

## THE ISSUES OF INTERNAL AUDIT VALUE-CREATING MEASUREMENT IN THE BANKING SYSTEM

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**Abstract:** Internal auditors add value by helping commercial banks achieve their tactical and strategic objectives. They provide useful assurance, identify competitive advantages, protect bank assets, act as a third line of defense, and ensure effective banking performance. In this regard, the article proposes approaches to measure the impact of internal audit on banking performance and assess the impact of internal audit on the progress of commercial banks.

**Keywords:** internal audit, commercial banks, KPIs, audit impact measurements, audit effectiveness

**JEL codes:** M41, M42

**Research aims:** provide comments on how to measure the impact of internal audit on the performance of commercial banks.

**Research novelty:** a methodology has been proposed for measuring the performance of internal audit activities in commercial banks.

## **Introduction**

It is appropriate to compare the actions of a car mechanic with the activities of an internal auditor. When a driver buys a car from the market and tries to be sure, that everything is in order with the car before setting off on the road, he does not rely on the seller's verbal assurances, that the car is in good condition, but turns to a third impartial party - a car mechanic, who inspects the car at a technical service point, as a result of which he aims to identify malfunctions that will be risky when operating the car on the roads, and then, taking action, promptly eliminates them. Moreover, during the technical inspection, an experienced car mechanic also tries to suggest ways that will be aimed at improving the operation of the car and will increase its competitiveness and additional safety during road traffic (Tshughuryan, A., Mnatsakanyan H., Grigoryan, L. 2025).

Therefore, as a result-generating activity, the work of an auto mechanic leads not only to the safe operation of the car, but also to improved conditions, which is visible, but difficult to implement in terms of measurability. The same applies to the result-generating activity of internal audit, the measurability of which is a major problem in the banking system, but it is obvious that through the organization of internal audit, banking work is improved, progress is recorded in the field of competitiveness and sustainable development (Indah Mursyida 2023).

## **Research results**

As a third line of defense, internal auditors provide banks with confidence that risks are under control. They also provide

assurance that the bank's approach to risk and control is based on sound processes that ensure objectivity and consistency. In today's changing market environment, where new risks are constantly emerging, it is essential to have a flexible and proactive control system that can respond to risks facing financial institutions in a timely manner and contribute to the stability of the banking system. In the banking sector, internal auditors are in a key position to identify weaknesses and gain a broader picture of the situation, as well as to spot warning signs and gaps that bank employees may not even notice. By communicating their findings, they help management make the best decisions. Moreover, competitive advantages are identified during internal audit and as a result of the realization of these opportunities, internal audit acts as a driving force for banks to be in a better position, which, by the way, faces the problem of practical measurability (Hovsepyan H. 2020).

If new consumer protection guidelines are introduced, the internal audit function can help a commercial bank prepare in a way that protects both the consumer and the quality standards of their services RA Law "On Internal Audit" (2010). This ensures that there are no disruptions in the provision of banking services, which can improve customer satisfaction and help increase the attractiveness of the bank by ensuring additional customer engagement, which can act as a performance indicator for internal audit.

While the board of directors is responsible for corporate governance, internal auditors can support improvements in the culture of governance (Khachatryan N. 2024). They do this by providing objective assurance and insight into how well an

organization's risk management, internal controls, and governance processes are working. Internal audit may also review areas such as a company's corporate culture, sustainability, cybersecurity, and other major business risks. In doing so, the internal audit function helps to ensure that corporate governance is as effective as possible. And here again, the challenge arises of measuring that effectiveness and assessing the potential added value that the internal audit function can provide. The ability of internal auditors to provide this value depends on how competent they are to perform their work effectively. Thanks to modern technology, internal audit departments can gain real-time confidence and a 360-degree view of audit activity, helping them make their audits more effective, transparent, and risk-aligned (Zeitouny, H. 2012).

In addition to their responsibility for assessing internal controls and making recommendations, internal auditors' skills in risk management and their broad perspective on the organization uniquely position them as a valuable resource for strong corporate governance.

As a result, senior managers and boards of informed banks rely on internal auditors for advice on everything from transaction analysis and risk assessment to recommendations for improving corporate governance. Moreover, internal audit professionals are increasingly challenged to apply their expertise to a much broader range of objectives than ever before, such as evaluating emerging technologies, detecting and preventing fraud through digital transformation, analyzing the effectiveness of policies and procedures, and identifying opportunities to save money for the organization's stakeholders. It is also important to note that internal

audit functions that are focused on delivering results should be closely aligned with business management to identify opportunities for business process improvement, cycle time reduction, and cost savings. In this regard, a value-adding internal audit function engages subject matter experts who can bring new perspectives and industry best practices to the organization's progress (Khachatryan N., Khachatryan K. 2025).

Thus, the result-making activity of internal audit is multi-vector and multi-content, which in turn creates practical difficulties in measuring the impact of audit functions on the increase in the results of commercial banks (Eulerich A. K., & Eulerich M. 2020). We believe that this problem can be solved by using key indicators of progress in the field of internal audit activities (KPIs). That is, internal audit should first of all conduct a self-assessment of its capabilities, clarify its capabilities in the field of progress in the field of commercial bank activities, defining KPIs for this purpose. Then, by the actual performance of the defined KPIs, it will be possible to measure the impact of internal audit on the increase in the results of the organization. Thus, we propose to define the key indicators of progress of internal audit in three groups: protection of accumulated results, modernization of accumulated results, progress in the competitiveness of results (see Table 1). Then, key indicators of progress are defined for the self-assessment of internal audit. In other words, internal audit poses the question of how much it can contribute to the protection of banking assets and the reduction of financial and cybersecurity risks during the reporting period.

**Table 1. Performance of key indicators of progress for internal audit activities in the banking system<sup>3</sup>**

Key indicators of progress		Targ- eting	Acqui- sition	Devia- tion ratio
<b>Accumulated results Protection</b>	a			
Credit Risk Reduction	a <sub>1</sub>	5%	4%	0,8
Cybersecurity Risk Reduction	a <sub>2</sub>	6%	3%	0,5
Operational Risk Reduction	a <sub>3</sub>	4%	3%	0,75
Compliance Risk Reduction	a <sub>4</sub>	7%	5%	0,71
<i>Defense subindex</i>				Ia= 0,69
<b>Modernization of accumulated results</b>	b			
Improvement of capital quality	b <sub>1</sub>	8%	6%	0,75
Improvement of management culture	b <sub>2</sub>	15%	12%	0,8
Improvement of accountability	b <sub>3</sub>	10%	8%	0,8
Improvement of advice submission	b <sub>4</sub>	18%	16%	0,89
<i>Modernization sub-index</i>				Ib = 0,81
<b>Competitiveness progress</b>	c			
Investment growth in ESG principles	c <sub>1</sub>	15%	11%	0,73
Corporate responsibility growth	c <sub>2</sub>	12%	7%	0,58
Financial and economic standards growth	c <sub>3</sub>	6%	4%	0,67
Business reputation growth	c <sub>4</sub>	5%	5%	1,0
Customer satisfaction growth	c <sub>5</sub>	25%	20%	0,8
<i>Progress sub-index</i>				Ic= 0,76
<b>Key Performance Index</b>		I = Ia x Ib x Ic = 0,425		

<sup>3</sup> Created by the author.

However, internal audit does not limit its result-making activities to this only and moves on to activities that support the modernization of the accumulated results of the commercial bank's activities (see Table 1). To this end, the task is set to record progress in the areas of improving management culture, accountability, and consulting, which are also assessed by key performance indicators.

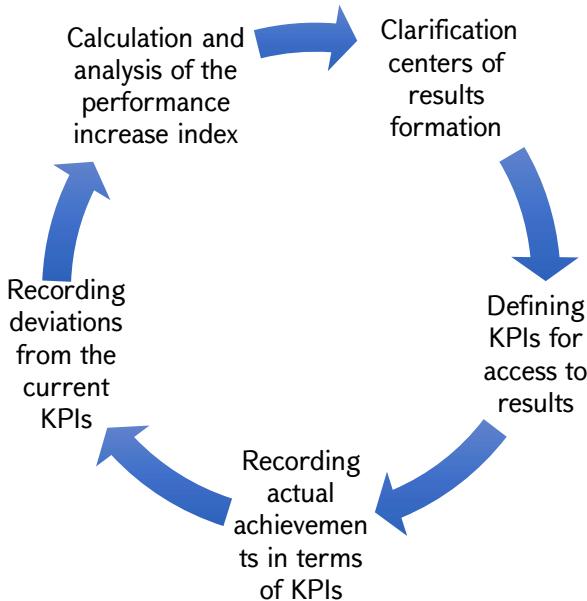
Finally, internal audit self-assesses its capabilities that contribute to improving the competitiveness of a commercial bank in the areas of corporate social responsibility, growth of business reputation, and growth of customer satisfaction, for which key performance indicators are also defined in advance.

After defining the KPIs, their actual performance is assessed, as a result of which the degree of performance of the key performance indicator is recorded in the form of coefficients of deviation of actual achievements from goals (see Table 1). Moreover, the closer the deviation coefficients are to 1.0, the higher the internal audit's productive activity is assessed for this indicator.

Thus, we propose to make the productive activity of internal audit measurable by an aggregate index consisting of the product of three sub-indices.

$$I = I_a \times I_b \times I_c$$

Each sub-index is calculated by the arithmetic mean of the coefficient deviations calculated for the components included in it. Thus, it becomes clear from Table 1, that in the reporting period, the role of internal audit on the productive activity of a commercial bank was most successful in the areas of modernization of accumulated resources, since the  $I_b$  sub-index exceeded the other  $I_a$  and  $I_c$  sub-indices in its magnitude.



*Figure 1. The proposed cycle for measuring the impact of internal audit on increasing the performance of the banking system<sup>4</sup>*

Therefore, in such a situation, the internal audit should set itself the task of subsequently improving the protective and progressive measures in order to achieve the necessary results in terms of the performance of the KPIs defined for them.

### Conclusion

Thus, for the purpose of measuring the value of internal audit in the banking system, we propose a cyclical option using the following cycle (see Figure 1):

First of all, internal audit clarifies the most important centers of banking activity that have performance characteristics. The goal is

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<sup>4</sup> Created by the author.

to focus internal audit resources on the activities and studies of the centers of formation of key banking results.

Second, by recording the centers of banking performance, internal audit provides self-assessments of its capabilities in them and defines key indicators of progress, the level of accessibility of which characterizes the performance-creating style of internal audit.

Third, as a result of its activities, internal audit records the achievement of the performance indicators, which serves as the basis for measuring the impact of internal audit aimed at increasing the performance of a commercial bank through the corresponding aggregate index.

Fourth, by analyzing the components of the aggregate index of increasing performance, the weaknesses and strengths of the internal audit's performance-generating activities are revealed, and accordingly, adjustments are made by internal audit for the new period of activities aimed at increasing the performance of a commercial bank.

Therefore, we propose to carry out the measurement of the impact of internal audit aimed at increasing the performance of the banking system on a continuous basis, introducing a progressive, cyclical approach to this process (see Figure 1).

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## ՆԵՐՔԻՆ ԱՌԴԱՐԱՎԱՐ ԱՐԺԵՔԱՍԵՂԾ ԶԱՓՈԽՄՆԵՐԻ ՀԻՄՆԱԽՆԴԻՐՆԵՐԸ ԲԱՆԿԱՅԻՆ ՀԱՄԱԿԱՐԳՈՒՄ

### ԶՈԼԻՒԹՈՒԹՅԱՆ ՔԱՂԱՋՅԱՆ

Հայաստանի պետական տնտեսագիտական համալսարան  
ասպիրանտ

**Բանալի բառեր** - ներքին առողջություն, առևտրային բանկեր, KPIs, առողջություն, չափումներ, առողջություն, վետություն

Ներքին առողջությունը արժեք են ավելացնում, օժանդակելով առևտրային բանկերին հասնելու իրենց մարտավարական և ռազմավարական նպատակադրումներին: Նրանք տրամադրում են օգտակար հավաստիացումներ, բացահայտում մրցակցային առավելություններ, պաշտպանում են բանկային ակտիվները, հանդես են գալիս որպես պաշտպանական երրորդ գիծ և երաշխավորում են բանկային գործի արդյունավետ կատարողականություն: Հետևաբար, հիմնախնդիր է ծագում, թե ինչպես չափել ներքին առողջությունը արդյունքստեղծ ազդեցությունը բանկային գործունեության վրա և գնահատել ներքին առողջությունը հետևանքները առևտրային բանկերի գործունեության առաջընթացի վրա:

Հոդվածում առաջարկվում է բանկային համակարգում ներքին առողջությունը արժեքաստեղծ չափումների նպատակով շրջափուլային տարբերակ՝ կիրառելով հետևյալ պարբերաշրջանը:

Նախ և առաջ, ներքին առլիտը հստակեցնում է բանկային գործունեության այն կարևորագույն կենտրոնները, որոնք արդյունքաստեղծ բնութագրիչներ ունեն: Նպատակը մեկն է՝ կենտրոնացնել ներքին առլիտի ռեսուրսները բանկային առանցքային արդյունքների ձևավորման կենտրոնների գործունեության և ուսումնասիրությունների վրա:

Երկրորդ, արձանագրելով բանկային արդյունքաստեղծ գործունեության կենտրոնները, ներքին առլիտը ինքնազնահատականներ է տալիս դրանցում իր գործողությունների հնարավորությունների գծով և սահմանում է առաջընթացի առանցքային ցուցիչներ, որոնց հասանելիության մակարդակն էլ բնորոշվում է ներքին առլիտի արդյունքաստեղծ գործելառնը:

Երրորդ, ներքին առլիտը իր գործողությունների արդյունքում արձանագրում է առաջընթացի առանցքային ցուցիչների կատարողականի հասանելիությունը, որն էլ հիմք է հանդիսանում առևտրային բանկի գործունեության արդյունքի մեծացմանն ուղղված ներքին առլիտի ազդեցության չափման համար՝ համապատասխան ագրեգատային ինդեքսի միջոցով:

Ընդ որում, բանկային համակարգի գործունեության արդյունքի մեծացմանն ուղղված ներքին առլիտի ազդեցության չափումները առաջարկվում է իրականացնել անընդհատության սկզբունքով՝ այդ գործընթացին հաղորդելով առաջընթացին միտված շրջափուլային մոտեցում:

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