

# Risk - based internal audit concept development in agro - industrial economy sector

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**Abstract.** Justification. In modern realities, in conditions of political and economic instability, the number of risks faced by an organization is quite large. Based on this, the management of enterprises in the agro-industrial sector of the economy should conduct internal control in such a way as to identify and eliminate any risks in a timely manner. Thus, risk-oriented internal control of organizations in the agro-industrial sector of the economy is aimed at focusing on areas that are more susceptible to the risks of significant distortion of financial statements than others. Goal. Formation of a risk-oriented approach to the internal audit of organizations of the agro-industrial sector of the economy. Materials and methods. Consideration of the regulatory framework that regulates the standards of audit procedures, in particular in the context of internal audit procedures. Results. The authors conducted a comparative analysis of the traditional audit, which does not pay special attention to corporate governance, financing and risk management of the enterprise, and the audit focusing on the risks faced by the organization. Next, the stages and procedures that need to be carried out during the implementation of the control in question are considered. The authors also consider the contribution (in terms of advantages) of risk-based internal audit to the activities of the organization of the agro-industrial sector of the economy. Taking into account the constant digitalization of many aspects of the activities of various companies, the impact of this informatization on internal audit was also studied and the main risks and ways to combat them were identified. Conclusion. The mechanisms of a risk-oriented approach to the internal audit of organizations of the agro-industrial sector of the economy have been identified and formed.

## 1 Introduction

Nowadays, in the conditions of the rapid development of market relations, any company, in particular the organizations of the agro-industrial complex, should pay great attention to its organizational structure, as well as the effectiveness of corporate governance. First of all, this is caused by the need for the organization to quickly respond to various changes occurring both in the internal and external environment in order to prevent the development

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of various negative trends and risks that may adversely affect its economic activities in the agricultural economy sector.

The activity of any organization, including the agro-industrial economy sector, is associated with risk management. At the same time, they can be both external and internal. The fact is that any risk can have a great negative impact on a particular company. Based on this trend, it can be stated that one of the important tasks of the management of a modern agricultural or processing organization is the competent construction of an internal audit system in order to timely identify any risks, as well as develop measures to prevent their occurrence or eliminate them.

**Objective.** The aim of the study is the formation of a risk-based approach to the internal audit of organizations in the agro-industrial economy sector. The work is theoretical in nature and is aimed at developing methodological approaches for the implementation of internal audit of an agricultural or processing organization.

## 2 Materials and methods

The research predetermines the study of the regulatory framework that regulates the standards of audit procedures, in particular, in the context of internal audit procedures for agricultural or processing organizations.

Many authors believe that the nature of the risk emergence is threefold. Thus, it can have a deterministic, probabilistic and non-probabilistic character [1-7]. The deterministic nature refers to the existing knowledge and accumulated experience, which, despite the appearance of any threat, can help to cope with it and achieve the set goals. The probabilistic or non-probabilistic character indicates the uncertainty of the situation and the impossibility of knowing exactly whether a particular situation will occur or not.

The methodological basis of the study was qualitative and quantitative methods, which include assessment techniques and statistical techniques affecting the formation of risk assessment and risk management in organizations of the agro-industrial economy sector.

## 3 Results of the research

The activities of internal audit and risk management, which in the past were two concepts considered independently of each other, are now beginning to interact with each other and use each other's results intensively. For this reason, in many organizations, internal audit uses a risk-based approach and internal audit plans are developed within this framework. Risk-based internal audit in the context of agro-industrial organizations is an audit approach based on determining the risk status of an enterprise, the audit process in accordance with the risk status of an enterprise, and allocating audit resources accordingly, and it aims for audit effectiveness. Thanks to the risk-based approach to internal audit, views on risks and audits have changed, and internal auditors have been given the opportunity to create more value [8-10].

In this context, the status of the risk will be discovered first in the risk-based internal audit, and issues such as the scope of audit activities, content, timing, allocation of resources are shaped according to the risk.

The most important step in a risk-based internal audit approach is risk assessment. Risk assessment is a job that should be seriously considered as a component of an enterprise's internal control and risk management reports. It is wrong to classify risk assessment as a separate activity. It is a systematic process that includes the steps of identifying risks, measuring in terms of impact and likelihood, and then creating a risk matrix through prioritization.

All risks in organizations of the agro-industrial complex can be divided into the following categories:

- risk probability (assumes the possibility or impossibility of occurrence of any particular risk);
- risk level (determines the justification for the measures to be taken to eliminate the possible occurrence of a certain risk);
- risk degree (estimates the magnitude and likelihood of possible risks);
- risk acceptability (analysis of possible losses in the event of a particular risk);
- risk legitimacy (assessment of the legitimacy of actions to eliminate the risk).

Thus, in the conditions of constant transformation of business models, development of information technologies, changes in the regulatory framework, new risks appear. Because of this, internal audit is becoming more and more in demand.

Nowadays, there are two approaches to internal audit: traditional and risk-based, which will be considered in this study. Unlike the traditional second approach to conducting internal audit in organizations of the agro-industrial sector, it is aimed at focusing all the efforts of the auditor, the audit organization on risk management and on areas where there may be the greatest risk of material misstatement of the audited organization's financial statements.

Traditional internal audit does not pay much attention to corporate governance, financing and enterprise risk management. However, corporate governance requires that internal controls protect and manage enterprise risks. In addition, internal audit is required to implement effective risk management through various methods. Thus, it is necessary to integrate corporate governance, enterprise risk management and internal control in order to further strengthen the management of the organization [11].

So, let's present a comparative description of two approaches to internal audit in the form of a table: traditional and risk-based approaches (see Table 1).

**Table 1.** Comparative characteristics of approaches to internal audit. Compiled by the authors based on [5, 7, 8].

No.	Characteristics	Traditional	Risk-based
1	Basis for developing a plan	Review process	Risk analysis results
2	Orientation	Inefficiency and inappropriate use of organization resources	Efficiency of the organization's activities through risk management analysis
3	Peculiarities	Full organization study	Study of areas most at risk
4	Periodicity	Periodic	Continuous
5	Tasks	Analysis of financial statements	Modernization of processes related to risk management of the audited organization
6	Initiators of internal audit	CFO, Chief Accountant	CEO, Board of Directors (owners)
7	Imperfections in the field of control actions	There may be disagreements with the management of the audited organization on control actions that may lead to a shift in the timing of the audit	Coordination of risks (their importance) with the management of the audited organization
8	Imperfections in assessing the importance of identified risks	There may be disagreements with the management of the audited organization about the identified limitations	Coordination of all necessary procedures to eliminate the identified risks during the internal audit with the management of the audited

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Thus, risk-based internal audit is an audit procedure based on risk.

An important point is the consideration of the regulatory framework that regulates the standards of audit procedures and, in particular, the application of a risk-based approach. The legal regulation of auditing activities in Russia is enshrined in Article 1 of the Federal Law “On Auditing Activities”, which states that the direct implementation of this activity is based on the established International Standards of Auditing (hereinafter - ISA) developed by the International Federation of Accountants [2, art. 1]. The standards define the general requirements for the performance of audit organizations of their work, establish a certain level of quality of audits and are mandatory.

Since the modern world is subject to constant changes, the standards are periodically reviewed. A number of significant changes have been made to the ISA over the past decades in connection with the transformation of the internal control system of organizations. This has led to the adoption of a new concept in the ISAs for identifying audit risks, based on an analysis of corporate controls within an entity and its reliability in order to more effectively identify misstatements in financial statements. To this end, ISA 315 “Identifying and assessing the risks of material misstatement” (revised in 2019) was developed, the purpose of which is to identify and assess the risks of material misstatement due to fraud and error by studying the organization itself, its environment, elements of the internal control system, as well as ISA 330 “Auditor procedures in response to assessed risks” [3, 4]. Standardization and unification of audit procedures establishes a system of certain checks when applying a risk-based approach.

Internal audit based on risk assessment, which focuses on recorded and unrecorded risks, improves the quality of financial reporting and the process of compiling financial reporting [9, p.300]. The higher the risk area, the more time it takes to audit and supervise the person being audited. In addition to focusing on the risk level, risk-based methods help evaluate and add value to the financial reporting process.

Due to the fact that risk management is a complex process, auditors need to have sufficient knowledge about the audited organization, about the possible risks that are inherent in this business and the industry as a whole in which the enterprise operates. So, this approach to internal audit is considered quite complex. That is why it consists of many different mechanisms. Special attention in this matter is paid to accounting. At the same time, it is necessary to understand that many companies that are engaged in entrepreneurial activities are required to maintain accounting records, since this is enshrined in the legislation of the Russian Federation [1, article 6].

Thus, risk-based internal audit is aimed at concentrating attention in areas that are most exposed to the risks of significant misstatement of financial statements. The basis for the approach under consideration is a methodology that identifies and prevents the occurrence of risks. In addition, this technique should detect the reasons for the inappropriate and inefficient use of the organization's resources.

Speaking about the algorithm, the implementation of risk-based internal audit procedures, it includes 5 stages (see Table 2).

**Table 2.** Stages of conducting an internal audit based on a risk-based approach. Compiled by the authors based on [6].

No.	Stage of risk-based approach
1	Ranking the main business processes of the organization and identifying the subject area of the audit
2	Coordination of business goals / risks with the management of the audited organization
3	Studying the state of risk management (weak and strong sides of this management)
4	Coordination of the list of key risks with the management of the audited organization
5	Analysis of procedures to prevent the main business risks and development of measures to prevent and eliminate them

It should also be noted that some authors distinguish the following procedures for a risk-based approach in internal audit (see Table 3).

**Table 3.** Risk based internal audit procedures. Compiled by the authors based on [5].

No.	Procedure	Description
1	Identification of audited objects	Definition of objects, methods, potential and other aspects
2	Identification of risk factors	Using factor analysis, expert analysis
3	Methods for determining risk	Collection and analysis of the most important information in terms of the occurrence of adverse events
4	Development of documents on the methodology of risk assessment and management	Development of documents for internal audit

Next, let's consider the clear benefits of a risk-based approach in internal audit. Thus, this approach is based on the principles of exercising control over the enterprise. It contributes to the creation of a systematic approach to managing the risks of the organization and helps to assess risks. The basis of internal audit is the statistical data of the audited organization. It helps identify potential risks. An equally important advantage of the audit considered in the work is its adaptability to the actual practical activities of the organization [5].

In addition, the contribution of risk-based internal audit to business can be grouped into four sections (see Table 4).

**Table 4.** The contribution of risk-based internal audit. Compiled by the authors based on [10].

No.	Advantage	Description
1	Strategic	<ul style="list-style-type: none"> <li>Through the implementation of a methodological and inclusive approach, risk management helps to more easily adapt to an ever-changing environment.</li> <li>Understanding and therefore risk management becomes more effective</li> </ul>
2	Performance	<ul style="list-style-type: none"> <li>Involves reducing negative risks, leading to increased opportunity risks.</li> <li>Provides an opportunity to correctly identify risks, current management and internal controls to realize the most effective performance.</li> </ul>
3	Resource alignment	<ul style="list-style-type: none"> <li>Creates the most efficient use of resources and creates the opportunity to get rid of unnecessary costs.</li> <li>Facilitates harmonization between sources.</li> </ul>
4	Management of organizations in times of instability	<ul style="list-style-type: none"> <li>In case of deviation of indicators from the target values, it provides an effective solution for sustainable functioning in the current situation.</li> <li>It is easy to identify possible business risks and their consequences.</li> </ul>

Since digitalization is increasingly affecting various areas in the modern world, financial statements are no exception. After the introduction of information technologies for accounting reporting, some internal control measures within the accounting system are transferred to a computer. On the one hand, this simplifies financial reporting for the organization, and on the other hand, on the contrary, it creates certain risks for additional distortion of the transmitted information, which the auditor must identify and evaluate. Thus, the risk-based approach in internal audit is becoming more and more in demand.

The risks arising from the digitalization of the accounting field are also an important aspect when conducting internal audit. So, for the greatest clarity, they can be presented in the form of the following table (see Table 5).

**Table 5.** Risks and possible ways of their solution in the aspect of informatization. Compiled by the authors based on [12].

No.	Risk	Solutions
1	Difficulties in learning and applying the new system (evidence of paper audits is reduced, the rate of information technology updates is increasing)	Using test procedure for embedded system, collecting and analyzing audit software to process audit data, using dynamic software to track changes of some important data
2	Insufficient level of professional and computer knowledge of the auditor	The program for advanced training of auditors should include aspects related to the elements of digitalization of the accounting field
3	Inconsistency of the output data with the data stored in the system, unauthorized intervention in the system	It is necessary to audit the system itself, to have an idea about it and the corresponding situation
4	Computer software for auditing replaces people	Conducting a detailed audit focusing on e-data verification

The informatization environment makes the purpose of the audit no longer the expression of opinions on financial statements in isolation, but represents a trend towards diversification, it includes both the audit of the legality and fairness of ordinary financial statements, and the need to audit the security and reliability of a network information system.

To effectively deal with risks and apply the concept of risk-oriented internal audit, organizations develop a special policy in the field of risk management, which is reflected in the documents.

Thus, the traditional approaches to internal audit used up to this day have not been sufficient to meet the needs of organizations. For now, by changing the structure of internal audit, it has been directed towards internal audit systems that focus on risk with an emphasis on systems methods, policies and activities. Thus, risk-based internal audit is not only the result of changes in the external environment and the development of the enterprise, but also the development of internal audit and the enterprise risk management system.

The procedures for implementing a risk-based approach have a clear algorithm, which consists in dividing the audit process into separate stages, which helps to conduct a detailed analysis of the audit object at each stage of planning and conducting an audit using certain tools. Also, the extended step-by-step scheme itself makes it possible to subject the tools themselves to detailed analysis. In addition, the systematic internal control approach that underpins risk-based financial auditing is implemented in the partial stages of the audit, taking into account the multiple feedback effects from conducting the audit to planning it. This sets the stage for a systematically structured collection of preliminary information needed in the audit process to quantify partial risks, which will eventually be included in the consistent management of the final audit process.

## 4 Conclusion

The innovations considered in the paper have such a strong impact that the audit based on the traditional approach seems to be less effective and more inappropriate due to the increasing complexity of the audit subject. In addition, the growing pressure on costs is forcing the introduction of new controlling concepts within corporate governance. Finally, it should be noted that corporate governance reform proposals regarding internal controls and corporate transparency, as well as the auditor's increased awareness of fraud detection issues, clearly emphasize the importance of a risk-based audit approach.

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