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Quantitative Methods in Accounting and Finance

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THE IMPLEMENTATION AND FUNCTIONING OF AN INTERNAL AUDIT IN AN AGRICULTURAL ENTERPRISE

Summary: At the present stage of economic relations, the need for effective agriculture enterprise management is of primary importance. In order to achieve the defined organization's goals, a systematic approach to the assessment of a company's financial condition and increase the efficiency of risk management, an internal audit should be applied. The purpose of writing this article is to investigate development and determine the essence of an internal audit and the need for its practical application in the agricultural enterprise. In the analysis of recent research and publications, the works of leading scientists dedicated to the problem of determining the nature of an internal audit and its role in the management of the enterprise are mentioned such as V.S. Rudnytsky, V.V. Nemchenko, A.U. Redko, L. Sukharev, A. Bodyuk, V. Homutenko, A. Homutenko, A. Kirieiev, N. Kravets, C. Bardash, and others. However, it worth mentioning the fact that most research papers pay very little attention to the internal audit, its practical application, and the advantages and disadvantages of its use in agricultural enterprises. The aim of this article is to determine the expediency of the application of an internal audit in agricultural enterprise management in order to achieve the goals. The object of this research is an internal audit of a company. The subject is the determination of the internal audit functions, its place and role in management and the financial control of a company.

Keywords: internal audit, risk, internal control, agricultural enterprise, internal control.

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1. Introduction

The methodological basis of the research consists in scientific research methods and some methods of scientific knowledge: a comparative, systemic method, historical and legal methods of analysis and observation. The work was performed using such sources as scientific collections, educational materials, and scientific journals. The work consists of an introduction, three chapters which include three units, conclusions and a list of literature sources.

Nowadays, in terms of the rapid development of economic relations, the need for quality information to assess the financial condition of agricultural enterprises is growing fast. For effective and informed decisions, managers need the efficient use of human, financial and material resources.

The internal control of an agricultural enterprise can be characterized as a system that functions within an enterprise, and as a function of management that is performed by the relevant departments, services or individuals in accordance with their assigned duties: Agronomy, Veterinary, Engineering Service, Department of Economics and Economists, Chief accountant and accounting staff, directly responsible people, etc. [Подолянчук, 2010].

The availability of competent, trustworthy personnel in the enterprise, with clearly defined rights and responsibilities, is the most significant element of an internal audit. Employees have to be competent, honest and careful, and all the rights and duties of each employee should be clearly determined in their job descriptions. The International Standard on Auditing ISA 610 "Using the Work of Internal Auditors" defines internal auditing as an assessment activity of the service, which was established within the entity as a department of the entity [ISA 610].

2. Functioning of the internal audit in an agricultural enterprise

The main purpose of agricultural enterprises is reaching defined goals for which managers choose the strategy of performance, establish appropriate tactical approach, the necessary organizational structure and internal culture. However, in daily activities, an enterprise constantly faces internal and external factors that to different degrees affect the company's possibility in reaching its goals.

The influencing factors cause appearance of risk. Risk – is the possibility of an event occurring that will make a negative impact on reaching the company's goals. Risk appetite is the level of risk that the company considers to be acceptable in reaching its goals. For preventing a significant risk impact in the company, it is necessary to create a risk management system.

The procedures and internal control tools used in the enterprise are determined depending on the influence of external and internal risk factors, industry performance and the whole enterprise. It is not necessary to delegate the realization of all the control types to a separately run department. It is possible to distribute responsibilities among various departments. However it is necessary to remember that the responsibility for creating and the proper functioning of the internal control system rests with the company's management team. The owners and shareholders of the company are interested in the efficiency of the internal control system which encourages the reduction of risk in their investment. The statistical method was the most practical application for the quantification of risk in agricultural enterprises. For the calculations we used statistical data of the enterprise. The probability of loss can be found by using formula 1:

$$F = N^0 / N^t$$

where:

F – the likelihood of occurrence of a certain expenditure level,

 N^0 – the number of cases of occurrence of a particular expenditure level,

N' - the total number of cases in the statistical sample, including the successful operations of this type.

In cases of informational sufficiency about the past implementation of certain risks in a specific type of enterprise, for the entity it is easier to evaluate its implementation in the future. In this method the expected value, median and variance are used. Based on these features, the International Institute of Internal Auditors gives the following definition of internal auditing: an internal audit is an activity in providing independent and objective assurance and consultations for improving company performance. An internal audit helps the company to achieve its goals by using a systematized and consistent approach in assessing and improving risk management efficiency, control and corporate management.

To assess the adequacy and effectiveness of existing risk management and internal control systems, modern agriculture enterprises can implement a risk-based model of internal audit. The essence of the work of an internal audit is described in the International Standards of Internal Audit (hereinafter – the Standards), according to which an internal audit is a process of assessment and promoting improvements in risk management, control and corporate management. In other words, the aforementioned standards divide internal audit activities into the following three components: assessment of effectiveness of risk management system, internal control assessment and evaluation of corporate management.

In the cases of appropriate and well-planned organization, an internal audit is a tool that promotes the growth of shareholders' value by maximizing the market value of the company. In the economical literature the most common approach in the measurement of company value is EVA – Economic value added, which is calculated in the following way:

$$EVA = NOPAT - WACC \times IC$$

where:

NOPAT – the net operating profit after adjustments and taxes,

WACC – the weighted average cost of capital,

 $WACC = w_1 \times c_1 + w_2 \times c_2 + \dots + w_n \times c_n,$

 w_i – the share capital component,

c – the value or yield to the investor capital components,

IC – the invested capital.

In cases where EVA is larger than zero, the company is generating a profit in excess of the cost of capital and this is the basis for value creation, i.e. if EVA > 0 then the company creates value, whilst if EVA < 0 it erodes the value created earlier.

It should be noted that the calculation of index EVA is not the task of auditors, and this calculation, in spite of its simplicity, is rather complicated, time consuming and

often inaccurate. This index has been criticized repeatedly in academic circles and the attitude to it remains rather ambiguous. However, with proper calculation it remains quite informative, in its calculation we use a wide range of secondary indicators that collectively reflect the company's financial condition and to some extent are used in the most famous scorecard. Apparently, in the calculation of this indicator, net income figures in turn depend on many factors, so the studying, prediction and correction of these factors can largely change the net income in future. It is known that generally, income is calculated as the difference between revenue and expenditure, so we need to consider the factors that affect revenue (retention and gain of market share, ability to keep high prices, constant improvement and updating of products, portfolio optimization by excluding unprofitable items) and expenditure (the possibility of minimizing costs by optimizing managerial and operational functions).

Thus, internal auditors perform a basic purpose, they help the company's management team to achieve their determined goals, expand business opportunities, improve its operational processes and reduce risks during the execution of audit tasks in giving assurance and consulting services.

According to a risk-based model, an organized Internal Audit Service will help in performing the basic tasks of the internal control system.

However the introduction of a risk-based model of an internal audit has its advantages and disadvantages (Table 1).

From the above listed functions it follows that the activities of internal auditing are mainly connected with the monitoring of the internal control system. An internal audit is an assessment of the reliability and efficiency of the existing internal control system and the internal auditors are the experts appointed to conduct such an assessment impartially and professionally. Therefore, the internal audit performs the task of an independent analysis and the evaluation of various aspects of enterprise performance and gives to the company's management team confidence in the reliable and effective work of the control system that was created by them.

According to the research of the International Institute of Internal Audit, about 55% of the heads of internal audit of the leading enterprises in developed countries are accountable to the Audit Committee that operates under the Board of Directors of the company, about 22% are accountable to the executive leadership and nearly 25% to the CFO or the controller. An internal audit in organizational terms must report to the higher level of management rather than to the object of verification. An internal audit, independent from the executive bodies of the company, acts as a catalyst of proposals for minimizing the consequences of risk and the use of reserves for improving financial and economic activities. Thus it actively promotes the implementation of the company development strategy [Петренко 2012].

The highest appraisal of the internal audit's effectiveness is the guarantee that all the systems of the agricultural enterprise are built and function adequately, and the necessary control mechanisms are embedded into every business process and work properly.

Table 1. Advantages and disadvantages of a risk-based model of an internal audit in an agricultural enterprise

Advantages		Disadvantages		
Simplicity	A comprehensive testing and description of an internal control system is not required; the whole organization and all the processes focusing on risk areas are sufficient.	The effect of «merging with business»	Close cooperation and interaction with the department which is being checked may affect the independence and objectivity of the internal audit specialist.	
Universality	There is a possibility to trace a clear connection between the processes, risks, controls, opportunities and recommendations by using a database of the performed audit. It is easy to demonstrate what kind of risk has been controlled and also get the results in order to develop the confidence of senior management about the status and effectiveness of internal control systems.	The novelty of the approach	It is a difficult job, so it takes time to study and implement a risk-based approach of internal audit, to collect data and information required, and to perform its analysis.	
Improving interaction with other departments	Department that is audited is directly involved in the audit process, so we can clearly understand the benefits of the internal audit work	Lack of trained staff	Probably it will take time for employees to master the new principles and approaches of the risk- based internal audit.	
Improving the effectiveness of the internal audits and the audits recommendations	Risk-based internal audits focus on the impact of the riskiest areas which are able exercise a critical influence on the business. Recommendations allow making a more effectively impact on the level of «residual risk.»	The risk of loss of control over certain areas of activity	Focusing on areas with high levels of «inherent risk» (before control procedures) may require a waiver of checking of other areas that previously were regularly controlled in the interests of the mid-level directors.	
Assistance in the justification of resources attraction	As the audit plan is developed taking into account the need for inspections of significant risks, it is easier to justify to directors the need for the involvement of human resources.			
A more creative and interesting approach to internal audit staff	The amount of «routine» work in the detection of non-compliance with legal requirements is reduced, the focus is made on identifying and assessing a risk and control procedures.			

Source: own elaboration.

In practice it is quite difficult to assess the effectiveness of the internal audit because:

- the result is not always measured quantitatively,
- the effectiveness depends not only on auditors, but also to a large extent on the resulting actions of the audit customers,
- subjectivism plays an important role in the assessment of the results by the customers.

The effectiveness of an internal audit cannot be measured accurately. However, every year certain criteria can be monitored, despite its disadvantages. For an analysis of the audit performance we use qualitative and quantitative indicators. These indicators have to demonstrate the dynamic of the implementation of the annual plan of the Internal Audit Service (IAS) and the costs of service in terms of all the projects. Moreover, the indicators system is designed to assess the degree of customer satisfaction with work carried out by auditors.

- the number of employees of the Internal Audit Service (it should be noted that until the IAS has enough staff, it is impossible to focus on high-risk areas by reducing the quantity of employees, thereby increasing the productivity and efficiency of service);
- the cost of keeping IAS: under conditions of risk controllability and high confidence in the normal development of business, executives inevitably have a desire to reduce the cost of the audit. So the head of the IAS should keep a high level of service, for example by optimizing the quantity of staff (see above). If the work of IAS covers the main risks of the activities, the costs, of course, should not grow unless there is an increase of enterprise risk;
- the number of reports about audit verifications (this indicator has a disadvantage: it requires additional provisions because for the audit of different systems different periods of time are needed. Thus in one year a large number of audits of local systems can be conducted, and on its results more reports will be prepared than in the previous year when a lesser number of systems of a larger size will be checked);
- the amount of performed audits per auditor (the disadvantage of this indicator is the same as in the previous one);
- the number of audits completed compared to the approved plan or the number of audits conducted in accordance with the budget (this figure can always be calculated but as an indicator of performance measure of service, this also has a disadvantage: during the year unscheduled audits or investigations always occur and that means that regular audits may not occur or occur with changes of the time);
- the number of audit recommendations (this criteria is limited in use; if auditors are aware that the measurement of the work effectiveness is the number of recommendations, it may encourage them to provide poorly thought out and unwise advice in order to increase the quantitative indicators of their work);

- the percentage of completed audit recommendations or the number of repeated auditrecommendations (this may indicate the ineffectiveness of the audit recommendations or monitoring the weakness of the implementation of the audit recommendations);
- direct cost reductions or savings from the performance of audit recommendations (it is quite difficult to calculate the indicator objectively);
- quality control (employees responsible for the quality control of the work papers of the audit service can develop a system of points; the higher the score, the higher the quality of the work may be considered);

the satisfaction of audit customers (a good indicator of effectiveness is an assessment of the internal audit service by those who were audited. But then again, it is difficult to measure it, although a periodical surveys of customers' opinions are useful).

The main objectives of internal control (audit), in our opinion, are:

- 1) to monitor the safety and effective use of the assets of the company,
- 2) timely compliance with current legislation and policy of the company,
- 3) to ensure the effective operation of the business, its financial stability and development prospects,
- 4) informing the owner with accurate information to make effective management decisions,
 - 5) to identify the potential for raising the efficiency of these activities.

The presence of an internal audit is mandatory for owners who are not directly involved in the management of the enterprise, and those who transferred these functions to the managers. Therefore, despite the professionalism of management this becomes an issue of control over the activities of the company, one of the main tools of which can be internal audits.

Although, in the results of the research, only a small number of farms Ukraine (10-15%) with the Internal Audit and Internal Auditor, are mainly agricultural holdings (Figure 1).

Performing an internal audit of product cost is one of the directions for improving cost management, the use of which provides the application of analytical procedures that allow confirming the calculation of production costs, detecting errors in its accounting and calculation and to establish their perpetrators, mobilize internal reserves for the efficient use of productive resources. Studding activity of dairy industry enterprises showed the absence of control over the use of resources in most of them, which leads to the possibility of abuse and distortions of information about production costs and adversely affects the result of the activity. During the creation of the internal audit department of production costs in dairy companies, it is necessary to determine its purpose, objectives, and forms of organizing an internal audit. The result of the internal audit of the enterprise "CHAJKA" show the need of improvement (Figure 2).

Size of enterprise	Big	Middle	Small
Form of activity	 Branch of vegetation (1) Stock – breeding (2) Alteration (3) realization (N) 	1 - 2	1
Region	Kiev (1), Cherkassy (2),, Sumy (N)	1	1
Share %	10 – 15	90 - 85	
Region	Kiev (1), Cherkassy (2),, Sumy (N)	1	1
Department internal AUDIT	Yes	No	No

Fig. 1. Agricultural Enterprises & Risks

Source: own work.

Market expenditure	Market holding	Price holding	Products renovation	Control of product stocks	Control of cost
-	-	+ -	+	+	+

Fig. 2. Result of internal audit of the enterprise "CHAJKA", the need of improvement

Source: own work

Based on the research, the work concluded that the system of "direct costing" most closely reflects market conditions and contributes to the solution of a number of important problems related to the efficiency of the company. It brings out the best proportion between variable and fixed costs, price and volume of production (sales), to form the optimal structure of production, make informed management decisions to improve enterprise efficiency, and minimize business risk.

Personnel selection is an important aspect in organizing the internal audit department in the company. The conducted research allowed to conclude that a three-level method of forming a department is the most cost effective. The work of the internal audit service should be based on the principles of competence, independence and comply with the "Regulation on the Internal Audit Service".

3. Conclusions

To achieve the defined goals of organization, and a systematic approach for assessing the financial situation of the agricultural enterprise and risk management, we should implement perfect technologies of obtaining and processing information.

The application of an internal audit allows creating and optimizing the necessary information according to the needs of executives.

An internal audit is a management function and aims to:

- ensure control over the proper recording and reporting the financial results
 of economic activity of agricultural enterprises in accordance with current
 legislation and exercising control over accounting policies and internal
 procedures,
- perform general systematic analysis (timeliness, correctness, completeness and accuracy of displaying ordinary activities in reporting),
- predict and eliminate fraud etc.,
- saving of assets,
- compliance of legislation of land rent,
- cost savings and significantly increase the interest of investors and counterparties,
- assess the effectiveness of management systems, etc.

Competitive advantages and a consolidated market position express the expediency of the work of the internal control service. In addition, an internal audit can eliminate defects, as well as hinder their implementation (that is internal audit can prevent the occurrence of negative consequences in the company).

The proposed quality assessment system of the internal audit gives a possibility to achieve such organization that may be optimal for the methodology of an internal audit, and for its cost-effectiveness. Quality control procedures of the work of the internal audit department have to be based on the use of "quality tests of internal audit", which are developed for each parameter, and this is the only system in which the quality of results of internal audit gets its final assessment. One of the main duties of the head of department is the maintenance of the quality of the department's work at the optimum level.

The implementation of an internal audit is necessary for improving the activities of organizational structures, and the assessment of the officials who provide its management and the determination of the financial strategy. In the final case, the application of an internal audit will create cost savings and significantly increase the interest of investors and counterparties.

Although the legal regulation of an internal audit and the problems relating to internal auditing in agricultural enterprises need further improvement, but exactly this type of control has maximum flexibility, the ability of quick correction of errors and improving financial and economic activity on the entity's level. Thus, an internal audit has all the necessary conditions for effective development.

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IMPLEMENTACJA I FUNKCJONOWANIE AUDYTU WEWNĘTRZNEGO W GOSPODARSTWIE ROLNYM

Streszczenie: Na obecnym etapie rozwoju potrzeba skutecznego zarządzania gospodarstwem rolnym ma zasadnicze znaczenie. Aby osiągnąć cele przedsiębiorstwa i zwiększyć efektywności zarządzania ryzykiem, stosuje się audyt wewnętrzny. Artykuł przedstawia możliwości wykorzystania audytu wewnętrznego w zarządzaniu gospodarstwem rolnym.

Słowa kluczowe: audyt wewnętrzny, ryzyko, kontrola wewnętrzna, gospodarstwa rolne.