

A CONCEPTUAL MODEL FOR IMPROVING RISK-BASED INTERNAL AUDIT PROCEDURES

Yuldashev Khurshidbek Mamirjonovich

Independent researcher, Namangan State Technical University

e-mail: x.yuldashev@hamkorbank.uz

ORCID: 0009-0005-5512-8161

Abstract

This paper proposes a four-stage conceptual model for improving Risk-Based Internal Auditing (RBIA) practices in commercial banks. The model comprises the reconstruction of the audit universe, a multi-criteria risk assessment matrix, an algorithm for the proportional allocation of resources, and elements of dynamic audit planning.

Keywords: risk-based auditing, residual risk, inherent risk, risk map, audit universe, risk appetite, dynamic planning, continuous auditing.

Introduction

Although the concept of risk-based auditing has formally entered banking practice in Uzbekistan, in many cases it is applied only nominally: an area is labelled “high-risk” in the annual plan, yet the actual allocation of resources remains unchanged. The Basel Committee’s principles for the sound management of operational risk (revised edition, March 2021) [1] and the COSO ERM framework [2] both emphasise that risk assessment is a continuous and dynamic process — a requirement that applies directly to audit planning as well.

First stage of the model: reconstructing the audit universe

In traditional practice, the audit universe is built around the *organisational structure* (departments, branches, divisions). Under the proposed approach, it is constructed as a two-dimensional matrix:

Horizontal axis — business processes (the credit cycle, deposits and settlements, treasury, cards and payments, IT processes, HR, procurement);

Vertical axis — risk types (credit risk, liquidity risk, market risk, operational risk, compliance risk, IT/cyber risk, model risk, reputational risk).

Every intersection point represents a potential audit object. This structure exposes the intermediate zones that “nobody examines”.

Second stage: the multi-criteria risk assessment matrix

For each audit object, an integral risk indicator is calculated using the following formula:

$$R = \sum (w_i \times s_i),$$

where:

R — the integral risk score of the object;

w_i — the weighting coefficient of criterion i ($\sum w_i = 1$);

s_i — the score assigned under criterion i (on a 1–5 scale).

Proposed set of criteria:

No.	Criterion	Indicative weight
1	Volume of operations and financial materiality	0.20
2	Complexity of the process and degree of automation	0.15
3	Results of previous internal and external examinations	0.20
4	Staff turnover and level of competence	0.10
5	Intensity of regulatory changes and new products	0.15
6	Potential for fraud and conflicts of interest	0.20

Residual risk is determined as a function of inherent risk and control effectiveness:

$$\text{Residual risk} = \text{Inherent risk} \times (1 - \text{Control effectiveness coefficient}).$$

Third stage: proportional allocation of resources

The annual audit time budget (measured in auditor-days) is distributed across risk zones as follows:



Risk zone	Share of time budget	Audit frequency	Approach
Critical	40–45 %	Annually or more often	Full-scope in-depth audit
High	25–30 %	Once a year	Standard audit programme
Medium	15–20 %	Once every two years	Limited scope
Low	5–10 %	Once every three years	Remote monitoring, analytical procedures

Such a distribution means abandoning the practice of “examining everything to the same depth” — methodologically, this is not a matter of choice but a necessary condition.

Fourth stage: dynamic planning and alignment with risk appetite

The annual plan should be treated not as a rigid document but as one subject to quarterly revision. The events (triggers) that justify amending the plan include: the launch of a new banking product; a significant deterioration in the quality of the loan portfolio; core banking system migration or a major IT change; changes in regulatory requirements; a major operational loss event; and a significant finding by an external auditor or the supervisory authority.

It should be emphasised separately that risk-based auditing loses its meaning unless it is linked to the bank’s risk appetite. The auditor must assess not only whether a risk exists, but also whether it has exceeded the tolerance limits set by the Supervisory Board. Otherwise, the audit conclusion is left without a criterion against which management decisions can be made.

Expected effect

The results expected from implementing the proposed model are: broader coverage of high-risk areas; an increased share of significant (critical and high-level) findings without expanding the overall audit scope; a reduction in the number of low-materiality, formal findings; and greater informational value of audit reports for the Supervisory Board.



Conclusion

- Improving risk-based auditing requires transforming it from a formal label into a genuine mechanism for allocating resources.
- A multi-criteria, weighted risk assessment matrix does not eliminate expert subjectivity entirely, but it structures that subjectivity to a considerable degree and makes it verifiable.
- Dynamic planning and alignment with risk appetite are the most important elements of the model, yet the least applied in practice.

References

1. Basel Committee on Banking Supervision. Revisions to the principles for the sound management of operational risk. — Basel: BIS, March 2021. URL: <https://www.bis.org/bcbs/publ/d515.htm>
2. COSO. Enterprise Risk Management — Integrating with Strategy and Performance. — COSO, 2017. URL: <https://www.coso.org>
3. The Institute of Internal Auditors. Global Internal Audit Standards. — IIA, 2024 (effective 09.01.2025). URL: <https://www.theiia.org/en/standards/2024-standards/global-internal-audit-standards/>
4. Basel Committee on Banking Supervision. The internal audit function in banks. — Basel: BIS, June 2012. URL: <https://www.bis.org/publ/bcbs223.pdf>
5. Regulation “On the requirements for the internal audit of commercial banks” (registration No. 3302, 07.05.2021). URL: <https://lex.uz/docs/5431666>