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The graduate thesis

to obtain the master's degree

The topic of the work «**Scientific and applied aspects of the formation of strategic vectors of the functioning of operating systems of construction enterprises»**

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Relevance of the study

The topic of managing the life support of enterprises is extremely relevant in the context of fierce competition, market dynamism and instability of the external and internal environment. Modern businesses face the need to use limited resources efficiently to maximise profits. The life support management strategy includes principles and methods that ensure financial stability through timely response to changes in the external environment and optimisation of internal resources.

Scientific approaches to improving management have been developed by both domestic and foreign researchers.

Despite the existence of research, there is a need to develop a methodology for assessing strategic vectors of enterprise life support management. This includes the use of innovative technologies to increase productivity, financial stability and solvency, which is critical in a changing market environment. Thus, the research topic is aimed at studying and improving approaches to resource management in industrial enterprises.

***The purpose of the study* is** to substantiate and develop the theoretical, methodological and practical foundations for the formation of strategic vectors of life support management of an industrial enterprise.

The aim is to solve the following tasks:

- to study the conceptual and categorical apparatus of life support of enterprise activity;
- - to summarise the constituent elements of the enterprise's life support, covering all types of functioning and production factors;
- - to generalise the integral model of principles of management of life support of enterprise activity;
- - to define the essence of the concept of ‘strategic management of life support of enterprise’;
- - to study and evaluate the level of life support of enterprises in the construction industry, to determine the dynamics of indicators of probability of bankruptcy.

The object of research is the process of forming strategic vectors of life support management of construction enterprises.

vectors of life support management of construction enterprises.

The subject of the study is a set of theoretical, methodological, methodological, practical provisions for the formation of strategic

CHAPTER 1 THEORETICAL AND METHODOLOGICAL FUNDAMENTALS OF LIFE SUPPORT MANAGEMENT OF CONSTRUCTION ENTERPRISES

The concept of ‘life support of the enterprise’ is closely related to the enterprise's life, as it is its key component, which, when managed rationally, ensures the effective development of the enterprise. There fore, for a better understanding of the essence and content of the concept of ‘life support of the enterprise’, in our opinion, it is necessary to firstly, to interpret the concepts of ‘life activity’ and ‘life activity of an enterprise’.

Social aspects regarding the interpretation of the concept of "livelihood"

Author, source	Definition of the concept
Law of Ukraine "Aboutrehabilitation of the disabled"	human life activity – the ability of a person's organism to participate in life activities/occupational participation in the manner and within the limits normal for a person [3].
Encyclopedia modernof Ukraine	life activity of the population is a set of processes that characterize the peculiarities of the biological and social activity of people in a competitive environment. They consider the life activities of people as biological beings and as social individuals. The first approach includes the processes of reproduction of the population through birth and mortality, as well as the physiological activity of the human body, expressed in its health [4].
S. V. Ryzhov	life activity - a regulated state of the environment, in which, according to current legislation, regulations, comfortable and safe interaction of a person with its components is ensured, prevention of deterioration of environmental conditions and labor protection, occurrence of danger and actions in emergency situations [5, p. 261–262].

The definition of ‘enterprise activity’ is ambiguous and theoretically debatable in the national science. In particular, the national researcher O. V. Lepykhin, using a functional approach, defines it as ‘a set of production and sales, innovative, financial and economic capabilities that regulate the activities of an enterprise in the external environment and encourage it to increase competitiveness’ and notes that the need to identify the problems of ensuring the life of an enterprise arises regardless of the current stage of the life cycle of an enterprise.

The analytical approach to understanding the life of an enterprise is that researchers analyse and evaluate this process. It should be noted that the study of economic literature gives grounds to assert that scientists, when studying the issues of analysis and assessment of the enterprise's life, pay considerable attention to the following aspects

- financial stability and sustainability of the enterprise;

- efficiency of the enterprise;

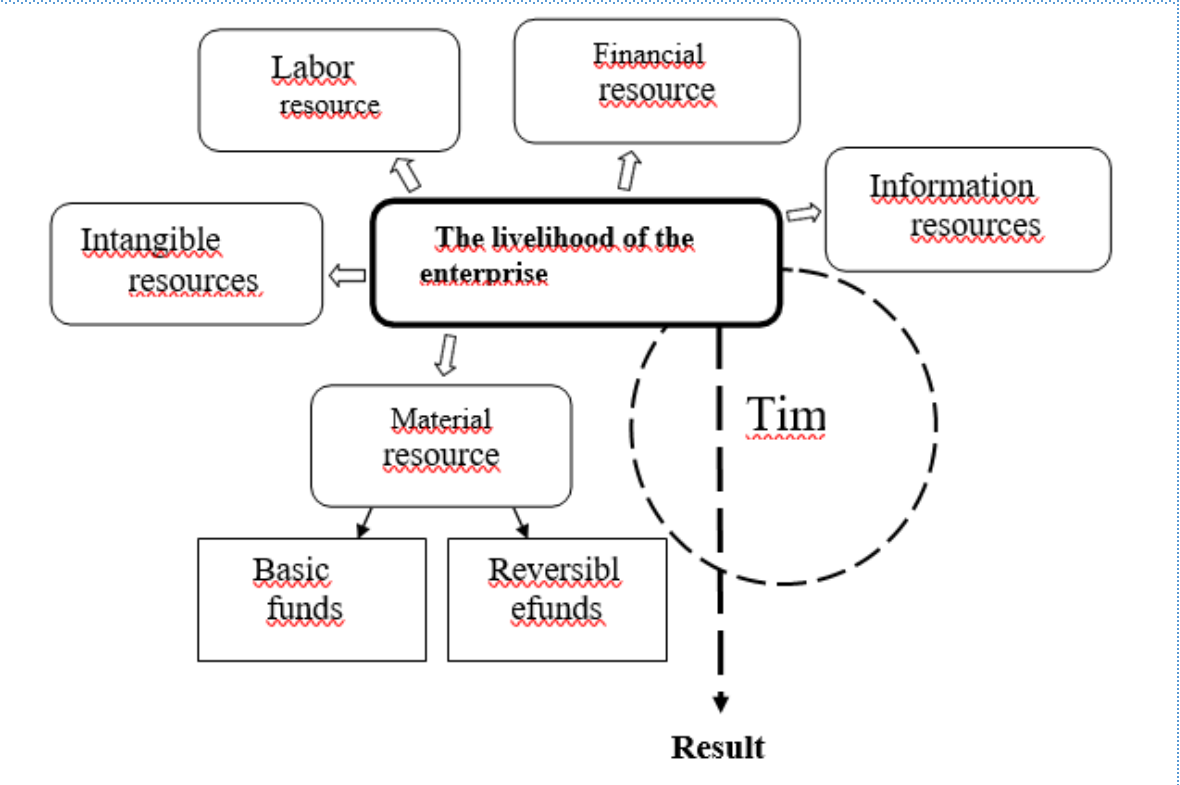
-problems of financial and economic security,

- competitiveness of the enterprise.

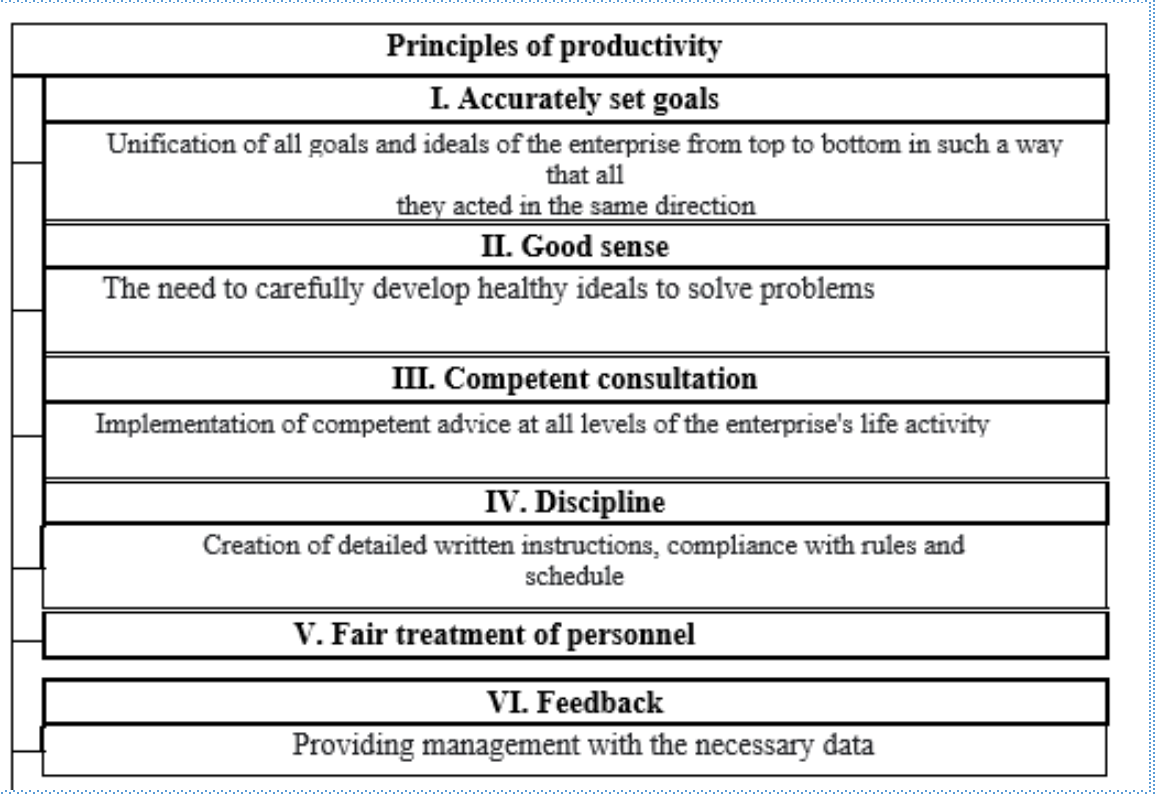
It should be noted that today there is no unified definition of

of 'life support of the enterprise', and the issues that characterise this category remain controversial.

An important component in the life support of an industrial enterprise is its resources



The principle and methods of management that have been studied and considered in the scientific works of the founders of management and practitioners, namely: Fayol A., Taylor F., Emerson G.



a fragment of Figure 1.9.

The name of the principle	A brief description
1. Division of labor	It is a natural phenomenon. The main goal of the division of labor is to increase the quantity and quality of production with the same effort. As a result the division of labor at the enterprise is the specialization of management functions and the division of power.
2. Power	The essence of power in an enterprise is the right to give orders and the power to obey them. Power is unthinkable without responsibility, that is, a system of sanctions (reward, punishment, etc.). etc.)
3. Discipline	In the general sense, discipline at the enterprise is compliance agreements, the subject of which is obedience, diligence, activity and external signs of respect.
4. Unity of disposition (command)	It consists in the fact that the employee must receive orders (regarding any action) only from one immediate superior.
5. Unity of leadership	This principle consists in the following position: one manager and one program for a set of actions at the enterprise, pursuing one and the same same purpose
6. Subordination of private interests general	This principle is characterized by the fact that interests employees should not be placed above the interests of the enterprise
7. Remuneration of staff	Remuneration of personnel is payment for work performed at the enterprise. It should be fair and, if possible, satisfy the staff and the enterprise

a fragment of Table 1.5.

Taylor F. identified a number of principles and methods of scientific labour organisation based on the study of employee actions through timekeeping, standardisation of techniques and tools.

After analysing the management principles of the founders of management Fayol A., Taylor F., Emerson G., an **integral model** of the principles of management of life support of enterprises has been developed, which should be to be used in the process of managing the life support of enterprises by dividing them into two large blocks:

Administrative:

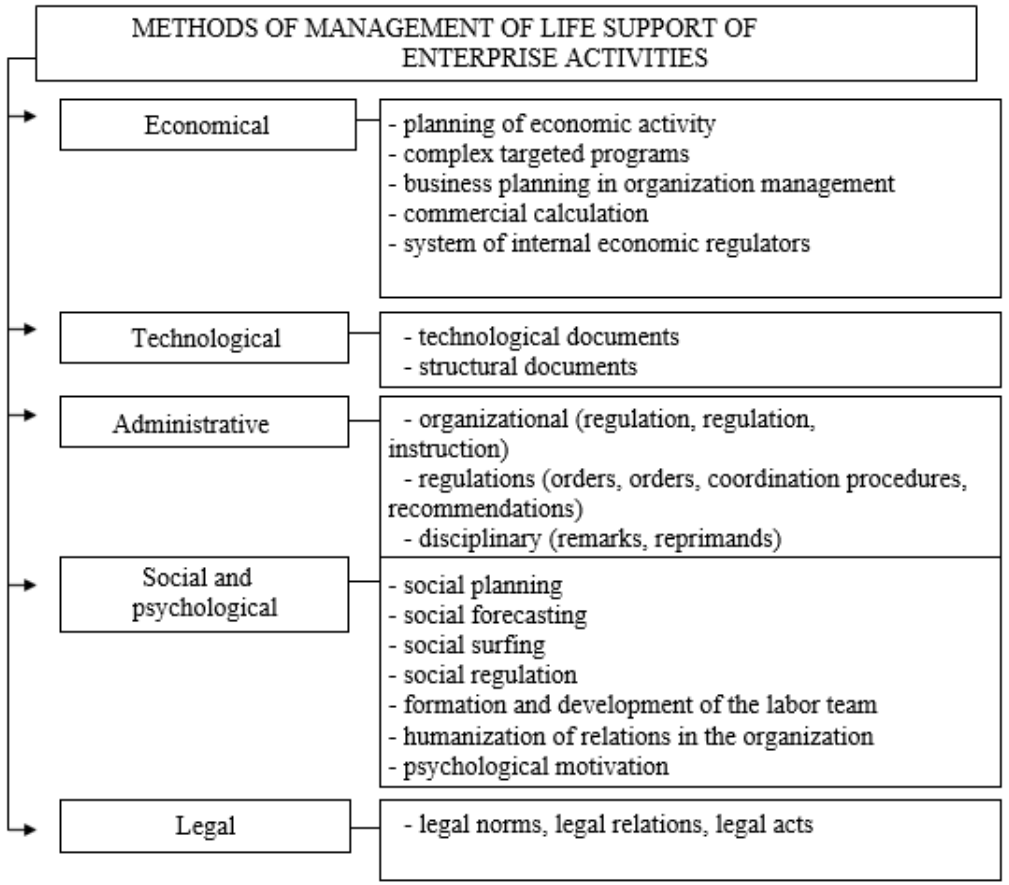
- determination
- power principles
- organisational principles
- division of labour
- hierarchy

Organisational and social:

- taking into account the needs and interests of the staff
- principle of motivation
- principle of justice
- unity of interests of the staff and the company.
- principle of efficiency and optimality
- principle of initiative
- principles of harmonious staff development

Considerable attention in scientific circles is paid to the classification of **management methods** at the enterprise.

We believe that among the main methods that should be used in the management of life support of construction enterprises are the following:



An important aspect in the process of managing the life support of construction enterprises is (if necessary) overcoming the crisis phenomena that arise periodically at the enterprise. Therefore, it would be advisable to investigate the methodology of crisis management at enterprises.

Researchers Voronina O. and Tovma I. proposed to take into account two groups of principles when developing crisis management measures:

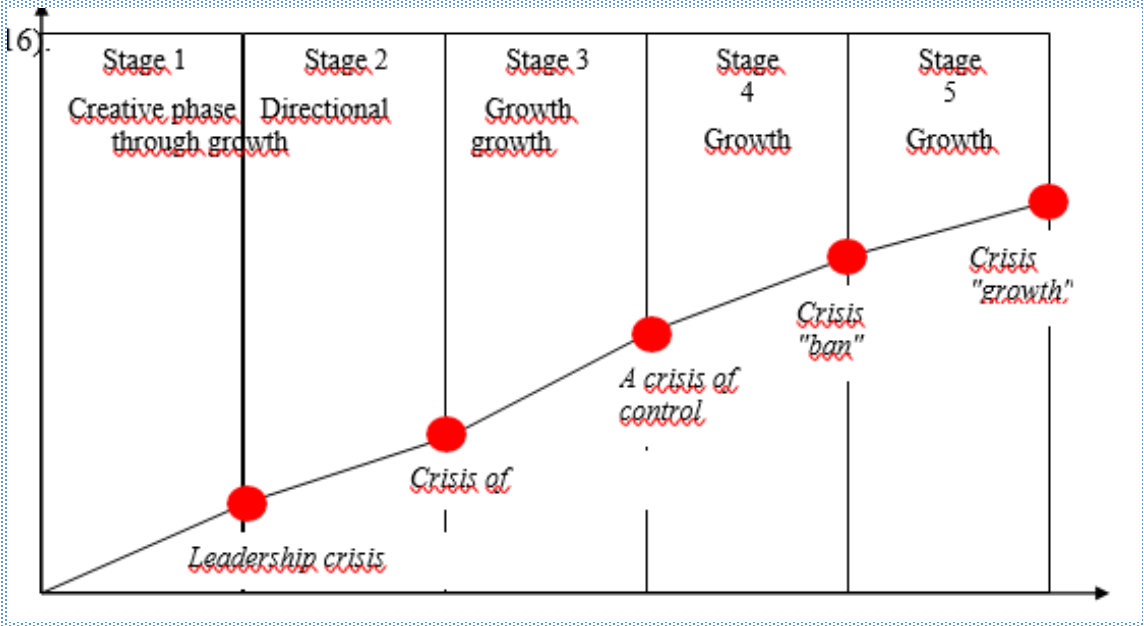
1) general for the management system: economic efficiency; social responsibility; separation of functions of political, public and economic management; consumer orientation; systematicity;

2) specific to anti-crisis management: planning and development of special programs of a strategic nature; continuous monitoring of the external and internal environment; continuity; focus of the management process; efficiency and reliability of incoming information; reliability of forecasts; lack of universal anti-crisis solutions; ultimate focus on activities

The theory of the enterprise life cycle (ELC) considers the development of a company as a sequence of stages, from the creation of an idea to the completion of activities. The ECL allows a company to adapt to market changes and coordinate management and investment plans. Scientists identify several models of the WLC, among which the most common ones divide the life cycle into 5-6 stages, each of which is characterized by specific management tasks.

For example, the Down's model includes three stages: autonomy, growth, and stabilization. Lippit and Schmidt also propose three stages for private companies: birth, youth, and maturity. Greiner points to crises that stimulate the evolutionary development of the enterprise, while Katz and Kann focus on the organizational structure, considering the company as an open system that constantly adapts to external conditions.

In general, the theory of the WPC is important for understanding how enterprises develop, overcome crises, and optimize management by adapting to changes.



Model of enterprise life cycles according to Greiner L.

CHAPTER 2 METHODOLOGICAL APPROACHES TO THE FORMATION OF STRATEGIC VECTORS OF LIVELIHOOD MANAGEMENT ACTIVITIES OF THE ENTERPRISE

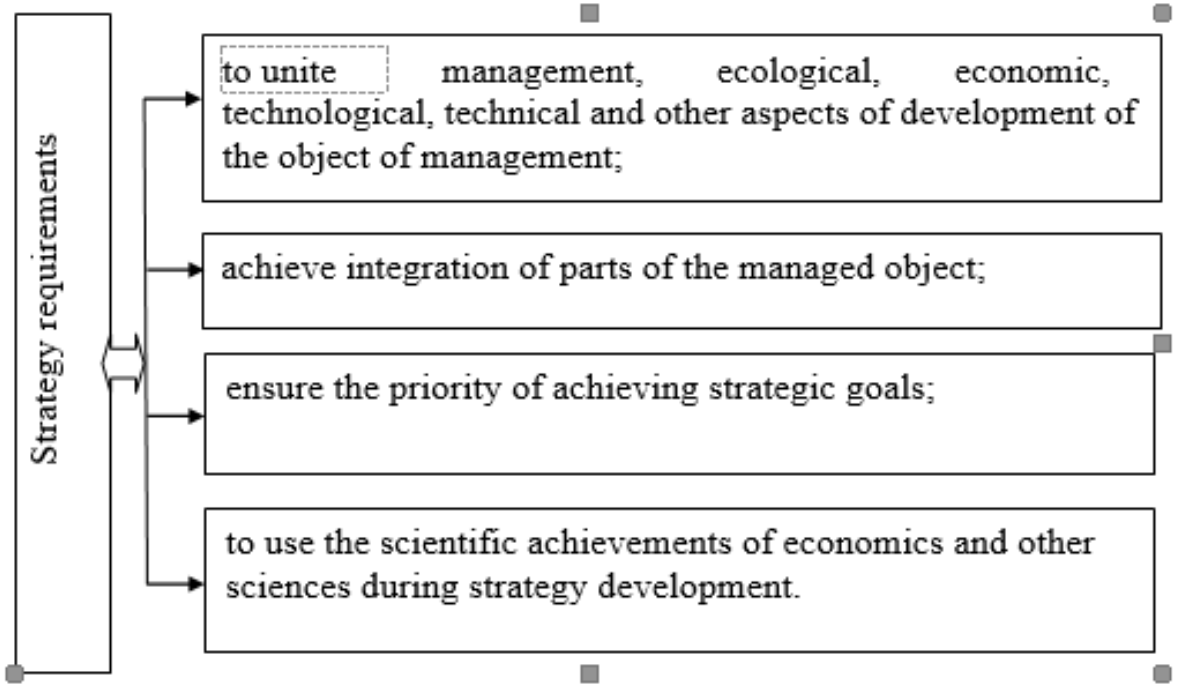
Planning and strategy development are important steps in the functioning of an industrial enterprise, and it is a constant effort by top management to find an effective “vision of their enterprise” for the future.

Using the idea of a value chain, Porter suggested that strategy should be viewed as an analysis of internal processes and interactions between different components of an organization in order to determine how and where value is added. At the same time, strategy is the positioning of the enterprise in relation to the industry environment.

Johnson J. and Skuls K. consider strategy as the direction and scope of action in the long term, which ideally brings the company's resources in line with the changing environment (markets, consumers and customers) so that the company meets the expectations of its stakeholders.

Ukrainian researcher Z. Shershniova understands the concept of “strategy” as a long-term course of development of a company, a way of achieving goals that it determines for itself from alternative options, guided by its own considerations within its policy.

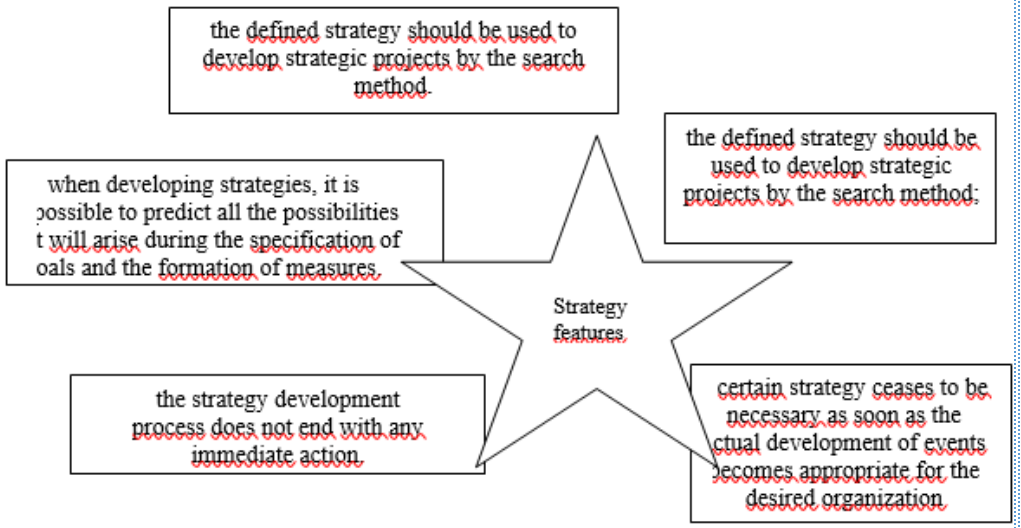
The requirements and principles for defining modern strategies are seen as a plan of action according to which an industrial enterprise can maximize its development, win the best place among competitors, and constantly increase production volumes.



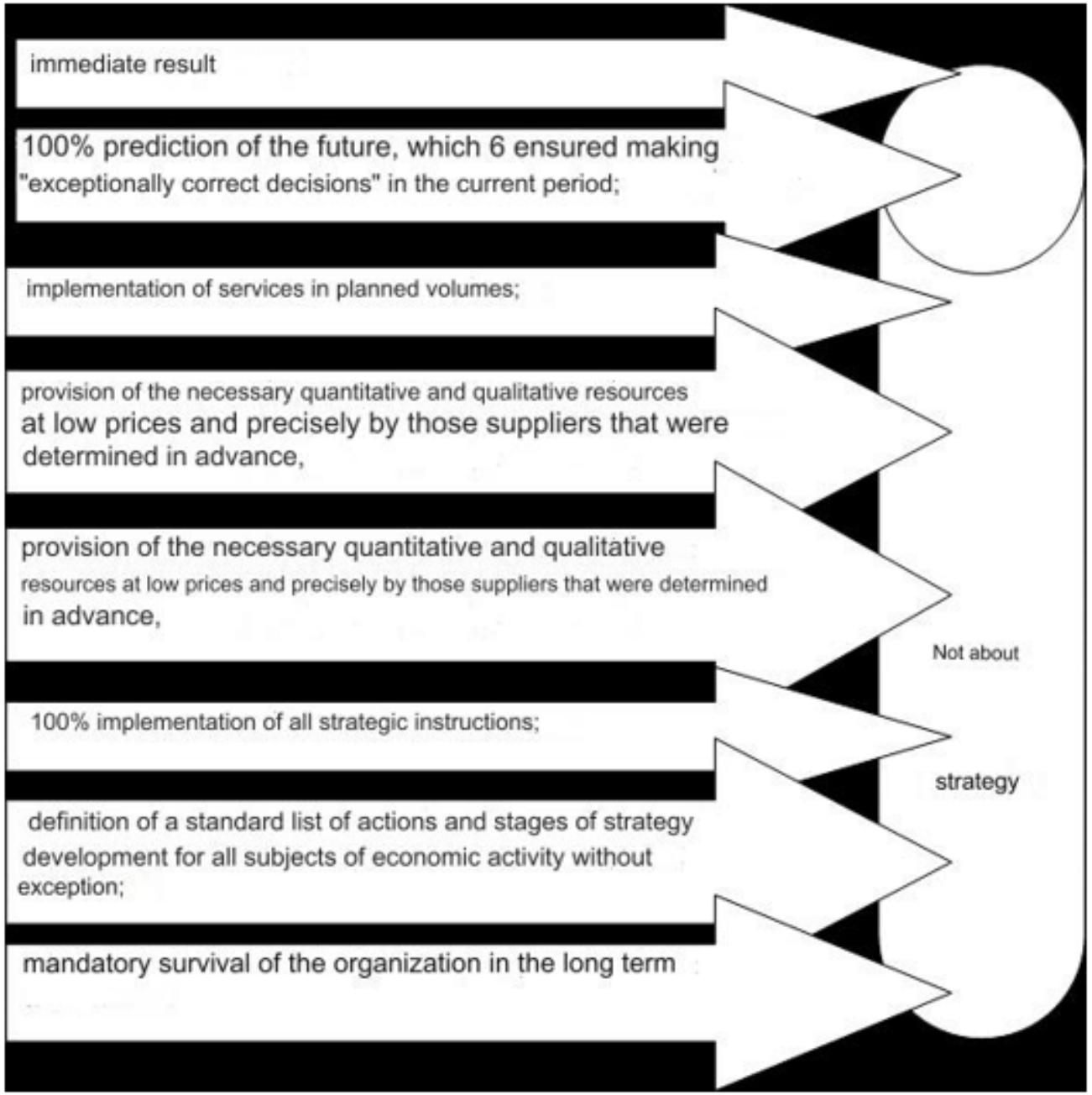
The managerial approach to defining the essence of the strategy formed the basis of the joint research project “Strategic Documents of Socio-Economic Development” developed in 2003 by experts of the Ministry of Economy and European Integration and experts of the United Nations Development Program, although the final analytical note provides three definitions of the strategy at once:

- a long-term generalized set of interdependent decisions that determine the priority directions of development of the economy, industry, region, etc;
- a system of conceptual goals and tools for their achievement... something that combines tactical short-term actions into a system that ensures a high result... in general for the strategic period;
- a long-term generalized management plan for a selected area or system

We would also like to note that not all the promising courses and directions set by industrial enterprises can be attributed to the components of the strategy



Features of the strategy of an industrial enterprise according to Ansoff I.

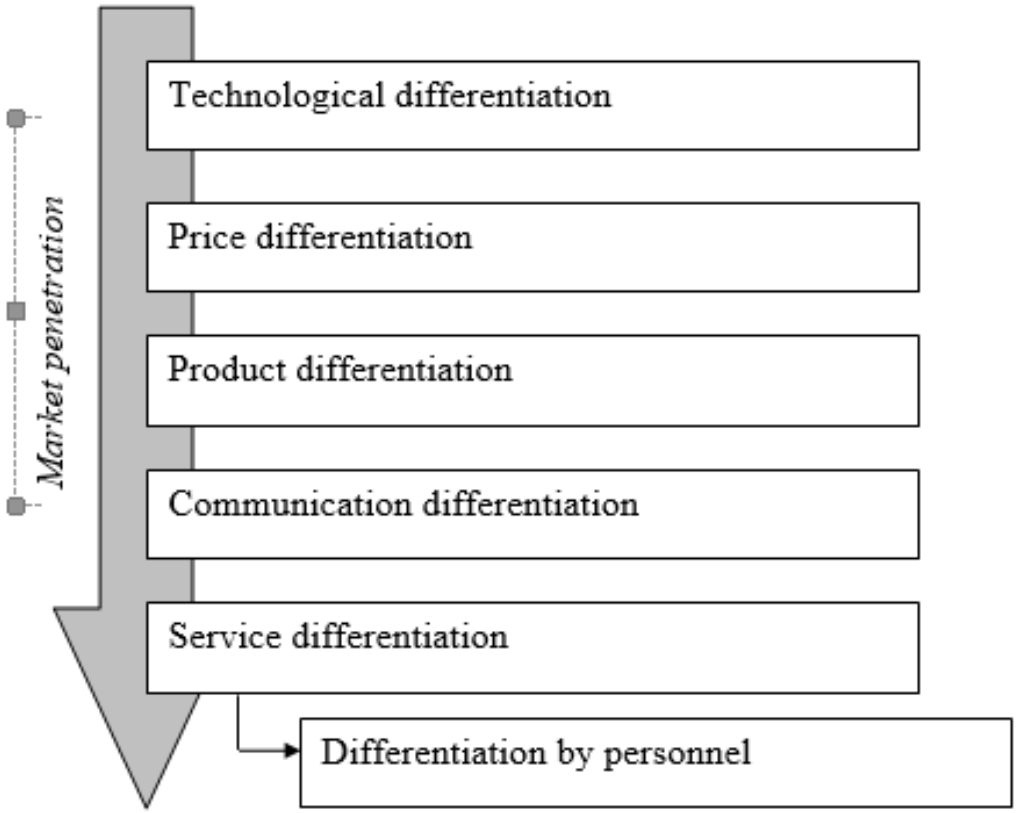


Developing an enterprise strategy is a key function of top management aimed at adapting to changes in the external environment and ensuring its stability. The enterprise development strategy is designed to ensure flexibility and compliance with market conditions, as the activity goes through different stages of the life cycle (from inception to maturity), which requires constant adjustment.

Today, scientists in the field of economics and strategic management have proposed a number of approaches to the application of competitive strategies. In our opinion, an important place among them is the classification of competitive strategies proposed by the famous foreign researchers Porter M. and Kotler F.

Level of life support	Strategic approaches	
	Porter M.	Kotler F.
Low	Focusing strategy Product differentiation strategy	Follower firm strategy Niche company strategy
Average	The initial stages of a leadership strategy	Strategy of the challenger firm
High	Cost leadership strategy	Strategy of the market leader

We offer the following types of differentiation strategies, which, in our opinion, best reflect the differentiation strategy in the process of managing the life support of construction enterprises.



We would like to note that, in our opinion, an important place among the types of differentiation strategies used in the process of managing the life support of construction activities is occupied by
- technological,
- product
- communication differentiation.

Brief description of strategies:

Follower strategy: The company follows the market leader, reducing risks and costs.

Types:

Compilation - complete copying.

Imitation - copying with own improvements.

Adaptation - improving the product and working in other markets.

Niche strategy: Focusing on a narrow market segment that meets the specific needs of consumers. It is suitable for small businesses and provides less competition, but requires clear specialization.

Focusing strategy: Concentration on a specific market segment (geographic, product). It provides deep differentiation and the ability to avoid direct competition, but carries the risk of overdependence on the chosen segment.

Challenger strategy: An aggressive strategy aimed at expanding market share. It includes “attacking” competitors, especially weaker players. Suitable for businesses seeking to gain leadership, but risky.

The leader's strategy: Focuses on cost leadership, protecting market share, and setting trends. The leader defines market rules but faces high competition and the risk of copying.

At the current stage of economic development, competition is the driving force that makes economic entities constantly look for new ways to improve their competitiveness.

Competition is also an integral part of a developed industrial market. In this regard, there is an urgent need to study competition, its level and intensity, to know the forces and market opportunities strongest competitors strong competitors, prospects for competition in the selected markets where industrial enterprises operate.

Scientists focus on the “competitive potential” that directly affects the competitiveness of an enterprise and includes external and internal factors. Competitive potential is considered through two main scientific positions:

- Systemic approach - the potential is considered as a system of blocks that reflect the state of various resources of the enterprise.

- Functional approach - the potential includes individual aspects, such as production, innovation, human resources, financial, and information.

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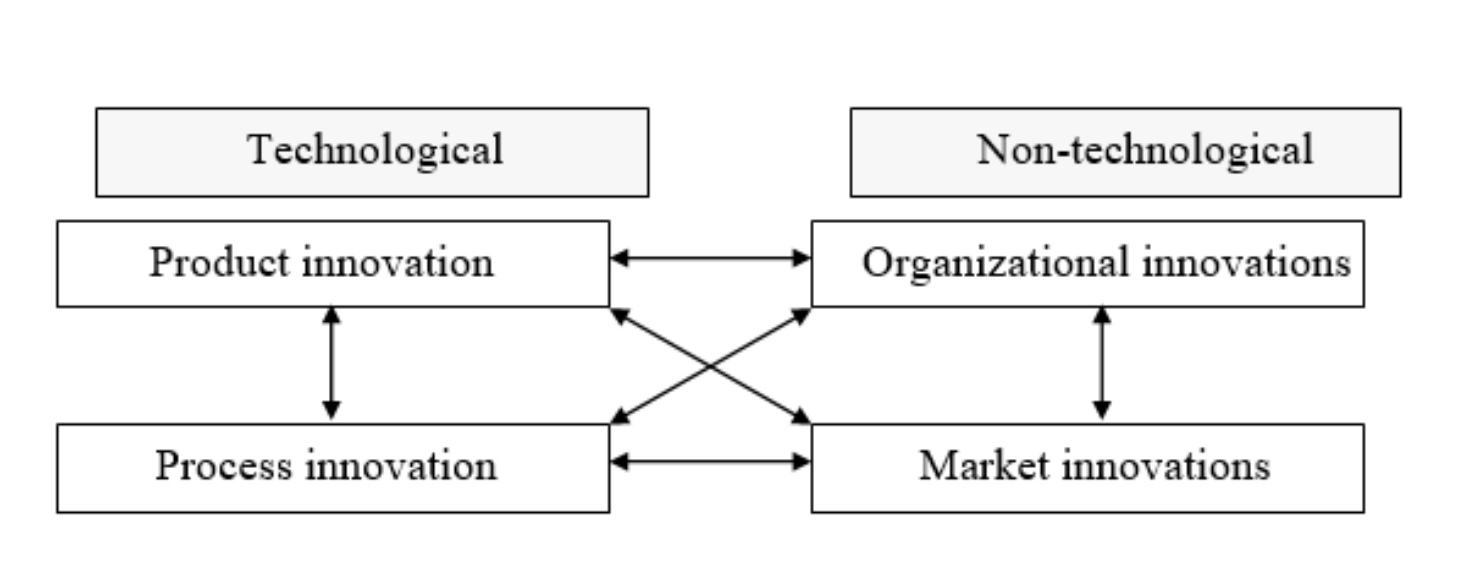
The industry plays a key role in the national economy of Ukraine, influencing the state of the economy, markets, environmental safety and quality of life of the population. For the effective development of the construction industry, raw materials, sales markets, logistics and innovations are important.

Agreeing with the opinion of Marmul L.O., we note that it is the accelerated development of innovations and the introduction of scientific and technological achievements that are crucial for the economic growth of enterprises.

In this study, innovations are considered in the context of life support management of construction enterprises.



Types of innovations used in the process of life support management of construction enterprises

The study, in particular, examined different types of innovations:

- technological (improvement of production processes)
- marketing (new sales channels and promotion methods),
- organizational (optimization of management processes).

The key elements of an enterprise's innovation system are innovation potential, innovativeness and innovation activity.

There are several strategic directions at the state level to support innovation:

Developing a model of innovative development with open financing.

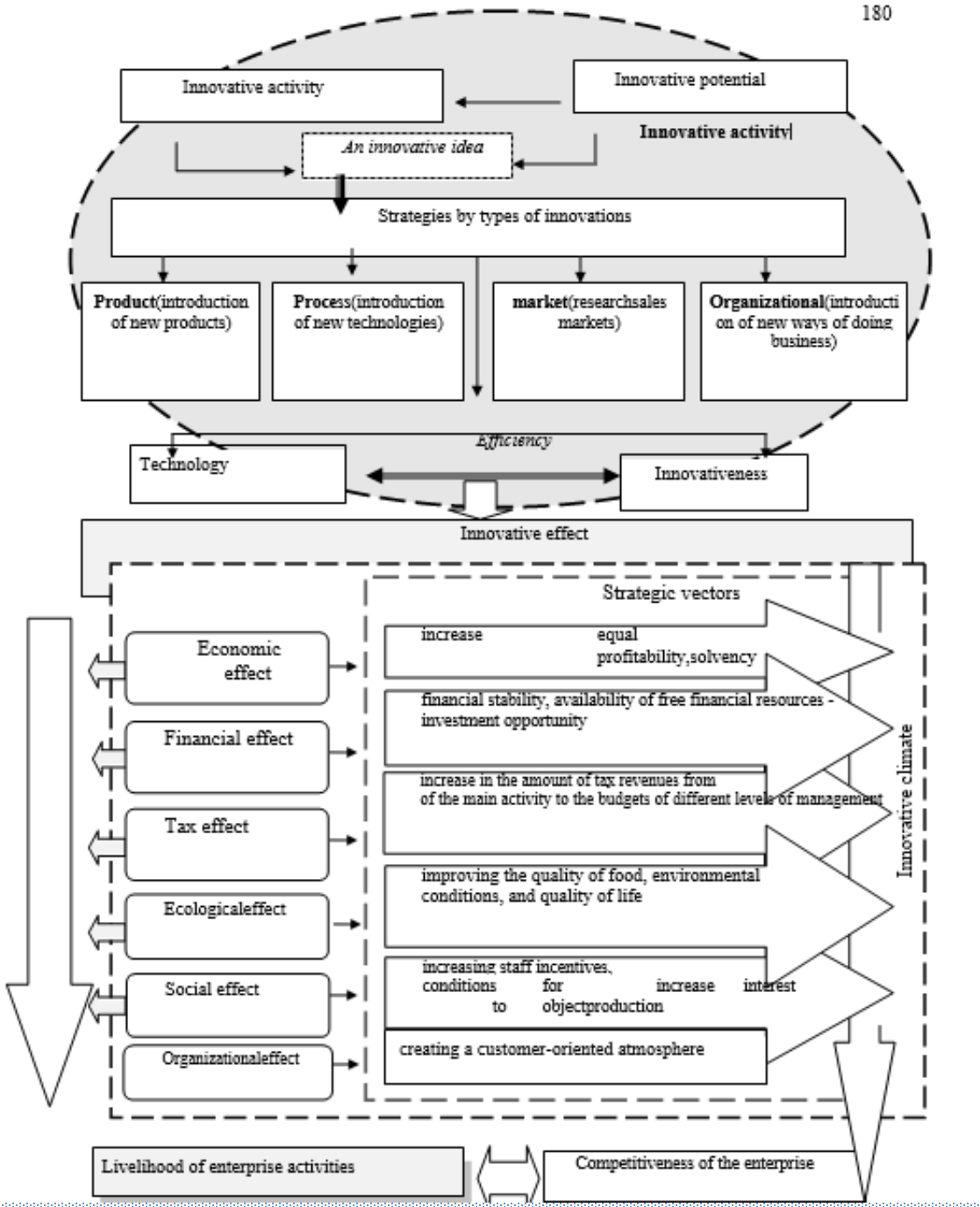
Introduction of preferential taxation for innovative enterprises.

Creation of funds and mechanisms for financing innovations, including venture capital.

Development of information infrastructure to support innovation.

Implementation of Industry 4.0 technologies.

These measures are aimed at increasing the efficiency and sustainability of construction companies in a competitive environment.



Innovative model of life support management of an of an industrial enterprise

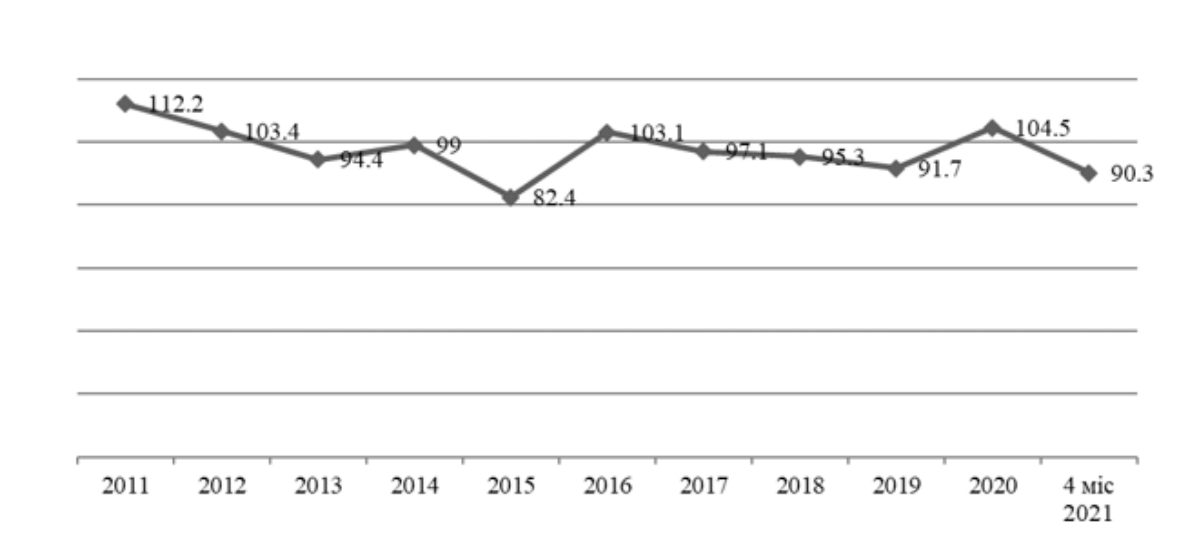
CHAPTER 3 ANALYSIS OF LIFE SUPPORT MANAGEMENT OF CONSTRUCTION INDUSTRY ENTERPRISES IN UKRAINE

Having analyzed the development of the construction industry in Ukraine, we have determined that this sector has significant potential due to the available resources, technology and labor force.

The industrial sector remains the backbone of the economy, but its performance over the past 20 years has been unstable.

The construction industry plays an important role in the processing industry and the overall economy of Ukraine, especially in terms of food security. It comprises more than 40 different industries with more than 5,000 enterprises producing a wide range of food products. The food industry receives about $3 billion in foreign direct investment annually, accounting for more than 25% of total investment in the country's industry.

The food industry is a source of tax revenues, jobs, and an important element of exports. The number of enterprises in the industry showed an increase by 181 units, although the share of construction enterprises in the overall structure of the economy remains small - less than 1% (0.69-0.80%).



Dynamics of indices of industrial production in Ukraine according to 2010-2021, %

Based on the logic of the study, the main types of economic activity that should be analyzed within the construction industry were selected

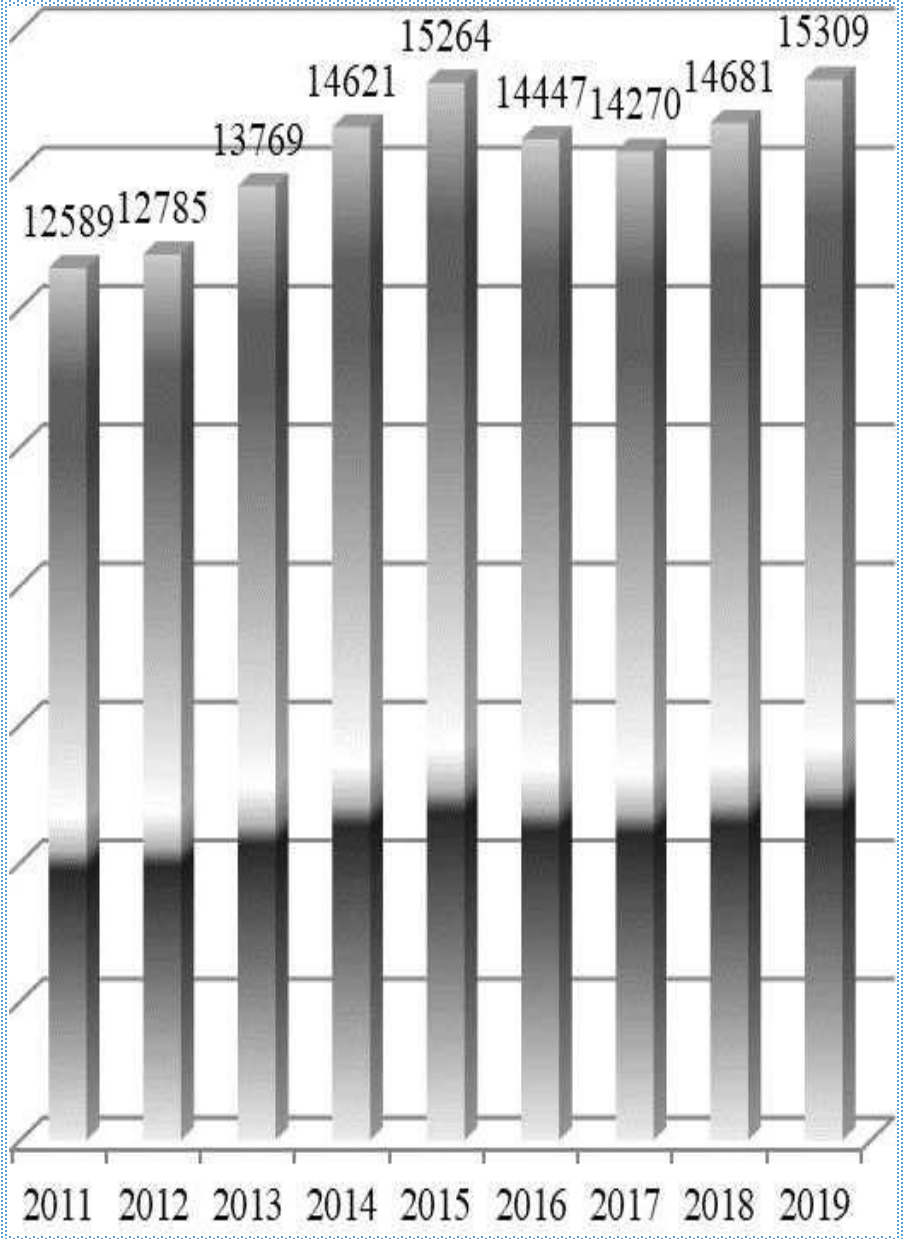
- production of oil and animal fats;
- production of milling and cereal products, starches and starch products;
- production of bread, bakery and flour products.

In 2010-2019, there were mixed dynamics: an increase in the number of enterprises in the production of oil and fats, but a decrease in the bakery and cereal industries.

Despite the growth in the overall number of small businesses, there were also more large enterprises in the construction industry, although their number remains low. The production of many types of construction materials is showing negative trends, which indicates the need to develop and modernize the industry to increase its competitiveness.

Unfortunately, the trends in the creation and emergence of new construction industry enterprises are not positive in the regions.
There is a slight increase in the number of enterprises at both the national and regional levels. At the same time, this cannot be attributed to positive trends, as the financial component of the activity does not tend to increase.

The lack of rapid growth in the number of construction companies can be explained by a number of reasons:
1) reduction of the raw material base;
2) increased internal competition;
3) increased external competition (imported goods are cheaper)
4) a general decline in the available population of Ukraine.



Number of construction industry enterprises in Ukraine

Growth in the number of construction industry enterprises in Ukraine is currently impossible due to population decline and weak competitiveness with global brands in the absence of innovative development. Therefore, in order to prevent crises and bankruptcy, we propose that construction companies, taking into account the impact of internal and external factors, form strategic management vectors. Given the importance of construction enterprises for public health, it is advisable to identify key indicators of life support activities that will contribute to strategic development. To do this, we propose a comprehensive assessment based on the factors of production:

labor,

land,

capital,

entrepreneurship

information (LACI).

Factors that positively affect the viability of the enterprise

Name	Content
Economical	specialization and concentration; - cooperation, integration of production participants; - organization of work; - material stimulation; - prices and tariffs; - taxes; - insurance; - investment and credit policy; - inflation; - formation of mutually beneficial relationships
Social	- demographic situation; - - satisfaction from work; - working conditions; - - personnel support; - welfare level; - - social infrastructure.
Technical - technological	- logistics; - production, storage and transportation of products; - certification; - compliance with the European quality system and storage conditions
Political	- legislative support for new business ideas; - absence of bureaucratic obstacles; - information availability; - ease of access to tax and legislative business support;
Ecological	- eco-management, implementation of international quality standards; - support for safe food products; - reduction of harmful emissions during production; - eco-packaging, transportation and storage of food products; - reduction/rejection of chemical impurities in food production and storage
Innovative	- support of eco-directions in the creation of food products; - implementation and activation of innovative approaches to the creation of food products.

In this study, the taxonomy method is used to integrate various coefficients, identify their changes, and analyze the factors of influence. The method of taxonomic analysis for economic research was proposed by V. Pluta, who defines taxonomy as the science of the rules of ordering and classifying phenomena.
The taxonomic analysis of construction industry enterprises, taking into account the factor of production “capital”, involved the assessment of such indicators as equity, net profit, profitability and liquidity, as well as the level of financial independence. The analysis of the company's life support was based on the indicators of production cost, equity, return on assets, autonomy and sustainability ratios.

In the context of the personnel assessment, we identified the factors that affect the efficiency of employees, including their professional qualities and motivation. Motivational systems include tangible rewards (salaries, bonuses) and intangible incentives that increase engagement and promote innovation. The successful implementation of such HR management systems ensures the stable development of the company.
Effective motivation of employees in the construction industry is based on a combination of monetary rewards, a fair approach to payment and the creation of favorable working conditions. Growth in labor productivity helps to reduce production costs and increase profitability, which is achieved through automation, employee training and innovation.

Land and fixed assets (equipment, machinery) are the basis for production, especially important in the food industry, and contribute to the strategic development of enterprises. Effective management of capital, personnel and land resources ensures stable operation and development of the enterprise.

Having conducted this study, we offer the following recommendations for improving the operating systems of construction companies:

Optimization of resource management: Implementation of effective resource management with a focus on innovation to increase productivity, financial sustainability and reduce bankruptcy risks.

Additional life support elements: Expanding the life support system to include social, environmental, and financial aspects to increase competitiveness.

Integral management model: A combination of centralization and decentralization that will increase staff motivation, discipline and stability.

Integrated life support model: The model takes into account external and internal factors (suppliers, customers, competitors), which allows for better adaptation to market changes.

Strategic management: The application of competitive advantage strategies to optimize resource utilization and increase efficiency.

Innovation model: Implementing an innovative approach with a focus on product and process innovation to create a positive innovation climate.

Thank you for your attention!