

# **РОЗДІЛ VI**

## ***Бухгалтерський облік, аналіз, статистика та математичні методи й інформаційні технології в економіці***

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### **A Theoretical Framework for the Accounting and Analytical Maintenance of the Company Business Processes in the Company**

The business processes in the company are defined. An advisability of accounting and analytical maintenance in the context of each individual business processes implementation is given. The goals and objectives of accounting procedures in the context of the maintenance, production and sales of products, goods and delivering the service are outlined. The tasks of analytical work to determine the efficiency of each process are provided.

**Key words:** accounting and analytical maintenance, business processes, maintenance process, manufacturing process, sales process.

**Formulation of Scientific Problem and its Significance.** In modern conditions of changing environment the main objective of the enterprise is a rapid response to all changes and the appropriate implementation of adequate measures in the organization and implementation of its business.

Activity base of any organization is its workflow or business processes which define the goals and targets of the entity. Such processes should ensure the implementation of all activities in the company associated with the production of goods and services. Taking into consideration that accounting is one of the management functions, accounting and analytical maintenance for business processes is regarded to be a key issue for research.

**Analysis Research this Problem.** The works of national and foreign scientists such as of M. P. Voynarenko, N. V. Generalova, S. F. Holova, R. Gracheova, M. Zhezhera, I. Zhentovska, G. Grachov, V. M. Kostyuchenko, V. M. Kuzhelnyi, I. Lisna, L. G. Lovinska, O. Mironova, K. A. Myulyer, V. Parkhomenko, I. A. Smirnova, V. V. Sopka, M. Tuzhynskyi focus on interpreting of accounting and analytical maintenance for business processes in the area of accounting. Accounting aspects of the new standard implementation are considered in the researches of S. Holova, O. Myronova, R. Chernetska etc. Taking into account the substantial contribution of these scholars to the study of accounting mapping of business processes one should note that the issue of developing organizational methodological support of accounting and analysis of individual business processes still remains unresolved that will simplify the processes of budgeting, planning and forecasting of the company.

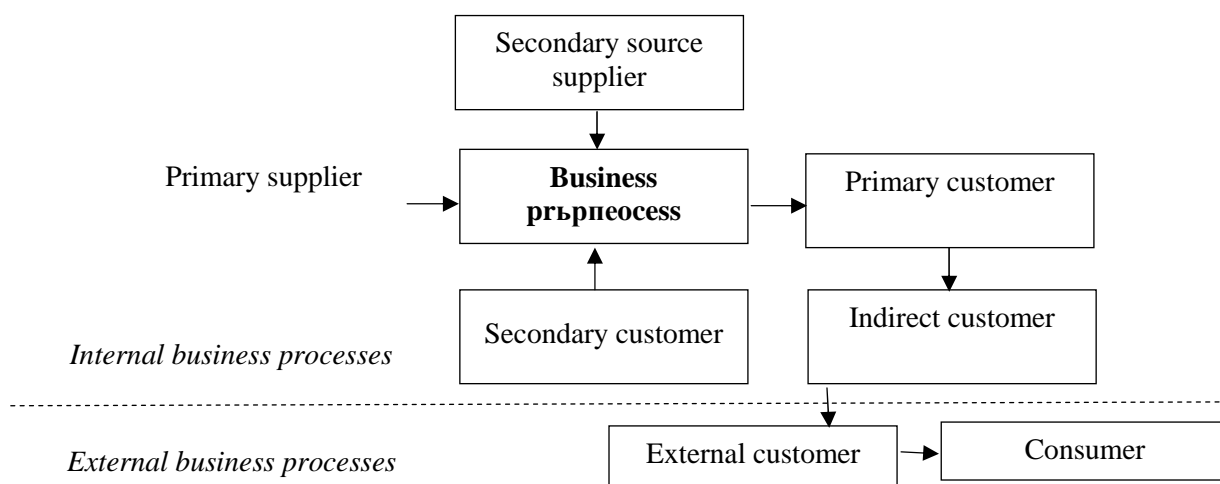
**The Purpose of the Article.** An object of the article is to develop theoretical framework of accounting and analytical maintenance for business processes of a company and to develop the guidelines for the application of these provisions in practice.

**The Main Material Research and Study of Scientific Results.** The processes taking place within the enterprise are serial functional chains that are interrelated and influence the general state of the entire

corporate system [8]. Each system has its own inherent features, its reaction to the management, its possible deviation forms from the program, its ability to respond to the actions of various kinds [7].

The concept of business process has not received a normative interpretation yet but it is one of the most used today. The business processes being the workflows are characterized by their limits in other words by the beginning and end. For any individual process these limits are set by the initial or primary inputs from which it starts (fig. 1). These inputs are opened to the primary suppliers of the process. Resources or inputs of the process may be material and technical, energy, human as well as informative.

Within the process approach any enterprise is seen as a business system that is a linked unit of the business processes with ultimate goals to produce products or services.



**Fig. 1.** *Business Processes Limits*

The sole purpose of a business process is to meet customer requirements. All customers can be divided into five different types that may not be present individually (there may be occasions when they meet): primary customers – those who receive primary output; secondary customers who are outside the process and receive secondary outputs; indirect customers that do not receive the initial release, but are the next in the chain, so later output is displayed on them; external customers (outside the company) who get out of the process such as distributors, agents, retailers and other organizations, etc; indirect external customers, consumers.

The distinctive feature of the concept of accounting and analytical maintenance for individual business processes is a variety of previous ideas, theories, methodologies, which are quite contradictory and less related with the scientific achievements in the field of accounting, auditing and analysis. However, the process approach can be applied not only in management but also in accounting and strategic analysis. The main advantage of this approach in accounting and analytical information system is to get focused on improving its operations and competitiveness as well as opportunities for prediction [2, p. 15].

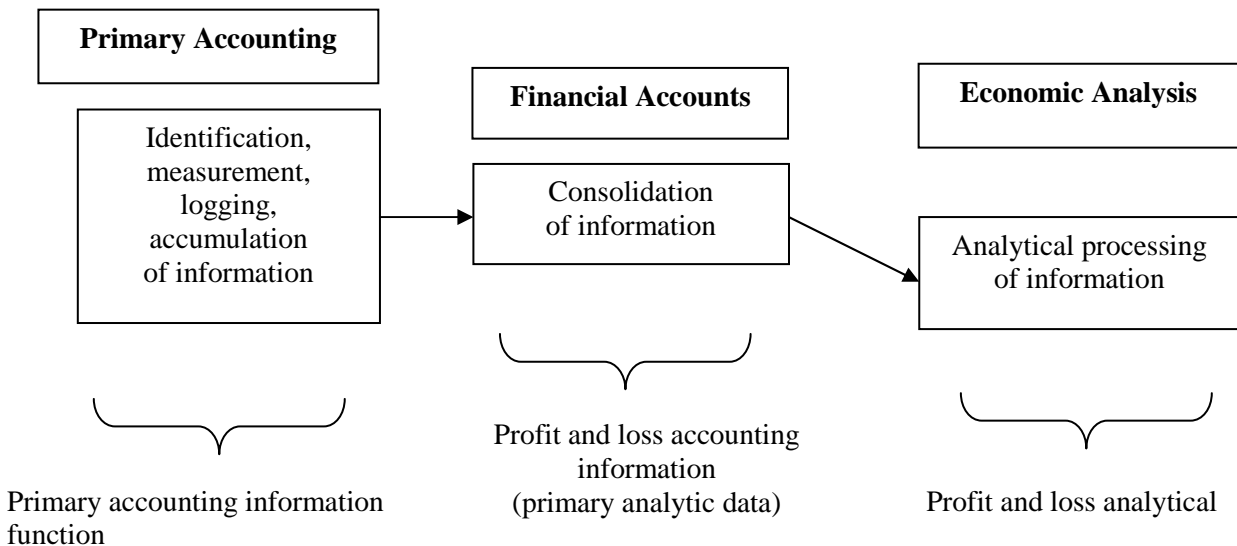
Accounting is conducted on each enterprise and it carries out its function of providing information as a respond to requests for provision of information as well by managers, owners and others. The accounting system is the basis of all information support system of economic activity management.

An economic analysis exists along with accounting. Such a combination can be called a system of accounting and analytical maintenance for company's management.

Without doubt if to identify accounting and analytical maintenance with accounting procedures in the company one could argue that all researchers in the field of theory and practice of accounting are in fact the explorers of accounting and analytical maintenance. But if you define the latter broader not only just as a technology of entries implementation in the accounting accounts and also as a implementation of other functions according to their functional purpose, the concept of the accounting and analytical maintenance acquires another meaning.

Accounting records fix and accumulate synthetic (generalized) and analytical (detailed) accounting information on the activities of the entity for the definite period. It contains information about the organization's assets, state property, sources of its formation, the commitments, relationships with contractors, the formation of financial results, its profit and use, etc. Accounting information is formed on the following stages such as identification, measurement, registration, storage and generalization.

The notion of accounting and analytical maintenance for the management of the enterprise is superior to the notion of accounting and analytical information. The word “maintenance” in this term means implementation, guaranteeing the process of the supply of the management system with accounting and analytical information. Therefore, this notion has to include a set of actions for the preparation of accounting and analytical information i. e. the process of its preparation (fig. 2).



**Fig. 2.** A Scheme of Accounting and Analytical Maintenance for Business Processes

According to O. V. Parkhomenko information and analytical maintenance of management system with business processes is a combination of all range of information as well as specific means and methods of analytical processing together with the experts' activity aimed at its efficient use and improvement [7, p. 8]. So it is possible to formulate the basic functions of accounting and analytical maintenance of management system as part of the information and analytical maintenance:

1) informative – providing the management system with information on the internal and external users in the company;

2) accounting – a reflection of enterprises economic activity;

3) analytical – implementation based on primary analytical data of enterprise activity economic analysis.

Supply, production and sales are the main business processes at any company. Each of them implements the basic elements of accounting, namely: estimating, documentation, double entry, inventory check and reporting towards a particular process and the overall accounting at the enterprise. Let us consider the key elements of accounting in the context of each business process and display their features.

Delivery process is a set of operations to ensure the company with objects and means of labor necessary for its economic activity. The acquisition process lies in the making deals with suppliers on necessary production factors, makes arrangements on delivery and warehousing of productive supplies, transfers money to suppliers for materials received. During this process a change of asset forms from money into the form of property intended for production takes place [4].

This process should be carried out continuously and uniformly since an excess or shortage of raw materials adversely affect the outcome of enterprises business activity. The main tasks of accounting of the property acquisition are: correct and punctual defining of purchases volume; revenues record of real assets to the enterprise; the payments to suppliers for the acquisition of equipment and contractors for the transportation and procurement costs; determining the actual cost of purchased material resources [9].

Accounting of production process is aimed to reflect the cost of goods (works, services) production, to monitor the appropriateness and effectiveness of expenditures, to calculate the cost of goods (works, services) and by comparison of actual and planned cost to determine the financial result of the process (economy or over expenditure).

Having regard to the above the main tasks of the production output accounting process are the following: documenting and timely recording of all production costs; the use of material, labor and financial

resources control in accordance with approved standards, specifications and budget; correct calculation of the actual cost of products (works, services).

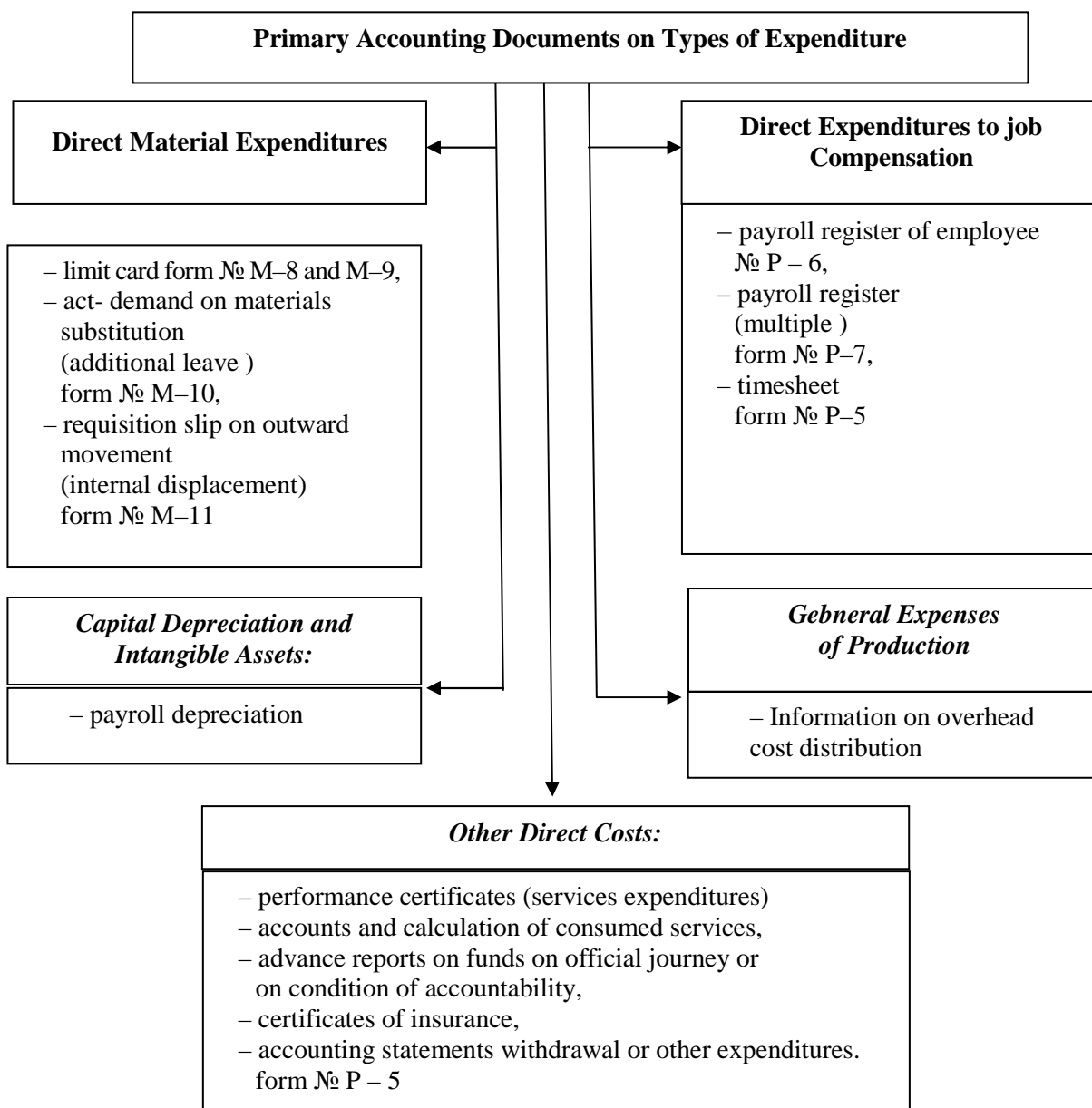
The design and choose the forms of primary documents in industry production such widely used in practice accounting systems are considered:

1) individual cost accounting system when a permit on piecework (or hourly) wages and demand (limit card) to issue materials is issued for every process of part cutting (kit of parts) or type of job;

2) route accounting system with routing chart as the basic document of cost accounting.

In the current economic environment timely, complete and reliable determining of actual costs of production and marketing, as well as control over the use of funds and resources is particularly important.

Financially responsible persons of these units make monthly reports on the movement of material assets in their units based on primary documents that record the movement of material assets in companies that have producing departments. Such reports will be, for example, financial receiving report of department executive officer, turnover balance sheet for a certain type of property and other documents adopted by the company to account values [7]. Depending on the type of expenses the following primary documents are defined (fig. 3).



**Fig. 3.** Primary documents of the Process of «Production» by Cost Element

Cost management for planning, accounting and calculation of production costs is classified by different criteria: by type of production and type of product, cost centers, the composition and economic sense, and so on.

Analyzing the marketing costs of the company all possible methods of cost analysis should be implemented since in practice the analysis findings may differ from each another depending on the method applied in the analysis.

Expenses on sales include those related to the shipment and products sale, i. e. non-productive costs: the cost of packaging and packaging goods in finished products stores, at warehouse of the seller after delivery of finished goods to the warehouse; transportation costs of shipping goods to the departure station (pier); costs of loading in wagons, ships, cars and other vehicles; fees paid to various organizations under contracts; commissions paid to a trade, supply or marketing organizations for selling their products, which cannot be implemented now and therefore transferred for implementation on a commission basis; costs of special analyzes performed during shipment; maintenance of storage capacities in the field of implementation; the cost of reimbursement of expenses for participation in exhibitions, fairs, donated samples and models for representation expenses (receptions organization), conferences and other official events – including compensation labor service personnel amounting to two percent of products sales [3].

The implementation process is related, on the one hand, with the shipment of finished products by the manufacturer and its transfer to the buyer, on the other – with receiving of cash and cash equivalents and their passing to the seller accounts. By performing the accounting tasks natural and monetary indicators are used. Sales volume has two estimations: the actual cost of sales and selling price (sale value) of goods. Their comparison helps to identify the operational financial results: profit or loss. If the selling price (sale value) is higher than actual cost of sales, the operation is profitable and if conversely it is unprofitable.

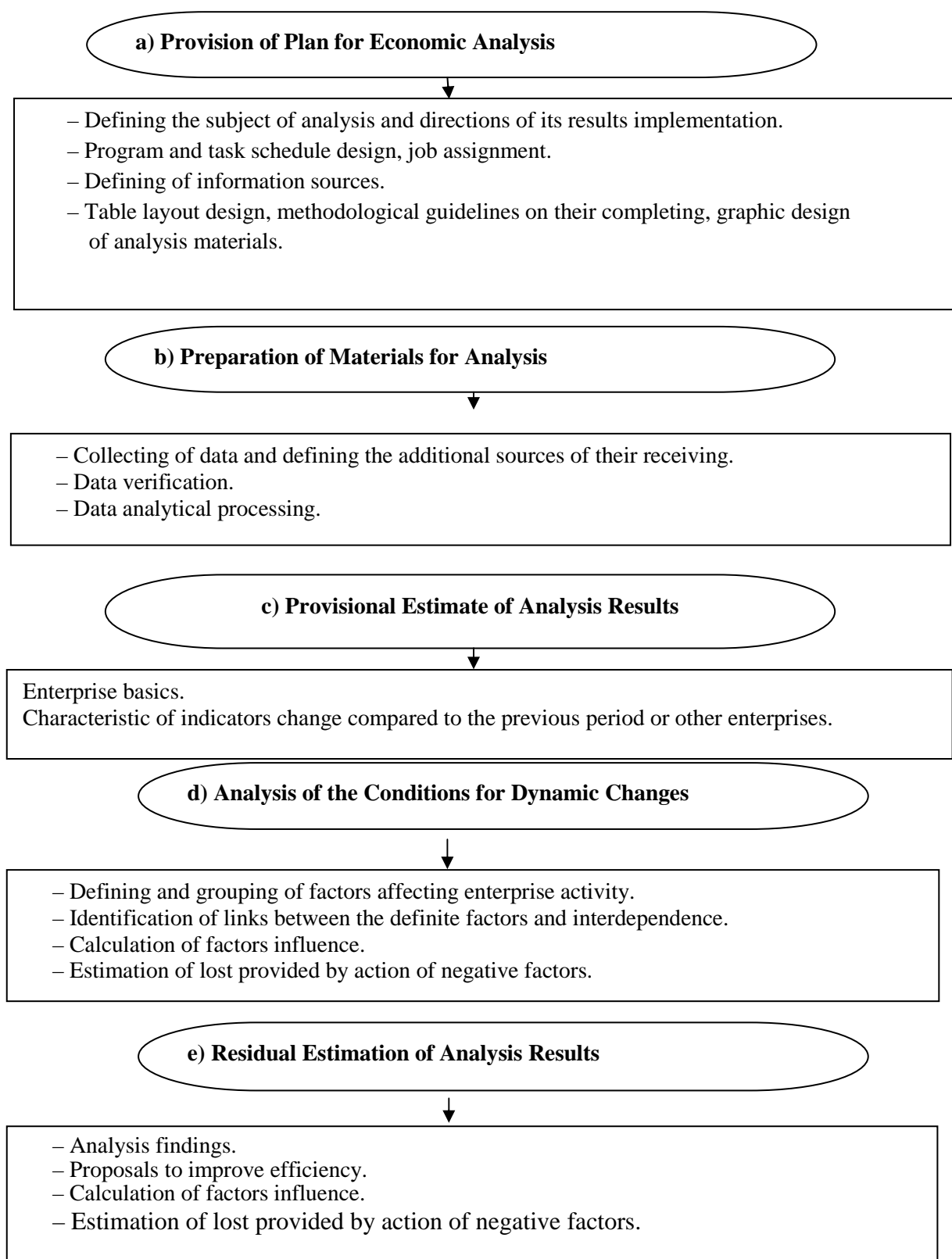
In Ukraine there are no common officially defined methods of integrated full assessment for performance results. The analytical assessment of the economic and social efficiency of production must be based on the results of a comprehensive analysis of the economy for a definite period of time. Such comprehensive analysis that includes monitoring, fixation of the actual (expected) values in dynamics and analytical assessment of a set of performance indicators should be performed in accordance with the predefined pattern in several stages (fig. 4).

The objects of economic analysis of most manufacturing firms should be focused on: organizational and technological level and production capacity; fixed assets usage and production capacities, material resources; the current level of productivity; cost of production (current production costs); profitability, return; financial position and its stability; description and characterization of performance index at the estimated enterprise and other enterprises in the sector for the current period; clearly articulated findings based on the results of economic analysis; the found reserves of economic efficiency increase in the process of analytical assessment and reasonable suggestions for their practical use in the near future.

Methods of rapid analysis are based on the drawing the experts and identification of the problems encountered in the implementation of specific business processes, search and analysis of possible solutions for selected problem areas and implementation of operational measures to improve them.

The methodology for idealization of business processes is based on wide usage within the system approach an ideal system method to develop ideal business processes. Once they have been designed they should be allocated only to areas that cannot be directly put into practice.

Accurate and timely accounting and analytical maintenance for business processes not only contribute to forming and maintaining positive relationships between buyers, customers, suppliers and businesses but will improve profitability and provisioning for development.



**Fig. 4.** *The Main Stages for Economic Analysis of Enterprise Performance Results*

*Джерела та література*

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**Алла Фатенок-Ткачук. Теоретичні основи обліково-аналітичного забезпечення бізнес-процесів підприємства.** Визначено сутність поняття «бізнес-процес підприємства». Із метою розуміння сутності бізнес-процесів визначено їхні межі. Застосовано процесний підхід для обґрунтування доцільності обліково-аналітичного забезпечення бізнес-процесів підприємства. Наголошено на необхідності здійснення обліково-аналітичного забезпечення в розрізі кожного окремого бізнес-процесу підприємства. На кожному підприємстві ведеться бухгалтерський облік, що здійснює свою функцію інформаційного забезпечення щодо інформаційних запитів управ-

лінського персоналу та власників. Система бухгалтерського обліку може бути ефективною лише в умовах систематизації інформації за окремими напрямками. Схематично систематизовано процес обліково-аналітичного забезпечення бізнес-процесів підприємства. Визначено мету та завдання облікових процедур у контексті процесу постачання, виробництва й збуту продукції, товарів, надання послуг. Визначено завдання аналітичної роботи задля визначення ефективності кожного з процесів. Наведено схему комплексного аналізу, що охоплює моніторинг, фіксування фактичних (очікуваних) значень у динаміці й аналітичну оцінку певної сукупності показників діяльності, а саме таких як складання плану економічного аналізу, підготовка матеріалів для аналізу, попередня оцінка результатів аналізу, аналіз причин динамічних змін, остаточна оцінка результатів аналізу. Виділено об'єкти економічного аналізу підприємств виробничого спрямування в системі обліково-аналітичного забезпечення бізнес-процесів підприємства.

**Ключові слова:** обліково-аналітичне забезпечення, бізнес-процеси, процес постачання, процес виробництва, процес збуту.

**Алла Фатенок-Ткачук. Теоретические основы учетно-аналитического обеспечения бизнес-процессов предприятия.** Определяется сущность понятия «бизнес-процесс предприятия». С целью понимания сущности бизнес-процессов обозначаются их границы. Использован процессный подход для обоснования целесообразности учетно-аналитического обеспечения бизнес-процессов предприятия. Отмечается необходимость осуществления учетно-аналитического обеспечения в разрезе каждого отдельного бизнес-процесса предприятия. На каждом предприятии ведется бухгалтерский учет, который осуществляет свою функцию информационного обеспечения, относительно информационных запросов управленческого персонала и владельцев. Система бухгалтерского учета может быть эффективной только в условиях систематизации информации по отдельным направлениям. Схематично систематизирован процесс учетно-аналитического обеспечения бизнес-процессов предприятия. Определены цели и задачи учетных процедур в контексте процесса снабжения, производства и сбыта продукции, товаров, предоставления услуг. Наводятся задачи аналитической работы для определения эффективности каждого из процессов. Приведена схема комплексного анализа, что охватывает мониторинг, фиксирование фактических (ожидаемых) значений в динамике и аналитическую оценку определенной совокупности показателей деятельности, а именно таких как составление плана экономического анализа, подготовка материалов для анализа, предварительная оценка результатов анализа, анализ причин динамических изменений, окончательная оценка результатов анализа. Выделены объекты экономического анализа предприятий производственного направления в системе учетно-аналитического обеспечения бизнес-процессов предприятия.

**Ключевые слова:** учетно-аналитическое обеспечение, бизнес-процессы, процесс поставки, процесс производства, процесс сбыта.

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### **Методика аналізу та оцінки інноваційної діяльності підприємства**

Ефективність фінансово-господарської діяльності підприємства неможлива без проведення заходів реалізації інноваційної діяльності. Аналіз інноваційної діяльності підприємства вимагає системного підходу, який можливий при залученні відповідного оцінно-аналітичного інструментарію. Зокрема, взаємодія елементів інноваційного потенціалу підприємства може характеризуватися показниками еластичності, рентабельності, сприйнятливості, активності.

**Мета статті** – розроблення методичного забезпечення аналізу та оцінки інноваційної діяльності підприємств, що враховує системну взаємодію елементів інноваційної діяльності.

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