

© A.A. Bakhireva, A.V. Ovsyannikova, E.G. Vorozhbit, A.S. Vyskrebentseva

Research Full Article

**UDC 338.24.01**

DOI: <http://doi.org/10.15350/2409-7616.2022.4.25>

**CONTROLLING CONCEPTS: PAST AND PRESENT**

A.A. Bakhireva, A.V. Ovsyannikova, E.G. Vorozhbit, A.S. Vyskrebentseva

**Anna A. Bakhireva,**

Candidate of Economic Sciences, Lecturer at the  
Department of Economics, Altai State University,  
Rubtsovsk, Russian Federation.

ORCID iD: 0000-0001-8240-3943

[isakova@rb.asu.ru](mailto:isakova@rb.asu.ru)

**Anastasia V. Ovsyannikova,**

Candidate of Economic Sciences, Associate  
Professor at the Department of Economics, Altai  
State University, Rubtsovsk, Russian Federation.

[suhova@rb.asu.ru](mailto:suhova@rb.asu.ru)

**Yelena G. Vorozhbit,**

Candidate of Economic Sciences, Associate  
Professor at the Department of Economics  
Altai State University, Rubtsovsk,  
Russian Federation.

ORCID iD: 0000-0002-8395-5130

[vorozhbit@rb.asu.ru](mailto:vorozhbit@rb.asu.ru)

**Anna.S. Vyskrebentseva,**

Candidate of Economic Sciences, Associate  
Professor at the Department of Economics  
Altai State University, Rubtsovsk,  
Russian Federation.

ORCID iD: 0000-0002-2551-2147

[vas@rb.asu.ru](mailto:vas@rb.asu.ru)

**Abstract.** *Since the time of Aristotle, it is believed that the first in the knowledge of reality are the senses. However, the main thing is the desire to realize the causes of phenomena hidden from sensory perception. This is the essence of knowledge and the highest manifestation of the human mind. Today's reality is constant and rapid changes that affect all aspects of the activities an economic subjects. Therefore, changes in the external and internal environment are an important tool for cognizing reality. Changes are initially assessed through the prism of the categories "favorable / unfavorable", "positive / negative". Then the reasons for the changes are understood, their consequences are assessed and the areas affected by them are localized, corrective actions are taken, appropriate to the situation. Thus, by changing itself or changing the external environment, the economic subject comes to a state of equilibrium. In the modern economy, meaningful activity associated with the timely monitoring of external and internal disturbances and the development of adequate responses to them is called controlling. Controlling acquires particular importance precisely in production activities, since the efficiency of the entire economic system to a very large extent depends on what is happening inside these "economic molecules". According to D. Khan, the firm is not a "ghost" figure, but an engine of institutional and economic changes, which are based on controlling information. This article is devoted to the generalization the concepts of controlling in their historical development. This allows us to formulate the modern content the concept of controlling as a tool for modeling the socio-economic space of the enterprise.*

**Keywords:** *controlling, concept, change, deviation, analysis.*

**For citation:** *Bakhireva A.A., Ovsyannikova A.V., Vorozhbit E.G., Vyskrebentseva A.S. Controlling concepts: past and present. CITISE, 2022, no. 4, pp.259-272. DOI: <http://doi.org/10.15350/2409-7616.2022.4.25>*

Научная статья

УДК 338.24.01

### КОНЦЕПЦИИ КОНТРОЛЛИНГА: ПРОШЛОЕ И НАСТОЯЩЕЕ

А.А. Бахирева, А.В. Овсянникова, Е.Г. Врожбит, А.С. Выскребенцева

#### **Бахирева Анна Алексеевна,**

кандидат экономических наук, преподаватель  
кафедры экономики, Рубцовский институт  
(филиал), Алтайский государственный  
университет, Рубцовск, Россия.

РИНЦ SPIN-код: 5354-3643/ ORCID iD: 0000-0001-8240-3943

[isakova@rb.asu.ru](mailto:isakova@rb.asu.ru)

#### **Овсянникова Анастасия Васильевна,**

кандидат экономических наук, доцент  
кафедры экономики, заведующий кафедрой

экономики, Рубцовский институт (филиал),  
Алтайский государственный университет,  
Рубцовск, Россия.  
РИНЦ SPIN-код: 2734-2561  
suhova@rb.asu.ru

**Ворожбит Елена Геннадьевна,**

кандидат экономических наук, доцент кафедры  
экономики, Рубцовский институт (филиал),  
Алтайский государственный университет,  
Рубцовск, Россия.  
РИНЦ SPIN-код: 3976-8517 / ORCID iD: 0000-0002-8395-5130  
vorozhbit@rb.asu.ru

**Выскребенцева Анна Сергеевна,**

кандидат экономических наук, доцент  
кафедры экономики, Рубцовский институт  
(филиал), Алтайский государственный  
университет, Рубцовск, Россия.  
РИНЦ SPIN-код: 9562-5756 / ORCID iD: 0000-0002-2551-2147  
vas@rb.asu.ru

**Аннотация.** *Со времен Аристотеля считается, что первыми в познании реальности выступают чувства. Однако главным является стремление к осознанию скрытых от чувственного восприятия причин явлений, что составляет суть познания и высшее проявление человеческого разума. Сегодняшняя реальность – это постоянные и стремительные изменения, затрагивающие все стороны жизнедеятельности субъектов экономики. Поэтому одной из важных областей познания действительности выступают изменения, происходящие во внешней и внутренней среде, которые первоначально оцениваются через призму категорий «благоприятно/неблагоприятно», «положительно/отрицательно». Затем понимаются причины изменений, оцениваются их последствия и локализируются затронутые ими области, предпринимаются корректирующие действия, соответствующие ситуации. Таким образом, изменяя себя или изменяя внешнюю среду, экономический субъект приходит в состояние равновесия. В современной экономике осмысленная деятельность, связанная со своевременным отслеживанием внешних и внутренних возмущений и разработкой адекватных мер реакции на них, получила название контроллинга. Особую важность эффективная организация контроллинга приобретает именно в деятельности производственных предприятий, так как эффективность всей экономической системы в очень большой степени зависит от того, что происходит внутри этих «экономических молекул». Сегодня фирма, по мнению Д. Хана, это не «призрачная» фигура, но двигатель институциональных и экономических изменений, которые можно с успехом осуществлять при помощи эффективно организованной системы контроллинга. Данная статья посвящена обобщению концепций контроллинга в их историческом развитии, что позволяет сформулировать современное содержание концепции контроллинга, как инструмента моделирования социально-экономического пространства функционирования предприятия.*

**Ключевые слова:** контроллинг, концепция, изменение, отклонение, анализ.

**Библиографическая ссылка:** Бахирева А.А., Овсянникова А.В., Ворожбит Е.Г., Выскребенцева А.С. Концепции контроллинга: прошлое и настоящее // ЦИТИСЭ. 2022. № 4. С.259-272. DOI: <http://doi.org/10.15350/2409-7616.2022.4.25>

In domestic and foreign literary sources, there is no unambiguous interpretation of the concept of "controlling". Analysis of the literature allows us to talk about the primary importance of controlling as a practical activity. However, this does not contribute to the development of a unified understanding of its essence. At the same time, the history of controlling is more than one hundred years old and begins in the 15th century from the state office "countrllur" at the court of the English king, who controlled commodity and cash flows. The end of the 18th century (1778) in the United States was marked by the introduction by Congress of a new profession of "controller". He was to oversee the budgetary administration of the American government [6]. At the same time, the first organization Comptroller, Auditor, Treasurer and six Commissioners of Accounts, operating in the public sector, was created.

Only 100 years later (in the 50-70s of the XIX century) controlling expanded the boundaries of its application, stepped into the private business sector: Atkinson, Topeka & Santa Fe Railway System in 1880 and the General Electric company in 1892 introduced the position of a controller responsible for the development of company plans, determining and interpreting deviations of actual indicators from their planned values, evaluating results, advising management on setting and achieving goals, tax optimization, preparing external reporting, internal control, research of the external environment of the company [11]. And today the concept of controlling in the United States is interpreted as an area of management accounting, along with planning, evaluation, data assurance and reporting. This is evidenced by the original name of controlling in the American business environment is "business planning and control". In the countries of Western Europe, controlling began to take shape in the fifties of the last century. The greatest contribution to the development of the theory the controlling was made by German scientists. The leading role in the system of the European controlling model is assigned to "planning integrated with the system of planning and control calculations based on information from internal production accounting" and external sources of information [13, 17].

Dr. P. Horvath is a leading scientist of the German school of controlling, notes that "controlling is a complex cross-functional concept of management, the purpose of which is to coordinate systems of planning, control and information support" [16]. In the domestic literature, the term "controlling" appeared in the nineties of the last century in the banking sector, when the number of unprofitable enterprises grew at a catastrophic rate, destructive economic processes contributed to the search for effective anti-crisis management tools [11]. However, reflections on improving the quality and efficiency of the management process are given in the works of V.I. Lenin, published much earlier. He owns an important idea that reflects the essence of the modern concept of controlling: quality control of decisions made should come from the broad masses. The achievements of domestic scientists in the field of controlling are significant, despite the short-term research. For example, Professor S.G. Falco emphasizes the multidimensionality and volume of controlling and identifies such components as philosophical, functional, organizational and scientific. S.G. Falco considers controlling as a philosophy and a way of thinking of managers, focused on the efficient use the resources and the development of an enterprise in the long term [4]. On the organizational side, controlling is a structural element of an enterprise. This is a subdivision, service or department that performs controlling functions determined by the internal documents of the enterprise. Controlling as a scientific discipline deals with the theory of measuring resources, the results of production and economic activities and processes. This area is the least developed, many researchers do not define the principles, method, object, subject of controlling. The etymology of the word "controlling" indicates that this concept has a Latin origin from the words "contra" (against) and "rotulus" (scroll), meaning checking the real stocks of goods and money with

subsequent conclusions and decisions. The English verb “to control” (to check, observe, manage) carries a similar semantic load [1]. In French-speaking countries, the word "controlling" is translated as "controle de gestion", which is identical to control, verification. In German, the term “controlling” includes two semantic components: a tool for achieving results and a tool focused on the implementation of the company's universal goals [3]. A comprehensive analysis of the definitions of controlling allowed us to present the dialectical process of integrating controlling functions and identify problem areas that the authors focus on: - the control system, - the individual components of the controlling system, - the purpose and result of controlling, - the functions of controlling, - the levels of controlling, - inclusion in the general methodology of management [2, 5].

What is valuable is that each direction has a certain impact on others, complementing and changing them. The historical retrospective of the emergence and development of controlling shows that the driving force behind its evolution is the most powerful economic crises that accompany the change of economic formations that dominate the theory and practice of management concepts, which bring economic relations to a fundamentally new level. Thus, the most significant advances in the development of content and controlling tools were observed during the "Great Depression" (1929-1941). Controlling reoriented itself to the future, it included planning and control, the first professional associations of controllers appeared. In addition, the development of controlling is based on advances in technical growth. Thus, modern digital technologies have made it possible to move from manual information processing to instant situational collection, generalization and provision of information to managers for the implementation of their functions [7]. To understand the essence, place and role of controlling in a modern company, it seems possible to use a tool such as a metaphor (table 1).

In this case, the metaphor acts as a cognitive tool and provides a deeper understanding the functioning and interaction of the phenomenon under study with other management elements. It is also important that the idea of a metaphor generates constant movement, transformation, self-renewal and development the concept under study.

In our opinion, the history of controlling development includes several stages. The initial stage (1900-1930) is characterized by a narrow semantic load the controlling, disunity a tools for planning and analytical calculations, the use of control and analytical data in management, focusing on the description of the internal structures the company, their systematization, assessing the impact of production and management processes on the amount costs based on the standard calculation. Controlling tasks are in the area of achieving short-term targets, efficient allocation the limited resources and control over their spending [8, 10]. The main tool is the control and analysis the deviations of actual indicators from their budgetary value.

Table 1

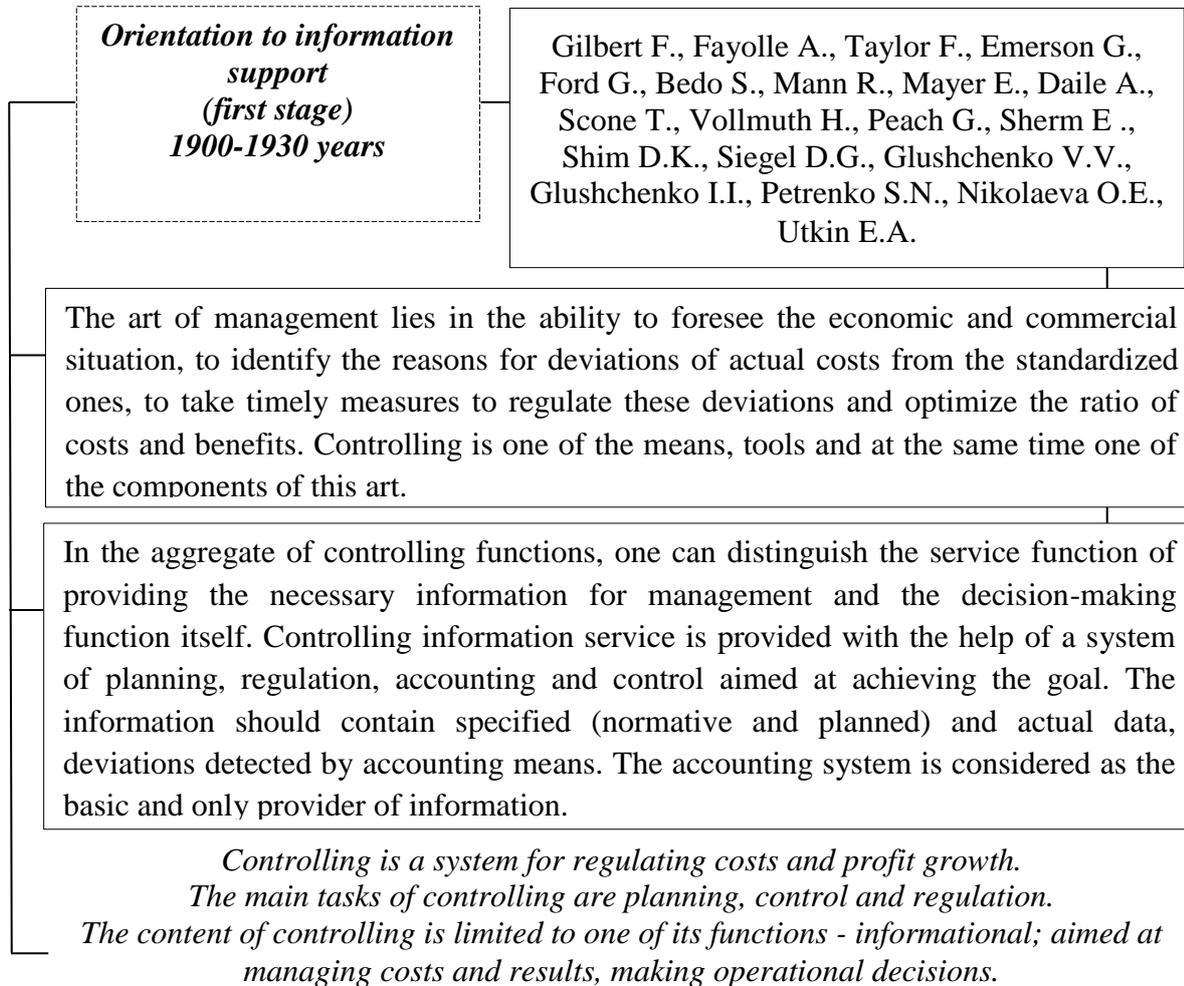
## Metaphors that reflect the essence of controlling

<b>Comparison areas</b>	<b>Information and control mechanism Authoritarian model</b>	<b>A living organism Supporting Model</b>	<b>Neural Network Developing model</b>
The essence	<p>A mechanism that allows, on the one hand, to control the distribution and redistribution of resources, practically implemented in formalized plans and estimates. On the other hand, it monitors and assesses the degree of their implementation, manages deviations to tune internal organizational processes. Controlling carries out the functions of documenting, monitoring and rationalizing operations, focusing on retrospective data, established regulations. The controller acts as a registrar.</p> <p>The theory and practice of controlling accumulates experience, enriches the ways and methods. The target figures are determined by extrapolating from the past.</p>	<p>A tool that allows, first of all, to respond in a timely manner to external changes, to adapt and develop an organization in the face of changes, not only in the short term, but also in the long term. The controller has the task the strategic planning and coordination functions of business units, the development of new methods and tools the analysis, planning. The controller acts as an innovator and navigator.</p> <p>Controlling is included in the loop of the enterprise management system through separate functions. Mass application the controlling at enterprises of various spheres of economic activity and forms of ownership. Development of specialized software. Reflection, analysis, learning. Anticipation of changes, early formation a reaction to them.</p>	<p>Multidimensional, self-adjusting system, which is a structural component of the organization's management. A point mechanism based on the criteria a time, quality, economy, the possibility of creating value for the company. Feed and feedback loops are tuned to quickly identify deviations and respond only to significant differences. Continuous learning, creation of new knowledge. Active delegation of authority. The highest level of development the controlling, characterized by the balance of all its functions, with the goal not only to achieve financial performance, but also to comply with moral values. Flexible emergency solutions for rapid changes.</p>
The purpose	Optimization of costs, search for reserves the growth of labor productivity and financial results, profitability an goods.	Growth in the value of the company, forecast of the effectiveness an goods.	Improving business processes, modeling the external environment, creative management, digital technologies, knowledge economy, development the creative potential of employees.
Information space	Intra-company information, mainly production information. Retrospective data.	Internal and external information, including forecasts the socio-economic development of the industry, region,	A wide range of information sources.

		statistical data, indicators of financial and economic activities the domestic and foreign competitors.	
Unit of analysis	Firm, product, resources.	Industry, firm, product, resources.	Processes, intangible assets, development trajectories.
Time boundaries	Mostly short-term.	Gradual abandonment of only short-term periods, transition to strategic goals and objectives.	Mainly strategic controlling.
Research areas	Structural conditions for the functioning of firms, positioning the enterprise relative to competitors.	Strategic interaction of firms.	Processes that create value for the consumer.
Tools	Estimation of income and expenses, standard costing, abstraction-costing.	Flexible planning, bench marketing, direct-costing, break-even-analysis.	Process-oriented technologies, balanced scorecard, reporting on key indicators, stakeholder concept, ISO / RISO standards, agile control, compliance.

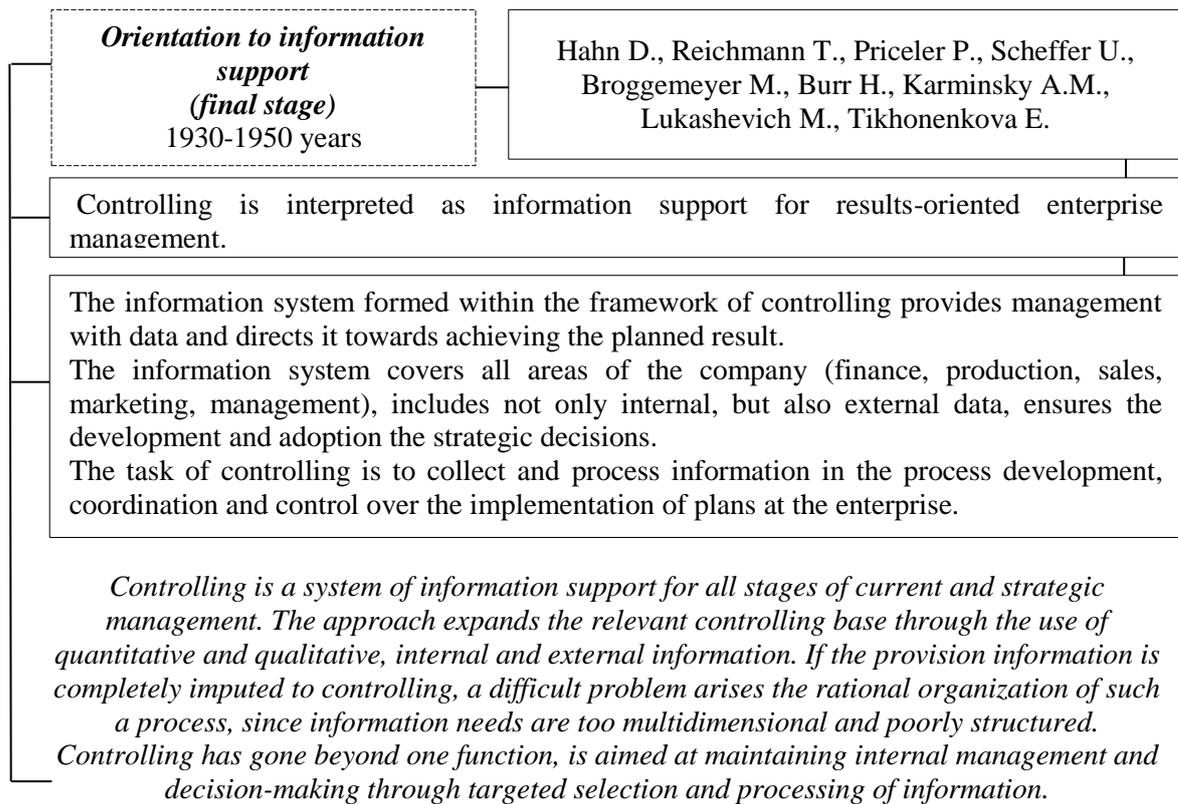
Source: compiled by the authors

Controlling timely reveals omissions in work, unused opportunities, establishes the degree of provision the processes with labor, material, financial resources. A feature of this stage is material incentives for workers in order to increase labor productivity. Researchers characterize this period as "the past of management in terms the implementation of the control function". The concept of controlling for this period is focused on providing accounting information for internal users (figure 1).



**Fig.1.** - Content of controlling within the initial stage the information concept.  
Source: compiled by the authors.

The complication of production and economic relations reoriented economic entities to external factors of achieving competitive advantages, the planning horizon has increased. The change from "internal" focus to "external" made it possible to assess the value of the company, within the framework of strategic controlling, to develop long-term solutions that ensure its growth (figure 2).

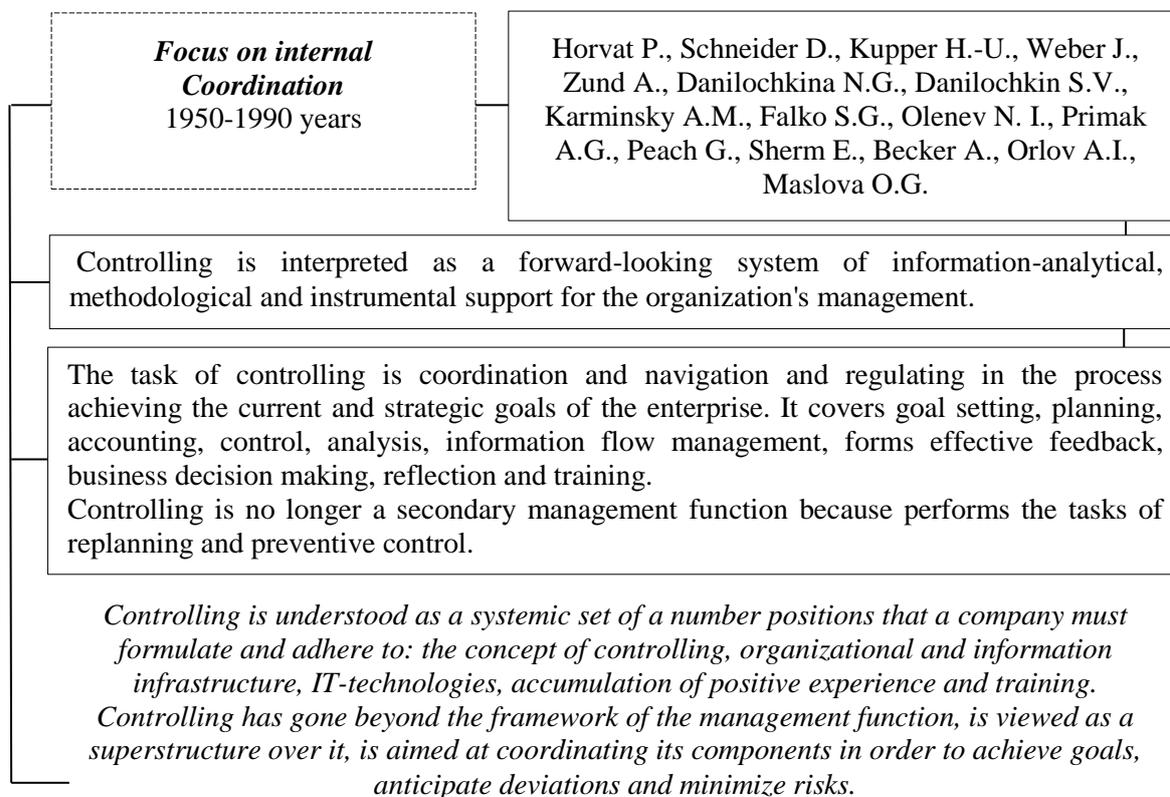


**Fig. 2.** - Content of controlling within the final stage of the information concept.  
Source: compiled by the authors.

The main difference between this stage of controlling is the use not only quantitative data, but also in the processing a large volumes both internal and external information to achieve the goals of the enterprise [12]. Controlling does not just regulate information flows, the information received in the controlling system goes through the stages of preparation and verification, only after that it can be used in the management process as an information base for developing business solutions in various functional areas (finance, production, sales, marketing, supply).

From the standpoint information flows, controlling contributes to the organization of feedback between the controlled and control systems and establishes feedback between them, providing the basis for the implementation of its managerial powers [15]. Thus, according to this concept, controlling is interpreted in a broad sense as a subsystem that is part of the organization's management system and accounting, analysis and control are its tools. From this point of view, controlling in relation to the management system is internal, secondary. Analysis acts as a methodological basis for controlling, while accounting is the main information source of controlling for all processes financial and economic activity an economic entity. Whereas control is an integral part of the regulatory system, the purpose which is to detect deviations from the adoption standards and violations the principles legality, efficiency and economy in the use of material resources at the earliest stage, in order to be able to take corrective measures and in some cases bring the perpetrators to justice, receive compensation for the damage caused or take measures to prevent or reduce such violations in the future. Accounting, analysis and control in controlling are deeply integrated, since accounting data is the main one for analysis and control and analysis are necessary for the full implementation of controlling in management [9]. Therefore, the controlling model of this period is characterized as authoritarian and in the content aspect is an information and control mechanism.

By 1950-1990 the practice contributed to the transformation of controlling into a complex coordination system, reflecting a holistic approach (figure 3).



**Fig. 3.** - Content of controlling within the framework of the coordination concept.

Source: compiled by the authors.

The coordinating concept of controlling is based on the understanding an enterprise as a complex, open, socio-technical system, the development trajectory of which is set by goals. Prominent theorists and practitioners of German controlling Mann R. and Meyer E. interpret it as a biocybernetic circuit of regulation, analogous to the human immune system, monitoring negative deviations and coordinating their elimination, which makes it possible to characterize controlling as a living organism that performs multidimensional support, integration and coordination both individual functional areas and the entire management process [14]. Planning (plan) begins the management cycle, within which the specialists of the controlling service develop a planning methodology, including the choice of a planning method, the delineation of powers, tasks and resources, the development of a schedule for drawing up and submitting plans, establishing criteria for controlling plans, providing information for drawing up plans, coordinating the process drawing up plans and developing a consolidated plan for the enterprise as a whole, setting the permissible limits for deviations from the plan, bringing the planned indicators to the performers. At the stage of execution (do), costs and benefits are recorded, the progress of work is monitored and adjusted, including work on replanning. Based on the results, a check is carried out that identifies deviations from the plan, diskette and / or continuous monitoring and control the implementation of plans, analysis the degree of their achievement (comparison planned and actual values, analysis the deviation corridor), interpretation the causes of deviations, identification their culprits, development of management decisions based on the analysis deviations. The controller's activities at the final stage (act) are aimed at organizing information interaction, unity and consistency between

performers at all stages of the management cycle, reflection, which contributes to the development corrective, preventive measures, accumulation experience, training, development a motivation system for performers, ensuring the consistency the work of participants through reports, meetings, computer communications [15]. Such an approach to the organization of controlling requires broad horizontal ties between a large number highly specialized areas management of a modern enterprise, a qualitative update a big-date information technologies. Gradually, controlling is used to indicate the state of management, leadership, regulation, order. According to this approach, controlling performs a coordinating (strategic direction) and regulatory function (operational direction). The use a variety of tools for the formation and interpretation input and output data allows you to obtain a synergistic information effect that expands the ranges completeness, reliability and usefulness the information for making management decisions. The synergistic effect is due to the interaction subject areas of economics, mathematical modeling, statistics, accounting, analysis (financial, economic) and control [16]. The very presence of multifaceted information enriches management and controlling tools, increases their efficiency, it becomes possible to influence the direction of the organization's development, to anticipate possible future risks. Thus, if, as a result of fluctuations, the system shifts relative to the equilibrium state, then, with the greatest probability, due to the action of the controlling system, it will return to the state stability. At the present stage, abilities, skills, knowledge are considered as strategic assets, a source of maintaining competitive advantages. Optimally tuned to the implementation strategic goals, which is the growth value, the company's activities do not need total planning and control, which determined the fundamentally new role of controlling as a point mechanism within the framework situational management.

Controlling today is based on external coordination, self-government, discipline, responsibility, self-development and absolute trust in the delegation authority [14]. Describing the essence of the ongoing changes, the researchers argue that this process is acting in the opposite direction the industrial revolution, reject the postulates of the Adam Smith paradigm. The use of the latest information technologies, the change priorities in the life society, contribute to the fact that companies not only take into account in their activities the influence external factors, such as past, retrospective events, but to a certain extent are able to model these events themselves, influencing the opinions interested user groups (stakeholders), to lobby their interests in the institutions that determine the “rules of the game”. Reduction an uncertainty, organization a relationships with the external environment, new informal rules a relationships are formed, which allows economic actors to remove a set restrictions and act as the main agents institutional change. Companies carry out modeling of the external environment through specialized reporting posted on websites, through advertising and information materials. ISO and RISO standards, implementation of corporate standards are also changing controlling tools. One of the newest controlling tools is compliance, designed to check the system for compliance with legislation, internal regulations and ideology. This will ensure customer loyalty, interest and trust of shareholders, and trust of the society as a whole. Rapid business acceleration requires equally fast controlling tools. This is the agile control. This methodology is used to increase the speed of product creation, reduce development risks and increase the level of interaction between team members. It provides a prompt response to ongoing changes and allows you to correct deviations. Thus, modern controlling is aimed at training and development personnel, the accumulation knowledge and skills to act in a certain situation. It is characterized by the delegation powers and greater freedom in decision-making, aimed at modeling the state of the external environment, shortening control procedures and forming a response. Determination the stages of development the controlling contributes to the understanding its essence and place in the management contour, clear structuring its goals, objectives, tools.

**References:**

1. Vorozhbit E. G., Bakhireva A. A. The use of marginal analysis at the enterprises a beer and soft drink production. *Economy. Profession. Business*, 2019, no. 4, pp. 14-19. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=41445043>
2. Endovitskaya E.V. Methodology of personnel controlling. *Economics and entrepreneurship*, 2019, no. 2 (103), pp. 1252-1261. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=37238922>
3. Zhidkova E.A. *Typology of subsystems within the controlling system and the idea of subjects, objects and the subject area of controlling*. Voronezh, Voronezh State University, 2021, no. 1, pp. 214-218. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=45647958>
4. Ivanova Yu.V. Concepts of controlling. *Current directions of scientific research in the field of economics, finance and accounting: from theory to practice*, 2017, no. 2, pp. 65-68. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=30715591>
5. Ismailova A.S., Shcherbatyuk S.Yu., Orazbayeva A.S., Makisheva Zh.A., Nurpeisova N.S. Formation of accounting and analytical support for controlling business processes in agriculture. *Management accounting*, 2021, no. 5-2, pp. 342-349. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=46150881>
6. Lavrova L.O. Historical aspects of the formation of modern concepts of controlling. *The matrix of scientific knowledge*, 2019, no. 12, pp. 165-168. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=41575394>
7. Losev V.S., Kalchenko D.S. Information and analytical support for controlling the financial stability of an educational organization. *COLLOQUIUM-JOURNAL*, 2020, no 16-2 (68), pp.50-53. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=43065435>
8. Orlova N.V. Correct controlling. *Innovation. Science. Education*, 2020, no. 21, pp. 323-328. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=44282169>
9. Plaskova N.S., Prokofieva E.V. Modern directions in the development of methods the economic analysis. *Accounting. Analysis. Audit*, 2019, no. 2, pp. 47-51. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=37330952>
10. Pryanichnikova A.K., Vakhrushina M.A. Deviation analysis as a controlling tool. *Modern financial and management accounting systems: from theory to practice*, 2017, no. 1, pp. 114-120. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=29200910>
11. Sibagatullina R. M., Ponomareva L.N., Gilmutdinova R.A. Controlling as an organization management concept. *Economics and Management: a scientific and practical journal*, 2021, no. 2(158), pp. 110-114. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=45559361>
12. Sokolov A.R. The content of controlling and systematization of its types. *Current directions of scientific research in the field of economics, finance and accounting: from theory to practice*, 2019, no. 1, pp. 175-178. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=44674096>
13. Somova R.S., Medvedeva E.I. Evolution of the controlling system: domestic and foreign experience. *Theory and practice of modern science*, 2017, no. 1, pp. 123-127. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=31502293>
14. Kharlamova E.N., Popchenko E.L. The concept of controlling and its role in improving the efficiency of enterprise management systems. *Economy and society*, 2019, no. 3 (58), pp. 467-470. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=38175273>
15. Shchegoleva T.V., Zherdev S.S., Tatarintsev S.S. Controlling as a tool for the development of business processes in the company's commodity distribution system in the context of digital transformation. *Digital and industry economy*, 2021, no. 4 (25), pp. 17-27. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=47289739>

16. Yusupova S.Ya. Analysis of the importance of strategic and operational controlling in modern management. *Management of economic systems*, 2018, no. 10 (116), pp. 39-44. (In Russian). URL: <https://www.elibrary.ru/item.asp?id=36426000>
17. Bakhireva A.A., Vorozhbit E.G., Vyskrebentseva A.S. Economic aspects of measuring technological processes. *Journal of Physics: Conference Series*, 2020, vol. 1515. DOI: [10.1088/1742-6596/1515/3/032007](https://doi.org/10.1088/1742-6596/1515/3/032007)

#### Список источников:

1. Ворожбит Е.Г., Бахирева А.А. Использование маржинального анализа на предприятиях пивобезалкогольного производства // Экономика. Профессия. Бизнес. 2019. №4. С.14-19. URL: <https://www.elibrary.ru/item.asp?id=41445043>
2. Ендовицкая Е.В. Методология контроллинга кадров // Экономика и предпринимательство. 2019. №2 (103). С.1252-1261. URL: <https://www.elibrary.ru/item.asp?id=37238922>
3. Жидкова Е.А. Типология подсистем в рамках системы контроллинга и представление о субъектах, объектах и предметной области контроллинга // Материалы X Международной научно-практической конференции: в 2 частях. Том Часть 1. - Воронеж: Воронежский государственный университет, 2021. - С.214-218. URL: <https://www.elibrary.ru/item.asp?id=45647958>
4. Иванова Ю.В. Концепции контроллинга // Актуальные направления научных исследований в области экономики, финансов и учета: от теории к практике. 2017. №2. С.65-68. URL: <https://www.elibrary.ru/item.asp?id=30715591>
5. Исмаилова А.С., Щербатюк С.Ю., Оразбаева А.С., Макишева Ж.А., Нурпеисова Н.С. Формирование учетно-аналитического обеспечения контроллинга бизнес-процессов в сельском хозяйстве // Управленческий учет. 2021. №5-2. С.342-349. URL: <https://www.elibrary.ru/item.asp?id=46150881>
6. Лаврова Л.О. Исторические аспекты формирования современных концепций контроллинга // Матрица научного знания. 2019. №12. С.165-168. URL: <https://www.elibrary.ru/item.asp?id=41575394>
7. Лосев В.С., Кальченко Д.С. Информационно-аналитическое обеспечение контроллинга финансовой устойчивости образовательной организации // COLLOQUIUM-JOURNAL. 2020. №16-2 (68). С.50-53. URL: <https://www.elibrary.ru/item.asp?id=43065435>
8. Орлова Н.В. Правильный контроллинг // Инновации. Наука. Образование. 2020. №21. С.323-328. URL: <https://www.elibrary.ru/item.asp?id=44282169>
9. Пласкова Н.С., Прокофьева Е.В. Современные направления развития системы методов экономического анализа // Учет. Анализ. Аудит. 2019. №2. С.47-51. URL: <https://www.elibrary.ru/item.asp?id=37330952>
10. Пряничникова А.К., Вахрушина М.А. Анализ отклонений как инструмент контроллинга // Современные системы финансового и управленческого учета: от теории к практике. 2017. №1. С.114-120. URL: <https://www.elibrary.ru/item.asp?id=29200910>
11. Сибатуллина Р. М., Пономарева Л.Н., Гильмутдинова Р.А. Контроллинг как концепция управления организацией // Экономика и управление: научно-практический журнал. 2021. №2 (158). С.110-114. URL: <https://www.elibrary.ru/item.asp?id=45559361>
12. Соколов А.Р. Содержание контроллинга и систематизация его видов // Актуальные направления научных исследований в области экономики, финансов и учета: от теории к практике. 2019. №1. С.175-178. URL: <https://www.elibrary.ru/item.asp?id=44674096>
13. Сомова Р.С., Медведева Е.И. Эволюция системы контроллинга: отечественный и зарубежный опыт // Теория и практика современной науки. 2017. №1. С.123-127. URL: <https://www.elibrary.ru/item.asp?id=31502293>

14. Харламова Е.Н., Попченко Е.Л. Концепция контроллинга и ее роль в повышении эффективности систем управления предприятием // Экономика и социум. 2019. №3 (58). – С.467-470. URL: <https://www.elibrary.ru/item.asp?id=38175273>
15. Щеголева Т.В., Жердев С.С., Татаринцев С.С. Контроллинг как инструмент развития бизнес-процессов в системе товародвижения предприятия в условиях цифровой трансформации // Цифровая и отраслевая экономика. 2021. №4(25). С.17-27. URL: <https://www.elibrary.ru/item.asp?id=47289739>
16. Юсупова С.Я. Анализ значения стратегического и оперативного контроллинга в современном менеджменте // Управление экономическими системами. 2018. №10 (116). С.39-44. URL: <https://www.elibrary.ru/item.asp?id=36426000>
17. Bakhireva A.A., Vorozhbit E.G., Vyskrebentseva A.S. Economic aspects of measuring technological processes // Journal of Physics: Conference Series. 2020. Vol. 1515. DOI: [10.1088/1742-6596/1515/3/032007](https://doi.org/10.1088/1742-6596/1515/3/032007)

Submitted: 27 October 2022

Accepted: 27 November 2022

Published: 28 November 2022

