



A Risk-Oriented Approach in the System of Internal Auditing of the Subjects of Financial Monitoring

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1. Introduction

Worldwide socio-economic growth has traditionally been hampered by problems such as money laundering, shadowing of business and corruption in the management systems of economic entities.

Money laundering undermines the integrity of financial systems by financing criminal activities that affect the security and well-being of society.

The International Monetary Fund (IMF) estimates that the total amount of money laundering ranges from 2 to 5 % of the world's Gross Domestic Product or about \$1.5 trillion (Maksimenko, Saienko,

Abstract

The aim of this research is to generalize the international practice of internal auditing of financial transactions to substantiate alternatives to their rational use by financial monitoring entities in Ukraine. The purpose of the article is to summarize the key changes in international FATF standards and examine the use of a risk-oriented approach by Ukrainian entities in combating AML or CFT. Assessment of audit risk using quantitative characteristics is assumed on the basis of the most commonly used mathematical three-factor multiplicative model. Turning to the EU's experience is relevant for the global expert and regulators communities given the necessity to consider the best world practices. Summarizing the above provisions of the theory and practice of the risk-oriented approach for Ukrainian SFM allowed for identification of the areas of its practical implementation in the system of internal audit of financial transactions. The presence of an internal audit service will increase the degree of trust that government representatives have in such companies and the likelihood that a mutually beneficial partnership will develop between the parties.

Maksimenko, & Latyshev, 2022). In Australia, this figure is about \$10-\$15 billion a year (Singh & Best, 2019).

Environmental crime is one of the most profitable crimes in the world generating between \$110 and \$281 billion in illegal profit annually. The most significant environmental crime in terms of criminal gain is forestry crime which includes illegal logging and land clearing. Interpol's 2018 World Atlas of Illicit Financial Flows shows that forest crime generates between \$51 to \$152 billion annually; the World Bank estimates that governments annually lose between \$6 to \$9 billion of tax revenues from illegal logging alone (FATF, 2021; Law of Ukraine On Prevention and Combating Legalization (Laundering) of Illegally Obtained, 2020).

In recent decades, there has been a major growth in regulatory measures in Ukraine to monitor money laundering by business entities and individuals. On April 28, 2020, the new version of the Law of Ukraine 361-IX "On Preventing and Combating the Legalization (Laundering) of the Proceeds of Crime, Financing of Terrorism and Financing of the Proliferation of Weapons of Mass Destruction" (hereinafter, "Law 361-IX") (Dyakonova, 2011) which adapts to some extent the domestic realities of business development the Financial Action Task Force (FATF) Recommendations: International Standards on Combating Money Laundering, Financing of Terrorism and Proliferation of Weapons of Mass Destruction (FATF, 2012).

Unfortunately, Ukraine scored only 3 points in the 2020 rankings 117th with 33 points out of 180 countries. Today, there are a number of risks that could significantly push Ukraine back in the field of anticorruption including ineffective implementation of judicial reform, administrative and political pressure on anticorruption institutions, as well as attempts to disrupt and invalidate all the achievements in the process of public procurement (Ukraine has Risen in the Corruption Perception Index, 2021).

In 2020, the State Financial Monitoring Service (SFMS) submitted 1,036 sets of materials to law enforcement agencies, according to which the amount of financial transactions that may be related to money laundering and committing other crimes, as defined by the Criminal Code of Ukraine, amounted to UAH 76.2 billion. How significant is this amount in terms of covering Ukraine's annual budget deficit? In 2020, the general fund of the state budget was executed with a deficit of 215.5 billion Ukrainian hryvnias (UAH) (Informing About the Results of the SCFM, 2020; The Budget is Executed with a Deficit, 2020). Thus, according to the rough estimates, almost 30% of the annual budget could have been avoided by directing UAH 76.2 billion to the development of the national economy.

The FATF recommendations include a risk-based approach to anti-money laundering and counteracting the financing of terrorism (hereinafter Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT)). The FATF 1 Recommendations state that the subjects of financial monitoring (SFM) as an integral part of the anti-money laundering and anti-terrorism financing system must identify, assess and take measures to reduce the risks of money laundering and terrorism financing. In international practice, the following types of risks are considered: product risk: the risk of internal control of the SFM, customer risk, possible involvement in its operations (Klimova, Zhampeis, & Grigoryan, 2020).

A four-month survey conducted using the Google Forms service (January – April, 2019) showed different approaches by the subjects to the organization of control in the management system: 36% of the surveyed domestic companies established a separate structural unit and 21% responded that they plan to establish one unit in the near future. Among the key risks that may adversely affect the activities of enterprises, the respondents noted the following:

- Strategic risks: changes in the macroeconomic parameters and market conditions.
- Operational risks: the risks associated with the implementation of investment projects.
- Regulatory: the risks associated with tax legislation.
- Financial: price risks (Gerasimenko & Zachosova, 2019).

A sociological survey of audit firms in Western Ukraine, public and private joint-stock companies in the Riven region and the analysis of their official websites (these entities are the subjects of primary financial monitoring) conducted as part of the current research confirmed the intensification of control over transactions related to the financial monitoring projects (primarily suspicious transactions): 25% of audit firms conduct primary financial monitoring carried out by the established internal control or audit unit in 75%, the firm director is responsible for this area of internal control; for joint stock companies, the situation is the opposite 65% of them control thresholds and suspicious transactions (both their own and those of their counterparties) through the board or audit committee for the other 30%, such responsibility is assigned to the chairman of the board or the Chief Financial Officer (CFO).

The Law of Ukraine 361-IX has strengthened regulatory requirements for the control of specific types of financial transactions but it is still necessary to increase the effectiveness of internal control used by Ukrainian financial monitoring entities based on the search for and generalization of relevant methodological tools.

The respondents confirmed that the concept of a managerial risk-oriented approach is actively used in the implementation of internal control over foreign economic transactions i.e., the transactions involving government assets. Internal control/audit methodology are used almost exclusively as a function of regulatory oversight of the results of specific business processes with regards to the transactions classified by the current legislation as "threshold", "suspicious" (Law of Ukraine "On Prevention and Combating Legalization"). Furthermore, business supporters are unanimous in their support for the formation of a modern risk management system based on identifying, assessing and minimizing the managerial risk factor of

the amount of losses as a result of its occurrence.

The two-levels risk assessment is the basis of a risk-oriented approach for the subjects of financial monitoring (SFM), which includes:

1) Risk profile assessment directly by SFM: identification and assessment of risks of financial transactions of the entity which may be the subject of financial monitoring under Law 361-IX; analysis of the measures to manage such risks in order to minimize them.

2) Assessment of counterparties risk profile (suppliers, customers and consumers of audit services): identification and assessment of the primary risk of the business relationships (financial transaction without establishing a business relationship) with the client; analysis of existing risk management measures to minimize them to a risk level acceptable to the SFM (Rozskazov, Chaliuk, Anishchenko, Smal, & Matviichuk, 2021).

Today, SFM is obliged to identify the risks inherent in its business, adhere to a pre-approved, adapted to the nature of operational activities, risk management system, inspect each counterparty/client identified as an object of financial monitoring, based on the risk profile created by the subject of primary financial monitoring, systematically reassess their risks and the risks of counterparties/clients characterized by conducting the so-called “threshold”, “suspicious” transactions (Saienko, 2016). The comparison between the traditional system of internal control and control based on the risk-oriented approach is shown in Table 1.

Table 1. System of internal control and risk-oriented management for SFM.

Internal Control	
Traditional	Based on Risk-Oriented Approach
The plan is based on the verification of business transactions	The plan is based on the risk assessment of transactions which are the objects of financial monitoring.
Individual risks (including important ones) may not be covered by the program	Provides identification, assessment and minimization of the risks envisaged by the SFM risk portfolio.
Focuses on the compliance of activities (technological and legal norms, principles of accounting and reporting) with current regulatory acts	Focuses on the risks of conducting transactions that are the objects of financial monitoring.

Source: Generalized by the authors on the basis of materials (Gerasimenko & Zachosova, 2019; Informing About the Results of the SCFM, 2020; Klimova et al., 2020).

Undoubtedly, control based on a risk-oriented approach allows recording deviations as well as predicting possible steps to prevent them.

The formation of an internal audit service in companies and enterprises in their development strategies provide for participation in the implementation of national projects and programs within the framework of public-private partnerships or assume the receipt of various subsidies and benefits at the level of regional and municipal budgets. The presence of an internal audit service will increase the degree of trust that government representatives have in such companies and the likelihood that a mutually beneficial partnership will develop between the parties.

2. Literature Review

Any business process no matter how small or insignificant is always associated with a number of risks. If these risks are realized, the goal of such a business process is partially achieved or not achieved at all. In other words, at the end of the process, one will not receive anything or will not receive what is required. This relationship makes it possible to convert risks into an internal audit plan or program.

Business process analysis and business process control systems are the focus of internal audit. Technically speaking, it is impossible to start a project to audit without any risk because a risk in many cases may not occur. The event itself is not a process but the result of certain processes. Therefore, when using a risk-based approach, the auditor must first establish the relationship between risks and processes and then depending on the chosen approach, proceed to the formation of an audit plan or program.

A simplified method involves the following sequence of actions: the formation of a list of processes (sub processes, stages of sub processes), then the generation of risk factors (in this case, the only risk factor considered - the risk of not achieving the process goal). It is possible to evaluate the risk level of the processes by assessing the impact of selected risk factors on the degree to which the goals of goals of the processes are achieved (Guseva et al., 2022). The starting point for advanced method is a list of enterprise risks with an assessment of at least their impact strength and probability or as it is called in specialized literature, a risk map (Anon, Nasuiton, Yahya, & Atmanegara, 2020). Thus, the following chain of actions is formed: creating a risk map, selecting the most significant risks and converting those risks into an audit plan and program. At first glance, everything seems simple but in the conditions of Ukrainian reality, a number of nuances emerge.

Firstly, when many companies in Ukraine, hear the words “risk map,” they behave differently than the creators of this tool intended. – Some get scared, others put it off for later but most consider this idea to be

complete nonsense. One way or another, the majority of Ukrainian companies do not form a risk map on a regular basis, not to mention its practical application. It is difficult to find an unambiguous explanation for this situation. Perhaps everything depends on the level of professional development of the managers which is often full of flaws; perhaps the developers of risk maps are to blame for failing to create a viable and practical management tool. Moreover, in part as a consequence of the previous nuance, many risk maps raise doubts about professional skills of the authors.

Thirdly, many risk maps are not suited for conversion into an audit plan or program. In such cases, material adaptation may be required. The main reasons are as follows (Mefford, 2014):

- The practice of generalizing risks (for example, the phrase “currency risk” is ambiguous without explanation).
- The absence of a causal relationship in the name (description) of the risk (which establishes the basic, i.e., the most characteristic relationship in specific conditions between the risk factor and the risk itself).
- Lack of process perception of the enterprise's activities (a fundamental reason that is unlikely to disappear in the next 5-10 years).

The goal of the risk-based approach to internal audit is to identify the most significant risks of the auditors themselves as well as the inherent risks of the enterprise taking into account the specifics of its activities and the industry in which it operates.

The risk-based approach to auditing is formed within the framework of the International Standards on Auditing (ISA). An auditor conducting an audit in accordance with ISAs should obtain reasonable assurance that the financial statements, taken as a whole, are free from material misstatement (Khan, Saienko, & Tolchieva, 2021). The auditor's reasonable assurance is based on the accumulation of audit evidence. This evidence is necessary for the auditor to express an opinion on the fact that the financial statements are prepared in accordance with the applicable financial reporting framework.

However, the analysis of the literature shows that there are limitations that affect the auditor's ability to detect material misstatements and therefore, the auditor cannot obtain absolute assurance. Limitations are related to the following factors (Naheem, 2016):

- 1) The use of random checks (testing).
- 2) Accounting and internal control system limitations (collusion, abuse, fraud).
- 3) The bulk of the audit evidence is persuasive rather than exhaustive.

In addition, the formation of the auditor's opinion involves professional judgment in relation to the collection of audit evidence (timing, nature and extent of audit procedures).

Accordingly, the auditor does not warrant that the financial statements are free from material misstatement as absolute assurance cannot be obtained. The objective of the auditor in performing a risk-based audit is to obtain reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This task involves three main steps:

- 1) Assessment of the risks of material misstatement in the financial statements.
- 2) Development and implementation of audit procedures to minimize the assessed risks of misstatement.
- 3) Issuance of an auditor's report based on the results of the audit.

The concept of reasonable assurance allows for the existence of a risk of an inappropriate audit opinion. The risk of an auditor expressing an inappropriate audit opinion when the financial statements are significantly misstated is called audit risk.

The ISA considers the risk of material misstatement (RMM) as a component of audit risk (AR). The risk of material misstatement consists of two components: 1) inherent risk (IR) - the risk inherent in any activity (business processes), 2) control risk (RC) - the risk of inefficiency of the internal control system.

That is, the risk of material misstatement can be expressed by the following formula:

$$(1) RMM = IR * RC$$

Inherent risk and control risk are the risks of the audited entity; they exist independently of an audit of the financial statements. The auditor should evaluate the risk of material misstatement at the assertion level as a basis for further audit procedures.

Another component of audit risk is non-detection risk (NDR), which is the risk that the auditor will not detect misstatements based on audit procedures. The risk of non-detection depends on the effectiveness of audit procedures and the professionalism of the auditor (Ladonko, Mozhaikina, Buryk, Ostrovskiy, & Saienko, 2022). The risk of non-detection cannot be reduced to zero. Since the auditor usually does not conduct a complete check but the choice of an inappropriate audit procedure and misinterpretation of the audit results lead to an increase in the risk of non-detection (Mefford, 2014).

According to the concept of risk-based audit, many authors noted that the auditor must assess the risks of essential misstatement and minimize the risk of non-detection in order to reduce audit risk to an acceptable level. To do this, the auditor needs to understand the activities of the organization, assess the risks and perform audit procedures in relation to:

- 1) Possible inaccuracies, errors or lack of information in the financial statements.
- 2) Possible management' circumvention of controls and manipulation of financial statements.
- 3) The effectiveness of control tools.

Limiting the risk of non-detection is possible only by improving audit procedures maintaining constant control and monitoring of the quality of audit assignments and increasing the professionalism of the auditor.

An analysis of practice has shown that the existing internal control systems are currently not able to assess the scope of problems in the field of risk management and, accordingly, are not able to prevent them. However, switching from the traditional to the risk-based model allows for quickly seeing the results. Insufficiently effective organization of internal control and risk management systems requires paying attention to certain requirements for internal control procedures. The relevance of the topic is due to the consideration of internal audit as a potential tool for improving the efficiency of AML activities and on the other hand, the insufficient level of development of the topic of formalizing the methods and models of risk management necessary for organizing the effective work of internal audit in Ukraine.

3. Materials and Methods

The economic essence of such concepts as “financial monitoring” and a “risk-oriented approach” which represent important tools in the fight against shadow business today is explored in the works of national and international scientists in particular: (Bondar, Levitska, Ostapyuk, & Osadcha, 2016; De Koker, 2013; Ewool & Quartey, 2021; Gerasimenko & Zachosova, 2019; Klimova et al., 2020; Olekh, Rudenko, & Gogunsky, 2013; Pilonato, 2019; Singh & Best, 2019; Vnukova, Kolodizev, & Chmutova, 2022).

These works analyze anti-money laundering used abroad ignoring the experience of the countries applying the risk-oriented approach (Deyneha, Akimova, & Kratt, 2016; Gupta, Alareeni, Akimova, Gupta, & Derhaliuk, 2020; Kalyayev, Efimov, Motornyy, Dziaany, & Akimova, 2020; Karpa, Parkhomenko-Kutsevil, Kupriichuk, & Omarov, 2021; Litvinova, Akimova, Ilchenko, Pomaza-Ponomarenko, & Yemets, 2020; Maksymenko, Akimova, Akimov, Hbur, & Orlova, 2020). Active changes in the regulatory field of financial monitoring increase the need to develop effective applications for the risk management systems, the measures to identify and verify the objects of financial monitoring and the risks of financial transactions defined by law as an integral part of SFM management.

As a result, the purpose of the article is to summarize the key changes in international FATF standards, analyze the use of a risk-oriented approach by Ukrainian entities in combating AML/CFT. The objectives of the study are the following: Primary financial monitoring subjects form the methodological bases of the risk – oriented approach. Generalization of practical aspects of AML/CFT management provisions.

Assessment of audit risk using quantitative characteristics is assumed on the basis of the most commonly used mathematical three-factor multiplicative model:

$$AR = IIR \times RCM \times RND,$$

where AR is the audit risk;

IIR - internal risk (inherent risk);

RCM - the risk of the means of control

RND — risk of non-detection.

The values of IIR, RCM, and RND take on the values $[0; 1]$, or $[0; 100\%]$.

There are no single methods for assessing and calculating the components of audit risk which are associated with a wide variety of situations related to accounting and disclosure of transactions, the uniqueness of each entity as well as the specifics and features of the auditor's professional judgment inherent in any industry.

Due to the specifics of money laundering activities, it is advisable to use an indirect model for calculating audit risk. The indirect model seeks to identify not the overall audit risk but one of its components - the risk of non-detection (Mefford, 2014). In this case, the auditor first finds the values of inherent risk and risk of controls takes the value of audit risk equal to 5% and calculates the risk of detection using the following formula derived from the multiplicative model:

$$RND = AR / (IIR \times RCM)$$

4. Results and Discussion

Risk management within the legislative field of financial monitoring is presented by the SFM measures to create and ensure the functioning of the risk management system which provides for the identification (detection), assessment/reassessment (measurement), monitoring and risk control necessary to minimize them (paragraph 62 of Art. 1 of Law 361-IX).

Management of financial monitoring processes on the basis of a risk-oriented approach has features clearly regulated at the legislative and practical levels in particular: the procedures are narrowly focused on the selected negative action factor, the source of danger is an object of management, management decisions are made on the basis of quantitative-qualitative assessment of the risk impact, economic communications are not studied comprehensively etc. As a result, the identified risks of money laundering and terrorism financing their impact on the state of sustainability and not only entrepreneurial profitability remain unstudied.

The features of risk-oriented management are given in [Table 2](#).

Table 2. Features of risk-oriented management of measures to combat money laundering and terrorism financing

Indicator	Risk-oriented management of AML/CFT activities	Balanced business management
1	2	3
Management objective	Forecasting and identification of risk events due to exceeding the threshold and or suspicious transactions and resource provision to neutralize the consequences of such risks	Formation of the conditions necessary for balanced socio-economic and ecological business activities on the basis of accounting and analytical support from an internal control and risk management system
Levels	Management risks of “threshold” and “suspicious” transactions of the entity’s financial activities	Resource, functional, structural and other risks of the economic activities of the entity
Management outcome	Reduction of the probability of asset and capital loss which leads to the loss of the total business value and image	Stability of the enterprise based on optimizing the positive dynamics of economic indicators, social welfare provision and environmental security at micro- and macro-levels

Source: (Karpa, Dubych, Zayats, Movmyga, & Tverdokhliebova, 2020; Klymenko, Akimova, & Korzh, 2016; Kryshchanovych, Akimova, Akimov, Kubiniy, & Marhitich, 2021; Mihus, Koval, Laptev, Bala, & Kopytko, 2020; Oliynyk, Bilan, Mishchuk, Akimov, & Vasa, 2021; Panasiuk, Kuznietsova, & Panasiuk, 2021; Smalskys, Gavkalova, Babenko, & Zolenko, 2020).

The failure of the management of the financial monitoring entity to take into account the features of a risk-oriented management in conditions of large-scale imbalance in the budget system will not ensure the optimality of the economic, environmental and social components.

The current version of the FATF Standards regulates the implementation of a risk-oriented approach which will allow the SFM to allocate its resources more efficiently. At the stages of financial monitoring and risk management, it is necessary to clearly understand the risks of combating money laundering and terrorism financing (AML/CFT) adapt their internal control systems to the nature and negative potential of these risks and provide enhanced measures in case the risks exceed control due to the reduced risk identification.

The AML/CFT system will be more effective and transparent as a result of purposely organized and a risk-oriented approach. FATF has strengthened the transparency of the requirements for financial monitoring entities, namely the availability of reliable information on beneficial ownership and control over the subjects of financial monitoring.

Technical compliance is a component of the methodology (*a methodology for assessing technical compliance with the FATF recommendations*) which is responsible for implementing specific FATF requirements. The methodology does not include any specific requirements for the performance standards; they are assessed separately, namely through the effectiveness component of the methodology which is “the degree of achieving certain results.” In the context of AML/CFT, effectiveness is the degree to which financial systems and economies reduce the risks and threats of money laundering and terrorism financing as well as combating financing of the proliferation of weapons of mass destruction (De Koker, 2013).

To assess the effectiveness, the FATF has adopted an approach focusing on a hierarchy of defined outcomes, suggesting four possible effectiveness ratings based on the level of disclosure of key issues and characteristics, such as:

- High level of effectiveness; the degree of achieving immediate outcome is high, it is necessary to make minor improvements.
- Substantial level of effectiveness; the degree of immediate outcome achievement is significant, it is necessary to make moderate improvements.
- Moderate level of effectiveness; an immediate outcome is achieved to some extent; it is necessary to make significant improvements.
- Low level of effectiveness; the degree of immediate outcome achievement is insignificant, it is necessary to make fundamental improvements (Report on the National Risk Assessment in the Field, 2022).

Today, the number of “threshold transactions” (financial transactions that these entities are required to report to the State Financial Monitoring Service) has decreased for the SFMS to four: financial transactions in favor of a resident of Iran or North Korea, the owner of a bank account in these countries; financial transactions of politically significant persons, members of their families and related persons; financial transactions for the transfer of funds abroad (including transfers to offshore zones) and financial transactions with cash.

As a result, the concept of “suspicious” financial transaction arose. In addition to reporting threshold financial transactions, Law No 361 requires the reporting of suspicious financial transactions including transactions of any size, if the subject of primary financial monitoring has sufficient ground to suspect that they are the results of criminal activity. The regulation on financial monitoring by banks No. 65 specifies more than 70 risk criteria according to which such a financial transaction may be considered suspicious (Annex 19 of

the Regulation No. 65) (Resolution of the Board of the NBU for No. 65, 2020).

Due to the expansion of the verification scope, the issues of developing the risk assessment methodology adapted to the state needs and national realities of SFM cooperation with contractors (customers, suppliers, buyers, etc.) of the risk assessment methodology are relevant. Alternatively, it is suggested to implement risk assessment as regulated by the SFMS for the SFM Table 3.

Table 3. Assessing the risks of combating money laundering and terrorism financing for FMS.

Risk level	Risk characteristics
High	Low population solvency; insufficient material and technical support of the unit or responsible lawyer of financial monitoring, low salaries of the personnel involved in controlling financial risks; low level of trust in the financial system both at the level of the SFM and at the subject level out of the number of financial monitoring objects, an ineffective system of information analysis on suspicious financial transactions, an inefficient system of investigation, inconsistency of measures to detect and prevent AML/CFT.
Substantial	Progression of political risk and political instability, improper identification of threshold and or suspicious financial transactions of both own and those of SFM counterparties ineffective measures to identify the ultimate beneficial owners and control over them; improper identification and alignment of factors shading the financial system of both own and those of SFM counterparties; high cash flow, outflow of financial capital from the country, insufficiently effective measures of the competent authorities in counteracting the financing of terrorism and separatism; ineffective sanctions for violation of AML/CFT legislation, use of non-profit organizations for the purpose of AML/CFT; growth of the organized crime rate and a lack of staff and resources for effective supervision.
Moderate	Imperfect system of initial identification of threshold and/or suspicious financial transactions; non-transparent financing of political parties; insufficient level of participants' training in the AML/CFT system; lack of sectoral assessment of SFM risks in the field of AML/CFT.
Low	Incomplete implementation in national legislation of the provisions of EU Directive 2015/849 of the European Parliament and the Council on preventing money laundering and fighting against terrorism.

Source: Compiled on the data basis (Labunska, Gavkalova, Pylypenko, & Prokopishyna, 2019; Shukhman, 2011; Singh & Best, 2019; Stasiukynas, Smalskys, Survila, Yermachenko, & Gavkalova, 2020).

According to the results of analyzing the international practice of combating money laundering (as a result of financial monitoring of threshold or suspicious transactions), the criteria for automatic detection of money laundering can be divided into three groups:

1. Corrupt transaction components that can be identified on the basis of the data available in ordinary financial statements.
2. Corrupt transaction components where detection requires correlation which could potentially violate the SFM's risk identification policy within the pre-established counterparty risk portfolios.
3. Corrupt transaction components, the detection of which requires data not available directly from the SFM information system, but available from other publicly accessible sources (for example, from official websites, published reports of external control bodies, etc.).

To be included in the internal or audit plan for threshold or suspicious transactions, the indicators that have been the "red markers" of money laundering for decades still remain important:

1. A large number of transactions occurring in a short period of time and structured as cash deposits or withdrawals.
2. "Reversal" transactions (payment return by the recipient on the terms of mutually beneficial agreements).
3. Transfer of funds with the participation of banks to "interesting countries".
4. Repayments of loans by external parties, etc.

The list of the so-called "suspicious transactions" for domestic SFM includes dozens of alternatives for their identification which requires typological approaches. Characteristic signs of suspicion of financial transactions with cash and other monetary instruments are: crediting to the account of funds in cash with their subsequent transfer to another person on the same or next transaction day, confusing or unusual nature of a financial transaction (or a set of related financial transactions) that has no obvious legitimate purpose, the inconsistency of the financial transaction with the nature and content of the client's activities; calculations

related to the ultimate beneficial owners, etc.

SFMs are classified as subjects of the state and primary financial monitors. The subjects of primary financial monitoring (SPFM), item 2 of Art. 6 of Law 361-IX (Olekh et al., 2013) are banks, insurers (reinsurers), brokers, credit unions, pawnshops and other financial institutions; postal operators; especially identified subjects of primary financial monitoring (auditing entities, accountants, business entities providing accounting services) other legal entities that are not financial institutions by their legal status but provide particular financial services.

A sociological survey of an accounting firm’s performance conducted in the framework of the present research in the west of Ukraine (primary financial monitoring entities) revealed the natural influence of external economic negative tendencies on the dynamics of identifying the suspicious transactions carried out by customers of audit services. The results of the survey are presented in Table 4.

Table 4. Studying the practices of conducting “suspicious” transactions by entities – clients of audit services.

No	Nature of “suspicious” transaction	The share of suspicious transactions in the total number of transactions that were the objects of financial monitoring (%)
1	2	3
1	The ultimate beneficial owner of the legal entity is a member of many other legal entities, some of which are the manager and / or accountant / signatory accountant / signatory	18
2	Real estate trade	16
3	Available facts of repeated change of the ultimate beneficial owner and / or head of the legal entity	15
4	Activities of non-profit organizations, including charitable activities	11
5	Activities that provide for obtaining special permits for subsoil use within the territory of Ukraine	9
6	There are grounds to believe that the client structures financial transactions or carries them out in a such a way as to avoid certain thresholds	7
7	The available information about the client gives grounds to suspect that a client may be a shell company	6
8	Availability of information on the influence and coordination of actions of third parties on the decision-making of the Ultimate Beneficial Owner (UBO) regarding economic activities of the legal entity	5
9	Other suspicious transactions (Annex19 Resolution 65)	13
	Total	100

Risk assessment methods are still multivariate today. In particular, domestic enterprises more often estimate a probabilistic characteristic, a dimensionless value from 0 to 1. This applies to both theoretical risk – which is based on scientific and technical assessments and effective risk – which is based on human perception and an approximate cost assessment of risk (Olekh et al., 2013). The form of theoretical risk expression is a statistical indicator reduced to the probability of some undesirable event. In the future, the probability of such an event and the assessment of the expected damage based on the results of the application of effective risk will be combined into one indicator – a set of probabilities of risk and potential. The suggested approaches to risk assessment complicate its objectivity, controllability and accordingly, the effectiveness of SFM management measures. As a result, it is advisable to discuss a comprehensive approach to risk assessment which is a rational combination of qualitative and quantitative assessment by justifying potential losses of production resources from the most significant risks in order to justify management decisions to identify, minimize and align operational and optimal consequences.

The concept of acceptable risk was the most widespread since it was impossible to achieve absolute zero risk. For example, on the subject of primary financial monitoring, we will focus more closely on the risk assessment procedures in the internal audit system, taking into account the principles of risk-based approach.

The quantitative assessment of the risks of the entity subject to financial monitoring is carried out in order to obtain the cost characteristics of risk consequences in case of a risk event (expected loss) which is necessary to determine the most significant risks and analyze the risk management system as a whole (Shukhman, 2011). In international practices, an assessment indicator is often used to calculate the return on

assets (ROA) – net income divided by the average amount of assets over a certain period [Equation 1](#):

$$ROA = \text{Net income} / (\text{Total assets at the beginning} + \text{Total assets at the end}) / 2, \quad (1)$$

The return on assets characterizes the potential of profit loss planned for investors, as the efficient use of the entity's assets is best reflected in the rate of return on its assets.

Another assessment option is the return on equity (ROE) that is calculated by dividing net income (NI) by the average amount of equity (E) over a period of time [Equation 2](#):

$$ROE = NI / (E \text{ at the beginning} + E \text{ at the end}) / 2, \quad (2)$$

The return on equity is an important indicator of the company's accounting efficiency. However, it depends on the monitored entity solvency policy: the amount of risk assets. Their liquidity (repayment) is not taken into account and therefore it does not consider the entity's long-term strategy ([Ewool & Quartey, 2021](#)).

It is of interest to consider the international practices for determining the residual risk in the effectiveness of auditing financial transactions. Calculating the residual risk is used by the SFM to confirm whether the risks of money laundering are properly managed directly by the subject of financial monitoring. To determine the level of economic security in matters of cooperation with the counterparty / client, the following [Equation 3](#):

$$SAFT = TVTS / GVBT \quad (3)$$

Where *SAFT* is the share of audited financial transactions ("threshold" or "suspicious") in the total volume of business transactions which is calculated over each reporting period of the SFM activities.

TVTS is the total volume of transactions of a specific type of services (supply, purchase – sale), carried out by the SFM with a specific counterparty / client that is subject to financial monitoring during the reporting period (thousands of UAH).

GVBT is the gross volume of business transactions with counterparties (supply, purchase – sale) during the reporting period.

Another interesting indicator is the assessment of client quality which reflects the SFM's ability to manage the risks of money laundering [Equation 4](#):

$$QCB = NCT / QC, \quad (4)$$

where *QCB* is the quality of the client base (%).

NCT is the number of clients whose transactions during the reporting period were qualified as subject to financial monitoring ("threshold" or "suspicious") units.

QC is the quantity of clients served during the reporting period.

An analysis of the peculiarities of entrepreneurial activity regulation shows that it is advisable to calculate this indicator separately in particular for individuals, legal entities and individual entrepreneurs. The risk of money laundering and terrorism financing is assessed on the basis of an aggregate assessment of such risk ([Informing About the Results of the SCFM, 2020](#)).

A key element in ensuring financial integration is the introduction of effective approaches to SFM based on integrated approaches to risk assessment in the fields of anti-money laundering and terrorism financing instead of a rigid approach that sets a framework for non-alternative policies for broad categories of counterparties. Innovative technological solutions for the implementation of monitoring tools of their compliance with digital identifiers will allow more for accurate and up-to-date risk assessment at optimized cost providing greater certainty in risk assessment conclusions and allowing for more use of both comprehensive and simplified verification. An important role is played by the management measures in terms of determining the nature of risks posted by foreign economic factors as well as the management system of the SFM. If the risks can be adjusted by administrative actions, then these are "management risks".

The major management risks that can be offset as a result of implementing effective financial monitoring measures as identified by most researchers are the following:

- Operational risk: the possibility of direct or indirect losses due to the initiating of inadequate internal processes or their conscious or unconscious violation.
- Legal risk: the possibility of violating the requirements of national and (or) international law.
- Reputation risk.
- Financial risk: the probability of legalization of illegal income as a result of financial transactions, resulting in financial sanctions, reduced income and increased bank costs ([Dyakonova, 2011](#)).

In auditing practices, these risks are carefully audited at the initial stages of cooperation with the counterparty (consumer of services). The methodology of qualitative risk assessment for an accounting firm today involves using ratings to select the most significant potential risks from the list of identified ones. Refinement of risk ratings is carried out systematically, based on the quantitative–cost characteristics of the assessment, which often requires significant labor costs ([Novikova, Pankova, Chaliuk, & Kasperovich, 2021](#)). Therefore, the main task of such an assessment, in addition to determining the materiality of risks, is to "cut off" the risks that with a high degree of probability do not justify further costs for their study and management.

For auditors, a number of management risks go through all the components of audit risk, which includes inherent risk, control risk and detection risk:

- Inherent risk is the risk associated with the operation of the enterprise, the customer and the presence

of errors in the audit of accounting and financial statements and is assessed at the preparatory stage of providing audit services.

- Control risk is determined by accounting and internal control systems: risks of distortion of account balance, incorrect accounting record etc. which could arise and be significant but it is not possible to prevent them in advance with the help of accounting and internal control systems.
- Accounting system risk (detection risk) depends on the errors made as a result of documenting business transactions, their incorrect reflection in the accounting registers at the stage of generalization of accounting data on the current date.

An accounting authority such as SFMS, using the principles of a risk-based approach plans the internal audit of its customers for the conduct of threshold and or suspicious transactions in two areas:

- Assessment of the counterparty's financial transactions for the probability of identifying the risk of money laundering and terrorism financing.
- Assessment of the counterparty's application of measures to combat money laundering and terrorism financing (i.e., the effectiveness of the internal audit system of financial transactions of the counterparty).

At each stage, the above audit risk is identified. If the risk poses the problem of losing resources or income, then there is a quantitative measure. Absolute and relative risk levels are determined for quantitative analysis.

In absolute terms, risk is defined as the amount of possible losses (reduction of income compared to the forecast value) in material or value terms. In relative terms, risk is calculated as the percentage by dividing the amount of possible losses by the indicator of the enterprise financial condition. Alternatively, an indicator of financial condition in practice may be the value of equity (funds), current expenses, investments and expected profit.

Domestic accounting firms mostly adopt in their internal regulations on audit quality control the international practice of limiting on the probability of loss:

- For acceptable risk, equal to profit is equal to 0.1.
- For critical, profit is equal– 0.01.
- For catastrophic, equal to the equity value – 0.001.

This means that an agreement should not be concluded if in one case out of ten all profits, in one out of 100 – total revenue and in one out of 1000 – all capital can be lost (Bondar et al., 2016).

The practice of financial monitoring based on risk management confirms the following: the internal risks of the business processes of the audited enterprise are subject to verification as a matter of priority. The produced results can verify a systematic sequence of audit procedures in the internal audit: identification of the risk areas, identification of risks in terms of financial transactions, justification of key risks relevant to the management of financial results of economic activities.

The information basis of risk management in domestic SFM is formed by accounting as a system of accounting and analytical support of financial transactions which are the objects of internal control or audit.

In business practices, there are conditions under which accounting can contribute to corrupt activities. First of all, it is financial fraud. Skillful use of accounting methods allows the so-called “criminal white-collar workers” to manipulate accounting data in the interests of a certain range of users. Unfortunately, there are facts about the incorrect use of accounting data by many government agencies. A brief summary of such information can be suggested by researchers: corruption is always associated with suppliers and customers. It can lead to various types of “errors” of accounting in supplying and consuming organizations (Benston & Hartgraves, 2002).

Thus, commercial corruption generates erroneous entries in financial statements so the audit may reveal corrupt practices. There are situations in which audit processes have also been directly involved in major corruption scandals. Enron's bankruptcy is an example of particular interest not only because its longtime auditor (Arthur Andersen) was one of the five largest CPA companies but also because of the extremely complex accounting problems. In particular, there was a falsification of invoices and other accounting documentary evidence. An invoice did not relate to any actual service provided in this case. “Feedback rule” transactions (“unwritten charter rule”) flourished. The identified facts of “corruption” can be exemplified by the following: in the reports of external control bodies, it was found that the amounts indicated in the official invoices differed from the amounts of unofficial internal documents, service agreements were incorrect, vaguely formulated and did not relate to any actual business activity, according to the documents, the names of individuals mentioned in the documents did not coincide with the names of the recipients of funds etc. (Benston & Hartgraves, 2002).

5. Conclusion

Summarizing the above provisions of the theory and practice of the risk-oriented approach for Ukrainian SFM, we can identify the following areas of its practical implementation in the system of internal audit of financial transactions:

- Taking into account the factor of linking the SFMs with each other and contractors (suppliers, consumers and buyers) in case of detecting AML/CFT risks.
- Conducting a risk analysis of AML/CFT while taking into account the impact at macro-, meso- and micro-levels.
- Performing a risk assessment of AML/CFT by the subject of financial monitoring on the basis of comparing the materiality of such risks, as well as the influence of the management system on the prevention and minimization of their negative impact.
- Establishing the SFM's own assessment systems of AML/CFT risks as an integral part of a holistic internal audit system, developing appropriate documentation policies and procedures by these entities and taking into account the nature of potential risks of both counterparties and the SFM per se.

The practice of using analytical procedures at the stages of prevention and detection of financial risks as alternatives to their assessment allows domestic financial monitoring entities to have "risk tolerance" and more accurately predict likely resource losses (and thus avoid undesirable financial consequences), which is extremely relevant today for Ukraine.

Study will increase the effectiveness of implementing the risk-oriented approach for the domestic system of counteracting AML/CFT and accelerate the rate of overall balanced socio-economic national development.

It is advisable to determine the risk response method using the developed risk management methods selection matrix which includes various combinations of risk materiality and probability values on the basis of which it is proposed to select one or another management method. At the same time, the overall assessment of the effectiveness of the application (implementation) of the risk management program as a whole is carried out based on the total values of the quantitative characteristics of risk consequences before and after the implementation of control measures. Indicators of initial values are calculated after diagnostics of business processes and a quantitative risk assessment.

The novelty of the developed methodology for qualitative risk assessment of internal audit processes lies in the fact that it allows in accordance with the specified threshold values of probability and materiality to identify a group of risks that makes the greatest contribution to the total significance of risks. As a result of a qualitative risk assessment, a ranked list of the most significant process risks can be obtained, the management of which should be given priority in the first place. However, further research should focus on the possibilities of establishing a risk-based internal audit ecosystem in the strategic AML system.

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