

BUSINESS MODEL OF WATER MANAGEMENT ACTIVITY AS AN OBJECT OF MANAGEMENT ACCOUNTING

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Abstract. *This article discusses the issues of disclosing the specifics of the formation of a business model of water management organizations as a new concept of management accounting.*

Keywords: *management accounting, water resources management, business model, finance, international standard, information, financial reporting.*

Introduction. The evolutionary development trend of the economy is such that management accounting is increasingly being introduced into the activities of economic entities year by year. In the conditions of intensive use of management accounting in the corporate environment, its methodology undergoes some changes in the process of adaptation to the specific conditions of local business, as well as to the specific characteristics of the network. In this regard, many approaches to the generation of information in the management system of economic units in the water sector of the economy are undergoing major changes.

In accordance with the decision of the President of the Republic of Uzbekistan dated March 1, 2022 "On measures to improve the management of water resources in the lower reaches and regulate the relations between water consumers" No. PD-145 reliable supply of water resources, maintenance of irrigation systems and irrigation networks and their hydrotechnical facilities in constant technical condition, involvement of large agricultural producers in water management and distribution in their territory, transfer of state functions related to water supply of economic sectors to the private sector Tasks such as wide introduction of PPP (public-private partnership) principles, water accounting and reporting through automated systems that depend minimally on the human factor have been set. As a result, to date, direct water supply and water management service contracts are being concluded between water users operating on agricultural irrigated lands and district irrigation departments.

Expansion of accounting objects is a fairly stable trend in the modern management accounting system. In accordance with the international principles of management accounting developed under the auspices of the International Institute of Accountants and the American Institute of Chartered Accountants in the field of management accounting, the business model that serves as the basis of any organization is one of those objects, in which management accounting must create the necessary information flows for effective management of the business model. According to this document, the development of recommendations for the development of companies (Modeling Value Creation) connecting the business model and the management accounting system (identifying information about the state of the business model, as well as diagnosing dangerous situations and potentially promising types of activities) is an important aspect. In order to ensure the financial benefit of the company, much attention should be paid to the analysis and evaluation in the context of macro-environmental factors. The document notes that everything management accountants do is based on the values of their profession. These are

adherence to professional standards of professionalism, relevance, innovation, diligence and ethics. The first letters of the English words representing these values form the acronym PRIDE.

In the modern world, the processes of globalization and technological development draw attention to the prognostic function of accounting, because it is becoming more and more difficult to predict the characteristics of certain economic events and processes that can influence the configuration of the economic structure and the adoption of management decisions and the creation of added value. The process of value creation in modern corporations involves not only the management of financial capital, as is accepted in the traditional accounting methodology. In addition to financial capital, the following types of capital are considered objects of accounting, evaluation, control and economic analysis:

- industrial capital (physical objects of industry, including roads, bridges, ports, facilities for use of nature, etc. in addition to buildings and structures);
- intellectual capital (intellectual property objects, as well as intangible assets related to the brand and reputation of an economic entity);
- human capital (competencies, skills, abilities and experience of employees, as well as motivation for innovation (ethical values, approaches to risk management, ability to develop and implement organizational strategy, etc.)
- communication capital and social capital (norms, values and patterns of behavior, institutions, communities and relations between them);
- natural capital (all renewable and non-renewable natural resources and processes - air, land, minerals, forests, biodiversity and health, ecosystems) that represent goods and services that support the organization's past, present and future development.

Analysis of literature on the topic.

In the context of the current research, we have set ourselves the task of revealing the specific features of the formation of the business model of water management organizations in the crisis, which are interpreted as a new concept of entrepreneurship and strategic management in the research of modern authors. Identification of the place and role of management accounting in relation to the unified system of accounting, as well as issues of interpretation of the main economic categories of management accounting S.V. Bulgakova Ya. V. Sokolov., C. T. Horngren, V. F. Pali, , K. T. Nurmanov, R. B. Khasanova [2-9] and others. According to V. F. Pali, "management accounting goes beyond the scope of accounting. This is a complex method of domestic economic management, very similar to the domestic economic calculation, well-known in the past, adapted to the conditions of the market economy. But at the same time, it is clear that their motivation does not have an economic basis for the development of management accounting. [6, pp. 19-20] Current problems of developing the conceptual and methodological foundations of management accounting include the formation of its tools, consideration of the stages of formation of the methodology of management accounting, issues of distinguishing new groups of factors of self-identification of management accounting as an independent science. In his turn, B.A. Khasanov, developing this idea, says: "Management accounting is a unique mechanism of self-regulation in the enterprise that ensures reverse dependence in the management contour" [9]. And O.V. Rozhnova talks about rejecting the perception of control as an independent science: "Controlling does not have an independent meaning, and its components show individual components of the elements of management accounting" [p. 5, 19-20]. S.V. Bulgakova [2], V. Sokolov [7, p. 65], C. T. Horngren [3, p. 85] and others noted. For example, S.V. Bulgakova "the

practice of accounting and reporting is affected by the economic conditions of the organization" [7, p. 26]. K.T.Nurmanov said that "accounting should not be considered as something fixed once, because it is always affected by the environment around it" []. In turn, Ya. V. Sokolov states: "All the evils of accounting were already known and, of course, they would not have affected economic stability. This situation was rarely paid attention to. Only after the disaster of 1929, people began to understand what to do in accounting, how to do it. began to think about the possibility of correction" [7, p. 14]. C. Drury and T. Boynes noted that the concept of controlling was also widely introduced due to the impact of the world economic crisis during the Great Depression [3, p. 216].

Under the influence of foreign trends in the development of management accounting, changes in the field of its methodology and objects, in particular, orientation to the preparation of reports on sustainable development and integrated reports, "business model as a new object of management accounting" B.Yu. By Maksudov [11], the idea of differentiation of management accounting and control due to different information capacity N.B. It was noted by Abdusalomova [10], who talks about the participation in the role of accounting and analytical subsystem of management accounting controlling. In this group of problems, it is possible to distinguish the need to monitor the external environment, the dependence of management accounting on cyclical processes in the economy, and the emergence of new accounting objects that are not new in the financial accounting system.

It should be noted that in 2001, 177 scientific articles using the keyword "business model" were used in the Scopus scientific-metric database, and in 2015, 1509 scientific articles were published. Since the 2000s, the dynamics of scientific articles devoted to describing the concept of "business model" in the Scopus scientific-metric database has been steadily increasing. ongoing (Table 1). In recent years, there has been an intensification of research in the field of theoretical and methodological description of the business model.

The business model of the organization is aimed at presenting the structural operational and financial mechanisms of the company's work, its products and services both now and in terms of forming the directions of further development to achieve the strategic goals of the economic entity. The Integrated Reporting Council defines a business model as "a system of transforming inputs into outputs (products and services) through the firm's economic activities and into results aimed at realizing the organization's strategic goals and creating value in the short, medium and long term".

The leaders of the largest companies also emphasize that an innovative business model is a more important factor for a firm's sustainable economic growth than an innovative product or service, especially in times of instability. At the same time, many aspects of this problem remain unexplored. Thus, in our opinion, research in the field of accounting-analytical support for the formation and implementation of effective business models for certain types of economic activity in order to generate relevant information both in the strategic management system and for the purpose of quick decision-making is one of the areas with high scientific and practical potential.

Table 1

Business model concept, nautometric indicators of publishing activity

Distribution of publishing activity by years		Place	Distribution of publishing activity by country	Number of articles
2016	309	1	The USA	3675

2015	1509	2	China	3645
2014	1742	3	Germany	2451
2013	1859	4	Great Britain	1528
2012	2508	5	Australia	1002
2011	2620	6	Holland	859
2010	2656	7	Italy	855
2009	2398	8	France	818
2008	1913	9	Spain	785
2007	1265	10	Taiwan	747
2006	1003		Distribution by subject area	
2005	910	1	IT	13107
2004	617	2	Engineering	7566
2003	388	3	Business, management, accounting	4391
2002	242	4	Math	3678
2001	177	5	Management of the firm	2840
1995	68	6	Social sciences	2037
1990	30	7	Economics, econometrics, finance	1253
1980	2	8	Environmental sciences	704
		9	Energetics	650
		10	Agricultural and Aquatic Sciences and Biochemistry	545

The results of researching the publishing activity of scientists engaged in the study of the essence and foundations of the business model concept showed that the main focus of the articles was focused on the study of the business model as a management concept, only some authors used the business model as part of accounting management accounting [4-11] or economic analysis (business analysis) as an object of [2-3].

Research methodology

The study of existing scientific research on the essence and foundations of the business model concept, the use of statistical data and economic comparison and analysis, logical thinking, scientific abstraction, information grouping, analysis and synthesis, induction and deduction methods were widely used.

Analysis and results

From the point of view of considering the business model in the strategic management system, this economic category is primarily interpreted as a description of the value creation chain (a description of the profit formula). In this case, each link described when describing the business model of the value creation chain causes costs, generates income or uses assets that are considered objects of accounting.

This situation emphasizes that accounting has a special place as a management function in the formation of a business model.

Often the following should be disclosed in the business model:

- information important for understanding the value added process;
- information describing the signs of differentiation of the economic entity in the market (specific features of the product, level of market segmentation, sales channels, etc.);
- processes affecting the efficiency of commercial activity;

- information about the results of commercial activity, as well as information about relationships between structural elements, past, present and future of the company, types of capital, quantitative and textual information;

- information about the quality of relations with counterparties and other interested parties;
- other (positive and negative) information important for different groups of users, etc.

Accounting-analytical support for the development and implementation of the business model of an economic entity in the context of crisis events in the economy in order to describe in a structured manner the logic of conducting business and the implementation of the main business processes of the company, as well as the methods of creating additional value in the conditions of a declining market, external and internal environment (represents a comprehensive system of collecting, registering, analytical processing and systematization of information about the state of the submicromarket.

The accounting-analytical support methodology of development and implementation of the business model of an economic entity focuses on the analytical support of managing the processes of creating value for customers from the information support of production management.

In the formation of the business model of an economic entity, the management accounting system is the source of tools (budgeting, calculation systems, proportional indicator system, etc.) used for processing information and making informed management decisions, as well as a means of providing management with information (a system of accounting for the facts of economic activity, management analysis, accounting and analysis automation).

A stable trend of modern companies is to shift the priority of information disclosure from a complete reflection of value information to the description of the used model of value creation, that is, the value added and value creation algorithm over time, as well as the directions and efficiency of the use of various capitals.

When describing the business model of an economic entity, analytical materials describing the purpose and structure of the business, its operation procedure, the principles of organization, development and successful operation of the economic entity, strategy, infrastructure, product line, sales methods, operational processes, organizational structure and other elements are usually used. should be disclosed.

We present some theses that confirm that the business model is considered an object of the crisis management accounting model:

- 1) one of the most important features of the business model is to ensure harmless operation. All the tools used in the management accounting system are aimed at generating information for making effective management decisions, as well as for making decisions that ensure the implementation of the concept of non-loss;

- 2) the business model of each company is unique, as a result of which only the management team can deal with it, in which management accounting is the information-analytical basis;

- 3) the business model describes the desired future state of business processes of an economic entity, which is related to the immanent descriptions of strategic management accounting based on the concept of prospective accounting;

- 4) the business model is constantly changing under the influence of changes in the endogenous environment of the economic entity, as well as under the influence of the market situation and dynamic parameters of the business environment, which requires continuous

accounting, analysis and control, preparation of reports, and only management accounting tools can be done using;

5) the description of the business model allows to identify "bottlenecks" in the work of the economic entity, to evaluate alternative options and scenarios for further development, and in this regard, to provide only integrated reports to satisfy the requests of various interested parties: business partners, investors, internal employees, banks, consultants and information requests. Other counterparties that can be achieved through the formation of three flour can be useful;

6) many methods of management accounting are based on the use of information based on the business model; for example, the budget planning system developed in the organization should be coordinated as much as possible with the parameters of the business model, because it should answer the questions of how the company's profit is formed, what are the company's actions aimed at making a profit.

The above leads to the expansion of the boundaries of practical use of management accounting within the cross-functional interaction of management and management accounting, where management accounting provides information for management decision-making. It should be noted that in the conditions of the complexity of the modern business structure, especially when the entire economy or a particular sector is in a state of depression, the need to improve the quality of management decisions is an obvious necessary factor for maintaining a stable financial situation of agricultural organizations.

When forming the business model of water management organizations, it is necessary to take into account their specific production-technological features. For example, in the water industry, two types of economic entities are found in terms of covering the main components of the business model:

1. Agricultural organizations with a full production cycle, engaged in the processing and sale of agricultural products in addition to production. They use both innovative products and technological innovations.

2. Economic entities that achieve the main increase in added value as a result of the cultivation of a small number of non-processed agricultural products. Innovations related to production-technological processes of agricultural crops and animal breeding are characteristic for them.

In the process of forming a business model, the goals of the development of the economic entity, which are ensured by business processes, are systematically compared and combined with the state of the external environment.

In order to successfully implement the business model concept in water management organizations, it is recommended to develop an internal standard according to the sample scheme presented in Figure 1. In our opinion, the proposed structure of the sections of the corporate standard "Formulation of the business model of the water management organization and provision of information for its implementation" is the most informative and can be used as a model standard for the formation of other management accounting standards.

The standard describes the elements of the business model of an economic entity, as well as the composition of management accounting tools and their application methodology for the purposes of forming and implementing individual elements of the business model. Specific methodological recommendations should take into account the internal organizational

characteristics of the economic entity and, in turn, should be disclosed in other internal documents - corporate regulations.

This standard is designed to increase the quality of management of economic entities due to the balanced use of management accounting methods and technologies in the formation and implementation of individual elements of the business model and the generation of relevant information.

Since the corporate management accounting standard "formation of the business model of the water industry organization and providing information for its implementation" is formed for the purposes of personal use based on the specific goals of the economic entity, the list of management accounting tools and methodological approaches to the generation of specific information are the same in different economic entities. different from each other.

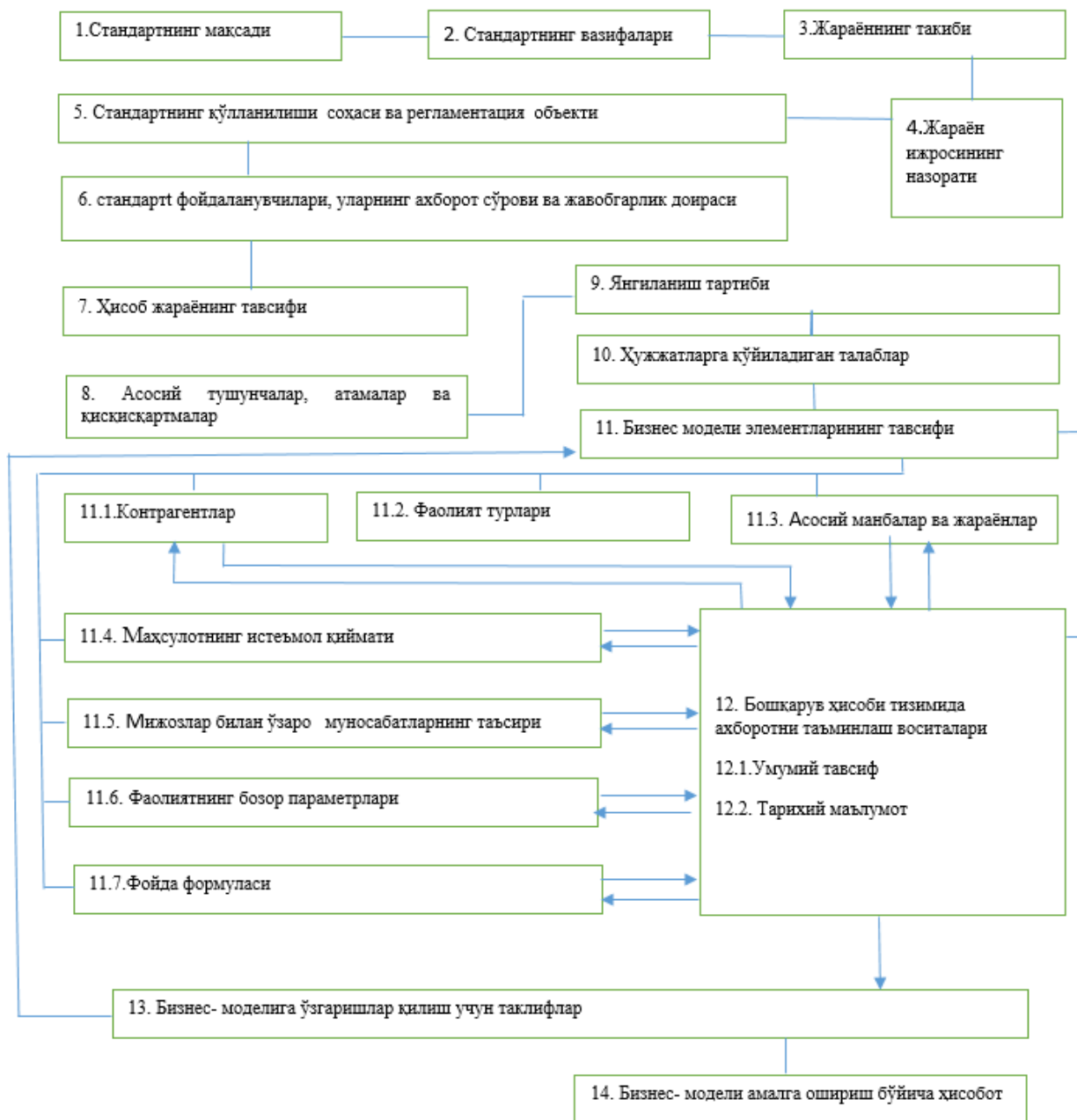


Figure 1. Draft of the corporate management accounting standard "Formulation of the business model of the water management organization and provision of information for its implementation".

In our opinion, in order to more effectively meet the information requirements of the main groups of stakeholders, the section "Information about the implemented business model" should be included in the integrated reports or in the explanatory note to the financial statements.

The disclosure of such information allows external users to make more informed decisions about the strategic prospects of interaction with the economic entity. This, in turn, provides the agrarian sector of the economy with long-term investment resources that can be directed to the renewal of the material and technical base. Due to disclosure to external users of the logic of business and the main parameters of the business model, the economic entity has a greater opportunity to obtain investment resources in conditions where the content of added value creation is understandable. In addition, some parameters of business model efficiency, innovation and effectiveness can be taken into account in the allocation of funds allocated for state support of agricultural organizations. We believe that it is most appropriate to disclose the following

parameters of the business model in integrated reports: mission, controlled business processes, the most important indicators of the economic entity's production and commercial activity, as well as indicators describing social and environmental responsibility.

Crisis processes in the economy manifested in the reduction of demand, high level of inflation, devaluation, slowdown of growth of gross national product, decrease in income have a direct impact on the choice of a specific business model of an economic entity. Working in falling markets differs from the behavior of economic entities in conditions of economic growth and increased demand for products, primarily from a conceptual point of view. At the same time, the chosen business model of the economic entity to a large extent determines the indirect procedure for using the set of tools and methods in the management accounting system to generate the necessary information. In this regard, we described the main rules of two types of behavior of the firm in the conditions of the need for long-term activity in declining markets (Table 2).

Naturally, there can be a large number of strategies and behavior patterns in a bearish market. Our main challenge in reviewing this rule was to extend this type of business model to the specifics of applying a management accounting system in the context of long-term operations in declining markets.

When making any decision, the management of an economic entity faces a state of uncertainty, which can be complete only in conditions where there are no attempts to foresee the development of the situation. In any case, even the presence of subjective opinion can help in making management decisions.

Conclusions and suggestions

The research carried out at this stage made it possible to achieve the following results:

1. In recent years, such a stable trend has been formed, according to which it was concluded that there is a constant expansion of accounting objects in the modern system of management accounting and controlling.

In this regard, we look at the business model of an economic entity as an object, which, in turn, expands the boundaries of the practical use of management accounting tools within the cross-functional interaction of management (as a management concept) and management accounting (as a management information support concept). To explain this thesis, we note that from the point of view of considering the business model in the strategic management system, this economic category is primarily interpreted as a description of the value creation chain (a description of the profit formula). At the same time, each link of the chain of value generation described in the

description of the business model causes costs, generates income or uses assets, which, in turn, are the objects of accounting.

2. In order to create relevant information for managing the elements of the business model of the economic entity, a project of the standard "Information support for the formation and implementation of the business model of the water economy organization" was proposed, which is adapted to the activities of water management organizations and incorporates the description and methodology of the use of management accounting tools.

Table 3.2

Conceptual features of developing a business model of an economic entity in conditions of long-term operation in declining markets

Characteristics	Types of model		
	Survive	Development	Increase in company value
1	2	3	4
The essence of the model	A conservative strategy aimed at maintaining market positions	A more aggressive strategy based on constant expansion	A balanced strategy aimed at increasing the value of the company
Main aim	Finding competitive advantages, maintaining financial stability, freeing up resources to reduce costs	Creation of stable demand in shrinking markets due to the development of trading systems	Increasing market stability and competitiveness, creating prestige value (strategic design)
Basic technologies in management accounting system	Lean production concept, Goldratt's Theory of Constraints (TOC), "Just-in-Time" management (Just-in-Time), proportional indicators and KPI indicators system, creation of effective reserve system; cross supplier AVC analysis; management of unused capacity (Unused capacity); analysis of "bottlenecks"; risk and change management (Enterprise risk management / Change management); total quality management tools (Total Quality Management - AVM); the technology of reducing the costs of individual business processes by optimizing the costs of individual business processes, optimizing the methods of calculating product costs, etc.	A system of proportional indicators focused on the effectiveness of sales activities; analysis of value chains (Value chain); analysis of supply chains of raw materials and materials (Supply Chain Management); content analysis; cross AVC analysis of buyers; behavior analysis; benchmarking (benchmarking); analysis of trade networks; analysis of macroeconomic trends; analysis of order indicators, optimization of orders, analysis of sales segments (territories); SWOT analysis; expert assessment of external environmental factors, as well as assessment of the strategic climate of the external environment using STEP-analysis; analysis of business areas (Profit Impact of Market Strategies - PIMS); marketing analysis, etc.	Risk and change management (Enterprise risk management / Change management); total quality management tools (Total Quality Management - ABM); analysis of value chains (Value chain); analysis of business areas (Profit Impact of Market Strategies - PIMS); analysis of supply chains of raw materials and materials (Supply Chain Management) benchmarking (benchmarking); SWOT analysis; expert assessment of external environmental factors; STEP analysis, etc.
Methods of eliminating crisis processes in the economy	Optimizing production, "adjusting" production-technological processes to the size of the market, redistributing its share in favor of getting rid of the declining market; reduce costs associated with warehouse overflow and equipment downtime; increase the flexibility of production activities in order to quickly respond to changes in demand	Reducing costs for all logistics chains, looking for the most effective trade formats, getting as close as possible to the final consumer of products; overall improvement of the efficiency of the internal mechanism of the firm in order to meet the requirements of the sales department in the shortest possible time	It implies a reduction in the production of low-yielding products; reduce the number of support staff; implies increasing the efficiency of production and sales; increasing the efficiency of generating cash flows, optimizing the outflow of funds

1. In order to more effectively meet the information requirements of the main groups of stakeholders, it is proposed to disclose the information about the implemented business model in the integrated reports or in the relevant section of the explanatory letter to the financial statements.

2. Work in falling markets differs from the behavior of economic entities in conditions of economic growth and increased demand for products, primarily from a conceptual point of view. At the same time, the chosen business model of the economic entity largely determines the procedure for using the set of tools and methods in the management accounting system to generate

the necessary information. In this regard, the scientific work clearly introduced the conceptual features of the development of the business model of an economic entity in the conditions of long-term activity in declining markets depending on the type of chosen strategy.

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