DOI: 10.31617/1.2025(160)07 UDC 330.34:504]:005:336.7=111

HORBACHOV Viktor,

PhD (Technical), Associate Professor of the Department of Banking State University of Trade and Economics 19, Kyoto St., Kyiv, 02156, Ukraine

ORCID: 0009-0006-7172-6492 v.horbachov@knute.edu.ua

NETREBCHUK Larysa,

Senior Lecturer of the Department of Banking State University of Trade and Economics 19, Kyoto St., Kyiv, 02156, Ukraine

ORCID: 0000-0003-4942-5299 l.netrebchuk@knute.edu.ua

COMPLIANCE MANAGEMENT ECOSYSTEM OF THE BANK

In 2025, the global banking community, represented by 63 central banks and monetary organizations that are members of the Bank for International Settlements (BIS), can rightfully celebrate the 20th anniversary of the official basic document "Compliance and the compliance function in banks" (BCBS, 2005). It systematically formulates the principles of top management responsibility and the bank's audit department for compliance management; defines the foundations of independence and resource provision of the compliance function in the bank. The document provided a fundamental impetus for the development and implementation of relevant compliance regulations in modern banking at the level of global organizations (such as FATF and others), central and commercial banks of many countries around the world. However, despite such a long period since the date of appearance of this document, in the opinion of the authors, there is currently not enough analytical research on the issue of compliance as an ecosystem of corporate governance in banks. That is why a systematic analysis of the challenges of corporate governance compliance in Ukrainian banks is an important and

ГОРБАЧОВ Віктор,

к. т. н., доцент кафедри банківської справи Державного торговельно-економічного університету вул. Кіото, 19, м. Київ, 02156, Україна

> ORCID: 0009-0006-7172-6492 v.horbachov@knute.edu.ua

НЕТРЕБЧУК Лариса, старший викладач кафедри банківської справи Державного торговельно-економічного університету вул. Кіото, 19, м. Київ, 02156, Україна,

> ORCID: 0000-0003-4942-5299 l.netrebchuk@knute.edu.ua

ЕКОСИСТЕМА КОМПЛАЄНС МЕНЕДЖМЕНТУ БАНКУ

У 2025 р. світове банківське середовище, представлене 63 центральними банками та монетарними організаціями – членами Банку міжнародних розрахунків (BIS), може по праву святкувати 20-річний ювілей народження офіційного базового документа "Compliance and the compliance function in banks" (BCBS, 2005). У ньому системно сформульовані принципи відповідальності органів вищого керівництва, підрозділу аудиту банку за комплаєнсменеджмент, визначені основи незалежності та ресурсного забезпечення комплаєнс-функції в банку. Документ надав фундаментальний поштовх для розвитку та імплементації відповідних регламентів комплаєнс у сучасному банкінгу на рівні глобальних світових організацій (на кшталт FATF тощо), центральних та комерційних банків багатьох країн світу. Проте, попри такий довготривалий термін від дати появи цього документа, з огляду авторів, наразі недостатньо проведено аналітичних досліджень з проблематики комплаєнс як екосистеми корпоративного управління в банках. Тож системний аналіз викликів корпоративного управління комплаєнс у банках України є

Copyright © The Author(s). This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/) relevant topic for research. The aim of the research is to identify challenges for the corporate governance compliance ecosystem in Ukrainian banks and formulate directions for overcoming them in the context of global threats and war. The research is hypothesized that the formation of a compliance ecosystem in a bank contributes to a more systematic assessment of modern compliance risks, ensuring that the banking institution complies with regulatory and ethical requirements, developing and implementing ESG standards, and increasing adaptability to challenges.

To test the formulated hypothesis and achieve the aim, methods of analysis, generalization, formalization and graphical representation of information were used. As a result of the research, the main elements of the corporate governance compliance ecosystem in banks were described and their three functional levels were highlighted; the features of corporate governance compliance in modern realities of Ukraine were identified; the trajectory of changes in compliance components under the influence of challenges, among which the key ones are political, technological, digital, cybersecurity, human factors and war (as a component of a political challenge), were indicated; directions for banks to overcome the specified challenges were proposed.

Keywords: corporate governance, ecosystem, compliance, banks, management ethics, challenges.

важливою та актуальною темою для дослідження. Метою статті є визначення викликів для екосистеми корпоративного управління комплаєнс у банках України та визначення напрямів їх подолання в умовах глобальних загроз та війни. У ході дослідження висунуто гіпотезу, що формування екосистеми комплаєнс у банках сприяє більш системній оцінці сучасних комплаєнс-ризиків, забезпеченню банківською установою відповідності регулятивним та етичним вимогам, розробці й впровадженню ESG стандартів, та підвищенню адаптивності до викликів.

Для перевірки гіпотези та досягнення мети використано методи аналізу, узагальнення, формалізації та графічного представлення інформації. У ході дослідження розглянуто основні елементи екосистеми корпоративного управління комплаєнс у банках і виділено три їх функціональні рівні; визначено особливості корпоративного управління комплаєнс у сучасних умовах України; зазначено траєкторію змін складових комплаєнс під впливом викликів, серед яких ключовими є політичні, технологічні, цифрові, кібербезпеки, людський фактор і війна (як складова політичного виклику). Запропоновано напрями подолання банками зазначених викликів.

Ключові слова: корпоративне управління, екосистема, комплаєнс, банки, етика менеджменту, виклики.

Jel Classification: G34, G38, M14, P41.

Introduction

Modern banking business has been rapidly transforming in recent years from the model of "universal banks or financial banking groups", which sold purely financial services, into complex financial ecosystems, which sell any goods/products/services from all areas of customers' lives. Such financial ecosystems are aimed at the most seamless combination of information, financial, logistical, security and other components of the transaction between the system-seller and the client, at the most convenient time and in the most convenient place. Such a transformation inevitably leads to new challenges of corporate government compliance in the banking sector.

Since 2005, the global banking environment has had an official basic document "Compliance and the compliance function in banks" (BCBS, 2005), which defined the key principles for building compliance management. However, today's challenges require a new interpretation of the requirements of this document.

Ukraine is also making great efforts to legislatively regulate compliance management in the banking system in accordance with existing

international standards and EU legislation, which is confirmed by the current NBU strategy (NBU Strategy, 2023, May 22). However, the war unleashed by the russian federation against Ukraine, which has lasted almost three years, leads to new serious challenges in corporate governance by compliance in banking institutions.

Despite the fact that the term GRC (Governance, risk management and compliance) and the first studies of this concept were proposed back in 2007 (Mitchell, 2007, November), as "an integrated set of capabilities that allow an organization to reliably achieve goals, resolve uncertainty, and act with integrity", in the context of the rapid AI implementation (artificial intelligence) achievements, banking business practice requires additional in-depth research into compliance management as an element of corporate governance.

Karthick et al. (2023, September) conducted a systematic review of the current literature on GRC and a study of existing GRC practices. The study emphasizes that modern GRC platforms are no longer limited to simple compliance with legal requirements and are turning into a strategic function of risk assessment, ensuring business continuity, adhering to ethics and compliance, building information security and strategic planning. The main GAPs in modern research are formulated, namely: the GRC impact on the organizational effectiveness and resilience of the company; best practices for GRC implementation; GRC integration with AI, blockchain, cloud computing; the impact of culture and ethics on GRC practice; measuring the effectiveness of GRC implementation and operation.

Beaumier and Reese's study (2024) outlines some changes on the horizon: in the ever-expanding landscape of financial services regulation, there are signs that the standard for compliance is shifting from technical assessment to outcome-based assessment. Based on a systematic analysis of 15 key compliance priorities, the authors conclude that compliance managers play a key role in defining controls to meet local regulatory requirements for data management and models. One of the key roles of the Chief Compliance Officer (CCO) should be to use AI to develop a registry of regulations and a library of risk controls, with the subsequent maximum automation of the risk assessment processes themselves. The paper also highlights that generative AI has the potential to significantly increase the level of fraud and money laundering risks.

An expert research (Regulatory Compliance in Banking, 2024, October 6) is noteworthy, which formulates seven best practices for effective compliance with regulatory requirements in the banking sector: establishing a clear compliance policy; implementing strong training programs for bank personnel; maximizing compliance automation; integrating compliance and risk assessment; implementing a risk-based approach; encouraging transparent cooperation between bank departments; using the latest technologies/digital platforms for compliance.

Close to the study aim is Murphy's work (2023), in which the author formulated six challenges facing bank compliance officers: transitioning to the role of compliance consumer; obtaining and maintaining regular direct access to the board and management committees and teams; tracking regulatory changes; based on risk findings, convincing the board and senior management of the need to implement cultural changes in the bank; advocating for change when the bank's own CMS (Compliance management system) does not have systemic problems; expanding the support system for compliance officers. It is important to emphasize the conclusion of this study that managing and implementing an effective CMS is difficult, especially for compliance officers in small banks, which lack the resources compared to large institutions in the financial market.

The key forecast challenges that American banks and financial services institutions will face in the next 5 years are formulated in the work of Armstrong & Picone (2024, February 5). These are climate change and ESG (Environmental, Social and Governance) Compliance; cybersecurity and data privacy; AI and the dominant influence of fintechs; operational resilience and business continuity; combating money laundering and financial crime. As a result, banks will need to develop and implement appropriate compliance strategies, namely: investments in the latest technologies; training and compliance culture; proactive risk management; effective interaction with regulatory authorities; organization of specialized audits and confirmation of AML (Anti-Money Laundering) compliance.

Amblard-Ladurantie's research (2024, April 19) is devoted to the analysis and formulation of trends in corporate government compliance and risk management in banks. The paper concludes that ESG compliance is becoming a key driver of change in compliance management. Current and relevant trends in the development of GRC platforms in banks are: integrated GRC platforms; adoption and development of Agile Compliance Frameworks; optimization of GRC processes, strengthening business continuity and coordinated risk management.

Domestic scientists are also working on research in this area, primarily on the essence and components of compliance. Thus, Azarenkova et al. (2023) in their work assessed the popularity of research on the concept of compliance in the works of scientists. These authors noted that among domestic scientists there is no single approach to understanding this concept. In addition, they identified periods when such research had the greatest growth (in relation to the banking sector, this was the period 2018–2019) and identified trends in scientists' research on compliance.

Sheludko (2023a; 2023b) in a series of his works focused on the legal status of the compliance service in Ukrainian banks, its rights, responsibilities, key tasks, guarantees and resources. He identified the qualification

requirements for a candidate for the position and the main tasks of the chief compliance officer of the bank. He proved that a hybrid model of organizing a compliance service is established in Ukraine. In another article, he identified the sources of legal regulation of compliance in Ukrainian banks and the place of international treaties as sources of legal regulation of banking compliance (primarily the Acquis acts of the European Union).

In the research of Grudzevuch et al. (2024) the essence of the concept of compliance and approaches to its organization in banks are defined. The functions of the so-called lines of defense in creating compliance and the benefits of its implementation for banking institutions are determined. Compliance policies are analyzed in accordance with the recommendations of the Basel Committee on Banking Supervision "Compliance and the Compliance Function in Banks".

Ozarko et al. (2024) focused on the role of compliance control, primarily in reducing bank risks. As well as the main functions, tools and principles of its implementation, taking into account the establishment of interaction with other divisions of the bank. In addition, they identified the stages of the evolution of compliance control. The purpose, tasks, functions and principles of compliance control were also investigated in Hura's work (2023). However, significant attention in the research is paid to determine approaches to interpreting the concept of compliance.

The main requirements for implementing compliance in banks, taking into account the requirements of the above-mentioned document of the Basel Committee and the specifics of Ukrainian practice, are disclosed in the publication of Omelchuk and Shvets (2017). In addition, the authors identified the features by which an effective compliance system in banking institutions can be determined, as well as the key prerequisites for its formation in Ukrainian banks. Thus, Mulyk's study (2023), in addition to revealing general approaches to organize compliance in banks, also pays attention to the impact of technological innovations and artificial intelligence on the organization of compliance in banks.

Safronenko's publication (2022, August 2) is noteworthy on the role of compliance during the war in Ukraine. In it, she noted the main areas of compliance during the war, primarily regarding the identification and management of operational risk and corporate fraud, emphasized the increased burden on the compliance function, in particular regarding the rescreening of companies and their counterparties regarding sanctions lists and connections with the russian federation; noted the change in focus in anticorruption compliance.

One of the issues of the compliance system in a bank is ensuring counteraction to the emergence of corruption risk. In this context, it is worth paying attention to the work of Bezverkhyi et al. (2024), in which the authors defined the purpose and objectives of anti-corruption audit, substantiated the conceptual foundations of its implementation in the context of modern challenges. Regarding anti-corruption compliance (without reference to the banking sector), it is worth noting the study by Nezhyva et al. (2024, August), which noted the need to prioritize anti-corruption measures, especially given the challenges of the globalized world. In addition, the authors proposed their own list of KPIs for assessing the effectiveness of an anti-corruption program, which can be applied in the banking sector with certain adjustments.

The issues of using the compliance system in the context of the global integration of the Ukrainian banking system into international markets, and above all, regarding compliance with the principles of the Basel Committee on Banking Supervision, are set out in the monograph edited by Vnukova and Hlibko (2020). In addition, the authors devoted considerable attention to the disclosure of compliance risks and their consequences, identified external factors that affect banks and require attention from the compliance service, namely: political, economic, social, financial, legal, etc.

As we can see, the subject of compliance is quite relevant for researchers, but most often their attention is focused on organizational and regulatory issues, rather than on assessing challenges.

The research aim is to identify challenges for the corporate governance compliance ecosystem in Ukrainian banks and formulate directions for overcoming them in the context of global threats and war.

The research is hypothesized that the formation of a compliance ecosystem in a bank contributes to a more systematic assessment of modern compliance risks, ensuring that the banking institution complies with regulatory and ethical requirements, developing and implementing ESG standards, and increasing adaptability to challenges.

To substantiate the hypothesis put forward, the levels and elements of the corporate governance by compliance ecosystem were determined; the interrelationships and responsibilities of bank divisions for individual compliance functions were described with the allocation of specific zones; the features of corporate compliance management in modern conditions of Ukraine were highlighted. It was additionally noted that all components of compliance office functionality are currently undergoing significant changes under the influence of challenges, to overcome which it is advisable to take into account the developed proposals in practice.

This research is based on the use of documents from international institutions, in particular, the Basel Committee on Banking Supervision (BCBS, 2005), as well as the National Bank of Ukraine (NBU) and official websites and reports of banks, scientific publications of foreign and Ukrainian specialists, various methods of scientific research, in particular theoretical generalization – in the formation and description of the ecosystem of corporate governance by compliance in modern banks; formalization – to express and describe individual elements of the ecosystem of corporate governance by compliance and the challenges that arise during the war in Ukraine; induction and deduction – in the formulation of conclusions.

The main part of the research consists of three interrelated sections. The first examines the composition and essence of the corporate governance compliance ecosystem in modern banks. The second examines and systematizes the key challenges that arise in the corporate governance compliance of Ukrainian banks. The third examines the features of the corporate governance compliance ecosystem in the Ukrainian banking environment during the war. In the Conclusions section, the authors formulate a list of key recommendations regarding the areas of overcoming challenges in corporate governance compliance in Ukrainian banks.

1. Composition and essence of the corporate governance compliance ecosystem in modern banks

The concept of compliance comes from the English "compliance", which means "conformity", therefore, in general, it determines the compliance of a process or activity with certain established norms.

Analyzing Fox's (2022, February 14) approaches to studying innovations and the effectiveness of the compliance ecosystem (primarily from the point of view of the organization's CCO), as well as using James Moore's well-known concept of "business ecosystem", we can characterize a compliance ecosystem, as a multi-level system of processes, technologies, databases, and various stakeholders that actively interact with each other, are constantly modified and adapted under the influence of external/internal challenges in order to maximally guarantee the organization's compliance with relevant regulations, standards, ethical principles, and effectively manage compliance risks.

Global financial institutions are setting the tone for the development and implementation of compliance management platforms in the modern banking environment. For example, the WBG (World Bank Group) Integrity Compliance Office (Miller, 2024, March) published information on Integrity Compliance Programs to Advance Integrity Principles and Deter Misconduct. The WBG Integrity Compliance Guidelines and Integrity Compliance Program have four key objectives: Prevent, Detect, Investigate, Remediate, which are aimed at constant adaptation and evolution. Therefore, these 4 key objectives are actually aimed at overcoming any challenges that arise in the functioning of banking institutions.

Analyzing existing public scientific research, reports of global banking and financial institutions, and Internet sources that present the opinions of market experts on the topic of development, implementation, and compliance management, the authors came to the conclusion that it is advisable to describe the corporate governance compliance ecosystem in a bank as a basic element of the development of the GRC platform in modern business conditions. It is proposed to include three main levels in such an ecosystem (*Figure 1*).



Figure 1. Compliance governance ecosystem in Ukrainian banks

Abbreviations: CO – compliance office; SB – supervisory board; MB – management board; CMS – compliance management system; 1 line – 1st line of bank defense (NBU regulation); FM&CC – financial monitoring & currency control unit; RO – risk office; AO – audit office; FATF – Financial Action Task Force; AML – Anti-money laundering regulation; NBU – National bank of Ukraine; MC – master card

Source: author's interpretation.

Level 1 is about elements of the ecosystem of a specific commercial/public bank. The core of compliance management is the Compliance Office (CO) headed by the CCO (Chief Compliance Officer). From the point of view of the existing regulatory nature of the responsibility/functional purpose of the CO, as well as the rules of corporate governance in banks, the CO at the 1st level of the ecosystem actively interacts with: the bank's supervisory board (direct subordination of the CO to the SB); management board; risk office; the so-called 1st line of defense of the bank; financial monitoring and currency control unit; audit office. At the same time, the CO actively develops, implements and practically uses the compliance management system (CMS).

Level 2 consists ecosystem elements that are located and operate in the legal space of a specific state (in our study it's Ukraine). The key elements of the level are bank clients and their counterparties, market participant banks and payment operators, the NBU and other regulatory structures, the environment with databases. CO through CMS builds channels for exchange, accumulation, and constant analysis of information when interacting with elements of the 2nd level of the ecosystem.

Level 3 describes ecosystem elements that are located and operate in the legal environment of the international/global level or the legal field of other foreign states. These are, first of all, international banks, global payment operators, global financial and banking supervision organizations and are focused on combating money laundering/combating the financing of terrorism. A modern CMS in a bank should also provide for CO effective interaction with the elements of the 3rd level ecosystem in order to ensure the performance of compliance management functions.

In *Figure 1* the authors structured and identified five types of modern challenges that significantly affect dynamic changes in the ecosystem as a whole. Challenges generate changes both within individual ecosystem elements and in the information exchange system between ecosystem elements and the CO. The real impact of each of the challenges on ecosystem elements and on the quality of compliance management/compliance risk assessment for the bank, in the authors' opinion, requires separate specialized studies.

In order to gain a deeper understanding of the areas of functional responsibility of the CO in a modern bank, the authors, based on an analysis of existing research (European Investment Bank, 2024) and sources of information, systematized and identified 7 such key areas (*Figure 2*).





Source: author's interpretation based on public sources of information (EIB, n. d.)

It should be emphasized that for modern Ukrainian banks, all components of compliance office functionality are undergoing significant changes, tangible dynamics of development and their new practical content under the influence of the following challenges, such as: political, technological, digital, cybersecurity and human factors. Accordingly, these tasks of transforming the functional responsibility areas of the banks' compliance offices are of primary importance and must find their practical implementation in the development of modern CMS.

The authors have concluded that it is now on the SB and CO of

Ukrainian banks, in accordance with the current rules of corporate governance, that the maximum responsibility for the high-quality development and effective implementation of the functional areas "ESG compliance management" and "Corporate ethics" is placed. This is due to the fact that these functional areas are relatively new to the Ukrainian banking environment (Liga Zakon, 2024, September 26), and without their intensive implementation it is impossible to effectively build future business relationships with global donors in the post-war period with the aim of quickly restoring Ukraine.

2. Key challenges that arise in corporate governance by compliance of banks in Ukraine

In today's complex conditions of compliance management formation in Ukrainian banks, the authors consider it necessary to present their own opinion on the essence of the key challenges that arise before the CO team (*Table 1*) and other units of the bank's ecosystem.

Table 1

Identification of problems in compliance management of Ukrainian banks under the influence of global challenges

Key challenges	Issues identification	Key involved units
Political	Banking continuity in wartime. Transaction security (AML/CFT, sanctions). ESG design, implementation and development	CO, SB, MB, RO
Human factor	Lack of professional compliance qualifications among bank managers. Long-term staff shortages due to the war in Ukraine	CO, SB, MB, HR
AI/Digital	Outdated IT architecture of banks. Lack of automated CMS platforms. Lack of regulation of the use of AI	CO, SB, MB, IT, LO
Technological	Outdated technological capabilities of online services. Limited inclusiveness of financial services (e.g., lack of ATMs for the visually impaired, etc.)	IT, CO, SB, MB
Cybersecurity	Protection of sales channels/information exchange. Database protection. Full identification and organization of effective countermeasures against fraud (internal/external)	IT, CO, SB, MB, SO

Abbreviations: CFT – Combating the Financing of Terrorism; CO – Compliance Office; HR – Human Resources; IT – Information Technologies; LO – Legal Office; MB – Management Board; RO – Risk Office; SB – Supervisory Board; SO – Security Office

Source: author's interpretation based on public sources and analyses.

Identification of current problems in compliance management of Ukrainian banks allows us to outline the directions of their further in-depth research. From a practical point of view, key units of the bank ecosystem should plan their activities and effective interaction, if necessary, provide for appropriate expenses in the budget for 2025–2027 to address these problems.

Using the analysis results presented in *Table 1*, the authors propose the following directions for banks to overcome the above-mentioned challenges of the compliance ecosystem:

Political: strengthening the energy, communication stability and seamlessness of banks and banking processes/operations during the war. Development of a 3–5-year strategy for the post-war business model, taking

into account the increased role of the compliance ecosystem and the implementation of ESG standards.

Human factor: implementation of continuous training programs for bank staff and organization of targeted university training of students in accordance with modern requirements for compliance ecosystems. Development of systems of material incentives, retention, and replacement of personnel for the bank's CO.

AI/Digital: strategizing the development/transformation of the bank's IT architecture for 3–5 years, taking into account modern requirements for compliance management and AI capabilities. Development of internal banking regulations on the use of AI.

Technological: maximum use of a secure cloud environment for organizing storage, data processing, and execution of customer transactions. Early budgeting of costs for means of ensuring the inclusiveness of financial services

*Cybersecurity: un*conditional compliance by banks with the requirements of The Regulations on the Organization of Measures to Ensure Information Security in the Banking System of Ukraine (NBU, 2017 September 28). Technological and hardware upgrade of banking channels for selling services/data exchange. Review, improvement, automation (using AI achievements) of processes for combating internal and external fraud.

3. Features of the corporate governance compliance ecosystem in the banking environment of Ukraine during the war

The ecosystem of corporate governance compliance in Ukrainian banks (*Figure 1*) under the influence of external and internal challenges requires constant control and adaptive rapid response from the CO. And the war unleashed by russia against Ukraine is one of the most fundamental "political challenges" that has caused changes in compliance management.

Customer service is a key type of business for banks, and it is here that many unresolved issues arise for banking COs. Analysis of modern practices of the corporate governance compliance system (one of the authors of the article is the independent chairman of the supervisory board of JS "ALTBANK"), the results of expert discussions during specialized conferences on compliance management (Extra Consulting, 2024, October 8; NCTBPU, 2024, December; Liga Zakon, 2024, September 26) made it possible to formulate the following features/GAPs of compliance management in the banking environment of Ukraine during the war when providing services to clients:

• The relevance and correctness of the use by banks of the database "State Register of Sanctions" (n. d.) regarding the complete coincidence of the surname, first name and patronymic of sanctioned persons who may act as clients of the banking system. The sources of information in the sanctions register are permanent decisions of the National Security and Defense Council of Ukraine (NSDC), as well as adopted decisions of the courts of Ukraine on the application of sanctions. As a result, the sanctions register itself is a dynamic and changing information and communication system. Technical information errors periodically occur in it, which complicates the procedure for banks to quickly and as correctly as possible determine whether a client belongs to the list of sanctioned persons.

• Requirement for banks to correctly and quickly verify clients as PEP (politically exposed person). The NBU recommends that financial market participants identify PEP through public databases, namely: the NACP register (National Agency on Corruption Prevention), the free register https://pep.org.ua/, various commercial resources and international comercial databases, such as World Check. At the same time, the NBU does not maintain its own PEP database, due to the fact that the creation of a single state PEP register does not meet FATF international standards. As a result, banks must use information from many sources when studying the client's personal data and his belonging to the PEP category, which requires a large amount of time and human resources. Such a check still does not guarantee 100 percent correctness of verification of the client's belonging to the PEP in comparison with the corresponding NBU verification.

• The need for banking control units to develop and apply procedures for identifying persons (clients/counterparties of bank clients) associated with the russian federation and the republic of belarus who use cash originating from the above-mentioned countries in their business activities. The criteria for verifying such money are not only their belonging exclusively to the national currencies "russian and belarusian rubles", but also belonging to the currencies of the 1st or 2nd international currency classifiers, which certainly complicates this kind of necessary verification.

• The need for further legislative improvement and regulation of the procedure for banks to identify clients who are connected to the russian federation and the republic of belarus due to ownership of various shares of companies in these countries (inaccessibility to many foreign stock registers of these countries; operational impossibility of sale/any legal method of alienation by residents of Ukraine of shares of companies of aggressor countries during the war).

• Lack of regulation at the legislative level of procedures for official exchange of customer data between various participants in the financial market of Ukraine. As a result, each financial and banking institution in Ukraine is trying to form its own database, which a priori will be limited to more reliable data only about the bank's own customers, but not about their counterparties served by other banks.

• The emergence of a new, rather large segment of private sector legal entities that use state funds in their business activities to fulfill certain defense orders during wartime, which involves imposing certain "secret labels" on both bank clients and their counterparties. Such a security/secrecy regime makes it practically impossible to implement any verification procedures if the bank itself does not have departments/technical facilities/relevant state permits to process this type of information.

Under the influence of the war, migrations and relocations of businesses from combat zones or occupied territories of Ukraine have occurred and continue to occur continuously, not only to the central and western regions of Ukraine, but also abroad, for example, to Poland, Romania, Moldova, the Baltic countries, etc. This process of transformation of business companies creates new chains of production, transportation, sale of goods and services. Accordingly, the procedure for verifying all new chains of business, which banks must follow when verifying clients/counterparties/ beneficiaries, is significantly complicated.

Conclusions

The research results have been proved the hypothesis that the formation of a compliance ecosystem in a bank contributes to a more systematic assessment of modern compliance risks, ensuring that the banking institution complies with regulatory and ethical requirements, developing and implementing ESG standards, and increasing adaptability to challenges. And since the main goal of compliance is to ensure it with laws and regulations, prevent violations, minimize and preserve the bank's reputation, the bank's ability to withstand any challenges actually indicates an improvement in the quality of corporate governance.

Such challenges include, first of all, global ones, related to digital transformation; changing worldviews and regarding ethical norms and ESG, as well as the instability of the political situation; the impact of corruption risks; crisis phenomena in the economy and constant regulatory changes in the banking sector. However, the most important challenge at the moment is the war in Ukraine. And during the war, the Ukrainian government imposed additional restrictions that apply to both banks and their clients (primarily regarding the regulation of labor relations, cooperation with foreign companies and the identification of sanctioned persons, strengthening financial monitoring requirements, restrictions on the operation of the Ukrainian foreign exchange market, etc.).

According to the research results, three main groups of features/GAPs of compliance management in the banking environment of Ukraine during the war in the course of providing services to clients can be distinguished. These GAPs are related to:

• the quality of database formation, banks' accessibility to them and the level of automation of processing relevant information;

• the imperfection of the legislative framework at the state level and interstate relations on the exchange of client data;

• the imperfection of banks' internal regulatory procedures for detecting and preventing prohibited client transactions related to russia and the republic of Belarus. All of the above-mentioned areas of CO responsibility require a substantive practical analysis by the bank's management, initiation of the development of its own IT solutions involving the AI achievements and formulation of initiatives addressed to the NBU to change the current regulations, regarding methodological improvement and increasing the transparency of client data exchange, both at the state level of Ukraine and at the international level (primarily with the border states of the EU, where there was a mass migration of Ukrainian private business under the influence of the war).

Preventive measures are aimed at improving the culture of corporate governance, which includes compliance management. They should ensure the stability of the bank's activities in the current unstable environment and eliminate negative factors. Key recommendations for overcoming challenges in corporate governance and compliance in Ukrainian banks are:

• In the face of modern challenges, the bank's SB is becoming a driving force for building ethical banking and zero tolerance for violations and increasing compliance risks.

• The bank's CO team, with the SB participation and support, should take on the leader role of compliance management transformation in the bank's ecosystem in the next two to three years.

• SB, MB, CO of banks, when strategically planning their activities, must review and approve budget expenditures to overcome the challenges of "AI/Digital", "Technological", "Cybersecurity".

• SB, MB, CO banks need to urgently begin planning their own resources for the ESG development and implementation, as a prerequisite for effectively attracting global investors and donors to the Ukrainian economy in the post-war period.

• SB, MB, CO of banks, in conditions of a total shortage of personnel and an insufficient level of their professionalism in compliance management, either directly or through professional associations of banks, should establish cooperation with the NBU and specialized universities of Ukraine to develop modern student training programs, training/retraining of bank managers on "Modern Compliance Management" subject.

In conclusion, the authors highlight the following relevant areas for further research on the subject covered in the article: *first*, the transformation of the SB role for the development of a modern system of government compliance management in Ukrainian banks during the war and the post-war period of state reconstruction; *second*, the formation of principles for the construction and implementation of a modern CMS for Ukrainian banks with the involvement of AI capabilities and ensuring the relevant cybersecurity requirements.

REFERENCES/СПИСОК ВИКОРИСТАНИХ ДЖЕРЕЛ

Amblard-Ladurantie, C. (2024, April 19). Governance, Risk and Compliance Trends, 2024. Mega International (Global). https://www.mega.com/blog/grc-trends-2024

Armstrong, M., & Picone, N. (2024, February, 5) Top 5 Regulatory Compliance Issues Facing Financial Services in the Next 5 Years. https://trustyoursupplier.com/top-5-regulatory-compliance-issues-facing-financial-services-in-the-next-5-years

Azarenkova, G., Tsovma, B., & Tomarovych, T. (2023). Theoretical and methodological principles of compliance control in the corporate management system of the bank in modern conditions. *Scientific Bulletin of the Odessa National Economic University:* collection of scientific works; ed.: V. V. Kovalenko (ed. chief). (ISSN 2409-9260). Odesa: Odessa National Economic University, 9(310), 72–80. http://n-visnik.oneu.edu.ua/collections/ 2023/310/pdf/72-80.pdf Азаренкова, Г. М., Цовма, Б. В., & Томарович, Т. В. (2023). Теоретико-методологічні засади комплаєнсконтролю у системі корпоративного управління банку в сучасних умовах. *Науковий вісник Одеського національного економічного університету:* зб. наук. праць; за ред.: В. В. Коваленко (голов. ред.). (ISSN 2409-9260). Одеса: Одеський національний економічний університет, 9(310), 72–80. http://n-visnik. oneu.edu.ua/collections/2023/310/pdf/72-80.pdf

BCBS. (2005). Compliance and the compliance function in banks. *Task Force on Accounting Issues of the Basel Committee on Banking Supervision*. BCBS. https://www.bis.org/publ/bcbs113.pdf

Beaumier, C., & Reese, B. (2024). Top-of-Mind Compliance Issues for Financial Institutions in 2024. *Protiviti, Global business conculting*. https://www.protiviti.com/gl-en/whitepaper/top-of-mind-compliance-issues-financial-institutions-2024

Bezverkhyi, K., Parasii-Verhunenko, I., Yurchenko, O.,	Безверхий, К., Парасій-Вергуненко, І., Юрчен-
Kazak, O., Zhytar, M., & Poddubna, N. (2024).	ко, О., Казак, О., Житар, М., & Поддубна, Н.
Conceptual basis of anti-corruption audit. Financial	(2024). Концептуальні основи антикоруп-
and Credit Activity Problems of Theory and	ційного аудиту. Financial and Credit Activity
Practice, 6(59), 77-89. https://doi.org/10.55643/	Problems of Theory and Practice, 6(59), 77-89.
fcaptp.6.59.2024.4482	https://doi.org/10.55643/fcaptp.6.59.2024.4482

EIB. (n. d.). Roles of the EIB compliance function. https://www.eib.org/en/about/compliance/index

European Investment Bank. (2024). *EIB Group compliance activity report 2023*. https://www.eib.org/ attachments/lucalli/20240120_eib_group_compliance_activity_report_2023_en.pdf

Extra Consulting. (2024, October 8). How do Ukrainian banks overcome the challenges of financial monitoring, currency supervision and compliance? VI Annual Conference. https://extra-consullting.net/2024/09/22/compliancerisk2024-conference-october-8-2024/

Fox, T. (2022, February 14). Innovation in Compliance: Compliance Ecosystem – P. 1. *Compliance Podcast Network*. https://compliancepodcastnetwork.net/innovation-in-compliance-compliance-ecosystem-part-1/

Grudzevuch, U., Pylypenko, S., & Ohinok, S. (2024). Compliance policy of ukrainian banks at the present stage. <i>Economy and Society</i> , (60). https://doi.org/10.32782/2524-0072/2024-60-128	Грудзевич, У. Я., Пилипенко, С. М., & Огінок, С. В. (2024). Комплаєнс-політика банків україни на сучасному етапі. <i>Економіка та суспільство</i> . (60). https://doi.org/10.32782/2524-0072/2024-60-128
Hura, V. (2023). Compliance system as a way of overcoming corruption. <i>Economy and Society</i> , (52). https://doi.org/10.32782/2524-0072/2023-52-77	Гура, В. (2023). Система комплаєнся як спосіб подолання корупції. <i>Економіка та суспільство</i> , (52). https://doi.org/10.32782/2524-0072/2023-52-77

Karthick, V., Prabhakaran, J., Banu, P., Kumar, U., & Senthil, S. (2023, September). Systematic Literature Review on GRC – A Study on Best Practices and Implementation Strategy in GRC. *Samdarshi ISSN: 2581-3986*, *16*(4), 3558–3570. https://www.researchgate.net/publication/381488401_Systematic_Literature_Review_on_GRC_-A_Study_on_Best_Practices_and_Implementation_Strategy_in_GRC/stats

Liga Zakon. (2024, September 26). Results of ESG	Liga Zakon. (2024, вересень 26). Підсумки ESG &
& Compliance Forum-2024: strategies for mana-	Compliance Forum-2024: стратегії управління
ging ESG risks and adhering to compliance stan-	ESG-ризиками та дотримання стандартів
dards. https://biz.ligazakon.net/news/230786_pd-	комплаєнс. https://biz.ligazakon.net/news/230786_
sumki-esgcompliance-forum-2024-strateg-	pdsumki-esgcompliance-forum-2024-strateg-
upravlnnya-esg-rizikami-ta-dotrimannya-standartv-	upravlnnya-esg-rizikami-ta-dotrimannya-standartv-
komplans	komplans

Miller, Lisa K. (2024, March). Promoting implementation of integrity compliance programs to advance integrity principles and deter misconduct. https://www.worldbank.org/content/dam/documents/sanctions/sanctions-board/2024/mar/INTIC_presentation_to_MDB_Sanctions_Boards.pdf

Mitchell, Scott L. (2007, November). GRC360: A framework to help organizations drive principled performance. *International journal of disclosure and governance*, 4(4), 279–296. https://doi.org/10.1057/palgrave.jdg.2050066

Mulyk, A. (2023). General approaches to the	Мулик, А. К. (2023). Загальні підходи до органі-
organization of compliance in banks. The collection	зації комплаєнсу в банках. Науковий вісник
of "Uzhhorod National University Herald. Series	Ужгородського національного університету,
Law". (79), P. 1, 272–277. https://doi.org/10.24144/	Серія Право, (79), ч. 1, 272–277. https://doi.org/
2307-3322.2023.79.1.46	10.24144/2307-3322.2023.79.1.46

Murphy, A. (2023). Supervisory Specialist, Federal Reserve Bank of Kansas City., Consumer Compliance Outlook: First Issue. https://www.consumercomplianceoutlook.org/2023/first-issue/common-challenges-of-community-bank-compliance-officers/

NBU Strategy. (2023, May 22). *Strategy of the National Bank of Ukraine, Financial fortress*. https://bank.gov.ua/admin_uploads/article/Strategy_NBU_eng.pdf?v=11

NBU. (2017, September 28). The Regulations on the Organization of Measures to Ensure Information Security in the Banking System of Ukraine: <i>Approved by Decision of the Board of the National Bank of Ukraine</i> , (95). https://bank.gov.ua/ua/legislation/Resolution_28092017_95	НБУ (2017, вересень 28). Положення про органі- зацію заходів із забезпечення інформаційної безпеки в банківській системі України: Затвер- джене Постанова Правління Національного банку України (95). https://bank.gov.ua/ua/ legislation/Resolution_28092017_95	
NCTBPU (National center for the training of bank personnel of Ukraine). (2024, December). Third Annual Conference "Compliance in Ukrainian Banks. <i>Current and Problematic Issues</i> ". https://www.nctbpu.org.ua/en/activities-en/sche- dule/1644-tretia-shchorichna-konferentsiia-komp- laiens-v-bankakh-ukrainy-aktualni-24.html	NCTBPU (National center for the training of bank personnel of Ukraine) (2024, грудень). Третя щорічна конференція «Компласнс в банках України – актуальні та проблемні питання». https://www.nctbpu.org.ua/en/activities-en/sche- dule/1644-tretia-shchorichna-konferentsiia-komp- laiens-v-bankakh-ukrainy-aktualni-24.html	
Nezhyva, M. O., Mysiuk, V. O., & Nehodenko V. S. (2024, August). Anti-corruption compliance: new business rules. <i>Economics of Management and Administration</i> . https://www.researchgate.net/publication/382931738_Antikorupcijnij_komplaens_novi_pravila_vedenna_biznesu [accessed Jan 20 2025]. https://doi.org/10.26642/jen-2024-2(108)-92-102	Нежива, М. О., Мисюк, В. О., & Негоденко, В. С. (2024, серпень). Антикорупційний комплаєнс: нові правила ведення бізнесу. <i>Економіка управління та адміністрування</i> . https://www.researchgate.net/pub-lication/382931738_Antikorupcijnij_komplaens_no-vi_pravila_vedenna_biznesu [accessed Jan 20 2025]. https://doi.org/10.26642/jen-2024-2(108)-92-102	
Omelchuk, Ya. A., & Shvets, N. R. (2017). Preconditions for establishment of an efficient compliance system in banking institutions of Ukraine. <i>Scientific Review. Innovative solutions in</i> <i>modern science, 10</i> (19). https://naukajournal.org/ index.php/naukajournal/article/view/1387/1484	Омельчук, Я. А., & Швець, Н. Р. (2017). Передумови для формування ефективної сис- теми комплаєнс в банківських установах Украї- ни. <i>Науковий огляд. Innovative solutions in modern</i> <i>science 10</i> (19). https://naukajournal.org/index.php/ naukajournal/article/view/1387/1484	
Ozarko, O. P., Chikalkin, I. I., Dankiv, N. I., Bavdys, A. E., & Lozynskyi, I. I. (2024). Content of the compliance control function in banking activities. <i>Scientific Notes of Lviv University of Business and Law</i> , (41), 424–430. https://nzlubp.org.ua/ index.php/journal/article/view/1357	Озарко, О. П., Чікалкін, І. І., Даньків, Н. І., Бавдис, А. Е., & Лозинський, І. І. (2024). Зміст функції комплаєнс-контролю в банківській діяльності. Scientific Notes of Lviv University of Business and Law, (41), 424–430. https://nzlubp.org.ua/ index.php/journal/article/view/1357. https://doi.org/ 10.5281/zenodo.13838281	
Regulatory Compliance in Banking: Role, Challenges, Consequences, & Solutions. (2024, October 6). <i>Team FOCAL</i> . https://www.getfocal.ai/blog/regulatory-compliance-in-banking		
Safronenko, K. (2022, August 2). The Role of Compliance in Wartime. https://kpmg.com/ua/uk/ blogs/home/posts/2022/08/rol-komplayensu-pid- chas-viyny.html	Сафроненко, К. (2022, Серпень, 2). <i>Роль комплаєнсу під час війни</i> . https://kpmg.com/ua/uk/blogs/home/posts/2022/08/rol-komplayensu-pid-chas-viyny.html	

Sheludko, S. A. (2023a). Sources of Legal Regulation of Compliance in Ukrainian Banks. <i>Law</i> <i>and Innovations</i> , 2(42), 34–40. https://doi.org/ 10.37772/2518-1718-2023-2(42)-4	Шелудько, С. А. (2023а). Джерела правового регулювання комплаєнсу в українських банках. <i>Право та інновації</i> , 2(42), 34–40. https://doi.org/10.37772/2518-1718-2023-2(42)-4
Sheludko, S. A. (2023b). Legal Status of the Comp- liance Office in Ukrainian Banks. <i>Problems of Modern</i> <i>Transformations. Series: Law, Public Management and</i> <i>Administration</i> , (8). https://doi.org/10.54929/2786- 5746-2023-8-01-01	Шелудько, С. А. (2023b). Правовий статус служби комплаєнсу в банках України. Проблеми сучасних трансформацій. Серія: право, публічне управління та адміністрування, (8). https://doi.org/10.54929/ 2786-5746-2023-8-01-01
State Register of Sanctions (n. d.). https://drs.nsdc.gov.ua/	Державний ресстр санкцій (н. д.). https://drs.nsdc.gov.ua/
Vnukova, N. M., & Hlibko, S. V. (Eds.). (2020). Modern economic and legal risk-oriented methods of regulating the development of the financial services market. Kharkiv: <i>Research Institute of the</i> <i>State Academy of Sciences of Ukraine</i> , 304 p. https://finmonitoring.in.ua/wp-content/uploads/ 2021/01/monografiya-rop-mono.pdf	Внукова, Н. М., Глібка, С. В. (Ред.). (2020). Сучасні економіко-правові ризик-орієнтовані засоби регулювання розвитку ринку фінансових послуг. Харків. <i>НДІ ПЗІР НАПрН України</i> , 304 с. https://finmonitoring.in.ua/wp-content/uploads/ 2021/01/monografiya-rop-mono.pdf

Conflict of interest. The authors certify that don't they have no financial or non-financial interest in the subject matter or materials discussed in this manuscript; the authors have no association with state bodies, any organizations or commercial entities having a financial interest in or financial conflict with the subject matter or research presented in the manuscript. Given that the authors are affiliated with the institution that publishes this journal, which may cause potential conflict or suspicion of bias and therefore the final decision to publish this article (including the reviewers and editors) is made by the members of the Editorial Board who are not the employees of this institution.

The authors received no direct funding for this research.

Horbachov, V., Netrebchuk, L. (2025). Compliance management ecosystem of the bank. *Scientia fructuosa*. 2(2025). 120–136. https://doi.org/10.31617/1.2025(160)07

Received by the editorial office 24.01.2025. Accepted for printing 18.03.2025. Published online 11.04.2025.