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ACCOUNTING, FINANCIAL, AND ECONOMIC SUPPORT FOR SUSTAINABLE DEVELOPMENT OF THE AGRICULTURAL SECTOR: THEORETICAL FOUNDATIONS AND PRACTICAL RECOMMENDATIONS

Collective Monograph

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The monograph is focused on scientific, methodical and practical aspects of accounting, financial, and economic support for the sustainable development of the agricultural sector in Ukraine. The collective monograph was published within the framework of the state budget research topics "Innovative development of accounting, taxation and control in the system of ensuring the economic stability of enterprises" (state registration number 0121U109731), "Financial support for structural modernization and innovative development of agroindustrial production in Ukraine" (state registration number 0124U000027), "Information technologies and mathematical methods for the development of the agricultural sector of the economy" (state registration number 0120U105338).

The monograph is intended for policymakers and stakeholders in agriculture, accountants, banking and finance specialists, agricultural managers, farmers, researchers and postgraduate students in agricultural economics.

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2.1. INTERNATIONAL FINANCIAL REPORTING AND AUDITING STANDARDS AS THE BASIS OF TRUST IN ACCOUNTING INFORMATION IN THE AGRICULTURAL SECTOR

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The agro-industrial complex (APC) is the foundation of economic stability and food security of each state, generating considerable export potential. In the face of deepening the processes of globalization and the growth of requirements by investors, creditors and other stakeholders to the qualitative characteristics of accounting information, the issue of its accuracy and transparency becomes extremely relevant. International financial reporting standards (IFRSs) and international audit standards (ISAs) are recognized in the world as effective tools to ensure a high level of trust in financial reporting of economic entities, including enterprises engaged in agricultural activities.

The issues of using IFRS and ISA in the agro -industrial complex attract the attention of many domestic and foreign scientists. In particular, theoretical and practical aspects of accounting for biological assets and agricultural products in accordance with IAS 41 "Agriculture" were investigated, among others, L.G. Melnyk, N.V Proskurina, as well as foreign researchers such as A. Hendricks and S. Van der (S. Van Der Weele). Problems of adaptation of general principles of IFRS to the specifics of agricultural production, including the influence of seasonality and natural and climatic factors, were considered in the works of O.V. Gudzi, O.M. Efimenko and others.

At the same time, the issue of audit of financial reporting of agricultural enterprises in the context of use of ISA is the subject of scientific intelligence IV. Zhihlei, 2016, pp. 115–122), M.S. Kuzel. Researchers emphasize the need to take into account the sectoral risks and the specifics of audit procedures when checking the financial reporting of agricultural producers. Despite the considerable amount of scientific works in this field, the issue of developing complex conceptual approaches to increasing the level of trust in accounting information in the agro -sector on the basis of IFRS and ISA integration, taking into account modern technological trends, remains relevant and needs further research.

The purpose of the research is an in -depth study of the role of IFRS and ISA as a fundamental basis of trust in accounting information in the agriculturalfer, identification of key problems that arise when applying them, and developing conceptual approaches aimed at increasing the level of confidence of stakeholders in the financial statements of agricultural enterprises. The agro-industrial complex (agro-industrial complex) is a key sector of the national economy that provides food security, currency income and social

stability, especially in the conditions of global challenges and military threats. Its strategic role is manifested not only in the production of agricultural products, but also in the formation of export potential, employment of the population and development of rural areas.

Ukraine is traditionally one of the leading exporters of agricultural products, including cereals and oilseeds. In 2023, the share of agroindustrial complex in the export structure of the country exceeded 40%, which indicates its significant contribution to the formation of foreign exchange earnings and maintenance of payments.

In addition, the agricultural sector provides the employment of a large part of the population, especially in rural areas, contributing to reducing unemployment and social tension. The development of agroindustrial complex also stimulates related industries, such as mechanical engineering, chemical industry, logistics and trade.

At the world level, the agricultural sector plays a critical role in providing food security, especially in the conditions of population growth and climatic changes. Innovations in agriculture, such as digitalization, biotechnology and sustainable methods of production, become key factors for improving the efficiency and ecological stability of agricultural production. Ukraine, with considerable agrarian potential, can play an important role in global food chains, providing stable supply of quality products to international markets. The summary of the contribution of the agro -industrial complex to the economy of Ukraine is given in Table 2.1.1.

Table 2.1.1

The main indicators of development of the agro -industrial complex of Ukraine in 2023

Indicator	Value (2023)	Source
The share of APC in the GDP of Ukraine	17%	State Statistics Service of Ukraine
The share of agricultural products in export is	41%	State Customs Service of Ukraine
Employment in agriculture	2,8 million	State Statistics Service of Ukraine
Agricultural land area	42,7 million hectares	Ministry of Agrarian Policy and Food of Ukraine
Basic export positions	Cereals, oil, meat	Ministry of Agrarian Policy and Food of Ukraine

From the data of Table 2.1.1, we can see that the agroindustrial complex continues to play a decisive role in the economy of Ukraine, ensuring the stability of the state budget and acting as a driver of economic growth. The share of the agricultural sector in the GDP of the country is significant 17%, and more than 40% of all export revenue is formed precisely at the expense of agricultural products, which indicates its strategic importance for payments and international trade. The sector provides millions of Ukrainians, especially in rural areas, creating social support for a large part of the population.

In addition to economic indicators, it is important to emphasize the importance of agriculture in ensuring food security at both national and global levels. Stable volumes of production of grain, oil and other agricultural products form the export potential of Ukraine, strengthen its position as one of the key players in the global agrarian market and provide currency income in economic instability and military threats.

In today's context, increasing globalization processes and economic integration between states is significantly increasing the importance of quality accounting information as a basis for effective management, decision-making and financial transparency. Increasingly, enterprises, especially in the agricultural sector, are entering into partnerships with international investors, credit institutions, as well as integrated into international trade chains. In such circumstances, the requirements for reliability, timeliness and understanding of financial statements are significantly increasing. Reliable accounting information becomes a tool that reduces risks, increases the efficiency of resource management and allows you to form a positive image of the enterprise at the international level.

In parallel, digitalization and development of financial technologies make new requirements for formats and reporting channels. The use of cloud solutions, automation of accounting processes, the use of artificial intelligence in the field of financial information analysis necessitates the need to adapt traditional accounting practice to new realities. In this regard, international institutions strengthen the requirements for financial statements, introducing new standards and criteria for its quality. Thus, the International Accounting Council (IASB) regularly updates IFRSs according to global challenges and expectations of stakeholders, which emphasizes the need for flexibility and adaptability of national accounting systems.

The quality of accounting information determines the ability of stakeholders (owners, investors, controlling bodies, etc.) to objectively evaluate the financial condition of the enterprise, to predict its development and to make appropriate management decisions. It is especially relevant for the agricultural sector, which is estimated to be one of the most sensitive to changes in the external economic environment. Enterprises in this industry face high risks-both natural-climatic and market, so confidence in their reporting is crucial. That is why the introduction of unified international approaches to accounting allows to ensure not only transparency but also the stability of the functioning of enterprises during periods of turbulence.

In addition, increasing accounting requirements is also an indicator of corporate governance development. The role of non -financial reporting, in particular integrated, which covers issues of social responsibility, sustainable development, environmental impact - is growing - which is already taken into account by investors and international donors when making decisions. Thus, a quality accounting system is transformed from an internal accounting tool to the strategic resource of the enterprise. International financial reporting standards (IFRSs) are generally recognized rules that allow you to compare, transparency and objectivity of accounting information. In turn, international audit standards (ISAs) create the basis for independent verification of financial statements and confirmation of its accuracy. The introduction of IFRS and ISA in the agricultural sector is a prerequisite for the integration of Ukrainian enterprises into global economic systems, in particular in the context of the Association Agreement with the EU.

Studies show that the introduction of international standards allows to reduce information asymmetry between the enterprise and external stakeholders, helps to improve the investment climate and increase the value of companies. The works of modern Ukrainian scientists emphasize not only the formal application of standards, but also a deep rethinking of the methodology of accounting and audit in the context of digitalization, sustainable development and transparency of reporting.

For example, S.O. Kuznetsova justifies the need to change approaches to the quality of accounting information in connection with the transformation of the digital economy. Ishchenko Ya.P. It emphasizes the importance of adaptation of IFRS in corporate agricultural structures as a tool for providing transparency for external investors. The relevance of the topic is also confirmed by current trends - the state gradually requires IFRS reporting for big business, which creates a precedent for medium -sized enterprises, in particular in agroindustrial complex.

The integration of Ukrainian agricultural enterprises into the world economic space depends largely on their ability to form financial reporting, which is clear and comparable to international investors and creditors. The transition to international financial reporting standards (IFRSs) is a key step in this direction, increasing transparency of accounting information, attracting foreign capital and potential reduction in funding (Proskurina, 2018, p. 46). However, the process of implementation and use of IFRS in the agricultural sector of Ukraine faces a number of specific difficulties caused by the unique characteristics of agricultural production.

One of the most difficult problems is the assessment of biological assets. International Accounting Standard 41 Agriculture (IAS 41) requires the estimation of biological assets at fair value minus expected sales costs. The determination of this fair value is often complicated by the absence of active markets for certain types of biological assets, a long production cycle, as well as a significant impact of biological transformations and natural and climatic conditions. Insufficiently developed infrastructure of the land and agricultural market also complicates the objective assessment of assets.

Similar difficulties arise in the accounting of agricultural products, which at the time of the harvest is also estimated at fair value in accordance with IAS 41. The volatility of prices for agricultural products in world and domestic markets can lead to significant fluctuations in the financial results of agricultural enterprises, which requires careful analysis and disclosure. International Accounting Standard 41 "Agriculture" (IAS 41) is a key normative document that defines the procedure for accounting and submission of financial information on biological assets and agricultural products. The basic principle laid down in the standard is to recognize biological assets at the date of initial recognition and at each reporting date at their fair value minus expected sales costs. This reflects the economic essence of biological transformations and provides financial reporting users with more relevant information about the value of assets capable of physical changes.

IAS 41 defines a biological asset as a living animal or plant (IFRS Foundation, 2023). Agricultural activity covers the management of biological assets for the purpose of sale of agricultural products, the transformation of biological assets into agricultural products or obtaining additional biological assets. The standard requires recognition of a biological

asset if and only when:

- the enterprise controls the asset as a result of past events;
- there is a likelihood of receiving future economic benefits related to the asset;
- the fair value or cost of the asset can be valued.

The initial recognition of biological assets acquired as a result of the exchange of exchange for other assets, in addition to cash, is estimated at the fair value of the asset obtained, adjusted for the amount of money transferred or their equivalents. If the fair value of the asset obtained cannot be determined, its value is estimated at the fair value of the asset transferred.

IAS 41 provides a hierarchy of fair value valuation methods, giving priority the most reliable input. The main methods of evaluation are:

- market prices (the best proof of fair value is the presence of an active market for such biological assets in the current state and location. In this case, market prices are used without adjusting or with minimal adjustment for transportation costs and other costs required for sale) (IASB, 2023, PAR.17-19);
- discounted cash flows (DCF) (if there is no active market, fair value can be determined at the present value of the expected future net cash flows from the asset discounted at the current market rate for such asset) (IASB, 2023, Par. 27-29). This method requires significant assumptions about future prices, production and costs;
- sectoral coefficients (in some cases, industry indicators, such as the cost of a hectare of land under a certain crop or cost of the head of livestock of a certain age and breed, adjusted to the specific characteristics of a particular biological asset) (IFRS Foundation, 2016) can be used.

The comparative analysis of these methods is given in Table 2.1.2.

Table 2.1.2

Comparative analysis of methods of valuation of fair value of biological assets

Comparison criterion	Market prices	Discounted cash flows (DCF)	Sectoral coefficients
Data availability	High for standardized assets	Low, requires forecasting	Average depends on the availability of sectoral statistics
Complexity of application	Low	High, requires special knowledge and models	Medium
Subjectivity of the assessment	Low, based on market transactions	High, depends on assumptions and forecasts	Average depends on the representativeness of the coefficients
Relevance of the result	High for active markets	High in the absence of an active market	Average, used as an auxiliary method
Link	(IASB, 2023)	(IASB, 2023)	(IFRS Foundation, 2016)

The Ukrainian Agrarian Market is characterized by a number of features that complicate the use of methods for assessing the fair value of biological assets:

- insufficient active markets (for many types of biological assets in Ukraine there are no steel and liquid markets, which makes it impossible to use market prices as a major source of information for valuation);
- information asymmetry (availability and quality of information necessary for the use of discounted cash flows is often limited. Forecasting future prices for agricultural products and expenses is a difficult task because of the volatility of markets and the impact of macroeconomic factors);
- instability of the legislative and regulatory environment (frequent changes in agrarian policy and state support system can affect expected cash flows and discount rates, complicating long -term forecasting);
- the influence of the shadow sector (the presence of a significant shadow sector in the agricultural economy can distort market prices and complicate their use to estimate fair value).

Biological transformations, such as growth, reproduction, production and degeneration, are an integral part of agricultural activity and have a significant impact on the value of biological assets. IAS 41 acknowledges that these transformations can lead to an increase and a decrease in the economic benefits associated with the asset (IASB, 2023, Par. 13). The valuation of fair value should reflect the current state of the biological asset and the expected future transformations. For example, the assessment of cattle takes into account its age, breed, health and weight gain or dairy productivity. When evaluating perennial plantations, their age, variety, condition and expected yield are taken into account.

Natural and climatic conditions and related risks (diseases, pests, natural disasters) are important factors that should be taken into account when assessing the fair value of biological assets in the agricultural sector. These factors can significantly affect the physical condition of assets, their productivity and expected future cash flows. For example, drought can reduce crop yields, and an epidemic of cattle disease to its death or a decrease in productivity. The valuation of fair value should reflect the likelihood of such risks and their potential impact on the value of the asset. This can be taken into account by adjusting the expected cash flows or discounting.

The International Accounting Standard 20 "State Grant Accounting and Public Aid disclosure" (IAS 20) establishes the procedure for accounting and disclosure of state grants and other forms of state aid provided to enterprises. In the agricultural sector, state support plays a significant role, stimulating agricultural development, providing food security and supporting rural areas (OCD, 2023). The use of IAS 20 is important for ensuring transparency and reliability of state aid in the financial statements of agricultural enterprises. An important aspect of accounting in the agricultural sector is the accounting of state subsidies and grants. Agrarian enterprises in Ukraine often receive significant state support, the accounting of which is regulated by IAS 20 “Accounting for State Grant and Disclosure of State Aid”. The application of this standard requires a clear definition of the conditions of state aid, the procedure for its recognition and reflection in the financial statements, which may be difficult in connection with the variety of forms of state support

and the peculiarities of their provision in the agricultural sector (International Accounting Standards Board, 2023).

IAS 20 defines state grants as a assistance provided by the state in the form of transfer of resources to the enterprise in exchange for the past or future compliance with certain conditions related to the operating activities of the enterprise. The standard covers various forms of state aid, including monetary subsidies, preferential loans, tax benefits, assets on preferential terms, etc.

In the context of the agricultural sector, IAS 20 is of particular importance, since state support is often given in specific forms related to agricultural production, such as subsidies for the purchase of agricultural machinery, maintenance of organic agriculture, compensation for sowing costs, livestock subsidies, etc.

In Ukraine, agricultural enterprises receive state support for various programs that may include:

- direct payments (subsidies): provided directly to the bank accounts of enterprises for fulfillment of certain conditions (for example, per hectare of cultivated land, on the head of cattle). Accounting for such grants is usually carried out as grants related to income;

- compensation for interest rates on loans: the state partially or fully compensates for the costs of enterprises to pay interest on bank loans. Accounting for such assistance can be considered as a decrease in financial costs;

- partial compensation for the cost of agricultural machinery and equipment: the state reimburses part of the cost of purchased new equipment; Such grants are usually carried out as grants related to assets;

- support for the development of individual industries (organic agriculture, gardening, animal husbandry): providing additional payments or benefits to enterprises engaged in priority for the state. Accounting depends on a specific form of support;

- budget subsidies: providing funds to cover certain costs of enterprises (for example, for the purchase of fuel and lubricants). Accounting is carried out as a grant related to income. The accounting of each of these forms of state support requires a thorough analysis of the conditions of its provision and appropriate application of the provisions of IAS 20 (Ministerstvo Finansiv Ukrainian, 2019).

IAS 20 assumes that a state grant is recognized if and only when there is a reasonable confidence that:

- the enterprise will fulfill the conditions related to the grant;

- Grant will be received (International Accounting Standards Board, 2023).

State grants should be reflected in a systematic basis for periods in which the enterprise recognizes related costs, which the grant should be offset (IASB, 2023, Par. 18).

The standard distinguishes between two main approaches to displaying grants in income reporting:

- reflection as income: grants related to income (ie grants that compensate for already incurred or future expenses) are recognized as income during the same periods as the corresponding costs;

- reduction of the carrying amount of the asset: grants related to the acquisition of assets (ie grants, the main condition of which is the purchase, construction or other purchase of long -term assets) can be reflected by reducing the carrying amount of the relevant asset. In this case, the income is recognized as a useful use of the asset in the form of reducing depreciation costs. Alternatively, a grant can be recognized as deferred income, which is systematically recognized as income during the useful use of an asset.

Choosing the method of accounting for grants related to assets is the accounting policy of the enterprise and should be applied consistently to all grants of this type. Conditional grants are grants whose provision depends on the fulfillment of certain conditions concerning the future activity of the enterprise. Such grants are recognized as income only when the conditions of their provision are fulfilled and there is a reasonable confidence in obtaining a grant. By the time of fulfillment, conditional grants are reflected as liabilities (deferred income).

If the resulting grant becomes refunded due to non -compliance with the conditions of its granting, the amount to be refunded is recognized as the consumption in the period in which such need arose. Returning a grant associated with an asset may also lead to a adjustment of accumulated depreciation, which would be recognized without grant.

Accounting for conditional grants and their return requires from agricultural enterprises carefully monitoring the fulfillment of the conditions of providing state aid and timely display of relevant operations in accounting.

Conditional grants are recognized as income only after fulfilling the appropriate conditions. By this point, they are accounted for as an obligation. In case of failure to comply with the conditions and the need to return the grant, the corresponding amount is recognized as expenditure. The classification and basic principles of accounting of state grants in the agricultural sector are presented in Table 2.1.3.

Another specific characteristic of agricultural production is its pronounced seasonality. The uneven income and expenses during the annual operating cycle creates additional difficulties in the preparation of intermediate financial statements and the analysis of the financial condition of the enterprise. This requires the use of special approaches to the distribution of costs and recognition of income, as well as the adequate disclosure of seasonal fluctuations in the financial statements (Proskurina, 2018, p. 48].

The seasonal nature of the activity of the agricultural sector significantly influences the formation of income, expenses and financial results of enterprises. Most production operations, including sowing, harvesting campaign and sales, are concentrated in limited time periods of the year, which leads to uneven income and expenses during the financial year (OCD, 2023).

These fluctuations create significant challenges in the preparation of intermediate financial statements in accordance with IAS 34 "Intermediate Financial Reporting". During such periods, there may be distortion of profitability, asset turnover and liquidity, which complicates the analytical assessment of the financial condition of the enterprise (IFRS Foundation, 2023).

Table 2.1.3

Classification and accounting of state grants in agricultural agricultural to IAS 20

Form of state aid	Terms of provision	Accounting according to IAS 20
Subsidies for the purchase of agricultural machinery	Confirmation of the fact of acquisition	Recognized as a grant associated with assets. Displayed as a delayed income or reduction of the balance value of the asset
Interest rates compensation	Repayment of credit and compliance with the terms of the program	Recognized as a grant related to income. Included in the income of the period when loan maintenance costs are recognized
Livestock subsidies	Fulfillment of requirements for quantity/quality of products	Recognized as a grant related to income. Is shown in the income statement
Preferential loans	Compliance with the terms of using funds	The difference between the market and preferential rate is accounting as a subsidy and recognized as income of future periods
Return grants in case of failure to comply with conditions	Failure to comply with the terms of the contract	The amount to be refunded is recognized as the expense of the current period according to IAS 20 (par. 32–33)

Special accounting policies, including the distribution of costs between quarters, reserves, or estimated future income, can be used to eliminate the impact of seasonal fluctuations. This allows you to provide more uniform recognition of income and expenses according to the principle of accrual.

The disclosure of seasonality in the notes to the financial statements is an important tool for transparency. Businesses should explain how seasonal factors affect indicators, in particular what methods and assumptions were used in the preparation of intermediate reporting. Typical examples of seasonality influence are presented in Table 2.1.4.

In the context of ensuring the trust in the accounting information of agricultural enterprises, the audit of financial statements, conducted in accordance with international audit standards (ISA), plays an important role. Independent audit confirmation of the reliability and objectivity of financial statements increases the level of trust by investors, creditors, suppliers and other stakeholders (Mazur, 2023). The audit helps to improve internal control, corporate governance systems and reduce the risks of unjustified management decisions. However, conducting a quality audit in the agricultural sector requires the auditors of deep knowledge of sectoral specificity, understanding of the features of biological processes, the influence of natural and climatic factors, as well as the ability to evaluate the specific risks associated with agricultural production.

Table 2.1.4

Impact of seasonality on the elements of financial reporting of agricultural enterprises

Indicator	Seasonal influence	Accounting approach is possible
Revenue	Concentrated in the period after harvesting	Distribution of income based on previous statistics
Costs	Grow during sowing and cultural care	The distribution of costs between periods
Financial results	Significant fluctuations in profitability by quarters	Adjusting results based on seasonal changes
Assets turnover	Low in periods of product accumulation	Discovering factors in notes to reporting
Cash flows	Uneven receipt and disposal of funds	Use of forecasts

The agricultural sector is a unique industry in terms of audit because it is characterized by a high level of risk, seasonality of production, biological assets and a significant share of state support. These features require auditors not only to thorough knowledge of international audit standards (ISA), but also to a deep understanding of agrarian specificity (Mazur, 2023).

The use of ISA in the audit of agricultural enterprises begins with the study of the environment of the entity (ISA 315), including the analysis of factors that influence the financial statements: weather conditions, biological risks, market price fluctuations, etc. For example, significant risks of curvature of financial statements may be related to the valuation of the fair value of biological assets or the reflection of government grants. The auditor should apply procedures in response to identified risks (according to ISA 330), which often includes analytical procedures, document checking, physical inventory of biological assets, and staff surveys.

Particular attention is paid to audit of accounting estimates that are typical of agrarian reporting, for example, when evaluating biological transformation or expected crops. In such cases, the auditor is guided by the MSA 540 provisions, which allows the use of specialized experts - agronomists or appraisers. To demonstrate how seasonality affects the financial results of the agricultural enterprise, let us consider the example in Table 2.1.5.

Table 2.1.5

Impact of seasonality on the financial results of the agricultural enterprise

Indicator	I quarter	II quarter	III quarter	IV quarter	Year
Income, thousand UAH.	500	1,200	3,000	1,300	6,000
Expenses, thousand UAH.	800	1,000	2,000	1,200	5,000
Financial result, thousand UAH.	-300	200	1,000	100	1,000

As can be seen from Table 2.1.5, the income is significant in the third quarter, which corresponds to the harvest period, while costs are concentrated in the first half of the year. This imbalance indicates the importance of taking into account the seasonality in determining the materiality of the auditor according to ISA 320.

In addition, in the audit of agricultural enterprises, it is necessary to pay attention to the possibility of fraud, especially in terms of overestimation of estimates or incorrect recognition of income from state subsidies, which is under the regulation of ISA 240.

The ISA 500 emphasizes the importance of obtaining proper and sufficient audit evidence, in particular when assessing the physical availability of assets and their documentary confirmation.

According to the requirements of ISA 450, the auditor is obliged to evaluate all the detected distortions to determine whether they can lead to a significant distortion of the financial statements.

The use of ISA in the audit of agricultural enterprises is a multi -level process that requires taking into account the specifics of the industry, the high qualification of the auditor and an interdisciplinary approach. Adaptation of procedures to the risks of biological assets, seasonality and state support ensures the efficiency of audit and reliability of financial statements (Mazur, 2023).

In the process of audit of agricultural enterprises, the assessment of materiality and audit risk plays a key role, since it is on the basis of these parameters that audit procedures are planned. The essentiality in the context of the agricultural sector has its own specificity - seasonality, the presence of biological assets, the dependence on weather conditions and state support significantly affect the indicators of financial reporting. According to MSA 320, materiality is defined as a value that can affect the economic decisions of users of financial statements. Audit risk, according to ISA 200 and 315, consists of a significant distortion and the risk of non -detection. In the agrarian context, it is especially important to consider the inherent sectoral risks - biological, weather, logistics and fraud risks. For the illustration, Table 2.1.6 shows the classification of specific risks faced by auditors of agricultural enterprises.

Table 2.1.6

Classification of specific risks of audit of agricultural enterprises

Risk category	Examples	Potential consequences for audit
Biological risks	Animal diseases, falling, decreased yield	The difficulty of assessing the fair value of assets
Weather risks	Drought, frosts, floods	Fluctuations in revenue and crop loss
Storage risks	Dressing products, theft	Inventory loss, the need for adjustments
Risks of subsidies	Non -compliance with state aid conditions	Recognition of obligations, refund
Risks of fraud	Overestimation of biological assets assessment	False reporting, risk of non - detection

Therefore, the variety of risks in the agricultural sector requires the auditor of an individual approach to evaluating each object of inspection, taking into account the specific conditions of activity of the enterprise.

In the audit planning process, the auditor should take into account not only general procedures (ICA 300), but also special factors, including seasonality of production cycles, the nature of accounting for biological assets and the availability of expert estimates. For example, the valuation of the fair value of livestock or crop is not daily, but on certain reporting dates, which necessitates the use of ISA 540.

The auditor must not only check the accounting records, but also ensure that there are confirming evidence of the physical availability of biological assets, property rights and changes in their biological condition - this is explicitly specified in ICA 500.

Particularly noteworthy is the audit of agricultural products. The auditor should check the correct accounting of the cost of production, reflect its movement in warehouses and the accuracy of income formation during sale. Analytical procedures are often used for this purpose - to compare the yield by years, to compare the hectare costs and so on.

Understanding the relationship between risks and audit procedures is key. This is shown in Fig. 2.1.1, which illustrates how the type of risk affects the choice of procedures.

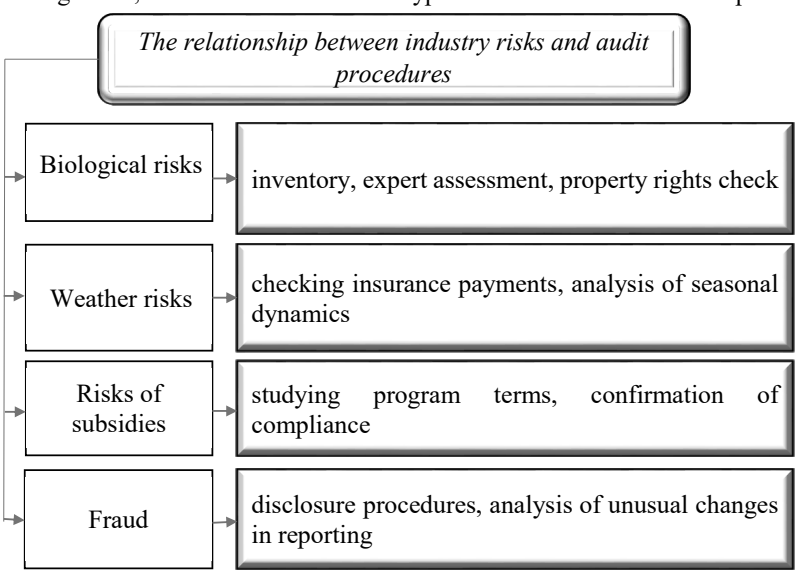

Fig. 2.1.1. The relationship between industry risks and audit procedures

Thus, the peculiarities of audit in the agricultural sector require a specialist in high qualification, analytical thinking and the ability to take into account external economic and natural factors. The reliability of financial reporting of such enterprises depends

largely on the depth of the auditor's analysis of the specific risks and the effectiveness of adapted procedures.

Agrarian enterprises audit requires a comprehensive approach to checking such key areas as state subsidies and grants, income and expenses, taking into account seasonality, as well as the use of expert knowledge and analytical procedures to detect distortions. According to ISA 540, the auditor should carefully check the accounting estimates and preconditions on which information on subsidies is based, as well as compliance with the conditions of their provision.

Features of accounting of state aid, in particular its conventionality, cause the need to check each case separately. The auditor must receive confirmation of the fulfillment of the terms of the programs (for example, the targeted use of funds, compliance with the stated areas of activity), as well as to be sure of timely and full disclosure in the notes to the financial statements.

An example of such a check is an audit of a grant provided by the company for the purchase of equipment. Table 2.1.7 shows how an example of calculation of amounts that should be recognized in revenue during the reporting period may look like.

Table 2.1.7

Calculation of depreciation obtained grant on agricultural machinery

Indicator	Value
Total grant amount	600 000 UAH
The cost of purchased equipment	1 000 000 UAH
The term of use of equipment	5 years
Annual grant depreciation	120 000 UAH
Amount recognized as income in 2024	120 000 UAH

As can be seen from the calculation, the total amount of the received grant was UAH 600,000 at the total cost of the purchased equipment of UAH 1,000,000. According to the established useful use of equipment, which is five years, the amount of the annual recognition of the grant in the income is UAH 120,000. This means that every year the use of equipment recognizes an income of UAH 120,000, thereby evenly distributing a grant throughout the period of operation of the asset.

This approach ensures compliance with the principle of accrual, according to which income is recognized in the period in which related costs or economic benefits arise. This achieves a reliable and fair reflection of the performance of the enterprise in the financial statements, which is one of the key requirements of both IAS 20 and ISA 540. Observance of this approach also minimizes the risk of distortion of financial indicators and increases the level of confidence of users of financial information in the enterprise.

Thus, conducting an audit of grant revenues, taking into account the rules of depreciation, helps not only to properly distribute income, but also ensures that the principles of transparency, objectivity and justice in accounting, which are of particular importance for agricultural sector enterprises, which are often recipients of state support.

Therefore, the amount of the grant is recognized as part of the income in proportion to the accrued depreciation of the asset, which ensures compliance with the principle of accrual in accordance with IAS 20 and ISA 540.Therefore, the amount of the grant is recognized as part of the income in proportion to the accrued depreciation of the asset, which ensures compliance with the principle of accrual in accordance with IAS 20 and ISA 540.

Seasonality in income and expenses is another characteristic feature of an agricultural sector, which should be taken into account by the auditor. Since most income is generated after harvesting and costs are distributed unevenly during the year, it is necessary to check for the correct reflection of cost periodization and corresponding income.

In such situations, the ISA 520 advises to apply analytical procedures to identify unusual trends - for example, when the costs of seeding are significantly different from previous years in the absence of economic justification, or income suddenly increases without a proper increase in production.

The attraction of experts is to attract additional value in such an audit. As stated in ISA 620, the involvement of agronomists, zootechnics, veterinarians or professional appraisers allows the auditor to obtain proper and sufficient evidence in cases where he does not have special knowledge of biological transformation, animal assessment or agro -technology.

It is important to emphasize that any expert evaluation should be verified by the auditor for compliance with the criteria of accuracy, objectivity and relevance. The auditor is responsible for the general conclusion and should be convinced of the competence of the specialist involved. Thus, the audit of subsidies, seasonal fluctuations and complex estimates in agriculture requires a multidimensional approach, deep sectoral knowledge and the application of standards that provide transparency, reliability and analytical conclusions.

Agrarian enterprises audit attributes increased requirements for sectoral qualification, knowledge of international financial reporting standards (IFRSs) and international audit standards (ISA), and observance of professional ethics. The peculiarities of the agricultural sector, in particular biological assets, seasonality, accounting of subsidies, natural risks, require not only deep accounting knowledge from the auditor, but also an understanding of the specifics of agricultural production.

One of the key competencies is IFRS knowledge, including IAS 41 "Agriculture" that regulates the accounting of biological assets. The use of ISA 315, 330, 540 and 620 is mandatory when assessing risks, checking accounting and cooperation with experts.

Another important element is the independence of the auditor, which according to ISA 200, provides objectivity when making professional decisions. Any personal, financial or business relationship with the client may call into question the accuracy of the auditor's opinion. Professional ethics is the cornerstone of the audit profession. It includes honesty, objectivity, professional care and confidentiality. For example, an auditor who faces the situation of possible fraud in the sphere of distribution of subsidies is obliged to

act in the interests of society, while following the principle of professional skepticism. Confirmation of the importance of knowledge and ethics may be an example of the relationship between the auditor's qualification and the quality of the audit. Table 2.1.8 presents a conditional calculation of the impact of the auditor's qualification on the probability of detecting errors in the reporting.

Table 2.1.8

Impact of the auditor's qualification on the quality of the audit of agricultural enterprises (conditional model)

Auditor qualification category	The level of knowledge of IFRS	Experience in the agricultural sector (years)	The probability of detecting significant distortions
Low	Base	1	45%
Average	Satisfactory	3	65%
High	Deepened	5+	90%

The data presented in Table 2.1.8 illustrate the conditional model of the auditor's level of influence on the quality of the audit of financial reporting of agricultural enterprises. The table distributes auditors by three main qualifications: low, medium and high levels. Each category describes knowledge in the field of international financial reporting standards (IFRSs), the number of years of work experience in the agricultural sector, and the probability of detecting significant disabilities in the reporting.

Low qualification auditors have only basic IFRS knowledge and minimal experience - one year of work in the agricultural sector. Accordingly, their ability to detect errors and inaccuracies is estimated at only 45%. This indicates the high risks of unreliable audit when involving specialists with insufficient qualifications.

Medium -sized auditors demonstrate a satisfactory knowledge of standards and have at least three years of experience in agriculture. In this case, the probability of detecting significant distortions increases to 65%. This is a significant improvement compared to the basic level, but still leaves space to improve the quality of audit services.

The highest level of qualification involves in -depth knowledge of IFRSs and the availability of experience over five years of work in the agricultural sector. In such preparation, the likelihood of detecting significant errors in the report reaches 90%, which actually guarantees high quality of audit and significantly increases the level of confidence in the results of financial audit.

From Table 8, we see that the higher the level of qualification of the auditor - the higher the likelihood of qualitative detection of errors, which directly affects the accuracy of the financial statements.

Therefore, for effective work in the agricultural sector, the auditor should be not only a technically prepared, but also ethically stable specialist with a deep knowledge of IFRS, ISA and the specifics of agriculture. Continuous training, certification and observance of ethics standards is the key to high trust in the results of audit of agricultural enterprises.

The application of international financial reporting standards (IFRSs) and international audit standards (ISA) is a key factor in improving the level of confidence in the accounting information of agricultural enterprises by various stakeholders. In the context of growing globalization and integration of the agricultural sector into the international markets, high -quality and transparent financial reporting, prepared in accordance with IFRS, becomes a prerequisite for ensuring comparability, understandability and accuracy of the data presented. This, in turn, directly influences the decisions of investors, creditors, state bodies, suppliers and buyers on cooperation with agricultural companies.

The introduction of IFRS provides a single methodological basis for reflecting the financial condition and results of the activities of agricultural enterprises, which greatly facilitates the analysis and comparison of their indicators both with each other and with companies of other industries and countries. This makes investors more reasonably evaluate the risks and potential return on investment in the agrarian sector, which contributes to the attraction of foreign and domestic capital. Creditors, based on transparent and reliable financial statements, can more accurately determine the creditworthiness of borrowers and establish adequate terms of credit. Using IFRS reports, public authorities receive a more objective picture of the agricultural sector to develop effective state policy and control budgetary use. Suppliers and buyers, with access to quality financial information, can make more balanced decisions on the conditions of cooperation and assessment of financial stability of their counterparties.

Along with the use of IFRS, an important role in ensuring the trust in accounting information is played by mandatory audit of financial statements, conducted by independent auditors in accordance with the ISA. Audit is a tool for confirming the reliability and objectivity of the financial statements, reducing the level of information asymmetry between the management of the enterprise and external users. An independent audit report gives confidence to the stakeholders that the financial statements reflect the real state of affairs of the company and does not contain significant distortions.

Quality audit has a direct impact on the investment attractiveness of agricultural enterprises. Investors tend to trust the financial statements that have undergone an independent check that reduces their information risks and can reduce the cost of raised capital for the enterprise. The financial statements confirmed by the auditor also facilitates access to international capital markets and promotes cooperation with foreign partners. The study of the level of confidence of stakeholders in the financial reporting of agricultural enterprises show that this level depends on many factors, including the size of the enterprise, its organizational and legal form, the level of corporate governance and the quality of use of IFRS and ISA. Enterprises that publish financial statements, compiled in accordance with IFRS and confirmed by an independent auditor, usually enjoy more trust by investors and creditors.

The prospects for increasing the level of trust in accounting information in the agricultural sector are directly related to the further implementation and qualitative use of IFRS and ISA. This includes advanced training of accountants and auditors, development

of methodological recommendations, taking into account the specifics of the agricultural industry, strengthening the quality of financial reporting and audit, as well as increasing the level of corporate transparency of agricultural enterprises. Consistent observance of these areas will help to strengthen the confidence in accounting information, improve the investment climate and further development of the agricultural sector of Ukraine.

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The scientific novelty of the study is to develop a conceptual model of increasing confidence in the accounting information of agricultural enterprises on the basis of integration of the principles of IFRS and ISA, taking into account the specifics of the industry and current trends of information technology development.

The proposed model is based on the following key elements:

1. Improvement of the IFRS application methodology in the agricultural sector:

- development of sectoral methodological recommendations for the evaluation of biological assets and agricultural products, taking into account the specifics of different types of agricultural activity and regional features;
- clarification of approaches to accounting of state subsidies and grants, taking into account the peculiarities of their provision in the agricultural sector;
- development of recommendations for reflecting the seasonality of production in the financial statements, including the use of segment accounting and analysis of key indicators of activity by periods;

2. Increasing the role of audit of financial statements of agricultural enterprises:

- development of sectoral audit standards that would take into account the specific risks of agricultural business, such as biological risks, weather risks, risks of price fluctuations for agricultural products;
- introduction of mandatory certification of auditors specializing in the audit of agricultural enterprises in order to improve their qualification and the level of professional competence;
- promotion of the use of information technologies in the audit process, in particular, the use of analytical procedures based on large data to identify potential frauds and errors;

3. Introduction of modern information technologies in the accounting process:

- development and implementation of specialized software products for accounting in agricultural enterprises that would take into account the specifics of the industry and provide automation of accounting of biological assets, agricultural products and other specific operations;
- use of blockchain technologies to ensure transparency and constant accounting

information in the supply chains of agricultural products;

- use of Business Intelligence (BI) systems for analysis of credentials and providing stakeholders of prompt and analytical information about the activity of the enterprise;

4. Raising corporate governance and internal control:

- introduction of effective internal control systems aimed at preventing fraud and accounting errors;

- increasing the role of audit committees in the supervisory boards of agricultural enterprises in ensuring the independence and objectivity of financial reporting;

- ensuring transparency of property structure and management system of agricultural enterprises.

The integration of these elements into a single conceptual model will improve the quality of accounting information of agricultural enterprises, ensure its authenticity and transparency, which in turn will contribute to the increase of confidence by investors, creditors and other stakeholders, as well as to increase the competitiveness of the agricultural sector. The scientific novelty of the study is to develop an integrated conceptual model of increasing confidence in the accounting information of agricultural enterprises. This model is a new combination of existing and proposed approaches, which takes into account the specifics of the agricultural sector and current trends in information technology development. The main elements of scientific novelty are presented in Table 2.1.9.

Table 2.1.9

Elements of the scientific novelty of the conceptual model of increasing confidence in accounting information in the agrosphere

№	Element of scientific novelty	Characteristic
1	Integration of control and audit mechanisms	Combination of internal control and internal audit into a single system to increase the accuracy of accounting information
2	Taking into account the specifics of agricultural production	Adaptation of accounting procedures and evaluation criteria for seasonality, biological assets and features of agrarian cycle
3	Use of modern IT decisions	Application of automated accounting systems and blockchain technologies to ensure transparency and unchanged data
4	Developing a system of analytical confidence indicators	Implementation of indicators to monitor the level of trust in accounting information based
5	A comprehensive approach to risk assessment	Formation of an integrated system of identification, analysis and minimization of risks in the field of accounting and reporting of agricultural enterprises

Within the framework of the proposed conceptual model, special attention is paid to the integration of control and audit mechanisms. The combination of internal control and

internal audit functions allows you to create a single coordinated accounting system, which helps to increase their accuracy and timely detection of possible violations at all stages of the financial process. This ensures the systematic and continuity of accounting information monitoring.

At the same time, an important area is to take into account the specifics of agricultural production in the organization of accounting work. Seasonality of agricultural operations, biological features of assets and frequency of production cycles require adaptation of traditional accounting procedures and evaluation criteria. It is only possible to achieve a real reflection of the results of the activities of agricultural enterprises in the financial statements.

An essential component of the proposed model is also the introduction of modern information technologies in the accounting process. Automation of accounting transactions, use of blockchain systems for the protection of accounting data, use of software solutions for the agricultural sector significantly increase the transparency and promptness of processing of financial information. The use of digital technologies minimizes the risks of errors and significantly increases the protection of information from unauthorized intervention.

An important place in the concept is the development of a system of analytical indicators aimed at regular monitoring of the level of trust in accounting information. The use of such indicators allows you to detect deviations and evaluate the quality of financial statements based on objective criteria.This not only increases the level of internal control, but also forms trust in the enterprise by external users of financial information.

Another important aspect of the conceptual model is a comprehensive approach to accounting and financial reporting assessment. Creating an integrated risk system and analysis system allows businesses to respond in a timely manner to potential threats of both internal and external nature. This approach helps to reduce financial losses, stabilize the activity of the enterprise and increase the overall reliability of the accounting system.

Thus, the conceptual model presented in Table 9 is an important step in the development of a system of accounting information of agricultural enterprises. Integration of control and audit mechanisms, adaptation to the specifics of agricultural production, the use of modern IT decisions, the creation of analytical trust indicators and a comprehensive approach to risk assessment form a holistic and innovative basis for increasing confidence in accounting information. The implementation of these elements will allow agrarian enterprises not only to improve the quality of financial reporting, but also to ensure higher transparency of activity and to strengthen confidence by investors, partners and controlling bodies.

The peculiarity of the proposed model is the combination of the principles of international financial reporting standards (IFRS) and international audit standards (ISA), taking into account the specifics of the agricultural sector, which allows you to adapt accounting and verification methods to real agricultural conditions. Significant attention is paid to the development of sectoral recommendations for accounting of biological assets, seasonality of production, as well as accounting of state subsidies and grants.

In addition, the study proposes to strengthen the role of audit of financial reporting of agricultural enterprises through the development of sectoral audit standards,

certification of auditors in the field of agribusiness and the active use of modern analytical technologies. The introduction of specialized IT solutions for agricultural accounting, the use of blockchain to control the transparency of supply chains, as well as the use of Business Intelligence systems for data analytics open up new opportunities for managing industry enterprises.

Particular attention is paid to increasing the level of corporate control and the development of effective internal control systems, which should ensure the detection and prevention of violations in the accounting system. Transparency of property structure, strengthening the role of audit committees in supervisory boards, as well as integration of risk-oriented approach into the practice of internal audit will ensure the stability of agricultural enterprises in the dynamic market.

The implementation of the proposed elements of scientific novelty will not only improve the quality of accounting information and the accuracy of financial reporting of agricultural enterprises, but also ensure the increase of confidence by investors, financial institutions, international partners, and will help to increase the competitiveness of the agricultural sector of Ukraine in the global market.

Therefore, international financial reporting standards and international audit standards are key tools for providing trust in accounting information in the agro -industrial complex. However, their effective application requires taking into account the specifics of agricultural business and overcoming existing problems related to the estimation of biological assets, agricultural accounting, seasonality of production and other sectoral features. In this context, it is important to develop adapted techniques based on the best international practices, but take into account Ukrainian realities.

The developed conceptual model of increasing confidence in the accounting information of agricultural enterprises involves improving the methodology of use of IFRS, strengthening the role of audit, introducing modern information technologies and raising corporate governance. The proposed approaches allow you to create a flexible but at the same time an effective accounting and control system that meets the requirements of both domestic and international financial information.

Particular attention is paid to the importance of introducing specialized information systems for accounting in the agricultural sector, the development of mechanisms of analytical monitoring of assets, risk assessment and increased transparency of accounting data through digitalization of processes. Business technology, Business Intelligence, automated audit platforms create fundamentally new conditions for reliable and operational accounting management.

Also, considerable attention in the conceptual model is paid to the development of corporate governance: the formation of effective supervisory councils, the functioning of audit committees, improving the transparency of property and improving internal control systems. This allows not only to guarantee the quality of accounting information, but also to create conditions for stable financial development of enterprises.

Further scientific research can be aimed at developing specific methodological recommendations and practical tools for implementation of the proposed conceptual model based.

SCIENTIFIC EDITION

ACCOUNTING, FINANCIAL, AND ECONOMIC SUPPORT FOR SUSTAINABLE DEVELOPMENT OF THE AGRICULTURAL SECTOR: THEORETICAL FOUNDATIONS AND PRACTICAL RECOMMENDATIONS

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