodologies.

It has been established that most existing methodological approaches primarily focus on financial indicators, while paying insufficient attention to informational, personnel, and reputational components. The application of big data tools, artificial intelligence, and machine learning can significantly improve risk assessment accuracy; however, it requires complex implementation and adaptation to the specifics of the banking environment.

Based on the conducted analysis, the necessity of further developing a comprehensive approach to assessing the effectiveness of security-oriented management in commercial banks is emphasized. This approach should account for the interconnection of internal and external factors influencing banking system stability, ensure dynamic assessment, and adapt to changes in the regulatory environment and technological innovations. Developing a comprehensive approach to assessing the effectiveness of security-oriented management in commercial banks will not only help determine the bank's security level but also facilitate managerial decision-making aimed at risk minimization and enhancing the financial institution's long-term competitiveness.

У статті досліджено концептуальні засади оцінювання ефективності безпекоорієнтованого управління комерційними банками в Україні. Визначено, що ефективність безпекоорієнтованого управління банківськими установами значною мірою обумовлюється рівнем їх корпоративної безпеки, яка містить фінансову, інформаційну, економічну, кадрову, фізичну, технологічну, юридичну та репутаційну складові. Дедалі більша нестабільність фінансового середовища, розвиток цифрових технологій та необхідність дотримання міжнародних стандартів безпеки вимагають постійного вдосконалення та оновлення методичних підходів до оцінювання ефективності банківського менеджменту.

У роботі систематизовано основні методичні підходи до оцінювання ефективності безпекоорієнтованого управління комерційними банками, зокрема: регуляторно-орієнтовані підходи; методичні підходи багатофакторної оцінки; ризик-орієнтовані методичні підходи; підходи економіко-математичного моделювання; експертно-аналітичні методичні підходи; підходи на основі аналізу динаміки; технологічно-орієнтовані методичні підходи; інтегровані методики.

Встановлено, що більшість наявних методичних підходів фокусується переважно на фінансових показниках, оминаючи увагою інформаційну, кадрову та репутаційну складову. Застосування інструментів великих даних, штучного інтелекту та машинного навчання дозволить значно підвищити точність оцінювання ризиків, проте потребує складної імплементації та адаптації до специфіки банківського середовища.

На основі проведеного аналізу наголошено на необхідності подальшого розроблення комплексного підходу до оцінювання ефективності безпекоорієнтованого управління комерційними банками, у якому буде враховано взаємозв'язок внутрішніх і зовнішніх факторів, що впливають на стабільність банківської системи, забезпечено динамічність оцінювання, адаптивність до змін у регуляторному середовищі та технологічних інновацій. Розроблення комплексного підходу до оцінювання ефективності безпекоорієнтованого управління комерційними банками дозволить не лише визначати рівень безпеки банку, а й формувати управлінські рішення, спрямовані на мінімізацію ризиків та підвищення конкурентоспроможності фінансової установи у довгостроковій перспективі.

PROBLEM STATEMENT IN GENERAL TERMS AND ITS CONNECTION TO IMPORTANT SCIENTIFIC OR PRACTICAL TASKS

The effective functioning of commercial banks is largely determined by the level of their corporate security, which necessitates the study of conceptual approaches to evaluating the effectiveness of security-oriented management. The growing unpredictability of threats in the financial sector, the active development of digital technologies, and the need to adhere to international security standards require the constant revision of methodological approaches to assessing bank management effectiveness in terms of ensuring financial, informational, economic, personnel, technological, legal, and reputational security.

The relevance of the problem is also driven by the necessity of considering European regulatory standards in the operations of Ukrainian commercial banks, specifically the provisions of Basel III, EU Directive 2013/36/

EU (CRD IV), and Regulation 575/2013 (CRR). Effective security-oriented management is a fundamental element in the operation of commercial banks in Ukraine and the modern world, characterized by high levels of global economic uncertainty, dynamic changes, and increasing new threats. The issue of ensuring the security of banking operations is crucial not only for individual banking institutions or the financial system of a specific country but also for the global security environment. In the context of growing competition in the financial market, the specific operational conditions of banking institutions in a state of war in Ukraine, and the tightening of regulatory requirements, the need to develop effective methodological approaches to assessing security-oriented management is pressing.

Thus, the study of the conceptual foundations for assessing the effectiveness of security-oriented management in commercial banks, considering contemporary challenges, forms the basis for the further development of a comprehensive approach to evaluation, which will allow for determining the level of management effectiveness, ensuring the bank's stability, and enhancing its competitiveness in the long term.

ANALYSIS OF RECENT RESEARCH AND PUBLICATIONS

A significant body of literature exists on methods and models for evaluating the effectiveness of security-oriented management, taking into account both quantitative and qualitative aspects. However, there are notable gaps in adapting these approaches to the conditions of national banking systems, particularly in considering the impact of specific external and internal factors such as martial law, the integration of international experience, and the alignment with modern challenges like cyber threats. Given these factors, the systematization of methodological approaches to evaluating the effectiveness of security-oriented management is a critical task, the implementation of which will contribute to enhancing the security of banking activities overall and ensuring the stability of the financial sector.

In their work, E. Mazikana and Sh. Makurumidze focused on assessing the effectiveness of risk management strategies in banking institutions, establishing that effective risk management improves financial performance, although some aspects of banking operations remain problematic [17]. The authors conducted a thorough analysis of key risks in Zimbabwean banks, which somewhat limits the applicability of their findings to other countries and corresponding management strategies.

G. Assemota's publication emphasized the importance of effective credit management in the functioning of commercial banks due to the high level of risk and uncertainty. The author proposed an original credit management model - a stochastic model based on an adaptive approach and recursive maximum likelihood estimation (AML) method, which takes into account random fluctuations and uncertainty [2, pp. 271—278]. In our view, applying the proposed model enables commercial banks to effectively manage liquidity and maintain the necessary level of reputational security.

A comprehensive analysis of existing methodologies for evaluating the effectiveness of security-oriented management in commercial banks was conducted by T. Momot and S. Rodchenko [19, pp. 34—43], O. Vasylchishyn [27, pp. 156—164], O. Muzychka, N. Zhurybida, Y. Galko [32, pp. 322—327], N. Pedchenko, S. Dyachek [33, pp. 133—145], and others.

Despite a significant number of academic works dedicated to banking management and security-oriented management, the problem of comprehensive evaluation of the effectiveness of security-oriented management in commercial banks remains insufficiently developed. Existing methodological approaches generally address isolated aspects of banking security, without considering their interaction and synergistic effects. This complicates decision-making processes and may lead to an inaccurate assessment of the bank's security level.

FORMULATION OF THE ARTICLE'S OBJECTIVES (TASK DEFINITION)

The aim of this article is to substantiate the conceptual foundations for evaluating the effectiveness of security-oriented management in commercial banks to develop a comprehensive assessment approach that encompasses all security aspects of banking activities, considering their interaction and synergistic effect.

PRESENTATION OF THE MAIN RESEARCH MATERIAL

The researcher D. Malikova, in her study [16], applied the methodological approach of E. Altman and E. Hotchkiss [1], often referred to as the modified Altman Z-score model for non-manufacturing companies. This model was adapted for a comprehensive analysis of the financial stability of non-manufacturing companies. Accordingly, the model modifies the weighting coefficients compared to the original version and excludes coefficients that are less relevant for non-manufacturing companies (1).

$$Z = 6.56 \cdot x_1 + 3.26 \cdot x_2 + 6.72 \cdot x_3 + 1.05 \cdot x_4 \quad (1),$$

where: Z — the integrated indicator of the Altman Z-score model for non-manufacturing companies;

x_1 — the working capital to total assets ratio (working capital / total assets);

x_2 — the retained earnings ratio (retained earnings / total assets);

x_3 — the return on assets ratio (EBIT (earnings before interest and taxes) / total assets);

x_4 — the market value capitalization ratio (market value of equity / total liabilities).

The obtained results should be interpreted as follows: $Z > 2.60$ — a financially stable company with a low probability of bankruptcy; $1.10 \leq Z \leq 2.60$ — the "gray zone" (zone of uncertainty), indicating a non-critical but existing bankruptcy risk; $Z < 1.10$ — a high probability of bankruptcy and financial instability [1].

We agree with I. Krupka's assertion that ensuring the necessary level of security in the banking sector requires the development of a unified system of indicators and a methodology for their generalization, considering the specifics of the national economy [31, p. 173]. Thus, applying the Altman Z-score model for non-manufacturing companies without modification to reflect the peculiarities

of a specific country-particularly one operating under the specific conditions of martial law-may be characterized by a low level of effectiveness. This is because it disrupts the principle of comprehensiveness in assessing the effectiveness of security-oriented management in commercial banks.

A research team consisting of O. Kopylyuk, N. Zhuribyda, Yu. Tymchyshyn, and O. Muzychka proposed an approach to the integrated assessment of banks' economic security [12, pp. 26—33]. This approach is based on the identification of a comprehensive security indicator, determined using 59 indicators classified into five groups: resource-based, stabilization-functional, asset-forming, performance-based, and risk-forming. Most of these indicators are related to economic regulatory requirements established by supervisory authorities.

In our view, the authors' thorough approach is rather complex for operational application due to the large number of indicators, which are likely to be highly correlated. The modern environment, characterized by rapid changes and uncertainty, necessitates a reduction in the number of indicators through:

— data aggregation — replacing numerous detailed metrics with a smaller set of key indicators;

— dimensionality reduction — applying methods such as Principal Component Analysis (PCA) to decrease the number of variables while preserving essential information;

— focus on key factors of corporate security — limiting the analysis to the most significant and relevant indicators to streamline the decision-making process under unstable conditions.

Moreover, it is essential to develop a clear algorithm for assessing the effectiveness of security-oriented management in commercial banks, which should incorporate not only financial and economic indicators but also other aspects of corporate security in banking institutions.

According to O. Kolodzieiev and O. Shtaier, indicator reduction can be achieved through the application of taxonomic methods, heuristic dimensionality reduction techniques, factor analysis, composite latent indicator construction, and multidimensional scaling, among others [30, p. 68].

A fundamental scientific problem, in our view, was outlined by N. Khrushch, P. Hryhoruk, L. Prystupa, and L. Vahanova [9, p. 415], who emphasized that a key issue in assessing financial security is the definition of its primary criterion as a benchmark that can be quantitatively measured using a specific set of banking performance indicators. This issue is especially relevant when exploring methodological approaches to assessing the effectiveness of security-oriented management in commercial banks, as it requires researchers to identify an integrated indicator that comprehensively, systematically, and objectively signals the effectiveness of security-oriented management in a particular bank at a given time.

One of the most common shortcomings of existing methodological approaches to evaluating the effectiveness of security-oriented bank management is their rigid reliance on regulatory or recommended indicator values, with insufficient consideration of the dynamics of these indicators over time. A noteworthy recommendation for overcoming this limitation was put forward by A. Yepifanov, O. Plastun, and V. Dombrodskyi [29, p. 201], who proposed introducing the concept of a "gray zone"-an interval of ±10% from the regulatory value-to account for cases where an indicator's value does not allow for an unambiguous assessment.

A comprehensive model for assessing the level of banking economic security was proposed by V. Franchuk and S. Melnyk [37, pp. 48—58]. In their study, the "golden ratio" formula was applied in constructing the evaluation scale, which classified banking economic security into four levels: insufficient, critical, sufficient, and optimal. However, despite the valuable scientific contributions, questions remain regarding the justification of the selected set of indicators, as some of them reflect only specific security domains of banking operations.

The study by A. Yepifanov, O. Plastun, and V. Dombrodskyi also presents expert-analytical methodological approaches for assessing the effectiveness of security-oriented bank management. The authors proposed a structured questionnaire for periodic expert surveys [29].

A review of methodological approaches to evaluating the effectiveness of security-oriented management in commercial banks, as proposed by various domestic and foreign researchers, reveals that most approaches primarily focus on financial performance indicators, often overlooking other aspects of corporate security, such as information security, personnel security, and reputational security. Moreover, many existing methodologies require indicator reduction, which would help simplify analysis, reduce time and effort costs, and minimize the risk of excessive reliance on redundant data.

According to O. Vasylchishyn, the existing methodological approaches to evaluating the effectiveness of security-oriented management in commercial banks have several key shortcomings: low significance, lack of systematization, poor predictability, and high similarity or redundancy [27, pp. 162—163].

An interesting aspect of corporate security in banking is explored in the research by K. Rongrat, T. Senivongse [23], where the authors present a risk assessment approach for information security systems in the banking sector. In our view, information security is a crucial component of corporate banking security, ensuring data protection against unauthorized access, cyberattacks, and breaches.

Rongrat K., Senivongse T. developed a risk assessment method to verify compliance of a bank's information system security with regulatory standards. They applied text similarity analysis to identify missing security requirements and, based on this, proposed a quantitative risk index model linked to these gaps. According to their model, the level of identified risk depends on the potential damage of possible attacks. The researchers demonstrated the practical application of their model using a case study of Thai commercial banks, and its effectiveness was validated through F-measure metrics, accuracy assessments, and correlation with expert security evaluations [23].

Over the past five years, technologically oriented methodological approaches to assessing the effectiveness of security-oriented management in commercial banks have been actively developing. These approaches incorporate

Table 1. Classification of methodological approaches for assessing the effectiveness of security-oriented management of commercial banks

Authors	Specifics of Method Application	Key Advantages of Methods	Key Disadvantages of Methods
Regulatory-oriented methodological approaches			
Malikova D. [16], Krupka I. [31], Kopylyuk O. et al. [12], Baranovskyi, O [25]	They include liquidity, capitalization, and currency position standards and are used to monitor the bank's compliance with regulatory requirements (NBU or BASEL III)	Standardization, comparability	Limited adaptation to the actual operating conditions of banks
Methodological approaches for multifactorial assessment			
Khrushch N. et al. [9], Iepifanov A. et al. [29], Kolodiziev, O. et al. [30], Poltorak A. et al. [22, 34], Kil K.et al. [10], Muzychka O. et al. [32], Vasylchyshyn O. [27]	Evaluation of the effectiveness of security-oriented management based on a set of indicators: return on assets (ROA), the ratio of loans to deposits, the share of non-performing loans	Multidimensional assessment, considering external and internal factors	Difficulty in determining the weight coefficients for the indicators
Risk-oriented methodological approaches			
Iepifanov A. et al. [29], Rongrat K.et al. [23], Dominova I. [4], Macek D. et al. [15]	Analysis of credit, operational, market, and other risks (VaR, stress testing, credit portfolio analysis)	Focus on system weaknesses	Dependence on the quality of input data and models
Methodological approaches based on economic-mathematical modeling			
Kolodiziev, O. et al. [30], Vasylchenko Z. et al. [26], Riznyk, N. [35], Franchuk V. et al. [37], Dymchenko O. et al. [5], Petropoulos A.et al. [21]	They include regression and variance analyses, simulation models, and is used for forecasting security levels and analyzing the impact of individual factors	Forecasting capability	Requires large volumes of data and qualified personnel
Expert-analytical methodological approaches			
Iepifanov A. et al. [29], Khrushch N. et al. [9], Rongrat K.et al. [23], Erulanova, A. et al. [6]	Calculation based on subjective expert assessments, used for evaluating strategic security and management risks	Consideration of intangible factors	Dependence on the qualifications of experts
Methodological approaches based on dynamic analysis			
Onyshchenko S. et al. [20], Chmielarz W. et al. [3], Kiljan S. et al. [11]	Trend analysis of key indicators over time	Allows for the identification of long-term threats	Requires long time series data
Technological-oriented methodological approaches			
Leo M. et al. [14], Mirkovic V. et al. [18], VenkateswaraRao M. et al. [24]	They encompasse modern approaches based on Big Data, artificial intelligence, and machine learning	High accuracy, process automation, large data processing, integration of innovations	Implementation complexity, cybersecurity risks, adaptation challenges
Integrated methodologies			
Khrushch N. et al. [9], Kulyniak I. et al. [13], Tysiachna Yu. et al. [36], Momot T. et al. [19]	They combine several approaches (e.g., indicator approach with economic-mathematical modeling)	Provides a more comprehensive assessment	Complexity in development and use

Source: summarized by the authors.

modern methods based on Big Data, artificial intelligence (AI), and machine learning (ML). With the advancement of Big Data, large-scale data processing has become more accessible, leading to more efficient risk analysis, fraud detection, and trend forecasting. Since 2020, AI has already been applied to automate various banking processes, including risk assessment and chatbot services.

In their study, M. Leo, S. Sharma, K. Maddulety [14] summarized machine learning methods for managing various risks in the banking sector, such as credit, market, and operational risks. Researchers V. Mirkovic, J. L. Nikolic also analyzed how advanced analytics can leverage machine learning algorithms to process vast amounts of financial data. This enables more accurate creditworthiness assessment, enhanced credit risk evaluation, portfolio quality monitoring, early warning system development, financial crime detection, and operational loss prediction [18].

Furthermore, a team of authors, including M. VenkateswaraRao, S. Vellela, R. B. Venkateswara, N. Vullam, B. Sk. Khader, D. Roja, described an integrated credit risk management system architecture that utilizes Big Data capabilities for analyzing complex financial data [24].

We have classified the methodological approaches for assessing the effectiveness of security-oriented management in commercial banks into eight groups, describing the specifics of their application, advantages, and disadvantages (table 1).

Our approach to the classification of methodological approaches for assessing the effectiveness of security-oriented management in commercial banks includes the following groups of methods:

— regulatory-oriented methodological approaches, which are based on economic regulatory requirements and consider the mandatory compliance with standards set by regulatory bodies for banks;

Table 2. System of key indicators used for assessing the effectiveness of security-oriented management of commercial banks

№ з/п	Indicator	Authors									
		Momot T. et al. [19]	Iepifanov A. et al. [29]	Vasylchyshyn O. [27]	Vasylchenko, Z. et al. [26]	Kil K. et al. [10]	Khrushch N. et al.[9]	Tysiachna Yu. et al. [36]	Onyshchenko S. Et al. [20]	Dymchenko O. et al. [5]	Derkachenko A.et al. [28]
1.	Adequacy of regulatory capital	+	+	+	+	+			+	+	+
2.	Return on equity (ROE)	+	+	+			+	+	+	+	+
3.	Return on assets (ROA)	+	+	+	+	+	+	+	+		+
4.	Net interest margin	+	+				+	+	+		+
5.	Short-term liquidity ratio	+	+		+			+	+	+	
6.	Non-performing loans ratio	+	+	+							
7.	Financial leverage ratio	+					+				
8.	Effectiveness of interest-bearing assets management		+								
9.	Effectiveness of fee-based activities		+								
10.	Profit per employee		+					+			
11.	Credit risk ratios		+					+	+		
12.	Loan-to-deposit ratio		+				+	+			+
13.	Ratio of interbank loans received to loans granted		+					+			
14.	Total foreign exchange position		+								
15.	Market share of the bank				+						
16.	Capital growth rate				+						
17.	Basic liquid assets indicator			+				+			
18.	Broad liquidity indicator			+				+		+	+
19.	Provisioning for active operations			+			+				+
20.	Dollarization of loans and deposits			+							
21.	External influence indicators			+							
22.	Asset coverage ratio by equity capital						+	+			
23.	Share of current deposits in the bank's deposit base						+				
24.	Share of retail deposits in the bank's liabilities						+				+
25.	Asset coverage to liquid assets ratio						+	+			
26.	Coverage ratio of attracted resources by liquid assets						+	+			
27.	Coverage ratio of liabilities by liquid assets						+	+			
28.	Bank performance efficiency		+								

Source: summarized by the authors.

— multifactor evaluation methodological approaches, which are based on identifying indicators that reflect the overall security status of a specific bank or its individual aspects;

— risk-oriented methodological approaches, which encompass various methods for analyzing and assessing credit, market, operational, and other types of risks to minimize their negative consequences;

— economic-mathematical modeling methodological approaches, which are used for analyzing financial processes, forecasting crisis phenomena, and optimizing management decisions;

— expert-analytical methodological approaches, which rely on professional experience and determine the effectiveness of management through expert surveys or analytical judgment;

— dynamic analysis-based methodological approaches, which focus on monitoring changes in basic bank indicators over a specified period, enabling the identification of trends and potential threats;

— technologically-oriented methodological approaches, which cover modern methods based on Big Data, artificial intelligence, and machine learning;

Integrated methodologies, which combine elements of several approaches to provide a more comprehensive and accurate assessment of security-oriented management.

These groups provide a clear overview of the various methods available for evaluating and improving security-oriented management in commercial banks.

This classification of methodological approaches allows us to highlight the main approaches to evaluating the effectiveness of security-oriented management in commercial banks, analyze their advantages and disadvantages, and, considering the current specifics of banking activity in Ukraine, the regulatory environment, and challenges, propose an original methodological approach to evaluating the effectiveness of security-oriented management in commercial banks.

Almost all methodological approaches to evaluating the effectiveness of security-oriented management in

commercial banks, except for expert-analytical methods, rely on quantitative values of certain performance ratios of the bank over a specified period, which are then analyzed, compared, and forecasted, etc. Therefore, it is useful to analyze in more detail the indicators that are most commonly used by researchers who develop methodo-logical approaches to evaluating the effectiveness of security-oriented management in commercial banks.

We systematize the main indicators used to evaluate the effectiveness of security-oriented management in commercial banks in modern scientific literature in Table 2.

It should be noted that this is not an exhaustive list of indicators, but only those that, as a result of analyzing the scientific literature, proved to be most frequently used in the process of evaluating the effectiveness of security-oriented management in commercial banks (such as regulatory capital adequacy, return on equity (ROE), return on assets (ROA)), or are specific. The majority of authors rely on financial performance indicators of commercial banks, but some researchers have also focused on monitoring information security and indicators of external influence. We believe that the quantitative values of individual indicators are closely related to each other, and, therefore, it is necessary to perform a correlation analysis between them and reduce the number of indicators used, thus eliminating information redundancy.

In addition to the methodological approaches to evaluating the effectiveness of security-oriented management in commercial banks proposed by individual scholars and research groups, it is necessary to explore the international aspect of this issue, as banking security is not only a national problem but also an international one. For instance, in 1981, the United States established the International Banking Security Association (IBSA) to prevent and investigate financial crimes and ensure the security and continuity of banking operations within global financial transactions. Since 1983, the IBSA has provided a professional platform for developing the expertise of specialists in the field of banking security, contributing to the effective protection of various banking institutions and their clients. In June 2024, the 81st meeting of the IBSA members was held in Montreal, Canada.

There is also the International Association of Financial Crimes Investigators (IAFCI), which deals with various issues related to security in the financial sector, particularly in banking. IAFCI provides services and creates an environment for the collection, exchange, and education on methods to prevent financial fraud, investigate, and prevent crimes in the financial industry.

The objectives of these international organizations include ensuring security in the banking sector, fostering the exchange of critical information and experience among participants, and coordinating efforts to combat financial crimes.

Conclusions and Prospects for Further Research in this Area. Based on this study, the following conclusions have been drawn:

1. The evaluation of the effectiveness of security-oriented management is a complex and multidimensional process, which includes assessing financial, informational, economic, technological, personnel, legal, and reputational security, as well as the interaction of these components within a unified system. In modern conditions, it is also essential to adapt the banking system to international security standards, particularly those regulating financial, informational, and cybersecurity. Additionally, creating reliable internal control and audit mechanisms capable of quickly detecting and minimizing security-related risks is crucial.

2. A classification of methodological approaches to evaluating the effectiveness of security-oriented manage-ment in commercial banks has been proposed. Within this classification, the approaches are grouped into the following categories: regulatory-oriented methodological approaches; multi-factor evaluation methodological approaches; risk-oriented methodological approaches; economic-mathematical modeling methodological approaches; expert-analytical methodological approaches; dynamic analysis-based methodological approaches; technological-oriented methodological approaches; integrated methodologies.

3. Emphasis has been placed on the necessity of implementing an integrated approach to evaluating the effectiveness of security-oriented management. This approach should simultaneously consider internal and external factors that affect the stability of banks. The evaluation process must be dynamic, continually adapting to changes in the external environment, regulatory requirements, and technological innovations.

Future Research Directions: Future research will focus on developing an integrated methodology for evaluating the effectiveness of security-oriented management in commercial banks. This methodology will account for all key aspects of banking security, considering their interaction and the synergistic effect. The goal is to reduce risks and enhance client trust through a comprehensive, adaptive approach.

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