ANALYTICAL INFORMATION IN THE MANAGEMENT OF AGRICULTURAL ENTERPRISES IN THE CONDITIONS OF EUROPEAN INTEGRATION

Olena Tomchuk[1]

DOI: https://doi.org/10.30525/978-9934-26-193-0-12

Abstract. *The purpose* of the article is to substantiate a set of theoretical and practical principles for provision of analytical information to the management system of agricultural enterprises. *Methodology*. Methods of theoretical generalization and concretization, Internet resources have been used in this study. Results. Two interacting systems, namely a managing and managed ones, have been identified. The managing system involves the subjects of management, i.e. the apparatus of enterprise management. It is the managing system that implements the main functions of management (planning, organization, motivation, control) through management decisions. The managed system involves the object of management, i.e. it is economic (operational, investment, financial) activities of the enterprise. The process of business management is carried out through the collection of information about the object of management and the results of previous decisions, analysis of this information and making new management decisions based on such analysis. The objects, stages and technology of organization of analytical process are formed. The integration of approaches, methods and models of support for management decision-making at the agricultural enterprise is revealed, namely indicator method, resource-functional approach, integrated approach, approach based on the theory of economic risks. The financial and economic activity of LLC "Courland" in the context of using information support in its management system by the main economic indicators of resources and results, production program and level of marketability of the main agricultural products, liquidity of the balance, financial stability and solvency, business activity, indicators

[1] PhD in Economics, Associate Professor,
Associate Professor of analysis and audit Department,
Vinnitsia National Agrarian University, Ukraine
ORCID: https://orcid.org/0000-0003-0974-8018

of profitability of the enterprise. It is substantiated that the introduction of management system and timely data processing allowed the company to achieve positive changes in the results and form trends towards the growth, organize the work of structural units, main activities, and to achieve economic effect. Organizational regulations on the organization of analytical service and coordination of work of persons engaged in analysis and conducting analytical work are proposed. It is proved that Regulations on the Analysis Department should be the main organizational regulation, on the basis of which the methodological guidance, organization and conduct of economic analysis at the enterprise is carried out. *Practical implications.* Taking into account the impact of features of the agriculture on the formation of analytical information enables to carry out a comprehensive assessment of economic and social results, to develop quantitative and qualitative indicators of efficiency. *Value/originality*. The integration of approaches, methods and models that has been considered will increase the rationality of management decisions by adjusting the probability of the event occurrence and selecting the best project among the alternatives by the criterion of profit maximization. Implementation of the management system and timely data processing allowed the company to achieve positive changes in the results and to form growth trends, organize the work of structural units, the main activities, and to achieve the economic effect. Determination of management elements in the digital space will let domestic enterprises take a proper place in the international cooperation and competitive advantages in the market.

1. Introduction

At the beginning of the third millennium, Ukraine made many efforts to integrate into the modern European and world community. This fact is directly related to the need to bring to a high level all spheres of economic life. Domestic enterprises are at a very difficult stage of their development. An important problem of enterprise management is the formation and maintenance of its competitiveness in conditions of constant changes in the external environment. The purpose of the analytical support of the company's managers is to provide the company's management with complete, timely, and reliable information for current and strategic management decisions. The main source of such information is the data of current accounting, which

are systematized in the reporting. Such reporting is important because it is used not only for economic analysis of the individual enterprise in order to obtain the information necessary for management, but also to summarize the results in the scale of industries and the economy as a whole. The accounting and reporting system should be based on accepted in world practice methodological principles and approaches to analytical research aimed at the comprehensive impact on the enterprise to ensure a profit and strengthen its financial position in the market. Aware of this indisputable fact, generated by harsh business conditions, domestic enterprises, using modern methods of obtaining and analyzing information, are gradually creating a strong information – analytical base for sound – effective management decisions.

This process is successfully implemented in large industrial and commercial enterprises, and is slowly being implemented in agriculture.

Despite the gradual improvement of agricultural production processes, their acquisition of world best practices in crop and livestock, the use of the latest technology and advanced technologies, farmers are still unable to provide themselves with a sufficient level of reliable, understandable and important information. the results of their activities. Thus, a natural question arises: how, given the specifics of agriculture, and not having a strong information base, we can say about the validity of production indicators and accurate planning of rural enterprises.

The peculiarity of agricultural production is its unconditional dependence on natural and climatic conditions. No farm, without being able to fully predict the meteorological situation during the sowing campaign or harvest, risks losses from non-compliance with the set of agronomic measures or the impossibility of their implementation. Thus, in our opinion, the main source of information support in the operation of the enterprise is analytical information.

2. Analytical information as a means of preparing management decisions

Due to globalization and integration processes in the economy, the reform of accounting and reporting in accordance with international financial reporting standards, the role of analytical information in the activities of each business entity is increasing. With the help of analytics,

the company's development strategy is developed, the choice of optimal options for management decisions is substantiated, their implementation is monitored, the company's performance is assessed and the causes of problems and available reserves are identified.

The choice of such a decision must be provided with reliable and comprehensive information about the object for which it is made.

In the enterprise management system there are two interacting systems: control and managed. The control system is the subjects of management, ie the apparatus of enterprise management.

It is the management system that implements the main functions of management (planning, organization, motivation, control) through management decisions.

The managed system is the object of management, that is, it is the economic (operational, investment, financial) activities of the enterprise. The process of business management is carried out through the collection of information about the object of management and the results of previous decisions, analysis of this information, and making new management decisions based on such analysis.

To optimize the management the owners (managers) must have a clear idea of the dynamics and nature of changes in the activities of the business entity. Obtaining such information is possible as a result of the analysis. In the process of analysis, the primary information is processed, the results of the analysis are generalized and systematized. And only on the basis of analytical conclusions management decisions are made.

Economic situations that arise in the process of economic activity require several options for a solution, their justification by analyzing economic activity and choosing the best management solution.

In turn, Z.B. Litvin and V.M. Seredinskaya emphasizes that "the formation of direct and reverse flows in management is possible only on the basis of an analytical research" [1].

That is, the analysis is between the controlled and the control system. It provides direct (control-to-controlled) and feedback (controlled-to-control) communication between these systems. In direct communication, the analysis provides the managed system with the information it needs to make management decisions. Conversely, it provides the management system with information on the effectiveness of management decisions,

deviations, identified reserves, and other information, on the basis of which the following management decisions are formed, which are again transmitted to the management object through direct communication (Figure 1).

Based on the place of analysis in the management system of the enterprise reveals its main purpose (main goal) – to provide information to the management of the enterprise to make effective management decisions.

We believe that analytical operations are divided into several types: mechanical, which include the receipt, registration, transmission and storage of documents; processing – grouping, methods of logical obtaining of the indicator, the performance of various calculations, etc.; creative, include the compilation and formation of final data, analytical conclusions, and proposals, development of recommendations and more.

The set and sequence of analytical operations form information phases, which in turn constitute the stages of the analytical process: preparatory, analytical processing (procedural), final (Figure 2).

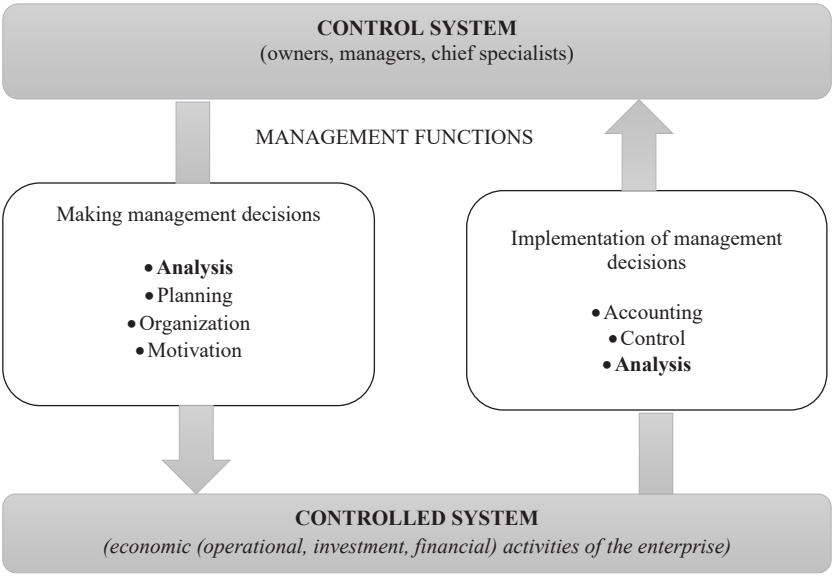

Figure 1. The place of analysis in the enterprise management system

Source: suggested by the author

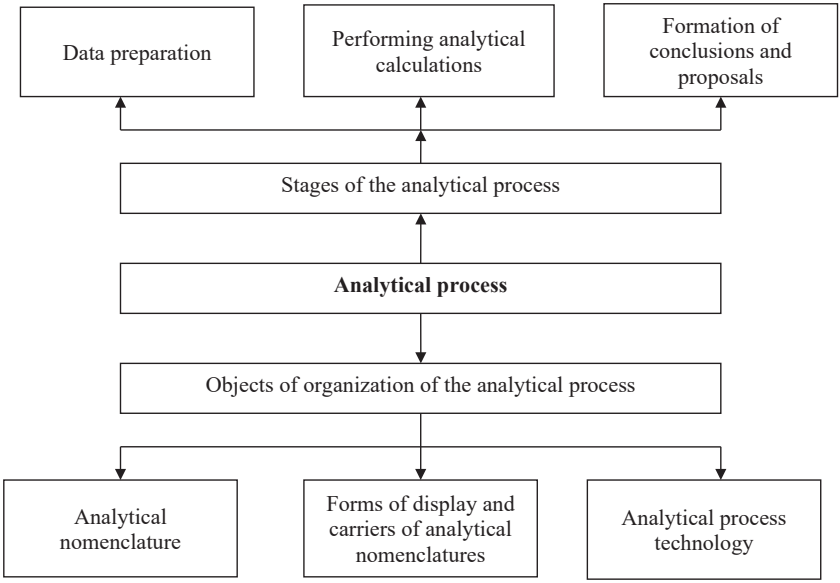

Figure 2. Objects and stages of organization of the analytical process
Source: [3]

The main element of the analytical process is analytical nomenclatures. Analytical nomenclature means a system of data that is reflected in plans, estimates, norms, standards, actual data of primary and consolidated accounting documents on the state of funds, sources of their formation, economic processes, and results of economic activity of the enterprise. This also includes a variety of physical and cost indicators. The composition of analytical nomenclatures to be analyzed depends on the direction of activity and specialization of the agricultural enterprise and, which is very important, on the period for which the analysis is conducted. According to the sequence of use of analytical nomenclatures in the analytical process, they are divided into primary (input), intermediate, final (result, generalizing) [2].

One of the types of carriers of analytical nomenclatures are forms of display of normative, planned, estimated, accounting, reporting, technical data. Carriers of analytical nomenclatures can also be ready-made documents that are created in the process of accounting, control, planning. Such media

include plans, estimates, primary documents, accounting records, reporting forms, minutes of production meetings, acts of inspections, and audits.

In the analytical process, special internal media also appear, which are usually displayed in the form of analytical and calculation tables, graphs, charts, analytical conclusions, and notes.

Developed internal media of analytical nomenclatures are collected in albums of carriers of analytical nomenclatures. Such albums are formed on topological grounds in terms of stages of the analytical process.

The technology of the analytical process is the production of information.

The analytical process of information production is determined by the methods and techniques of data collection, storage, and processing. The basis of the analytical process is certain operations. The set and sequence of analytical operations form a technological phase (stages), which in turn form the technology of the analytical process [4].

Thus, the technology of the analytical process is a process of processing of information, which consists of three main stages. Each of the stages has its own procedures and analytical operations (Figure 3).

The first stage of the technology of the analytical process – preparatory – is to verify the input information and prepare data to be analyzed – is very important, because the reliability and completeness of the information depend on the results of analysis, which affect management decisions. That is, at the preparatory stage carry out a set of works to prepare information for the next analytical processing.

The second stage – procedural – ensures the implementation of analytical procedures (calculations), it is quite complex and depends on the correctness of the chosen method of calculation. The procedures of the second stage of the analytical process are various methodological, technical, and analytical calculations, which are used to process information and make it suitable for use in management decisions. The stage of analytical processing is the main one, as it depends on the quality and completeness of research and evaluation of phenomena and factors that caused certain results of activities, and accordingly – the validity of conclusions and proposals based on the results of this analysis.

The third stage – the final stage of the technology of the analytical process – is the creation (formation) of effective, source information. This stage involves the generalization of the transformed analytical information and preparation on their basis of conclusions, proposals, and

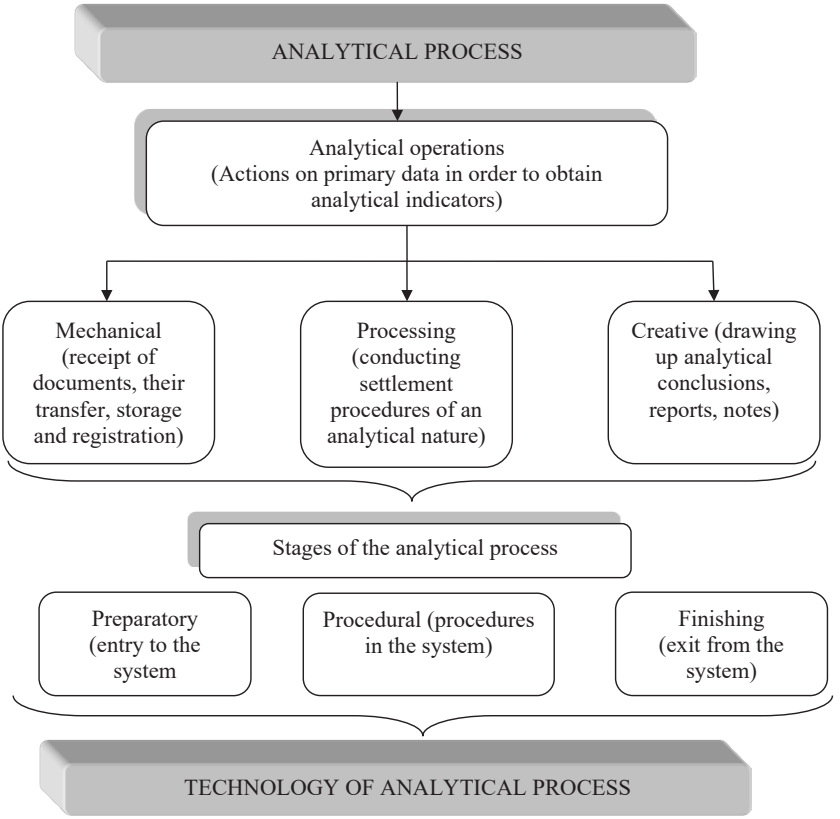

Figure 3. Analytical process technology

Source: [2]

recommendations for improving the economic activity of the enterprise, eliminating shortcomings and the use of reserves [2].

The technology of the analytical process, as a process of processing information, involves the implementation of certain procedures and analytical operations. Their phased implementation is regulated by certain instructional materials.

The quality of analytical work depends on sufficient information content. This means that when determining the sources of information it is necessary

to take into account the limitations and redundancy of information, as both negatively affect the results of the analysis. In the absence of information, it is difficult to properly understand the situation, evaluate it and make the right decision [5].

Lack of information makes it impossible to solve tasks, achieve certain goals.

However, it should be borne in mind that there is a problem with redundant information. The concept of redundant information for each of the levels of government is specific. Excessive information hinders its rapid processing, analysis, and generalization, which can lead to unreasonable conclusions.

To analyze the financial and economic activities of LLC "Kurland" analysts have to use a large amount of economic, financial, agrobiological, environmental, zootechnical, engineering, and other information, which is formed both inside the company and outside the company. To ensure the reliability of the analysis data, such a variety of sources of information necessitates the observance of uniform qualitative characteristics of the input information.

As noted by Mishchuk, G.Yu., Dzhigar, T.M., & Shishkina, O.O., the logical conclusion of the analytical study is to obtain results in the form of structured information, which provides an opportunity to achieve the main purpose of the analysis [6].

Effective use of the results of analytical work requires proper generalization, which could ensure the completeness of assessments and conclusions, timeliness of receipt of materials, their compliance with management requirements. Summary results should cover all aspects of the study, from identified lost profits and unfulfilled measures to information on hidden reserves and over fulfillment of plans.

Forms of generalization and presentation of conclusions on the results of the analysis can be various. The form and content of the conclusions depend on the purpose and depth of the analysis and the period for which the research is conducted.

So, in the process of conducting an analytical study, it should be clearly defined in what form the results of the analysis are presented. If the use of tables is provided for registration of results of the analysis, they should be developed in advance. Layouts of analytical tables are designed as appendices to the analytical research.

As mentioned above, at the stage of formation of a market economy and European integration there is a need for detailed analysis in the management of agricultural enterprises.

In order to make the most correct decision that will best meet the goals of the company, and have a minimum share of risk, you need to take into account all existing risks and optimize the decision-making process [7].

Support for management decisions in the enterprise should be provided by a set of methods and models (Figure 4).

The first analytical tool to support management decisions is the indicator method, based on the use of which as a result of comparing the actual performance of the enterprise with indicators, you can choose the

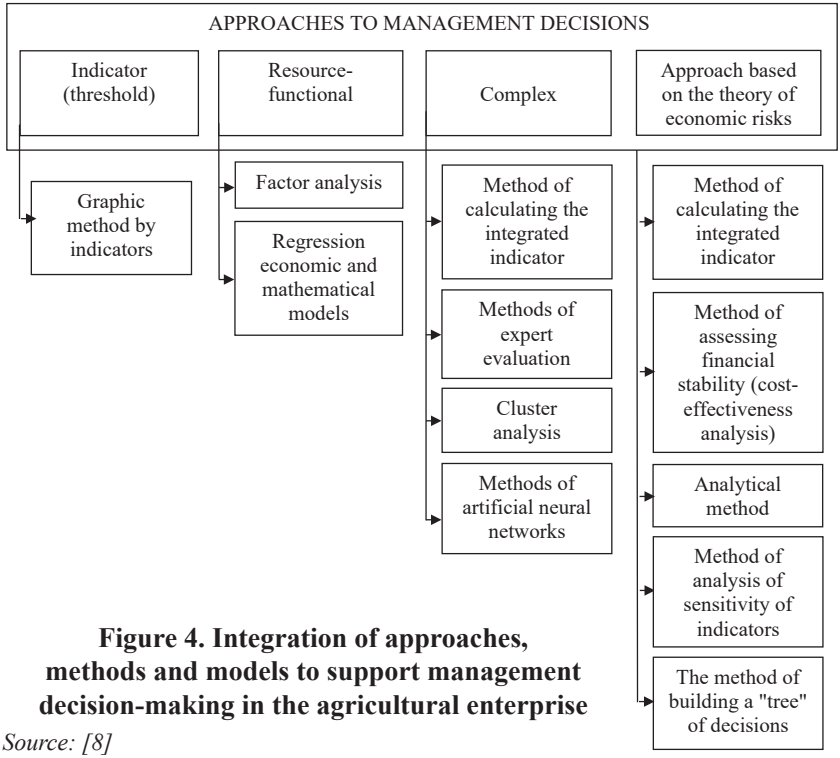

Figure 4. Integration of approaches, methods and models to support management decision-making in the agricultural enterprise

Source: [8]

optimal management solution based on approximation or distance of actual performance from indicators in the dynamic aspect.

The resource-functional approach integrates such analytical tools as factor analysis and regression economic-mathematical models. The use of stochastic factor analysis allows for the identification of latent factors. Enterprise managers must take into account the identified factors when making key management decisions.

A complex approach to support management decisions combines the method of calculating the integrated indicator, methods of expert evaluation, cluster analysis, methods of artificial neural networks. For example, when using cluster analysis, the person who makes management decisions understands what level the company has in the set of other analyzed enterprises.

When using the approach based on the theory of economic risks for management decisions, it is advisable to use the statistical method, the method of assessing financial stability, the method of analyzing the sensitivity of indicators, and the method of building a "tree" of decisions. We consider the construction of a "tree" of decisions to be the most optimal method of supporting management decisions at the enterprise.

The most important feature of modern analytical research is their strategic orientation, which involves a comprehensive study of the internal economic processes of the enterprise with an assessment of the impact of environmental factors. First of all, the factors of the external environment are studied, their possible impact on the development of the enterprise is studied, the optimal ways to achieve the targets are determined taking into account the need, in particular adaptation to the external environment and impact on the external environment [4].

3. The role of information software in the analysis

In conditions of high competition and European integration, analytical information has become a creative type of management activity, which is a necessary condition for civilized relations in business and serves as a basis for sound strategic management decisions at all levels of management.

It is impossible to evaluate the financial and economic activity of the enterprise by any one indicator. The variety of properties and characteristics of different types of production – economic and commercial activities of

LLC "Kurland" determines the variety of indicators. The problem with their use is that none of them serves as a universal indicator by which one could unequivocally judge the achievements or failures of the business. Therefore, the company in practice always uses a system of indicators that are interrelated, evaluate or show different areas of the enterprise.

A systematic approach to the analysis of economic phenomena and processes is expressed in a comprehensive study of interrelated, multilateral economic, organizational, technical, and technological factors in the application of the system of indicators [6].

The system of indicators that reflects the activities of the enterprise is a set of interrelated values that comprehensively characterize the property and financial condition, its activities, and the results of these activities.

The main economic indicators of LLC "Kurland" are presented in Table 1.

During the period under review, there were no changes in the size of land, and the value of marketable products increased by 35945 thousand UAH and in 2020 amounted to 327233 thousand UAH, which indicates an increase in production by the company, but also the impact of inflation, as compared to 2019 there is a decrease of 35133 thousand UAH. The average annual number of employees in 2020 compared to 2018 as a whole increased by 12 people. A decrease in productivity and return on capital by 245687 UAH and 0,81 UAH indicates the inefficient use of labor and fixed assets compared to 2019. The average annual value of fixed assets in 2018 amounted to 93050 thousand UAH, and in 2020 increased by 51,2% and amounted to 140685 thousand UAH, which indicates a significant impact of inflation and a slight renewal of the company's outdated material and technical base.

Negative should be considered a decrease in net profit compared to 2018 by 86001 thousand UAH, although positive is the profit during 2018-2019. Such an effective indicator as net income (revenue) from sales increased by 35945 thousand UAH, and gross profit – on the contrary, decreased by 19941 thousand UAH and 46643 thousand UAH in accordance.

Growth of direct investments in the economy of LLC "Kurland" by 51672 thousand UAH relative to 2018 indicates its investment attractiveness.

The value of the coefficient of the attractiveness of product >1 characterizes the competitiveness of products produced by the company, but the negative phenomenon is its decrease compared to 2018 and 2019.

Table 1

The main economic indicators of resources and performance LLC "Kurland"

Indicator	2018	2019	2020	Deviation of the reporting year (+,-)	
				from the base year	from the intermediate year
1	2	3	4	5	6
Agricultural area lands, ha	10593	10593	10593	-	-
incl. arable land area, ha	10593	10593	10593	-	-
The average annual number of employees, pers.	64	65	76	12	11
The average annual cost of fixed assets, thousand UAH	93050	99966,5	140685	47635	40718,5
incl. machinery and equipment, thousand UAH	63168,5	74839	107272,5	44104	32433,5
vehicles, thousand UAH	5674,5	6371,5	12675,5	7001	6304
Net income from sales of products (goods, works, services), thousand UAH	291288	362366	327233	35945	- 35133
Gross profit, thousand UAH	25680	52382	5739	- 19941	- 46643
Net profit, thousand UAH	77731	77466	- 8270	- 86001	- 85736
Labor productivity, UAH	4551375	5574861	4305697	- 245678	- 1269164
Return on assets, UAH	3,13	3,62	2,32	- 0,81	- 1,3
Investment income, thousand UAH	18354	1261	70026	51672	68765
Coefficient of attractiveness of goods (net revenue / cost)	1,096	1,169	1,018	- 0,078	- 0,151

Source: calculated by the author according to the studied company

The main purpose of developing the company's production program is to form the optimal ratio between industries and types of agricultural products, which allows achieving high financial results with maximum use of resource potential of the enterprise and its market opportunities.

The production program is measured in physical and cost measures. Natural indicators include production volumes, sales volume in quintals, tons, heads. The volume of production in value terms in agricultural enterprises is determined by the indicators of gross output at constant prices in 2016, gross output at current prices, marketable products (Table 2).

These tables show that LLC "Kurland" is not engaged in the production of livestock products. At the end of 2020, there is a decrease in production for almost all types of products, except wheat and sunflower. Sales increased only by barley by 4973 quintals and sunflower by 53491 quintals. At the end of 2020, the level of marketability decreased for almost all types of products, except for sunflower seeds, the production of which is economically profitable for the company.

Financial diagnostics is one of the main elements of the financial policy of the enterprise. Carrying out a comparative analytical balance of the enterprise leads to significant real results of the financial condition of the enterprise. In turn, the financial condition is a leading factor in the competitiveness and sustainable development of the enterprise and the core characteristics of the firm in market conditions [9].

In the conditions of modern expansion of competition for maintenance of a stable financial condition of the enterprises, there is a necessity in carrying out the analysis of indicators of liquidity of balance. Liquidity is defined as the ability of certain types of property to quickly turn into cash without losing their current value in today's market conditions.

Balance sheet liquidity analysis is a comparison of asset items grouped by liquidity and arranged in descending order with liability items grouped by maturity and placed in ascending order of maturity. To determine the liquidity of the balance sheet groups of assets and liabilities are compared [9; 10] (Table 3).

Liquidity analysis of the balance sheet of LLC "Kurland" for 2019–2020 showed that throughout the period the balance sheet of the company as a whole is illiquid, namely at the end of the reporting period:

Table 2

Analysis of the production program and the level of marketability of the main types of agricultural products of the enterprise

Types of products	2019			2020			Відхилення, (+,-)		
	Production, q	Realization, q	Level of marketability, %	Production, q	Realization, q	Level of marketability, %	Production, q	Realization, q	Level of marketability, %
wheat	111270	112793	101,4	115772	103998	89,8	4502	- 8795	- 11,6
corn on the cob	303040	437857	144,5	221531	232380	104,9	- 81509	- 205477	- 39,6
barley	250	250	100	5638	5223	92,6	5388	4973	- 7,4
soybeans	32690	54312	166,1	12052	15110	125,4	- 20638	- 39202	- 40,7
rapeseed	64830	65116	100,4	19148	19020	99,3	- 45682	- 46096	- 1,1
sunflower seeds	74040	68983	93,2	117735	122474	104,0	43695	53491	10,8

Source: calculated by the author according to the studied company

Table 3

Balance sheet liquidity analysis, thousand UAH

Assets	At the beginning of the reporting period	At the end of the reporting period	Liabilities	At the beginning of the reporting period	At the end of the reporting period	Payment surplus or shortage	
						At the beginning of the reporting period	At the end of the reporting period
1	2	3	4	5	6	7	8
The most liquid assets (A1)	48828	6466	Immediate liabilities (L1)	38270	136925	10558	- 130459
Fast-moving assets (A2)	168292	248199	Short-term liabilities (L2)	515642	500063	- 347350	- 251864
Slow-moving assets (A3)	106920	148535	Long-term liabilities (L3)	62982	99030	43938	49505
Hard-to-sell assets (A4)	180104	258812	Permanent liabilities (L4)	- 112750	- 74006	292854	332818
Balance	504144	662012	Balance	504144	662012	-	-

Source: calculated by the author according to the studied company

– A1<L1, which indicates that for two years the company does not have enough of the most liquid assets to cover the most urgent liabilities, ie the liquidity of the balance sheet is not absolute;

– A2<L2 – assets that are quickly realized less short-term liabilities. This means that the company will not be able to settle with creditors after receiving cash from the sale of its products;

– A3>L3 – this means that the company fully covered long-term liabilities, which had a positive impact on the solvency of the company;

– A4>L4 – the company does not comply with the minimum conditions of financial stability – the availability of working capital. Based on this, we can judge the financial instability of LLC "Kurland".

So, the analysis of the liquidity of the balance sheet of the company just allows you to identify the most important aspects and weaknesses in its activities and shows in which areas you need to carry out such work in order to improve financial condition.

Analysis of the stability of the financial condition on a given date allows us to answer the question: how well the company managed financial resources during the period preceding that date. It is important that the state of financial resources meets the requirements of the market and the needs of enterprise development, as insufficient financial stability can lead to insolvency of the enterprise and lack of funds for product development, and excess – hinder development, complicating the company's costs with excess reserves.

Financial stability is a state of financial resources of the enterprise, in which the rational disposal of them is a guarantee of the availability of own funds, stable profitability, and ensuring the process of expanded reproduction. Financial stability is one of the main factors influencing the achievement of financial balance and financial stability [11; 12].

Let's analyze financial stability in Table 4.

Analyzing the data in Table 4, we can say that this company during 2018–2020 is characterized by a critical level of financial independence, which has changed slightly over the past 3 years and is due to the high level of retained earnings of previous years, due to which LLC "Kurland" has a negative capital. During 2018, LLC did not use long-term borrowings, and only in 2019 and 2020 the company has other long-term liabilities.

Table 4

Analysis of indicators of financial stability and solvency LLC "Kurland"

№	Indicators	2018	2019	2020	Deviation, (+,-)
1	2	3	4	5	6
1.	Coefficient of financial autonomy	- 0,223	- 0,231	- 0,119	0,104
2.	Coefficient of financial stability	- 0,182	-0,106	- 0,106	0,076
3.	Coefficient of financial dependence	- 4,48	- 4,32	- 8,41	-3,93
4.	Funding ratio	- 5,48	- 4,78	- 9,41	- 3,93
5.	Long-term capital ratio	-	- 1,17	4,87	4,87
6.	Availability of working capital, thousand UAH	-204699	-233819	- 238477	- 33778
7.	Equity maneuverability ratio	2,06	2,0	3,03	0,97
8.	Absolute liquidity ratio (solvency)	0,0037	0,0875	0,0101	0,0064
9.	Rapid liquidity ratio	0,4118	0,3892	0,3998	- 0,012
10.	Current ratio	0,6279	0,5809	0,6329	0,005

Source: calculated by the author according to the studied company

A positive factor is an increase in the funding ratio of LLC "Kurland" over the last 3 years, albeit with a negative value. As a result of the presence of equity in the LLC, there is a negative value of working capital, and the dynamics of this amount have increased. Thus, at the end of 2020 LLC has a shortage of its own sources of working capital in the amount of 238477 thousand UAH, which is 33778 thousand UAH less than the base year level.

The coefficient of maneuverability of equity shows what part of working capital is in circulation, ie in the form that allows free maneuvering of these funds, and which is capitalized. To ensure flexibility in the use of the company's own funds, it is necessary that the coefficient of maneuverability in its value was high enough.

A separate group consists of solvency ratios. Solvency is the ability of an enterprise to repay its liabilities in a timely manner with cash and assets.

Among the analyzed indicators in LLC "Kurland" during the period under study increased the level of ratios of monetary and liquid solvency. In 2020, the value of the solvency ratio increased slightly due to an increase in the company's cash by 0,0064 points, but much lower than the recommended

level (0,2-0,25). At the same time, the estimated and liquid solvency also remain quite low and do not reach the recommended value.

In general, it is possible to state the unstable financial condition of the company.

In the process of establishing the loss of financial stability and solvency of the enterprise, there are two directions: the system of financial rapid diagnostics and fundamental diagnosis of financial condition. Express diagnostics is a system of regular assessment of crisis parameters of financial development of the enterprise, carried out on the basis of financial accounting data according to standard algorithms of analysis, in order to early identify negative trends and pre-assess the scale of its crisis.

The management of LLC "Kurland" needs to take possible measures to improve financial and economic activities. To this end, it is advisable to conduct continuous monitoring and operational analysis of financial stability and solvency.

In the context of European integration processes, domestic enterprises face a number of issues that need to be harmonized with the world practice of business management. One of such questions is the analysis of the business activity of the enterprise for the purpose of acceptance of the considered operative administrative decisions and formation of strategy for the future.

Business activity in modern business conditions is a decisive factor in commercial success. At the same time, business activity is a defining characteristic of the company's position in the market [13].

The main indicators of business activity of LLC "Kurland" are given in Table 5.

Table 5 data show that in the reporting year the level of business activity of the company slightly deteriorated. The main reason for this is the deterioration of the company's position in the relevant market segment. Accounts receivable at the end of 2020 increased by 76774 thousand UAH, which is a negative phenomenon in the activities of LLC "Kurland" due to the increase in receivables for goods, works and services, and other types of receivables.

LLC "Kurland" also increased the receipt of long-term and short-term loans by 48191 thousand UAH and 195942 thousand UAH in accordance. The decrease in turnover and productivity negatively affected the state of business activity of the company, and the decrease in the average term of

Table 5

Analysis of business activity of LLC "Kurland"

№	Indicators	2018	2019	2020	Deviation, (+,-)
1.	Total capital turnover ratio	0,75	0,76	0,56	- 0,19
2.	Mobile turnover ratio	1,01	1,09	0,89	- 0,12
3.	Turnover ratio of tangible working capital	2,55	3,94	5,78	3,23
4.	Turnover ratio of finished products	4,03	7,16	24,58	20,55
5.	Receivables turnover ratio	12,58	34,86	19,58	7
6.	Average term of turnover of receivables, days	29,01	10,33	18,39	- 10,62
7.	Accounts payable turnover ratio	1,48	55,44	63,69	62,21
8.	The average term of turnover of accounts payable, days	243,2	6,49	5,65	- 237,55
9.	Return on fixed assets and other non-current assets	3,13	3,62	1,49	- 1,64
10.	Equity turnover ratio	-	-	-	-
11	Labor productivity, thousand UAH	4551375	5574861	4305697	- 245678

Source: calculated by the author according to the studied company

turnover of receivables and payables – on the contrary, has a positive effect on the financial condition of the company.

No less important is the analysis of profitability indicators. Profitability shows how profitable the company is. Accordingly, the higher the profitability ratios – the more efficient the company. Therefore, today, the company should strive to achieve higher performance, and management should identify ways to grow [14].

Next, we examine the profitability indicators on the example of the studied company (Table 6).

As can be seen from the above calculations, the profitability of LLC "Kurland" for the period under review is declining in almost all indicators, except the return on equity, as the amount of equity is negative. The presence

Table 6

Analysis of profitability indicators of the enterprise, %

Indicators	2018	2019	2020	Deviation, (+,-)
1. Return on assets	20,09	16,32	- 2,27	- 22,36
2. Return on share capital	- 51,61	- 71,75	8,46	60,07
3. Return on fixed assets	83,54	77,49	- 5,88	- 89,42
4. Profitability of the main activity	26,68	21,38	- 2,57	- 29,25
5. Product profitability	109,67	116,89	1,78	- 107,89
6. Profitability of sales	8,82	14,45	1,75	- 7,07

Source: calculated by the author according to the studied company

of undistributed loss affected the value of return on equity. During the study period, there is a decrease in management efficiency.

Summing up, we note that the calculated profitability indicators are only indicative, as the information base for their calculation was limited to financial statements, which in this case is insufficient. For a more detailed calculation of profitability indicators, information from the registers of financial, management, and strategic accounting is needed. In the case of an increase in production, you can expect an increase in profitability.

4. Findings

The analysis is the link between information flows of the enterprise and management decisions. However, not all streams are an information base, as they may be heterogeneous in form and content. In order for information flows to be linked, they must be pre-processed. In order for the information flow to become the information base of the analysis, it must be transformed and processed. Preparation of information necessary for the implementation of the analysis includes several stages: a collection of primary data, their processing, and presentation. Only then is the data transformed into information suitable for management decisions.

We believe that the information need of managers is a form of attitude to certain information, which qualifies as necessary to solve the problem. The main objective factors influencing the formation of information needs of managers are the type of management activities, features of the functions performed related to different levels of management activities in the economic system.

Adequate assessment of the events taking place and the validity of the planned management decisions depend on the completeness of the information base and the reliability of the information support. In order to formulate conclusions based on the results of the analysis, to substantiate on their basis management decisions aimed at improving the efficiency of business and financial and economic activities of enterprises, it is extremely important for professionals to develop adequate measures [15].

To do this, it is necessary to develop the structure and improve organizational regulations:

– organization of analytical service and coordination of work of persons engaged in analysis;

– conducting analytical work (Figure 5).

The following factors should be taken into account when developing a system of internal regulations for the organization and conduct of the analysis:

– organizational and legal form of the enterprise;

– management structure;

– the specifics of the enterprise;

– the size of the enterprise and the volume of activity;

– taxation system.

That is, developing or improving the system of internal regulations should be based on the provisions of the company's charter, regulations on branches (structural units, departments), regulations on governing bodies, regulations on the organization of accounting and accounting policies, etc.

The main organizational regulations, on the basis of which the methodological guidance, organization, and conduct of economic analysis at the enterprise, should be the Regulations on the analysis department. Since the current regulations do not impose any mandatory requirements for this Regulation, based on the functional purpose, in our opinion, the Regulation on the Department of Economic Analysis should consist of the following main sections: general provisions; the organizational structure; tasks, and functions; rights; responsibility; relationships with other departments (services, units); final provisions (Table 7).

This Regulation must be approved in the manner prescribed by the company's charter and brought to the attention of employees who are directly related to the tasks provided for in it.

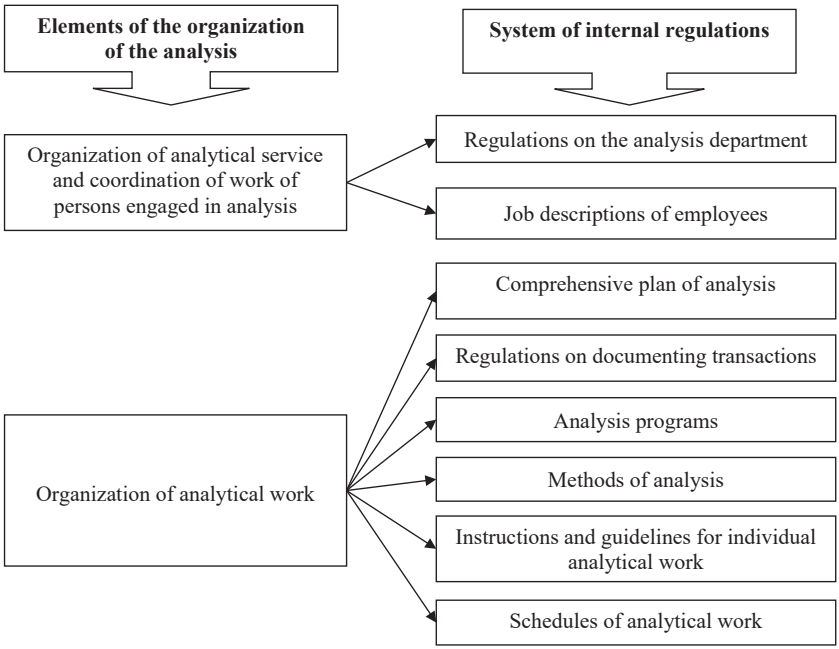

Figure 5. The structure of the regulatory analysis

Source: suggested by the author

The development and implementation of such Regulations promote, first of all, a clear division of labor between departments and within the department and creates a regulatory framework for disciplinary and material influence on employees who violate the rules of the relevant work.

At all levels of management, LLC "Kurland" requires an official responsible for planning, coordinating, organizing, and conducting analysis at this level of management, as well as for providing timely and necessary information to those who are interested in this information making management decisions. The appointment of such an official depends on the structure and size of the management of the company as a whole, as well as on the form of organization of the analysis. Coordination of contractors should ensure both vertical and horizontal division of responsibilities. Lower levels of management form a large number of indicators, which

Table 7

Structure of the Regulations on the analytical department

Section name	Summary
Terms	Determine the legal status of the department and its place in the enterprise management system. The main purpose for which the department is created (organization and analysis of the economic activity of the enterprise) is outlined
The organizational structure	Structural subdivisions, department management, etc. are noted
Tasks and functions	Highlight the main tasks and functions that fall within the competence of the department with their respective correspondence for the purpose of the department
Rights	Determine the rights granted to the department
Responsibility	Define the limits of responsibility of the department
Relationships with other departments	Indicate the direct and indirect connections of the department or the relevant department in the department with others
Final provisions	Determine under what circumstances and in what order the expansion, reorganization or liquidation of the department takes place; to whom powers are transferred after liquidation, etc.

Source: suggested by the author

should be grouped at higher levels and received by direct users in an appropriate form (should not be overloaded with unnecessary data, but at the same time reflect all the necessary indicators). That is, the horizontal coordination of analytical work should provide a ratio: the lower the level of management, the more indicators it forms according to the results of the analysis, and the higher the level of management, the fewer indicators it receives. Vertical coordination of works is provided by the uniform plan of works for all executors and has to eliminate duplication of indicators by various functional services and divisions.

That is why special attention should be paid to the organizational structure of the enterprise as a whole and the analytical department in particular. The organizational structure of the analysis department determines the scheme of orders and directives by which the activities of the department are planned, organized, and controlled, as well as provides the company with an appropriate basis for the organization and performance of other work.

The development of the organizational structure of the department will ensure the effective organization and coordination of the work of those involved in the analysis. Thus, improving the organizational structure, you can improve the performance of analytical work.

On the one hand, the organizational structure of the department ensures the economic efficiency of its activities, on the other hand, maintains the morale and staff job satisfaction.

Coordination of workers' work also depends on the organization of work, ie on how many people's work activities are reduced to a system that can ensure the achievement of the maximum possible beneficial effect, given the specific conditions of this activity and the level of responsibility.

Equally important in organizational support is individual organizational regulations, such as job descriptions, which ensure a clear division of responsibilities between employees.

Job descriptions are developed for each full-time position, approved by the head of the company, and communicated to the employee against a receipt. It reveals the main tasks, functional responsibilities, rights, and responsibilities for the performance of functions assigned to the employee.

Job descriptions may be amended and supplemented only on the basis of the internal order of the head of the company with the consent of the employee. The relevant order on changes and additions to the job description is also issued in case of reorganization of the management structure of the enterprise, redistribution of responsibilities between employees in connection with the reduction of staff, etc. All job descriptions developed at enterprises must be interconnected to avoid duplication of work.

Regulations on the department and job descriptions regulate the structural side of the organization of analysis in the enterprise. If the analysis will be carried out with the involvement of external specialists, auditing, or consulting firms, then, accordingly, such regulations are not developed at the enterprise. And certain responsibilities for operational analysis are set out in the job descriptions of employees of accounting or other departments or divisions of the company.

A feature of the formation of input information used in the analysis is its diversity. After all, such information comes from many sources, differs in its frequency of receipt and calculation technique [4]. Directly in the process of analysis own documents are created. Processing of input and

creation of analytical data is associated with a large number of operations and the involvement of a certain range of performers, which requires a pre-designed system of their actions and procedures for moving information (documents) both in space and time.

One of the features of the analysis is that it provides information to both the administrative-economic and production departments of the enterprise. Therefore, employees engaged in economic analysis are morally and materially responsible for the results of the analysis. In this context, the moral responsibility of employees is to adhere to the professional ethics and competence of the analyst.

The financial responsibility of the analyst should be regulated by job descriptions and employment contracts and include penalties or dismissals for improper performance of professional duties.

Today, inside information about the company is of great value to competitors. Therefore, the analyst should be warned about disciplinary, civil, administrative, and criminal liability under Ukrainian law for disclosing confidential analytical information.

Despite all the organization and regulation of analytical work in the work of the analyst may be unusual situations that require prompt response. In these situations, the analyst is forced to apply analytical procedures at its discretion, without coordinating them with the head. Based on this, the work of analysts should be based on the principles of self-organization and training [2].

One of the important tasks is to develop and improve the rules of analysis, which should reflect the following provisions:

– organization of the analytical process (standardization of analytical tasks, etc.);

– organization of work of functional subdivisions of the management staff, responsibilities of employees of each level of management, to carry out analytical work;

– frequency of analysis (retrospective, operational, long-term, strategic).

Processing of documents and data in the analytical process is to convert input information into output by conducting analytical procedures that can be performed manually or using computer technology.

The development of working documentation on the analysis also involves the development of documents for drawing conclusions. At each stage of

the analytical process, there are special documents (information carriers), which are most characteristic of the stage and depend on the characteristics and specifics of the enterprise. At the preparatory stage, along with external documents (primary documents, consolidated accounting records, etc.), analytical tables are formed for the accumulation and verification of external information. At the main stage of the analytical study using spreadsheets.

The results of the analysis at the final stage are made out depending on the purpose and on the volume of research. Documents that reflect the results of the analysis are divided into two types: 1) text (descriptive), which includes conclusions, analytical notes, reports, and others; 2) without text – tables, graphs, charts, etc. This direction of improving the organizational support will determine the efficiency of obtaining the results of the analysis and at the same time the feasibility of its implementation [4; 13].

The identified areas of improvement of organizational support for the analysis of economic activity are closely interrelated, interdependent, and complementary. Therefore, their implementation should be carried out in a complex, taking into account the characteristics of each enterprise, its management structure, and activities.

Improving the organizational support of the analysis involves its planning. When planning the analysis, it is necessary to proceed from the fact that for its quality implementation it is necessary not only to determine the responsible executors but also to organize and coordinate the work of all services. It is also advisable to take into account the quality of organizational, methodological, personnel, logistical support of the analysis. However, it is necessary to provide for the improvement of the analysis system, analytical media, the introduction of new methods, and more.

Analysis planning should be carried out in three main areas: organizational activities, areas (types) of analysis, improvement, and development of analysis.

The peculiarity of agricultural production is that the main means of production are land resources and biological assets. Therefore, the activities of agricultural enterprises are significantly influenced by natural and climatic factors.

Taking into account the peculiarities of agriculture in the formation of analytical information allows a comprehensive assessment of economic and social results, to develop the number and quality of performance indicators.

It is worth noting the unique ability of digital technologies to positively affect the economic efficiency of agricultural enterprises, the effectiveness of modern forms of business organization, a real opportunity to search, process, analyze and transmit information; ensuring the creation of competitive advantages of domestic agricultural producers.

The global pandemic has demonstrated digital opportunities to change the nature of employment. Remote work with the use of information technology has become an important tool for transforming the use of human capital [16].

By forming and grouping analytical information obtained through digitization technologies and digital development tools, executives at both the macro and macro levels receive data for retrospective analysis, planning, and forecasting. In the context of globalization, digital technologies are both a huge market and an industry as a whole, as well as a platform to ensure the efficiency and competitiveness of other markets and industries.

The obtained set of available data in the process of digitization of all types and spheres of business activity will allow to carry out constant analysis of ecological and economic development of the enterprise – at the micro-level and the state as a whole – at the macro level, balanced, scientifically sound approach to the implementation of the intended goal.

The formed management decisions on actual, reliable, and real data will promote planning of the expected result taking into account probable risks which will be foreseen, estimated, and minimized [17]. Development of strategy and formation of step-by-step (tactical and operational) plans will help reduce the impact of risks and improve the definition of conditions for the implementation of the planned strategy.

5. Conclusions

Thus, the considered integration of approaches, methods, and models will increase the rationality of management decisions by adjusting the probability of occurrence of an event and selecting among the alternatives the best project on the criterion of profit maximization. The next stages of research will be based on scientific substantiation and development of practical recommendations for all developed analytical tools to support management decision-making in agricultural enterprises.

The system of analytical information is an important element of management, which helps to identify weaknesses in the activities of enterprises and develop the right management decisions to ensure stable operation and create conditions for the growth of the economic potential of economic entities.

From the standpoint of analysis of the financial and economic condition of LLC "Kurland", it should be noted about the use of management systems and, accordingly, the processing of information data. Implementation of the management system and timely data processing allowed the company to achieve positive changes in the results and to form growth trends, organize the work of structural units, the main activities, to achieve the economic effect. That is, the researched company constantly analyzes, collects, processes information and transfers it to functional units for decision-making, but to more accurately identify problems in its operation and features of data use, it is advisable to analyze the state of information support and its impact on management, which will determine the feasibility of improving analytical information.

The specifics of the activities of agricultural enterprises requires a separate method of analysis, taking into account the peculiarities of their operation.

The developed organizational and methodological mechanism of analytical support of the enterprise includes the procedure, methods, and information support for calculating the indicators of production, social and environmental components of the enterprise, financial condition, and risk appetite. Building a system of indicators according to the proposed methodology and their generalization in the analytical report will ensure the complexity and systematicity of analytical research, will help to obtain reliable, complete, and operational analytical conclusions, which, in turn, will allow effective management decisions.

By forming and grouping analytical information obtained through digitization technologies and digital development tools, executives at both the macro and macro levels receive data for retrospective analysis, planning, and forecasting. In the context of globalization, digital technologies are both a huge market and an industry as a whole, as well as a platform to ensure the efficiency and competitiveness of other markets and industries.

References:

1. Litvin, Z. B., & Seredinskaya, V. M. (2019). Analysis as an integral tool of efficiency in the enterprise management system. Retrieved from: http://dspace.wunu.edu.ua/jspui/bitstream/316497/37234/1

2. Mulyk, T. O. (2020). Organizational and methodological aspects of the analytical service of the enterprise. Retrieved from: http://www.economy.nayka.com.ua/pdf/8_2020/74.pdf. DOI: 10.32702/2307-2105-2020.8.72.

3. Stetsyuk, L. S. (2016). Organization of analytical work on agricultural enterprises. Retrieved from: http://magazine.faaf.org.ua/organizaciya-analitichnoi-roboti-na-silskogospodarskih-pidpriemstvah.html

4. Tomchuk, O. F. (2020). Analytical support of agricultural enterprises and its improvement. *East European Scientific Journal*, no. 3(55), pp. 54–66.

5. Tomchuk, O. F. (2019). Theoretical aspects of the analytical support system. *Market infrastructure*, no. 35, pp. 484–492. DOI: https://doi.org/10.32843/infrastruct35-76

6. Mishchuk, G. Yu., Dzhigar, T. M., & Shishkina, O. O. (2017). Economic analysis: textbook manual. Rivne: NUVGP, 156 p.

7. Vikhlyaeva, S. I., & Fedyai, V. I. (2013). Ways to optimize management decisions of the enterprise in conditions of risk and uncertainty. *Bulletin of NTU «KhPI»,* no. 67 (1040), pp. 143–147.

8. Ivashchenko, G. A., & Skripay, A. S. (2015). Information and analytical support of management decisions at the enterprise. *Economic analysis*, vol. 21, pp. 86–92.

9. Mazur, V. A., Tomchuk, O. F., & Branitsky, Yu. Yu. (2017). Methods of analysis of the financial condition of the enterprise in accordance with the requirements of internal and external users. *Economy. Finances. Management: current issues of science and practice*, no. 3(19), pp. 7–20.

10. Tomchuk, O. F. (2018). Analytical capabilities of the balance sheet (statement of financial position) of the enterprise. *Black Sea Economic Studies*, vol. 28, ch. 2, pp. 152–159.

11. Mulyk T., Tomchuk O., & Fedoryshyna L. (2020). Analysis of fnancial stability of the enterprise. *The scientifc heritage*, no. 43, pp. 46–55.

12. Tomchuk, O. F. (2020). The role of financial stability in the assessment of the enterprise bankruptcy. *Slovak international scientific journal*, no. 38, pp. 14–24.

13. Tomchuk, O. F. (2016). Analytical support of business activity management of the enterprise. *Global and national economic problems*, issue 10, pp. 991–995.

14. Farion, V. Ya. (2019). Analytical assessment of business activity and profitability of enterprises. *Innovative economy*, no. 10, pp. 27–33.

15. Putsenteilo, P., & Humeniuk, O. (2019). Information support of analytical activities in enterprise management. *Institute of Accounting, Control and Analysis in the context of globalization*, issue 1-2, pp. 74–82. DOI: https://doi.org/10.35774/ibo2019.01.074

16. Samoilenko, A. (2021). Features of digitalization of the European Union in the context of globalization. *Herald of Economics*, no. 1, pp. 46–54. DOI: https://doi.org/10.35774/visnyk2021.01.046

17. Kaletnik, G. M., Gunko, I. V. (2017). Innovative platforms for the organization of research and discussion youth platforms in the context of European integration development of the agricultural economy. *Economics, finance, management: current issues of science and practice*, no. 4, pp. 7–18.