

БУХГАЛТЕРСЬКИЙ ОБЛІК, АНАЛІЗ ТА АУДИТ**UDC 657.1.012.1**

Будько О.В., д.е.н., доцент, завідувач кафедри фінансів та обліку
Дніпровський державний технічний університет, м. Кам'янське
ORCID ID: 0000-0002-3354-6515
e-mail: bisnescon@ukr.net

Budko Oksana, Doctor of Economics, Associate Professor, Head of the of Finance and Accounting
Dniprovsk State Technical University, Kamianske
ORCID ID: 0000-0002-3354-6515
e-mail: bisnescon@ukr.net

THE PLACE AND ROLE OF THE SYSTEM OF ACCOUNTING AND ANALYTICAL SUPPORT IN THE MANAGEMENT OF SUSTAINABLE DEVELOPMENT OF THE ORGANIZATION**МІСЦЕ І РОЛЬ СИСТЕМИ ОБЛІКОВО-АНАЛІТИЧНОГО ЗАБЕЗПЕЧЕННЯ В УПРАВЛІННІ СТАЛИМ РОЗВИТКОМ ОРГАНІЗАЦІЇ**

The purpose of the article is to determine the structure of the system of accounting and analytical support of sustainable development and its place and role in the management of the organization. The article highlights the elements of the management model of sustainable development of the organization (strategy, principles, subjects and objects, functions, methods, technologies, management decisions). Qualitative characteristics of accounting and analytical information, which are formed under the influence of accounting and management environments, are shown. The relationship between the model of sustainable development management as well as the system of accounting and analytical support of sustainable development is defined, which with the help of accounting, analytical and non-financial information subsystem forms accounting and analytical information of financial and non-financial nature for management purposes. The article establishes the place and role of accounting and economic analysis in the management of sustainable development of the organization through the formation of theoretical and methodological provisions, that contribute to the achievement of sustainable development goals at micro and macro levels.

Key words: *management, sustainable development, organization, accounting, economic analysis, information, system of accounting and analytical support.*

У статті акцентується необхідність зміни усталених підходів до управління організацією задля досягнення цілей сталого розвитку. Метою статті є визначення структури системи обліково-аналітичного забезпечення сталого розвитку та її місця і ролі в управлінні організацією. У статті висвітлюються елементи моделі управління сталим розвитком організації (стратегія, принципи, суб'єкти і об'єкти, функції, методи, технології, управлінські рішення. Визначено сутність стратегії на мікрорівні, яка є складовою сталого розвитку країни. Визначені принципи управління сталим розвитком організації, які базуються на загальних принципах теорії управління: науковості, раціональності, безперервності, системності, гнучкості, цілеспрямованості, відповідності можливостям виконавця, ієрархічності рівнів управління. Функції управління висвітлено у взаємозв'язку з виділенням блоку обліково-аналітичного забезпечення управління. У контексті вирішення проблем сталого розвитку виділено методи управління: організаційно-адміністративні, економічні та соціально-психологічні, дія яких активізується через технологію управління як процесу, спрямованого на досягнення цілей сталого розвитку. Виділено якісні характеристики обліково-

аналітичної інформації, які формуються під впливом облікового середовища та під впливом управлінського середовища. Вказано на необхідність співставлення визначених якісних характеристик з можливими управлінськими рішеннями щодо сегментів діяльності відповідно до принципів сталого розвитку. Визначено взаємозв'язок моделі управління сталим розвитком і системи обліково-аналітичного забезпечення сталого розвитку, яка за допомогою облікової, аналітичної і підсистеми забезпечення нефінансовою інформацією формує обліково-аналітичну інформацію фінансового та нефінансового характеру для управлінських цілей. Встановлено місце і роль бухгалтерського обліку і економічного аналізу в управлінні сталим розвитком організації через формування теоретико-методологічних положень, які сприяють досягненню цілей сталого розвитку на мікрорівні та макрорівні.

Ключові слова: управління, сталий розвиток, організація, бухгалтерський облік, економічний аналіз, інформація, система обліково-аналітичного забезпечення.

JEL Classification: M15; M41

Formulation of the problem. In order to operate effectively, economic entities need to significantly change established approaches to management. The growing uncertainty and dynamism of the external environment objectively affects management methods from the standpoint of improving its tools. Among these tools an important place is given to the system of accounting and analytical support. The formation of a system of accounting and analytical management of sustainable development involves the need to build a model of sustainable development management of the organization. If the essence, structure and properties of any model depend on the purposes for which it is created, its purpose is to establish a link between the system of accounting and analytical support and management of sustainable development of the organization in the process of displaying all its elements with their properties, functions, features and the establishment of interdependencies and relationships between them. When forming a system of accounting and analytical support, as a component of information support for sustainable development management, it is important to take into account the relationship of its subsystems (functional components), management models with components of sustainable development (economic, environmental and social), which will influence the generation of data in order to develop effective management decisions.

Analysis of recent research and publications. Problems related to the management of the organization are covered in the articles of such scientists as D.V. Arutyunova [1], V.A. Willow [2], V.D. Gribov [3], O.O. Gutorova [4], J.S. Zavdasky [5], V.V. Evdokimov [7], I.V. Kalnytska [9]. At the same time, issues related to accounting and analytical support in the management of sustainable development of the enterprise are relevant and require further research and development in order to improve the management system of the enterprise as a whole.

Formulation of the goals of the article. The purpose of the article is to determine the structure of the system of accounting and analytical support of sustainable development and its place and role in the management of the organization.

Presentation of the main research material. The theoretical aspect of the formation of the management model of sustainable development touches upon its system-forming elements. The development of professional sources on management [1,2,3,4,5,6] allowed to identify the following elements: strategy, principles, subjects and objects, functions, methods, management technology, and managerial decisions. Clarifying their content is appropriate in the context of forming a management model focused on decision-making by stakeholders, taking into account the provisions of sustainable development.

From the standpoint of management, management means the purposeful influence on the economic process, object or system to maintain their stability or transfer from one state to another, taking into account certain goals. Management of sustainable development of the organization is a new concept of management, which is becoming more common in economics in solving pressing global social problems (declining quality of life, exacerbation of social conflicts in society due to property inequality), economic problems (global financial crisis, weakening role of the state as a regulatory institution in connection with the formation of supranational economic actors –

transnational corporations, unregulated financial speculation in global financial markets), environmental problems (increase in pollutant emissions, ozone formation, reduction of land area, deterioration of environmental indicators) [7, p. 187].

Based on this, the essence of sustainable development management of the organization is to develop a set of measures aimed at ensuring the harmonization of economic, environmental and social components of activities based on sound data generated by management information subsystems (Fig. 1).

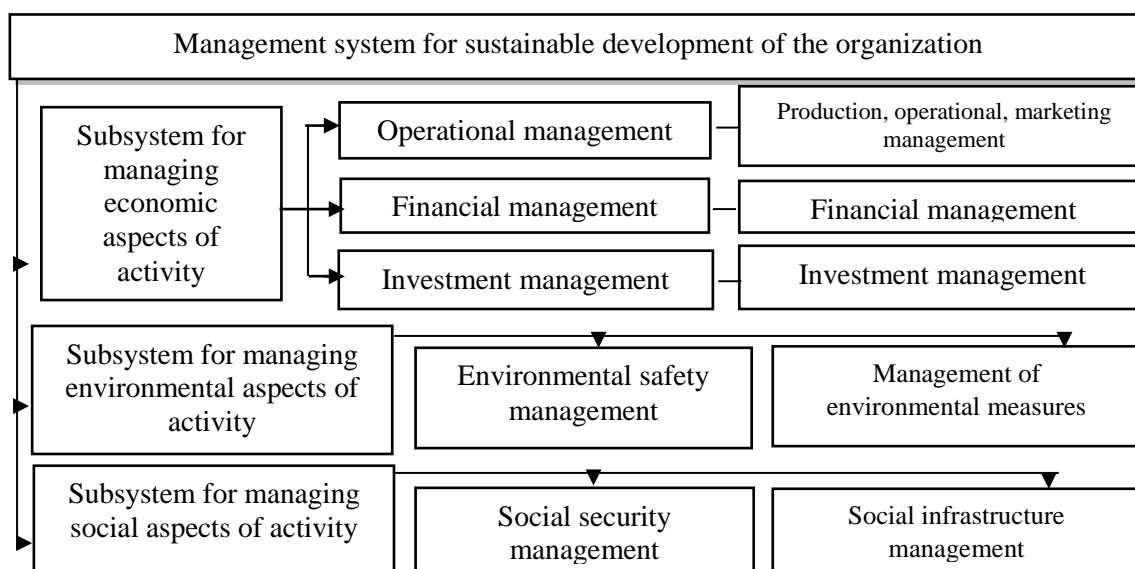


Fig. 1. Management system for sustainable development of the organization

Source: developed by the author

In each subsystem there are more detailed levels of management. Thus, in the subsystem of economic activity management the levels of management of operational, financial, investment activity are distinguished; in the subsystem of environmental management - environmental safety management; in the subsystem of social activity management - management of social security, social protection of personnel and social infrastructure.

The sustainable development management system, like management in general, includes strategic and operational management. In the context of the organization's orientation towards achieving the goals of sustainable development, strategic management is based on human potential as the basis of the organization, with the orientation of production activities towards consumer demands and environmental protection, flexible response to changes in the organization, in accordance with outside challenges, which allow to achieve competitive advantages, all taken together allow the company to survive in the long run, while achieving its goals [8, p. 32].

Accordingly, the operational management of the organization is a set of interconnected and interdependent methods of technical support of production, organization of planning, accounting, analysis and regulation of the production process to ensure comprehensive and timely implementation of the production plan and supply of products or services with the best use of available company resources, taking into account the needs of staff and environmental safety.

An important system-forming element of the sustainable development management model is the choice of strategy as an idea of how to achieve the goal of the organization (within its mission), which takes into account external and internal conditions of its existence and reflects the main stages of achieving the goal. At present, organizations are close to choosing a strategy for sustainable development at the micro level, which is part of the strategy for sustainable development of the country.

This is a complex task that requires significant expansion of the list of management principles used as the starting point of any theory. The principles of management of sustainable development of the organization are based on the general principles of management theory, which are modified depending on the definition of the essence of management of sustainable development of the organization. Elaboration of scientific sources [2,3,5] confirms expediency of application of those principles whose observance in management will provide achievement of the purpose of sustainable development, namely: scientific approach (use of the newest methods and means of management of sustainable development), rationality (maintenance of profitability of functioning of the organization taking into account activity of ecological and social nature), continuity (continuous implementation of the process of managing the sustainable development of the organization), consistency (taking into account all factors and analysis of their impact in interdependence and interconditionality), flexibility (adaptability to unstable conditions caused by environmental and social risks), purposefulness (reality and achievability of sustainable development goals), compliance with the capabilities of the executor (compliance of management functions with the capabilities of the executor), hierarchy of management levels (control of each lower level by a higher level body).

The next main elements of the management model of the organization are the subjects and the object of management. Management entities in the person of a manager or a group of managers are empowered to make management decisions, ie to direct influence on the object of management. Objects of management should be property, sources of property (capital, liabilities), business processes (supply, production, sales), actions and activities of staff, communications (external and internal). A specific object is accounting and analytical information for the purposes of managing economic, environmental and social aspects of activities.

The management of sustainable development of the organization is implemented through appropriate functions. Management functions and their manifestations in the components of sustainable development are given in table. 1. The implementation of management functions is carried out using certain methods. If the method is understood as a set of techniques and methods of cognition of the object of study, the management method can be defined as a set of techniques and methods of influencing the subject of management on the managed object to achieve the goals of functioning and development of the organization.

In the context of solving problems of sustainable development, we distinguish the following management methods: organizational and administrative, based on direct policy guidelines; economic, conditioned by economic relations and socio-psychological ones, used to increase social activity of employees [3, p. 60]. Their action is intensified within the management process aimed at achieving certain goals of sustainable development of the organization, through the implementation of certain functions, ie a kind of management technology as another system-forming element of sustainable development management model, implemented through appropriate managerial decisions.

Within the concept of sustainable development, management decisions are distinguished according to economic, environmental and social aspects of activity.

As a necessary component, management decisions are included in the process of implementing all managerial functions, in particular, accounting, control and analysis, which represent one of the mechanisms for their implementation. The provision on the key role of management decisions in the management system of the organization is consistent with the definition of management, formulated in the research process as a set of system-forming elements aimed at implementing management technologies, the end result of which is the management decision-making process. The content of management decisions is logically expanded by their decomposition as a method, "which will help to break down complex phenomena including managerial decisions into simpler ones, thus providing a deep insight into the essence of the phenomenon and determine its content" [9, p. 61].

The method of decomposition makes it possible to further develop methodological approaches to the formation of a system of accounting and analytical support for sustainable development of the organization.

Table 1. Management functions for the components of sustainable development

Component of sustainable development	Management function
1	2
1. Economic	
- production (production management)	- production planning; - organization of the production process; - regulation of production activities; - stimulating the growth of production
unit of accounting and analytical management	- production accounting; - analysis of production volumes and reserves of their growth; - control of production costs
-material and technical supply (operational management)	- procurement planning; - organization of procurement, warehousing, transportation, posting of stocks; - procurement regulation; - stimulating effective procurement
unit of accounting and analytical management	- procurement accounting; - analysis of procurement volumes; - procurement control
- marketing (marketing management)	- sales planning; - organization of marketing information collection; - regulation of marketing activities; - stimulating sales growth
unit of accounting and analytical management	- accounting for product sales; - analysis of sales volumes and reserves for their growth; - control of sales rationality
- finance (financial management)	- financial planning; - organization of financial activities; - regulation of financial activities; - financial incentives
unit of accounting and analytical management	- cash flow accounting; - analysis of the effectiveness of the use of cash flows; - control over the efficiency of cash flows
- investments (investment management)	- investment planning; - organization of investment activities; - regulation of investment activity; - stimulating investment activities
unit of accounting and analytical management	- accounting for investments; - analysis of investment efficiency; - control over the efficiency of investments
2. Environmental	- planning of environmental revenues and expenditures; - organization of environmental protection measures; - regulation of environmental activities; - incentives for environmentally friendly behavior
unit of accounting and analytical management	- accounting for environmental aspects of activities; - analysis of indicators of environmental aspects of activity; - control of measures for the implementation of environmental activities
3. Social	- staff planning; - recruitment organization; - regulation of social activities;

Continuation of the table. 1

1	2
	- incentives for the implementation of areas of social development of the organization
unit of accounting and analytical management	- accounting for social aspects of activity; - analysis of the effectiveness of social measures; - control over the implementation of social measures

Source: developed by the author

Based on this, the most optimal approach for the formation of system of accounting and analytical management of sustainable development of the organization is clearly defining the list of management decisions with subsequent determination of the need for quality accounting and analytical information.

The components of sustainable development to ensure the management of the organization require such qualitative characteristics of information that would meet the diverse needs of users. We will use the approach considered by M.M. Shigun to determine the requirements for information and quality characteristics of financial statements [10, p. 203], which, taking into account certain aspects will allow to allocate its qualitative characteristics in accordance with the purpose of using information to manage sustainable development. Among the large number of qualitative characteristics, requirements, properties, below presented are the following qualitative characteristics of accounting and analytical information to manage the sustainable development of the organization:

- 1) qualitative characteristics that are formed under the influence of the accounting environment (relevance, reliability, comparability, and completeness);
- 2) qualitative characteristics that are formed under the influence of the accounting environment (optimality, efficiency, and forecast value).

These qualitative characteristics of accounting and analytical information should be compared with possible management decisions for segments (components) of activities in accordance with the principles of sustainable development using the matrix method, which will assess the information capabilities of subsystems (functional components) of accounting and analytical management of sustainable development.

The final stage of the technology of substantiation, development and implementation of management decisions is the assessment of their effectiveness and efficiency, which allows to establish the quality of management decisions as a set of parameters that ensure its purpose in the management model of the organization. In the scientific literature, these parameters are clearly defined, and they include: validity, timeliness, consistency, optimality, brevity and clarity, specificity over time, effectiveness, and efficiency [9, p. 211].

Accordingly, the final system-forming element of the formation of the management model of the organization is determining the system of indicators for assessing the effectiveness and efficiency of management of economic, environmental and social aspects of activity. The effectiveness of management means the ability of the management system to ensure the achievement of end results that meet the goal and meet the specific needs of man, society, state, as well as create conditions for sustainable development of the organization. At the same time, management efficiency is a relative characteristic of the effectiveness of a particular management system which is reflected in various indicators of both the object of management and, in fact, managerial activities [3, p. 211].

Forming a model of sustainable development management of the organization on the basis of certain system-forming elements, provides a definition of the role, place and value of information formed by the system of accounting and analytical support of sustainable development (AAS SD), considered as a set of subsystems: accounting, analytical and special subsystem. Each component has its own goals and objectives that must be achieved within the management subsystems: in the economic, environmental and social spheres of sustainable development. This promotes the formation of a comprehensive information system, interconnected with the system-forming elements of the

management model of the organization, components of sustainable development and components of the system of accounting and analytical support of sustainable development, which will allow operational and strategic management decisions (Fig. 2).

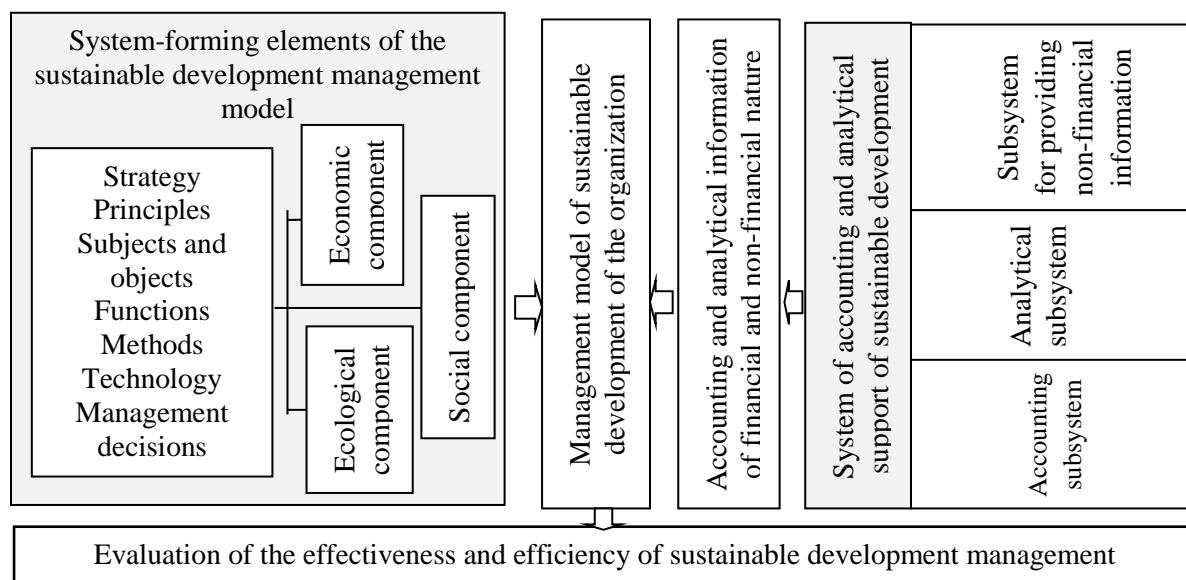


Fig. 2. Integrated information system for sustainable development management of the organization

Source: developed by the author

For the successful development of information system for sustainable development management of the organization it is important to outline the role, importance and place of each component of sustainable development in its activities.

To do this, it is necessary to define and justify the content of environmental and social processes in the constituent documents, develop environmental and social policies, linking them with the economic policy of the organization, justify the strategy of the organization, which will prioritize activities related to environmental social aspects of activity.

The defined provisions on the relationship between the management model and the system of accounting and analytical support allow to establish the place and role of accounting and economic analysis in the management of sustainable development of the organization (Fig. 3).

Conclusions. The studied theoretical aspects of the management system of sustainable development of the organization in conjunction with the system of accounting and analytical support is the basis of information management system, which provides information capable of generating information product for management decisions by stakeholders taking into account the impact of organization on the economy society. Important components of the system of accounting and analytical support of sustainable development are accounting, analytical and subsystem of non-financial information.

The management system of sustainable development of the organization is based on information capabilities of accounting and economic analysis which with the help of theoretical and methodological provisions contribute to the sustainable development of the organization at the micro level and achieve sustainable development goals at the macro level.

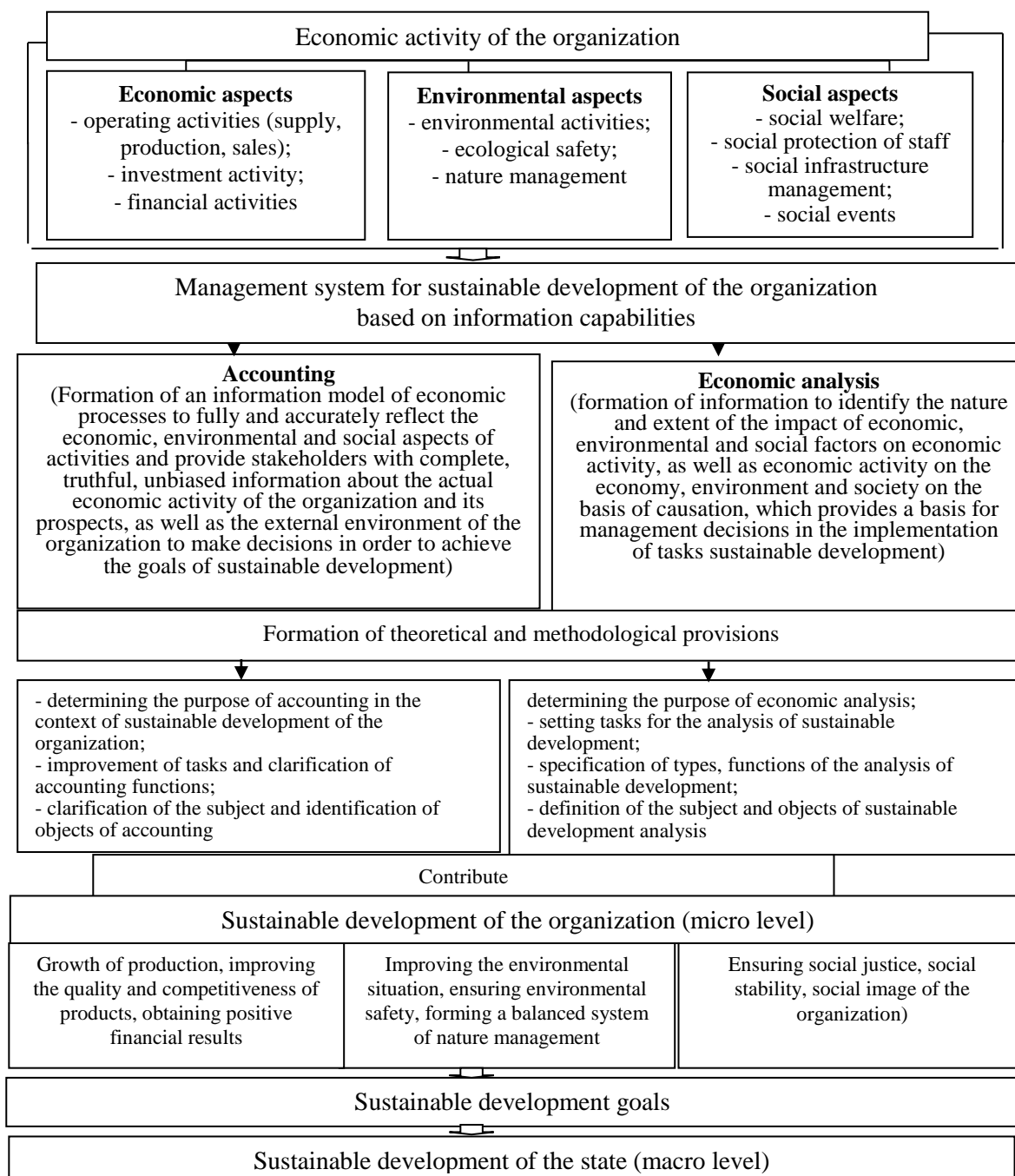


Fig. 3. The place and role of accounting and economic analysis in the management of sustainable development

Source: developed by the author

References

1. Arutyunova D. V. (2010) *Strategicheskij menedzhment: opredelenie klyuchevykh faktorov konkurentnogo uspeha* [Strategic management: identifying key factors for competitive success]. Taganrog: Izd-vo TTI YuFU. Available at: http://www.aup.ru/books/m205/7_4.htm (accessed 25 August 2020).

2. Verba V. A. (2009) Pidsystema upravlinnia rozvytkom na pidpriemstvi: kontseptualni zasady stvorennia i funktsionuvannia [Subsystem of development management at the enterprise: conceptual bases of creation and functioning]. *Stratehiia rozvytku Ukrainy (ekonomika, sotsiologhiia, pravo)*, vol. 1–2, pp. 404–411.
3. Gribov V. D. (2007) *Menedzhment* [Management]. M.: KNORUS. (in Russian)
4. Hutorova O. O. (2017) *Menedzhment orhanizatsii* [Organization management]. Kh.: Khark. nats. ahrar. un-t. Kh.: KhNAU. (in Ukrainian)
5. Zavadskiy Y. S. (1998) *Menedzhment: Management* [Management: Management]. K.: Ukrainsko-finskyi instytut menedzhmentu i biznesu. (in Russian)
6. Meskon M. H., Albert M., Hedouri F. (1992) *Osnovy menedzhmenta* [Management Basics]. M.: Delo. (in Russian)
7. Yevdokymov V. V. (2013) *Kontseptsiiia upravlinnia ekonomichnoiu bezpekoiu subiektiv hospodariuvannia v konteksti teorii staloho rozvytku: monohrafiia* [The concept of economic security management of economic entities in the context of the theory of sustainable development]. Zhytomyr : ZhDTU. (in Ukrainian)
8. Kalnickaya I. V. (2009) *Uchetno-analiticheskaya koncepciya integrirovanoj informacionnoj sistemy dlya celej upravleniya organizaciej: teoriya i metodologiya* [Accounting and analytical concept of an integrated information system for organization management purposes: theory and methodology] (Doctor's dissertation), Ekaterinburg
9. Vihanskij O. S. (2006) *Strategicheskoe upravlenie* [Strategic management]. M.: Ekonomist. (in Russian)
10. Shyhun M. M. (2008) Finansova zvitnist pidpriemstva: oznaky yakosti [Financial statements of the enterprise: signs of quality]. *Visnyk ZhDTU*, no. 3(45), pp. 201–209.

Список використаної літератури

1. Арутюнова Д. В. Стратегический менеджмент: определение ключевых факторов конкурентного успеха: учеб. пособ. Таганрог: Изд-во ТТИ ЮФУ, 2010. 122 с. URL: http://www.aup.ru/books/m205/7_4.htm.
2. Верба В. А. Підсистема управління розвитком на підприємстві: концептуальні засади створення і функціонування. *Стратегія розвитку України (економіка, соціологія, право)*. 2009. Вип. 1–2. С. 404–411.
3. Грибов В. Д. Менеджмент: учебное пособие. М. : КНОРУС, 2007. 280 с.
4. Гуторова О. О. Менеджмент організації. Х.: Харк. нац. аграр. ун-т. Х.: ХНАУ, 2017. 267 с.
5. Завадський Й. С. Менеджмент: Management. Вид. 2-е. К.: Українсько-фінський інститут менеджменту і бізнесу, 1998. Т.1. 542 с.
6. Мескон М. Х., Альберт М., Хедоури Ф. Основы менеджмента / пер. с англ. М.: Дело, 1992. 702 с.
7. Євдокимов В. В. Концепція управління економічною безпекою суб'єктів господарювання в контексті теорії сталого розвитку: монографія / В. В. Євдокимов та ін. Житомир : ЖДТУ, 2013. 252 с.
8. Виханский О. С. Стратегическое управление: ученик. 2-е изд., перераб. и доп. М.: Экономистъ, 2006. 296 с.
9. Кальницкая И. В. Учетно-аналитическая концепция интегрированной информационной системы для целей управления организацией: теория и методология: дисс. ... д-ра экон. наук: 08.00.12. Екатеринбург, 2009. 358 с.
10. Шигун М. М. Фінансова звітність підприємства: ознаки якості. *Вісник ЖДТУ*. 2008. № 3(45). С. 201–209.