



Tom 25/2017, ss. 413–428
ISSN 1644-888X
e-ISSN 2449-7975
DOI: 10.19251/ne/2017.25(27)
www.ne.pwzsplock.pl

Svitlana Levytska

National University of Water and Environmental Engineering

Viktoriia Vovk

National University of Water and Environmental Engineering

VARIABILITY OF INFORMATION SUPPORT FOR THE RESULTS OF ENTERPRISE BUSINESS ACTIVITY

MODYFIKACJA WSPARCIA INFORMACYJNEGO
WYNIKÓW DZIAŁALNOŚCI GOSPODARCZEJ PRZEDSIĘBIORSTWA

Summary:

The article examines methodical and organizational approaches used in the development of information support for business activity results. Accounting data and its analysis, as well as internal control results, form the basis for the information support development. The aspects of accounting and analytical support at different stages of business entity operation have been analyzed with regard to adjustments in regulatory control of economic and accounting issues.

Streszczenie

Zbadano metodyczne i organizacyjne podejścia do tworzenia wsparcia informacyjnego dla prezentacji wyników działalności gospodarczej przedsiębiorstwa, które opierają się na informacjach dostarczanych przez rachunkowość, analizę ekonomiczną oraz kontrolę wewnętrzną. Z uwagi na różnorodną działalność przedsiębiorstw zaleca się zróżnicowanie systemu wsparcia księgowo-analitycznego oraz kontroli wewnętrznej zgodnie z trzema poziomami trudności: prostym,

Keywords: information support, integrated accounting system, economic analysis, internal control, life cycle stages.

o umiarkowanej złożoności i kompleksowym.

Ze względu na specyfikę działalności przedsiębiorstw w różnych fazach cyklu ich życia w artykule zaproponowano, by w każdej z wymienionych przez autorów faz, posługiwać się właściwym systemem wsparcia księgowo-analitycznego oraz kontroli wewnętrznej.

Zaproponowana modyfikacja wsparcia informacyjnego wyników działalności gospodarczej przedsiębiorstwa w zależności od faz cyklu życia przedsiębiorstwa pozwoli jego kierownictwu uzyskiwać na czas użyteczną informację o wynikach działalności i podejmować niezbędne decyzje w najwcześniejszym możliwym terminie.

Słowa kluczowe: wsparcie informacyjne, zintegrowany system rachunkowości, analiza ekonomiczna, kontrola wewnętrzna, fazy cyklu życia.

Introduction

For the management team, information support of financial result is a valid and well-timed data source for the effective use of resources, their development dynamics and expansion of business activity, which is one of the vital tools of modern management system. Key definitions for information support of management process are «accounting support», «accounting and analytical support», «economic analysis», «internal control», «internal audit».

Some of the elements of adjusting accounting components in frames of information support at the stage of developing the State Concept of Sustainable National Development are expansion of accounting entities, namely social, economic, ecological components of their business activity and IT development, which is able to ensure accounting and reporting efficiency, interpret complex indicators of accounting and analytical support according to parameters requested by managers of different levels, perform automatically internal control (audit) of performance result, etc.

With national business entities, having entered the market, and types of accounting, developing rapidly, the necessity to search for the identified data support formats for the result of business activity with regard to the national economy, business aspects of the entity and its industry subordination, life cycle stages, etc becomes acute.

The content of accounting and analytical data along with methodical and organizational approaches of accounting data integration for the reporting period while considering variability of managerial demands, difficulties of business operation of entities at different stages of their development, is still disputable nowadays.

The purpose of the article is to define and justify the methodical as well as organizational and economic approaches to developing information support of business activity result in terms of current socio-economic transformations.

1. Accounting and analytic support and business activity control

Considering intense development of business entities (along with economic issues, social security and environmental safety) national researches study accounting and analytic support as:

- a system of collecting, processing, integrating and reporting of financial data, providing its quantity and quality for business activity regulation;
- a combination of all data used with specific tools and methods of its analytics and efficient improvement;
- an emergent aggregate of accounting data by means of interaction and combination of accounting and analysis to achieve one single purpose of developing a well-grounded, qualitative and valid data.

Thus, accounting and analytic support of financial and economic activity results of business entity is integration of its business accounting data and, therefore, its analysis that is characterized by:

- identifying the connections between the: availability of ordered elements, targeted content, maintaining the priorities (defined by the users), alternativeness and multidimensionality;
- coherence to the targeted demands of management system, which: provides data for decision-making process (including internal control/audit conduct).

To define accounting and analytic support format, it is important to determine its goal destination as the information basis of:

- system internal economic control;
- internal audit of economic activity indicators (results) considered the most important by the top-executives;
- justification and making of operational, strategic and administrative decisions (Fig.1).

Figure 1 proves that the goal destination of accounting and analytic supply lies in providing qualitative information basis for making necessary organizational and managerial decisions by means of using various data characterizing the efficiency of business activity.

Evaluation of internal control system along with accounting and analytic support can be figuratively differentiated, having predicted complexity levels while considering the entity accounting system, types of financial and economic activity analysis and internal control types (internal audit).

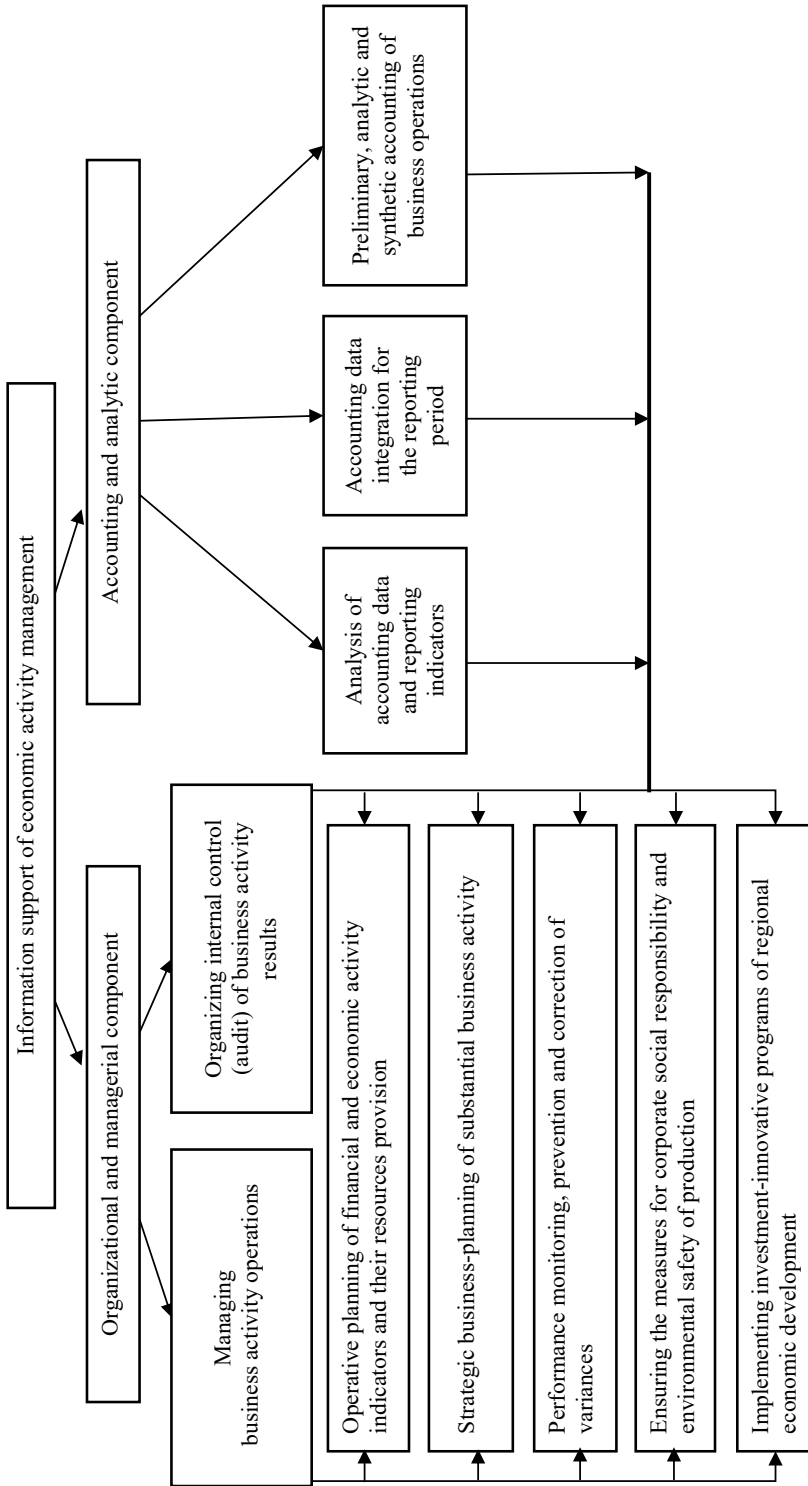


Figure 1. Developing of information support for business entity management

Source: It was processed independently

The authors suggested a complex evaluation of accounting and analytic support and control, presented in Table 1.

Table 1. Evaluation of information support for financial and economic business activity result

N #	Elements	Evaluation of accounting and analytic support and c control for business activity		
		simple	semi-complex	complex
Accounting and analytic component				
1.	Accounting system			
1.1.	Accounting	Simplified financial accounting [Decree on approval of the simplified Plan of accounts ...]	Financial accounting with detailed data based on analytical accounts [Regulation on applying the Plan of accounts ...]	
1.2.	Integrated system of accounting			Complex system of accounting as basis of data preparation for reporting
2.	Types of analytic procedures			
2.1.	Economic analysis	Operational economic analysis of financial results	Operational, economic lookback analysis of indicators, that build up financial result	
2.2.	Financial and managerial analysis			Operational and lookback analysis, complex assessment of financial standing and bankruptcy risks, strategic financial and managerial analysis
Organizational and managerial component				
3.	Types of internal control and audit			
3.1.	Internal control	Internal control of financial reports indicators	Internal control of financial accounting according to the field of business activity, entities, executives	Internal control of integrated accounting system indicators according to business activity field, entities, executives

3.2.	Internal audit		Financial internal audit of reporting	Financial internal audit of reporting, operational internal audit of business performance results
4.	Administration			
4.1.	Internal administrative process	Monitoring performance executives via middle-management	Implementing administrative actions by the top executive or the owner	Integrated assessment of management results via achieved plan indicators of financial and economic activity
4.2.	Public administration	Conformance with the standards of environmental safety in production and corporate social responsibility, orientation to the investment-innovative programs at a regional level	Conformance with the legislation and other regulative acts within the field of business entity's activity	Integrated managerial decisions with regard to tactical and strategic internal and external targets

Source: It was processed independently

Let us specify our vision of some stages of the development of information support results for business activity.

The basis of information support result for financial and economic business activity lies in accounting system, since it is aimed to show the facts of economic operations performed by the business entity. Simple and simplified accounting and reporting systems are considered as the easiest by their structure. They are used by small business entities, which allows showing performance results through the simplified plan of accounts, registers, types of statements and tax system. All other business corporations and organizations use general-ledger or entry memo accounting systems.

In order to provide data integrity, accounting is being examined as an integrated accounting system, the concept of which is given in table 2.

Table 2. Conceptual basis of integrated accounting system

Criteria	Integrated accounting system			
	Financial accounting	Managerial accounting	Statistical accounting	Tax gross-up
Purpose	Provides figures of financial conditions	Provides data, needed for decision-making	Provides study, integration and control of mass effects that characterize principles and trends of business development	Provides tax reporting compilation
Users of information	External, internal	Internal	External, internal	External, internal
Mandatory status	Mandatory	Voluntary	Mandatory	Mandatory for taxpayers
Regulation of reporting compilation	External – approved by the Ministry of Finance of Ukraine	Internal – regulated by the owner or/and top executive	External – approved by the State Service of Statistics of Ukraine	External – approved by the State Fiscal Service of Ukraine
Accounting periods	Quarter, year	Upon request (daily, weekly, decade, monthly)	Month, quarter, year	Quarter, year
Object of accounting and reporting	Economic activity of business entity	Areas/indicators of business activity defined by the top management	Social and economic phenomena and processes within business activity	Business operations that are considered at tax calculation
Confidentiality level	Public information	Inside information	Public information	Public information
Measurements used	Monetary, physical indicators (limited)	Monetary, physical, qualitative	Monetary, physical, qualitative	Monetary

Source: It was processed independently

The need for quick detailed information in view of the priority issues of management, maintains the managerial accounting of a business entity up to date. International practice of managerial accounting defines responsibility centers as the basis for its implementation, i.e. activity segments in frames of which the manager bears personal responsibility for the performance of the given indicators.

Database for managerial accounting, as a base for making operative and strategic managerial decisions, should be appropriate to analyze considering the two following constituents:

- internal records of business operations: is performed along with preserving methodical base of bookkeeping (using subaccounts to bookkeeping accounts according to the target demands of the executives);
- monitoring and assessment of managing measures (decisions taken by administration) related to the execution of indicators, announced to responsibility centers.

Next element of information support for finance and economic activity results is types of analytic procedures (table 1).

Dividing analysis into financial, and financial and managerial is quite figurative, and is primarily concerned with similar division of accounting, though it occurs in a practical activity of national business entities.

The basis of economic (financial) is the analysis of financial standing, which accounting indicators are recognized in the forms of financial reporting. Financial analysis studies all financial resources that are characterized by the defined system of their availability, allocation and usage indicators [Lakhtionova, 2001].

Economic analysis provides implementing of analytic procedures depending on the types of analyses:

- 1) by the contents of managerial processes: strategic, operating, lookback;
- 2) by the entities: external, internal;
- 3) by the research aspects: financial, technical and economic, social and economic, ecological and economic, project;
- 4) by the management level: macro-economic, area, regional, internal;
- 5) by the content and integrity of issues: integral, thematic;
- 6) by the periods of performance: annual, quarter, monthly etc. [Seredynska, Fedorovych and Zagorodna, 2002, p.28].

Apart from the results of financial and economic activity, financial and managerial analysis examines the efficiency of managing business activity processes methods, justifying cause-and-effect relationship of deviations found. This type of analysis aims at the developing the improvement methods for the key performance indicators of the business entity taking into account its resource potential and strategic goals or at survival in terms of bankruptcy threat.

In order to provide the efficiency of internal control and internal audit, it is important to define forms and procedures of their implementation.

These days, control, as a major function of management administration in economic and scientific-journalistic interpretation, is the same. Control (French *contrôle*, from *contrerôle* — double entry list): checking, accounting, observation; is one of the main managerial functions, is the implementation of control is based on observing for the behaviour of the controlled system aimed at providing its best performance (measuring the results achieved and comparing them with the expected ones) [www 1].

Interrelation of control with planning process is important for effective management of an enterprise. Agnieszka Kister and Andrzej Zbroja [2012, p. 256] consider that adoption of control prevents from wasteful and inefficient business transactions and can signal failures and violations occurring during implementation of a current plan.

More often national auditing practice is using financial audit as well as other types of audit to assess business activity, they are as follows:

- operational audit – checking any procedures and methods available at the entity or enterprise, aiming to assess their efficiency;
- audit, checking the conformity with the regulatory requirements, which defines whether an audited organization complies with procedures and rules set for it [www 2; www 3].

Table 3 shows a comparison of conceptual framework for internal audit of financial reporting and internal control that explains the subordination of the results of performing the audits.

Table 3. Internal audit of financial reporting and internal control

N #	Conceptual framework	Financial audit	Control
	Subject	External and internal financial reporting, sources for its preparation (accounts, receipts)	Accounting data and entity's external and internal reporting indexes
	Purpose	Providing justified assessment of financial standing: identifying improprieties, discrepancies and deviations in the entity's financial statements, correcting them and providing consultations to improve financial performance	Defining efficiency of decision-making, its implementation outcome, checking for deviations from standard, eliminating adverse situations, and preventing discrepancies in financial and economic activity

	Methodical basis	General scientific methods (analysis and synthesis, induction and deduction, analogy and simulation, abstraction and specification, system analysis, functional-cost analysis, etc.). Individual methods (organoleptic, computational, integration and implementation of audit results)	Set of methods and procedures aimed at execution of the control actions program to achieve the purpose of the control. Methods: general scientific, organoleptic, documental, computational-analytical, generalizing and realization of control results
	Audit period	Priority is set for the end of reporting period; under special circumstances – the period is defined by the top executive	Systematically (in most cases continuously). CEO approves: auditee, issues to be controlled, corporate controllers among the entity's officials)

Source: Osadcha [2015, p. 19]

The purpose of administrating is justification and managerial decision-making. The key elements include internal administrative process and public administration (table 1). Although both elements are aimed at interaction of business interests, internal administrative process focuses on completing planned performance of financial and economic activity by means of internal management reserve. Public administration, though, is aimed at achieving social or regional purposes using both internal and external management reserve.

Evaluating information support of finance and economic output, we should not ignore «vulnerability» of integrated accounting system, such as accounting data for the previous reporting period, which allow reaction but not action itself. Therefore, using accounting information we can make conclusions and justify alternative decisions, but not implement them.

Sokolov Y. [2000, p. 486] claimed that: «to use accounting data as a source of information for vital decision-making, the data should confirm to the three requirements: to be sufficiently representative, significant enough, and make it possible to assess the risk concerned with the consequences of decision-making. Conventional accounting is able to handle none of these problems».

Thus, to perform successfully, business entity should not only be knowledgeable about managerial information, it should also apply it correctly and control the efficiency of decisions that were made based on this information.

2. Variability of information support considering life cycle stages of the enterprise

Accounting and analytic support as well as internal system control (internal audit) should confirm to managerial targets considering life cycle stages of the enterprise.

There are various research works, examining entity's behaviour in the market and its internal performance. The problem of "maturity" was analyzed back in 1967 by the representative of institutional and social direction of economic theory, J. Galbraith in his work «The New Industrial State». He introduced the term "mature corporation", explaining it as a huge and complex organization, whose members set their activities with regard to its goals influenced by various motives [Galbraith, 2004].

Let's analyze in detail the main life cycle stages of the enterprise. The economist G.L.Monastyrskiy [2008] states that enterprise life cycle «is seen not as a situational variable, but as a system-wide property of an organization, that affects its other constituents». A lot of difficulties and problems of an organization are explained by its maturity stage. The scientist describes 6 stages of a life cycle the enterprise goes through: Birth stage, Childhood stage, Youth stage, Maturity stage, Aging stage, and Rebirth stage. To avoid confusion in terms «maturity» as a life cycle stage and «maturity» as readiness of the enterprise to move on to the next stage, we will call the first «experience stage».

Let us have a closer look at every stage. At the «Birth stage» the management of the company strives to start its activity turning their plans into real actions. At this stage, the company is willing to get in the market at any cost and find its place there. The majority of companies will try to minimize prices, hoping to attract customers.

The «Childhood stage» is characterized by the established relationships with partners, a small circle of customers, and established main manufacturing and managerial processes. The management of the company tries to coordinate its activity according to the settled plans and possibilities. The purpose of the enterprise is to enhance its position in the market and to improve its product competitiveness. This policy doesn't allow taking any risks and searching for new markets, internal or external.

The «Youth stage» is the stage of unimpaired operation start. At this stage, all possible manufacturing capabilities are being used, the manufacturing as well as managerial personnel consists of qualified and carefully selected

professionals. The enterprise follows clear company policy and is open to full-scale and even risky actions. The main objective of the enterprise is to maximize the economic benefit and total capture of its market share.

At the «Experience stage», the enterprise has a stable structure, clear management and is knowledgeable of all business details. Business connections are sound, internal structure has a clear hierarchy with powers delegation, and a shaped image. The company can react adequately and efficiently to the external environment changes, optimizing all internal processes. At this stage, the management is interested in alternative business development possibilities opportunities, conducting differentiation and expansion.

The «Aging stage» occurs when the managing body loses its sensitivity to the changing external environment, is unwilling to implement new ideas and expand the areas of production, and due to the emerging bureaucracy. The management has fulfilled its objectives, achieved its targets and stopped its development.

The final stage is the «Rebirth stage». It doesn't occur in all enterprises but only in those that, despite the decline processes, are willing to recover balance and regain company's strength. The main objective at this stage is recruiting and activating new qualified staff that will be able to restructure the organization internally, revive the manufacturing process, find new directions of business development that meets the needs of new customers, who have changed their preferences due to the change in society.

Basically, the enterprise has a chance to get back to the "Experience stage", at the other level of its cycle development, though (figure 2). Further existence of the enterprise depends on management intentions to support its activity (rotation durability of Aging and Rebirth stages can be infinite).

Analyzing company life cycle stages and considering peculiarities of implementation quality management systems, we can state that applying the above mentioned systems is possible at the stages, when the enterprise has a stable foundation ready to implement the system.

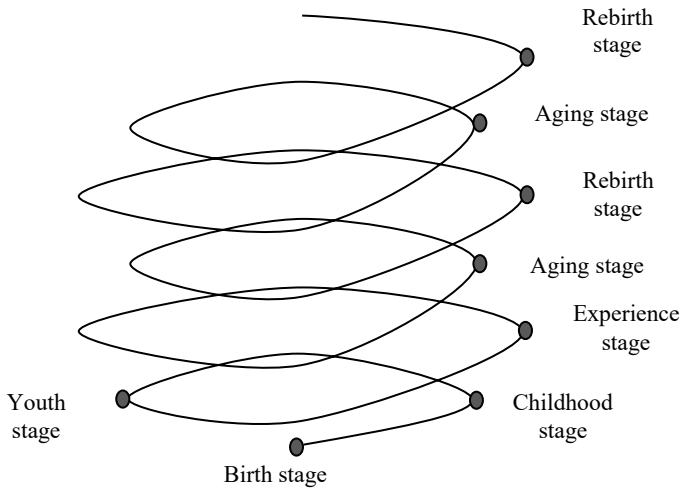


Figure 2. Stages of enterprise life cycle

Source: Vovk and Zyza [2013, p. 112]

The results of interconnected processes that influence the form of accounting and analytic support along with control, and life cycle stages of the enterprise are shown in the Table 4.

Table 4. Interconnection of the main processes that promote information system implementation along with the life cycles of the enterprise

Life cycle stages	Main objective	Typical problems	Priority organizational and methodological approaches to accounting and analytic support	Assessment	
				accounting and analytic support	internal control
Birth stage	The source of reliable funding	Lack of investment, unclear directions of statutory implementation Lack of internal control	Simplified system of accounting	Simple	
Childhood stage	Taking on a market	Unjustified expenditure, excessive internal control	Defining levels of analytic accounting in accordance to management targets	Fairly complicated	Simple
Youth stage	Profit, sales, reliable partners	No strategy, no systematic internal control	Harmonization of methods for financial and tax accounting developing uniform accounting data	Fairly complicated	Fairly complicated

Experience stage	Preserving a status quo, following the standards, rules, regulations	Inefficient system of adjustments to market change	Change into integrated accounting and analytic support system, meeting the needs of users for operational and strategic data	Complex	Complex
Aging stage	Loss of market position	Inefficiency of internal control	Independent evaluation of assets and liabilities	Fairly complicated, complex	Fairly complicated
Rebirth stage	Redirecting the main performance area, process upgrading	No business planning	Analytic accounting of the controlled profits and expenditures, managerial accounting enhancement	Simple, fairly complicated	Simple

Source: Compiled by the author, based on [Golov, 2016]

The above given form of accounting and analytic support as well as internal control (audit) of its indicators allow the company, using efficient management system, to make solid managerial decisions, to adjust effectively to internal resource provision changes, considering macroeconomic conditions and factors that influence its circulation.

Conclusion

A complex approach on developing the accounting and analytic support for the business activity result as the information basis for the internal control will ensure usefulness of information at the stages of managerial decision-making. This will enable the management effectiveness and allow identifying it as an asset, i.e. information production resource of postindustrial economy, provided that the balance value of such information and management format is defined.

Bibliography

Galbraith J. 2004. *New industrial society*. Moscow: ACT Publishing house Ltd.; Transitkniha Ltd.; Saint-Petersburg: Terra Fantastica.

Monastyrskiy G.L. 2008. *Theory of organization: Manual*. Kyiv: Znannia.

Golov S. 2016. «Accounting and analytical support of enterprise management during its life cycle». Accounting and audit, Nr 4.

Kister Agnieszka, Zbroja Andrzej. 2012. «Budżet zadaniowy jako forma kontroli zarządzania finansami jednostki samorządu terytorialnego (na przykładzie placówki oświatowej)». *Zeszyty Naukowe WSEI. Seria Ekonomia* tom 5, Nr 2.

Lakhtionova L.A. 2001. *Financial analysis of business entities*. Kyiv: Kyiv National Economic University.

Decree of Ministry of Finances of Ukraine from April 19, 2001 under Nr 186. On approval of the simplified Plan of accounts. (Decree on approval of the simplified Plan of accounts ...).

Decree of Ministry of Finances of Ukraine from November 30, 1999 under Nr 291. Regulation on applying Plan of accounts, assets, capital, obligations, business operations of enterprises and organizations (Regulation on applying the Plan of accounts ...).

Osadcha O.O. 2015. «Internal audit and internal control: functional appointment and accounting and analytical support in the current conditions of socio-economic transformations». *Collection of scientific works Problems of rational use of socio-economic and natural-resource potential of the region: financial policy and investments*. Kyiv, SEU / Rivne, NUWM. Publication XXI: 2.

Seredynska V.M., Fedorovych R.V., Zagorodna O.M. 2002. *Theory of economic analysis: a book for students of higher educational institutions*. Ternopil: Ukrmedknyha

Sokolov Y.V. 2000. *Fundamentals of theory of accounting*. Moscow: Finances and statistics.

Vovk Viktoriia, Zyza Olena. 2013. Conceptual Foundations of maturity in the quality management system. W *Maturity Management*, red. Elżbieta Skrzypek, 109-121. Lublin: UMCS.

[www 1] <https://uk.wikipedia.org/wiki/контроль> (access: 23.01.2017).

[www 2] <http://www.proaudit.com.ua> (access: 26.01.2017).

[www 3] <http://www.cfin.ru/ias/uprcontrol> (access: 26.01.2017).

[www 4] <http://artelis.pl/artykuly/43834/Etapy-wdrazania-Systemu-Zarzadzania-Jakoscia-wg-ISO-9001> (access: 2.02.2017).

[www 5] http://exsolver.narod.ru/Artical/Managem/quality_man4.html (access: 2.02.2017).