

**Strategies for sustainable  
socio-economic development  
and mechanisms their  
implementation in the global  
dimension**

**Collective monograph edited by  
M. Bezpartochnyi**

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The authors of the book have come to the conclusion that it is necessary to effectively use modern approaches to developing and implementation strategies of sustainable socio-economic development in order to increase efficiency and competitiveness of economic entities. Basic research focuses on analysis of formation and development of entrepreneurial activity, logistics management, environmental and economic management of the enterprise, formation of competitive advantages, study the nature of digitalization. The research results have been implemented in the different models and strategies of economic development of the national and world economy, improving the strategic management system, development labor potential, the public finance system, managing the enterprise’s competitive behavior, social and digital marketing, improving the educational process. The results of the study can be used in decision-making at the level the economic entities in different areas of activity and organizational-legal forms of ownership, ministries and departments that promote of development the economic entities on the basis of models and strategies for sustainable socio-economic development. The results can also be used by students and young scientists in modern concepts and mechanisms for management of sustainable socio-economic development of economic entities in the condition of global economic transformations and challenges.

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## INTRODUCTION

Permanent changes in world market conditions, institutional and structural transformations of the national economy of the world countries require the development of strategies for sustainable socio-economic development through appropriate programs, plans and projects to improve, increase the efficiency and development of economic entities, introduce innovations and develop new products and services. Ensuring sustainable socio-economic development of economic entities is impossible without improving the relevant mechanisms of activity and practice of developing a management system.

To ensure sustainable socio-economic development of economic entities in modern conditions of activity the necessary basis is the effective formation and use of resource potential and the intensification of innovative processes. The effectiveness of sustainable socio-economic development of economic entities is determined by the ability of the management system to influence all business processes of the enterprise and coordinate its internal capabilities with environmental challenges in order to ensure competitiveness based on the developed strategies and their realization in the global dimension.

The purpose of writing this collective monograph is to substantiate the theoretical-methodological foundations and formulate strategies for the sustainable socio-economic development of economic entities in the global dimension taking into account transformational changes in the international economic environment.

The object of the author's research was the process of formation and realization of strategies for the sustainable socio-economic development of economic entities under resource constraints, the specifics and trends of the development of economic entities under the influence of global competitiveness factors, the generalization of world experience in implementing the respective development strategies.

The subject of research was the socio-economic and institutional processes of formation and effective implementation of strategies for sustainable development of economic entities; the formation of mechanisms for managing the resource potential of economic entities; the use of modern economic-mathematical models for the development of economic entities; increasing the innovative potential of the development of economic entities; consideration of the practical aspects of development management and introducing the innovation in various sectors of the economy.



## Chapter 1

# THEORETICAL FOUNDATIONS OF FORMATION AND IMPLEMENTATION THE STRATEGIES FOR SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT

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## BECOMING AND DEVELOPMENT OF ENTREPRENEURIAL ACTIVITY IN THE ECONOMIC SYSTEM

Changing the economic environment, acquisition them global character in the conditions of market relations, requires the definition of an evolutionary approach to the becoming and development of entrepreneurial activity, its place and role in the economic system of relationships. In retrospect the entrepreneurship should be viewed as a product of a market-based way of activity – a catalyst for changes in entrepreneurship, namely: organizational forms, entrepreneurial functions, scales and areas of penetration, which reveals patterns of development of the concept of entrepreneurship on the basis of evolutionary changes in social-economic development of society and social relations, where certain stages of entrepreneurship formation are distinguished. Thus, the first stage in the development of entrepreneurship (the “Neolithic revolution”) is related to agricultural production, where the transition from the primitive economy in the provision of their own needs to the exchange (trade) of surplus manufactured products, which prompted the emergence of

entrepreneurial activity. In this case there was a trend of trade development, as an aspect of entrepreneurial activity with the approbation of different forms of management in connection with different variants of ownership and entrepreneurial activity. The regularity of this period is an effort to consolidate and expand entrepreneurial activity – the maximum territorial (quantitative) coverage of activities.

The second stage in the development of entrepreneurial activity is closely linked to the “industrial revolution”, where the transition from the dominant role of the agrarian economy to industrial production takes place. The transformation of the agrarian society into the machine industry prompted the rapid growth of productive forces and the adoption of capitalism, which led to the formation of a class of owners and entrepreneurs, which was a significant turning point in the becoming of entrepreneurship in the modern sense of their functions [7]:

- matching supply and demand in different commodity markets;
- risk as the main function of entrepreneurship;
- profit as compensation for risk, rationality;
- planning, control, organization, management of enterprise property;
- active role in product creation, rational combination of factors of production, gathering of information and accumulation of experience.

The main regularity of the second period is the manifestation of attention to the material component of entrepreneurial activity – capital and profit, which are the main purpose of entrepreneurial activity. Also becomes important the entrepreneurial risk of doing one’s business.

The third stage in its development coincides with the “second industrial revolution”, which is characterized by technological character (“technological revolution”) – the development of innovations in production processes is mainly based on scientific achievements, and not only on inventions. In this case, the functions of this period are complicated and for the most part acquire socio-cultural and psychological factors, negating the concept that economic factors are leading in explaining social behavior:

- capitalist, owner of means of production;
- profit from their organizational abilities, talent, initiative;
- asceticism, affirmation of the rationalistic paradigm of thinking;
- implementation of innovations, innovative activity;
- revolutionizing and reforming production through the use of

inventions;

- independence, responsibility, intuition;
- ability to correlate consumption and storage, activity, confidence

in prospects;

- the risk not only of profit but also of engaging in gambling.

The fourth stage development of entrepreneurial activity is associated with the “scientific-technological revolution”, as a fundamental factor in the qualitative reincarnation of productive forces by their dynamic development, qualitative restructuring of the technical bases of material production on a scientific basis – a leading factor in production, which resulted in the transformation of industrial society to postindustrial. This made it possible for entrepreneurs to access the automation of production, control and management based on electronics and etc., which significantly altered the spectrum of entrepreneurial activity and outlined its main functions at this stage [1, 3]:

- voluntary performance of contractual obligations and refusal of appropriation of another’s property;
- entrepreneur – a special type of economic innovators;
- maximum satisfaction of consumer needs;
- activity of the action under uncertainty;
- creation of a new (different from the previous), variable and reincarnation of value motives, use of every opportunity with the maximum benefit;
- predicting results and ways to achieve them;
- innovation, an effort to commercially introduce a new product, new production technology or new forms of business organization.

In this case the fourth stage of entrepreneurial development embodied such trends as: paying attention to the relationship between the entrepreneur and the enterprise; a more in-depth consideration of the innovation function, but not limited to them; profit is a measure of success, but it is not the only incentive for entrepreneurship. In addition, the entrepreneur’s efforts to support his business, the pursuit of social success and high prestige, the shifting of framework entrepreneurship to the social and institutional environment, and the special emphasis on entrepreneurial strategy as integral functional part of the entrepreneur’s activity are traced.

Thus, by its nature of formation, entrepreneurship has gone through several stages of its becoming, which outlined the corresponding organizational type. Moreover the change of stages did not have and has

no clear boundaries they interpenetrate each other and gradually strengthen their influence, making for a certain period of time a leading position, giving way to another stage of development. That is for entrepreneurship there are stages of their development – from simple to complex, from simplified to systemic, from the emergence of disparate structures to an entrepreneurial society. Thus forms of industrial relations evolve from natural relations, through commodity, to systematic production, which in the future acquires its conceptual categorical apparatus in economic science.

The economic category “entrepreneurship” is a system of industrial relations for the reproduction of equity and debt capital, and aims to profit in a competitive environment [4]. Being an element of a market economy, entrepreneurship obeys its laws and is influenced by the market system. At the same time, entrepreneurship influences the state and functioning of the national economy, giving it dynamism and sustainability. At the time, an entrepreneurial product created is not a specific product or service, but is characterized as an organization in the production and sale of that product or service. That is, entrepreneurship creates specific economic conditions for the implementation of the production process, and in this aspect, entrepreneurship is a social mechanism intended to organize and carry out the reproduction process. In this aspect, entrepreneurial abilities in the economic process within the reproductive function are realized. Its essence is to generate entrepreneurial income – additional profit from innovative risk activity. In addition, entrepreneurship as a form of socio-economic activity plays an indispensable role in both economic dynamics and social development. The interaction between entrepreneurship, economy as a whole and society is quite complex and ambiguous character. In fact we can talk about the special purpose of entrepreneurship in the economy and society, and the factors that inhibit or accelerate its implementation in a particular period.

The driving factor of entrepreneurship is the manifestation of its activity, the activator of which is to consider economic competition – an element of the behavioral process of the market mechanism, which allows balancing supply and demand [5]. Against this background an important principle is the motivation of entrepreneurship, which is formed under the influence development of structural changes in the economic system. It should be noted that if entrepreneurship is a specific sector of the economy, then it has a number of laws where the structural elements of this sector operate under strict rules, namely: entrepreneurial

success or bankruptcy. This rule is implemented only in conditions of competition, which leads to increased business activity, and the stronger the entrepreneurial sector, the more successful it will withstand the crisis and encourage the process of stabilization of the economy.

An important prerequisite for preserving the advantages of entrepreneurship is the continuous modernization of production and other types of entrepreneurship activity [2]. In order to retain such advantages, it is necessary to expand the set of relevant sources, to continuously improve them, to move to the advantages of higher order, which they act of strategic innovations in the form of breakthrough technologies and providing their systems of equipment, the corresponding ways of organization of labor, production, marketing service, etc., which are able to ensure sustainable reproduction of innovative-entrepreneurial type. In this approach the competitiveness of entrepreneurial structures depends on the speed of innovation implementation, on the speed of their reaction to innovation of competing enterprises, on the prediction of innovation. Competitive advantage is retained by those enterprises that do not avoid risk in entrepreneurial activity, but are reasonably used to generate entrepreneurial income.

Attraction of innovations allows the enterprises to produce a better product and to receive income both at the expense of a higher price and at the expense of a larger mass of manufactured product which is sold, as well as the production of a new product that is in high demand and brings to the enterprise a monopoly profit. In this case, competition can be considered in two ways: competition that generates an entrepreneur, and competition that leads to the destruction of his monopoly income. It is in this two-pronged approach that competition becomes identical with entrepreneurship, in which two models of entrepreneurial behavior of economic agents are distinguished: classical and innovative [2, 3]. The latter model is the most relevant for the countries with developed market economy, for its implementation requires the participation of the state.

The innovative model focuses on maximizing profits and gets the most out of it from available enterprise resources based on existing technologies. It is technological and techno-economic innovations that will be able to increase the efficiency of economic activity of enterprises and, in general, to lift the national economy. Of great importance here, in the field of entrepreneurial, acquire non-standard strategic decisions which allow to reconcile the conflicting economic interests of entrepreneurial entities, to initiate the effect of economic mechanisms,

to connect the interests of all functioning elements of the social system, which will significantly affect the necessary management functions and choice of strategic line of development of entrepreneurial movement. This will serve as a benchmark for finding more efficient production technologies for the processing of raw materials and carrying out economic methods of management, which will maximize profits, but usually only in the distant future. In this case the entrepreneur by using internal and external resources and forming new economic development strategies takes on innovative risks associated with innovative activity.

The classic model has two modifications, depending on how to achieve the goals:

1. Routine-pragmatic – based on the use of difficult to master production resources. Routine-pragmatic type of behavior performs current functions of introduction and development of modern methods of market economy management (culture and business ethics, training of entrepreneurial personnel, etc.). Basically it helps to create the necessary entrepreneurial infrastructure of the market.

2. Consumer – on the basis of more complete, accurate and targeted satisfaction of consumer demand.

Achievements of competitive positions of entrepreneurship on the world market are closely intertwined with structural transformations of the national economy within the processes of modernization of its production component and accordingly entrepreneurial activity, which leads to an increase in the role of entrepreneurship and its activity. Consequently, the leading position should be taken by “modernization entrepreneurship” as a type of economic activity carried out on the basis of a combination of innovative and investment stages of competitive development of the entrepreneurial entity in order to achieve socio-economic effect in the context of market globalization and competitive advantage [5]. In recent years combining the innovation-modernization stage has been a factor in improving competitiveness and enhances its value in its activation of entrepreneurial activity. On the other hand the investment stage of competitive development is combined with the innovative one, aiming to provide a high level of developed factors of production. This approach is fully justified, since the investment of innovations provides a low return on invested resources, and the operation of the innovation-modernization component, will significantly increase the investment with a broader range of their actions to raise the technical-technological level of entrepreneurial entities.

Entrepreneurial activity is closely linked to the production factor, a

unique phenomenon, the mobilization of which takes place within a complex mechanism, which combines material and intangible motivation of entrepreneurial entities, fundamental sources of entrepreneurial initiative and creativity, which are directly influenced by factors of external as levers and incentives for choosing system priorities of economic growth [4]. Therefore, in the process of development policies and strategies of macro- and micro-regulation, becomes of great importance the specificity of the dynamic stage in the cycle of entrepreneurial activity, which determines the desired properties of the economic system as a whole.

Transformation of properties of the system of priorities of growth of entrepreneurial activity is based on the achieved economic results in the choice of those properties that characterize the organizational and effective potential of the economic system in achieving the global goal – economic development. By their totality the properties of the organizational potential of the economic system encompass planning, organization, poly-structure, manageability and rigidity. Hence the planned property of the economic system is realized in the course of purposeful actions to increase the regulation of the system, and depending on the level of entrepreneurial activity may allow a certain level of planning of various cyclical phases of entrepreneurial activity, as the ratio of the effects of self-organization and regulation. Planned property increases as it approaches the recession phase, as reaching full employment leads to increased and stabilized connections in the system, which objectively necessitates clearer regulation.

The logical continuation of this is an organization that is understood as a property of harmonizing the behavior of individual elements of the economic system within the entrepreneurial structure, and acts as an objective consequence of planning, which in its cyclical tendencies is similar to planning, reaching the maximum level in the phases of the rise and fall of entrepreneurial activity. Planning and organization ensure the effective implementation of function the economic system, contribute to the stability of the reproduction of its relationship, which has a constructive effect on the level of management and rigidity in framework the entrepreneurial activity.

Instead the poly-structural property is beginning to reduce its entrepreneurial activity in the phase of its recession as a result of the launch of preventive mechanisms for the purpose of to counteract the crisis tendencies, because is developing the process of reorganization of the entrepreneurial structures with the launch of the mechanism of

“cutting off excess” and the project “asset pooling” [5].

Manageability, a property that is determined by the amount of interference from above the system into system processes, cannot objectively be realized in the conditions of rapid change of the system environment during the crisis and recovery phases. Thus, in the depression phase the realization of manageability is complicated by the unpredictability of the circumstances and the chaotic actions of economic agents. This property reaches its maximum in the phases of rise and fall, when the processes of systemic economic change are stabilized.

The rigidity of the economic system is the result of its organization and poly-structure. Rigidity is understood as a property structure of the system to withstand external influences, and can be realized in two ways: as the ability in external influences to keep economic ties unchanged due to their strength (first-class rigidity), as well as the ability to decompose a device that allows to restore the economic structure after the perturbations (second-class rigidity) [4]. In management processes, rigidity must meet the criterion of optimality, because high its level increases the stability of connections the economic system, promotes strengthens the effect of functioning, provides increasing efficiency in framework the medium term. However, the rigidity of the first kind does not contribute to systemic transformations, contrary to the needs of economic system development in the long term. Optimal is the level of rigidity of the second kind, when in the economic system there is a mechanism of decomposition, which depends on the structural ratio of small and large sector of entrepreneurship. Therefore, stiffness increases in the face of the rise and fall of entrepreneurial activity, as well as narrowing the gap between supply and demand. At the same time the low level of rigidity is characteristic of the phases of economic crisis and depression.

The performance features of an economic system combine dynamism, competitiveness, sustainability, efficiency and optimality [1]. So, dynamism is a property of manifestation of the movement of the economic system to a fixed value or transformation of the goal of entrepreneurship. Competitiveness is manifested in the maximization of the economic effects caused by the reduction of influence over the economic system. Sustainability is the ability of the economic system to maintain movement along a defined trajectory. The efficiency of the economic system has the property of assessing the overall performance in achieving the goal of business-processes, as well as the resulting



system performance in comparison with the costs incurred.

Optimality is a property that results in the movement of an economic system toward the goal, to achieve a balance of multidirectional properties of the system, which ensure maximizes the result.

The most important in realizing the effects of the cyclical dynamics of the economic system by properties are the properties of dynamism and stability, which are invariable conditions for achieving the goals of post-industrial development. The dynamic causes the innovative effects of competition, contributes to the increase in the efficiency of business-processes, which is generated by the degree of function of entrepreneurship. Sustainability is related to ensuring the stability and predictability of the external economic environment both at the present moment and to the perspective provided by the fulfillment of the organizational function in the processes of economic activity.

However, dynamism and sustainability are not alternative properties of the economic system to some extent these properties are multidirectional. So dynamic is understood as the ability of the economic system to develop, change under the influence of a set of external and internal factors. Since the transformation of goals for an economic system that has the property of inertia, cannot be realized in the short term, the dynamic for the macro- and micro-level system should be correlated with the time factor. The short term refers to the dynamism of the functioning of the economic system in the medium term, where there is a combination of functional type of dynamics and dynamics that proceeding by typology of its development, over the long term, here obviously dominates the dynamics with the transformation of the goals of the economic system.

Stability is contrary to dynamism, but it is a property of an economic system that is achieved under conditions of stable and predictable dynamics of sustainable development. In the most general form, the stability of the economic system is considered in two modes of its functioning: first, as the constancy of the state of the economic system, the immutability of its essential variables; second, as the constancy of changing the state of the economic system. The latest interpretation for a dynamic economic system corresponds to a functional dynamic, that is, a state that experts call “sustainable development” [1, 4].

By its type of development, the dynamics manifests itself both in the movement of the structure of the economic system and in the change in the composition of the functions it performs. Therefore, the intensity of the dynamics of the economic system should be evaluated by the

variability of its structure, including sectoral, branch, organizational, resource. Since, the dynamism of the economic system determines the movement towards increasing efficiency in the process of achieving the goals of entrepreneurship, the dynamism of the system can also be estimated by the structure of socio-economic results: changes in needs, employment, standard of living, social structure and differentiation in society.

In this case, the question arises of the impossibility of dynamics by socio-economic type of development with saving sustainability, since the change in the productive forces of the economic system is accompanied by changes in its structure, and as a consequence, it is impossible without the periods of instability, without crisis periods to resolve such contradictions in the economic system. In contrast, for sustainable economic systems of the internal environment are characterized by a higher level of organization, dominance of the principles of centralization in management, strengthening of control functions and level of stability. Sustainable economic systems have a higher level of rigidity with the manifestation of the lack of displacement of elements due to the downturn in entrepreneurial activity, or in the resumption of such activity after suffering a recession.

In this case rigidity is ensured by the automaticity of communication of a stable economic system, which objectively increases the role of managerial influence on the regulation of business-processes, therefore, stability is correlated with the increase of organization, but leads to a decrease in market efficiency in the activity of entrepreneurial entities. Therefore, resilience is more characteristic of large (integrated) economic systems that objectively require stability of the external environment, achieving a balance in the ratio of supply and demand. Increasing the stability of the economic system is due to the increased diversification of horizontal and the organization of vertical connections.

Dynamic transformations in the economic system occur under the influence of entrepreneurial activity. The leading role in this role is assigned to business-cycles in economic systems, as a form of medium-term cyclical dynamics in the economy, that characterized by a certain sequence of dynamic stages, and acts as a model of the business cycle of entrepreneurship [5].

The properties of the economic system in the conditions of business-cycle, according to the phases of movement of the business cycle of entrepreneurship, resolve the contradictions between the stable

functioning and development of the system. Entrepreneurship generates innovations, ensures their organizational implementation, influences on the fluctuations of entrepreneurial activity, which differs in the ratio of innovation and organizational processes that determine the business-cycles, that is, each business-cycle brings the economic system to a new level of development.

Sustainable development of economic is an essential feature of the effective functioning of any economic system. If such development does not occur, this means that unbalanced the system, unreliability of its connections and components, lack of resistance and adaptation to changing internal and external economic conditions. However, sustainability is unachievable in the conditions of dynamism by type of sustainable development. Moreover, when the economic system is dominated by rigidity, organization and increased control, it impedes the development of the system, free expression of its potential, and thus slows down the quality progression.

Therefore, the dynamism and sustainability of the economic system at different stages of the business-cycle have varying degrees of consistency. Ensuring maximum effect from the optimal combination of these properties in the economic system is a complex problem that is solved in the process of macro- and microeconomic regulation. In order to achieve the optimum ratio between the stable the state of the economic system and ensure its dynamism, it is necessary to introduce flexible regulation between the large and small economic sectors to ensure the sustainability of the small sector, which will reproduce the effect of competition and dynamism. However, this approach should take into account the conditions of a particular phase of the business-cycle in the implementation of regulatory measures.

In conditions onset the crisis phase, the economic system is in a state of extreme instability, since the main purpose of the system is to meet the material needs of economic entities, which cannot be realized due to the decline in entrepreneurial activity in the face of reduced production and supply, employment, rising inflation risks, etc. Such a negative situation does not contribute to positive dynamics, and the dynamic of the crisis phase is a negative dynamic. Under such circumstances, the task of regulation policy is to preserve the potential of the economic system with a view to avoiding crisis and minimize its consequences.

The period of depression is characterized by the stabilization of crisis phenomena, with the economic system in a state of waiting, its stability increases the dynamics of such a system is functional, manifested at the

level of simple reproduction in conditions of limited demand. On the other hand, in this period due to the gap between supply and demand, resources are released, and weakened by destabilization the control objectively creates the basis for breakthroughs, the implementation of innovation, and this is solved in the conditions of stimulating entrepreneurial activity. Economic regulation policy should facilitate the free implementation of innovation, the accumulation of critical mass of small businesses, and the transformation of the structure of the economy.

During the recovery phase there is a massive development of resources, employment in the economic system is intensively increasing, resources are becoming scarce, and dynamics the system by type of development is increasing sharply. But the growth processes are difficult to manage, because the environmental conditions are complicated and competition is increasing. The stability of the economic system is also diminished because for economic relations in the new quality it is important to form an adequate regulatory and infrastructure framework.

The lifting phase embodies the manifestation of sustainable development, functional dynamism, when, in conditions of full employment is maximally realized the organizational motive for starting entrepreneurship, economic processes flow steadily, and priorities are effective cost management, creation of hierarchical organizational structures.

The contradictions between dynamism and stability are particularly acute during the recovery phase, so management in these conditions should be based on the principle of optimizing the ratio between the dynamism and stability of the economic system. This means that at the level of the system of economic regulation there is becoming a phenomenon of agency relations within the microeconomic entity. By having managerial authority throughout the medium term, entities management is more motivated to ensure the dynamic sustainable of objects management and less motivated to simply reproduce sustainable proportions and economic connections. In this case, the “dynamic-sustainability” dilemma is solved in favor of sustainability, and this approach is more justified in the recovery phase when it is necessary to get the maximum effect from the economic system in conditions of full employment. During the revival period are urgent the weakening of control functions, stimulating entrepreneurial initiative, opening up access to resources, and protecting the national economy from external economic threats.

Thus, in the conditions of macroeconomic regulation, in order to

achieve an effective combination of dynamism and stability of the economic system, it is important to flexibly apply measures to stimulate entrepreneurial activity, thereby obtaining the effect of innovative development and organizational embodiment of innovation. The type of macroeconomic regulation strategies and their consistency with the objective cyclical nature of entrepreneurial activity depends on the effectiveness of the economic system in achieving its goals. In this case, entrepreneurial activity in the economic system of a market economy contributes to the saturation of the consumer market with goods and services, activates the structural restructuring of the economy, stimulates the introduction of scientific-technological achievements, and contributes to the multilateral improvement of production efficiency.

On this basis, the main tool, which ensures the achievement of the objective functions of the entrepreneurial sector in the economic system, is a market strategy within which its competitive advantages are realized. First, it is economic freedom, as a determining condition for the establishment of entrepreneurship; secondly, organizational-economic innovation, which in general is important components of the entrepreneurial environment and the driving policy of its activity. To a large extent, the entrepreneurial environment is more intrinsically subjective, which depends directly on the entrepreneur himself, his competence, willpower, commitment, level of aspirations, skills and abilities in organizing and conducting entrepreneurial activity.

Therefore, the role of entrepreneurship, innovation and organizational activity for the economic system in the current environment will only increase. Remain the leading factors of economic development is knowledge and innovation, the impetus for the production of which is the mechanism of competition of free market actors. Strengthening the position of small and medium-sized business sectors, increasing their importance for ensuring social stability, economic security, allows us to speak about strengthening the entrepreneurial economy and increasing the importance of entrepreneurial management.

Entrepreneurial economy, as a leading factor in its development, is based on entrepreneurial activity – a dynamic factor phenomenon that ensures organizational and innovative effects. The development of entrepreneurial economy is mainly governed by the laws of the medium-term cycle, which determines the entrepreneurial activity by the properties of the economic system, objectively acquired by it at certain stages of socio-economic dynamics.

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**THE  
SYSTEMATIZATION  
OF THE SCIENTIFIC  
PROBLEMS OF  
TRADING  
COMPANIES'  
PROCESS  
MANAGEMENT**

The article focuses on the systematization of the scientific problems of trading companies' process management: the advantages, disadvantages, main differences and stresses in scientists' opinions have been determined, the necessity of the systematization of the scientific problems of the process management of trading companies has been substantiated, which consequently contributes to creating a unique possibility of leveling the negative influence of the environment factors and establishing the trading company's stable position in the services market. The work offers the system vision of the company's process management problems as a set of interrelated and interacting elements of the system consisting of the following problem sets: the subject of research problems, the research methods problems and the problems of the research object.

While considering the problems of the subject of the study, it is most important to point out that the process management should be treated as an evolutionary rather than a revolutionary trend in the theory and practice of management that has seen rapid development in the last 30 years. The scope of the research subject problems covers the genesis of process management, the impact of this concept on the world's economic development in the post-industrial era, as well as the prerequisites for the introduction of process management at companies in this country.

The following set of problems is associated with the research methods, the sum total of which forms the process control methodology. The process management methodology problems can be divided into

two groups. The first group of methodological problems is the principles of cognition associated with philosophy, epistemology and the development of the conceptual apparatus, the classification, principles, content and components of process control. The second group of methodology problems is the methods and principles that make up the conceptual perception of the process management methodology. The process management problems are reflected in a number of related concepts of modern management, primarily strategic management, logistics, quality management, project management, reflecting the scientific principle of interpenetration of theories.

The last set of process management problems consists of the problems of studying the object of research. In our opinion, the problems of forming a network of business processes, implementing the corporate strategy, developing the mechanisms for the process management implementation at the enterprise deserve special attention. We propose a group of companies belonging to the same industry as a research object.

Ensuring the interaction of strategic and process management approaches in practice can be realized on the basis of creating a model of company sustainability. The constructed model of stability should serve as a reference point in assessing the actual operating mode of the company, a benchmark in making the strategic management, financial decisions, as well as the decisions on the necessity to improve certain management processes.

In view of this, the conclusions have been proposed in the work that the further development of the theory and methods of process management can be achieved by solving the following main interrelated problems: adjusting the methodological foundations of the process management in an adequate accord with the modern development of management and economic theory, modern practice and taking into account this country's specifics by means of clarification of the conceptual apparatus, improvement of the management processes classification, its principles and content; the definition the process management place and role among the modern economic development and management trends; the interaction of strategic and process management in order to increase the overall manageability of the company; the development of a typical network of major business processes in the industry; the formation of the mechanism of the trading company's process management; the development of the typical methods of the company's process management based on a sectoral approach.



Under present economic conditions, the efficiency of trading companies in Ukraine is entirely dependent on the ability of turning the key business processes into strategic initiatives aimed at maximizing customer satisfaction and the ability of the company to react and forecast market changes. At the same time, the unpredictability and rapid dynamics of the environment constantly change the conditions in which a trading company operates. Considering this, the urgent task of quickly responding to various kinds of change is emerging, since the company management's timely response to the environment changes can provide a long-term sustainable development of the trading company. The modern innovative approaches to managing business processes are not being implemented in the trading companies' management efficiently enough. Raising the level of the trading companies' business processes management to fit the requirements of the internal and external environment will contribute to improving its overall performance level.

In the aforementioned aspect, the question of the study of the essence of the systematization of the scientific problems of the trading companies' process management, the determination of their specific features and details has been gaining utter current importance.

The question of the systematization of the companies' process management problems is many economists' subject of research. This, above all, is determined by the strategic orientation at gaining and maintaining a significant market niche. The modern scientific developments contain a complex of tools and strategies of the company process management, as evidenced by the results of the world's leading scientists' research among whom are: A. Bajorn, I. Borgiani, V. Broke, M. Veske, R. Gardner, T. Davenport, E. Deming, J. O'Shawnnessy, K. Shewhart, M. Hammer, H. Harrington, J. Champy.

At the same time, in spite of all the diversity of the existing research there is a certain polarization of ideas in the scientists' research regarding the content of the "process management" category, which greatly complicates the evaluation of the state of scientific problems of the trading companies' process management. There are also some issues concerning the trading companies' business process management, in particular, the systematization of the scientific problems of the trading companies' process management, which remain unexplored, since the economic transformation requires the development of new approaches and solutions.

Despite the large number of publications and diverse approaches to

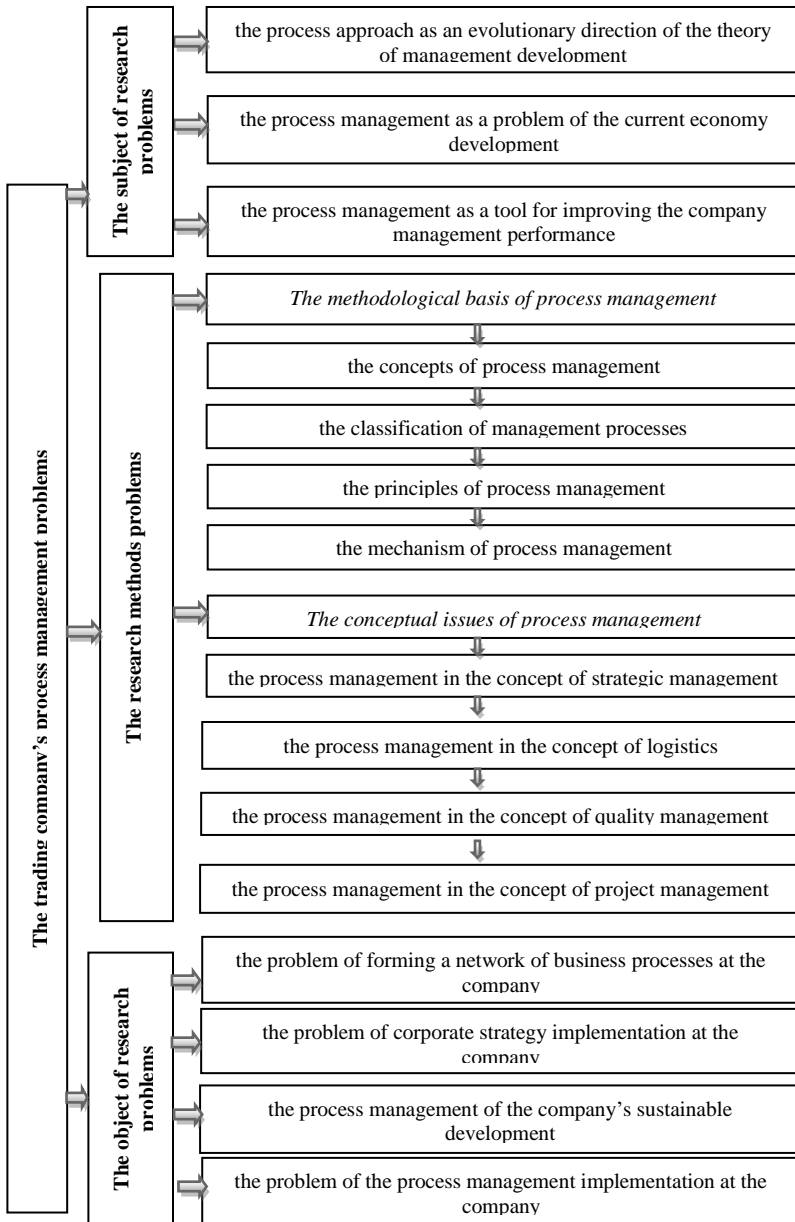
the development of the criteria and methods for systematizing the scientific problems of the companies' process management, there is no comprehensive approach to these issues in the scientific literature. In view of this, the issues associated with the systematization of scientific problems in the trading companies' process management in a competitive environment and the globalization of the economy needs further study and development. The goal of the work is to diagnose the issues related to the systematization of scientific problems in the process management of the trading companies.

Given the high level of unpredictability and complexity of the environment, only the process management can provide trading companies with the opportunity to neutralize the negative effects of both external and internal environment and ensure a long-term development in the long run. The accumulated world experience of practical use of the process management methodology at companies allows us to speak about the high efficiency of application of this concept to solving such important tasks of the current period of production development as: increasing the overall efficiency of production through improved management processes; achieving a real, rather than declarative, customer orientation. By now the numerous researches in the field of management development have led to forming a significant theoretical and methodological apparatus. The existing contradictions were partially rectified by M. Hammer himself in the paper "The Agenda: What Every Business Must Do to Dominate the Decade" [1], as well as by those who support the idea of identifying business processes and building the company's management systems on their basis.

At the same time, the analysis of literary sources shows the existence of fundamental differences in scientists' understanding of the significant theoretical aspects of process management, the lack of system in their views, the incomplete work on a number of methodological issues, as well as the lack of unified approaches to the process management implementation at the company [2].

The system view of the company's process management involves both the formation of a set of improvements and management principles of action, as well as a way of thinking about the organization of the company management. We present the system vision of the company's process management problems in the Figure 1.1.

The set of interconnected and interacting elements of the system forms the following subsystems: the subject, the methods and the object of the study of the process management problems.



**Figure 1.1 The trading company's process management problems**

When considering the problems of the subject of the study, it is first of all necessary to point out that the process management should be regarded as an evolutionary (and not revolutionary by M. Hammer and J. Champy) direction in the theory and practice of management that has undergone rapid development in the last 30 years.

The scope of the research subject problems covers the genesis of the process management, the impact of this concept on the world economic development in the post-industrial era, as well as the prerequisites for the introduction of the process management at companies in this country.

The formation of the foundations and the further development of the process management have largely been the result of profound institutional changes that have taken place in the last decade, which are expressed primarily in the very understanding of business. The logic of the industrial development led the theorists of management in the first half of the XX century to the perception of the organization from the standpoint of a closed system. The main factor of success and competitiveness of such an organization is the growth of production and services, and the main task of managers is to effectively use all kinds of resources and increase productivity.

The scientific and technological progress and the enormous concentration of scientific and production potential in the WWII and postwar years have led to the restructuring of the world economy. A prominent role was played by industries that directly meet people's needs and are based on advanced technologies. The viability of business has become determined by its flexibility, dynamism, and compliance with the requirements of the environment. In the second half of the XX century the leading countries began to show the signs of the beginning of transition to the post-industrial, informational development [3].

The following problems set is associated with the research methods, the totality of which forms the process management methodology. The process management methodology problems can be divided into two groups.

The first group of methodological problems comprises the principles of knowledge associated with philosophy, epistemology and the development of the conceptual apparatus, the classification, principles, content and components of the process management.

The methodological problems in the process management concept are primarily caused by the ambiguity, "weakness" of its conceptual apparatus. As a matter of fact, the overwhelming majority of modern

scholars relied on the theory founders' false (as M. Hammer admitted himself) perceptions who took into account the revolutionary nature of process management as a starting point in their studies, opposing the process approach to the functional one. This leads to an ambiguous perception of the very idea of process management, as well as terminological and methodological contradictions. Equally, one cannot call systematized the approaches to the creation of the company's business processes classifications. There has not been enough work done on the mechanisms of the trading companies' process management [4].

Therefore, the methodological foundations of process management should be adjusted in relation to the emergence and present development of its theory, current practices and taking into account this country's specifics.

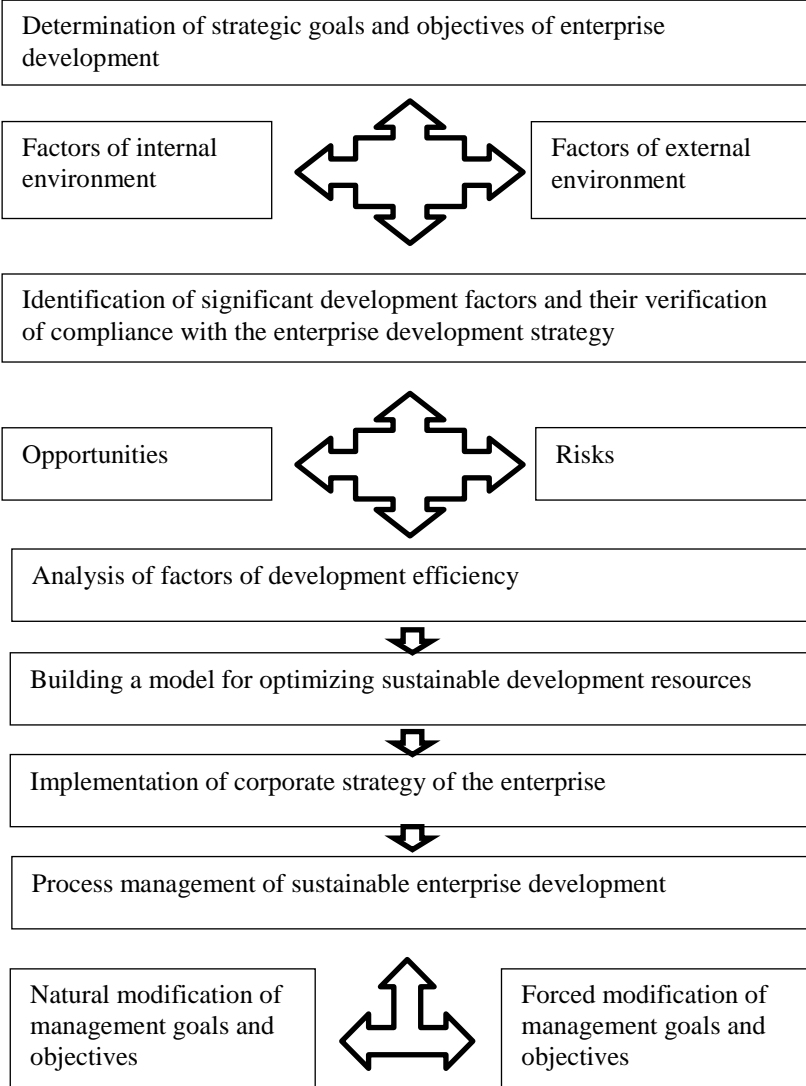
The second group of methodology problems comprises the methods and principles that are the conceptual representation of the process management methodology. The process management problems are found in a number of related concepts of modern management, primarily strategic management, logistics, quality management, project management, reflecting the scientific principle of interpenetration of theories.

The final block of the process management problems consists of problems of studying the object of research. In our opinion, the problems of forming a network of business processes, the implementation of corporate strategy, the development of mechanisms for the process management implementation at the company deserve special attention. The research object in our opinion should be a group of enterprises united by industry.

Ensuring the interaction of strategic and process management approaches in real life can be achieved on the basis of creating a model of company sustainability. The built sustainability model should serve as a benchmark in assessing the company's actual operating mode, a benchmark for strategic management, financial decisions, and decisions on the need to improve certain management processes [5].

Ensuring the interaction of strategic and process management approaches in practice can be realized on the basis of creating a model of company sustainability (Fig. 1.2).

The constructed model of stability should serve as a reference point in assessing the actual operating mode of the company, a benchmark in making the strategic management, financial decisions, as well as the decisions on the necessity to improve certain management processes.



**Figure 1.2 Model of mechanism for ensuring sustainable development of the trade enterprise**

The results of the study have led to the conclusion that the further development of the theory and methods of process management can be achieved by solving the following main interrelated problems:

- adjusting the methodological foundations of the process management to conform with the modern development of management and economic theory, current practices and taking into account this country's specifics by clarifying the conceptual apparatus, improving the classification of management processes, its principles and content;
- the definition of the place and role of process management among modern trends of economic development and management;
- the interaction of strategic management and process in order to increase the overall manageability of the company;
- the development of a typical network of major business processes in the industry;
- the formation of the mechanism of the trading company's process management ;
- the development of typical methods of the company's process management based on an industry approach.

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**ECONOMIC  
DEVELOPMENT  
OF UKRAINIAN  
AND WORLD  
ECONOMY:  
EVALUATION  
AND MODELING**

The development of the world economy at the late 20<sup>th</sup> – beginning of 21<sup>th</sup> century is characterized by rapid and significant changes of both positive and negative nature under the influence of scientific, technological and social progress, e.g. globalization, social and environmental transformations.

The development of national economies of the world can be described by many characteristics. Therefore, it is important to find a suitable framework for quantitative and qualitative evaluation. This framework is a key to the effective formulation, analysis, and further improvement of national economy developmental model. In this case, chaos theory appears particularly relevant. The theory suggests that society is a complex system that is constantly transforming and is on the verge of chaos.

The goal of article is to carry out the empirical analysis of economic development of national economies of the world in the context of international methods under development and competitiveness, as well as the transformation of development models of national economies at conditions of postindustrial society.

After reviewing the Ukrainian and foreign specialized literature, we divided methodical approaches into two groups: integrated analysis techniques and rating methods of evaluation of the national economy.

Rating methods and integrated analysis techniques assess the



economic development of countries. These methods and techniques were implemented and are used by international organizations and institutions. Each organization (institution) is using its own calculation methods and different demographic data. Hence the final (integrated/aggregated) values are also different.

Common among international organizations is the rating of the International Economic Forum [1], [2], [3], which was developed by Columbia University professor Xavier Sala-i-Martin. The rating is based on an assessment of the development and competitiveness of the national economies by three sub-indexes and 12 major criteria:

1) Basic Requirements Sub-Index: the quality of public institutions, infrastructure, macroeconomic stability, healthcare, and primary education;

2) Increased Efficiency Sub-Index: efficiency of higher education and training, efficiency of goods and services markets, efficiency of labor market, development of financial market, technological level, market size;

3) Innovation Sub-Index: competitiveness of companies, innovative potential.

Moreover, a national economy can be evaluated by determining the stage of development of a specific factor. There are five stages of development: three isolated (development by using basic factors, development through efficiency gains, and development through innovation) and two transitional stages in between.

1) Stage I – Factor-Driven Stage – development of such countries is largely determined by availability of natural and other resources that serve as factors of production;

2) Stage II – Efficiency-Driven Stage – typical for countries, economic growth of which is determined by more efficient use of available factors;

3) Stage III – Innovation-Driven Stage – typical for countries with economic growth that is occurred through innovation, new high technologies, and development of knowledge-based economy.

When these stages are matched to the stages of development of civilization classification of D. Bell [4], Factor-Driven Stage corresponds to Agrarian Society; Efficiency-Driven Stage – Industrial Society, Innovation-Driven Stage – Postindustrial Society.

By using the above mentioned framework, we matched general characteristics of a stage of economic development to the Global Competitiveness Index (Table 1.1). To determine the stage of

development of a national economy, we used GDP per capita as a qualitative indicator. Additionally, we calculated sub-indexes for groups of countries in each stage of economic development for the period of 2000-2016.

*Table 1.1*

**General characteristics of economic development stages  
to Global Competitiveness Index**

Stage of economic development	GDP per capita, \$	Average growth rates for the period 2000-2016 *	Share of Sub-indexes, %		
			Basic requirements Sub-Index	Increased Efficiency Sub-Index	Innovation Sub-Index
Stage I - Factor-Driven Stage	< 2 000	5.27	60	35	5
Transitional stage from I to II	2 000 – 2 999	5.72	40 – 60	35 - 50	5 – 10
Stage II - Efficiency Driven Stage	3 000 – 8 999	6.07	40	50	10
Transitional stage from II to III	9 000 – 17 000	4.45	20 – 40	50	10 – 30
Stage III - Innovation-Driven Stage	> 17 000	1.66	20	50	30

*Note: compiled and calculated (\*) by authors*

Using Table 1.1, we grouped countries by their stage of development for the period 2009-2016:

1) Stage I – Factor-Driven Stage: developing countries with low income and least developed countries of Asia and Africa (Benin, Burkina Faso, Burundi, Ethiopia, Zambia, Nigeria, Rwanda, Uganda, Chad). However, this group includes countries with economies in transition: low income – the Kyrgyz Republic, Tajikistan, lower-middle income countries – Moldova, and new industrial country with income below average – India;

2) Transitional stage from I to II: developing countries with below-average income (Egypt, Syria, Sri Lanka), above-average income

(Algeria, Venezuela, Iran, Libya), and above-average income (Azerbaijan), as well as a new industrial country with income below the average (Philippines) and high-income countries: Brunei Darussalam, Kuwait, Qatar and Saudi Arabia;

3) Stage II – Efficiency-Driven Stage: developing countries (Guatemala, Dominican Republic, Ecuador, Jordan, Colombia, Macedonia, Morocco, Panama, Paraguay, South Africa, Tunisia), and countries with economies in transition with above-average income (Bosnia and Herzegovina, Serbia, Montenegro) and below-average income (Armenia, Georgia, Ukraine). Also this group includes a new industrial country with below-average income (Indonesia), industrialized countries, and rapidly developing (emerging economies) with above-average income: China, Peru, Thailand, as well as developed countries with above-average income - Bulgaria and Romania;

4) Transitional stage from II to III: developed countries with high income (Estonia, Liechtenstein, Poland, Hungary), developing countries (Bahrain, Oman, Turkey), countries with economies in transition with income above the average (Russian Federation), industrialized rapidly developing countries with above-average income (Argentina, Brazil, Malaysia, Mexico, Chile), countries with economies in transition with above-average income (Kazakhstan), and a country in transition with high-income – Croatia;

5) Stage III – Innovation-Driven Stage: developed countries (Australia, United Kingdom, Canada, Germany, Italy, Slovakia, U.S., France, Japan), industrialized rapidly developing countries with high income (Hong Kong, South Korea, United Arab Emirates, Singapore, Taiwan). This group includes most developed countries, which form the core of the post-industrial global economy and economic development.

While grouping and calculating sub-indexes, few modern trends of Ukrainian economy became apparent to us:

- development of the Ukrainian economy is provided by the traditional economic activities of industrial society, such as mining and processing industries;

- worsening political and economic situation in the years of 2014-2015 led to recession in the main economic activities: mining and processing industries, supply of electricity, gas, steam and conditioned air, water supply, sewerage, waste management, and construction;

- the share of an economic activity in the structure of economy does not harmonized to its importance for development of the economy of Ukraine. The biggest shares in the economic structure belong to the

activities that are not crucial for the growth and development of the country;

– asymmetric distribution of productive forces in economic structure: processing industry, wholesale and retail trade, repair of motor vehicles and motorbikes industries create one third of gross value added, whereas other economic activities produce two thirds of gross value added.

However, the modern state of Ukrainian economy demonstrates ambiguous dynamics of development and strategic uncertainty, regional and sectorial asymmetry, prevalence of low-tech industries (over 76%), lack of progressive structural changes, high depreciation of fixed assets (over 74.9%), chaotic investment, and lack of global cities. In order to overcome described obstacles, Ukraine needs new economic model, which will address issues of distribution of productive factors, introduce new administrative and business practices, as well as create conditions for socio-economic growth and innovations.

The historical process of social development formed classical and modern developmental models of national economies. Models of national economies reveal similarities of theoretical and empirical content, which remain unchanged for a long time and are beyond the influence of seasonal factors.

After studying theoretical principles and taking into consideration the results of empirical research, we proposed to interpret “sectorial model of the national economy development” as an empirical model that allows to explore the structural changes in the economy in accordance with social needs and technological approach, and to establish relations between the structural elements as well as forecast future periods. It should be emphasized that the sectorial model of national economy development in terms of postindustrial society makes it possible not only to assess structural changes by the technological criteria, but also to take into account the social needs and determine human’s place in the economic system and his importance in the development of society.

Sectorial model of national economy allows to investigate structural changes in the economy in accordance with social needs and technological approach, which is based on the leading role of the productive forces of society in the economic development.

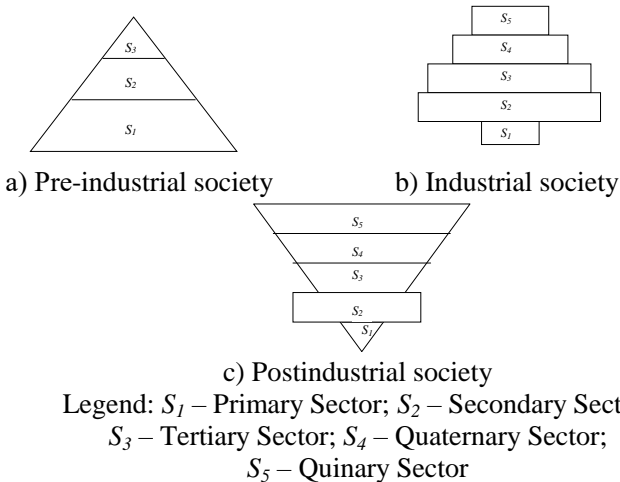
To analyze sectorial model of national economy development, the types of economic activities were divided into five sectors with regard to their technological intensity and in accordance to international and national classifications:

By the structure, sectorial model consists of five sectors that include

certain economic activities depending on their level of technological intensity and social needs:

- Primary Sector ( $S_1$ ) includes agriculture, forestry and fisheries; mining industry and the development of mining;
- Secondary Sector ( $S_2$ ) includes manufacturing industry; supply of electricity, gas, steam and conditioned air; water supply, sewerage and waste management; construction;
- Tertiary Sector ( $S_3$ ) includes transport, warehousing, postal and courier services; wholesale and retail trade, repair of motor vehicles and motorbikes; arrangement of temporary housing and catering;
- Quaternary Sector ( $S_4$ ) includes financial and insurance services; real estate services; administrative and support services; public administration and defense, compulsory social insurance;
- Quinary Sector ( $S_5$ ) includes information and telecommunications; education; professional, scientific and technical activities; healthcare and social assistance; arts, sports, entertainment and recreation.

According to the results of our research, it was found that countries with information society have quinary structure of the national economy, which has a high priority for Quinary ( $S_5$ ) and Secondary ( $S_2$ ) Sectors in the form of high-tech material and immaterial production, and in the same time has decrease in Primary ( $S_1$ ) and Tertiary ( $S_3$ ) Sectors and expansion of the Quaternary ( $S_4$ ) Sector (Fig. 1.3).



**Figure 1.3 Structure of Sectoral model of national economy's development by type of society**

Thus, the basis of the national economy of postindustrial society consists of economic activities that actively introduce innovation and produce goods with high proportion of intellectual contribution. Therefore, new class of employees, who actively uses their intellectual abilities, emerges. In such economies, information and innovation are resources that contribute to trends and dynamics of the development of industries, which have information as main limiting factor in production of an efficient economic system.

Countries with postindustrial societies have quinary structure of the national economy, which has a high priority for Quinary ( $S_5$ ) and Secondary ( $S_2$ ) Sectors in the form of high-tech material and immaterial productions and in the same time have decrease in Primary ( $S_1$ ) and Tertiary ( $S_3$ ) Sectors and expansion of the Quaternary ( $S_4$ ) Sector. At sectorial models of national economy development at postindustrial societies, there is constant growth of high-tech industries, which is also concentrated in the manufacturing industry [5]. For example, in the U.S. up to 80% of national economy growth is achieved by development of high-tech industries [6].

According to comparative analysis of structure of sectoral model of the Ukrainian economy with models of U.S., Germany, France, Poland, Romania, it was found that during the 2002 – 2016 period the share of processing industrial activities in the national economy of Ukraine was consistent with indicator of balanced structure (20%), but their quality characteristics did not correspond to the features of information society.

Under modern conditions of development, the state becomes the main economic agent at the national economy by acting through mechanisms of governance and through economic policy. At its core “management – it is planning process, including forecasting and programming, organization, motivation (incentives) and control (regulation) that is necessary for formulation and achievement of objectives of economic agent” [7, c. 892].

In theory of public administration, three levels of economic systems and methodological approaches for economy development management were distinguished: functional, systematic, and situational and others. According to the functional approach, there are five general management functions of the national economy development: planning (including forecasting), organizing, motivating, monitoring (including analysis) and the regulations that are embodied in actual management practice.

Management of development of the national economy should be considered as a set of functions of state governance that consists of

planning and forecasting of development, as well as organizing of state mechanism to ensure the stability of national economy functioning, promotion of development of national economy, and controlling a condition and level of development of the national economy according to the planned (predicted) indicators and its regulation.

Stable functioning and development of the national economy, as any dynamic system, can be achieved through the governance. According to the economic strategy and objectives of economic policy, each country independently decides on the functions of management and government interference in development of the national economy. However, it is possible to isolate a set of requirements under which decisions are made:

1) understanding of the complexity of theoretical approach and practical implementation of state presence in economy, complexity of national economy [8];

2) ability of the state as governmental institution to exercise its functions in order to promote the stable development of the national economy through management of all agents of the economic system;

3) state management of the national economy development is considered optimal when not only control functions but also regulatory and coordinating functions are implemented, unfortunately, sometimes the latter two functions are not realized by the state;

4) system of national economy development is flexible, if state authorities are constantly improving models, methods and tools of governance that meet the strategic goals and objectives of country development and global challenges [9];

5) economic processes in the modern world (such as globalization) made relations between countries closer; nowadays, emergence of crisis in one country is able to spread on global scale [10, c. 82].

Consequently, the management of national economy development should be systematically examined in the light of functions: planning, organizing, motivation (incentivizing), analysis, monitoring and control on the results of functioning of all agents of the national economy that is required for public officials to make decisions on the development of national economy.

To ensure the development of the national economy of Ukraine at the level of the information society, structural and technological transformations of the national economy must be introduced in two stages:

– Stage 1 – Achievement of the economic development level of Poland. Ukrainian national economy should grow steadily each year

within 6.1-6.7 % range due to the Secondary (3.15-3.87 % with share of 31.7 %), Quaternary (12.53-12.94 % with share of 18.5-18.8 %) and Quinary (3.89-4.32 % with share of 19.2 %) Sectors;

– Stage 2 – Achievement of the level of EU countries (Germany, France). Ukrainian national economy should grow steadily each year within 5.2-5.4% range due to the Quaternary (10.76-11.00 % with share of 29.0%) and Quinary (2.32-2.51 % with share of 23.7 %) Sectors. Moreover, reduction of Primary (in 8 times – from 15.6% in 2016 to 1.7%) and Secondary (down to 24.8%) Sectors should be done. It is established that elimination of low-tech industries reduces the share of the Secondary Sector at the national economy.

According to this international evaluation of economic development, from 2012 Ukraine belongs to the group of Efficiency-driven economies (stage II), whereas at the period 2009-2011 it was in a group of countries in Transformation stage from I to II. Ukraine is above-average for countries with Efficiency-driven economy according to criteria such as market size, labor market efficiency, higher education and training, health and primary education. While Ukraine is behind in financial market development, institutions and innovation. During the last period of increased stability macroeconomic environment of the country, but so far, that remains below the average for countries with efficient markets.

Results of research of dynamics of the national economy of Ukraine in the framework of the sectorial model and investigation of impact of economic activities on the development of the country during 2000-2016 period gave us reason to believe that:

– economic development of the national economy of Ukraine was ensured by the traditional for industrial society economic activities, such as: mining and processing industry, which belong to the Primary ( $S_1$ ) and Secondary ( $S_2$ ) sectors;

– indicator of the gradual formation of the information society is gradual growth of the value of sphere of immaterial production, such as: financial and insurance services, real estate services, administrative and support service; despite of the priority of the economic activities of industrial society in the national economy;

– share of economic activity in the structure of the national economy does not influence on its importance for the development of the national economy. For instance, an increase by 1% at the financial and insurance services, which occupies 5.12% at the structure of the national economy, stimulate the growth of only 0.2989% of the national economy, while an increase by 1% at the transport, warehousing, postal and courier



services, which have 8.53% share will bring growth by 0.8330%;

– economic activities that determine the development of the information society, such as: telecommunications and information, education, professional, scientific and technical activities, healthcare and social assistance, are capable to stimulate the development of the national economy of Ukraine.

Thus, the development of Ukraine towards postindustrial society can be achieved by forming a new sectorial model. The model involves structural transformations, such as reducing the proportion of primary and tertiary sectors, and increasing proportion of the Secondary ( $S_2$ ) and Quinary ( $S_5$ ) sectors, which are concentrated on high-tech economic activities of material and non-material production. Development of Ukraine at the level of the countries with innovative economies involves the formation and development of several major global cities, which would be able to occupy strategic places in the world economy.

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**SCIENTIFIC-  
METHODICAL  
APPROACHES TO THE  
APPLICATION OF  
INTERNATIONAL  
MARKETING  
RESEARCH IN THE  
PROCESS OF  
MARKETING  
MANAGEMENT  
ACTIVITY OF  
ENTERPRISES IN  
INTERNATIONAL  
MARKETS**

The term “marketing research” has a broad meaning and relates to all aspects of marketing. In international marketing research activities used by all types of organizations to solve a variety of problems: small businesses, large corporations, international organizations, companies engaged in the field of technology, online shopping, politicians in the service sector (lawyers) and non-profit organizations.

Research by international marketing focuses on identifying and studying market demand, the needs and requirements of specific customers to the products to justify the production and marketing activities of the enterprise on them, and therefore is the basis of enterprise activity on foreign markets and involves the analysis of all the components that can affect the efficiency of the dissemination policy.

Differences between the process of implementation of marketing research for internal and external market. In both cases, the used methods and principles of research which suggest that the peculiarities of the relevant market.

For a clearer understanding of the differences between marketing research of domestic and international markets, it is necessary to clarify the essence of the concept, characteristic differences of markets because international markets specify higher requirements for products, their

consumer properties, appearance, quality indicators, terms of consumption of service. Based on the above characteristics, due to the intense competition between sellers, while satisfying the demand for them, it is advisable to define different views on the definition of the essence of marketing research of international markets [1, p. 56].

Exploring and generalizing scientific works of scientists, and given the current practice of conducting marketing research of international markets, it should be noted that in Russian literature, dedicated to the marketing, not always studied the issues related to marketing research of international markets.

Consider the most typical definition of marketing research. Thus, F. Kotler defines marketing research as “the systematic identification range of data required in connection with the marketing situation facing the firm, their collection, analysis and report on the results” [2, p. 118].

A. I. Kovalev, and V. V. Volenko define marketing research as the collection, processing and analysis of data on market, competitors, consumers, prices, the internal potential of the enterprise in order to reduce the uncertainty related to the adoption of marketing decisions [3, sec. 48].

Ukrainian specialist in the field of marketing As A. O. Starostina gives a definition of marketing research: “Marketing research is the systematic process of setting goals research, identify, scope, collection, analysis, objective market information and develop recommendations for adoption of specific management decisions on all elements of a market-product strategies of firms and methods of their implementation to deliver bottom line results in the company’s activity under the conditions of the existing marketing environment” [4, p. 9].

According to the code of the international organization ESOMAR marketing research is the systematic collection and objective recording, classification, analysis and presentation of data on the behavior, needs, attitudes, opinions, motivations, individuals and organizations (businesses, state institutions etc.) in the context of their economic, social, political and everyday activities. The purpose of this code, the term “marketing research” also includes the concept of “social studies”, because they use the same techniques and methods to study the phenomena and problems not directly related to the marketing of goods and services [5, 6].

As you can see, the code ESOMAR directly involves social research (i.e. the sociological, psychological) to the category of marketing and proclaims the adequacy of the methods used in marketing and

sociological research.

According to representatives of the Ukrainian school of marketing A. V. Voychak, the marketing research process is a logical sequence of actions that must be implemented to achieve the goals [7, sec. 146-147].

Based on detailed studies of A.V. Fedorchenko, we can agree with the proposed approach to the definition that “Marketing research is always a specific project of practical value and a time-bound and other resource frames (financial, human, informational, infrastructural, spatial, etc.), which is implemented in order to solve a specific marketing problem to management content. Therefore, marketing research can be conducted continuously, simultaneously can only be performed a certain number of marketing research projects, which aim to increase the level information and analytical support of managerial decision-making in uncertain market conditions” [8, p. 192].

The results of the retrospective study analysis of conceptual and categorical apparatus of “marketing research” allowed to claim that representatives of the Ukrainian school of marketing carried out a significant breakthrough in marketing science detailing the issues associated with marketing research.

In their scientific works, Kotler also notes that the business determines whether the company to do international marketing, some are pushing to the meager possibilities of the domestic market, attracting other opportunities abroad. Given the risks inherent in activities in international markets, businesses need to approach the decision-making consistently and comprehensively. It is impossible not to agree with the author that the responsibility for the future performance in international markets lies with the firm, since they need to understand how to trade constraints and opportunities inherent in the international trading system of the relevant market [2, p. 555].

According to Philip Kotler, an international marketing research are the special marketing studies, which determine the country's readiness to perceive certain goods and services, evaluation of its market attractiveness for foreign firms, which depend on existing economic, political, legal and cultural environment [2, p. 555].

To the scope of international marketing research is a traditionally referred risk reduction decision about the international activity of the firm. According to T. M. Tsygankova, minimizing the risk of business enterprises in international markets is achieved through the use of findings of international marketing research in decision-making, that is, the process of systematization of information on the status and possible

options for entering foreign markets object of study [9, p. 60].

A few more functional painting of this category receives Russian scholar S. S. Garkavenko, which specifies that the feature of international marketing research is more complex processes than on the national market, and in order to avoid the most serious mistakes while conducting international marketing research is necessary to determine the profile of its target consumers or customers, conduct interviews with representatives of target segments, to understand how these segments correspond to the notions, to employ local people who know what research methods are applied in this country and the costs they require you to use several different methods in order to have a clear idea about the potential markets, analyze the results and determine what actions of the enterprise on the foreign market should be different from the actions in the internal market [8, p. 355].

The results of the study N. And. Perovskogo give grounds to argue that international marketing research is the systematic collection and analysis of data on business activities of the company or organizations on foreign markets, during which it is necessary to remember the significant differences of foreign markets [10, sec. 140].

Agree with the opinion. N. I. Perovskogo, especially it should be noted that such differences are observed between markets in the US, Western Europe, Russia, Japan, China, and the special is the European Union market.

The same idea we meet in N. I. Anistratenko: “Marketing research in the international environment represent a systematic search, collection, processing and description information associated with the problems marketing of goods and services abroad”, which notes that the structure of the marketing research process in the international sphere, little different from marketing research national environmental environment. However, an increased risk of foreign business and the volume of necessary information for the implementation of this business require knowledge and consideration of peculiarities, tasks and subject of international marketing studies [11, p. 13]

These features N. I. Anistratenko defines three main factors: environmental conditions; the relationships of market participants (competitors, buyers, intermediaries) and the ambiguity of the action of used tools of marketing in the constantly changing conditions on the markets of different countries. The main objective of international marketing research considers the analysis of chances and risks in markets abroad. And therefore, determining N. I. Anistratenko is

particularly relevant for Ukrainian companies, because of the research of the internal market of those countries where they plan to enter on the successful consolidation of positions enterprise to them [11, p. 13].

However, most fully integrated approach to the understanding of the category of international marketing research revealed domestic scientist-marketer V. Lypchuk: “International marketing research is the systematic collection and analysis of data for marketing activities of enterprises or organizations in foreign markets that, if necessary, special studies of specific marketing problems whose role is to assess needs, consumer demand, creating a program to meet them, identify and define both problems and opportunities for firms to implement and evaluate their international marketing activities. The goal of marketing research is to assess the ability of the company to occupy a competitive position in a particular foreign market, to reduce the degree of uncertainty and risk, increase the likelihood of success of marketing activities” [12, p. 124].

Exploring and generalizing scientific works of foreign and domestic scientists, and also considering the fact that marketing research in foreign markets for functional loads is no different from marketing research in the domestic market, we offer you to identify the attribute features that distinguish the concept of “international marketing research” from “marketing research” (Fig. 1.4) [13, p. 119, 14, sec.56].

It is obvious that some features of the concept of international marketing research has already been considered in the scientific works of fellow scientists, however, consider it appropriate to add the classification of the sources and types marketing information about convergence (similarity) of the system of planning and organization of activities of enterprises in certain international markets. That is, the proposed process of marketing research international markets to strengthen further study the degree of approximation of the economy studying the international market that will act as a specific indicator of the willingness of importing countries to cooperate.

Y. G. Kozak notes that one of the most important elements of successful business conduct in global markets is a specific functional manifestations of international marketing activities to the needs of the modern conceptual foundations of international marketing that makes use of the fundamental provisions of the General marketing concept in the process of implementing individual management activities of the international marketing, in particular [15, p. 245]: an integrated marketing researches of the world market, above all changes in social

needs; use market information to develop new products that can meet the needs of the world market, which dynamically changes; a study of the optimal exit methods and organizational forms of the company's presence abroad and create business alliances for effective expansion of foreign markets; adaptation of the “home” of the marketing strategy to the conditions of the foreign market environment, in particular the organization of production and sales in the international division of labor, specialization and cooperation with the aim of achieving maximum commercial effectiveness [15, p. 245].

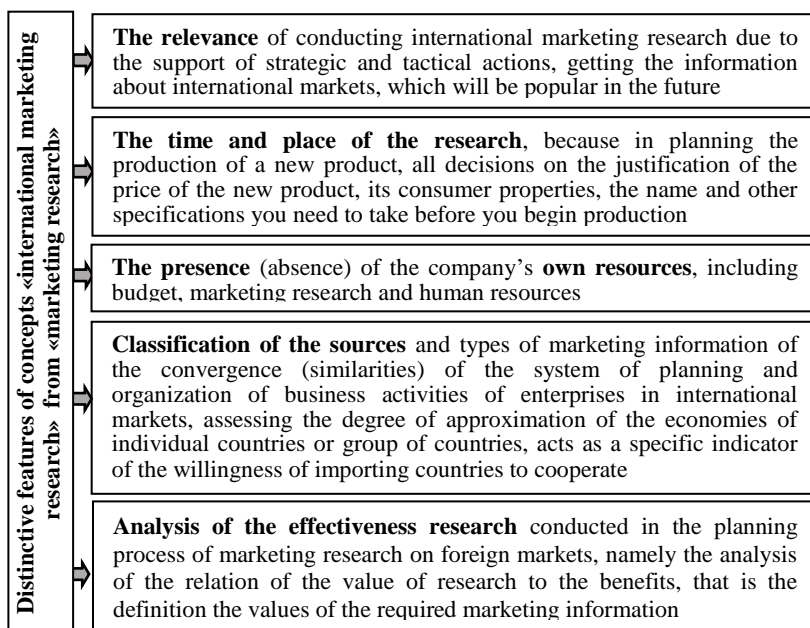
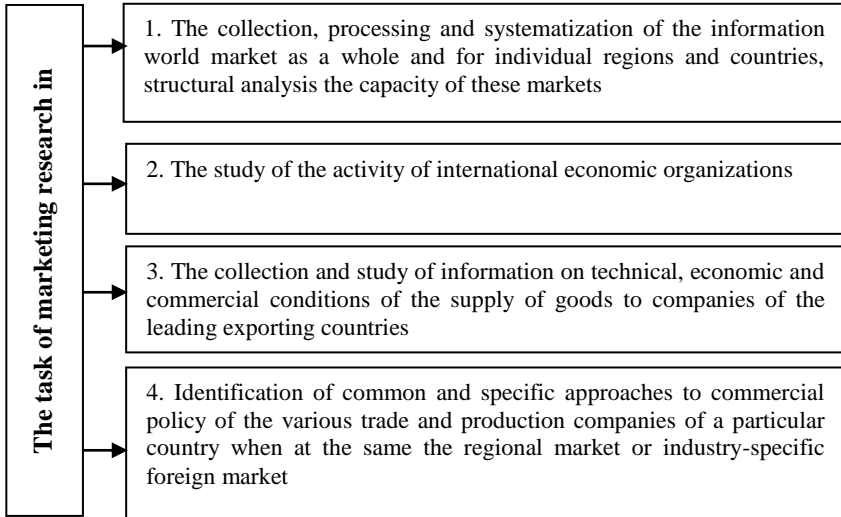


Figure 1.4 The distinctive features of the concepts of “international marketing research” from “marketing research”

*Source: developed by the author based on [13, p. 119, 14, sec.56]*

On the basis of these distinguishing features, it is worth noticing that although the important component in the system of international marketing research is the information, however, for the solution of marketing problems the process of collecting and information processing is an integral part.

In accordance with the theory and practice of international marketing the purpose of marketing research is the consideration of market requirements in the process of modernization of production that is available. Therefore, the main objective marketing research of international markets is the study of the market, which is opening new opportunities for the development of domestic exports (Fig. 1.5) [16].



**Figure 1.5 The task of marketing research in international markets**

*Source: developed by the author based on [16]*

Summarizing, we can conclude that an important task marketing research of international markets is to identify strategic fields of activity of the enterprise, that is, the aggregate target market and designed for him of the goods of the company. The identification of strategic fields the activities of the enterprise also includes the markets that are suitable for the achievement of the goals of the company and ensure the necessary adaptability it product. On the correct choice depends on the effectiveness of all subsequent marketing events and activities of the enterprise as a whole.

Exploring and generalizing scientific works of scientists, as well as despite the fact that the directions of marketing researches can fluctuate we propose to determine the factors influencing the formation of areas of international marketing research: the size of the company, its industry feature stages of the life cycle of products, the system of the



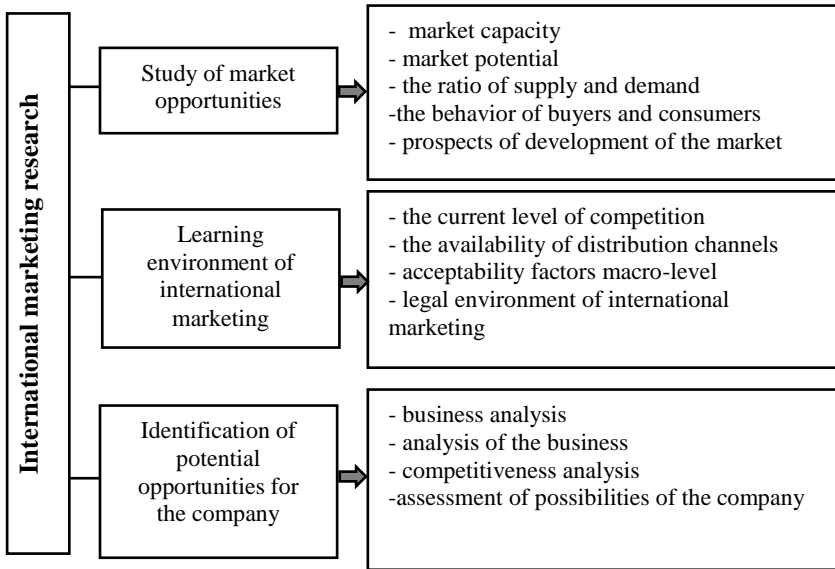
organization marketing management, personnel qualifications, the presence of foreign markets, the number and size of markets for firms. At the same time not to exclude the possibility of classification of services in marketing research as the use of components of the marketing mix.

Consider that should be taken into account in the classification of areas is the possibility of obtaining quantitative and qualitative indicators to evaluate the marketing activities of the firm. With respect to the direction of the international marketing researches, in the literature there is no uniform classification, however, the relevance of individual areas of marketing research may change in time. Different views the authors have given the steps of marketing research and their elements.

E. P. Golubkov considers that the study of market conditions involves determining the capacity and market potential of individual regions, countries and territories in the context of certain types of products, industries and firms, the analysis of the correlation of demand and supply, consumer behavior of individual types of products based on the industry and specific manufacturers. Proposed by E. P. Golubkova areas of international marketing research are areas like marketing research, however, is distinctive about them is that the organization of enterprise activity on foreign markets is especially important to explore the possible prospects for the development of each foreign market [17, p. 87] (Fig. 1.6).

Study international marketing environment, according to the theory of E. P. Golubkova, involves primarily the study of competitors and middlemen, opportunities of access to foreign market, taking into account the legal framework the implementation of foreign economic activity of the company, and studying foreign market, should be weighed prospects for the firm with the possibility of their use in economic activities. It is necessary to conduct analysis of production and commercial activities of the company, to determine the level of competitiveness of products and businesses and evaluate opportunities in foreign markets that studied [17, p. 87].

In this vision, agree with the scientific view of E. P. Golubkova, and we believe that such analysis should be carried out at the appropriate level in order to identify strengths and weaknesses of the firm in the country, as well as to identify opportunities and threats in the international marketing environment.



**Figure 1.6 International marketing research**

*Source: developed by the author based on [17, p. 87]*

Developing the ideas Z. Kendzor, K. Karch, during the implementation of international marketing research it is necessary to perform certain activities of the company, that is to characterize the conditions under which the work will be the enterprise on the foreign market, explore the marketing mix as a tool to influence the market and evaluate the performance of the enterprise as a whole with the vision of scientists can agree, and to distinguish three main areas for international marketing research (Table 1.2) [18, p.45].

Summarizing the results of the research of various scholars, E. P. Golubkov, K. Karch, Z. Kendzer can agree with existing approaches to classification of marketing research directions.

A. V. Fedorchenko in their scientific works determines that marketing research impossible to carry out spontaneously, because the market equilibrium is at its essence represents a specific scientific abstraction. Therefore, the basis for the marketing research considers the process approach, which allows to analyse market processes in the dynamics and relationships between their individual factors and it is one of the main principles of marketing studies [19, p. 69].

Table 1.2

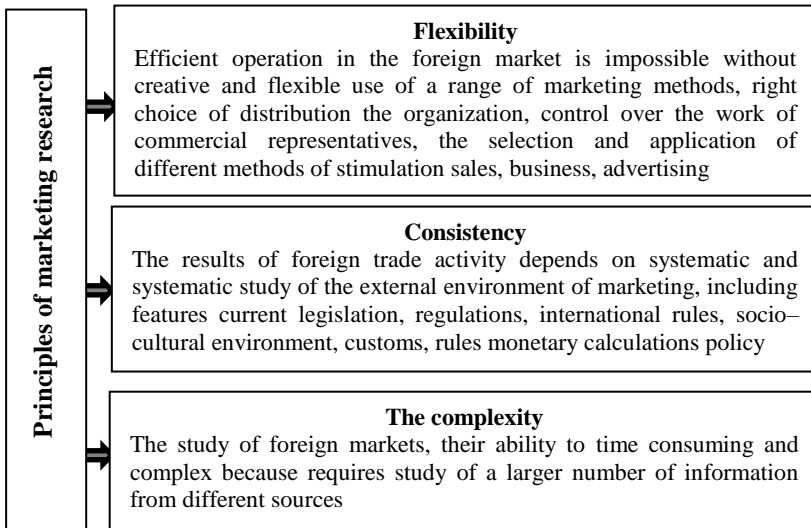
**International marketing research**

Directions		
The study of the conditions the activities of the enterprise in the foreign market	Research complex marketing as tool influence the market	Research results activities of the enterprise in foreign market
1. Analysis of demand and description of the market	1. Analysis of commodity policy	1. The analysis of sales
2. Analysis of the competitive environment	2. The analysis of price policy	2. The study of the share market
3. The analysis of the external environment	3. Policy analysis distribution	3. Analysis of the level familiarization with marketing communications
4. Analysis of internal environment	4. Policy analysis promotion	4. A study of image

*Source: developed by the author based on [18, p. 45]*

A. M. Skibitsky defines the classic principles of marketing research: consistency, complexity, regularity, objectivity, precision, economy, efficiency [20, sec. 453], which contradicts scientific the views of A. V. Fedorchenko, about the need to adhere to consistency and regularity in the conduct of international marketing research. Agreeing with this, we believe that the effectiveness principle should be the primary, because the efficiency of conducting international marketing research has a direct impact on the process of making decisions about entering new foreign markets.

N. K. Moiseev believes that the transformation of the business in the market instability requires the creation of new views on the organization international marketing research and highlights the principles marketing research of international markets: the flexibility of the elements the marketing complex, systematic in the study of the limitations of reference business, the complexity of the learning information (see Fig. 1.7) [21, p.27].



**Figure 1.7 The basic principles of marketing research of international markets**

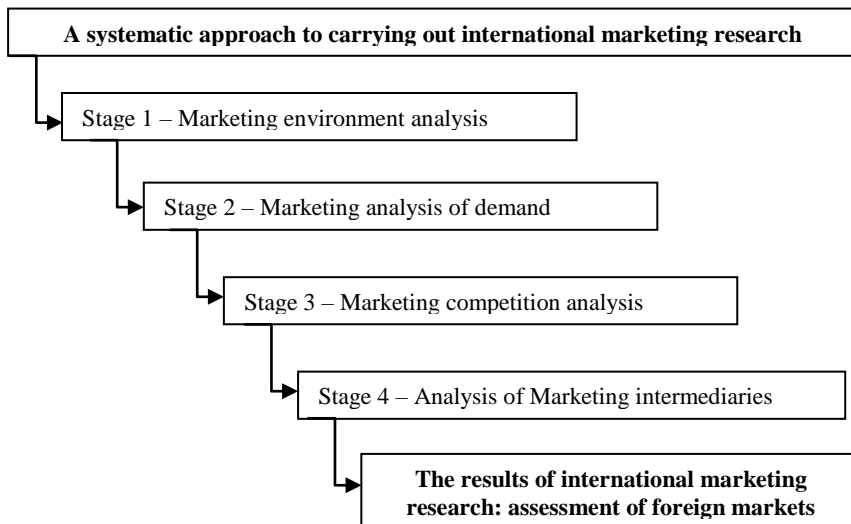
*Source: developed by the author based on [21, p. 27]*

For a more clear understanding of the characteristics of international marketing research and further practical application, we summarize the approaches of scientists proposed the use of the system approach to conducting international marketing research structure and the peculiarities of the foreign market, providing conducting marketing analysis of the environment, demand, competition, mediators (Fig. 1.8).

In this vision, the marketing analysis of the environment begins with identifying priority areas of information gathering, legislative and administrative sphere.

Through analysis of demand, marketing experts take into account first of all, especially the purchase of the means of production and objects consumption. In this case, the objective of marketing research during the demand analysis is the identification of the main reference points for workers that will directly to enter the market of the country.

Competition analysis may be more difficult due to the lack of reliable information and if it is based only on estimates clientele. It should be noted that a local competitor in the same the country may have an advantage over foreign ones, but another to be in disadvantage. This is due to the patriotism of the local buyers who keen to support local entrepreneurs.



**Figure 1.8 A systematic approach to international marketing research the structure and peculiarities of functioning of foreign markets**

*Source: own elaboration of the author*

Analysis of mediators allows you to better understand the role of the activity of those who are engaged as sales of goods or services (distributors) and the development of normative-technical documentation for products and services. The number of network intermediaries varies greatly in different countries: for goods of mass demand in Japan there are 3-4, in France this number tends to 1 in the US, the role of intermediaries remains crucial [22, p. 493], from the work of intermediaries depends on the efficiency of the preparation and signing of agreements in foreign markets.

Thus, a feature of a systemic approach in international marketing research is definition of possibility the establishment of overseas branches of the company, since most of the professional international activities tend to treat foreign branches as the most a promising line of business that provides cost effective and long-term development of the enterprise.

Improved scientific and methodical approaches to the use of marketing research process marketing management enterprises in international markets, which should include the following stages:

marketing environment analysis; marketing demand analysis; marketing competition analysis; marketing analysis of intermediaries; assessment of factors influencing the formation of international destinations marketing research; formation of proposals regarding the selection target markets for the international activities of enterprises, the study possible directions of further market intervention.

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**FORECASTING IN THE  
REGULATION OF THE  
ACTIVITIES OF BUSINESS  
ENTITIES**

Trend is a stable systematic change that determines the general direction of development, the main tendency of the process for a long time. In this context, the economical and mathematical dynamic model [1], in which development of a simulated economic system is reflected through the trend of its main indicators, is called the trend model. The main purpose of creating the trend models of dynamics is to perform the forecast on their basis, concerning the development of a studied process or phenomenon for the future time period.

Forecasting based on a number of series of dynamics refers to one-dimensional forecasting methods built on extrapolation that is continuation of the past trend in the future. It is assumed that, firstly, a predicted indicator is formed under the influence of a large number of factors, which are either impossible to identify, or have no related information; accordingly, the change of this indicator is not related to the factors, but is connected with the passage of time, which is

manifested in the appearance of one-dimensional dynamics series. Secondly, the series of dynamics really has a prevailing tendency (trend) and, thirdly, the general conditions determining development of an indicator in the past will remain without significant changes during the period of prediction.

In the short-term forecasting, as well as forecasting in the situation of changing external conditions, when the recent implementation of the investigated process is important, adaptive models of forecasting – the models of discounted data, capable of quickly adapting their structure and parameters to the change of conditions, have proved their efficiency [2]. When setting their parameters, the levels of dynamics series are assigned different weights, depending on how strong their influence is considered on the current level and allowing to take into account any changes in the trend, as well as any fluctuations in which the pattern is followed. All adaptive models are based upon two schemes: the moving average scheme (the SS models, for example, Brown and Holt model) where the current level is the weighted average of all previous levels, with the weight decreasing according to the distance from the last level, and autoregressive scheme (AR models) where evaluation of the current level is a weighted sum of not all but several previous levels, while the weight coefficients are not ranked, that is, the informational value of the levels of dynamics series is determined not by their proximity to the modelled level, but by the tightness of connection between them.

In case of extrapolating forecasting of dynamics, based on the time series using trend models, the following main stages are performed:

- 1) preliminary data analysis;
- 2) forming a set of models, for example, a set of growth curves called as expectant functions;
- 3) quantitative evaluation of the model parameters;
- 4) determining the adequacy of models;
- 5) evaluation of the accuracy of adequate models;
- 6) the choice of the best model;
- 7) obtaining the point and interval forecasts;
- 8) verification of the forecast.

For modelling and forecasting economic processes polynomial, exponential and S-shaped growth curves are most often used. Thus, the simplest ones, the polynomial growth curves can be used for approximation and forecasting of the processes, the further development of which does not depend on the achieved level. In general terms:



$\hat{y}_t = b_0 + b_1 \cdot t$  – a polynomial of the first degree,

$\hat{y}_t = b_0 + b_1 \cdot t + b_2 \cdot t^2$  – a polynomial of the second degree,

$\hat{y}_t = b_0 + b_1 \cdot t + b_2 \cdot t^2 + b_3 \cdot t^3$  – a polynomial of the third degree and so on.

$\hat{y}_t$  – theoretical levels of dynamics series,  $t = \overline{1; n}$ ;  $n$  – number of observations (levels of dynamics series); a parameter  $b_1$  is called a linear increment, a parameter  $b_2$  is the growth acceleration, a parameter  $b_3$  is the change of growth acceleration.

A polynomial of the first degree is characterized by a constant law of growth: if the first increments are calculated by the formula  $\Delta y_t = y_t - y_{t-1}$ ,  $t = \overline{2; n}$ , they will have a constant value equal to  $b_1$ .

If the first increments are calculated for a polynomial of the second degree, they will be linearly dependent on time, and a series of the first absolute increments  $\Delta y_2, \Delta y_3, \dots, \Delta y_n$  in the graph will be represented by a straight line. The second absolute increments  $\Delta y_t^{(2)} = \Delta y_t - \Delta y_{t-1}$  for the polynomial of the second degree will be constant (equal to each other).

For a polynomial of the third degree the first increments will form a polynomial of the second degree, the second increments will form a linear function of time and the third increments will be a constant value.

In contrast to polynomials the use of exponential growth curves suggests that the further development will depend on the achieved level, for example, an increment dependent on the function value  $\hat{y}_t$ .

A simple exponent can be represented by a function

$$\hat{y}_t = a \cdot b^t, \quad (1.1)$$

where  $a, b$  are positive numbers; thus, when  $b > 1$ , the function increases over the time  $t$ , and when  $b < 1$  the function decreases.

An ordinate of the simple exponent changes with the constant growth rate, the ratio of an absolute growth to the ordinate itself

$\frac{\Delta y_t}{y_t} = \frac{y_t - y_{t-1}}{y_t} = 1 - \frac{1}{b}$  is a constant value and moreover, the

logarithms of the ordinates  $(\log \hat{y}_t = \log a + t \cdot \log b)$  are linearly dependent on the time factor  $t$ .

One of the options of a modified exponent has the form:

$$\hat{y}_t = k + a \cdot b^t, \quad (1.2)$$

where  $a, b$  are stable:  $a < 0, 0 < b < 1$ ;

$k$  is an asymptote of this function, that is the function values are infinitely approaching (from the bottom) to the magnitude  $k$ .

If to find the logarithm of the first absolute increments of the last function, there will be a function that is linearly time dependent. The

ratio of the last two increments  $\frac{\Delta y_t}{\Delta y_{t-1}} = \frac{y_t - y_{t-1}}{y_{t-1} - y_{t-2}} = b$  is a constant

value.

In economy the fairly common processes are those that are initially slowly developing, then they are accelerating, then slowing down again, approaching a certain limit (for example, a change in demand for goods that have the ability to reach a certain saturation level), which are modelled using the so-called S-shaped curves with the Gompertz curve among them (1.3) and Reed curve (a logistic curve) (1.4) that is an increasing function, the growth rate of which at each moment of time is proportional to the achieved level of function, as well as the difference between the limit values  $k$  and achieved level.

$$\hat{y}_t = k \cdot a^{b^t}, \quad (1.3)$$

where  $a, b$  are positive parameters, and  $b < 1$ ;

$k$  is an asymptote of the function.

$$\hat{y}_t = \frac{k}{1 + a \cdot e^{-b \cdot t}} \text{ or } \hat{y}_t = \frac{k}{1 + a \cdot b^{-t}}, \text{ or } \hat{y}_t = \frac{k}{1 + 10^{a-bt}}, \quad (1.4)$$

where  $a, b$  are also positive parameters;

$k$  is a limit value of the function together with the infinite time growth.

The Gompertz curve has got four sections: in the first section an increment in the function is insignificant, in the second section this growth increases, in the third section the increment is almost constant and in the fourth section there is a slowdown in the growth rate and the function is continuously approaching the value  $k$ . As a result, the curve configuration resembles the Latin S.

The logarithm of the function (1.3) is an exponential curve, the logarithm of the ratio of the first increment to the very ordinate of the function is a linear function of time.

The logarithm of the ratio of the first increment of the function (1.4) to the square of its value (an ordinate) is a linear function of time. Configuration of logistic curve graph is approximately the same as the Gompertz curve, but has a point of symmetry that coincides with the point of inflection.

In the preliminary choice for a particular series of dynamics  $y_1, y_2, \dots, y_n$  of the polynomial curve, when, firstly, the levels of a series consist of only two components: a trend and a random component, and, secondly, when the trend is sufficiently smooth so that it can be approximated by a polynomial of a certain degree, the Tintner method (the finite difference method) has got the largest spread. At the first stage of the implementation of this method the differences (absolute increments) are calculated up to the  $k$ -th order inclusive (for approximation of economic processes usually to the fourth order):

$$\begin{aligned}\Delta y_t &= y_t - y_{t-1}, \\ \Delta y_t^{(2)} &= \Delta y_t - \Delta y_{t-1}, \\ \Delta y_t^{(3)} &= \Delta y_t^{(2)} - \Delta y_{t-1}^{(2)}, \\ &\dots \\ \Delta y_t^{(k)} &= \Delta y_t^{(k-1)} - \Delta y_{t-1}^{(k-1)}.\end{aligned}$$

Next, for the initial series of dynamics and for each difference line ( $k \in \{1; 2; \dots\}$ ) dispersions are calculated:

$$\sigma_0^2 = \frac{\sum_{t=1}^n y_t^2 - \frac{1}{n} \cdot \left( \sum_{t=1}^n y_t \right)^2}{n-1} \text{ -- for the initial series,}$$

$$\sigma_k^2 = \frac{\sum_{t=k+1}^n (\Delta y_t^{(k)})^2}{(n-k) \cdot C_{2k}^k} \quad \text{-- for the series of differences of } k\text{-th order}$$

( $C_{2k}^k$  is a binomial coefficient).

The comparison of deviations  $|\sigma_k^2 - \sigma_{k-1}^2|$  of each subsequent dispersion from the previous one is carried out and if this value does not exceed a predetermined positive value for a particular  $k$  (the dispersion of one order), the degree of an approximating polynomial must be equal to  $k-1$ .

A more universal approach of preliminary choice of the growth curves from a wide variety of them is the method of growth characteristics, which is based on the use of certain characteristic properties of the above-discussed curves. In applying this method, the initial series of dynamics is pre-smoothed by the simple moving average method. For example, for a smoothing interval  $m = 3$  the aligned levels are calculated by the formula

$$\bar{y}_t = \frac{y_{t-1} + y_t + y_{t+1}}{3}, \quad (1.5)$$

besides, in order not to lose the initial and final levels, they are aligned by the formulas

$$\bar{y}_1 = \frac{5 \cdot y_1 + 2 \cdot y_2 - y_3}{6}, \quad (1.6)$$

$$\bar{y}_n = \frac{-y_{n-2} + 2 \cdot y_{n-1} + 5 \cdot y_n}{6}. \quad (1.7)$$

After that the first average increments are calculated

$$\overline{\Delta y}_t = \frac{\bar{y}_{t+1} - \bar{y}_{t-1}}{2}, \quad t = \overline{2; n-1}, \quad (1.8)$$

then the second average increments

$$\overline{\Delta y_t^{(2)}} = \frac{\overline{\Delta y_{t+1}} - \overline{\Delta y_{t-1}}}{2}, \quad (1.9)$$

and also a number of derivative values connected with the calculated average increments and smoothed levels of the series:

$$\frac{\overline{\Delta y_t}}{\overline{y_t}}; \quad \log \overline{\Delta y_t}; \quad \log \frac{\overline{\Delta y_t}}{\overline{y_t}}; \quad \log \frac{\overline{\Delta y_t}}{\overline{y_t}^{-2}}.$$

In accordance with the nature of change in average increments and derivative characteristics, a type of the growth curve for the initial series of dynamics is determined (Table 1.3).

*Table 1.3*

**Data for the preliminary selection of the best growth curve for modelling and forecasting dynamics [2]**

Name of an indicator and/or its designation	Nature of change of the indicator in time	Type of the growth curve
The first average increment $\overline{\Delta y_t}$	Approximately the same	Polynomial of the first degree (linear polynomial)
The first average increment $\overline{\Delta y_t}$	Changing linearly	Polynomial of the second degree (parabolic curve)
The second average increment $\overline{\Delta y_t^{(2)}}$	Changing linearly	Polynomial of the third degree (cubical parabola)
$\frac{\overline{\Delta y_t}}{\overline{y_t}}$	Approximately the same	Simple exponent
$\log \overline{\Delta y_t}$	Changing linearly	Modified exponent
$\log \frac{\overline{\Delta y_t}}{\overline{y_t}}$	Changing linearly	Gompertz curve
$\log \frac{\overline{\Delta y_t}}{\overline{y_t}^{-2}}$	Changing linearly	Pearl and Reed curve

In practice, as a rule two or three growth curves are selected for the further research and construction of a trend model of the studied series of dynamics.

Parameters of polynomial curves are estimated by the least squares method, which leads to a system of normal equations for determining unknown parameters of selected curves [3, p. 117-118].

Parameters of exponential and *S*-shaped curves are determined using more sophisticated methods. Thus, for a simple exponent a logarithm of the function is previously taken (by a common logarithm, base logarithm, etc.), resulting in a linear expression:

$$\hat{y}_t = a \cdot b^t \Rightarrow \log \hat{y}_t = \log a + t \cdot \log b,$$

after that, for unknown parameters  $\log a$  and  $\log b$  a system of normal equations, based on the least squares method, is formed similar to the system for determination of linear parameters. As a result of solving this system, the logarithms of parameters are determined, and then the very parameters of a model  $a$  and  $b$  are identified.

In case of determining parameters of the growth curves with asymptotes (a modified exponent, Gompertz curve, logistic curve), two options are distinguished:

1) if the value of the asymptote  $k$  is known, the setting of parameters is reduced, by a simple modification of the function with the following logarithm, to the solution of a system of normal equations, the unknown values of which are logarithms of the curve parameters;

2) if the value of the asymptote is not known in advance, approximate methods are used to find the parameters of the growth curves – the three-point method, the method of three sums and others.

a) To understand how constructed models can correspond to the reality represented by a series of dynamics, how justified is the use of these models for analysis and forecasting of the phenomenon under study, each of them is evaluated as for their adequacy to the real state of things, and after that the most precise model is chosen from the number of adequate models. At present, the only approach to verify the adequacy of models has not been developed yet, though a number of methods proving their efficiency in practice have been determined, one of which involves the consistent verification of four properties of a residual component  $\varepsilon_t = y_t - \hat{y}_t$  ( $t = \overline{1; n}$ ): the random nature of

fluctuations of the residual sequence levels  $\varepsilon_t$ , the correspondence of the random component distribution to the normal law, the equality of mathematical expectation of the random component to zero and the independence of the random component levels [4, p. 141-146].

Up to the present moment, an effective approach to evaluating the forecast quality before its implementation has not been invented. An indicator of the forecast value is not only its reliability, but also its efficiency. Even in cases when the forecast has not been confirmed during the verification, the user can at least partially control the course of events, influence the process and apply the forecast information for the desired course of action. Having received a forecast of events with an unwanted direction of perspective development, the user can take steps to make the forecast ineligible (self-destructive forecasting). If the forecast predicts an acceptable course of events, the user can apply all his capabilities to increase the probability of the expected forecast (self-regulating forecasting). Choosing the model type is an important step in the process of constructing and implementing econometric models, thus undoubtedly affecting the quality of forecasting.

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## Chapter 2

# JUSTIFICATION THE MECHANISMS ENSURING SUSTAINABLE SOCIO- ECONOMIC DEVELOPMENT

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## ASSESSMENT OF THE ENVIRONMENTAL FACTORS INFLUENCE INTENSITY ON THE RESTAURANT BUSINESS OF UKRAINE

Conditions for the development of restaurant business enterprises are changing under the influence of various forces and factors. Environmental factors are numerous, weakly structured and scattered. The main driving forces are changes in the trends of the external environment, priorities and consumer demands. To determine the intensity of the environmental factor's influence on the restaurant business development, it is necessary to carry out their quantitative assessment. Traditionally, strategic analysis is considered as “a set of methods and tools used to support strategic decision-making” [2]. The modern Arsenal of methods for assessing the impact of factors on the enterprises activities allows to determine the factors that need to be taken into account when justifying the strategic vectors of the restaurant business development. The most widespread are such methods [2, 11]: PEST-analysis, which allows to track changes in the macro environment via the four not controlled by the company key areas: politics, economics, society, technology; T. E. M. P. L. E. S. -analysis allows to determine the influence of the environment on the seven factors – technology, economics, politics, legislation, environment, society;



SWOT-analysis, giving the opportunity to link the threats and opportunities of the external environment with the strengths and weaknesses of the organization and to determine the direction of strategic decisions; SNW-analysis, which determines the ability of the internal environment. To assess the impact of environmental factors at different levels, the LoNG model is used. Under each of the levels in this model are considered respectively Lo – local, N – national and G – global levels of analysis [2].

The complex analysis of external factors influence's intensity on development of the restaurant business enterprises in Ukraine has to cover such spheres as: economy, policy, technology, the international situation and social and cultural behavior (“distant environment”), so to be carried out according to the GETS model that means four groups of pressure's external forces: “Government”; “Economy”; “Technology”; “Society”. The advantage of this analysis is to identify the opportunities and threats of the “distant environment”, the factors of which are evaluated in the plane: the impact on the restaurant business enterprise – the probability of their implementation.

To assess the intensity of the external factors influence on the restaurant business development, a questionnaire was developed. As experts were involved managers, restaurateurs and highly qualified specialists in the restaurant business. Respondents were asked to answer a list of questions about the problems and prospects of the restaurant business development in Ukraine. Assessing the intensity of factor's influence by determining the influence of the “+1” – the possibility of “-1” is the threat that expert is determined by the probability of the factors occurrence in the range from 0 to 1, and were also employed to assessing the intensity of each factor's influence on the restaurant business enterprises development on a scale from “-5” (high intensity, negative impact) to “5” (high intensity, positive impact).

The group of evaluation criteria “Government” ( $G_i$ ) was formed to determine the state support for the “DNA of the restaurant business” in Ukraine. The importance of assessing this factor's group impact on the restaurant business development is due to the interdependence of business from changes in state policy in various aspects, since certain changes made by the Government in legislative acts require the economic entity to make appropriate changes in its activities and, therefore, can become a decisive success factor that determines the trajectory of its further development. This group of criteria formalizes the efficiency of the taxation current systems, accounting and reporting

of the restaurant business sphere enterprises, infrastructure, government support for the comfortable business environment development, the regulatory policy perfection, state support to food security, the participation of food businesses in exhibitions and fairs, promoting technology upgrading, innovation, development of new kinds of restaurant products and services, state measures to provide financial support for the small and medium-sized businesses development, the discipline of the business structure's control regime to comply with sanitary requirements and technical norms and rules, characterizes the level of bureaucracy influence and corruption on the restaurant business development.

Consideration of the restaurant business enterprise as an open system necessitates the assessment of external opportunities by the criterion of "economy" ( $E_i$ ) in the development strategy implementation. This group of factors characterizes the condition of the economy in the state (or a separate region) and the economic factors impact on the business structures operating development in the restaurant business.

The group of criteria "technology" ( $T_i$ ) allows to assess the level of technologies innovation, used in the restaurant business. The importance of highlighting this criterion is due to the fact that the overall level of innovative technologies application in business characterizes the possibility of strengthening the business structures competitive position, characterizes the quality of the effective technologically active business processes proven system, that provide high performance, quality, low costs and satisfaction of the target audience's needs.

The group of criteria "Society" ( $S_i$ ) allows to assess the social climate in Ukraine (or a separate region), to determine the advantages and barriers to the restaurant business development. This group of factors forms the information base for decision-making regarding the development of the restaurant business based on the social development level.

According to the results of the survey, a key factors list influencing the restaurant business development in Ukraine was determined for each direction of the GETS-model assessment (Table 2.1).

The consistency of respondents' opinions was assessed by calculating the concordance factor for each group of GETS criteria ( $W$ ) and Pearson criterion ( $\chi^2$ ) [6]:

$$W = \frac{12S}{m^2(n^3 - n)} \quad (2.1)$$

Table 2.1

**List of the main GETS-factors influencing the restaurant business development in Ukraine**

Group of factors “Government”	Group of factors “Technology”
1	2
<p><b>G<sub>1</sub></b> – stability of the government in Ukraine;</p> <p><b>G<sub>2</sub></b> – the current system of taxation;</p> <p><b>G<sub>3</sub></b> – current accounting and reporting system;</p> <p><b>G<sub>4</sub></b> – restaurant business infrastructure state support;</p> <p><b>G<sub>5</sub></b> – regulatory public policy perfection;</p> <p><b>G<sub>6</sub></b> – perfection of financial and credit support mechanisms of the restaurant business enterprises development;</p> <p><b>G<sub>7</sub></b> – state stimulation of technologies modernization, innovative activity, development of new products and services types;</p> <p><b>G<sub>8</sub></b> – government support for food security;</p> <p><b>G<sub>9</sub></b> – state financial support for the small and medium-sized businesses development in Ukraine;</p> <p><b>G<sub>10</sub></b> – state support of cooperation with foreign partners, participation in exhibitions, including international ones;</p> <p><b>G<sub>11</sub></b> – state support for the inflow of national and international investments in the restaurant business;</p> <p><b>G<sub>12</sub></b> – discipline of the control regime over the restaurant business enterprises activities to comply with sanitary requirements and technical norms and rules in force DSTU, GOST, TU and punitive damages;</p> <p><b>G<sub>13</sub></b> – bureaucracy and corruption level.</p>	<p><b>T<sub>1</sub></b> – technological safety and environmental friendliness level of restaurant product production;</p> <p><b>T<sub>2</sub></b> – vending development level, e-Commerce of finished products and ready meals retail;</p> <p><b>T<sub>3</sub></b> – level of production ecological safety control systems innovation;</p> <p><b>T<sub>4</sub></b> – level of electronic order processing technologies; development;</p> <p><b>T<sub>5</sub></b> – level of inventory accounting systems innovation;</p> <p><b>T<sub>7</sub></b> – level of innovation in logistics processes;</p> <p><b>T<sub>8</sub></b> – the level of communication technologies development that provide new opportunities for receiving and processing customer orders using Internet technologies, the introduction of computer technologies in all organization and service processes of enterprises in the restaurant business;</p> <p><b>T<sub>9</sub></b> – level of production preparation technologies development based on the modern innovative equipment use, including combies, packages, the sous vides, allowing to use molecular cookery elements;</p> <p><b>T<sub>10</sub></b> – level of customer service technological support;</p> <p><b>T<sub>11</sub></b> – level of finished products distribution and provision technologies development using interactive racks, catering;</p> <p><b>T<sub>12</sub></b> – level of marketing and advertising technologies innovation;</p> <p><b>T<sub>13</sub></b> – level of the mobile loyalty programs development.</p>

Table 2.1 (continued)

1	2
Group of factors "Economy"	Group of factors "Society"
<p><b>E</b><sub>1</sub> – minimum subsistence level of the population;</p> <p><b>E</b><sub>2</sub> – employment rate;</p> <p><b>E</b><sub>3</sub> – exchange rate dynamics;</p> <p><b>E</b><sub>4</sub> – amount of customs tariffs fees;</p> <p><b>E</b><sub>5</sub> – tariffs for communal services and energy;</p> <p><b>E</b><sub>6</sub> – pricing;</p> <p><b>E</b><sub>7</sub> – level and rate of inflation;</p> <p><b>E</b><sub>8</sub> – availability of education in the restaurant business;</p> <p><b>E</b><sub>9</sub> – price dynamics level;</p> <p><b>E</b><sub>10</sub> – structure of export-import operations;</p> <p><b>E</b><sub>11</sub> – level of foreign economic activity development;</p> <p><b>E</b><sub>12</sub> – the intensity of the new economic entities-competitors' emergence in the restaurant business.</p>	<p><b>S</b><sub>1</sub> – population's social standards;</p> <p><b>S</b><sub>2</sub> – population's social security and protection level;</p> <p><b>S</b><sub>4</sub> – consumer's credit development level;</p> <p><b>S</b><sub>5</sub> – real population income level;</p> <p><b>S</b><sub>6</sub> – population's purchasing power;</p> <p><b>S</b><sub>7</sub> – attitude of customers to restaurant business enterprise's loyalty programs;</p> <p><b>S</b><sub>8</sub> – population' basic life values;</p> <p><b>S</b><sub>9</sub> – population's consumer "sentiment";</p> <p><b>S</b><sub>10</sub> – social infrastructure development;</p> <p><b>S</b><sub>11</sub> – level of the population's education;</p> <p><b>S</b><sub>12</sub> – demographic growth rate;</p> <p><b>S</b><sub>13</sub> – economic and legal protection of the population;</p> <p><b>S</b><sub>14</sub> – average household composition;</p> <p><b>S</b><sub>15</sub> – development of social development in Ukraine;</p> <p><b>S</b><sub>16</sub> – trends in the age and sex structure of the population.</p>

where,  $W$  – the coefficient of concordance, coef.;

$S$  – the sum of the ranks for the  $i$ -th GETS-criterion;

$m$  – number of experts who participated in the assessment of the external factors impact intensity on the development of business structures (128)

$n$  – number of estimated indicators according to the  $i$ -th GETS-criterion;

At  $W=0$ , there is no consistency of expert opinions, at  $W=1$ -full consistency of expert opinions, at  $W \geq 0.5$ , the consistency of expert opinions is quite sufficient.

The calculated value of the concordance coefficient was weighted according to the Pearson criterion ( $X^2$ ) with a certain level of significance ( $\beta$ ), so the maximum probability of an incorrect result of the experts' works. Usually the significance is set in the range of 0,005 – 0,05 [8].

$$\chi_{calc}^2 = m \cdot (n-1) \cdot W \quad (2.2)$$

$$\chi_{calc}^2 \geq \chi_{tab}^2 \quad (2.3)$$

where,  $\chi^2$  – Pearson criterion, coef.;

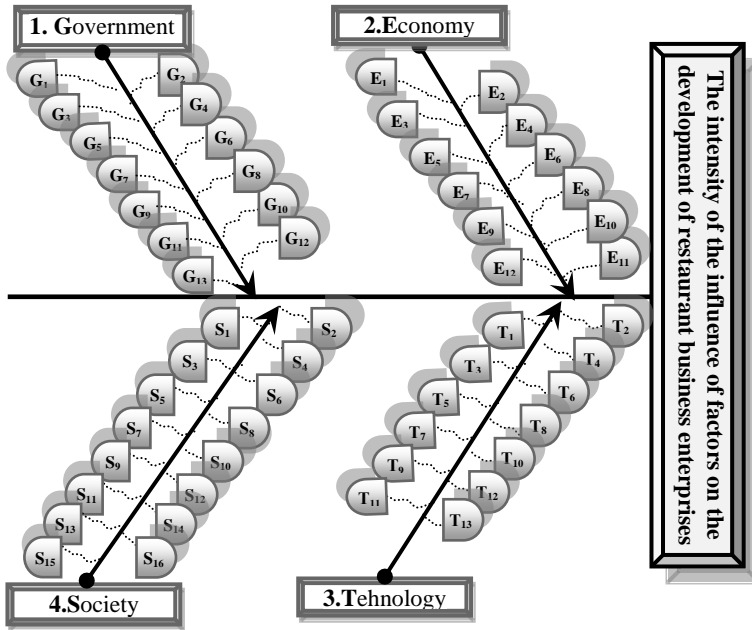
$m$  – number of experts who participated in the assessment of the external factors impact intensity on the development of business structures (154)

$n$  – number of indicators to be evaluated according to the  $i$ -th GETS-criterion;

Fishbone (Ishikawa) diagram mainly represents a model of suggestive presentation for the correlations between an event (effect) and its multiple happening causes. The structure provided by the diagram helps team members think in a very systematic way. Some of the benefits of constructing a Fishbone diagram are that it helps determine the root causes of a problem or quality characteristic using a structured approach, encourages group participation and utilizes group knowledge of the process, identifies areas where data should be collected for further study [1].

Fishbone diagram is a method used to determine the global risk of an event with multiple relevant causes, relatively easy to apply. The application realized allows determining the risk of secondary and main causes, of cause's categories and of the global risk, allows structuring of treatment measures on vulnerability areas, precisely oriented on the causes which determine high risk values. Analysis of causes sequence can be a simple analyze which refers to the multitude of the causes and their sequence, but can be completed with other representation and hierarchy elements for risks treatment. Also, the method is used to simulate the dynamic of the process analyzed. There are no instruments for risk analyze based exclusively on the Fishbone diagram. But there are instruments which include elements of primary or complementary analyze of this type [6].

Given a wide range of GETS-factors (Table 2.1, Fig. 2.1) influencing the development of restaurant business enterprises the task of developing models covering all the system components of GETS-factors, including the human factor, is actualized. Such models construction requires the use of approaches based on fairly General concepts that will link a large number of the system heterogeneous components. One such approach is the cause-and-effect approach based on the use of cause-and-effect complexes (CAE) [4].



**Figure 2.1 Fishbone (Ishikawa) diagram**

Each link is represented by a cause group (cause and condition), an effect group (effect and changed conditions), and a nucleus. The kernel describes the corresponding cause-and-effect relationship, forming an effect group for a given cause group [7].

In this case, the kernel can be set in any way: formula, equation, algorithm, neural network, etc. The theory of CAE also provides a starting point for the basic principles of decomposition, distinguishing in a complex system six main classes of its components: command and information (schedule, instruction, rule, order, etc.), the human link (restaurateurs, chefs, waiters, etc.), equipment (equipment for cooking, baking and confectionery equipment, refrigeration, dishwashers, baroque, weight, etc.), energy (fuel, electricity, etc.), materials (raw materials, components, goods, etc.), external conditions (time of year (seasonality), location of the restaurant business, etc.). On the basis of these six basic components, by their various combinations, new ones with new characteristics and properties can be obtained.

To solve the problem of the external factors influence intensity

assessing on the restaurant business development, it is proposed to use a causal approach using a causal network.

The causal network of GETS-factors influencing the development of the restaurant business in Ukraine can be represented by a model of the form:

$$N = (H^{GETS}; L^{GETS}; E^{GETS}) \quad (2.4)$$

where  $H^{GETS} = \{h_1^{GETS}, \dots, h_n^{GETS}\}$  – set of production and investigative links GETS-factors;

$L^{GETS} = \{l_1^{GETS}, \dots, l_n^{GETS}\}$  – plenty of links between links of GETS-factors;

$E^{GETS} = \{e_1^{GETS}, \dots, e_n^{GETS}\}$  – plenty of classes of elementary events.

The  $H^{GETS}$  links of the causal network of GETS-factors  $\{h_1^{GETS}, \dots, h_n^{GETS}\}$  are represented by two terminals of the cause group, two terminals of the effect group, and a kernel describing the relationship between them. Each link in the set of  $L^{GETS}$  is defined by a model:

$$l_1^{GETS} = (h_o^{GETS}; h_k^{GETS}; r) \quad (2.5)$$

where  $h_o^{GETS} \in H$  – the initial link (from which the link originates);

$h_k^{GETS} \in H$  – the final link (to which the link comes);

$r \in \{ET, ET_1, T_2T; T_2T_1\}$  – an attribute that defines the terminals on links that participate in the link  $h_o^{GETS}; h_k^{GETS}$ .

$ET$  – from effect terminal to cause terminal;

$ET_1$  – from terminal investigation to terminal condition 1;

$T_2T$  – from terminal condition 2 to terminal cause;

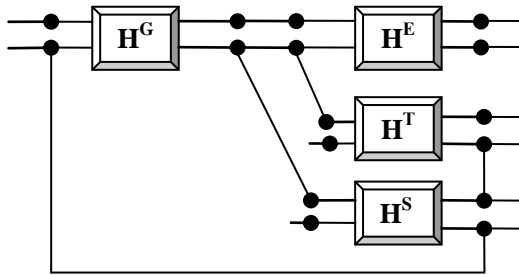
$T_2T_1$  – from terminal condition 2 to terminal condition 1.

Each element of an elementary event classes set is described by a set of attributes that describe the given event class individual characteristics, as well as a range of valid values that attributes can accept. Specific elementary events (with specified attribute values) are the basic units of interaction between the GETS-factors causal network links.

The structure of the GETS-factors causal network can be represented graphically in the graph reflecting form the structure of links and links between them (Fig. 2.2).

The effective restaurant business development in Ukraine depends on the ability to quickly identify and respond to changes in the external environment. Change is inevitable, and having the flexibility to deal

with unexpected market challenges can mean the difference between development and survival for restaurant businesses.



**Figure 2.2 The structure of causal relationships GETS-factors affecting the restaurant business development in Ukraine**

The integral indicator of the intensity of the external factors influence on the business structures development is proposed to be considered on the basis of the form production function [9]:

$$y = f(x_i) \quad (2.6)$$

where,  $x_i$  – dependent variable ( $x_G$  – local indicator of the group “government” factors influence intensity,  $x_E$  – local indicator of group “economy” factors influence intensity,  $x_T$  – local indicator of group “technologies” factors influence intensity,  $x_S$  – local indicator of the intensity of influence of factors of the group “society”;

$f$  (the sign function) – is a characteristic of the system and relates the independent variable  $y$  to the dependent variables  $x_i$ .

$y$  – the general index of intensity of influence of GETS-factors on development of business structures.

Taking into account this approach to the description of the factors key groups relationship affecting the restaurant business development in General, the function of the influence intensity of GETS-factors ( $I_{GETS}$ ) described by the following two models:

$$\mathcal{K}_{GETS}^- = f(\mathcal{K}_G^-, \mathcal{K}_E^-, \mathcal{K}_T^-, \mathcal{K}_S^-) \rightarrow \min \quad (2.7)$$

$$\mathcal{K}_{GETS}^+ = f(\mathcal{K}_G^+, \mathcal{K}_E^+, \mathcal{K}_T^+, \mathcal{K}_S^+) \rightarrow \max \quad (2.8)$$

where,  $\mathcal{K}_{GETS}^-$  – quantitative assessment of the  $i$ -th GETS-factor’s negative impact intensity on the restaurant business development in



Ukraine;

$\kappa_{GETS^+}$  – quantitative assessment of the  $i$ -th GETS-factor positive impact intensity on the restaurant business development in Ukraine;

$\kappa_G$  – the value of the group “government” factors influence intensity indicator, coef.;

$\kappa_E$  – value of the group “economy” factors influence intensity indicator, coef.;

$\kappa_T$  – value of the group “technologies” factors influence intensity indicator, coef.;

$\kappa_S$  – value of the group “society” factors influence intensity indicator, coef.;

(+, -) – accordingly, the positive or negative impact of the  $i$ -th GETS-factor on the restaurant business development in Ukraine.

According to the results of processing the questionnaire data, it was found that each local ( $\kappa_{GETS}$ ) is characterized by the value of individual indicators-factors describing it (Table 2.1). Based on this, the mathematical system of the indicators relationship formalization affecting the restaurant business development in Ukraine, taking into account the basics of type algebra [3] can be described as follows:

$$\left. \begin{cases} \kappa_G = \langle G_1, G_2, G_3, G_4, G_5, G_6, G_7, G_8, G_9, G_{10}, G_{11}, G_{12}, G_{13} \rangle \\ \kappa_E = \langle E_1, E_2, E_3, E_4, E_5, E_6, E_7, E_8, E_9, E_{10}, E_{11}, E_{12} \rangle \\ \kappa_T = \langle T_1, T_2, T_3, T_4, T_5, T_6, T_7, T_8, T_9, T_{10}, T_{11}, T_{12}, T_{13} \rangle \\ \kappa_S = \langle S_1, S_2, S_3, S_4, S_5, S_6, S_7, S_8, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{14}, S_{15}, S_{16} \rangle \end{cases} \right\} (2.9)$$

It is proposed to use the “Minimax” method when calculating local indicators for estimating the intensity of influence of the  $k$ -th group of parameters of the GETS model [8]. This approach is based on taking into account the current, minimum and maximum values of the respondents’ average scores ( $O_m$ ) for each group of criteria:

$$O_m = \min_{g,e,t,s \in G,E,T,S} \{ \max O(g_{1-14}, e_{1,-11}, t_{1-12}, s_{1-11}) \} \quad (2.10)$$

where,  $\min O_m$ ,  $\max O_m$  – accordingly, the minimum (from -5 to 0) and maximum (from 0 to +5) estimates of the intensity of the influence of the  $i$ -th GETS-factor on the restaurant business development, points.

With this approach, provided that the maximum value of the  $j$ -th indicator in the  $k$ -th group of criteria GETS-model it is the best value (an indicator is a stimulant) standardized measure is calculated as follows:

$$\kappa_j^{(G,E,T,S)} = \frac{o_j^{(G,E,T,S)} - \min o_j^{(G,E,T,S)}}{\max o_j^{(G,E,T,S)} - \min o_j^{(G,E,T,S)}} \quad (2.11)$$

If the maximum value of the  $j$ -th evaluation indicator  $o_j^{(G,E,T,S)}$  in the  $k$ -th group of the GETS-model criteria corresponds to its worst value (the evaluation indicator is a destimulator), then its standardization is carried out according to the following formula:

$$\kappa_j^{(G,E,T,S)} = \frac{\max o_j^{(G,E,T,S)} - o_j^{(G,E,T,S)}}{\max o_j^{(G,E,T,S)} - \min o_j^{(G,E,T,S)}} \quad (2.12)$$

where,  $\kappa_j^{(G,E,T,S)}$  – accordingly, the standardized value of the  $j$ -th indicator estimates the GETS-model parameters  $k$ -th group (“government”, “economy”, “technology”, “society”);

$\max o_j^{(G,E,T,S)}$  – accordingly, the maximum value of the  $j$ -th indicator estimates the  $k$ -th group of the GETS-model parameters (“government”, “economy”, “technology”, “society”);

$\min o_j^{(G,E,T,S)}$  – accordingly, the minimum value of the  $j$ -th indicator estimates the  $k$ -th group of the GETS-model parameters (“government”, “economy”, “technology”, “society”).

The formula for calculating the  $k$ -th group factors influence intensity indicator ( $K^{(G,E,T,S)}$ ) has the following form:

$$K^{(G,E,T,S)} = \frac{1}{m} \sum_{j=1}^m (\kappa_j^{(G,E,T,S)} \times \omega_j^{(G,E,T,S)}) \quad (2.13)$$

where,  $\kappa_j^{(G,E,T,S)}$  – accordingly, the standardized value of the  $j$ -th for the influence factors intensity assessing indicator of the  $k$ -th group of the GETS-model parameters on the restaurant businesses development (“government”, “economy”, “technology”, “society”);

$\omega^{(G,E,T,S)}$  – accordingly, the  $j$ -th indicator significance coefficient of the  $k$ -th group of parameters evaluation of the GETS-model (“government”, “economy”, “technology”, “society”);

$m$  – the number of indicators that form the  $k$ -th indicator for assessing the intensity of the factors influence on the restaurant business development GETS-model (“government”, “economy”, “technology”, “society”).

For the purpose of complex assessment of GETS-factors influence intensity on the enterprises development of restaurant business at the following stage the graphic model which diagonal is divided into 5 zones is constructed, each of which according to a range of an assessment local indicators values (Table 2.2) has the corresponding assessment and designation.

Table 2.2

**Scale of local indicators values evaluation of GETS-factors influence intensity on the restaurant business enterprises development in Ukraine**

The range of changes in the values of local indicators ( $K^{(G,E,T,S)}$ )	Assessment of the intensity of the influence of the $i$ -th indicator on the development of the restaurant business
0,81-1,00	Very high (H+)
0,71-0,80	High (H)
0,51-0,70	Medium (M)
0,31-0,50	Low (L)
0-0,30	Very low (L-)

Source: the scale is based on the formula proposed by Sturges [13]

The results of the factors influence intensity assessment on each of the GETS-model parameters are presented in Table 2.3.

According to the results of local indicators calculations to assess the intensity of the external factors influence on the restaurant business development in Ukraine, it should be noted that a very high intensity of influence is characteristic of the parameter “Government”, the value of which in 2018 is the highest and is 0,873. High intensity of influence for two parameters groups “Economy” and “Society”, the value of local indicators which respectively 0,732 and 0,739. The average intensity of influence on the business structures development is typical for the parameter “Technology”, the value of the local indicator of which is 0.516.

Table 2.3

**The values of local indicators to assess the intensity of the external factors influence on the restaurant business development in Ukraine in 2018**

Parameters of GETS-model	The value of factors group influence intensity local indicators	Conclusion about the intensity of influence
Government	0,873	Very high
Economy	0,732	High
Technology	0,516	Medium
Society	0,739	High

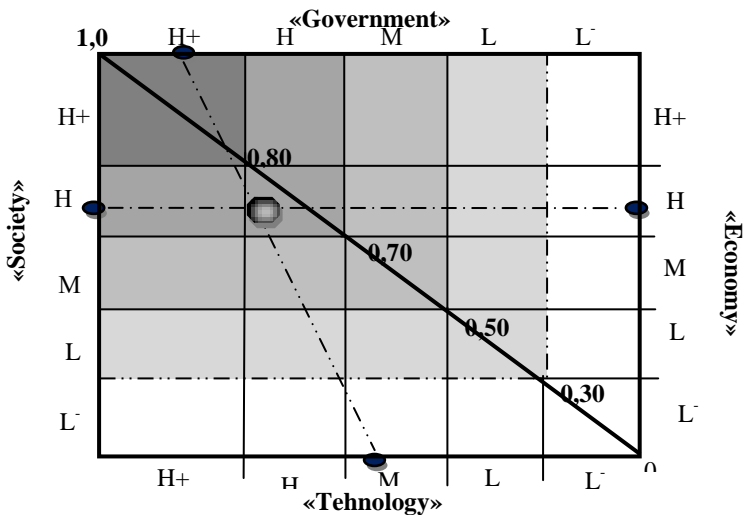
For the overall assessment of the GETS-factors impact intensity on the restaurant business development in Ukraine developed a graphic model (Fig. 2.3), on each of which an appropriate scale marked values of local indicators that are connected with a dotted line. From the intersection points, perpendiculars are built on the diagonal, which determines the point according to which the integral intensity of the GETS-factors influence on the restaurant business development in Ukraine is determined.

According to the model presented in Figure 2.3, it can be concluded that for the restaurant business enterprises of Ukraine there is a high GETS-factors influence intensity of the external environment. In these conditions, management decisions cannot be unambiguously defined which necessitates the development of innovative solutions to ensure their sustainable development of enterprises and increase the competitiveness level.

Taking into account that the main criterion taken into account when justifying the strategy of business structures development is the intensity of external factors influence, it is necessary to calculate the overall index of the external environment GETS-factors influence intensity on the restaurant business development. This index is formed on the basis of local evaluation indicators for each of the GETS-model criteria (“government”, “economy”, “technology”, “society”):

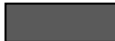


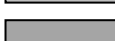
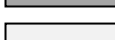
$$A^{GETS} = \frac{\sum (K^G \times \varpi^G + K^E \times \varpi^E + K^T \times \varpi^T + K^S \times \varpi^S)}{\sum \varpi^{GETS}} \quad (2.14)$$



where,  $A^{GETS}$  – General index of GETS-factors influence intensity of external environment on business structures development;



**Convention:**

Zones characterizing the intensity of the GETS-factors influence on the restaurant business development in Ukraine:

-  - zone of very high GETS-factors influence intensity;
-  - zone of very high GETS-factors influence intensity;
-  - zone of medium GETS-factors influence intensity;
-  - zone of low GETS-factors influence intensity;
-  - zone of very low GETS-factors influence intensity;

-  the values of local indicators for assessing the K-th group factors influence intensity of the GETS-model parameters on the restaurant businesses development («government», «economy», «technology», «society»);
-  - integral assessment of GETS-factors influence intensity on restaurant business.

**Figure 2.3 Graphic model of GETS-factors influence intensity estimation of external environment on restaurant business enterprises development in Ukraine in 2018**

$\varpi$  – the weighting of the GETS models parameters  $k$ -th group, for calculation of which it is proposed to use an approximation method of an integer argument monotone rank function [12]:

$$\varpi^{(G,E,T,S)} = 2[m(n+1)] - \sum_{k=1}^n r_{ik} (mn(n+1)) \quad (2.15)$$

where,  $r_{ik}$  – the rank assigned to the  $i$ -th parameter of the GETS-model by the  $k$ -th expert;

$n$  – number of GETS model parameters (4);

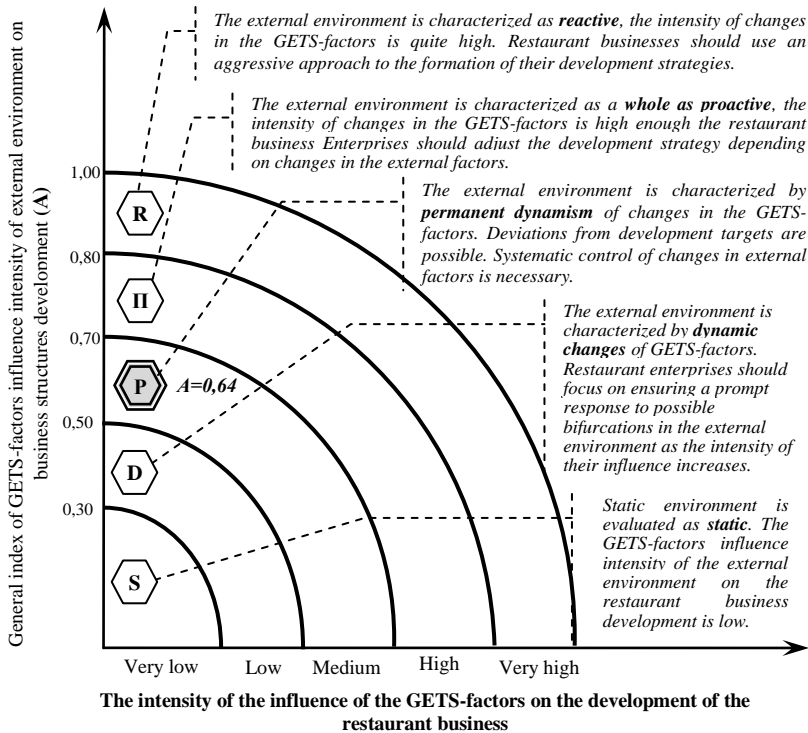
$m$  – the number of experts who took part in the questionnaire regarding the factors influence intensity assessment on the restaurant business development in Ukraine (154 people).

According to the calculations, the overall intensity index of the influence of environmental factors on the restaurant business development in Ukraine in 2018 is 0,647. For the purpose of values interpretation of the environment factors influence intensity general index of an assessment scale is developed (Fig. 2.4) and characterized the state of the environment.

Thus, for domestic enterprises operating in the restaurant business at the present stage are characterized by permanent dynamic processes. A certain part of these processes opens up new opportunities for economic entities to develop, generates certain favorable conditions for functioning. The other part, on the contrary, creates additional difficulties and limitations. Underestimating the importance of information about the external conditions of the restaurant business development leads to negative consequences, causing, at least, difficulties in implementing the development strategy, and in the worst case – the impossibility of its implementation. Based on this, the actual state of external factors and the intensity of their influence should be taken into account when justifying the targets for further restaurant business development.

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**Figure 2.4 Qualitative assessment of the intensity of the influence of environmental factors on the development of the restaurant business in Ukraine**

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**THEORETICAL ASPECTS OF IMPROVING THE ORGANIZATION'S STRATEGIC MANAGEMENT SYSTEM**

From the of system analysis point of view, an enterprise can be considered as a system. Each system is a collection of interconnected elements, including: input (resources), output (purpose), external and external feedback. The set of parameters, values and properties at a certain point in time is called the state of the system.

The ability to save these parameters is characterized by the resilience of the enterprise. The stability disturbance is associated with certain problems, therefore the mismatch of the desired state of the system to its actual state. The desired state of the organization is the personnel,



economic, financial sustainability of the enterprise. Problems in organization can cause the system degradation and disintegration. According to Sharapov (2004) in the theoretical postulates of economic cybernetics, there are two types of conditions for the destruction and degradation of systems – system-wide conditions and conditions related to the subsystem of control. System-wide degradation conditions of systems are characterized by the following features: “as the number of new features increases, the system does not change according to its behavior, because of which its entropy (chaos) increases, the system ceases to perform its functions and is disorganized; the system chooses a non-constructive trajectory or development scenario, for example, becomes closed; sharply decreases the number of elements necessary for functioning; the number of inefficient components increases”. The degradation conditions associated with the control subsystem in study by Sharapov (2004) are characterized by the following features: “the control subsystem at the point of bifurcation tries to translate the system into a trajectory that does not correspond to the past and current state of the system; the control subsystem is not sufficiently coherent with the subsystems, components or system as a whole; to achieve system-wide goals, the need to align them with the goals of subsystems is ignored, that is, an attempt is made to achieve system-wide optimum at the expense of subsystems; the control subsystem does not perform its functions or hypertrophy them” (p. 193).

Sharapov, Derbentsev, Semyonov (2003) state that system destruction can occur under the following conditions: “conditions for degradation of systems exist for a long time, and efforts to correct the structure and behavior of the system are insufficient, non-resonant with the system; the external environment strongly influences the system; internal fluctuations (oscillations) break the bonds between the components of the system; as a result of external or internal fluctuations the system loses elements that cannot be replaced”. In Sharapov (2004) it is stated: “... when the changes of the parameters of the system under the influence of external or internal fluctuations exceed its adaptive capacities, a state of instability (a point of bifurcation) occurs, a turning point for the development of the system moment”. This confirms the need to enhance the adaptive capacity of enterprises in volatile external and internal environments. Based on the above, we can determine the reasons that can lead to the degradation and destruction of organizations. They are: inconsistency of the goals and objectives of the subdivisions of the enterprise and its strategic goals; poor performance of

management functions; chaotic nature and complexity of interconnections in the middle of the organization, duplication of functions; resistance to aggressive external and internal environmental threats; insufficient coordination of the information system, the plan implementation system and the control system; absence of timely corrective actions; restriction of the initiative of employees of lower levels; overload of senior management or lack of competence, which affects the quality of management decisions.

The conducted monitoring of the activity of the enterprises showed that their managers spend their time more not on effective management of the enterprise, but on the solution of tactical and operational tasks and plans; perform functions which should be delegated to a lower level of management; in decision-making, they often overlook the scientific approach to solving problems. Long-term development programs and strategic plans do not correspond to the real capabilities of enterprises, they often remain only on paper and become quickly obsolete. Management systems operating at modern enterprises are different in complexity and low flexibility, such systems fail to respond in a timely manner to the threatening external influx of the environment. It is worth noting that the following companies have the following problems: lack of mechanisms of continuous coordination and adjustment of strategic and operative plans, insufficient operative information support of acceptance of managerial stuff.

In enterprise management, there is often a weak feedback in the control loop, that is, there is no adequate response of the managers to the influence of the results of the enterprise's functioning as a system on the further activity. Some managers of modern enterprises have imbibed Soviet administrative and command style of management and adhere to conservative behavior while market economy and market competitive environment require the use of mechanisms of timely response and adaptation.

Until recently, strategic management was considered to be the most effective management system in the changing environment. It is interpreted as the system of management that most closely meets the current conditions of functioning of enterprises. Strategic management has been a long-standing development since the late nineteenth century to our day. Until the early 1970s and 1980s, "strategic management" was interpreted by scientists as long-term planning using process management. In that period, the use of new advanced organizational structures began innovative methods of planning and forecasting was

used, which were based largely on the study of operations.

From the 60's to the 70's of XX century. The concept of "strategic planning" emerged, based on a systematic approach. Since the early 70's of XX century the concept of "strategic management" was formed – management is based on the achievement of goals, not on the planning process. At this stage, the situational approach in management began to be applied. The concept of "organizational culture" has emerged. It was believed that consistent staffing would enable the company to achieve its strategic goals. At the same time, computer decision support systems have become widespread. This is made possible by the processing of analytical information with the help of new technologies.

Nowadays, the most widespread is the interpretation of strategic management as a management activity for the elaboration and implementation of decisions aimed at the full and effective use of available resources aimed at fulfilling the tasks set for the organization in the future. At present, it is believed that strategic management is a flexible management in market conditions, which is focused on meeting the needs of consumers with optimal use of human resources and other types of resources in the long term.

Strategic management has several advantages, namely:

- the relationship of operational management to the overall purpose of the organization;
- forecast the consequences of the current management decisions in the future;
- constant search for new alternatives to achieve the goal of the strategy with given constraints and resources;
- the ability to identify all opportunities, risks, weaknesses and strengths of the organization in the process of ongoing activities, as well as their consideration in the development of strategies;
- strategy is an action plan that determines the behavior of the company at a time interval;
- strategic management ensures an effective distribution of responsibilities across both activity lines and time horizons.

However, it is not necessary to note that strategic management also has a number of disadvantages and limitations and needs improvement. The disadvantages of strategic management, according to Hornets are:

- inadequate understanding of the content of strategic management of the company, bureaucratization of procedures of developing strategies and plans;
- over-spending time to develop strategic plans, manifested in

delayed reactions to changes in the environment;

- the gap between strategic and current activities, the hope that the existence of a strategy already ensures its implementation;

- overestimation of expectations, development of unrealistic plans that do not take into account the specifics of the planning object and the possibilities (including speed) of making changes;

- the hope of finding a “panacea” from troubles and directing all forces and resources to it, rather than using a systematic approach for the implementation of strategic activity.

The author Kindratskaya (2006) points out the following disadvantages:

- the strategy does not accurately predict the future, but forms only the qualitative wishes of the state in which the organization should be in the future, what position it should occupy in the market and in the business, that is, it tries to predict its chances of survival in competition;

- strategic management cannot be reduced to the implementation of routine procedures and schemes, that is, there is no unified procedure that would provide what and how to do when solving problems in a particular situation.

At the same time, Kindratskaya (2006) emphasizes that the modern changing environment of any organization significantly limits the process of strategic planning. Within the framework of strategic management, a sufficient number of special techniques have been developed to take into account possible changes in the environment and to develop appropriate strategies. However, the urgent problem is that strategy is often understood only for top-level executives, as it contains a specific terminology and requires additional knowledge to understand, while those in the lower management are unaware of the aspects.

The disadvantages are the high costs of many types of resources for strategy development, as well as the inability to develop sufficiently accurate long-term forecasts of the state of the organization's environment. There are threats that arise during strategic planning that are almost impossible to predict, such as the emergence of new competitors, the purchase of new technology by competitors, political and global financial crises.

The following significant shortcomings of strategic management at ukrainian enterprises:

- lack of relevant information in the preparation of strategic forecasts and the development of strategic plans, which can lead to low quality of adopted strategic management decisions and as a consequence –

unreasonable strategic plans of the enterprise;

- insufficient use of scientific and methodological developments in the process of strategic management, based on the use of systematic and situational approach methods;

- poorly developed system of ongoing analysis, control and adjustment of strategic plans;

- too high attention is paid to absolute performance indicators of the enterprise;

- insufficient development of motivational schemes for employees involved in strategy implementation;

- the strategy formed often establishes peculiar constraints for managers and managers of different levels, which are manifested in the fact that managers begin to act only within the limits of their responsibilities, determined by the strategy, while changing on the part of all employees.

Kovalevsky, Tolkachev distinguish a number of limitations of strategic management, such as: the inability of strategic management to make the right decision in a specific situation in a timely and fast way.

Lukshinov (2010) identifies the following problems of strategic management: each organization resists significant changes caused by external conditions, trying not to notice the need for changes and not to respond to them; the development of new strategies is extremely slow and requires considerable resources for implementation; adopting a new strategy causes tension in the team; managers often do not have enough experience and knowledge to accomplish new tasks; shortcomings in management are eliminated only at large intervals; the period of organizational adaptation of the enterprise to change the strategy in practice takes more than ten years.

Lukshinov (2010) points to the need for reorientation of strategic management in an organization from a reactive type to an active one, which reacts to changes in the medium before the onset of the latter and emphasizes the development of adaptation conditions of the environment. Obviously, these shortcomings in strategic management are due to the imperfection of strategic control at the enterprise.

Thus, Tolkacheva (2012), Shapovalov (2012) consider that in modern conditions the effectiveness of strategic management has decreased due to the following disadvantages of the control system:

- the current control system needs constant reassessment and improvement;

- self-control of managers on the ground is not enough developed;

– control is focused more on finding errors and inconsistencies, while in order to carry out effective control it is necessary to supplement it with a system of motivation. In the process of control, not only “deviations” but also “achievements” should be identified;

– the modern control system at the enterprise needs flexibility, that is, it has to be changed in accordance with the external environmental conditions.

At the same time, Sokolov and Gusarov (2012) identify the following shortcomings and control problems:

– low level of internal control culture;  
– inadequate management attitude to high-income environment threats;

– inadequate transmission and distribution of control information;  
– increase of staff turnover due to lack of motivation during the control and high concentration of the control system for the detection of violations;

– lack of reliable data for the analytical work of the management in order to make decisions during changes in the external environment.

The the biggest problems of the control system operating at the enterprises are:

– lack of clear control procedures for a particular business process;  
– excessive bureaucratization of control of small enterprises, concentration of control over the storage of assets;  
– use of outdated control procedures at the enterprise;  
– excessive focus on short-term performance;  
– often inadequate allocation of responsibilities between controlling entities.

The shortcomings noted above indicate that strategic management needs improvement today. It is important to note that within the theory of strategic management its unified model is not developed, however, most scientists distinguish two main types of strategic management systems: systems for determining strategic positions are systems that direct the organization to its external environment (long-term strategic planning) and the second type – systems for timely response to changes in the environment, in particular the system for managing strategic tasks. The latter uses such methods as: ranking of strategic tasks, control of strong and weak signals, and management in conditions of strategic surprises.

The peculiarity of the long-term strategic planning system is that its future is predicted on the basis of extrapolation of past trends. This

system is inefficient in today's changing environment. However, in a stable external environment, this system can be implemented with high efficiency.

The management system, through the selection of strategic positions, appeared due to the need for the organization to change its strategies. The basic rule in this system is that the chosen strategy of the enterprise must correspond to the potential of the organization taking into account the weaknesses and strengths of the company. An important question in theory is the need to plan both the strategy and the potential of the company. Ansof (1989) pointed that the strategic tasks management system is a recommendation for early detection of unexpected changes in the organization and rapid reaction to them. Unlike long-term planning systems, it operates in real time and is solved continuously. According to this system, a group of top-level executives is created to adjust the strategy, that is, to accomplish a certain "strategic task", which entrusts its implementation to those units that are best prepared for work, without taking into account the hierarchical level of functioning of each individual subdivision. Author of the technique Ansof (1989) made a list of the tendencies of the external and internal environment of the enterprise and the goals of the organization, changes of which may lead to the need to solve unexpected strategic problems. The peculiarity of the strategic task management system is that the author proposes a methodology for selecting strategic tasks based on the evaluation of the consequences of strategic decisions. At the same time, I. Ansof points out that none of the methods used in this system is universal on a case-by-case basis, and therefore it is necessary to choose carefully the methods of external environment analysis that meet the complexities of strategic problems.

One of the methods used in the strategic task management system according to Ansof (1989) is the "strategic task ranking method". This method is based on the general recommendations that the enterprise should carry out constant monitoring of trends in the external environment, and to inform management about such tendencies. However, the method does not take into account the effects of external and internal threats on the performance of the enterprise, and is not well developed for practical implementation. In describing this method, the author emphasizes the need to search for methods of analysis of the external environment, which would allow to avoid "strategic blindness" (p. 231).

The "strong and weak" control method is used to prevent threatening

situations. At the same time, some organizations make decisions based on the action of strong signals or upon the occurrence of a threatening situation. The main disadvantage of the management approach for strong and weak signals, as indicated by I. Ansoff, is that the technique is “insufficiently honed” and requires high qualification of managers and specialists in various fields. It should be noted that in order to apply the control system for strong and weak signals, an enterprise should have a system for monitoring and analysis of environmental signals. Specialized highly qualified experts or consultants on social and political issues should be involved in the analysis of information on the external and internal environment, and professionals should be involved in the analysis of the internal environment. The author of the method I. Ansoff provides recommendations for the calculation of the degree of influence of signals on the strategy and preparation of the reaction to them before they come into effect, but these recommendations are generalized and need improvement.

The improvement of the management system assumes that the manager or supervisor evaluates the danger of the environment and prepares a list of special events for “emergency events” based on this assessment. The method involves the use of a universal scheme of special measures in the event of a problem of strategic importance. This system is a generic recommendation for the preparation of measures in the event of an unforeseen situation.

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**PROSPECTS FOR  
DEVELOPMENT OF  
LABOUR  
POTENTIAL OF  
INDUSTRIAL  
CLUSTER ON THE  
BASIS OF SOCIAL  
RESPONSIBILITY**

Current crisis conditions impose the necessity on the representatives of the industrial business to attract all reserves to enhance the competitiveness of enterprises. Harness and development of labour potential of the industrial sector are among the most long-range means of supporting the viability of companies.

It should be taken into consideration that the efficiency level of a branch is associated with the emergence of clusters based on the branch, and the activities of the clusters directly influence the competitiveness of the state economy as a whole. It should be noted that the study of the

issues related to the expanded reproduction of labour potential of the industrial cluster is particularly relevant today.

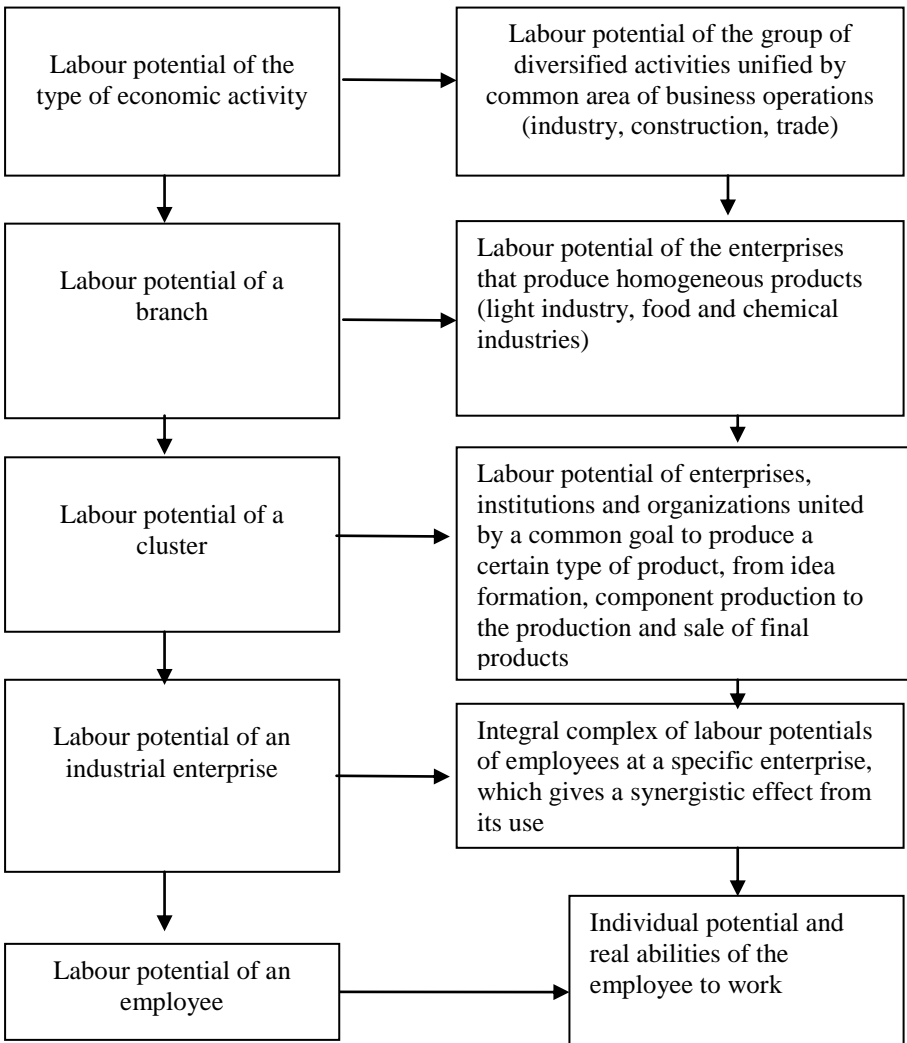
It is worth noting that at the present stage of the international economy development, more and more successful activities of organizations have to comply with the principles of social responsibility. Therefore, considering the world experience and existing realities in the development of the Ukrainian industry, the improvement of labour potential is of particular importance for the functioning of this sector of economy. The principles of social responsibility should also be taken into account.

The Ukrainian scientists A. Kolot, I. Fesenko, I. Dashko, O. Amosha, L. Shaulska and others studied and developed the issues of labour potential. The works on the formation of a cluster-type economy were presented by A. Kolodychuk, M. Voynarenko, O. Odintsov. The issues of social responsibility in labour relations were reflected in the works of A. Kolot, O. Grishnova, O. Amosha, L. Shamileva. However, the issues of functioning of labour potential of the industrial cluster on the basis of social responsibility, in our opinion, were not completely revealed and need further study.

The objective of our research is to focus on identifying the specific features of the economic category “labour potential of the industrial cluster”, as well as on substantiating the need for its development on the basis of social responsibility.

The authors’ view on the content of the category “labour potential” is based on the fact that it is an integral complex of potential opportunities of economically active population, as well as those preparing for employment. It is determined in the form of resources and reserves of living labour to realize their quantitative and qualitative characteristics, which appear in labour process under certain conditions of development of industrial relations.

Classifying by branch, the labour potential of the type of economic activity is (Fig. 2.5) a complex of diversified groups of activities (industry includes mining operation and processing with a sufficient number of different products (light, chemical and food industries, engineering, etc.); agriculture includes animal husbandry and crop production, fishery, forestry, etc. The next step in the classification is branches. They are the groups of enterprises producing homogeneous products (for example, food industry includes food-producing enterprises, etc.).



**Figure 2.5 Classification of labour potential by branch**

*Source: developed by the authors*

The next level is represented by business associations and clusters. They are a symbiosis of industrial enterprises of different industries, educational institutions, scientific institutions and state authorities. Accordingly, the allocation of a cluster as a separate structural unit of

labour potential is reasonable. The lower classification steps are intended to consider industrial enterprises as well as an employee as a direct representative of individual productive labour potential.

For better understanding of the category “labour potential of a cluster”, we will compare it with the categories “labour potential of the industry” and “labour potential of the economic area”.

Developing the viewpoint of I.A. Fesenko [8, p. 37], who considers that labour potential of the industry is a part of the resource labour potential of a country of certain professional training and knowledge in the total number of people who work or intend to work in this industry under certain legal and socio-economic conditions.

We would like to add that to our opinion, labour potential of the industry is a holistic characteristic of the ability of the labour activity of the industry to achieve its development goals, generated by the specific interaction of the industry and the environment, the direct influence of demographic, socio-economic, technological and climatic-geographical factors.

Sectoral labour potential is characterized by its own differences, expressed by the specific features of a particular sphere of economy. The analysis of industry peculiarities of formation and management of labour potential of enterprises is based on the specificity of technological processes, peculiarities of production organization, differences in the characteristics of the final product and resources for its production, as well as markets [3].

Let us note that the industry itself does not provide the full process of complete reproduction of labour potential. It is, above all, is a consumer of the workforce, aimed to increase production efficiency, labour productivity, and to adapt to the changes that take place in the market environment.

Labour potential of an economic area includes the labour potential of an industrial manufacturing complex located in this region. However, taking into account the inherent capacity of labour potential of the industry to consist of individuals with inherent economic and social interests, it may not satisfy at some time the need of production in the workforce. In addition, the regions of the country differ in the degree of intensity of influence of demographic, social, economic, technological, climatic and geographical factors, which determines the specificity of the territorial structure in connection with the distribution of labour potential by industry according to the principles of labour division, specialization of the region and, therefore, defines the peculiarities of

the process of reproducing labour potential of its industries at the level of each region.

Thus, labour potential of the region and labour potential of the industries are interconnected and interdependent, but are not similar due to their own specificity. However, labour potential of the industry, being its main competitive advantage, deserves the attention of scientists and practitioners, because it is a complex and diverse system that has no formal framework. It has a certain multilayer with a complex hierarchy of interrelated links and components that make it up. [9, p. 15]

In today's economic environment, the regions where industrial or innovation clusters have emerged are most dynamic. A cluster is a form of economic organization which focuses not on certain industries or manufacturing enterprises, but on their symbiosis in combination with local authorities, business incubators, and trade associations, financial institutions, raw material suppliers, universities, and research institutions.

In the conditions of market relations, when a vast majority of enterprises are privately owned and the state regulates their activities fairly indirectly, the owners are forced to seek ways to adapt to the changing environment. The attention to the social sphere is diminished, the connection between educational establishments and enterprises has been lost, medical care is not provided properly, the living conditions of the population are deteriorating, and the effective reproduction of labour potential is at stake. It can be concluded that regulation of sectoral labour potential goes to another level: it retains its quantitative form and undergoes qualitative transformations, losing its functions, which are now passed to the powers of enterprises and local self-government bodies. Thus, there is a radical change of ideas about the system of regulation of labour potential, in which the management of policy-making methods, as it was in the Soviet times, is impossible, and vice versa, the functions of long-term management remain: the formation of tasks and goals, the development of strategies and policies.

That is, in view of changing the established perceptions about the role of enterprises in the system of reproduction of labour potential, helping them to take on new powers, the cross-sectoral integration should be at first place. It means not only joint production of products, but also an effective system of managing these enterprises, formation of their labour potential as a guarantee of successful activity. The best way out of the situation is to form industrial clusters where the manufacturing companies are merged, either horizontally or vertically.

Innovative clusters are formed with the involvement of scientific and research organizations, and government institutions.

Industrial clusters make more efficient and rational use of available capital, help cluster enterprises save resources and target investments more efficiently, accelerate specialization, increase product quality and production, expand product range and create new firms, accelerate processes, optimally distributing profits between cluster members [2, p. 30].

The main idea of creating clusters is to coordinate work when different functional entities fulfil a common task, thereby increasing the efficiency of their own work, accelerating the achievement of planned results, introducing new technologies, facilitating crediting, forming a competitive basis for the distribution of contracts by forming the optimal structure of production, determining the priorities in the trends of development [4, p.22].

The defining feature of the cluster is the synergistic effect resulting from the cooperation of the efforts of the structures involved. This causes the specificity of research of labour potential of such object as a cluster.

It should be emphasized that labour potential of the industrial cluster is not just a combination of labour potentials of employees who carry out their activities within its framework. The whole complex of their labour potential is much greater than their simple arithmetic sum. The synergistic effect that occurs when they merge significantly increases the end result of the cluster.

Studying the activities of clusters, scientists came to the conclusion about the variety of synergistic effects of their activities. I.O. Khomenko states that the main synergistic effects arising from cluster formation are transport, economic and social effects [8, p. 433].

In his work, O.M. Odintsov distinguishes the following types of synergism as a result of cluster activities:

- synergy of realization of production results is shown when a company, while selling goods, uses the same distribution channels and implements sales management through a proven centre;

- operational synergism is the result of more efficient use of production facilities: fixed and working capital, labour, distribution of overhead costs, etc.;

- investment synergism is a result of sharing of production facilities, total raw material stock, transfer of R&D costs from one product to another and the use of the same equipment [5, p.131].

Sharing the viewpoints of the authors we note that it is necessary to distinguish another type of synergism which is labour. It is a joint exchange of best practices in business, teaming up to solve complex production tasks, pooling of intellectual potential for innovative, research, design developments, common methods of retraining and advanced training of personnel, etc.

Considering the above-mentioned facts, in our opinion, labour potential of the industrial cluster is a synergistic effect of combining labour potentials of the cluster participants, expressed as an integral set of potential opportunities of economically active population, as well as those preparing for employment in the form of resources and living labour reserves for the realization of their quantitative and qualitative characteristics. They are manifested in the working process under certain conditions of development of industrial relations.

The formation of labour potential of the industrial cluster depends on the regional and sectoral features of its location. But it is not necessary to identify cluster's labour potential with regional potential as well as industrial potential. Thus, the structure of labour potential of the industrial cluster may well include commuters who do not reside in the region, but take part in the activities of an organization, migrants from other regions who want to work in this cluster, re-migrants who left the region before and return to work again at the enterprises of the region forming the cluster. That is, labour potential of the cluster and the region where it is located can be superimposed, but in no case be similar to each other.

Unlike labour potential of the industry, which, as we stated above, are primarily a consumer of labour and do not fully ensure full reproduction of labour potential. The formation of labour potential of the industrial cluster can be influenced by the involvement of educational institutions at different levels, institutions that provide necessary initial and further development of labour potential in the work process, as well as various social infrastructure institutions, influencing the components of labour potential such as health, culture, morality and others. Accordingly, taking into account the specifics of the functioning of the industrial cluster, it should be noted that its effective activity will be significantly inhibited without forming the socially responsible type of thinking of its participants.

The most general definition of social responsibility is its understanding as the responsibility of civil society (the state, power structures, enterprises, institutions, citizens) for the integrated social

utility of their activities. That is, socially responsible activity uses only such methods of achieving goals that do not harm people, nature and society [6, p. 20].

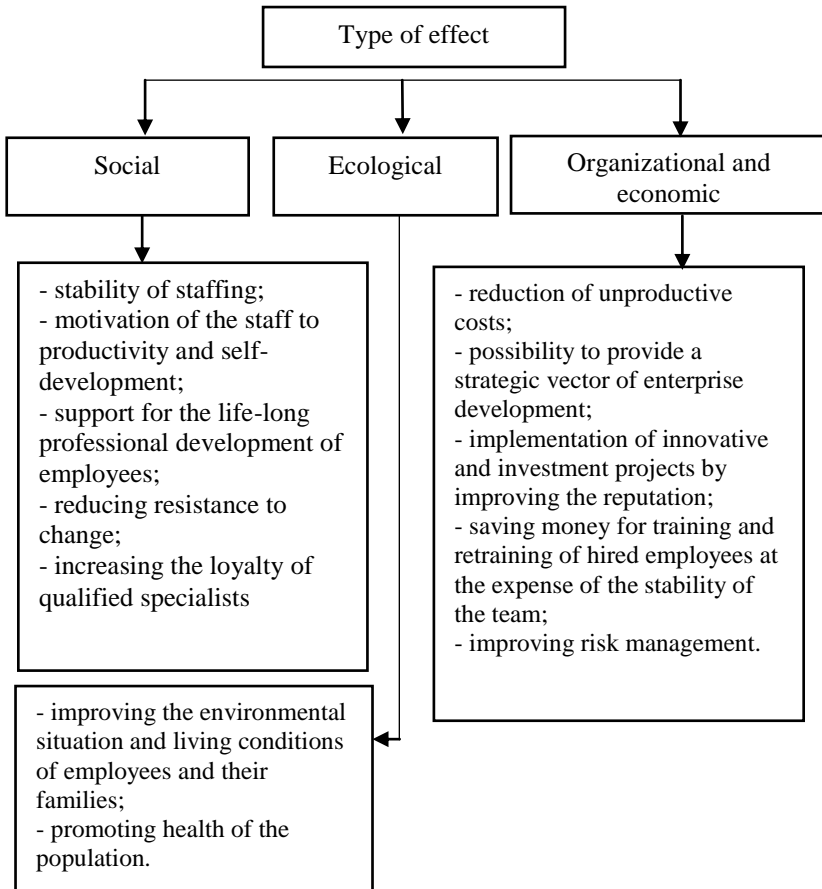
A.M. Kolot identifies five levels of social responsibility: personal, microeconomic (corporate), mesoeconomic (institutes of civil society), macroeconomic (state), megaeconomic (international) [6, p. 22]. We agree with the scientist, but we propose to consider separately corporate social responsibility and social responsibility of the economic cluster, since in this case the social responsibility of not only certain employers, but also other participants of this formation, symbiosis of which creates additional social effect. Businesses of the cluster for more productive activities cannot but bear the increased social responsibility for their functioning due to the proportional influence of the quality of life of other members of the cluster on the end result of their activities. In turn, immediate employees, as well as staff responsible for the innovative, educational, service function of the cluster, are also directly dependent on the efficiency of the production unit. Such a synergistic effect of the combination of social responsibility should strengthen the level of economic and social life of the cluster members and, therefore, enhance the competitiveness of several branches of the state economy in case of its widespread use.

It can be concluded that the functioning of the cluster-type economy significantly reduces the percentage of rejection of the principles of social responsibility, implementation of certain social projects to obtain certain benefits for doing business, or the avoidance of penalties, but not in terms of conscious social responsibility for the production activities which is, unfortunately, an objective reality.

As we stated above, industry is a capital, science, technology-intensive industry, and its enterprises require significant funds for their activities. The personnel of the industry must have specific knowledge of high quality. The environment is significantly affected by industrial production, therefore, the efficiency and competitiveness of industrial enterprises requires a whole range of actions aimed at improving current situation as well as a number of strategic management measures. Formation of clusters around high capacity enterprises, introduction of social responsibility principles into daily activities will benefit not only large corporations, but also small business, social, environmental and educational spheres. This will have a positive effect on the formation and development of labour potential of functioning cluster of the region, and thus will provide economic sector with highly qualified personnel.



The results of implementation of the principles of social responsibility in industry are shown in Figure 2.6.



**Figure 2.6 Effectiveness of industrial cluster activities on the basis of social responsibility**

*Source: authors' development*

Therefore, in our opinion, the primary task of the state for the development of the Ukrainian industry is to stimulate the application of the principles of social responsibility at the industrial enterprises, to promote the creation of powerful industrial clusters, providing favourable conditions for their functioning, to introduce special

conditions of taxation, attracting the attention of the community and the media, to develop the system of media penalties for identifying and punishing unfair business representatives. This activity will stimulate strengthening of industrial positions, as well as increasing the competitiveness of Ukrainian enterprises in the international market.

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**DIRECTIONS FOR  
IMPROVEMENT OF PUBLIC  
FINANCE SYSTEM UNDER  
EUROPEAN INTEGRATION**

The effectiveness of reforms in the Public Finance System depends on the sustainability, integrity and completeness of reforms. The EU-Ukraine Association Agreement considers the development of cooperation in the field of the economy through the establishment of an in-depth and comprehensive free trade area, establishing closer cooperation in various fields. Particular attention is paid to the formation of new formats of cooperation, activities in the financial sphere, intention made by Ukraine towards European standards.

At the same time using the experience of other EU member states without a holistic vision reduces the effectiveness of successful mechanisms from EU Member States experience. The purpose of the reforms is not only to borrow reforms from the EU Member States and their implementation, taking into account the norms of the EU-Ukraine Association Agreement, but also to bring these reforms to a logical conclusion.

The purpose is to analyze international experiences of Public Financial Reforms and prefer recommendations for their improvement in Ukraine in accordance with the requirements of the EU-Ukraine Association Agreement.

Researches on the problems and prospects of public finances were considered by such scholars as V. Andrushchenko, T. Bogdan, A. Krisovaty, I. Lunina, I. Lyuty, O. Moldovan, V. Oparin, A. Sokolovsky, V. Fedosov, I. Chugunov, A. Chukhno and many others. At the same time some issues of reforming public finances of Ukraine in the conditions of European integration processes remain unpublished and require further research.

According to the content of Public Finance it should be noted that Ukrainian practice and a number of scientists identify Public Finances with State Finances in a broad sense, including local finance to the last one, which has been adequate to Ukrainian realities for many years. However, there are scholars who have begun to use the term "Public

Finances" and define it as covering incomes and expenditures of the central and local government, as well as structural interrelationships between them.

In the case of European countries, Public Finances are often considered at the level of: 1) national, that is, at central government level – central finances and 2) subnational that is, at the level of local governments, the finances of local authorities. Local government finances are the finances of territorial communities and their associations, and in the broad sense, local finances are also finances of regions. Actually in all countries local finance is the sum of finances of all subjects of local self-government.

In our opinion, in the context of Ukraine's reforms of decentralization of power and fiscal decentralization, the allocation of two components in the structure of Public Finances meets modern Ukrainian practice: 1) central (government) finance and 2) municipal finances (local or otherwise Local Government Finances).

It is also should be emphasized that modern Western science and practice suggest a new approach to the perception and analysis of Public Finances in general, more appropriate to the current realities of the development of the world economy and financial relations at all its levels. The new approach is presented in particular in the brief review of "The new public finance" [1], which presents the evolution of Public Finances from the "traditional" using known fiscal instruments, through "updated" on the basis of various forms of public-private partnership, to "new", taking into account new realities of development. The content of the new approach is that the current realities open up a new vision for science to Public Finances for science, which is connected with the erosion of the boundaries between the national economy and the outside world, which leads, on the one hand, to the deepening of the interaction of private business and the public sector of the country, to the growth of competition between them, goes beyond national boundaries in line with the global challenges of the present. Thus, it means that changes in the Public Finances of any country take place taking into account the erosion of borders within the framework of financial relations of different levels: national, private, public and international. It also applies to Ukraine, therefore, it should not be left out and ignored, but rather should be taken into account when investigating various aspects of public finances, which are now at the level of a significant transformation due to Government's implementation of a number of reforms aimed at overcoming the crisis processes in the country's

economy.

The traditional theory of Public Finances focuses on the formation of revenue and expenditure components of central and local budgets, and also examines the interaction of state and local finance in the context of financing public goods. And the new theory of Public Finances takes into account the interaction between markets and states, cooperation and competition between state and private actors, and also covers the international and national aspects of global problems. It is precisely in the context of new approaches how the government is using public and private funding to solve global socio-political problems, as well as examining aspects of the mobility of such factors of production as labor and capital, and the reasons for their migration within different countries of the world [2].

Reforming Public Finance Systems depends on the development of economic concepts that underpin the role and functions of the government in the economy. Since the 1970s in the modern European Union, the Keynesian School of Economics began to lose its popularity, owing to government policy abuses of the active use of the budget mechanism to achieve macroeconomic goals, and led to negative consequences. Skepticism about Keynesianism's ability to effectively solve economic problems and ensure sustainable development has also spread to the attitude towards the effectiveness of the state in the economy. The government began to be seen as a destructive factor for the market, and its ability to manage the financial resources of the country rationally was questioned. It is worth noting that the basis for such relationship to the government and the state were significant economic weaknesses in the system of Public Finances, provoked by state policy.

In the 70's of the 20<sup>th</sup> century in developed countries problems such as the constant growth of public spending, budget deficits, rising public debt, inefficient spending of budgetary resources, high levels of corruption, excessive tax burden on business and citizen incomes have become particularly acute. It has led to the fact that the traditional model of Public Administration is ineffective. Accordingly there was a need to search for a new model of Public Administration, to use public funds rationally and to be oriented towards meeting the needs of citizens. Against the background of these problems in the public sector, the private sector looked like an example of economic and financial efficiency. It contributed to the development of the idea of the advisability of transferring management practices in business to the

system of state and local government. Thus, in the 80's of the 20<sup>th</sup> century the concept of a new model of public administration has emerged in modern terms. This model contains various tools for improving the efficiency of the state apparatus and the public sector in the economy by introducing the best practices used in the market sector, that is, private business [3].

Ukrainian government has already made steps in accordance with the EU-Ukraine association agreement. The implementations have affected the following areas:

***1. Development of medium-term budget forecasting / planning.***

Medium-term budget planning is an important instrument for development of fiscal policy because it gives an opportunity to expand the period of the assessment of the effects of decisions for more than one budget period. An analysis of medium-term planning in countries that have joined Stability and Convergence programmes proves that most EU countries focus on planning costs.

A substandard system of budgeting endangers growing budget deficit and public debt and prevents efficient use of resources in Ukraine. The introduction of medium-term budget planning is one of the priorities of the Ukrainian Government, and the Action Plan for 2016 envisaged a model of transition to medium-term planning. In addition, Ukraine has obligations to international organizations to introduce medium-term fiscal base.

Thus, the Ministry of Finance of Ukraine implemented a model of medium-term budget planning based on the best international practices and experiences including the advice of the IMF and the features of the budgetary system of Ukraine. This model would expand the budget planning horizon from one to three years. A key element of the Medium Term Budget Planning will be the Budget Declaration for the medium term, and the Law on State Budget of Ukraine will remain annual. The advantage of the model is the change of the focus on budget planning from maintenance of budget institutions to provide quality public services.

***2. Improvement of target-oriented approaches to budgeting and analysis of effectiveness and efficiency of budget programs.***

Comprehensive assessment of efficiency and effectiveness of expenditures, or spending review will be implemented firstly in order to optimize the state budget expenditures in Ukraine. The purpose of this assessment is to identify inefficient spending and to improve the efficiency of sectoral policies.

It is also important to note that the implementation of a gender-oriented budgeting will be a progressive mechanism for improving of the efficiency and effectiveness of budget expenditures in Ukraine. Foreign experience shows that it can improve the quality of public services to meet the needs of different social groups, to optimize the amount and structure of budgetary expenditures, rational use of taxpayers' money.

It will facilitate a consistent and predictable fiscal policy, strengthening of budgetary discipline, reforms impact assessment and consideration of their implications in the medium term, improve the efficiency and effectiveness of public spending.

The new system of budget planning is aimed at achieving strategic goals. This priority is improving the quality of services provided by the public budget. Analyzing the sustainability of public finances in Ukraine should take into account national peculiarities of economic, financial and social development, and risks that may cause adverse effects.

***3. Development of public internal financial control by harmonization with internationally agreed standards and methodologies to improve methods for controlling and preventing fraud and corruption in the public sector.***

The fact is that in 2017 Ukraine's Open Budget Index reached 54 out of 100, which is higher than the global average score of 42. However, taking into account the neighboring countries, many of them have higher figures (Poland – 59, Slovakia – 59, Czech Republic – 61 and Romania – 75). Therefore, Ukraine should make efforts to meet EU requirements.

Some steps in this direction have already been made; the most successful examples are the projects E-Data and ProZorro. E-Data is an official government information portal on the Internet, which provides public information about the use of public funds and implements the idea of “Transparent budget”. Creating a system of “Transparent budget” will reduce fraud and corruption committed at all stages of the budget process, improve the efficiency of budgetary funds and international rating of Ukraine on the Open Budget Index.

ProZorro is electronic public procurement, which replaced the paper public tenders. This system uses commercial online platforms to register and connect users and organizers, and today there are already 10 accredited platforms for all types of purchases. The benefits of the introduction of this system are: firstly, it allows everyone to control the budget process and budget execution; secondly, it's more efficient use of budget funds; thirdly, it reduces the possibility of committing fraud

and corruption at all stages of the budget process; finally, it improves international rating of Ukraine on Open Budget Index.

The completion of the integration process of State Treasury Service of Ukraine, Prozorro and E-data will provide a full cycle of a specific contractual agreement: from proposal through contractual agreement to service acceptance acts and specified bank accounts.

#### ***4. Improvement and development of the tax system and tax administration of Ukraine, in particular VAT refund procedures to avoid arrears.***

Starting in 2017 the VAT refund mechanism was changed; now it includes an implementation of the electronic register for VAT refund. The main innovations of this mechanism are following:

- Automatic display of information about consistency of VAT refund in the single register;
- VAT refund is carried out without transfer of the conclusions of the State Fiscal Service to the State Treasury Service concerning the amount of VAT claimed for reimbursement;
- Registry Administration is performed by the Ministry of Finance of Ukraine on the basis of databases of the State Treasury Service and the State Fiscal Service;
- Ministry of Finance of Ukraine provides daily publication of the single register on its official website.

The main advantages of this mechanism are following:

- Single automatic register (Ministry of Finance administers the single register of VAT refunds. The register is performed automatically based on information obtained from databases of the State Treasury Service and the State Fiscal Service);
- Timely reimbursement (VAT refund is performed in a chronological order within funds available on a Single Treasury Account);
- Transparent compensation (The implementation of the single register).

#### ***5. Enhancement of the fight against tax fraud and tax evasion.***

On 22 November 2016, the Ministry of Finance of Ukraine announced Ukraine to join OECD Base Erosion and Profit Shifting (BEPS) Action Plan starting from 1 January 2017. Ukraine's joining BEPS means that Ukraine is obliged to implement BEPS minimum standards including the next steps:

- countering Harmful Tax Practices More Effectively, taking into Account Transparency and Substance;



- preventing the Granting of Treaty Benefits in Inappropriate Circumstances;
- mandatory Disclosure Rules;
- making Dispute Resolution Mechanisms More Effective.

***6. Improvement of budget openness and public participation in the budget process***

The decentralization reform started in Ukraine in 2014 and allowed to receive the significant instrument and opportunities to ensure full local development. The success of the decentralization reform demonstrates the development of freedom, democracy and civil society in Ukraine.

An important step in implementing the decentralization reform in Ukraine is the provision of citizens the right to take an active part in solving financial issues at the local level. Thanks to the participatory budgeting, citizens are empowered to decide where to spend a portion of public resources.

The procedure for submission, selection and financing of projects is determined by a separate decision of the local council in the Provision on Participatory budgeting. This document also defines detailed procedures for initiating, reviewing, voting and executing the public budget [1].

Key principles in the process of Participatory Budgeting are as follows:

- decisions made by citizens are respected by local governments,
- the procedure of participatory budgeting is simple, transparent and understandable for most citizens,
- discussion should take place in the public forum – the selection of the projects should be the result not only of voting, but mainly debate.
- the process should favor the inclusion of citizens, supporting their ideas and activities,
- participatory budgeting has to be a repeated process. Strategic, long-term thinking should dominate during the decision-making process,
- the amount of money should be high enough in order for citizens to have an impact on changes in the city area.

For the first time in Ukraine a participatory budgeting was introduced in 2015 in three cities: Chernihiv, Cherkassy and Poltava. Currently, the public budget as an instrument of direct democracy, already works in more than 70 cities in Ukraine. The leaders in terms of the participatory budgeting are Kiev, Kharkiv, Lviv and Dnieper.

Among the main areas of projects implemented in Ukraine within the

participatory budgeting, it is advisable to cite as an example the following:

- constructions of school grounds;
- constructions and capital repairs of sports grounds;
- improvement of the adjoining territory of the social and domestic adaptation for disabled persons;
- improvement of the recreation area;
- reconstructions of the pedestrianised walk;
- help for young players: improving the mini-football field;
- basics of computer literacy and Internet;
- energy efficient projects.

At the same time, the existing mechanism of participatory budgeting in Ukraine is not without certain disadvantages. The risks and disadvantages that prevent its effective use are related to the following:

- a limited amount of funding for one project threatens the possibility of its implementation;
- funds for the implementation of projects are allocated for the next year after the voting (during this period the project may lose its relevance);
- the coordination of projects and voting for them last a long period of time (in some cases even up to 6 months);
- in the case of “freezing” the project, it is difficult to restore the organization of the voting process for the continuation of this project and its win, as well as bringing the project to its logical conclusion.

In order to effectively develop participatory budgeting in Ukraine, it is important to take into account not only the shortcomings and risks that are observed in our country, but also the experience of other countries that are involved in the development of the local financial system and implementation of the participatory budgeting. The international practice of implementing participatory budgeting shows the importance of active actions of non-governmental organizations and other public associations, as well as constant control by the public. It requires direct public participation at each stage of managing the participatory budgeting.

Currently there is a situation that a lot of reforms were initiated and introduced by the government. Given that the EU-Ukraine Association Agreement was ratified only in 2017, certain steps have already been achieved. At the same time, the movement of these reforms is slow. Taking into account the analysis, as well as the opinions of the respondents, the following reasons for the slow introduction of reforms

in Ukraine are defined:

- lack of experience in implementation of medium-term budget planning ;
- not all but only popular mechanisms were adapted;
- most programs have a "mechanistic" preparation;
- low quality of training of the relevant specialists;
- high level of corruption and lack of effective mechanisms for overcoming it (only the simplest and most visible forms of corruption have been eliminated).

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**DIRECTIONS OF  
DEVELOPING THE  
STATE ECONOMIC  
POLICY OF UKRAINE**

In the modern world, the issue of improving the efficiency of state regulation of the economy, improving the quality of the norms both the adopted and the effective ones are of particular relevance. Features of the state regulatory functions and the market depend on the level of development of the country's productive forces, its political orientation, social structure, national characteristics (Prikhodko, 2013). State regulation of the economy within a market economy is a system of typical legislative, executive and control measures carried out by state bodies and public organizations in order to stabilize and adapt the existing social and economic system to changing conditions (Mochernyi, 2009).

The World Economic Forum, which assesses competitiveness between the countries since 1979, defines "competitiveness" as "a set of institutions, policies and factors that determine a country's level of productivity" (World Economic Forum, 2016).

The World Economic Forum study presents two indexes that form the basis for such ranking of the countries: the Global Competitiveness Index (GCI) and the Business Competitiveness Index (BCI). GCI, created by Professor at Columbia University Xavier Sala-i-Martin in 2004, is the main tool for generalized assessment of countries' competitiveness (Center for Humanitarian Technologies, 2019).

The GCI assesses the factors that collectively determine a country's level of productivity – the most important factor in long-term improvement of the living standards. The Global Competitiveness Index

comprises 113 variables, characterizing in detail the competitiveness of countries at different levels of economic development. All data are combined into 12 benchmarks that determine national competitiveness: quality of institutions, infrastructure, macroeconomic stability, health and basic education, higher education and training, efficiency of goods and services market, labour market efficiency, financial market development, level of technological development, size of the internal market, competitiveness of companies, innovative potential (World Economic Forum, 2018). According to the GCI methodology, Ukraine was ranked 833<sup>rd</sup> out of 140 countries.

To measure the level of development and potential of the economies of countries, SolAbility issued the rating of 183 countries, formed according to the Sustainable Competitiveness Country Index (GSCI). The rating measures the current and future ability of countries and their economies to generate and maintain financial and non-financial income for their populations. In the GSCI rating, Ukraine ranks 91<sup>st</sup> (43.0); such level is inherent to the developing countries. The intensity of using the resources and the ability to effectively manage are of the lowest rates.

International sustainability development ratings prove that in current economic circumstances the external opportunities for corporate development in Ukraine are scarce. Domestic corporations, responding to new challenges of sustainable development of the country, are forced to take into account not only the economic aspect, but also the requirements of social and environmental nature of stakeholders. The low level of competitiveness of Ukraine in the current conditions of globalization is mainly due to the lack of an effective mechanism of state management of the economy and, consequently, the loss of the manufacturing sector's competitive potential (Orlova, 2014). Achieving economic efficiency requires profound social and economic transformation in Ukraine and a new global partnership.

The current economic situation in Ukraine makes economic growth a top priority for the country's development. Expanding Ukraine's European integration ties, increasing the dependence of the national economy on globalization processes and, as a result, increasing international competition, are the top issues of developing the national competitiveness.

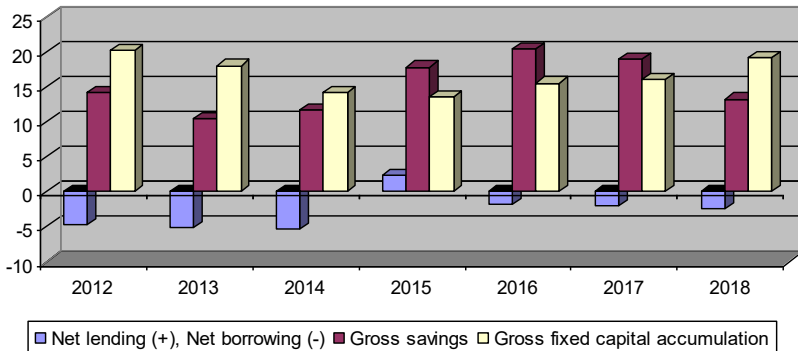
The definition of the national paradigm of the sustainable development strategy of Ukraine is influenced by modern world tendencies aimed at solving not only the problem of balanced development of socio-economic relations, but also of harmonious

development of humanity as a whole. In September 2015, the United Nations Summit on Sustainable Development approved the new development benchmarks that are reflected in the Ukraine 2020 Sustainable Development Strategy. Ukraine, like other UN member states, has joined the global process of sustainable development (Ministry of Economic Development and Trade of Ukraine, 2017).

Having been established, and during the stage of introducing new instruments for market regulation of socio-economic processes, Ukraine required well-defined assessment indicators to achieve development goals, one of which was gross domestic product (GDP), energy intensity of GDP, material consumption of GDP, share of gross capital accumulation in GDP and efficient use of investment resources.

The share of gross fixed capital formation in the GDP of Ukraine in 2018 was the lowest for the whole period of independence (16.0%), which is almost twice less than the level of some European countries. Such a level hinders the modernization of the economy, reduces the effectiveness of production equipment and does not contribute to maintaining production capacity, capable of creating a competitive product.

In 2018, there was a slight increase of GDP (by 3.1%) in Ukraine, with the growth of industrial production and slowdown of inflation in the annual average, but such rates are extremely insufficient (Fig. 2.7). The current situation cannot guarantee a sustained growth and accelerated lining the gap in GDP per capita between Ukraine and the most developed countries.



**Figure 2.7 Economic development of Ukraine indicators dynamics during the period from 2012 to 2018, % to GRP**

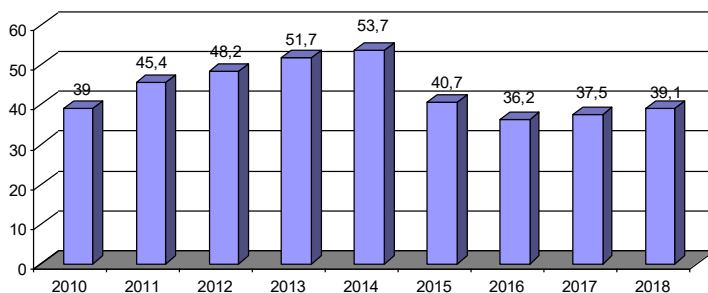
*Source: State Statistics Service of Ukraine*

As a result, the level of energy intensity of GDP in Ukraine (0.28) is almost three times higher than the European equivalent (0.1), the material intensity of GDP (0.881) exceeds the European one (0.44) twice. Combined with low labour productivity of USD 17.2 thousand, or 77.7% less than the European level, this exacerbates displacement of domestic producers from competitive markets (State Statistics Service of Ukraine, 2018).

One of the important factors in ensuring the sustainable development of the country is attracting and efficient use of investment resources. This is due to the fact that investments affect all spheres of economic activity of the country as a whole and create many opportunities for successful achievement of the goals, social effect, future prosperity.

Investment policy maximizes the use of existing national resource potential to ensure the long-term and short-term goals and objectives of socio-economic development, as well as effectively involve foreign investment in these processes (Orlova, 2014).

Investment in Ukraine still remains low. The dynamics of capital investment depends on the fluctuations of the economic environment. The low investment attractiveness of the Ukrainian economy causes the lack of foreign direct investment to restore the potential of the national economy (Ministry of Economic Development and Trade of Ukraine, 2017). According to the State Statistics Committee of Ukraine in 2017, foreign investors from 76 countries of the world directly invested USD 1630.4 million (State Statistics Service of Ukraine, 2018). The volume of attracted foreign direct investment (equity) in the economy of Ukraine for the year 2018 amounted to USD 39144.0 million (Fig. 2.8).



**Figure 2.8 Foreign direct investment in Ukraine, billion USD**  
*Source: State Statistics Service of Ukraine*

Investments are directed to already developed spheres of economic activity: to institutions and organizations engaged in financial and insurance activities – 26,1% and industry enterprises – 27,3% (State Statistics Service of Ukraine, 2018).

The main source of financing capital investments is still the own funds of enterprises and organizations, at the expense of which in 2017 69.9% of capital investments were utilized. The main investor countries are Cyprus – 25.6%, the Netherlands – 16.1%, the Russian Federation – 11.7%, the United Kingdom – 5.5%, Germany – 4.6%, the Virgin Islands (British) – 4.1%, and Switzerland – 3.9% (State Statistics Service of Ukraine, 2018).

Thus, Ukraine remains attractive for investment, at the same time it is not on the sidelines of global processes, it is sufficiently integrated into the world economy, and disruption of macro-stability in foreign markets has its effects in Ukraine. The state policy of Ukraine is aimed at stable development of the Ukrainian economy and intensification of investment activity, protection of investors' rights. Thus, the improvement of indicators was influenced by the implementation of structural reforms in Ukraine, which helped the country to cope with the debt load and improve its position in foreign markets.

In general, investment process in Ukraine is hampered by subjective and objective reasons: political and economic instability; frequent changes in legislation; lack of well-established customs control and deficiencies in the Customs Code of Ukraine; corruption of the authorities in Ukraine; slow pace of privatization; poor development of market institutions (corporate sector, securities market, land market, real estate market); low competitiveness of many Ukrainian goods; lack of integration into the world economy; lack of a clear investment policy with appropriate implementation mechanisms at the state and local levels; local government inertia in attracting investment, lack of incentives and mechanisms to attract investment.

The analysis of economic policy of Ukraine demonstrates that the state is not sufficiently implemented in a competitive environment and the problems of sustainable development due to the existing economic problems: irrational use of resources, dependence on imported energy resources, orientation on the export of raw materials and imports of high-tech goods. Political and social instability, environmental problems, lack of a clear country development strategy, high levels of corruption, and poor quality of life in general can also be mentioned as problem areas (Orlova, 2014).



At the current stage of developing the world economy, there is an objective necessity to intensify investment activity, because it is the decisive link in the whole economic policy of the state, which ensures stable economic growth of the country as a whole.

To further improve the investment climate of Ukraine, improvement of the legal and organizational framework is required to increase the capacity of mechanisms to ensure a favorable investment climate and to form the basis for preserving and improving the competitiveness of the domestic economy.

Market globalization and rapid technological change create new opportunities for the development of small and medium-size enterprises (SMEs) and significantly affect the competitive business environment. Effective change of organizational structure of production and enterprises, development of innovative activity and education system in entrepreneurship, individual solving employment problems in every region and in the country as a whole, and modernization of entrepreneurial activity in Ukraine are possible, provided the integrated entry of small and medium entrepreneurship to the socio-economic system of the country. Thus, there is an urgent need for regional and state regulation of the given sphere of market relations, based on the experience of domestic and foreign scientists.

SME economic policy is the process of manifesting realization of economic functions through various state measures in order to influence the creation and development of small and medium-size enterprises and achieve current and perspective goals by establishing and providing the state with a common system of activity of public relations entities, as well as their timely adjustment to changing conditions and factors.

The number of employees and the volume of products sold are among the main indicators for evaluating SME economic policy. Comparing the SME sector of Ukraine with other countries, we can conclude that the economic indicators used are similar (Table 2.4).

Examining the main indicators of the SME sector in Ukraine and in the European Union, we can conclude: the more developed the country's economy is, the smaller is the share of small and medium-sized businesses in the economy. In fact, in the SME sector, small business activity in Ukraine is predominantly non-innovative (Yankovskaya, 2015). By 2014, the share of small and medium-size enterprises accounted to 99.96% of the total number of economic entities, which met the established European standards, but since 2014, the decline (quantitative) of all types of business has taken place.

Table 2.4

**Main Indicators of SMEs Sector in Ukraine and Other Countries**  
[9]

Share of SMEs	Ukraine	EU	Slovakia	Poland	Germany
Number of enterprises	99,9%	99,8%	99,9%	99,8%	99,5%
Employment	75,5%	66,9%	71,2%	69,0%	60,9%
Sales	60,4%	57,9%	62,7%	51,0%	53,8%

*Source: Statistical Office of the European Union*

The number of small enterprises varies from decrease to small growth and the number of medium-size enterprises decreases every year. The number of employees employed in both small and medium-size enterprises is gradually declining.

In Ukraine, the pursuit of SME economic policy faces many obstacles. Common problems are those that have resulted from economic reform and changes in property relations. The obstacles are addressed in the Law of Ukraine “On Development and State Support of Small and Medium-Size Entrepreneurship” (Verkhovna Rada of Ukraine, 2012).

Currently, economic policy in the field of SMEs needs significant modernization. Key actions should focus on changing productive forces and institutional environment to develop and enhance the competitiveness and resilience of the national economy. Based on the study of foreign experience and economic policy indicators, we can propose the following ways of modernizing economic policy in the SMEs sector (Fig. 2.9).

One of the ways to encourage entrepreneurship is to create start-up centres at universities where people with innovative and business ideas can gain basic competencies, consultancy and training in entrepreneurship, which will interest the younger generation in entrepreneurship and influence formation of further economic policy in the SMEs sector (BE Berlin Economics GmbH, 2016).

The development and implementation of effective directions for sustainable economic development is the key to improving Ukraine’s competitiveness. Thus, the main objective of reforming Ukraine’s financial sector by 2020 is to create a financial system that is capable of ensuring sustainable economic development through the efficient redistribution of financial resources in the economy through the development of a fully-fledged market competitive environment in line with European Union standards.

<b>Ways of Modernizing the SMEs Activities</b>		
<p><i>Institutional vector</i></p> <p>Increasing the quality of business activity and forming a new business culture both in private and public sectors.</p> <p>Improving information environment.</p> <p>Changing the methodology of monitoring, implementation of further monitoring of the business climate.</p> <p>Improving the state policy in the SME sector</p>	<p><i>Corporate vector</i></p> <p>Developing the new strategies of entrepreneurial activity.</p> <p>Increasing the quality and number of entrepreneurial skills in the sector.</p> <p>Entering the global market.</p>	<p><i>Innovative vector</i></p> <p>Increasing the competitiveness of the SME sector by means of innovation activities, changing business-strategy, increasing the strategic role of the IP.</p> <p>Technological modernization of the SME sector</p>

**Figure 2.9 Ways of modernizing the SMEs activities**

The strategic course of Ukraine should be based on the introduction of an innovative model, modernization of infrastructure and economic growth due to restructuring, the rise of national science and innovation, which will allow establishing a new high-tech economy. The implementation of these directions should result in improving the efficiency of the national economy (reducing material consumption of GDP and energy intensity of production), achieving sustainable socio-economic development, improving the investment climate and improving the country's competitiveness.

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**ORGANIZATIONAL-  
ECONOMIC MECHANISM  
OF MANAGEMENT  
LOGISTIC ACTIVITY OF  
ENTERPRISE: ESSENCE  
AND STRUCTURE**

At present time the logistic activity is a strategically important factor in increasing the competitiveness of enterprises by reducing costs, increasing the level of profitability from the sale of products, improving logistics services.

A considerable number of scientific works [1-9 and others] are devoted to conceptual principles, scientific-methodological approaches and practical recommendations for improving the efficiency of management logistic activity of enterprises in different industries.

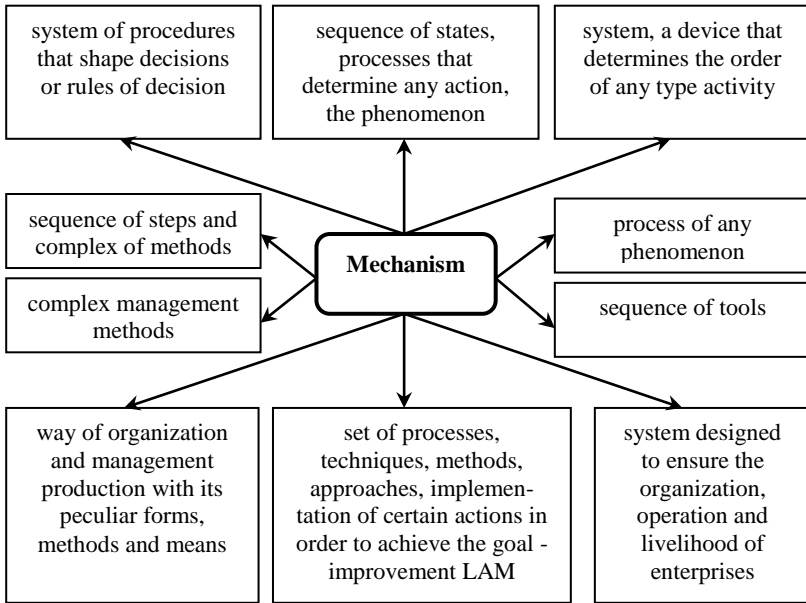
However, despite such close attention to the problem identified by scientists, a unified approach to the interpretation of the concept of “organizational-economic mechanism” is not formed, so this problem has not lost its relevance and today requires further scientific research in the direction of logistic activity of enterprises and summarizing existing developments on this question. All this largely determined the choice of the topic of this study and its targeting.

The concept of “mechanism” is considered, above all, from a mechanical point of view, as a system of certain units and elements that propel the machine and device.

In the economic science of interpretation the “mechanism” came from technique, since there was a need to describe the social and industrial processes in their interaction. The term “mechanism” was introduced into the scientific circulation in the second half of the 60-ies of the twentieth century with the aim of improving the economic mechanism and in connection with attempts to reform the systems of planning, economic incentives and the existing organizational-economic forms that came into conflict with opportunities for economic growth. In conditions a market economy, changed the methods of management and ways of achieving the goals of enterprises, so the concept of “mechanism” needed to be refined and improved.

A critical analysis of scientific publications shows that there is a wide variety of different formulations of the concept of “mechanism”

and its varieties. Mechanism as an economic category is: a set of targeted impacts; the interconnection and interaction of a set of factors; a set of measures and sequence of their implementation; a set of regular connections and relationships (Fig. 2.10).



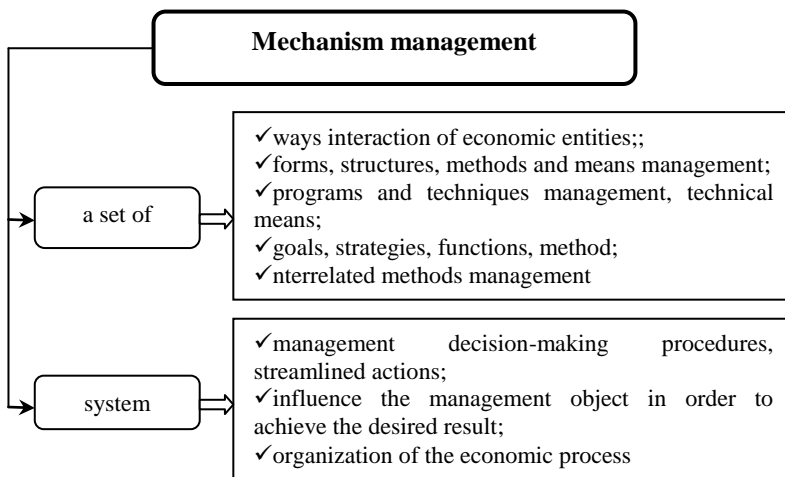
**Figure 2.10 Definition of the term “mechanism”**

*Source: created by the author*

The etymology category of “mechanism management” is closely related to the concept of “mechanism”. From the analysis of scientific works in the economic field of knowledge it turns out that the mechanism management is mostly regarded as a set; system; practical measures, means, levers, incentives by which authorities management influences on production in order to achieve its tasks; a certain tools for the implementation of purposeful transformations (Fig. 2.11).

Thus, the mechanism is an interconnected set of socio-economic relations, principles, methods, forms, approaches to logistic activity management of enterprises. The components of the mechanism can be including: tools and instruments; entities, system and means; methods, levers and tools; structure and complex of forms and methods; ways.

In economic theory the term “mechanism” is most often combined



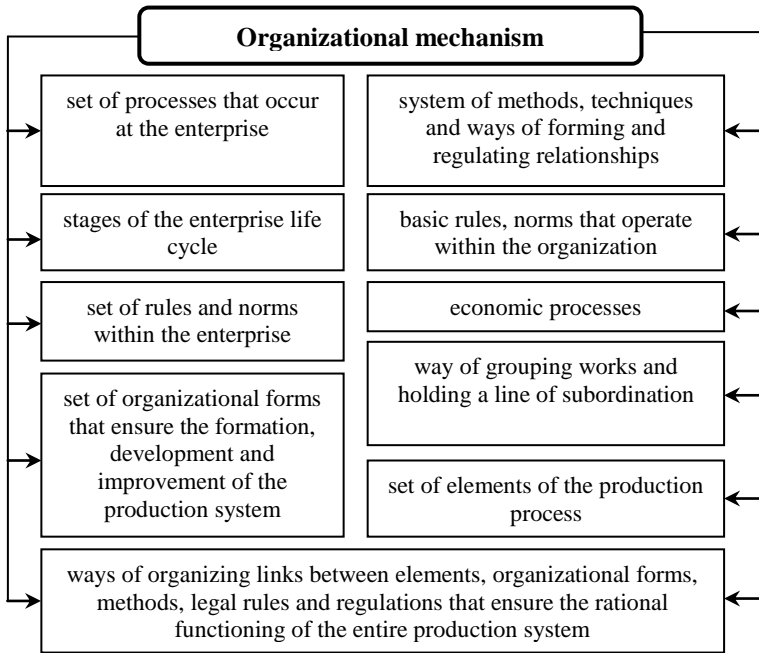
**Figure 2.11 Formulation of the concept of “mechanism management”**

*Source: created by the author*

with the concepts of “management”, “economic”, “legal”, “organizational”, “economical”, “financial”, “institutional” etc. Accordingly, in the scientific literature there are different terms: “mechanism management”, “economic mechanism”, “legal mechanism”, “financial mechanism”, “investment mechanism”, “organizational mechanism”, “economical mechanism”, “organizational-economic mechanism”. The use of an appropriate interpretation depends on which scientific school the researcher belongs to.

It should be noted that most researchers do not share the concept of organizational and economic mechanisms. Some authors understand it as a system of production regulation tools; others – as a system of economic management; third – as a way of economic (Fig. 2.12).

The concept of economic mechanism was initiated Nobel Prize winner in economics by the 2007 Leo Hurwicz, which is based on the understanding of this concept as a form of interaction between economic agents and the state in the process production of goods to meet the needs of society [10, p. 10]. Determination of the essence and content of the economic mechanism of different scientific schools can be organized according to the following classification features: an integral part of the economic mechanism; set of economic resources; way of interaction of economic processes; partnership (Fig. 2.13).



**Figure 2.12 Interpretation of the concept of “organizational mechanism”**

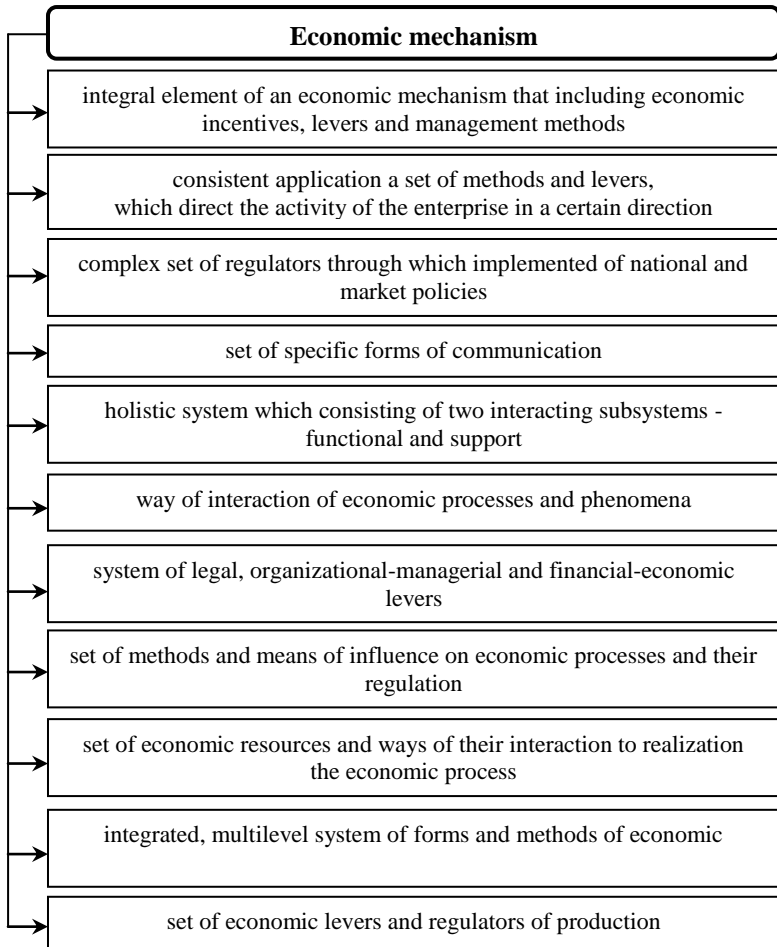
*Source: created by the author*

The analysis of the specialized literature shows the diversity of views of scientists on the definition of the content of the term “organizational-economic mechanism” (Fig. 2.14).

The organizational-economic mechanism can be considered in a broad and narrow sense. In a broad sense it is a form of organization of interaction between market participants, structures and departments of the enterprise, internal business processes, as well as a set of economic methods and tools to ensure this interaction. In a narrow sense it is a system of organizational-economic measures to improve the efficiency of activity the enterprise, which means the realization of interrelated organizational-administrative and economic measures.

The key principles of organizational-economic mechanism formation are systematic, integrated, reliable, dynamic, and consistent with the goals of the enterprise, efficiency.



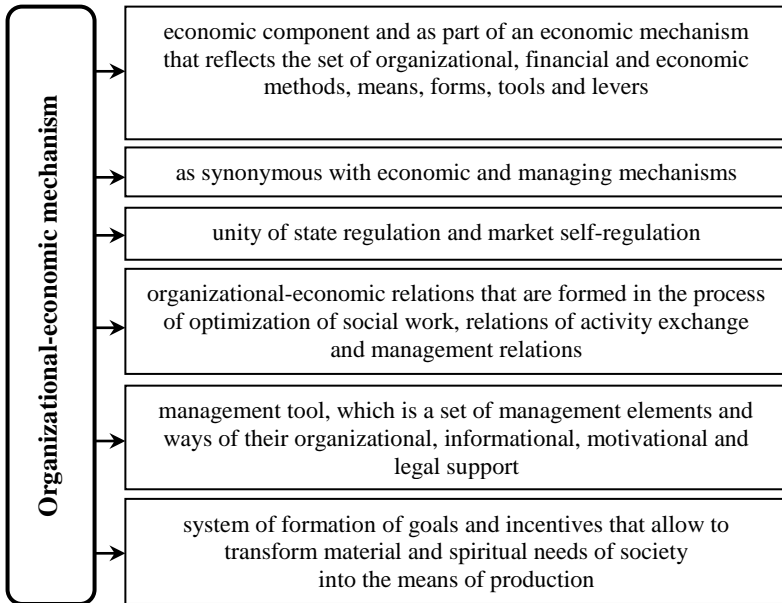


**Figure 2.13 Formulation of the term “economic mechanism”**

*Source: created by the author*

As a result of own researches [11-13], generalization of existing scientific developments from the conceptual apparatus and analysis of its correspondence to modern conditions of functioning of enterprises is offered the author’s approach to definition of essence and content of the term “organizational-economic mechanism of logistic activity management”. It is considered as a set of principles, tools, functions,

methods and means aimed at reducing the level of costs for the organization the process of logistic activities and various logistics services (transport, warehouse, marketing, etc.) (Fig. 2.15).



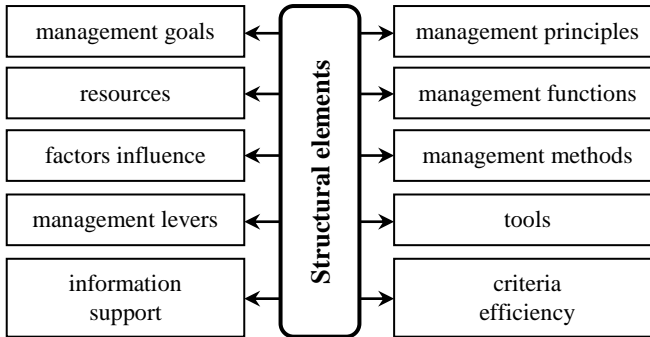
**Figure 2.14 Definition of the term “organizational-economic mechanism”**

*Source: created by the author*

Since the activity of economic entities depends on a number of financial-economic factors (e.g., refusal of consumers to pay for products sold, transformation of contractual relations between partners; limitation of financial resources; volatility of demand), it is advisable to use a set of tools in regulating the conditions of logistic organization.

These tools include: price as an investment resource in the development of enterprise; delivery contracts that include prepaid or deferred payment for shipped products; penalties in case of delayed refusal of consumers to deliver products; forecasting as a planning tool for logistics activities.

For effective of logistic activity management of enterprise it is necessary to apply management methods (organizational, economic, and social-psychological) and to introduce information systems, digital technologies and logistic concepts (Fig. 2.16).



**Figure 2.15 Components of organizational-economic mechanism of logistic activity management of the enterprise**

*Source: suggested by the author*

It should be noted that the formation of organizational-economic mechanism of logistic activity management of enterprise should be based on qualitatively new principles of functioning:

- applying a systematic approach to the organization of logistics activities in a single complex, the essence of which is the implementation of a set of interconnected, consistent processes and logistics services;

- realization of the whole list of functions of managing a complex of sequentially implemented the process of logistic activities;

- differentiation of consumers of products into large-, medium- and small-wholesale, based on the volume of their annual demand;

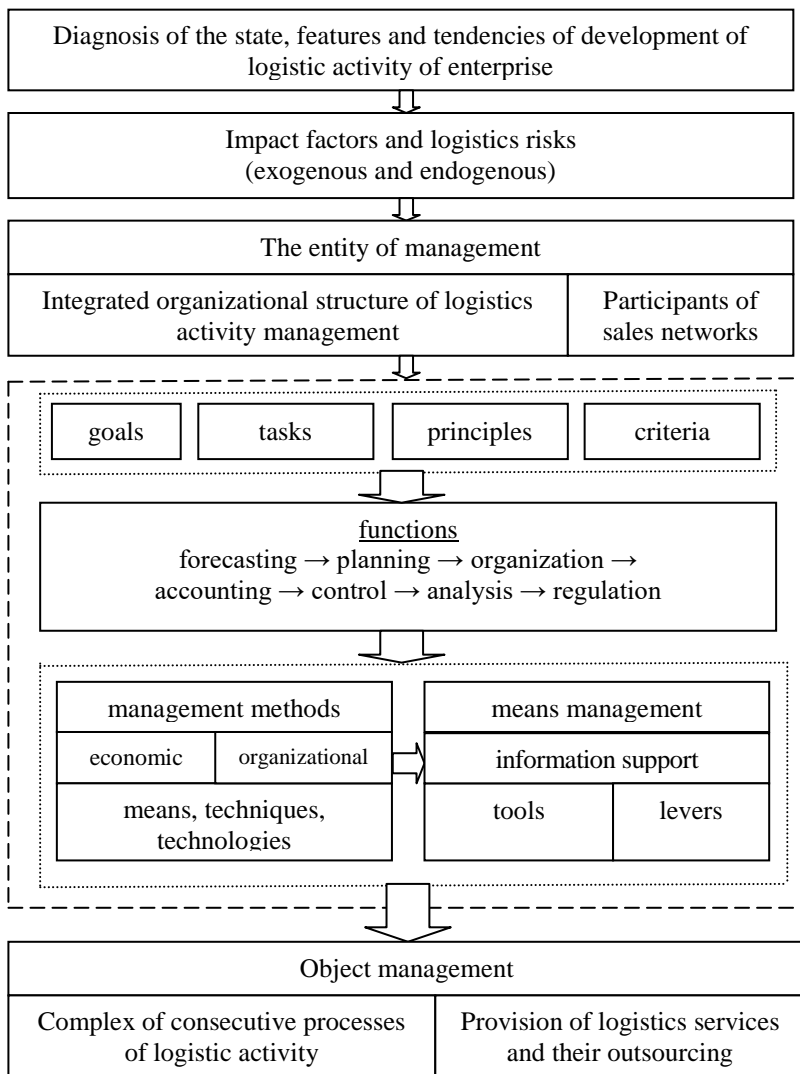
- partnerships relationship the participants in the sales networks should occur on a voluntary basis of interaction, synergy as a result of integration of efforts, goals and resources of partners, on the basis of distribution of powers, responsibilities and risks of logistic activity;

- organization of logistic activities should be carried out with the help of modern information-communication and digital technologies with using software, automated management systems, logistic concepts, economic-mathematical methods.

This will help to save costs for the organization of logistic activity as a result of:

- reducing the costs of material-technical ensure, storage, transportation and sales activities by increasing the level of coherence of actions between participants of the sales networks;

- reducing time for customer service;



**Figure 2.16 Structure of organizational-economic mechanism of logistic activity management of enterprise**

*Source: author development*

improving the quality of logistics services and the level of service to different categories of consumers.

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## Chapter 3

# INNOVATION IN ENSURING SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT

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**MARKETING STRATEGY AND  
SYSTEMS OF ECOLOGICAL  
AND ECONOMIC  
MANAGEMENT OF  
AGRICULTURAL  
ENTERPRISES IN UKRAINE**

The basis of the formation of a marketing strategy for the ecologization of agrarian production is the systematic approach, which is based on the existence of implementation mechanisms that ensure system consistency, its purposefulness; interdependence; interdependence and complexity of its elements determines the integrity of the system; all tasks that execute individual elements of the system are interconnected; system elements and their associated actions have a certain subordination that builds hierarchy; the system changes under the influence of specific factors, which determines its dynamism; the ability of the system to adapt to the variability of the external environment, while not losing its own individuality (Volyk N.H., 2006).

According to the system approach, the elements that make up the content of the marketing strategy of the enterprise, not only functionally derived from each other, but all without exception, are interconnected. Changing one of them inevitably leads to changes in others, and ultimately – in the entire marketing strategy. This requires a comprehensive solution to any of its problems: large and small, simple and complex, tactical and strategic (Voronets'ka, V.S., 2011).

The bases of the formation of a marketing strategy of ecologization of agricultural production are the main strategic categories that are considered the basis of strategic marketing.

The initial stage in developing the marketing strategy of

ecologization is the definition of the mission, which is what is the main philosophy, the main purpose of the existence of this strategy (Melnyk P.P., 2014).

The next strategic category is the formulation of the goal and the establishment of marketing environmental objectives and targets at the state, regional level and at the level of the economic entity (Table 3.1).

*Table 3.1*

**The main objective of the marketing strategy is to ecologize agrarian production at different levels of management**

State level	Guaranteed to ensure a high-quality and safe nutrition of the population in order to preserve the gene pool, to support the health of the nation and to increase the longevity of life. Ensuring environmental management of agriculture and protecting the natural environment.
Regional level	Raising the competitiveness of agriculture through modernization of agrarian production, innovative development of agribusiness, introduction of information technologies, support for the production of new types of agricultural products, support for the cooperation of agricultural producers.
Level of economic entities	Production of environmentally sound agricultural products, ensuring its competitiveness on the domestic and foreign markets.

*Source: summarized by the author*

The main objective of the marketing strategy of ecologization of agrarian production at the state and regional levels is to create economic conditions for economic entities, in which they will be interested in preservation and restoration of natural resources potential when introducing innovative approaches in their activities.

In our opinion, the mission of the marketing strategy of ecologization is to ensure balanced development of the agrarian sector of the economy, that is, to maintain a balance between the economic system and the natural environment, which results in improving the long-term economic, social and environmental welfare of the society. With the help of this strategy it is possible to solve the contradiction between the economic interests of producers and the preservation of the environment, that is, the provision of environmentally safe living conditions of the population.

In addition, it is important to ensure the ecological and economic security of the agro-food market and the agrarian sector of the economy as a whole. It can be done by developing environmental policy measures in the agrarian sector, which will allow changing the format of relations between production and the environment towards rational use and reproduction of agro-systems.

At the level of business entities, the main objective of the marketing strategy of ecologization of agrarian production is the development of economic organizational and economic mechanism of management of an agrarian enterprise with the application of its main components: planning, stimulation (motivation), organization of management, control, etc. At the same time it is necessary to orient production to meet the ecological needs of consumers.

An important task of the marketing strategy of ecologization of agrarian production for agricultural producers is to promote the reduction of the load on the natural environment in the planning, coordination and control of all management activities (Prokopenko O.V., 2002).

The objectives of the marketing strategy of ecologization agrarian production are as follows:

- formation of the market of environmental needs;
- creation of conditions for the preservation of the environment;
- adaptation of production to market conditions;
- production of competitive environmental products;
- intensification of sales of ecological products;

Profit from the environmentalization of agricultural production.

In our opinion, fulfillment of these goals and tasks is possible only due to the formation of ecological consciousness in society, the development of environmental needs and the awareness of the need for the use of environmental goods.

When forming a marketing strategy of ecologization of agrarian production it is necessary to organize marketing researches in order to solve the following issues:

1. Research of the main environmental problems of the agrarian sector and assessment of the ecological situation in different regions of Ukraine. It is the concern of consumers that environmental problems form their potential demand for environmental goods.

2. Provision of ecological characteristics of products of agrarian production.

Given the emphasis on the environmental safety of the agrarian



sector, organic production, Ukraine must become a competitive producer in the global food market and be able to meet not only its own needs, but also satisfy part of the ever-growing world food needs. The basis of the environmental policy of the development of domestic agriculture should be its environmental safety based on ecologization, through the development of organic production.

3. Research needs in new products. At the same time, the following methods are used: forecasting of future needs and demands of consumers, changes in the motivation of their behavior (in line with the market transformation of the economy); Situational and simulation modeling of consumer behavior.

4. Determination of trends in the development and change of environmental, technological, economic, legal, political, social and cultural components of the environment.

5. Analysis of market attractiveness factors of environmental goods, market size, growth of demand, intensity of competition, inflation, technological requirements, power consumption, performance of social and political factors.

6. Diagnosis of ecological consciousness of consumers and needs in environmental goods. It is knowledge and assessment of the factors of development of environmental needs that will enable enterprises to feel more confident in a market where there are constant changes.

7. Development of environmental innovations, the specifics of which is that their development is associated with the creation of goods, analogues which did not exist before, and it is due to the following reasons:

- the needs and demands of consumers, for the satisfaction of which new products are intended, were previously satisfied with a completely different way (the first kind of fundamentally new innovations);

- needs for the satisfaction of which the appointment of new products, previously just did not arise (the second kind of fundamentally new innovations) (Shkuratov O.I., 2012).

An important stage in the formation of a marketing strategy for ecologization is a strategic analysis of the macro- and micro-environment. This process involves an analytical evaluation of the parameters of the external and internal environment with the help of general scientific and applied methods of strategic analysis.

The external environment in which there are domestic farms, is qualitatively different, escalating competition in the market, increasing its degree of uncertainty, there are unforeseen risk factors. That is why

the work on the strategy begins with a comprehensive study of the market situation in the industry.

At the stage of strategic industry analysis, special attention should be paid to assessment of environmental and economic potential because of resource development concepts of marketing strategy changes the vector of reactive (reacting on changes in the environment) to proactive (prevention events). Therefore, an essential step in the formation of a marketing strategy greening of agriculture, we believe is the providing strategic relevance, providing coordination of resources and production capacity with market conditions.

The marketing strategy of ecologization agrarian production should be oriented towards the formation of sustainable competitive advantages. Therefore, the results of the assessment of environmental factors are a prerequisite for the formation of a complex information and analytical support of marketing management, which is an essential condition for the development of this strategy.

When implementing the marketing strategy of ecologization of agrarian production, a combination of ecological and economic instruments at the state regulation of ecological and economic components is important.

The first ones include preferential crediting of agricultural producers; price stimulation of environmentally friendly products; subsidies (centralized or local); interest-free loans; exemption from taxes, a part of the profit (income).

Authors Dubodielova A.V., Yurinets O.V., Fedorov M.M. in addition to these two types of economic mechanisms distinguish the third one – marketing, which includes the following directions, such as creation and provision of development of the market of natural resources and environmentally-friendly goods; expansion of the “marketing chain” structure with the inclusion of the environmental expertise; trade of quotas on harmful emissions; ecological excise tax, environmental insurance and promotion, etc. (Dubodyelova A.V., Yurynets O.V & Fedoriv M.M., 2011).

When there are changes in the relationship between the society and the natural environment, there are changes in the human consciousness, psychology, system of values and behavior toward the environment. The main stimulus for the initiation of this process is the appearance of new needs of the society, which would combine economic, environmental and social components. That is, the transition to the economy which is focused on the principles of ecologically balanced development

requires, first of all, the change of human attitude to the environment.

According to M.S. Vitkov modern condition of the market transformation in Ukrainian economy should foresee the transition from the extensive economic development to the intensive but ecologically safe, steady economic growth and innovations on the energy and resource-saving base (Vitkov M.S., 2008).

Due to that fact, there has appeared the need for transition of enterprises in agrarian area to new management systems which could provide ecologic-economic balance for the agrarian business. It is worth noting that the transition to the new management system is a complex and time-consuming process, which could be implemented by developing a new innovative model for developing of agrarian enterprises.

The modern economic direction in the business activity of agrarian enterprises in our opinion can be determined through the combination of economic and social problems of the rational use, recovery and protection of natural resources of agri-sphere and on the innovative base. We consider that ecologization of the production at agrarian enterprises is tightly connected with the innovative activity and should be considered as an integral part of its development with the creation at the government level of the system of ecological-economic management. Therefore the organization of the production relations in agriculture should take place based on the rational application of the natural resources – on the one hand and formation of the system of managing them on the other hand. To achieve this it is necessary to apply innovative technologies – economic models which based on the usage of organic farming and optimization of the production processes will make possible to achieve a high level of management, predictability and efficiency. Unlike traditional technologies they are based on the use of energy- and resource-preserving systems of agricultural production.

The innovative model of agricultural development sets a goal to increase competitiveness of agrarian companies in production and distribution-marketing spheres by means of implementing modern technologies, types of products and methods of management (Kyporenko V.V., 2014).

The main directions of organizational and economic management in agrarian production are:

- formation at the state level of measures that can change the format of relations between production and the environment in the direction of the rational use, reproduction of agricultural systems;

– implementation of environmental policy measures at the state and regional levels, the basis of which is the process of implementation and development of environmentally friendly production, the rational use of the possibilities of the state's economy, especially its financial resources, production, scientific, and technical potential;

– determination of social priorities considering the specific ecological situation in the regions, according to which it is planned to eliminate the negative phenomena of nature management and transition to environmentally friendly production;

– combination of state influence with the market forms of management, stimulation of qualitative changes through priority financing, lending, material and technical, information support, introduction and development of environmentally friendly production;

– carrying out economic-ecological monitoring over the process of transition to environmentally friendly production in the analysis of internal strengths and weaknesses of agricultural producers;

– account of changes in the factors of macro- and microenvironment and their impact on the competitiveness of products and enterprises in the agrarian sector of the economy, namely, to detail their actions, to clearly distinguish market opportunities and threats

A promising direction for establishing economic relations between certified agricultural and processing enterprises of the organic sector is the creation of market-based formations based on horizontal and vertical integration and co-operation. Cooperation combines commodity producers into their market activities on the basis of their voluntary involvement in the processes of integration with mutual assistance and economic cooperation. Such unions give them the opportunity to earn profits not only directly from the agricultural production, but also from the subsequent stages of the movement of their products, participate in large-scale business, use professional managers, allocate risks, control the marketing channels of product distribution and material and technical supply, influence prices through the formation of large batches of products and the application of modern marketing methods and technologies, to be equal partners in the competitor market environment.

We are certain that the functionality of agrarian enterprises must take place according to the concept of safe development but it requires the creation of completely new conditions for entrepreneurial activity, the base of whom is the greening of agricultural enterprise, increase in the efficiency of application of the resource potential of the agro-industrial complex, formation of the ecologically focused management system at

the global and regional levels and mainly the provision of population with high-quality food products developed in the agrarian sector with the purpose of rejuvenating the nation. Therefore we believe it is necessary to develop the qualitatively new innovative model of the managing business activity by agrarian enterprises which will be different from the traditional system of management by ecologically safe conductance of agrarian business, its greenings, which is an integral part of the safe development strategy.

Functioning of agrarian enterprises according to the concept of steady development requires creation of fundamentally new conditions for entrepreneurial activity, the base of which is ecologization of the agricultural production and increase in efficiency of applying the resource potential of the agro-industrial complex and formation of the ecologically focused system of management.

For the effective functioning of the mechanism of ecological and economic management, the strategic approach must be combined with the environmental management system. At the same time, it is important to note that the traditional system of environmental management is sufficient for the generally accepted system of economic activity. Whereas it is necessary to rebuild the existing system in accordance with the requirements of international standards to achieve competitive advantages in the world market. Thus, for the transition of agricultural enterprises to an ecologically oriented type of management, it is essential to take into account ecological and economic methods of management. Furthermore the organization of industrial relations in agriculture should be based on the rational use of natural resources and the formation of an ecological and economic management system.

When implementing the marketing strategy of ecologization of agrarian production, a combination of ecological and economic instruments at the state regulation of ecological and economic components is important.

When forming this strategy, it's necessary to understand that it is not just about the one-time use of innovations to achieve instant advantages, but about a continuous, detailed planned strategic innovation development that forms new methods and controls, transforming the intensive introduction of innovation processes into the factor of economic growth in the industry.

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## **INNOVATIONAL ASPECTS OF THE HOTEL INDUSTRY DEVELOPMENT**

The modern hospitality industry is a global social-economic phenomenon that operates in a highly competitive environment. The innovation is a specific factor of competition that plays a special role for the hotel industry enterprises, as a basis of their development that provides with the growth of clients, the efficiency increases of the management and the hotel awareness. The innovations are considered to be the tool, used by the business to survive in conditions of high competition, cope with slowing growth and lower profitability. Innovations, in their essence, are the appliances that enhance the effectiveness of existing systems (the particular company, business or the economy in general, education and human development) [1, 2].

The effective functioning of the hospitality sector is an indicator of positive changes in the country's economy, an important prerequisite for intensification of international relations and the country's integration into the world community. In today's business environment, one of the competitive advantages for the hotel industry may be the achievement of a 100% "customer satisfaction index". The perspective direction of the index achievement is the creation of innovative technologies and their practical use. Thus, data from numerous studies confirm that one dissatisfied customer leads to the loss of 300 potential consumers [2, 3].

As already known, the hospitality industry consists of several elements of operation, which include: the hotel industry, which has a significant number of businesses (hotels, motels, campgrounds, etc.); restaurant facilities (restaurant chains, general-purpose and special

cafes, fast food establishments, etc.); tourism business (travel companies); transport enterprises providing services of various kinds of transportation; fitness and health facilities (swimming pools, gyms, sports complexes, saunas, etc.); cultural and leisure facilities (exhibition centers, museums, concert halls, libraries, etc.) that provide for the spiritual needs of man [4].

The hotel industry is developing rapidly and numbering about 350 hotels, with an annual increase of 3-4 % [5]. That's why innovative activity in the hotel business is relevant, as the innovational approach in this sector can be reduced not only to the use of progressive technologies and the production of new services but the whole complex of innovations, that touch upon all the spheres of its management.

The innovations in the hospitality industry contain 4 main categories [6]:

1. Product innovations (creation of new services and introduction of the latest service technologies);
2. Marketing innovations (the use of new tools to promote the enterprise to the market);
3. Resource innovations (use of energy-saving systems and ensuring the environmental performance of the enterprise);
4. Organizational innovations (improvement of the enterprise management system).

Most of the foreign enterprises direct their main investments to the improvement of mechanisms of making management's decisions: informatization, constant forecasting of the consumers' market, marketing and logistic development of the promotion of the product (services), schemes of management, aimed at reducing costs associated with the activity of the enterprise [2].

One of the key tendencies of hotel business development is the creation of eco-hotels (the "green" hotels). On the one hand, making the hotel product ecological is related to the need for saving the natural environment, and on the other hand, the reason for that is the increasing tourists' demand for environmentally friendly services and products. The concept of activity of eco-hotels includes environmental management at the enterprise, monitoring of water and energy consumption, waste utilization, raising environmental awareness among both guests and staff, cooperation with the local community. Green Key's environmental certification has been passed through more than 124 facilities in the global hotel industry. The largest number of such hotels is in France (226), Denmark (86) and Germany (27). The introduction of ecological



certification systems of hotel establishments is especially promising in the case of their placement in recreational, tourist attractive and environmentally friendly territories in order to avoid damage to nature as a result of infrastructure development [7, 8].

The priority of today is the introduction of energy-saving technologies, which is associated with a shortage of basic energy resources, increasing the cost of their production, as well as with global environmental problems. To ensure the energy efficiency of the hotel enterprise can be used such innovative solutions as the installation of solar panels on the roof of the building for heating water, the use of heat pumps for the purpose of energy recovery and maximum use of heat, use of air generators to generate electricity, window blinds and panels with built-in photoelectric elements.

The introduction of an automated energy-saving and climate control system is also an interesting innovative solution that allows the hotel visitors to control the lighting, climate, mechanization devices and many other functions of the living suite. The use of this system in the rooms allows the hotel to significantly reduce energy consumption, reducing consumption in empty rooms. The logic of presence detection is based on the signals from the door opener and the infrared motion sensor, which continuously analyzes the space of the room for the presence of the guest [9].

The new tendency in the development of the accommodation sector is the construction of hotels of conceptual orientation (in inactive monasteries, castles, churches; flotel, aquatics, bungalows; underwater; hotels in the trees like birdhouses, in houses of rock salt; ice, capsule hotels, agro-hotels, hotel-office centers, etc.). Such innovations are becoming the business card of the institution, create its image and attract a wider range of clients. The focus on maximizing the needs of the potential consumer of the hotel product is the main reason for the appearance of concept hotels in the tourist market [10].

The most common in the modern hospitality market are conceptual luxury hotels. The most striking representatives of this type are boutique hotels. The main features of such establishments are the unusual, bright, creative design with many amazing features – for example, the rooms have the name, which has its own staff serving specific guests, furniture grouped by color, etc. [11].

To satisfy the needs of tourists who are tired of the uniformity of chain hotels with a standard set of services and amenities, art hotels with stylization for a museum or theater of different genres and eras, which

have an entertaining and educational function with a small room fund (hotel-theater, hotel-museum) are created [10].

The creation of panoramic hotels in metropolises is the other direction of positioning the exclusiveness of hotel establishments, which have special features, such as bar location, restaurants, swimming-pools of the top of the buildings, where tourists can enjoy views of a city. Generally, the specialists enumerate 15 hotels with unforgettable panoramas (Jumeirah Beach, Dubai UAE; Lebua at State Tower, Bangkok, Thailand; Hotel de Rome, Berlin, Germany; Bairro Alto, Lisbon, Portugal; Gansevoort, New York, USA, etc.) [12].

Along with traditional full-service accommodation establishments, there are recently specialized hotels with a reduced range of services [12], which are focused on serving a specific segment of the tourist market (congress participants, exhibitions, horse racing, golfers, skiers and skiers' outfit, sommelier, etc.).

The increasing needs of modern tourists for active rest determine the development of agrarian tourism, which includes leisure in the open air, farm or private household, hiking, sports and recreation, hunting and fishing, sightseeing and more. The global experience in the use of agritourism products and services in the hotel industry demonstrates the wide range of offerings. Thus, agri-hotels (agri-motels), agri-camps have agricultural features, next-generation field games, family and country festivals, different kinds of agri-entertainment, e.g. walking through a corn maze, providing with additional services such as "gather yourself" type sales in the countryside or suburbs [13].

Due to the growing trend towards healthy lifestyles, wellness tourism, which aims to maintain the body in a healthy state and maintain a balance between physical and psychological health, is becoming increasingly relevant. The existing range of wellness services is very wide, which has proven to be a provocative factor for the reorientation of many hotels in this segment with the inclusion of additional services of the wellness complex [14]. Visitors of these hotel businesses are involved in yoga, drinking herbal teas, tempering, and outdoor activities. Within the framework of these establishments, along with carrying out wellness programs, the following directions of health tourism are being developed, such as [15]:

1. Thalassotherapy – the use of seawater heated to +32 °C, algae and marine mud combined with marine climate;
2. Balneotherapy – the use of artificially prepared and natural mineral water for the treatment and prevention the diseases;

3. Wine Therapy – a complex of cosmetic and spa-treatments that use wine in their ingredients;

4. Aromatherapy – the use of essential oils, herbal remedies and other aromatic substances for strengthening of physical and mental health and cosmetic body care;

5. Stone therapy – a relaxation and wellness procedure based on the application of hot and cold stones of different rocks to the active points of the body;

6. Apitherapy – prevention and treatment of diseases of bee products;

7. Chromotherapy – a non-contact method of light and color treatment and some others.

The decisive factor for the construction of hotel establishments providing health services is the choice of location with a natural resource base.

Considering the significant increase in the proportion of people with disabilities in the overall structure of the world population, they are an important segment of potential clients for hospitality businesses. The current tendencies of world socialization place new demands on service of people with disabilities, as it is not covered by the full range of services of the consumer segment.

One of the innovative trends in the hospitality industry that can solve the problem of service availability for this segment of consumers is the introduction of the concept of universal or inclusive design. Generally speaking, it is the process of making a hotel planning solution as comfortable for all clients as possible, despite their age, physical or cognitive abilities, without the need for the use of aids or compensation or narrowly focused specialized solutions [3].

The competitive advantage of the hotel is the use of innovation in catering. The menu updates of restaurant establishments with the inclusion of dietary, vegetarian, gluten-free and lactose-free dishes or opening an additional restaurant at the hotel with “healthy cuisine” is relevant. To meet as many tourists’ needs as possible, the organizing of several food establishments with different national culinary trends is common. By the way, the national issue in the hotel and restaurant business is very important and modern hoteliers are trying to take it into consideration [11]. For example, depending on the preferences of a nation, rooms with a certain temperature regime, special furnishings, the availability of certain or other objects, corresponding to the guest’s culture are offered.

The development of the hotel and restaurant industry is impossible without the active introduction of information technologies, which include the latest developments not only in the field of management and reservation automation, but also for establishing communications with guests, marketing optimization etc. A promising direction for improving the efficiency of the accommodation facility is to automate the processes of communication of visitors with staff.

Such large hotel chains as Hyatt, Starwood, Marriott have recognized the growing preference for customers using mobile messaging applications and introduced their chatbots as customer service links. At the same time, the use of such technology allows to process up to 90 % of requests without the use of the hotel staff and significantly save [16, 17]. Virtual Concierge Edward appeared at 12 Radisson Blu hotels in the UK. He almost completely unloaded the staff, whose duties included correspondence with guests. Edward can talk about hotel services, help to book room service, advise tourists on choosing a restaurant, and accept customer complaints [18].

The most modern information technologies are rapidly being introduced into the hotel business and maximize the ability to meet the diverse needs of guests and improve quality [19]. Innovative developments in this area include the use of Skype Translator, which facilitates communication between people who speak different languages; Online check-in and Fast Checkout programs that allow guests to spend no extra time accommodating in the room or coming up to the check-in desk upon check-out; introduction of payment for hotel room with the help of fingerprints, which are registered at the special kiosks of the airports of the country and are connected with a bank card; access to a room by smartphone or Apple Watch; “Smart” mirrors with weather forecast, news; robotic butler services [6].

In the modern conditions of operation of hospitality enterprises, the optimization of their work is impossible without the use of automated systems, which are a specialized package of programs that ensures the work of hotel staff at their workplaces and prompt decision-making at all stages of the technological cycle, from booking a place to receiving a report on hotel activity for guidance. About ten automation systems are most common (OPERA, Fidelio, Epitome, Interotel, Edelweiss, Servio, R-Keeper, InStyle, etc.).

The introduction of interactive technologies in hotels and restaurants at hotels, which include electronic menu with the use of touch tablets or interactive surfaces on the tables, is quite relevant. From the consumer's

standpoint, the advantages of using this technology are that there is no need to wait for the waiter to place an order, to be able to instantly get complete information about a dish and to make clarifications about its preparation. The effectiveness of providing an interactive menu for the hotel is to attract new customers, save staff costs and track the statistics of popular dishes.

Thus, the introductions of modern information technologies not only facilitate the work of hotel staff, but also play an important role in forming the hotel's positive image [19].

Innovations in the restaurant industry are not just about information technologies. Hotels make extensive use of open kitchen practices when dishes are prepared directly in front of visitors. Such kitchens fit perfectly into modern interiors, do not give guests any inconvenience and become a great advertising tool for up-to-date hotels [11].

Besides the technical innovations, hotels offer services that adapt social innovations. A popular service is the organization of an intellectual game escape-room at the hotel, a kind of a quest when players are closed in a specially equipped according to the scenario room, from which they must go out in an hour, finding objects and solving puzzles [6]. The popularity growth of gaming among young people has led to the inclusion of online entertainment in the list of additional hospitality services. The infrastructure of such hotels includes specially equipped rooms with computers for e-sports and gaming forums [20].

One of the trends in the development of the hotel industry in the world is the tendency to form international hotel chains (combining hotels that have centralized management and form a single business complex). Developed international hotel chains are Fairmont, Hilton, Holiday Inn, Hyatt, Ibis, Intercontinental, Premier, Radisson, Ramada Encore, Marriott International and others. This situation is positive for the hotel industry in general in terms of corporate regulation of the quality of hotel services, knowledge of the clientele of the hotel brand, but the disadvantage of such chains is the decrease of competitiveness of small hotel establishments operating in a certain region [7].

Thus, a prerequisite for achieving economic success and ensuring the competitiveness of the hospitality industry is to develop an appropriate innovation strategy. It should be based on the novelty of services, the improvement of their technological availability, their economic and social efficiency. Successful implementation requires, first of all, increased investment in the innovation sphere, creation of an efficient

and high-tech infrastructure of the production base and restoration of the process of integration of science and commercialization of the results of scientific development. Considering the international experience of successful activity of the hotel industry, the alternative way of their survival in the conditions of global competition is based on an innovative basis with active use of modern scientific and technological achievements, as well as the readiness of hotels for innovation and innovations.

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**NATIONAL  
INNOVATIVE  
MODEL OF THE  
ECONOMIC  
DEVELOPMENT**

Constant changes, competition, the search for the new and non-standard are commonplace in the modern world. Dynamism is characteristic of all spheres of public life. The transition of the world civilization to the third millennium is accompanied by dynamism, in particular in the economic sphere. Under such conditions, those who are able to adapt more quickly to these processes have benefits in terms of development. This also applies to the institutional sphere: the sooner the state and enterprises adjust and adapt to dynamically changing conditions, the more they contribute to their development.

Innovations in a national economy are key concepts of development. This is proved by world practice, which shows that economic actors that are able to innovate show higher rates of economic growth. At the level of national economy, this manifests itself in higher rates of GDP growth, the improvement of the quality of the socio-economic life of the population, and so on. In a globalized world, they are increasingly trying to create their own system of actions that will foster the emergence and spread of innovation. Countries are developing adaptation mechanisms that can ensure the viability and competitiveness of their own national economic systems. The most effective tool in this process is the transition to an innovative model for the development of national economy, which is envisaged by the development of a national strategy for national development.

Issues of the theory and practice of innovative development of national economies are considered in scientific works of leading contemporary scholars who have become classics of economic thought, among whom one can in the first place mention: P. Drucker, S. J.



Grossman, R. Zeiler, F. Ibbotson, P. Krugman, F. Poszolo, P. Romer, B. Santo, A. Smith, R. Tucker, S. Fischer, E. Helpman, P. Houvitt, M. Huchek, J. Schumpeter. Domestic scientists also worked quite well on these issues, in particular: O. Amosha, Y. Bazhal, L. Vorotina, A. Galchynskiy, V. Heyets, M. Yermoshenko, S. Yerokhin, S. Illyashenko, T. Kovalchuk, N. Chukhrai, I. Shtuler, L. Yakovenko and others.

An analysis of the scientific views of the aforementioned scholars suggests that the issue of the development of national economies can be viewed from different positions. For example: depending on the innovative development of the sectors of an economy, or depending on the innovative development of a national economy as a holistic complex, or depending on the innovation development determined by a transnational corporation. That is, the problems of the importance of supranational, regional, and branch systems of innovation are considered from different positions. But in the new context, due to the globalization impact, macroeconomic approaches in defining an innovative concept for the development of national economy need detailed attention. It is important that all economists agree that at the macroeconomic level, the innovation path of the development of national economies depends decisively on their historical development and the state of the economy. In this regard, research related to the study of the state and the improvement of the existing concepts and peculiarities of the formation and development of national innovation systems is relevant. Further research is also needed on the possibility of adapting certain elements of concepts of national economic development from the experience of European countries, which determines the necessity and need to take into account national interests.

The innovative development model is the key mechanism where the system-forming role in the development of national economy belongs to innovation. The basis of modern interpretation of innovations is the dynamic changes in the surrounding economic, political, natural, and ecologic environment, and the main function of innovation in the macroeconomic approach is just the function of change, transition, transformation, and regeneration.

The innovative development of economy is derived from innovation, the former being treated by most scholars as a way of economic growth based on innovation. In this case, there are several conceptual conditions, namely, innovations should be aimed at improving the economic activity of the national system, involve the use of resource factors in the creation of innovative products and the formation of

competitive advantages.

Oddly enough, innovation is not a discovery of the XXI century. On the contrary, innovation was present throughout the period of existence of mankind. What else explains the fact that the emergence and implementation of novelties, inventions, know-how's, the implementation of innovation in engineering and technology accompany the whole history of mankind, contributing to the growth of labor productivity and the global economy as a whole. The main feature of the modern innovation system that sets it apart from the previous ones is only the speed of their implementation.

The development of world civilization suggests that the phenomenon of "innovation" is considered as a paradigm of national development. Accordingly, by the innovative type of development of national economy one generally means the process of social production, the key characteristic of which is the use of accumulated knowledge and its transformation into innovation. And only afterwards, innovations form the basis for the growth of national economy with an appropriate adaptation to dynamically changing conditions. This process, provided that it is initiated in the strategy of economic growth, involves updating the engineering and technology bases of production, which is related to the reduction of energy and resource intensity, the reduction of the burden on the environment, the growth of labor productivity, the comprehensive development of personality abilities, an increase in motivation for performing creative (including scientific) activities, processes of democratization in society, etc.

The innovative concept for the development of national economy can be implemented through a developed system of relations and institutions that create the necessary conditions for the implementation of scientific and technological progress within the framework of a defined national strategy of national development [2].

From the standpoint of macroeconomic regulation, the innovative concept of the development of national economy should be considered as a concept that contains a set of identified socio-economic priorities, tools, and mechanisms, criteria and indicators of innovation and economic development. The innovative concept of the development of national economy is the foundation of the national innovation policy, the priority of which is orientation towards the development of education, science, research and development, intellectualization of society, etc.

From the structural point of view, the innovative concept of the development of national economy is a set of sectors and branches of the

economy that are directly involved in the innovation process, and of institutional support at the national level [4]. On the basis of generalizations of scientific research, five components of the innovative concept of the development of national economy can be singled out:

1. Innovation generation system;
2. Innovation commercialization system;
3. Intellectual capital formation system;
4. Immediate innovation introduction system
5. Innovation economy innovative development regulation system

Dynamic processes associated with transformation of strategic priorities promote the formation of an economic environment that is maximally oriented to the use and commercialization of innovations. Thus, the transition to the innovative development of national economy is associated with the modification of innovation priorities in the real sector of the economy, the growth of the level of intellectualization of society and, thirdly, the creation of business centers (clusters) that commercialize innovation.

Macroeconomic possibilities of the transition of national economies to the policy of innovative type of development are determined by the choice of strategy and concept. An analysis of scientific publications made it possible to systematize the classification of strategies for the innovative development of national economies.

Quite often, the innovative type of development is treated as investments that stimulate the process of transforming knowledge into competitive products, of transforming scientific research costs into economic profit. It is a question of the fact that, in the context of this type of development, innovation is transformed from an indicator into a paradigm of development, thereby contributing to the transformation of the existing in society way of thinking, worldview, values, motivation and, most importantly, system of management of economic activities of all economic subjects without distinction. Activator of innovation arises at the junction of three areas: the natural one, the organized one, and the heuristic one. Thus, activator of innovation is a process, an information carrier, and a group of people with knowledge about the needs and prospects of future benefits and the benefits of operating innovations that will lead to the growth of national economies.

The main prerequisites that contributed to the transition to the innovative type of development of national economies are the following factors:

- change of principles of competition and mechanisms of obtaining

competitive advantages;

- the deepening of the shortage of natural resources and the intensifying of the struggle for limited raw materials, which contributed to the transformation of the paradigm of their use;

- growth of the needs of society along with the strengthening of requirements for economic processes (especially environmental ones);

- aggravation of energy, raw materials, social, industrial, and other problems;

- the increasing of the role of scientific and technological progress in ensuring economic development;

- psychological awareness of the benefits of introducing innovations;

- increase of profitability norm in the production and sales of innovative products; increase of profitability of innovation activity in general [3].

*Strategies of the innovative development of national economies.*

According to development catalyst:

- *diffusion of innovations* – the top-priority initiative on the part of all economic entities of different levels (except the state) in the sphere of diffusion of innovations in society and economy;

- *state support for innovative firms* – the role of the bearer and key conductor of innovation processes in society belongs to the state;

According to coverage:

- *local innovation environment* – it is based on the stimulation of the development of local innovation centers: technoparks, technopolises, business incubators, etc.;

- *inter-branch scientific and technical complexes and clusters* – they are associated with the promotion of the development of innovation clusters, zones, regions;

- *international innovation and technology cooperation* – it is based on the development of cooperation systems of domestic and foreign innovation, scientific research structures and production systems.

According to the origin of innovative ideas:

- strategy of transference, of imitating development;

- strategy of borrowing;

- pioneering (self-development) strategy.

According to the origin of innovative ideas:

- *local advantage strategy* – focusing on individual priorities of innovative development;

- *strategy of balanced innovation development* – it is based on the

innovation approach in all sectors and regions of the economy.

In our opinion, the main signs of the innovative type of economic development are:

– *high level of education and science development.* Personality and professional development of a person is the most important prerequisite for modernization, which “promotes the very rapid modernization of societies, serves as the basis for the development of knowledge-intensive industries, the introduction of advanced technologies into economic practice” [5]. An increase in the number of specialists in the field of scientific research contributes to solving important social problems: unemployment, raw material orientation of the domestic economy, energy dependence, social tension, etc.;

– *production of new knowledge.* Knowledge is the power that is needed to accelerate historical progress. In order to “survive”, a person must master the knowledge that is necessary for the profession;

– *development of education.* Education is increasingly integrated into the market economy model and is becoming one of the key elements of the service market. Innovations are formed mainly in those areas and fields that are capable of generating benefits that are measured in terms of monetary equivalents or some economic effect;

– *introduction of resource-saving technologies.* Modern resource-saving innovations contribute to saving resources, which leads to higher incomes;

– *reduction of the time lag between the implementation of a scientific discovery and its commercialization.* Scientific research is mainly of cognitive nature and is purposefully aimed at addressing the basic problems and needs that ensure the functioning of enterprises;

– *combination of science and production.* Making scientific discoveries and their commercialization became possible due to the combination of two previously separated branches: production and science. At large enterprises, research departments are created, which, while focusing on the market, carry out scientific research. For example, the creation of such innovations as the plane, the camera, the cinema, etc. was possible due to many years of scientific research and coincidence of knowledge from various fields: physics, chemistry, mechanics, etc. However, large companies, with its R&D departments, have significantly accelerated scientific research in these areas, being motivated to obtain significant commercial benefits. The formation of this feature came with understanding that “access to markets with a new product gives an opportunity to receive 20–50 % more profit” [6]. Thus,

among the mechanisms of entrepreneurship, “rent search” through innovations is in the first place;

– *increased intellectualization of production and growth of the role of intellectual capital*. In the structure of property of a company, there is an increase in the share of intellectual and intangible assets. The cost of a brand, as an intangible asset, increases. Countries that adhere to the innovative development model are increasingly focusing on intellectual capital and trying to increase its share in the total value of enterprises. In Europe, this indicator is 50–68 %, and in Ukraine – 1 %.

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Among other signs of the innovation model of the development of national economy, the following ones can be singled out:

- high level of innovation activity of enterprises;
- outstripping growth rates among all employed people of such categories of workers as researchers, theorists, engineers, developers of new technologies and equipment;
- significant volumes of spending on science and innovation;
- wide informatization of society;
- the predominance of labor of intellectual nature over that of industrial one;
- growing requirements for the level of qualification of employees;
- an outstripping increase in the proportion of the science-intensive sector of production in the sectoral structure of a country;
- an increase in the share of products with high added value;
- low profitability of production of standardized products.

Thus, the innovative model of the development of national economy is not only high innovation activity of enterprises, the development of high-tech industries, increased costs for and investments in education and science, but also the achievement of high human development and constant growth of the intellectual potential of the state. This is reflected in an increase in the level of education of the population, specialists in the field of research, the use of science in everyday life.

The development of the innovative concept of the development of national economy is an objective necessity, since it can:

- accelerate the rates of productivity growth of factors of production;

- ensure acceleration of economic growth and socio-economic development;
- accelerate structural shifts;
- promote redistribution of resources;
- improve the quality of life standards;
- improve the country's status in the global economy;
- strengthen the national competitiveness, etc.

The pace of transition to the innovative development of economy depends to a large extent on the state, because it is state that is capable of influencing the processes of generating innovations and their commercialization. At the same time, the state is the main subject that is responsible for the innovative offer, finances fundamental research and development, regulates innovation activity, the educational and scientific processes, influences the development of innovation infrastructure, stimulates processes of stimulating innovation, etc. Thus, the innovative concept of the development of national economy is the latest paradigm of transformation in society, which involves the active use of information (knowledge), followed by their transformation into innovation.

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## **RESEARCH OF ECOSYSTEMS AND PROBLEMS OF ENVIRONMENTAL INNOVATION SYSTEMS DESIGN**

Eco-innovations implementation is actual and necessary task nowadays. The worsening of the environmental situation on Earth demands economic growth based on greening production and activities. It is particularly relevant to Ukraine where the environmental situation is extremely unsatisfying due to the high levels of pollution of air and water resources, soil and biosphere.

Research shows that costs of eliminating the environmental consequences of using non-environmental technologies are 30-35 times higher than costs needed to develop green technology (Smolenyuk, 2009).



Eco-innovations are treated as “creation of new and competitively-priced products, services, processes, systems and procedures designed to meet human requirements and ensure a better quality of life for everyone, achieved by minimal use of natural resources per unit of result and minimum emissions of toxic substances” (Reid & Miedzinski, 2008). Most authors (Zahvoyska (2014), James (1997), (Oltra & Saint Jean, 2009), (Kemp & Pearson, 2008), (Beise & Rennings, 2003), (Carrillo-Hermosilla, Del Rio & Könnölä, 2010), (Reid & Miedzinski, 2008)) highline that eco-innovations are technical-technological and organizational solutions oriented to reducing the burden on the environment, creating additional competitive advantages for companies implementing them. They are connected to both products and processes. Some authors (Bondarenko (2014), Andersen (2004)) consider eco-innovations from the marketing point of view.

Skorokhod (2013, p.120) consider following factors of development of the eco-innovations market: importance of nature conservation activities in the world economy; possibility of increasing countries' competitiveness; reducing the cost of resources for production of products; implementation of environmentally friendly technologies; conducting environmental market research, providing environmental and technical consultation, conducting of environmental expertise and audit.

Experts estimate the global market of eco-friendly goods as quite capacious and one of the fastest growing (more than 5% annually). At the first half of the XXI century, up to 40% of world production is expected to be connected to products and technologies related to the environment and energy. The situation in the environmental services market is influenced by demands that are depended on general economic situation, environmental conditions and state regulation (Kovalenko & Kuznetsov, 2007).

Eco-innovations are the basis for society's sustainable development, including economic, environmental and social components (Table 3.2). Complex indicators are used for effectiveness evaluation of the environmental systems functioning: Eco-efficiency Index, the Global Innovation Index, the Eco-Innovation Index, as well as the costs for environmental protection, innovation activity both in general and in the areas of innovation, R&D.

Effectiveness of ecological systems functioning and eco-innovation activities in different countries using mentioned indicators were analysed. Ukraine was found to have poor results.

Table 3.2

**Economic, environmental and social efficiency of eco-innovations implementation**

<b>Economic efficiency</b>	<b>Eco-efficiency</b>	<b>Social efficiency</b>
1. Decrease of resource consumption.	1. Reducing the level of environmental pollution.	1. Growth of employment.
2. Increase of competitiveness.	2. Increasing the level of products' environmental friendliness.	2. Increasing the welfare of the population.
3. Increase in production scope (turnover).	3. Increasing the environmental security of the state.	3. Increase in life expectancy.
4. Export growth.	4. Increasing the country's environmental friendliness level.	4. Reducing the cost of social benefits associated with poor health.
5. Increasing the economic security of the state.		5. Reducing the level of the morbidity of the population.
6. Increased productivity.		
7. Reducing the cost of elimination of consequences the use of technologies with low environmental friendliness level.		

According to the 2018 Eco-efficiency Index, Ukraine is ranked 109th, between Turkey (108) and Guatemala (110). This index assesses the state of the environment and the viability of ecosystems in 180 countries. Switzerland is a leader of environmental efficiency. The top five also includes France, Denmark, Malta and Sweden. Bangladesh and Burundi are the last (Ukraine's positions, 2019).

According to the Global Innovation Index in 2018, Ukraine is rated 43rd (7 positions higher than in 2017) among 126 countries. Switzerland, Netherlands, Sweden, UK, Singapore are the leaders. In 2014-2018 Ukraine has shown a positive trend (from 63 to 43 position) (Global Innovation Index 2018).

The Eco-Innovation Index is an instrument to assess eco-innovation efficiency across the 28 EU Member States. The index aims at capturing the different aspects of eco-innovation by applying 16 indicators grouped into five thematic spheres (Spain, Markianidou and Doranova, 2018): 1) eco-innovation inputs; 2) eco-innovation activities; 3) eco-innovation outputs; 4) resource efficiency outcomes; 5) socio-economic outcomes. In 2018 Luxembourg leads the ranking with a cumulative score of 138. Germany (137) and Sweden (132) follow closely. In addition, Finland and Austria have been grouped to the "eco-innovation leading" countries. The last group includes "countries catching up in eco-innovation" with scores range from 83 (Belgium) to 45 (Cyprus).

Compared to the 2014-2017 Eco-Innovation Index, most countries remained in the respective country cluster. Traditionally most effective countries (Denmark, Germany, Finland, Luxembourg and Sweden) since 2015 have also ranked highest in 2018 (Spain, Markianidou and Doranova, 2018). Unfortunately, the Index does not rate Ukraine yet.

Such indicators allows to estimate the level of efficiency of ecosystem functioning, that is important for environmental strategy development; shaping and functioning of eco-innovation systems; conducting environmental control and audit, etc.

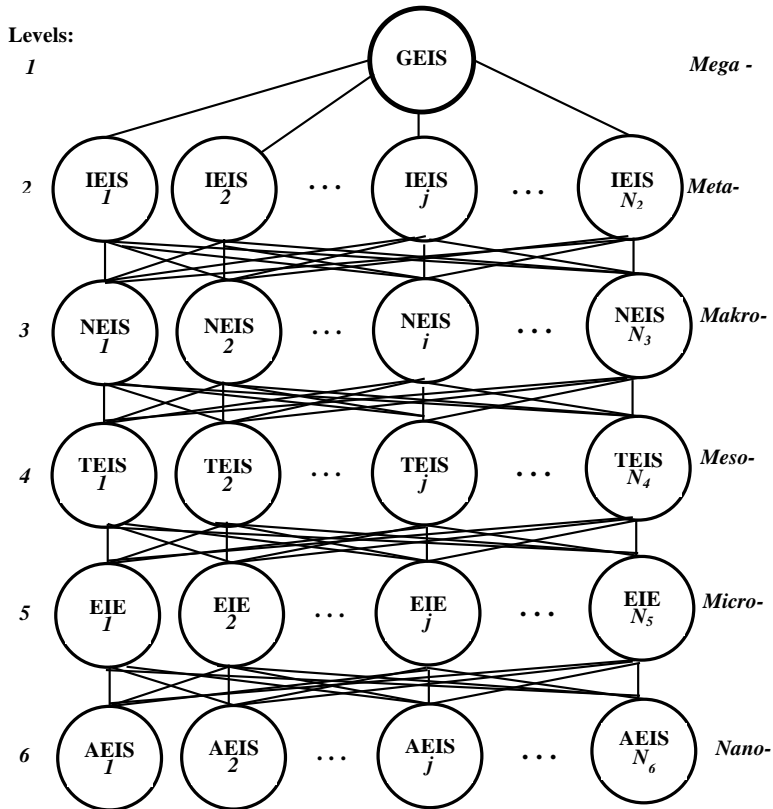
Research of ecosystems and environmental innovation systems (EIS) at different levels of the organization is conditioned by the steadily growing demand for clean energy, technologies, products in in the conditions of eco- and economic crisis. It causes the growth in eco-innovations and determines the feasibility and necessity of EIS formation. Millions of jobs are already created for “green collars” (Andreeva & Martyniuk, 2011). However, creation of EIS eco-innovation systems that would develop, disseminate and implement eco-innovations has not been sufficiently investigated yet.

Prioritizing of global environmental constraints requires finding ways to integrate them into management decision-making at global, international, national, territorial, entrepreneurial and anthropological levels. It means that, problems of EISs design at different levels of organization that meet the challenges of sustainable development demands deep research. This creates new requirements and leads to the search of new approaches to the structural organization of EISs. Based on market conditions and synergy principles, these EISs should become highly organized, self-developing, capable of effectively developing and fully taking into account different environmental and economic interests. Therefore, the goal of this work is to investigate current approaches to the EISs design and to research the state of ecosystems at different levels of the hierarchy.

It is proposed to utilize a systematic approach and decomposition methods (Shpak et al., 2019) to design global EIS (GEIS) (mega-level), international (IEIS) (meta-level), national (NEIS) (macro-level), territorial eco-innovation systems (TEIS) (meso-level), eco-innovation enterprises (EIE) as EIS micro-levels (e.g. eco-parks, eco-cities, small and medium-sized EIEs), anthropological EIS (nano-level) to the study of EIS and ecosystem development states at different levels. Development of anthropological EISs will allow investigating: general patterns of human relationship with the environment; the influence of

environmental factors on the functioning of the human body; purposeful management of human health, its preservation and improvement.

It is proposed to base the construction of the EIS on a functional model of an innovation process (Odrekhivsky et al., 2019). Components of this model can be used on mega-, meta-, macro-, meso-, micro- and nanolevels (Fig. 3.1). It allows the environmental sphere to be constantly present in horizontal (territorial) or vertical (national, international, global) innovation cycles.

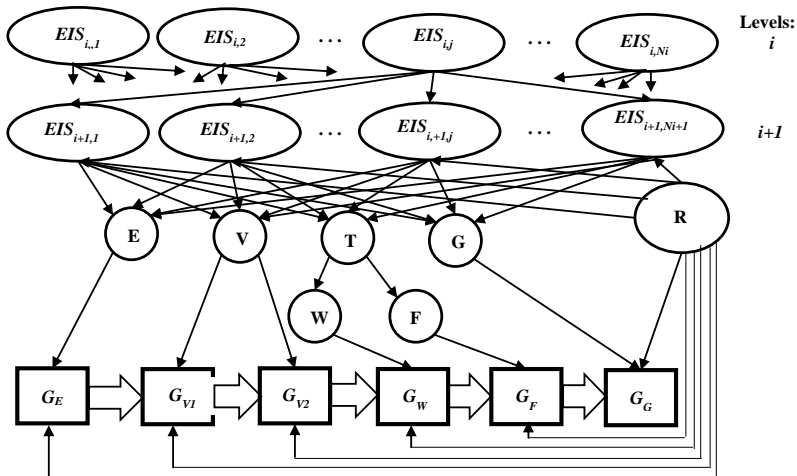


**Figure 3.1** The structure of the global environmental innovation system

*Source: authors*

Thus, the purpose of EIS creation is rapid design, dissemination and implementation of eco-innovations able to improve human ecology, environmental situations of territories, countries and the world in general.

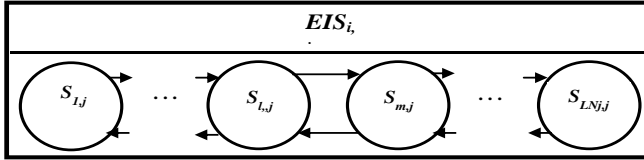
The decomposition model (Fig. 3.2) is proposed for developing the structure of all presented above EIS, where  $i = 1, 2, \dots, 6$  – hierarchy levels;  $j = 1, 2, \dots, N_i$  – elements of the  $i$ -th level of the hierarchy;  $E$  – set of elements;  $V$  – subset of indices inherent to elements of the set  $E$ ;  $V_1$  – subset of the names of indicators;  $V_2$  – subset of values of indicators changing over time;  $W$  – set of states where elements are determined by the values of the indices of the subset  $V_2$ , according to their names from the subset  $V_1$ , at a fixed time point, – set  $T$ ;  $F$  – set of functions (actions, operations), which ensure the transition of the system from the initial state to the main goal;  $G$  – set of goals of the system;  $R$  – set of relations containing a subset of relations between the sets themselves and between the elements of each of these sets;  $G_E$  – graph of elements;  $G_{V_1}$  – graph of indicators;  $G_{V_2}$  – graph of values of indicators;  $G_W$  – graph of states;  $G_F$  – graph of functions (actions and operations);  $G_G$  – tree (graph) of goals.



**Figure 3.2 Decomposition model of EIS**

Source: authors

The graph of the states of the  $j$ -th EIS of  $i$ -th hierarchy level is presented on Figure 3.3, where  $i = 1, 2, \dots, 6$  – hierarchy levels;  $j = 1, 2, \dots, N_i$  – numbers of EIS of the  $i$ -th hierarchy level;  $l, m = 1, 2, \dots, LN_j, l \neq m$  – state numbers of  $j$ -th EIS;  $LN_j$  – number of states of the  $j$ -th EIS. Similarly, states of  $E$ -set elements of all EIS that are determined by the  $V$ -set variables can be described.



**Figure 3.3** Graph of states of the  $j$ -th EIS of  $i$ -th hierarchy level

This graph can be described by the system of differential equations of the Kolmogorov (3.1), and for  $t \rightarrow \infty$  and  $dP/dt = 0$  – by the system of algebraic equations (3.2), where  $\lambda_{i,j,l,m}$  – is the intensity of the transition from the state  $l$  to the state  $m$  of  $j$ -th EIS of  $i$ -th level of the hierarchy;  $P_{i,j,l}$  – the probability of the  $l$ -th states of the  $j$ -th EIS of  $i$ -h level of the hierarchy.

$$\begin{aligned}
 \frac{dP_{i,j,1}}{dt} &= -\lambda_{i,j,1,2} \cdot P_{i,j,1} + \lambda_{i,j,2,1} \cdot P_{i,j,2}; \\
 &\dots\dots\dots \\
 \frac{dP_{i,j,l}}{dt} &= \lambda_{i,j,l-1,l} \cdot P_{i,j,l-1} - (\lambda_{i,j,l,l-1} + \lambda_{i,j,l,m}) \cdot P_{i,j,l} + \lambda_{i,j,m,l} \cdot P_{i,j,m}; \\
 \frac{dP_{i,j,m}}{dt} &= \lambda_{i,j,l,m} \cdot P_{i,j,l} - (\lambda_{i,j,m,l} + \lambda_{i,j,m,m-1}) \cdot P_{i,j,m} + \lambda_{i,j,m+1,m} \cdot P_{i,j,m+1}; \\
 &\dots\dots\dots \\
 \frac{dP_{i,j,LNj}}{dt} &= \lambda_{i,j,LNj-1,LNj} \cdot P_{i,j,LNj-1} - \lambda_{i,j,LNj,LNj-1} \cdot P_{i,j,LNj}.
 \end{aligned} \tag{3.1}$$

The value of intensities of transition from state to state for each element of the EIS – is statistical parameter that can be obtained during the tested object functioning. To evaluate and predict EIS states and their elements, it is advisable to collect this information at the beginning, in the process, and at the end of a specified period of EIS functioning. For an automated testing of the dynamics of EIS states and

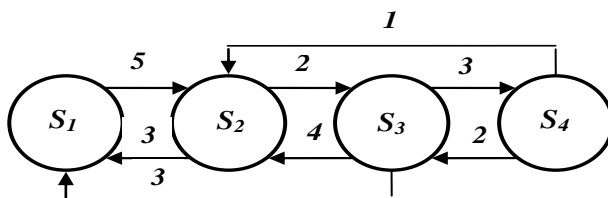
their elements, the numerical solution of the differential equation system (3.1) should be found using computer software. An automated study of EIS states in static for  $t \rightarrow \infty$ , a  $dP / dt = 0$  is proposed to base on numerical methods of the system of algebraic equations (3.2). Based on the dynamic and static characteristics of EIS states and their elements, the appropriate prediction and optimal management decisions can be made.

$$\begin{aligned}
 & -\lambda_{i,j,l_1 2} \cdot P_{i,j,1} + \lambda_{i,j,2,1} \cdot P_{i,j,2} = 0; \\
 & \dots\dots\dots \\
 & \lambda_{i,j,l-1,l} \cdot P_{i,j,l-1} - (\lambda_{i,j,l,l-1} + \lambda_{i,j,l,m}) \cdot P_{i,j,l} + \lambda_{i,j,m,l} \cdot P_{i,j,m} = 0; \quad (3.2) \\
 & \lambda_{i,j,l,m} \cdot P_{i,j,l} - (\lambda_{i,j,m,l} + \lambda_{i,j,m,m-1}) \cdot P_{i,j,m} + \lambda_{i,j,m+1,m} \cdot P_{i,j,m+1} = 0; \\
 & \dots\dots\dots \\
 & \lambda_{i,j,LNj-1,LNj} \cdot P_{i,j,LNj-1} - \lambda_{i,j,LNj,LNj-1} \cdot P_{i,j,LNj} = 0.
 \end{aligned}$$

Investigation of the dynamic and static characteristics of EIS states and ecosystems of different levels of organization (in particular: global ecosystem – biosphere, territorial ecosystems – biogeocenosis and their elements) is proposed to carry out using the system of differential (3.1) and algebraic (3.2) equations.

In order to test those mathematical tools, in 2016/2018 we conducted investigation of the concentration of oil products on ten areas (elements of biogeocoenosis) around the wells operated in Boryslav oil source. 5 experiments on each area of ten sites were conducted, – totally 50 observations. The areas in 12 observations were in the state  $S_1(HH)$ , at which oil products concentration was lower than normal; in 10 observations – in the state  $S_2(H)$ , where oil products concentration was normal; in 15 observations – in the state  $S_3(BH)$ , where concentration was slightly higher than normal, and 13 observation – in state  $S_4(CHH)$ , where concentration was significantly higher than normal. Intensities of the transition from a state to a state is presented above the arcs on the graph (Fig. 3.4).

It should be noted that maximum permissible concentrations (MPC) of oil and oil products in soils are not defined in Ukraine. There is only a reference to an approximate permissible concentration (0,2 mg/kg) (Methodology of determining, 1998). But this indicator is clearly overstated, because the geochemical background of oil hydrocarbons



**Figure 3.4 Graph of the states of oil products concentration**

content in the soils of European countries ranges 0,01 – 0,5 g/kg, in large cities of Ukraine usual indicators are 1-3 g/kg, and at the territories (biogeocenosis elements), adjacent to enterprises of oil extraction and processing, the background reaches 6 g/kg (Franchuk & Radomska, 2009). MPC for soil is determined in RD 41-5804046-200-91 «Environmental protection in the construction of exploration and exploitation wells for oil and gas» as 4g/kg (RD 41-5804046-200-91, 1991). In such a way, during conduction of the study we determined the following states: S1(HH) – concentration of oil products lower than 3g/kg; S2(H) – 3-4 g/kg; S3(BH) – 4-6g/kg; S4(CBH) – higher than 6g/kg.

It is considered that weak (up to 3 g/kg) and medium (3-4 g/kg) pollution can be eliminated in the process of soil self-purification in the next 2-3 years, strong (4-6 g/kg) and very strong (6-13 g/kg) – for 4-5 years. Serious environmental losses is caused by very strong pollution of the soil with oil concentration exceeding 13 g/kg, since at this point the migration of petroleum products into groundwater begins, an ecological equilibrium in soil biocenosis is significantly disturbed. Therefore, in these cases, it is advisable to consider the complex liquidation of the consequences of oil spills (Bodachivska & Pop, 2006), which includes localization of pollution, collection of liquid hydrocarbons by mechanical and absorption methods, washing and aeration of the contaminated land area with surface-active systems of natural origin, biological purification and full recultivation of lands with consideration of nature-climatic conditions, pollution level and scales.

Solving the systems of equations (3.1) and (3.2), which describe the above graph (Fig. 5), for initial conditions:  $P_{S1} = 12/50 = 0,24$ ;  $P_{S2} = 10/50 = 0,2$ ;  $P_{S3} = 15/50 = 0,3$ ;  $P_{S4} = 13/50 = 0,26$ , using the appropriate numerical methods and computer technology allows to estimate the state of concentration of petroleum products in the studied territories on the basis of the obtained dynamic and static characteristics



(Fig. 3.5) and make appropriate forecasts. Here, the values of the probabilities of states  $P_1, P_2, P_3, P_4$  correspond to the values of  $P_{S1}, P_{S2}, P_{S3}, P_{S4}$ . It should be noted that the results of the observations are generalized because they were conducted on ten sites in total, although it was possible to make dozens of observations for each site individually and to build dynamic and static characteristics as well as to make appropriate forecasts for each site.

According to the static characteristics of the concentration of oil products (see Fig. 6), with which the dynamic characteristics converge, the predicted states of the concentration of oil products can be considered: S1 (below normal) – with a probability of 0.33; S2 (normal) – with a probability of 0.45; S3 (above normal) with a probability of 0.11; S4 (significantly above normal) – with a probability of 0.11. Accordingly, the predicted states of the studied elements of biocenosis in general are: S1 (good) – with a probability of 0.33; S2 (satisfactory) – probability of 0,45; S3 (unsatisfactory) – probability of 0.11; S4 (bad) – probability of 0.11. However, on the basis of model studies of the dynamics and statics of ecosystem states, formation of quality criteria and permissible restrictions on the above states is not possible.

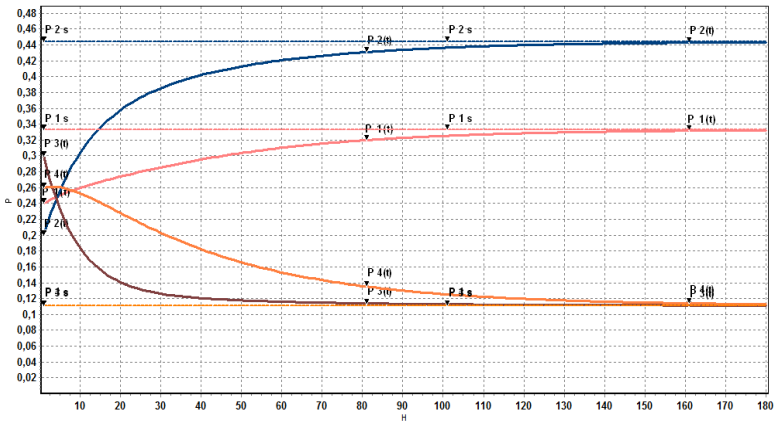


Figure 3.5 Graph of the results of the oil product concentration research

$P1(t), P2(t), P3(t), P4(t)$  – value of probabilities of states in dynamics  
 $P1s, P2s, P3s, P4s$  – value of probabilities of states in statics

Formation of management influences and the assessment of the

consequences of their implementation are external to the presented models of procedures. Therefore, it is proposed to include information systems based on the knowledge, experience and intuition of highly qualified experts to make decisions about ecosystem states and to select the best management impacts on them. Such systems enable management of ecosystem states through modern information technologies, especially intellectual and knowledge management systems. It helps to develop and introduce new high-tech technologies of ecological research, to diagnose and predict ecosystem states, to ensure that ecosystems have adaptive capacity and resistance to environmental conditions.

The proposed approaches to design EIS and investigation of their states indicate that EIS should be considered as complex systems with a set of interconnected elements, structure, strategic and operational environmental innovation activities, oriented towards achieving environmental and economic goals. At the same time, in conditions of intense social development, an important task is to preserve the natural environment and to ensure minimal negative impacts on different types of ecosystems. In such circumstances, the ability to determine the future status of ecosystems makes it possible to take into account the likely negative impact of various factors in order to prevent it. This is the purpose of the modelling system proposed in this scientific work for the assessment and prediction of ecosystem states. Such forecasting makes it possible to make optimal management decisions aimed at eliminating the negative impact of anthropogenic activity on the environment.

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**MANAGING  
INTEGRATED  
MARKETING CHANNELS  
AND COMMUNICATION  
POLICY IN THE MARKET  
OF SERVICES FOR  
ACCUMULATED  
PENSION PROVISION**

Nowadays is characterized by increased marketing of components which increases the role of marketing communications.

Marketing communication is bilateral process. On the one hand, the expected impact on the target audience, on the other – is receiving information counter reaction of the audience carried on companies and organizations influence. Both of these components are equally important; their unity suggests that the marketing communications as a system. It is understood that no company is unable to act immediately in all markets, while meeting the needs of all consumers. Instead, the organization will be successful only if it focuses on the market, where customers with the most likely to be interested in its marketing program [1].

When marketing distribution of goods is understood the organization to plan, implement and control the movement of their products to end consumers in order to meet its needs and profit.

Integrated marketing communications are the concept of marketing communications planning that involves the search for the optimal combination of certain areas by integrating several separate facilities to ensure maximum impact on the target audience [1].

Marketing distribution channel is the method or way organizational and economic substantiation goods from the manufacturer to the end user [1]. The main marketing channels and their strengths and weaknesses are summarized in Table 3.3.

The main objectives of marketing communications are]:

– information (providing information that prevails during the withdrawal of goods on the market, when challenged to create primary demand);

– persuasion (necessary during growth when the task of forming selective demand) – formation of benefits to the brand / product /

company, encouraging the switch to another brand, changing the perception of the consumer goods properties etc.;

– reminder (used at the stage of maturity to make consumers remember the product).

*Table 3.3*

**Advantages and disadvantages of some marketing distribution channels**

Channel type	Benefits	Disadvantages
1. Direct sales model “manufacturer-final consumer”	1) high price controls, the possibility of differentiation by region; 2) management of the entire process of goods movement; 3) access to information about the market and the consumer; 4) lack of margin; 5) the ability to form a stable group of customers and rapid response to changing requirements of the buyer	1) the high cost of implementation, organizing transportation and warehousing; 2) is unprofitable, subject to the existence of small consumers scattered on territory
2. Selling through an intermediary	1) moderate implementation costs 2) increasing professionalism in the packing and sorting; 3) providing firms guarantees producers in bringing their products to the retailer through his connections, experience and specialization	1) high margins mediator and as a result - a relatively high price for the buyer constraining demand; 2) limited control of the territorial coverage
3. Sale through a tiered system of intermediaries	1) relatively low cost; 2) no need for research and market forecasting; 3) there is no need to solve problems of logistics (warehousing, transportation, etc.)	1) low price controls; 2) isolation from the consumer and the lack of information about it; 3) the need to establish close contacts with intermediaries; 4) the need to organize their information and training

*Source: developed based on source [1]*

Marketing communication policy reflects the company prospective course of action aimed at ensuring cooperation with all subjects marketing system to meet the needs of consumers and profit [1].

Marketing communications, respectively, and marketing communications policy objectives can be divided into two groups:

- communications to create a product that will be in demand in the market (including communication links with customers, intermediaries, other participants of the business process market, aimed at searching new product ideas, concepts inspection, testing new products, removing it on the market, ensure commercial success);

- communication for product promotion (for this use traditional tools and synthetical marketing communications).

The main means of promotion (a complex of marketing communications or a system of marketing communications are: advertising, sales promotion, organization of public relations, personal selling, direct marketing, online marketing, sponsorship, branding, exhibitions and fairs. The numeral of different communication existing tools indicates their prevalence in all markets for goods and services. There is no exception for the pension services market.

In the world distinguishes three levels of pensions. The first level is represented by the state pension. The second level it is mandatory funded pension. The third level includes voluntary funded pensions.

Currently, Ukraine has first and third levels of pensions.

According to the Law of Ukraine “On private pension provision” [3] Non-state funded pension provision is made:

- pension funds;
- banks (opening the pension deposit account);
- insurance companies (life pension and insurance risk of disability or death).

There is the concept of “life annuities” (life annuity) – pensions, insurance company are carried out under the contract lifetime pension for life of an individual periodically after attaining retirement age under the legislation on insurance [3].

Payment made life annuities insurance company. In case of death of the insured the right to a pension is transferred to heirs.

According to the Law of Ukraine “On Compulsory State Pension Insurance”. There are three kinds of lifetime pensions, life pension of a specified period, due lifelong pension, life pension of spouses [4].

Lifetime pension with a set monthly payment period is exercised over the life of the pensioner. In case of death of a pensioner entitled to

receive a lifetime pension appointed for a specified period heirs are specified in the insurance contract or a lifetime pension determined pursuant to laws [4].

Lifetime conditioned pension – a monthly payment that is made during the life of the pensioner [4].

Lifetime pension of spouses – monthly payment that is made during the life of the pensioner, and after his death – his\her spouse (s) who have reached retirement age, during their life [4].

Banks made pensions savings by opening the pension deposit account.

Retirement savings accounts – deposit accounts (deposit) of individuals opened banking institutions subject to the conditions set by law, to savings for the payment of pensions [3].

The market offers many suggestions to open a retirement account. They offer different interest rates is on average 12-16% per annum and different conditions of storage resources. One advantage of the deposit is the Deposit Guarantee Fund Deposit Guarantee.

Consider the third level funded pensions with private pension funds.

At present the world's great demand for non-state (private) pension funds (NPF), but in our country they are fairly new financial institutions for the vast majority.

Pension Fund - legal entity that has the status of non-profit (non-commercial partnership) operates and carries out activities solely to the accumulation of pension contributions for the pension fund participants, followed by management of pension assets, and provides pension benefits to participants mentioned fund within the law of Ukraine order [3].

NPF created for people who are retired and can get additional payments to principal (state) pension payments. Currently in the financial market there are many private pension funds. Therefore, to convey to consumers the services they need high-quality advertising. The use of marketing channels and communication policy NPF help keep in touch with their customers.

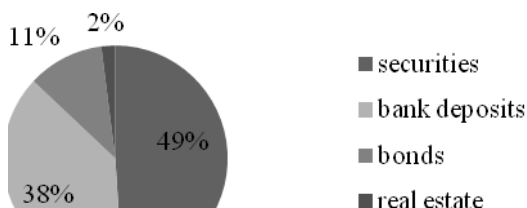
According Natskomfinposluh [5] of private pension funds in 2018 was the largest amount of assets in the corporate NPF National Bank (1.33 bln. UAH), NPF Ukreximbank (238 mln. UAH), NPF “Emeritus-Ukraine” (162 mln. UAH), pension fund “PryvatFond” (144 mln. UAH) fund “OTP Pension” (133 mln. UAH).

According Finbalance on 31/12/2018 there were 62 pension funds and 22 pension fund administrators (on 31.12.2017 – respectively 64



and 22 administrators NPF) [5]. Thus, in 2018 compared to 2017 year, the number decreased by 2 NPF institutions. However, it should be noted that in 2018 NPF assets increased by 11.3% to 2.75 bln. UAH [5].

According Natskomfinposluh state pension funds invested pension assets (Fig. 3.6) in securities, bank deposits, bonds resident enterprises of Ukraine, the real estate.



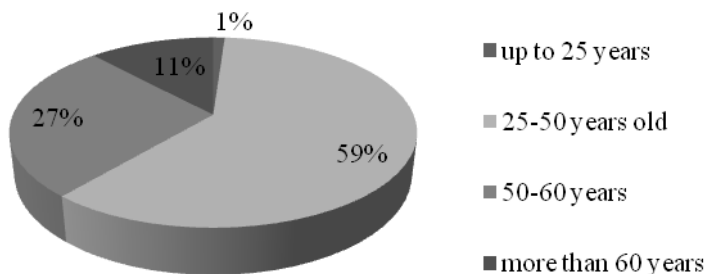
**Figure 3.6 Structure of invested pension assets of NPF**

It can be noted that most of the NPF invest in securities because it brings a stable and high profits. There is growing and stable banking sector and banks offering high interest on deposits.

The amount of pension contributions in 2018 increased by 5,4% to 2 bln. UAH, and the amount of pension payments – by 16.3% to 809,9 million. UAH [4]. Since the amount of pension contribution increases, which means that NPF establish communication with the consumer segment, inform the public about existing services. As a result, more people will learn about the possibility of private pensions and its benefits.

According Natskomfinposluh, geographically the largest number of private pension funds is concentrated in Kyiv (nearly 44 establishments with 62 or almost 71%). In Kharkiv, Ivano-Frankivsk, Lviv region 2 state pension funds. Others are located in Donetsk, Dnipropetrovsk, Kherson and Odessa regions [6].

As of 2018 the greatest demand services NPF according Natskomfinposluh (Fig. 3.7) used the people in the age group from 25 to 50 years is about 513,5 thousand people. From 50 to 60 years – 229 thousand people. Least of all persons who use the NPF under 25 years almost 10 thousand. And people aged over 60 years – 93,7 thousand. People. Total of NPF as at 30.06.2018 – 846,2 thousand people [6]. We also know that in every age group most participants are men.



**Figure 3.7 Distribution of participants of NPF by age groups**

Using a marketing approach to analysis, this is a testament to the fact that most young people today are beginning to care about their future and use the services of NPFs. Advertising and other means of communication with consumers NPF should be directed to information on services for people aged from 25 to 60 years. This can be done using communication tools such as social media advertising, outdoor advertising, advertising in the media and on television.

Analyzing the dynamics of pension benefits for the period from 2016 to 2018, one could argue that the pension benefits to participants NPF increased. So in 2017 compared to the year 2016 pension payments increased by 78 mln. UAH. In our opinion this influence to increase the number of NPF and increased pension contributions. And in 2018 compared to the year 2017 pension payments increased by 68.2 mln. UAH [6]

Furthermore, it should be noted that in 2017 compared to 2016 year pension contributions increased by 97.8 mln. UAH., in 2018 – on the contrary decreased by 7,9 mln. UAH. In our opinion, this is due to a decrease in pension contracts signed (in 2016 – 60,7 thousand pieces, in 2017 – 66,5 thousand pieces in 2018 – 63,7 thousand pieces).

The amount of pension assets in the period 2016-2018 years increased. In 2017 one can observe an increase of 248,4 million. UAH, and in 2018 compared to 2017 year – 288 mln. UAH.

Consider the use of marketing channels for example top 5 in terms of private pension funds.

Most scientists in research on marketing identify three channels of marketing-communication, distribution channels and sales channels.

Communication with customers is the most important factor for the

further work of any financial institutions including private pension fund. Unfortunately not all NPF use monologue and dialogue channels to work with the consumer.

For example, the official web site with corporate pension fund of the National Bank of Ukraine, the NPF “OTP Pension” and OPF “PryvatFond”. They use interactive channel with customers with telephone hotline, email, feedback forms submitted on the official site.

“AMC-ACE” Upinvest, is among the ICU, provides asset management services to institutional investors (private pension funds, collective investment institutions and insurance companies) [7].

Almost all NPF use monologue channels – is advertising in the media, television, outdoor advertising and more.

Consider the possibility of introducing in Ukraine the second pillar pensions.

According to the Pension Fund of Ukraine of average monthly pension payments as of 01.10.2019 is 3,01962 UAH, and the total number of pensioners 11,349187 people [8].

At the beginning of 2018 officially employed 12 retired 11 Ukrainian pensioners provided. Thus, every year the situation is only getting worse, as the birth rate in Ukraine is critically low while relatively large-scale emigration has become today. The second level of pensions is needed, which would provide an opportunity to receive additional benefits and most people take care of their future.

Currently NCSSMA developed a draft law “On mandatory funded pension provision” under which Ukraine will take effect in the second pillar pensions. The second level of pension perfectly the third – a mandatory funded pension. Under this bill, every citizen will be required to make payments to a personal pension account. In case of death of the account holder, all savings will be inherited by his descendants [9].

There are three types of private pension funds, corporate, professional and open [10].

Corporate NPF employer creates one or more participants this fund may only be persons who are employed by the founders. NPF is the largest corporate NPF National Bank and Ukreximbank.

Professional NPF established employers’ associations including trade unions.

Open NPF created by any entity. Participants in such fund could be anyone.

In the professional pension fund such change individual job does not affect the right to be a member of the NPF, but the employee has to deal

only with the type of professional activity, which is set by the charter fund [10].

Among the factors that encourage businesses to create a system for its refinery workers are: social improve the attractiveness of the institution; increase investment opportunities – now allowed to use up to 5% of funds from one pension fund as an investment because of its own securities; reduction of the tax base – deductions enterprise in the NPF in favor of employees enrolled in the gross expenditure, they do not reduce workers' wages are not included in the payroll, and thus are not made contributions to the Pension Fund of Ukraine, social insurance and so on. The introduction of the company NPF will enhance workers, increase prestige and a positive image of the company, development of social partnership between workers and management institutions [3].

Under the law, NPF can not fail, it can not be eliminated. In the event of a crisis (such as “bankopad”) depositors funds are transferred to another fund.

The introduction of the second pillar pension provision is necessary for Ukraine. This will provide an opportunity to improve living standards and welfare in the future. Increase social assistance for people of retirement age.

**Conclusions.** Thus, a study by major marketing channels and the role of communication policy in funded pensions. In Ukraine, the first level and third level pensions, public and voluntary funded pensions respectively.

According to the analysis, the amount of pension payments in Ukraine first level of pension is not enough to ensure a decent retirement. Therefore is essential introduction of a second mandatory funded pension.

In developing the non-state pension system, one must take into account the desire of the population to insure their future. It is necessary to provide increase of incomes of citizens, stability in the country. It is necessary to develop techniques for obtaining more income from operations, and concern for the reliability of funds. After all, one of the main problems with securing an additional pension is the reliability of the fund. It is necessary to create such a climate in the country so that the funds seek to have the best reputation and regular clients, and clients knew that the invested funds are nowhere to go and their income will be stable and guaranteed under all conditions. Clear control over the activities and transparency of non-state pension fund operations is also needed.

Through the implementation of the proposed measures can improve the activity of pension funds, public interest in the further development of non-bank financial institutions and solve a number of problems related to social protection.

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## Chapter 4

### STRATEGIES OF COMPETITIVENESS IN ENSURING SUSTAINABLE SOCIO- ECONOMIC DEVELOPMENT

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### THE ATTRIBUTION MODEL OF THE EMPLOYER BRAND AS A STRATEGIC FACTOR OF INCREASING COMPETITIVENESS

The development of the economy any country in the world, increasing the competitiveness of its industries and individual companies is primarily associated with staffing. A significant characteristic of the modern labor market is the shortage of highly skilled workers, caused by the demographic crisis of the late 1980s and 1990s, a decrease in the number of able-bodied people, a high degree of staff mobility, a shortage of skilled staff, and a decrease in staff loyalty to the employer. In the condition highly competitive labor market, which is characterized by excess demand for staff over its supply, the necessary condition for survival and dynamic development of enterprises is the possibility of attracting new and retaining employees. There is a need to find new, more effective tools to recruit and retain staff to gain competitive advantage in the fight for the best staff. Not only the image aspect in the company's research as an employer becomes relevant, but also the problem of forming a competitive employer brand. Understanding the importance of a strong employer brand leads to the need to identify the HR brand attributes that are important to the target audience and to develop methodological approaches for evaluating it.

Problems of formation and development of the employer brand were researched mainly by foreign authors, such as: T. Ambler, S. Burrow, R. Mosley, B. Mitchington, K. Bachaus, S. Ticoo, S. Lloyd, P. Berton, M.

Ewing , L. Hach, P. Burke, V. Bellow, D. Kucherov, A. Botha, M. Bussin, L. Swardt, H. Aggerholm, S. Andersen, K. Thomsen, R. Katoen, A. Matioshek, S. Knoks, S. Freeman, et al. Among Ukrainian scholars, the issues of employer brand management are outlined in the works of: S. Mokina, S. Tsymbalyuk, V. Oberemchuk, O. Soroka, K. Krasovska, V. Rybintseva, L. Balabanova, O. Sardak, and others.

In recent years, domestic enterprises have mastered the theory and practice of forming and developing an employer brand, as this is due to trends development in the world economy. Globalization processes have influenced on competition not only in commodity markets but also in the labor market. At the beginning of the millennium, the concept of “employer brand” was practically not used by Ukrainian scientists, and was replaced by the more narrow term “employer image”. Therefore, the heads of domestic companies are trying to fill the existing theoretical gap with practical actions – by copying the western technologies of working with the employer brand, which is not always justified in Ukrainian realities. In practice, Ukrainian companies are already developing and managing an employer brand. But a detailed scientific study of the concept of employer brand and the formation of constituent attributes of his model in the domestic literature is almost absent.

Practitioners and scientists have made a great deal of effort to find the right set of employer brand features to help attract, retain, and develop the ideal employee. Today, there are a number of employer brand management models that are based on different classification characteristics and differ in the structure of the HP-brand elements. The main goals of these models are to enhance differentiation and competitive advantages, as well as to simplify the process company’s perception of potential and existing employees. Researchers have made it possible to form HP-brand models that describe various aspects of the process. A review of the literature on this issue has shown the diverse and ambiguous approaches of different authors. It should also be noted that in the domestic scientific literature the issues of structure of HP-brand elements are insufficiently covered. The first hints as to the structure of the employer brand elements (attributes) were proclaimed in the first definition of the employer brand category, introduced by S. Burrow and T. Ambler, namely “a set of functional, economic and psychological benefits ...” (Ambler, Barrow, 1996). It is these three sets of attributes that have become the so-called point of reference in scientific perspectives on the structure of brand elements. Summarized views of scholars on the structure of the employer brand are shown in Table 4.1.

Table 4.1

**Structure of elements of employer brand models**

Author	Elements of the model
1	2
Barrow S., Mosley R. (2011)	“Employer Brand Wheel”: farsightedness and leadership, policy and values, justice and cooperation, corporate image, external reputation, communication, hiring and entry, development, productivity control, production conditions, incentive system, termination of employment.
Barrow S., Mosley R. (2007)	“Employer Brand-Mix”: external reputation, hiring and induction, team management, productivity control, training and development, incentive system, working conditions, support at work, internal appraisal system, values and customer service, top management, internal communications.
Minchington B. (2015)	“Employer brand structure”. The core of the model is the value proposition of the employer company (a unique set of proposals, values and associations that positively influence the choice of the company). The second level of structure is the practice of human resource management (attraction and introduction to the post, compensation package, creation of working environment, recognition and reward of employees). The third level is the strategic brand platform of the employer (human resources management practices adopted here to create components of a company’s value proposition as an employer are in line with the company’s strategic policy: its mission, vision, corporate values and culture).
Kucherov D.G. (2012)	“Employer brand structure”. In this structure, employer brand attributes (economic, psychological, and functional) are at the core of the brand itself. The following are the internal brand identifiers (benefits for the candidate that he or she will gain from employment in the company: training and development of staff, motivation and incentives, remuneration, promotion, etc.). The last level of the structure is external employer brand identifiers (ways of communicating company value propositions as an employer to the target audience in the labor market).



Table 4.1 (continued)

1	2
Berthon P., Ewing M., Hah L.(2005)	“Five-Factor Employer Brand Model”: interest (complexity of work, use of non-standard practices and creativity of employees in the workplace, etc.); social attribute (good relationships between colleagues, team spirit, climate in the team, etc.); economic attribute (wage level, compensation package, job security and promotion prospects); development (recognition of employee’s work results, support of their self-esteem and self-confidence, guarantee of promotion); applicability and human orientation (the extent to which the knowledge acquired in the course of work is applicable; the opportunity to express oneself, the ability of employees to teach each other in the work process, corporate social responsibility of the company).
Bellou V. (2015)	In their research, they confirmed the multifaceted design of the employer brand and emphasized the role of such attributes as: reward, relationships, opportunities for self-development, recognition, corporate image.
Backhaus K., Tikoo S. (2004)	“Conceptual model of HP-brand” containing the following elements: organizational identity, organizational culture, employer brand associations, employer brand loyalty, employer image, employee engagement, productivity.
Burke P. (2007)	The model is presented in the form of an employer brand pyramid consisting of five elements: attributes, functional benefits, emotional benefits, values, personalization.
Botha, A., Bussin M., L. De Swardt. (2011)	An employer brand forecast model, which includes six blocks: target audience needs; differentiation of the value proposition to the employee; personnel management strategy; brand consistency; employer brand communication; measuring your employer brand.
Aggerholm H., Andersen S., Thomsen C. (2011)	The employer brand model is shaped by the interaction of three main components – branding, corporate social responsibility and personnel management.
Gupta P., Patti R., Marwah S. (2014)	The authors highlight the parameters that are based on a strong employer brand: time to close a job, the cost of hiring employees, corporate culture, quality of hiring, revenue growth

Source: compiled by the authors

As we can see from Table 4.1, not all of the elements included in the wheel and mix brand employer can be attributed to one or another of the classic attributes employer brand highlighted by the founders of the concept. This applies to elements such as the company's external reputation, its policies and values, corporate identity, corporate social responsibility and more.

Perhaps this is why other researchers have also tried to classify the attributes of the employer brand. Most approaches to this classification are based on the employer brand structure proposed by Brett Minchington, president of Employer Brand International, which specializes in employer brand issues. According to B. Minchington's model, the first level of brand attributes is the value proposition of the company, the second is the company practice of personnel management, and the third involves the alignment of attributes of the first and second level with the strategic position of the company (Minchington, 2011; Minchington, 2006).

D. Kucherov (Kucherov, 2012) holds a similar position in his research, distinguishing in his structure the core of the brand (economic, psychological and functional attributes), as well as internal and external brand identifiers.

Drawing on Ambler and Burrow's three-attribute model, Pierre Burton, Michael Ewing, and Lee Laya Ha, in their work "Captivating company: dimensions of attractiveness in employer branding", propose a five-factor model for measuring brand attractiveness by validating their value a number of studies (Berthon, Ewing, & Hah, 2005). In their work, they have determined the influences on the attitude of company employees of the company affect the high value of each individual criterion, namely: interest, social attribute, economic attribute, development and applicability and human orientation.

The Ideal Employer Model was developed by the authors of the article "Employer Brand of Choice: an employee perspective" based on an analysis of the influence of selected factors, namely: reward, relationships, self-development opportunities, recognition, corporate image (Bellou, 2015).

Another model of employer branding proposed by K. Buckhaus and S. Tikoo consists of two main elements – brand association and brand loyalty (Backhaus, Tikoo, 2004). The concept of this model is characterized by the fact that it contains both the tools of forming the employer brand and the results of building the employer brand, which are expressed in the involvement of employees and productivity. This

model is based on building an internal and external employer brand.

The head of an Australian company Essencecomms Penny Burke suggested creating the necessary distinctive employer brand characteristics based on the trade mark attribute composition. In her book, “Forced Focus – the employer branding”, she proposed five components of a company brand as an employer: attributes, functional benefits, emotional benefits, values, personalization and presents them as pyramid components (Burke, 2007).

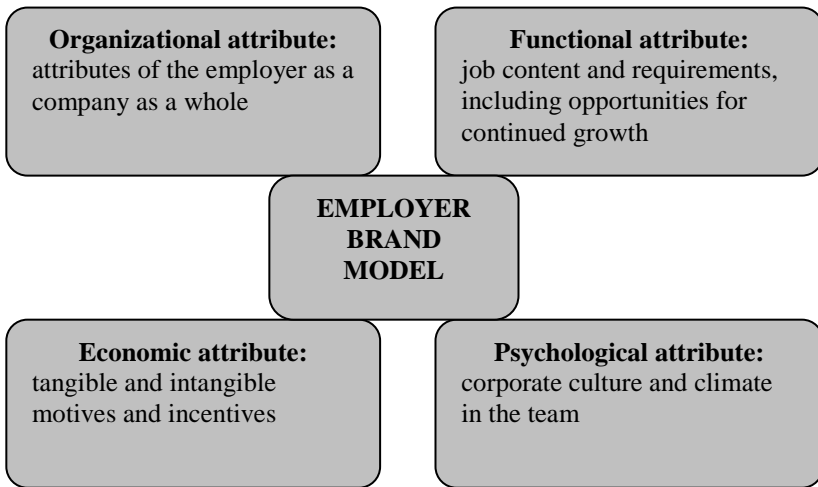
A. Botha, M. Bussin, and L. De. Swardt in his research proposed use that six interconnected blocks be used to identify an employer brand: target audience needs; differentiation of the VPE (value proposition to the employee); personnel management strategy; brand consistency; employer brand communication; measuring employer brand. Offered by the authors the structural blocks of the employer brand proposed by the authors are integrated into the predictive model of the employer brand, which allows to predict the recruitment and retention of talented employees (Botha, Bussin, L. De Swardt, 2011).

The employer brand concept proposed by Aggerholm H., Andersen S., Thomsen K. (2011) indicates that the employer brand is a tool for maintaining enterprise resilience and establishing long-term relationships between by the employer and employees, form under the influence interaction of the three main components – branding, corporate social responsibility and personnel management.

The analysis of approaches to the structure of elements the employer brand model allowed us to distinguish the four most important attributes in our opinion, namely: organizational, functional, economic and psychological (Fig. 4.1).

Therefore, in our opinion, the employer brand is a set (complex) of organizational, psychological, functional and economic attributes that distinguish the company as an employer among other organizations and ensure its competitiveness in the eyes of potential and existing employees.

In addition, the study highlighted the key elements of each of the identified attributes. Their list can be quite broad, which in turn will complicate the process of further analysis of the employer brand by certain components. Therefore, in our study, we decided to focus only on the main ones (most commonly used in the writings of scientists and practitioners), namely:



**Figure 4.1 The attribution model of the employer brand**

*Source: developed by the authors*

**Organizational attribute:** position of the company in the market (market share, stability and innovation of the company, success story, structure and transparency of business, level of use of international standards); awareness of corporate and consumer brands; the degree of availability of company information for potential employees; the image and reputation of top management; location and convenience of office location.

**Functional attribute:** content of work (complexity, ability to realization knowledge and skills); training and professional development opportunities (including the level of company training costs); career prospects; objectivity in the evaluation of work by executives; opportunity to participate in making operational and strategic decisions.

**Economic attribute:** level of remuneration (availability of premiums and bonuses, transparency and comprehensibility of bonus schemes); guarantee of employment stability; work schedule (work and rest mode, overtime); working conditions and level of workplace organization; social package.

**Psychological attribute:** corporate culture; the appearance of the office and staff of the company; social-psychological climate of the team; management style; lack of nepotism (giving relatives or acquaintances positions or other privileges regardless of their

professional abilities).

We propose to estimate the level of development of the brand of the employer-company by the formula:

$$LD_{EB} = a*PP_{OA} + b*PP_{FA} + c*PP_{EA} + d*PP_{PA}, \quad (4.1)$$

where  $LD_{EB}$  – level development of employer brand;

$a, b, c, d$  – employer brand attribute weights;

$LD_{OA}, LD_{FA}, LD_{EA}, LD_{PA}$  – level of development of individual attributes of the employer brand according to respondents' estimates.

Thus, our proposed employer brand model can be the basis for substantiation and decision-making in the process of establishing effective management of the employer brand of the company, allows more clearly and comprehensively in practice to carry out the evaluation of the employer brand, to respond in time to changes in the external environment, to form attractive HR-brand company and win in the competition for highly skilled personnel.

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**DIVERSIFICATION  
STRATEGY IN  
MANAGEMENT  
INFORMATION  
SYSTEMS OF THE  
COMPETITIVE  
BEHAVIOR OF THE  
ENTERPRISE ON  
THE MARKET**

The realities of the Ukrainian economic environment confirm that, in conditions of uncertainty, competition not only determines the size of market shares (affects the diversity of the product, its price, the ways of its promotion and distribution), but also promotes the correct orientation

of the consumer (the best products and services set the industry standard), thus enabling the company to evaluate the results of success.

Therefore, in the conditions of globalization and active penetration of national markets of giants of the business, one of the actual goals of any enterprise, regardless of the form of ownership and direction of activity, is the increase of international competitiveness.

The existence of competitive advantages in the enterprise – are the realized opportunities of the enterprise (a fact that has already been realized). From the point of view of philosophy, in order for the possibility to become reality, two factors are needed: the effect of a particular law and the presence of appropriate conditions [9].

The capabilities of the company are determined by its potential, which, under the influence of the laws of functioning of the market (competition, etc.) and the influence of factors of internal and external environment, is realized in the competitive advantages of the enterprise.

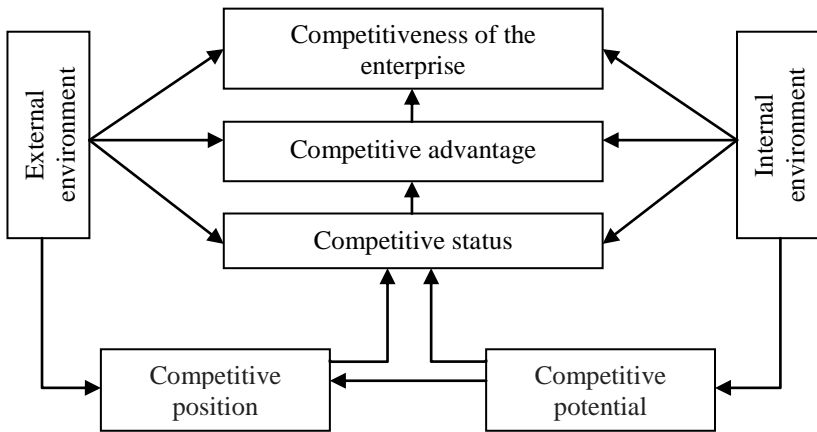
The prerequisites for achieving competitive advantages of the company reflect such a concept as a competitive status, which covers not only the position of the company in the market (in the industry), but also the degree of ownership of the identified comparative advantages. Competitive status is determined by the competitive position of the enterprise and is a prerequisite for achieving a certain level of competitive advantage [4].

Competitive position of the enterprise: firstly, is determined by its position on the market and is identified with the size of the market share of a particular enterprise [11]; Secondly, it reflects the competitive relations, the results of the competition; and thirdly, is the basis for the existence of one or another enterprise in a competitive environment [9].

Structurally – logical general construction of the competitiveness of the enterprise, which defines the hierarchy of the concepts under study, is presented in Figure 4.2.

Based on the study of existing definitions of competitive advantage, it can be concluded that the competitive advantage is interpreted as an existing fact, that is, a concentrated manifestation of advantages over competitors: the greatest productivity of the use of resources, the properties of goods or brands, the presence of exclusive value (Table 4.2), [7].

Necessary condition for researching competitive advantages is their thorough classification, which allows you to see the various aspects of acquiring and manifestation of these benefits (Fig. 4.3). Competitive advantages can have different degree of target significance in terms of



**Figure 4.2 Structurally - logical general construction of the security competitiveness of the enterprise**

strategic and tactical positions, based on price and non – price factors, manifested in the fields of production, sales, service and operation, long, medium and short term, stable and unstable, unique and simulated. Such a versatility suggests that ensuring the competitive success of an object of management in the market is complex and the presence of a separate advantage cannot solve the problem as a whole.

From the definition and classification of competitive advantage of the enterprise we propose to switch to the characteristics of the system of competitive advantages as a system that corresponds to the goal of the creation and operation of any enterprise – the receipt of profit and reflects the market orientation of its activities – the satisfaction of consumers (Fig. 4.3) [9].

Thus, it makes sense to divide the competitive advantages of an enterprise into internal (competitive advantages of the seller) and external (competitive advantages of the buyer). According to the classification shown in Figure 4.4, under the external competitive advantages it is necessary to understand the advantages of the enterprise in satisfaction of those or other needs of the consumer. They create the following values of the goods for the consumer, such as quality, price, and so on. Internal competitive advantages characterize the value for the vendor and are based on the processes of formation, implementation and development of competitive advantages of the enterprise in all functional areas of its activities.

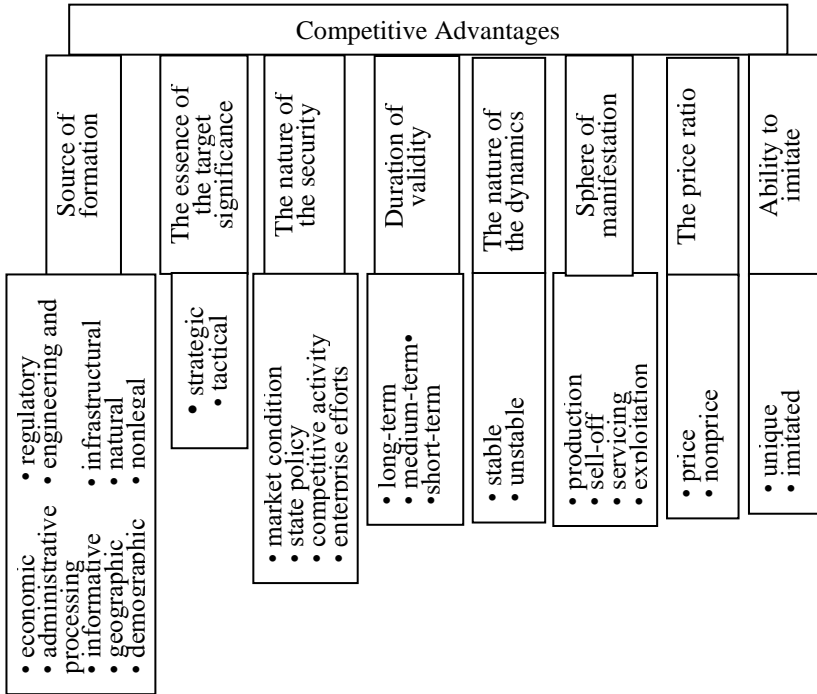


Table 4.2

**Approaches of scientists to determine the competitive advantage of the enterprise**

Definition: A competitive advantage is	Author
The fact that is fixed as a result of the real and obvious benefits of buyers	G.L. Azoev, A.P. Chelencov
Concentrated manifestation of advantages over a competitor in the economic, technical, organizational spheres of the enterprise, which can be measured by economic indicators	
The advantage of a firm in a particular area or activity in the production of goods, compared with competing firms	M. Porter
The global goal of the company's economic strategy and the field of national economy. The greatest productivity is the use of enterprise resources, which ensures the achievement of competitive advantages	A. P. Gradov
The advantage is the high competence of the enterprise in comparison with its competitors, based on the achieved level of competitive status, sufficiency and efficiency of the use of competitive potential	Z. G. Shynkarenko
Characteristics, properties of a product or brand, which create for the firm a certain advantage over their direct competitors	G.—G. Lamben
The inherent system has some exclusive value, which gives it an edge over its competitors	R. A. Fathutdinov
The advantage, which provides income that exceeds the average industry and contributes to the achievement of solid positions in the market; the basis of the successful <u>existence and development of the firm</u>	V. F. Oberemchuk
The result of a more effective control of the competition is the formation and development of qualitative and quantitative properties of the goods that represent the value for the buyer.	I.P. Otenko

Creation and support of external competitive advantages are preceded by processes of formation and development of internal competitive advantages.



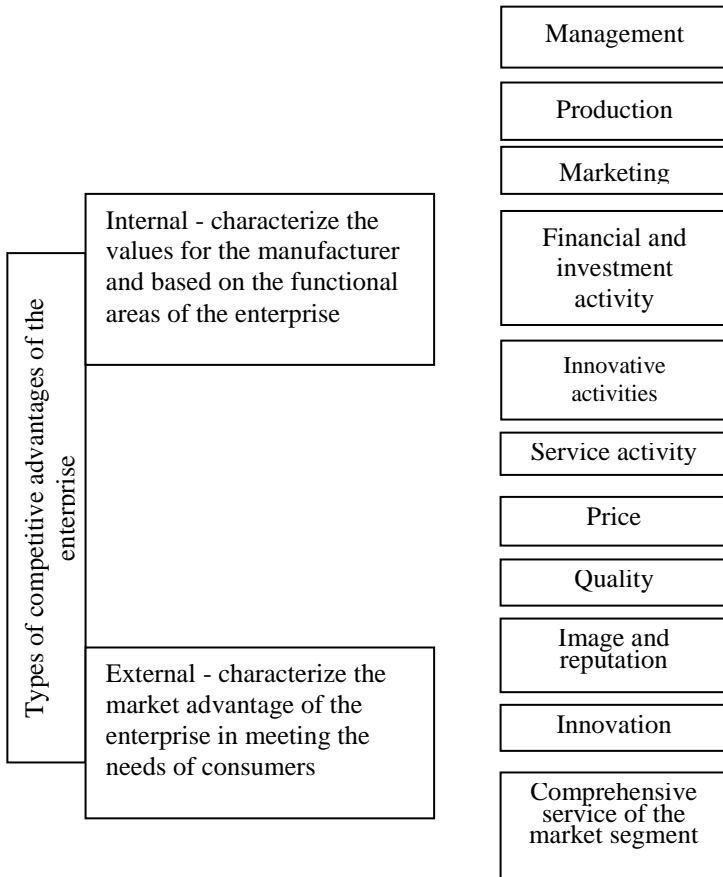
**Figure 4.3 Classification of competitive advantages of the enterprise**

On the presented classification scheme it is possible to observe the double nature of the control mechanism. Management is an internal competitive advantage of an enterprise that provides it with competitive advantages in the market. That is why management is the main component of the information system of competitive advantages of the enterprise.

Along with the competitive advantage in the broader understanding of the market situation of the subject of business began to apply the concept, which was called “competitiveness”.

According to the classical definition of M. Porter [9], the competitiveness of an enterprise is an opportunity to pursue competitive advantages and keep them in certain spheres.

O. Savchuk points out that the competitiveness of the enterprise manifests itself in the possibility in the process of rivalry to achieve better results in certain activities or areas of operation [9].



**Figure 4.4 Classification of types of competitive advantages of the enterprise by the sources of their occurrence and manifestation**

The enterprise as one of the links of the economic system aims to achieve certain goals in the process of functioning. Clash of interests of various economic entities during the realization of the set goals is a prerequisite for the formation of competitiveness.

In Bogomolova and Khokhlov, competitiveness is seen as a condition that characterizes the actual or potential ability of the subject to fulfill his functional obligations in conditions of possible rival confrontation [2].

According to V. Shkardun, the competitiveness of the enterprise in the broad sense is defined as the ability to achieve their own goals in the face of rivals. From this concept it should be understood that the degree of competitiveness of the enterprise is the balance of power between the enterprise and its main competitors in the market [11].

Researchers Fashiev and Popova point out that high competitiveness is caused by three factors: consumers are satisfied and are ready to repurchase the company's products; society and partners have no claims to the enterprise; employees consider it an honor to work on it [10].

Some authors interpret the competitiveness of an economic entity as achieving certain economic results, depending on the degree of use of existing competitive advantages in the context of countering competitors [11, 9].

A.F. Pavlenko, A.V. Voichak noted that competitiveness is a property of an object characterized by the degree to which it meets the specific needs in comparison with similar objects that operate on a particular market [9].

Summarizing the above, outline several approaches to the formation of the category of "competitiveness": a reference to the motivation of the entity, which, in fact, determines the competitive behavior of the enterprise in the market; the availability of the necessary resource potential for the implementation of strategic objectives of the functioning of the entity; ability and ability to withstand competitors.

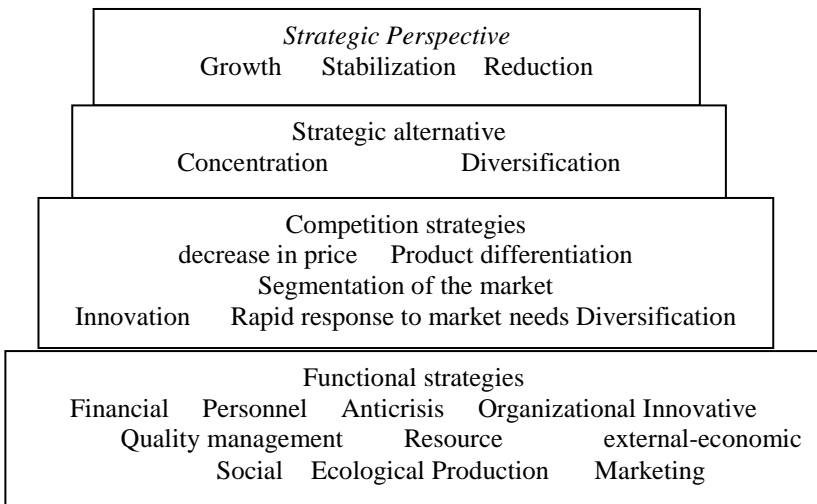
Thus, the competitiveness of a business entity depends on the effectiveness of its activities and is determined by modern technologies, the supply of quality products at an affordable price, optimal organization of management, the availability of innovative business ideas and other economic and technical characteristics, or, in other words, competitiveness is the ability of enterprise to maintain competitive positions in the market or to change them in the process of adaptation to a changing competitive environment function.

The unifying mechanism of goals, capabilities (potentials), environment (environment) is the strategy of the enterprise, whose purpose is to create reliable advantages of the enterprise over competitors. The strategy of enterprise information management systems, based on business goals, determines the means by which an enterprise can turn its strategic intentions into market benefits by interacting with external influences.

In the competitive space of crisis in the economy, market development requires active diversification of demand-oriented

enterprises. The main reasons for diversification in the management information process are the expansion of the enterprise; achieve synergy effect; the distribution of risks associated with market fluctuations and the life cycle of goods; investing in order to more effectively use surplus resources; obtaining direct financial benefits (search of areas with high profitability).

In the market, the concept of “diversification” has gained new meaning and has taken a special place in the strategy of reform. Instability of the political and economic, in turn, predetermined the objective need of each economic entity to constantly seek ways to increase the effectiveness of its activities, to forecast and plan the strategy of enterprise development in accordance with the needs of a market economy, based on the general economic policy of the state, region, conditions of globalization of the world economy. It is researched that the strategy of diversification in the conditions of transformation of the Ukrainian economy becomes the most effective in the management information systems of the strategies of implementation of the development of enterprises in the competitive market, because it has its role and place in the organizational organizational hierarchy (Fig. 4.5).



**Figure 4.5 Hierarchy of the organization’s strategies [8]**

The overall essence of this strategy is to formulate strategic goals and objectives, evaluate existing and future areas of activity, analyze the external environment and its impact on the functioning of the enterprise, identify alternatives to trade and business, and choose the direction of its own development. The issue of development strategy involves the development of a methodology for obtaining, processing and presenting information related to the development of new technologies, types of products, markets and other types and directions of activity, as well as the identification of laws to determine the motivation of diversification as a development strategy. Diversification is one of the possible development strategies to achieve the long-term goal of the enterprise (Fig. 4.6).

*The Goal of enterprise.* Diversification proceeds from the strategic goal of the enterprise – ensuring sustainability (competitiveness, potential, market share, investment policy); ensuring maximum profitability (sales volume, profit margin, growth rates of sales and profits); development of new areas of activity (diversification). Based on the strategic goal, the company assesses the appropriateness of diversification, the direction, the industry, the volume of costs of diversification. The introduction of new business activities (diversification) should provide sufficient profitability through sales volumes and profit margins and market stability through the competitiveness of the enterprise.

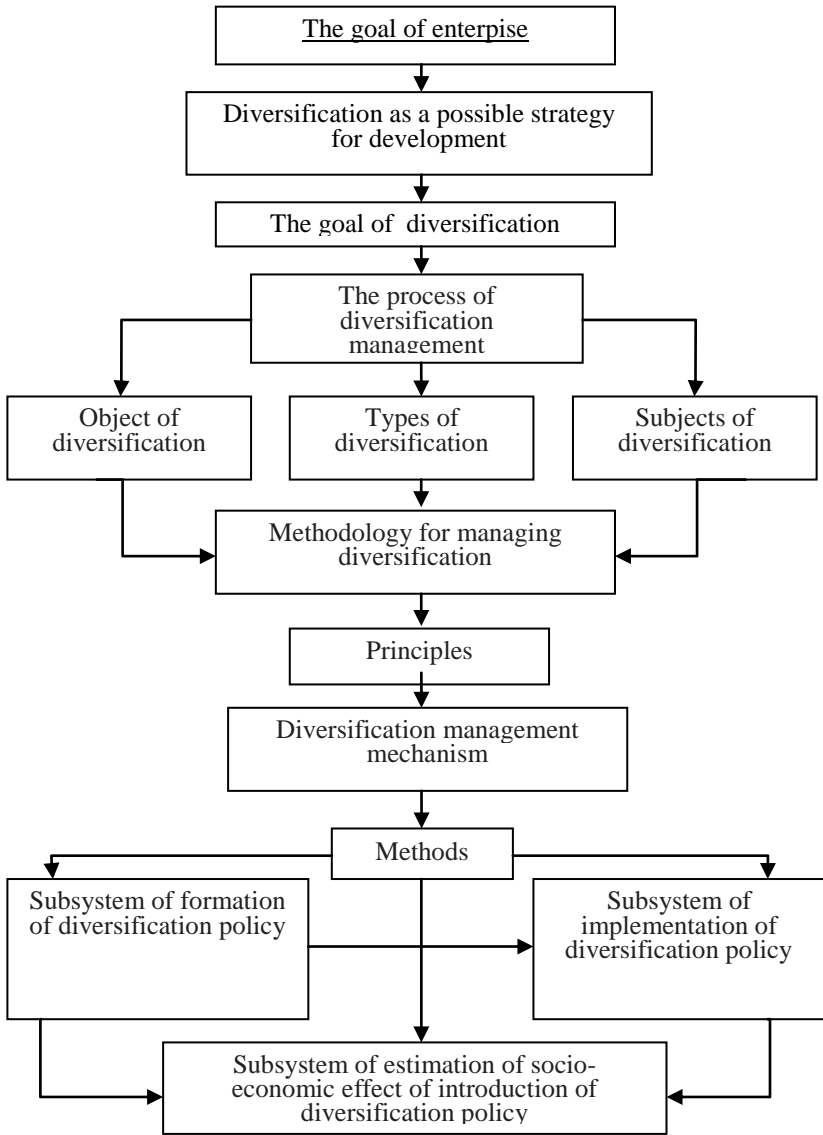
*The essence of diversification.* Diversification is a strategy that is determined by the desire of the company to survive, increase efficiency and reduce risks by developing new directions of activity [5].

The goal of diversification is the formation of activities that will contribute to the effective development of the enterprise through multilateral activities. The versatility of diversification processes allows you to achieve a variety of goals that will be intermediate stages in achieving the ultimate goal of any organization - survival and improving the efficiency of the activity by strengthening the competitiveness of the market structure.

*Object of diversification* – economic activity of the enterprise.

*The subject of diversification* at the enterprise level becomes a circle of people who form its goals.

*Types of diversification.* It is recognized that the purpose of diversification is to obtain competitive advantages and their use in order to increase the efficiency of the enterprise in the long run. The real ways of obtaining competitive advantages are diverse, so the types of



**Figure 4.6 Concept of management of the process of diversification of the enterprise [8]**

diversification are quite different. The choice of an enterprise in

determining the direction of development requires the classification of criteria for which it is necessary to compare the possible directions and the system of their assessment. There is a description of the types of diversification by classification (Table 4.3).

Table 4.3

**Characteristics of diversification types**

Classification attribute	Type of diversification
1	2
Investment source	Internal growth. Diversification of an existing company through the use of internal organization resources; external growth. Joining business units that are related or not related to the existing production.
The principle of combining enterprises	functional merger. The company unites the fact that the connection is technologically in the production process; investment merger. Unite enterprises that are not involved in the production process.
The direction of diversification	direct diversification. Applying distributor functions allows you to control sales of products; reverse diversification. Joining supplier functions and controlling strategically important resources.
Change product parameters	The real diversification changes qualitative consumer characteristics of products; conditional diversification is aimed at changing design, packaging, etc.
Object diversification	diversification of production means a change in the direction of production activity; diversification of the range of products involves an increase in the modifications of one product; diversification of organizational and economic innovations consists in the introduction of best practices of sub-leaders of the industry and other industries; diversification of economic activity is an opportunity to expand the enterprise beyond the scope of the main business; diversification of scientific and technical activities allows to change and expand the directions of scientific research.



Table 4.3 (continued)

1	2
Degree of uniformity	invariant diversification provides the relative stability of the organizational structure of enterprises when changing the direction of activity; corporate diversification involves significant changes in the organizational structure of the company through the accession of new business units of different fields of production and the creation of a single organizational complex in accordance with economic interests
Diversification level	firm diversification; inter-firm diversification; sectoral diversification; cross-sectoral diversification; state diversification; global diversification.
Scale of diversification	diversification of one market; diversification of the totality of markets; diversification of the country's economy; diversification of the economy of the totality of countries.

*Methodology of diversification management* – a category that includes knowledge about the formation of the phenomenon of diversification, its structural links, types and trends of development, principles, methods, etc.

The methodological basis of diversification management is the systematic approach to the study of the object. Using methods of calculating quantitative and qualitative indicators on the basis of system analysis allows to realize the functions of scientific research: descriptive, explanatory, and predictive. The process of diversification from the standpoint of systemicity reveals the tendency of complex dynamic systems to structural and functional diversity of elements. This reflects the ability of the system to adapt to changes in the environment due to changes in functional elements with relative stability of the system as a whole [3].

*Principles* regulate the procedural side of the diversification methodology.

We suggest using the principles of diversification, which specify the general principles of strategic management:

1. The goal of the subsystem (diversification) does not conflict with the global purpose of the system (enterprise).
2. The need to protect already received and formed capital, only then develop ways to increase and develop it.

3. Taking into account the interrelationships of the system, their interaction and features.

4. Matching the direction of diversification with the needs of the market.

5. The expediency of technological compatibility and continuity.

6. Maximum use of available labor resources at work.

Taking into account the principles and types of diversification, two groups of *methods of diversification* are defined:

– diversification of enterprise activity. Internal growth implies diversification of the existing enterprise through the use of resources of the organization. The main reason for internal diversification of the company is an excess of resources (material, technological, human, financial) that can be used in the production of new products to generate additional profits. The goal of internal diversification is to create the basis for the company's future survival;

– diversification through mergers and acquisitions. External growth involves the unification of enterprises linked or not related to the technological chain. Creation of enterprises through merger creates organizations with strong financial potential and stable competitive position. However, there are often contradictions between participants about controlling cash flows and distributing profits [12].

Comparing the indicators of conglomerate (external growth) and synergistic companies (internal growth), I. Ansoff notes that the indices of companies are the same in a stable economy, but synergistic companies give better results during periods of decline of market conjuncture [8].

*The mechanism of diversification* management covers a set of certain means of influence used in a predetermined sequence to form and implement a diversification strategy and assess the socio-economic effect of its implementation.

*Subsystem of diversification strategy formation* should help the leader to decide on necessity, possibilities and expediency of diversification, choice of directions of further development of the enterprise, choice of product range, priority setting in the development of divisions, technologies, products, strategic partners.

*The implementation of a diversification strategy* often involves the restructuring of an enterprise, which involves the implementation of reorganization measures to bring functional structures in line with the developed development strategy. The purpose of restructuring is to improve management, increase production efficiency, competitiveness

of products, increase productivity, reduce production costs, improve financial and economic performance. In a transitional society, it is objectively necessary to reorganize all functional subsystems of the organization.

*The socio-economic effect of diversification* is assessed on the basis of the state of the enterprise. Diversification can be considered successful only if it contributes to the achievement of the goals of the enterprise and the state.

Hence, thought-out (successful) diversification based on the effect of diversity should be a promising way to achieve the main strategic goal of the competitiveness of the enterprise as a whole.

The basis for obtaining the socio-economic effect of diversification is [11]:

- a constant search for opportunities for dividing activities into existing structures, enabling new types of businesses to be mastered and ease diversification;

- definition of weaknesses in the technological process and the product life cycle, which may indicate the desired directions of diversification;

- definition of the economic potential of a new business;

- use of practical experience gained in the main business field;

- simplify horizontal links between business units, create a mechanism for corporate unity.

Considering that diversification represents an innovative process of diversified economic entity development through redistribution of resources, penetration into the markets of new products and services in order to reduce risks and increase income [8], we should focus attention on world experience, which undoubtedly proves to be effective and sustainable development of enterprises in various spheres of business in modern economic conditions is also achieved at the expense of criteria that characterize non-economic goals, namely the use of innovations that increase as Number of working life and provide a strategic competitive advantage in the market. P. Drucker, a theoretician on strategic management issues, also concluded that “the main economic resource ... is no longer capital, nor natural resources (ie, “land”) is not a “workforce”. That is and there will be knowledge. Traditional “factors of production” do not disappear, but they become secondary. They can be obtained easily enough with knowledge. These tendencies, whether they are desirable or not, reflect the irreversibility of change: knowledge is applied to knowledge” [13].

Olivier Nils-Goran et al. emphasize that an organization capable of creating new knowledge and applying it for the production of new products or services needed by the consumer will be able to survive and thrive [13], and D. Hassie warns of infertility and the probable stagnation of non-innovation organizations. He reasonably convinces that without engaging in innovations, any organization can continue its happy business journey for quite a long time, but not revealing anything new [13].

Thus, one can conclude that the future is innovative, and hence the feasibility of further development of the theory of innovation management, continuous monitoring and evaluation of the impact of innovation changes on the practical activities of business entities. In this regard, in order to successfully operate market structures of management, it is necessary to introduce into the information structure of strategic management a universal unified system of values:

- bringing to the team of managers on an intuitive level the content of the structure of this system;

- Personnel management – Organizational values should be the criteria for selecting and certifying staff. After all, motivational policy and its component – compensation policy – should stimulate workers: allocate resources in such a way as to achieve organizational goals;

- indicators of the implementation of the strategy (balanced system);

- dismissal of employees who distribute resources in mismatches to the chosen strategy of implementation of the development strategy;

- the sequence of behavior and decision making by the manager should be consistent with his actions in achieving the strategy of development implementation;

- a differentiation that stimulates uniqueness, which is impossible without innovation (Table 4.4).

Therefore, the categories of successful activity of the company, “efficiency” and “efficiency” in the proposed unified system of values become the main object of analysis when making decisions in the diversification mechanism of strategic management.

The diversification processes and businesses of the trading sector, in particular, the restaurant businessmen, are not overtaken – cafes and restaurants are everywhere mastering new types of entrepreneurial activity, expanding the range of services, creating new products, and entering new markets. The main areas of diversification of restaurant enterprises today are: development of the hotel business, penetration into the industry of leisure and entertainment, development of catering service.

Table 4.4

**Possible directions of innovation values in the chosen diversification strategy**

Directions	Paradigm shift strategy	Examples of using strategies by major realtor companies
Atmosphere	From limited to instant	H-E-B Central Marcet: concerts, school for cooking
Accessibility	From goods in sets to complex service	Home Depot: courses for buyers to improve their housing, skilled personnel; Wegmans, Ukrop's: sale of environmentally friendly products, pharmacy, diagnostic center
Speed	From spending a lot of time to purchasing before purchasing them instantly	Price Chopper: cookery with the possibility of ordering through the Internet; Starbucks: pre-orders by phone
Customization	From mass to individualization	Whole Foods: shop for environmentally friendly products and goods; GNC: a store selling vitamins, minerals, herbal concentrates, essential oils
Virtuality	From concrete walls to e-solutions / services	Tesko: wholesale orders (more than 300 items of products) via the Internet with delivery to the office
Universalization	Manufacture of special / elite stylish goods available for mass consumption	Lucky Palate: Vegetarian dishes home delivery; West Point Market: provision of services for the chef for parties

It is the last direction of diversification of activities that we propose to develop at the Limited Liability Company (LLC) of the restaurant "India", since it allows us to maximize the efficiency of using the company's labor resources, minimize business risks and require minimal expenses that are relevant in today's economic conditions.

At this stage of the development of the subjects of the restaurant business, in the context of the spread of globalization and the changing market relations in the country's economy, the main objective of the

company is to ensure international competitiveness, ensure maximum profit of the enterprise, development of new business activities – diversification of enterprises. *The goal of the diversification* of the restaurant “India” is the formation of new directions of the enterprise, which will maximize profits through more complete, efficient and rational use of available resources (labor, technical, technological, informational, financial, etc.), minimization of business risks and achievement of international competitiveness

*The object of diversification*, in this case, will be the economic activity of the restaurant “India”.

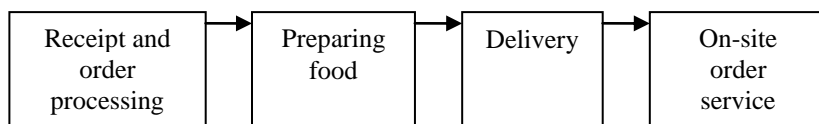
*Subject* – manager of restaurant manager and sales manager of catering services.

The development of catering as a lucrative sphere of activity of the restaurant industry enterprise: on the investment source – the diversification of internal growth; by object of diversification – diversification of assortment of services; by the degree of homogeneity – invariant diversification; by level – branded; by scale – diversification of one market.

*The method of diversification* proposed for use in this case is the diversification of enterprise activity.

*The implementation of the diversification strategy* on the basis of the restaurant “India” requires a structural reorganization of the company in accordance with the requirements of the functioning of the new structural unit.

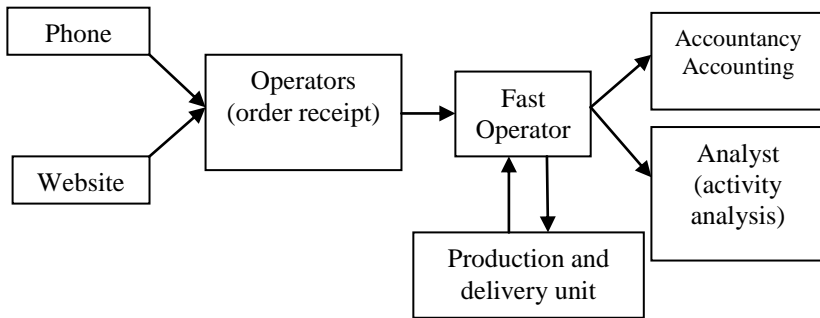
By developing a catering service based on a stationary restaurant business enterprise, there is a prospect of obtaining a synergistic effect through more extensive use of available resources. In addition, the restaurant “India” has proven itself on the market, has a sufficiently large customer base and a reputation as a restaurant with quality tasty dishes and impeccable service. All this gives confidence in the successful operation of the restaurant’s catering service, which will increase the efficiency of the enterprise, reduce the risks of entrepreneurial activity, and strengthen the competitive advantages and achieve the international competitiveness of the institution (Fig. 4.7).



**Figure 4.7 Operational chain of catering service**

It was investigated that the selected segment of catering services in the city of Kharkov is not characterized by fierce competition, the market requires more active development, demand for catering services is only being formed; the directions of catering services are perspective, do not require significant investments and significant changes in the organizational structure of restaurant management. The main source of expenses of the company is realization of the marketing program of promotion of restaurant catering services, development of a web site and purchase of software for receiving and processing orders. According to market experts, catering will continue its development, gradually moving from quantitative indicators to qualitative.

We consider that pushing this segment of the business to intensive changes will be primarily a client. Thus, on the basis of the new market, the restaurant “India” receives broad prospects for development in a growing segment with a minimum level of competition. Therefore, introducing into the work of the restaurant a new functional unit – catering services, we consider it expedient to take care of the automation of catering activities, which will provide the appropriate level of customer service and sufficient amount of analytical information. The “Fast Operator” automation system is a professional and extremely functional system for automating the process of receiving, processing and delivering orders, monitoring, analyzing and practically unlimited potential for further development (Fig. 4.8).



**Figure 4.8 Scheme of work of the program “Fast Operator”**

It is this program that can come to the rescue in the sphere of catering when it is necessary to process a large number of small orders. Needless to say, how different the operation of the catering service with

the “Fast Operator” management automation system will differ from the usual paper registration of orders. “Fast Operator” is ideally suited to market structures that handle orders and deliver home or office delivery. The system supports the work of a multifilary network through the Internet and integrates with well-known public catering programs [1; 6].

Economic science has proved [13] that quantitative estimation of economic categories of successful functioning of any enterprise is one of the main stages of the process of their provision, since it allows to assess and control the correctness and the level of performance of the set goals. Existing methods for analyzing the results of an enterprise’s activity are usually limited to an analysis of its effectiveness, so the method of measuring and evaluating economic performance should be based on known methods. It doesn’t contradict the economic content of effectiveness, which refers to the internal efficiency of the enterprise, taking into account the influence of external factors. The evaluation of efficiency provides a description of the enterprise’s activities based on economic analysis of economic processes, which are described by the system of indicators and conclusions regarding the results of functioning [13]. In this connection, there is a need to analyze existing approaches to the assessment of complex variables: the efficiency of the internal environment of enterprises, taking into account the methodological experience gained by domestic science and practice; the effectiveness of the functioning of enterprises in countries with a developed market economy, taking into account the peculiarities of the external environment. All this will allow the diversified strategy in the information management structure of the selected strategy to form a model for assessing the economic “effectiveness” and “performance” of the enterprise, taking into account both internal and external factors that significantly affect their successful functioning.

This process is implemented through the use of budget control, which allows you to determine the deviation of the actual indicators from the plans to get the result of the activity – effective (deviation from costs and prices) and productive (deviation from sales). The problem of assessing the activity of the enterprise has always been the subject of economists’ attention. There are two main directions, whose representatives advocated their approach to its assessment, categorically denying the feasibility of implementing the approach proposed by their opponents. According to the first direction, the system of indicators is necessary for assessing the efficiency of the enterprise, which allows to reflect the multilateral and specific functioning. Proponents of this view



argue the following: “Every indicator has its purpose ... For the planning and evaluation of the enterprise needs a system of indicators, and everyone should be the main ... Separately taken index can’t express all aspects of multifaceted activities, and therefore the idea of the main indicator in the economy is not should be dominant (including profits)” [13]. Meyer Marshall V. believes that economic efficiency of activity, and efficiency in general, “can only be assessed with the help of a certain system of indicators” [13].

This is argued by the fact that each indicator characterizes the level of only a certain part of the activity, while the system of indicators in general allows you to cover all the important aspects of the operation of the enterprise. This approach is followed by some modern economists [13]. As thus, S.F. Pocropyvnyi and B.M. Kolot offer to evaluate the efficiency of production and economic activity through the four groups of indicators that form the system. These are indicators of profitability, liquidity and solvency, stability, and equity [13].

According to the second line, the assessment of the effectiveness of the enterprise should be based on a generalization indicator. Usually, in order to assess the effectiveness of an enterprise, it is proposed to use one indicator as the most important one. However, at the same time, the opinions differed which particular indicator should be defined as the main one. Some as such an indicator are profit, others – profitability, the third – net production (the difference between the total cost of production of the enterprise and material costs), the fourth – th cost, etc. As practice shows, the list of indicators offered as a universal one is quite wide. Such diversity can only indicate the complexity and versatility of the enterprise. Due to the fact that the company in the market relations is a system consisting of interconnected subsystems, it can be concluded that the indicators that characterize them are also closely interrelated, and accordingly, it is impossible to talk about a separate general indicator efficiency. This opinion confirms the experience of managing the enterprises, which proved that the consideration of indicators as secondary leads to the containment of the development of systems that are characterized by them. Thus, we can argue that the question of any single isolated indicator, as a criterion characterizing the economic performance of an enterprise, is incorrect and unjustified. Based on the fact that under market conditions, the enterprise is responsible for the results of activities directly property, such an approach to the assessment of economic efficiency can lead to negative results. It is in profit that the final result of his activity is

concentrated, which, as in focus, is reflected in the conditions of the market and the competition of all the components of success [13]. In this regard, the scientist-economist Yitzhak Adizes states that “success is always a function with one variable, which is influenced by four, which in turn determine another eight, and so infinitely” [13].

Assessing the success of the project to diversify the company through financial analysis, it is advisable to use predictive indicators [8]. A preliminary survey of enterprises and organizations located near the restaurant allows forecasting demand for catering services to be based on the assumption that the minimum volume of business lunches will be 45 pcs. for a day. It is difficult to predict the volume of home delivery and outbound catering services in the context of the economic crisis, so the possible turnover from the implementation of these services to the calculation of the effectiveness of the diversification of the restaurant “India” is not taken.

Tables 4.5 and 4.6 contain predictable indicators of the success of diversifying the activities of the restaurant “Italian Grill”. In the conditions of crisis in the economy of Ukraine, the increase in revenues from the sale of restaurant services will be mainly due to inflation, which, accordingly, will affect the level of restaurant costs – the dynamics of material costs 118%, labor costs 110%, other operating 120%, with revenue growth from sales by 10%.

*Table 4.5*

**Forecast of the success rates of restaurant catering services**

Rate	Unit of measure	Years of project realization		
		1	2	3
Sales volume of services	thousand pcs.	10800	12420	14904
Service cost excluding VAT	UAH	20	24	29
Net income (revenue) from sales	thousand pcs.	216,00	298,08	432,22
Material costs	thousand pcs.	108,00	149,04	216,11
Salary expenses	thousand pcs.	10,80	14,90	21,61
Other operating expenses	thousand pcs.	38,88	53,65	77,80
Total costs	thousand pcs.	157,68	217,60	315,52
Profit before proceeding	thousand pcs.	58,32	80,48	116,70
Income tax	thousand pcs.	14,58	20,12	29,17
Net profit	thousand pcs.	43,74	60,36	87,52

Net profit will decrease by 42 thousand UAH and will make only 68% of last year's figure.

The implementation of the diversification project will increase spending by 7%, increase revenues from service sales by 10%, and exceed last year's net profit by 2%, which is 34% more than in the case of a non-diversified restaurant operation.

Table 4.6

**Forecast of indicators of restaurant performance taking into account catering, ths. UAH**

Rate	Fact	Plan	PLAN taking into account catering	Absolute deviation		The pace of growth, %	
				Non div.	Div.	Non div.	Div.
Net income (revenue) from sales	2184,50	2402,95	2618,95	218,45	434,45	1,10	1,20
Material costs	819,20	966,66	1074,66	147,46	255,46	1,18	1,31
salary expenses	964,30	1060,73	1071,53	96,43	107,23	1,10	1,11
Amortization	76,50	76,50	76,50	0,00	0,00	1,00	1,00
Other operating expenses	150,00	180,00	218,88	30,00	68,88	1,20	1,46
Total cost	2010,00	2283,89	2441,57	273,89	431,57	1,14	1,21
Profit (loss) from operating activities	174,50	119,06	177,38	-55,44	2,88	0,68	1,02
Income tax	43,63	29,77	44,35	-13,86	0,72	0,68	1,02
Net profit	130,90	89,30	133,04	-41,60	2,14	0,68	1,02

Similar data will be obtained when forecasting the dynamics of labor productivity at the restaurant "Italian Grill" (Table 4.7).

One of the recommendations is to reduce the staffing of the restaurant to 3 people – 1 waiter and 2 hosts, which can result in an increase in the productivity and efficiency of the restaurant staff.

However, with the decline in demand for restaurant services, which is projected for the current year, this will be achieved: the labor productivity index will fall to 78% from last year's level.

Implementation of the restaurant's catering service will allow the positive dynamics of both indicators due to increased sales of products and the constant number of service staff.

*Table 4.7*

**Dynamics of productivity and efficiency of labor**

Rate	Fact	Plan	Catering based plan	Absolute deviation		The pace of growth,%	
				Non div.	Div.	Non div.	Div.
Net income (revenue) from sales, UAH thousand.	2184,50	2402,95	2618,95	218,45	434,45	1,10	1,20
Net profit, ths. UAH	130,9	89,30	133,04	-41,60	2,14	0,68	1,02
Labor productivity, thousand UAH / ac.	94,98	120,15	130,95	25,17	35,97	1,26	1,38
Labor productivity (AUP), ths. UAH / ac.	364,08	400,49	436,49	36,41	72,41	1,10	1,20
Labor productivity, thousand UAH / ac.	5,69	4,47	6,65	-1,23	0,96	0,78	1,17
Efficiency of management, thousand UAH / ac.	21,82	14,88	22,17	-6,94	0,35	0,68	1,02
Average number of employees, persons	23	20,00	20,00	-3	-3	0,87	0,87

With the introduction of a new functional unit, the effectiveness of management will reach 102% of the level of last year and will exceed the similar indicator of non-diversified functioning of the restaurant by 34%. Unfortunately, India's restaurant and hotel services sales and service cost reductions will be reduced by 38% and 40%, respectively, in the event of a project diversification project being abandoned. This trend is due to increased costs of the company and reduced attendance of the restaurant, which, in turn, directly affects the volume of goods turnover. The introduction of a new functional unit into the restaurant's structure will also not ensure the achievement of the last year's rate of profitability, although it will allow them to increase by 23 and 24 % respectively.

Table 4.8 summarizes data on restaurant and catering service profitability.

Table 4.8

**Forecast of the dynamics of profitability of the restaurant in conditions of diversification**

Rate	Years			Rate of increase, %	
	2016	2017		Non div.	Div.
		Non div.	Div.		
Profitability of sales, %	6	4	5	62	85
Return on costs, %	7	4	5	60	84

The overall economic efficiency of diversification for an individual enterprise or subdivision regarding the reconstruction or expansion of production is calculated by the formula:

$$K_{e\partial} = \frac{\Pi_n}{K_{e\partial}} \quad (4.2)$$

where:  $K_{e\partial}$  – investment in the implementation of the diversification project;

$\Pi_n$  – increase in profits from diversification.

In our case, the cost of implementing the diversification project is 6 thousand UAH (cost of purchase, installation, instruction and maintenance of 2 user sets of software Fast Operator):

$$K_{e\partial} = 43,74 / 6 \text{ (thousand UAH)} \quad (4.3)$$

$$K_{e\partial} = 7,29$$

This rate characterizes the ratio of profit to investment.

Thus, having spent only 6 thousand UAH for purchasing the software of the catering service and organizing the process of developing and implementing the diversification strategy, we generated net profit in the course of the year, which is more than seven times the initial investment. The proposed diversification strategy of the restaurant “India” at the expense of the development of the catering service will increase the financial stability of the enterprise, gain new competitive advantages, minimize the risks of entrepreneurial activity and achieve a new level of international competitiveness.

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**EVALUATION OF  
ENTERPRISES'  
ORGANIZATIONAL  
CULTURE  
DEVELOPMENT LEVEL**

Organizational culture has a leading position in the enterprise management system. There are a lot of scientific publications of foreign and domestic scientists [1-18, etc.] concerning the problems of the formation and development of enterprises' organizational culture, as well as the search for ways of its transformation in terms of modernization. However, despite the engrossed scientific attention, it is still essential to perform the research to evaluate enterprises' organizational culture development level using economic-mathematical tools.

Based on an expert survey of 128 respondents, it is made the evaluation of the enterprises organizational culture development at the surveyed enterprises of different types of economic activity:

- food industry – 31.3% of experts;
- education and science – 16.4%;
- construction – 10.9%;
- wholesale and retail trade – 10.2%;
- Internet services – 7.8%;
- consulting services – 5.5%;
- banking services – 4.7%;
- domestic services for population – 3.9%;
- public administration – 3.9%;
- transport services – 3.1%;
- energy services – 2.3%.

For this purpose, it is identified and calculated indicators that reflect the characteristics of enterprises' organizational culture (Table 4.9).

The value of each characteristic of organizational culture is calculated by the formula:

$$C = \frac{(I_1 + I_2 + I_3)}{3} \quad (4.4)$$

Table 4.9

**Characteristics of organizational culture of food industry enterprises**

Charac- teristics	Indicator and its meaning, points			Meaning of characte- ristics, points
Adapta- bility	Changes in company	Customer focus	Organizational training	0,33
	0,28	0,47	0,25	
Mission	Strategic planning	Goal setting	Vision	0,33
	0,39	0,35	0,24	
Interaction	Coordi- nation	Agreement	Values	0,32
	0,41	0,31	0,25	
Involve- ment	Abilities deve- lopment	Team work	Power and responsibility	0,33
	0,20	0,35	0,43	
Total	0,33			

*Source: compiled and calculated by the authors according to the survey results*

where:  $I_1, I_2, I_3$  – indicators of relevant characteristics (for instance adaptability indicators: changes in company, customer focus, organizational training).

The level of enterprises organizational culture development is estimated by the formula:

$$R = \frac{(A + M + V + W)}{4} \quad (4.5)$$

where:  $A$  – average value of adaptability;

$M$  – mission;

$V$  – interaction;

$W$  – involvement.

The calculations showed that the level of organizational culture development in the surveyed enterprises, as a rule, is between 0.33-0.42 points (Table 4.10).



Table 4.10

**The value of the enterprises' organizational culture development level by the type of economic activity**

Types of economic activity	Points
1. Consulting services	0,42
2. Education and science	0,34
3. Wholesale and retail trade	0,34
4. Internet services	0,34
5. Transport services	0,34
6. Food industry	0,33
7. Construction	0,33
8. Domestic services for population	0,33
9. Banking services	0,33
10. Public administration	0,33
11. Energy services	0,33

*Source: compiled and calculated by the authors according to the survey results*

According to the scale (Table 4.11), the level of organizational culture development on the studied enterprises is low, because it is within 0.26-0.5 points.

It is needed to say that such indicators as “Customer focus”, “Strategic planning”, “Coordination”, “Power and responsibility” significantly influence the enterprise’s organizational culture development level (Table 4.12). It is worth noting, that the value of indicators differs at the enterprises and depends on the type of economic activity.

Table 4.11

**The scale of the enterprises' organizational culture development level**

Evaluation of organizational culture, points	Level of the organizational culture development
0–0,25	Very low
0,26–0,5	Low
0,51–0,75	Average
0,76–1,0	High

*Source: compiled and calculated by the authors according to the survey results*

Based on the mentioned above, it is essential to propose strategic directions to improve the management of enterprises' organizational culture development (Fig. 4.9):

Table 4.12

**The matrix of indicators influencing the most the level of enterprises' organizational culture development by the type of economic activity**

Characteristics / Indicators	Types of economic activity										
	1	2	3	4	5	6	7	8	9	10	11
<i>Adaptability</i>											
Changes in company	+	+		+					+		+
Customer focus	+		+		+	+	+	+		+	
Organizational training							+				
<i>Mission</i>											
Strategic planning				+	+	+		+	+	+	
Goal setting	+	+					+		+		+
Vision			+								
<i>Interaction</i>											
Coordination		+		+	+	+	+			+	
Agreement								+	+		
Values	+	+	+						+		+
Characteristics / Indicators	Types of economic activity										
	1	2	3	4	5	6	7	8	9	10	11
<i>Involvement</i>											
Abilities development				+	+			+			
Team work						+	+			+	+
Power and responsibility	+	+	+	+					+		

*Source: compiled and calculated by the authors according to the survey results*

➤ the application of a customer-oriented approach to the formation of organizational culture, based on the customer focus, complemented by the cross-functional interaction of company human resources in the decision-making process;

➤ development and realization:

➤ the mechanism of the strategic management of the enterprise organizational culture development, which is an algorithm of the interaction of a set of methods and tools of strategic management, aimed at forming and supporting of a corresponding efficiency level of a given model of enterprise organizational culture;



**Figure 4.9 Priority activities to improve the management of enterprises' organizational culture development**

➤ marketing strategy of the enterprise organizational culture development, which should meet the main operational goal and include the following stages:

defining the enterprise mission;

strategies substantiation and evaluation of their effectiveness;

development of the organizational culture development concept;

development of a science-based strategy using marketing tools;

strategic analysis, which includes the identification of the environment and enterprise internal analysis;

strategic planning;

identification and assessment of risks;

informational support for the implementation of the organizational culture development strategy using digital technologies;

➤ organizational and economic mechanism for enterprise organizational culture development managing, which includes the

following elements:

- management goals;

- management functions (forecasting, planning, organization, accounting, control, analysis, regulation);

- exogenous and endogenous factors influencing organizational culture development;

- organizational structure of management;

- management resources (logistical, financial, social, institutional);

- methods of influence (directions, tools);

- a set of tools and instruments (regulatory documents, software, digital technologies);

- the complex of measures for the digital transformation of enterprises organizational culture, which includes:

  - use of employee-driven management, that is, an HR oriented approach to management – continuous employees training and skills development halves the time of a new product launching on the market;

  - Implementation of HRmaps the next generation modular platform for HR management – a comprehensive solution for the HR processes automation, which consists of 4 modules and the HR portal:

    - personnel assessment (module allows to perform different types of assessments: by competence, goals, KPI; annual assessment, regular interviews, polls, and tests);

    - recruitment and adaptation (facilitates the recruitment process management, starting from the vacancy appearance and till the adaptation on a new workplace);

    - planning and career (allows you to plan career development, continuity, manage potential and mobility);

    - training and development (training plans formation, recording and training, control).

    - This promotes the optimization and automation of routine processes; increases employees efficiency and productivity;

    - HR digital upgrade, which is based on the introduction of a digital cloud platform providing a digital format for all personnel processes (up to 90% automation), which allows monitoring and company development.

    - In the future, it is planned to develop a methodological approach to the choice of the optimal direction of enterprises' organizational culture transformation.

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**INSTRUMENTS AND COMMUNICATION STRATEGIES OF FOREIGN POLICY IN INTERNATIONAL RELATIONS THEORY**

For the past twenty five years non-military influence (economic sanctions and soft power) acquired growing prominence in foreign policy of the great powers. The US, the EU, China and Japan employ non-military tools in responding to the Iranian and North Korean nuclear crises that threaten their security. Non-military instruments these are means of great powers by which they seek to influence the behavior of

target states, to demonstrate leadership, to resolve international conflict and to express common values. The growing centrality of non-military instruments is partially a reaction to the limits of military power exposed during difficult and protracted operations inside the territory of the former Yugoslavia, in Afghanistan, Iraq, and Libya. Moreover, military interventions in the postbipolar international relations are difficult to justify. Without any challenger on the horizon, it is highly unclear what constitutes a threat to national security that needs to be addressed with military force together with its inherent sacrifices in life and expenditure. Above all, because economic rather than military strength is increasingly seen by states as the prime determinant of international power, non-military tools may begin to assume an even more prominent role.

Notwithstanding the fact that the debate on the nature of economic sanctions has been in existence for five decades, the investigation on their efficacy has not yielded satisfactory results. Scientists in the West have long argued that there is no automatic link between the effectiveness of economic sanctions in inflicting economic pain and in compelling policy changes in the target. D. Drezner, B. de Neuilly, C. Portela, emphasize that sanctions regimes with a remarkable economic impact have failed to induce changes in the conduct of target non-democratic states. D. Drezner, conversely, stresses that mere threat of economic sanctions has sometimes succeeded in bringing about the desired policy change [Drezner, 1999]. Ukrainian scientists S. Galaka [Galaka, 2003], V. Pahil [Pahil, 2000], and S. Romanenko [Romanenko, 2001] are strong supporters of this wide-spread concept. Works by contemporary researchers on issues related to the economic sanctions and financial statecraft, among whom are Margaret Doxy [Doxy, 1971], Richard N. Haass [Haass, 1998], Zachary Selden [Selden, 1999], Brendan Taylor [Taylor, 2010], play an important role in understanding the nature of economic coercion in foreign policy making, but they say a very little on how to estimate the economic sanctions effectiveness. Thus, the determinants for the success and failure of economic sanctions have not been ascertained. The inherent difficulty of the task has been further compounded by a transformation of the instrument itself in the contemporary system of international relations. Soft power has become part of popular political discourse since it was coined by Harvard's Joseph Nye in his 1990 book, *Bound to Lead: The Changing Nature of American Power*, strengthened by his *Soft Power: The Means to Success in World Politics*, and further elaborated in *The Powers To*

Lead (Nye, 2004), in *Soft Power and US foreign policy* by M.Cox, (Cox, 2010).

The purpose of this article is to analyze the nature of non-military instruments (economic sanctions, soft power and communication strategies) of foreign policy within the international relations theory, because these tools are becoming increasingly central to shaping strategic outcomes in the XXI century.

At first, we will try to conceptualize the definition of the economic sanctions in the international relations theory. There is no generally accepted definition of economic sanctions. The term “economic sanctions” is one of the more confused and confusing to have entered the lexicon and discourse of international politics.

For instance, Daniel Drezner, a towering figure who made path breaking and enduring contributions to political analysis of the economic sanctions, the author of the “sanctions paradox”, defines economic sanctions as “the threat or act by a nation-state or coalition of nation-states, called the sender, to disrupt economic exchange with another nation-state, called the target, unless the targeted country acquiesces to an articulated political demand” [Drezner, 1999: 2]. R.J. Ellings ascertains economic sanctions as the governmental policies that cut or curtail economic relations in order to coerce the target country(ies) into behaving in accordance with the sanctioner’s(s’) objectives [Ellings, 1991: 16]. G. Lopez and D. Cortright qualify economic sanctions as the “coercive foreign policy action of a nation(s) in which it intentionally suspends customary economic relations such as trade and/or financial exchanges in order to prompt the targeted nation to change its policy or behavior [Lopez and Cortright, 1998: 15]. N. Crawford determines economic sanctions as “the denial of customary interactions (strategic, economic, or social); they are intended to promote social, political, or economic change in a target state” [Crawford, 1999: 5]. According to J. Blanchard, N. Ripsman and Shambaugh, economic sanctions strategy is the particular form of the coercive foreign policy in which a state disrupts its normal economic relations with another state in order to achieve one of the following objectives: (1) to induce the targeted state to change its behavior; (2) to generate popular pressure on the government that causes it to change its policies; or (3) to provoke a coup or revolt that leads to the emergence of a new government that will act in accordance with the sanctioning state’s wishes [Blanchard, Ripsman 2000: 219; Shambaugh 1999: 4]. Rennack evaluates economic sanctions like “coercive measures imposed



by one country, or coalition of countries, against another country, its government or individual entities therein, to bring about a change in behavior or policies [Rennack 2000]. American theorist in economic sanctions policy M. O'Sullivan characterizes economic sanctions as the deliberate withdrawal of normal trade or financial relations for foreign policy purposes [O'Sullivan, 2003: 12].

Theorists in international politics distinguish economic sanctions from economic wars. For instance, R. Pape illustrates the difference between these two categories. According to the scientist, economic sanctions “seek to lower the economic welfare of a target state by reducing international trade in order to coerce the target government to change its political behaviour” [Pape, 1997: 93-94]. By contrast, an economic war takes place “when a state threatens to inflict economic harm... in order to persuade the target state to agree to terms of trade more favorable to the coercing state” [Pape, 1997: 94].

Economic sanctions operate in a similar way to military warfare. Both share the same end, the “political disintegration of the enemy so that he gives up the pursuit of his goals. The method used is value deprivation” [Galtung, 1967: 386]. The theory foresees a roughly proportionate relation between both phenomena: the more intense the value-deprivation, the more widespread the political disintegration in the target state. J. Galtung explains: “The idea is that there is a limit to how much value deprivation the system can stand, and that once this limit is reached (resulting in a split in leadership or between leadership and people), then political disintegration will proceed very rapidly and will lead to surrender or willingness to negotiate” [Galtung, 1967: 388].

Thus, two central definitional elements can be discerned in the concept of economic sanctions: the coercive measures need to be economic in nature and its aim needs to be political.

It is necessary to note that the basic methodological approaches to the study of the nature of economic sanctions as the tool of foreign policy formed over decades within the paradigm of realism, liberalism and constructivism.

Realism is concerned with the efficient use of economic sanctions for the pursuit of national interests. Realists conceptualize (economic) sanctions not as punishment on illegal or immoral acts but as a state's foreign-policy instrument used for the pursuit of national egoistic interests. In classical definition of the realism, sanctions entail “the deliberate government-inspired withdrawal of trade or financial relations to obtain foreign policy goals” [Hufbauer, 1985: 2]. James Barber

defined economic sanctions simply as “economic measures directed to political objectives” [Barber, 1979: 367].

Realist scholars of economic sanctions assume that: 1) a primary sanctioner in world politics is not a collective international actor as international organization, but state; 2) economic sanctions are not measure of law enforcement but a foreign policy instrument; 3) the key role of economic sanctions on the world stage is not to reduce the number of deviant acts but is to coerce the target state to fulfill a sanctioning country wishes; 4) economic sanctions are realized in the anarchical international system which consists of states as the primary actors. Thus, realists explain the nature of economic sanctions through the logic of power, interests, and rationality.

On the other hand, liberalists borrowed their ideas of economic sanctions from municipal laws. Overall, the nature of economic sanctions within liberalism can be characterized by the following provisions: 1) economic sanctions should be applied by the international organization in order to maintain international peace and security. For instance, Quincy Wright claimed that the use of sanctions must be authorized by an international organization [Wright, 1965: 206]. Liberalists argue that the United Nations Security Council applies economic sanctions to deal with four different categories of threats to international peace and security: 1) armed conflict between states; 2) armed conflict within states; 3) international norm-breaking states (the so-called “rouges”); and 4) international terrorism; 2) economic sanctions are applied in the international system which is not anarchical, but should be understood as community that is composed of state and non-state actors who share common interests; 3) economic sanctions should be governed not by power politics but by the rule of law; 4) the use of the mechanism of economic coercion should be regulated not by the balance of power but by collective security.

How does collective economic sanctions system work? M.S. Daoudi and M.S. Dajani summarize liberal arguments articulated in the interwar period concisely:

1. The balance of power system is dead. It has failed to prevent wars and maintain the peace. What is the alternative?

2. By the establishment of an international organization. How will this system enforce the law without military conflicts?

3. By the establishment of international economic sanctions. This weapon is powerful, effective, relatively cheap, bloodless, and moreover, easy to use to bring any aggressor to knees.

4. Economic sanctions have a moral power. They enjoy universal public support.

5. States are innately rational. With the economic threat hanging over their heads, they will not find it worthwhile to deliberately wage wars aggression.

6. Neutrality is a precarious concept which the community of nations needs to abandon [*Daoudi and Dajani*, 1983: 18-19].

At last, constructivism as the methodological approach in the international relations theory holds the view that: economic sanctions are not objective phenomenon, but the social construction is shaped by shared ideas as well as material forces; economic sanctions are based on the identities and interests of political actors are shaped primarily by shared ideas [*Wendt*, 1999: 1]. In other words, economic sanctions are the means by which social construction of reality has been created. What is the main goal of economic sanctions in international policy? According to constructivists, the sanction strategy is aimed to ensure common values in the international society but not in the international system which is based on the power balance whether normative rules of the international institutions.

Theorists in international politics are primarily interested in answering two questions: 1) do economic sanctions work?; and 2) under what conditions do economic sanctions work?

The determinants of the efficiency of economic sanctions in international relations studies could be characterized by the following provisions:

– economic sanctions are to be designed to maximize pressure on the culpable actors, to inflict pain and suffering upon the leaders whose policy the sender tries to influence. Sanctions should be appropriately targeted to minimize humanitarian impact on population in the objective state;

– the evidence from the cases suggests that the presence of political opposition in the target which oriented on sanctioning state makes economic sanctions more fruitful. The political groups that lose from economic sanctions will find themselves in a financially diminished position, which may reduce their political influence. The “fifth column” effect is probable response of groups in the political elite of the target to economic sanctions and that rely on imports or export-oriented producers;

– scientists in international relations stress that economic sanctions are of limited utility in achieving foreign policy goals like regime change and democratization. The security, political or other costs of complying with the

sender demands may simply be higher than any pain that can be imposed with economic sanctions. That is why economic sanctions succeed if they are designed to achieve moderate political goals in the target;

- multilateral cooperation among the sanctioning states is a necessary and/ or sufficient condition for generating a successful outcome [Drezner, 2000].

- theorists in international politics assume that economically punishing sanctions are less likely to succeed against a nondemocratic target than they are against a democratic target. The reason for this conditional relationship is twofold. First, sanctions increase a leader's ability to extract rents. Greater rents increase a nondemocratic leader's ability to hold onto power, but greater rents do not increase a democratic leader's ability to retain office. Second, the pressure to yield to sanctions depends critically on who is bearing the brunt of the costs in the targeted state. To succeed, sanctions need to target the regime's winning coalition, the size and composition of which depend on a state's political institutions [Portela, 2010].

In XXI century the processes of globalization and the information revolution led to essential transformation of the international system, which is now composed of three different spheres: a military sphere, where the USA has unipolar control but there are several states with a growing military potential as China and Russia and which are ready to become rivalries to the American presence around the world; an economic sphere, where there is a multipolarity shared by the USA, the European Union and Japan; and a third transnational sphere, where a diversity of state and non-state agents coexist [Nye Jr 2002: 39]. The characteristics of the emerging threats also have their origins in the processes of globalization and the information revolution: their main agents are non-state entities that exist and act in the transnational sphere. If hard power resources can be effective in the military and economic spheres, only soft power can work at the transnational level and in reality of proxy war. For Ukraine which is evolved in a war conflict with Russia the soft power instruments can become effective tools to secure national interests of Kyiv. So in terms of aggravation of Ukrainian-Russian confrontation in its bilateral and multilateral dimensions, the issue of the content and consequences of the soft power mechanism, the soft power mechanism's role in the relations among countries require an in-depth study.

Let now look at theoretical formulation of soft power. The concept of soft power that is well known throughout the world is only the

definition used by professor Joseph Nye; nevertheless, it is not the only one and its various definitions are not free of contradictions among them.

Taking into considerations mentioned above, we are addressing the conceptualization of soft power given in Nye's main works.

We will begin with a brief discussion about the nature of power, admittedly one of the most disputed concepts in political science and international relations. Nye opts for a succinct definition: 'power is the ability to influence the behavior of others to get the outcomes one wants' [*Nye Jr.*, 1990: 25–9, 2002: 4–5, 2004: 1–5]. This conciseness allows him to focus on other aspects of power in international relations, as he moves on to articulate the distinction between hard and soft power. The concepts are twofold: 'The distinction between hard and soft power is one of degree, both in the nature of the behavior and in the tangibility of the resource' [*Nye Jr.*, 1990: 267, 2002: 176, 2004: 7]. This distinction between power behaviors and power resources is the crucial element in Nye's concept of soft power.

Thus, Nye defines soft power as the ability to make others want what you want. In this sense, soft power is the opposite of hard power, the ability to make others do what you want. As traditionally understood in international relations theories, hard power presupposes an active and direct engagement of the actors involved, expressed by incentives or threats, and is usually related to military force or economic resources. Soft power, which Nye also calls co-optive or indirect power, rests on the attraction a set of ideas exerts, or on the capacity to set political agendas that shape the preferences of others. Therefore, soft power is related to intangible resources like culture, ideologies and institutions [*Nye Jr.*, 1990: 31–35].

According to Nye, power behaviors are ways of exercising power. Different types of behavior form a spectrum ranging from command power to co-optive power. Command power is the ability to change what others do, while co-optive power is the ability to shape what others want. Therefore, command power is manifested through acts of coercion and persuasion, and co-optive power can be seen in the attraction exerted by a given agent and his capacity to define political agendas.

The second distinction between hard and soft power deals with the tangibility of power resources. However, the scientist does not apply any specific terminology at this point. Referring to tangibility, Nye uses the terms hard power resources and soft power resources. Hard power resources are well known: population, territory, natural resources, the

size of the economy, armed forces, technological development, among others. These are tangible resources. In opposition, soft power resources are characteristically intangible resources: culture, ideology, values and institutions are the most common examples.

It is also worth noting that in all works of Nye there is no discussion on the meaning of tangibility. The question of what would qualify a resource as tangible or intangible is not a simple one. Nye classifies economic resources as tangibles, but an argument could be made that most of the time they do not have a physical existence. A financial agreement lending money to a developing country could save its economy from a major crisis, but it is not easy to see the tangibility of this power resource – especially in credibility crisis, as economists well know. On the opposite side of the spectrum, Nye classifies institutions as intangible resources. It is comprehensible that he might be referring to institutional ideas and what they represent, but some institutions have physical existence, very important and present ones, running projects and programs all over the world. The fact is that Nye leaves the reader with no criteria to address the tangibility of power resources.

In any case, the distinction between hard and soft power is given by taking together the nature of the agent's behavior and the tangibility of the resources. However, a serious problem arises directly from this articulation. It has to do with the relation between power behaviors and power resources: "... soft power resources tend to be associated with co-optive power behavior, whereas hard power resources are usually associated with command behavior. But the relationship is imperfect" [Nye Jr 1990: 267, 2002: 176, 2004: 7]. The logical consequence of the terminology used by Nye is that command power is related to hard power resources, and co-optive power to soft power resources. But these relations do not always hold true: it is possible for command power behavior to utilize intangible soft power resources, in the same sense that co-optive power behavior can make use of tangible hard power resources. Actually, it is even possible that command power creates soft power resources, or that co-optive power creates hard power resources.

Communication as an element of soft power has a significant impact on foreign policy, both in the policy-making process and at a higher level associated with the nexus of foreign policy and international relations. Communication involves the transmission or conveying of information through a system of symbols, signs, or behavior. Communication connects individuals and groups; (re)constructs the context; and defines, describes, and delineates foreign policy options.

The current trends are the synthesis in many areas, with a focus on the psychological processes associated with who communicates, how, to whom, and with what effect in the realm of foreign policy; and with the structural characteristics of communication or discourse. The major areas of publications on foreign policy and communication include: (a) the making of foreign policy and the role of mass media in this process; (b) how foreign policy is understood as a communicated message by allies and adversaries in international relations; and (c) constructivism, poststructuralism, and discourse analysis. Within the scope of foreign policy and media falls work associated with the *CNN effect*, framing, and public opinion. Works within international relations have focused on how foreign policy signals international intent, including threat and willingness to cooperate [Gilboa, 2002].

**Conclusions.** Summing up the above mentioned we admit that economic sanctions as the foreign policy tool that prescribes the disruption of economic relations in order to coerce the target state to change disapproved policy. Theorists assume that the main goal of economic sanctions is to change target country's behavior as desired by a sanctioning state. Thus, scientists suppose that compellence is the main aim which pursues sanctioning country. Other goals of economic sanctions are specific deterrence, weakening, international and domestic symbolism.

Scholars are unanimous in the opinion that economic harm leads to political disintegration brought about by an unwillingness of the population in the target country to suffer economically because of internationally unpopular policy.

It is determined that soft power is the use of attraction and persuasion rather than the use of coercion or force in foreign policy. It arises from the attractiveness of a country's culture, political ideals and policies, whereas hard power develops out of a country's military or economic might. Thus, the soft power of a country rests primarily on three resources: its culture (in places where it is attractive to others), its political values (when it lives up to them at home and abroad) and its foreign policies (when they are seen as legitimate and having moral authority). On the other hand, the set of liberal ideas promoted by the USA and shared by other Western states, such as democracy and free markets, made soft power resources easier to implement. With other states sharing the same principles and values, the costs of maintaining the order through economic incentives or military threats were reduced.

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## Chapter 5

### **PRACTICAL ASPECTS FOR IMPLEMENTING STRATEGIES OF SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT AT THE LEVEL OF SECTORAL ECONOMIC STRUCTURES**

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### **PLAN AND SCHEME OF MEASURES TO IMPROVE TARIFF AND COMPENSATION POLICIES TO REDUCE THE RISK OF CONFRONTATION BY ROUTE TAXI OWNERS**

Urban passenger transport, namely shuttles, occupies a special place in the development and functioning of the city, which is explained by its constant use of the city population [1-3]. With the increase in the level of motorization, the importance of public transport has decreased, but moving within the city through the overcrowding of city streets by cars has become one of the most acute socio-economic and environmental problems of modern society.

Passenger services affect the social, industrial and environmental spheres of the city, as well as create conditions for fair competition between carriers of different forms of ownership. Among the wide range of problems caused by the development and functioning of the modern city, the complex system of interaction of different types of passenger

transport is of particular importance. In this case, passenger transportation, which, unlike railway transport, is outside the state property, requires special attention of state and local self-government bodies and specialists.

The transport complex is an important component in the structure of the city's economy, which includes a complex of passenger and freight traffic [4-5]. Creating a competitive environment in the city of the market of public passenger transport services and promoting its development is carried out on a competitive basis.

An analysis of the state of urban passenger transport has shown that this sector of the economy needs management decisions to ensure its gradual and correct development and improvement.

Considering the interests of the participants of the market of passenger transportation, improvement of economic relations in the sphere of passenger transportation, namely shuttles, should be aimed at solving the following tasks:

- achievement of balance of interests of consumers of services (passenger) and interests of the carrier, which ensures accessibility of passenger services for users;
- the effective functioning of the carrier;
- full reimbursement of urban passenger transport costs related to passenger transportation;
- creating the conditions necessary to attract private investment in order to increase the economic efficiency of passenger transportation.

It must be acknowledged that economic relations in the area of taxi services today do not meet the needs of either party and require positive reforms to ensure the sustainable functioning and development of the market for passenger transportation [6-8].

Problem-solving is suggested by:

- optimization of passenger transportation depending on the time or day of the week;
- introduction of a non-cash payment system for public transportation and electronic passenger registration system;
- balanced pricing policy for passenger services
- transition to the system of receipt of income depending on the distance travelled;
- creation of a single transport service operator (Municipal Transport Company)
- sound, transparent compensation policy.

The existing system of payment for urban passenger transport is

morally outdated and has a number of disadvantages, first of all – the inability to accurately account for the transport services provided, first of all – to privileged categories of passengers.

As an instrument for managing the process of passenger transportation, which creates the preconditions for the effective solution of the problem of the functioning of the system of transport privileges, it is proposed to introduce in the city an electronic system of non-cash payment of fares and accounting of passengers in urban passenger transport.

The development and implementation of a complex of technical and technological means for non-cash payment for public transportation will enable:

- maximize the transparency and accuracy of accounting for actually provided services for the carriage of preferential and other categories of passengers;
- providing complete, reliable and detailed information on the performed transport work to solve the problems of analysis and planning of passenger transportation;
- obtaining detailed statistics on passenger flows for the formation of the optimal timetable, routes, etc.;
- convenience for passengers, in particular in connection with the use of a single type of travel ticket by different carriers;
- exclusion of the use of false travel documents;
- reduction of operating costs of carriers for the organization and control of revenue collection;
- improving the economic performance of transport companies by using the information collected in the system to introduce and maintain a flexible tariff system, the introduction of new products and payment methods;
- increasing the profitability of urban transport and, as a consequence, reducing budget financing [9].

In addition, the introduction of this system will improve the financial condition of the carrier companies (owners of taxis), as it will allow timely and full reimbursement to carriers of the cost of transportation of privileged categories of citizens.

There are three situations in the area of passenger transportation: tariff decision: city government (directive); carrier proposals (calculation of economically justified tariffs) and carrier decisions (open market). None of these solutions can ensure that the interests of the passenger market are balanced.

To date, the passenger pricing policy is based on tariff level decisions based on the carrier's proposal. The calculation of tariffs for urban passenger transport shall be established in accordance with the calculations, which shall be performed in accordance with the approved methodology. Since private property entities – passenger transport companies are guided by market economy principles, and their regulation is carried out by the state through laws, tariff setting and analysis is not only an economic problem but also a social one, as for a large part of the population transport costs Is a significant share of total consumer spending.

In fact, economic relations today are based on fares for urban public transport, which cannot satisfy all sides of the passenger market: if the authorities set a tariff that will satisfy the carrier, such a tariff would be socially unfair for the passenger, if the authorities set a socially fair tariff unprofitable for the carrier. Thus, the city authorities should make the most optimal decision for all parties – t set the amount of tariff at which the demand for transportation will not decrease, and at the same time, the transport companies will operate at a loss and profit, which will allow improving the technical possibilities of rendering services. According to the calculations provided by the carriers, the largest share in the tariff is the cost of fuel and lubricants, drivers' wages, as well as taxes, fees, deductions. Therefore, the rise in price of fuel and lubricants, the increase in the minimum wage, the change in taxation conditions all influence the constant increase in the tariff for transportation. In today's environment, these costs are difficult to reduce. There are other ways to look.

First and foremost, the pricing policy for passenger transportation should be based on sound, transparent, comprehensible principles and exclude distrust in the fair pricing policy for all participants in the passenger transportation market.

To do this, it is first necessary to optimize the routes of passenger transport by stopping duplication of routes. This factor can increase the competitiveness of electric transport before buses.

Second, data collection methods need to be improved to accurately determine the tariff level. A factor such as a passenger flow is key to calculating a fare, but in fact it can be calculated with great error – this is a problem. To solve it, it is necessary to introduce an electronic pass-through system for passengers at the time of payment for the fare, which will allow taking into account the actual passenger traffic on different routes.

It should be noted that the very method of setting fares for urban passenger transport does not meet market conditions. In the future, it is necessary to move to such market relations, in which the carrier will not affect the tariff policy of fare for public transport, and the decision to set the fare is unilateral. Such market relations can be a transition to a revenue system, depending on the distance travelled.

Experience shows that the only correct solution in today's environment is to switch to a system of income, depending on the distance travelled.

The essence of the financial and economic relations of such a system lies in the conclusion of contracts between the customer of the service and the service provider to fulfil the municipal order. Under this agreement, the service provider (carrier) undertakes to provide transport services to a certain extent, measured in passenger/kilometres, and the customer undertakes to pay the contractor's transport services monthly in the number of services actually provided. In this case, the revenue from the fare is "collected" by the customer of the transportation through a single non-cash system of payment for public transportation and at the expense of these funds is calculated with the contractor.

With such a system, there are actually two tariffs: one for the carrier – a tariff based on the distance at which it is calculated by the customer, and the other for the passenger – the fare for public transport.

The distance-based fare is the pricing for the actual vehicle mileage. When setting such a tariff, the route is divided into zones and for each one set its own tariff. Zone rates in different sections of the route vary depending on differences in operating costs and different demand. Such systems can be considered fairly fair since the fare for each trip is related to the distance.

The fare for passengers can be calculated taking into account the costs of the city authorities for transportation services to carriers and have a system of bonuses for passengers in the form of a socially fair fare for public transport.

The transition to the revenue system, depending on the distance travelled, will allow:

- optimize passenger transportation;
- to eliminate unfair competition in the market of passenger transportation in the city;
- to make the financial position of the carrier companies stable without losses;
- to withdraw from the shadow turnover the means of payment

for public transportation;

- carry out compensation policy transparently and economically justified;
- set a reasonable, socially fair fare for public transport.

Depending on the distance travelled, the introduction of a revenue-generating system should be made after switching to a non-cash payment system for public transportation.

There are three ways of addressing this issue locally:

1. Continue to compensate for transportation of privileged categories of citizens from the city budget based on payments made by carriers. This option is, firstly, opaque; secondly – not all carriers provide payment reimbursement payments for preferential transportation, and therefore, the status of preferential passenger transportation remains limited in some city routes.

2. Introducing targeted assistance to privileges for exercising the right of free travel. This option limits the privileged right of citizens since it determines the minimum amount of travel.

3. Payment of compensation for preferential transportation on the basis of the introduction of an electronic system of payment and accounting of passengers. This approach is most valid for all participants of the passenger market: the privilege is not restricted in its right; the carrier receives full compensation; the city authorities make payments under a transparent scheme – the actual number of trips.

The introduction of a new automated fare collection system will not only identify the number of privileged transporters but will also allow:

- to ensure a fair calculation of the amount of budgetary compensation for travel of privileged categories of citizens;
- to provide control of the fare payment in the automated mode;
- obtain transparent results and performance of carriers.

In the field of passenger transportation, enterprises of all forms of ownership can be involved. The exceptions are those related to the organization of traffic safety and control. These areas of activity should be provided by organizational state or utility companies. These structures should deal with the issues of forming a route network, coordination of traffic schedules, public transport stops, roads, other elements of transport infrastructure.

Also, in the formation of the market for urban passenger transportation services, it is necessary to adhere to the requirements of effective competition, to prevent monopolization of the market together with organizational, controlling and regulatory functions by the

authorities.

The efficient economic functioning of the carrier (route taxi owner) provides the following options:

- at the expense of own funds to ensure strict observance of the conditions of the technological process of transportation of passengers in the conditions of the formed bus route network;
- ensure, at their own expense, the timely and qualitative performance of regulatory works that will ensure the maintenance and operation of rolling stock, technological and other equipment, premises, structures, as well as their timely updating, reconstruction, modernization, use of modern technologies;
- maintenance and maintenance of production personnel, maintenance of the necessary level of qualification;
- the timely budget calculation, payment for utilities and other services.

Thus, tariff policy on road transport should ensure the fulfilment of the social function of road transport, satisfy business interests, ensure the development of road transport, stimulate the introduction of modern transportation technologies, the use of modern types of vehicles, and contribute to the following tasks:

- the satisfaction of entrepreneurial interest;
- increasing the capacity of economic entities to meet the needs of consumers of services, attracting investments in the development of road transport and achieving stable economic conditions of work;
- stimulating competition and the emergence of new business entities in the road transport market;
- ensuring a balance between the effective demand for services and the cost of providing them;
- ensuring stability, transparency and forecasting of tariffs.

In general, tariff policy is an integral part of the overall economic and social policy, which, on the one hand, provides for free pricing in competitive sectors of the market, and on the other hand, for regulating the cost of services.

Bringing tariffs in line with the costs of carriers allows us to provide the necessary level of competition as a whole, to put forward rather high requirements for carriers, and, accordingly, to successfully conduct competitions for the determination of hauliers in the Odessa region.

Tariffs for the carriage of passengers (excluding socially significant carriage) shall be provided by the carrier:

- reimbursement of reasonable running costs;



- updating of rolling stock in the amount of 8-12% per year;
- ensuring investment attractiveness in terms of transportation profitability at the level of 15%.

The specific costs for each carrier must be based on the relevant standards and take into account the following conditions:

- operation of vehicles is carried out at the level of their annual output on the line with a coefficient of use of the park not less than 0.85;
- vehicles should be used on routes, the capacity of which corresponds to the passenger traffic;
- the specific costs of general articles should not exceed the relevant standards.

### *Conclusion*

Analyzing the state of tariff and compensation policy, it can be noted that in Ukraine there is a need to change the orientation, reorientation of the main goals, tasks and priorities of the development and modernization of transport in order to reduce the risk of confrontation by the owners of taxis. The application of the situational approach, taking into account the accumulated problems that have arisen in the transport complex of Ukraine, indicates the need to move from paternalism to a combined model of management and financing on the basis of public-private partnership, diversification of sources of financing and formation of a new institutionalization of relations in the following structure of participants: state, operators infrastructure, core operators, users.

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**STRATEGIC  
ORIENTATION OF  
THE SOCIAL  
MARKETING  
SYSTEM OF TRADE  
NETWORKS  
ON THE  
INTERNATIONAL  
MARKET**

The process of forming a socially oriented market economy in Ukraine is characterized by a lack of the necessary material base and direct opposition, which is disguised by arguments about social

priorities. Now there is a need to strengthen the social orientation of the marketing strategies in the economy in general and in the sphere of consumer services in particular, which is due to the phenomenon of socialization of society, the development of the information society, the economy of knowledge.

Today, the creating process of the effective socially oriented marketing systems in domestic trading networks is relevant, and they are based on scientific principles and ensure high business responsibility to individual consumers and enterprises. The most important criteria and tools for assessing the effectiveness of the projects of the business social orientation include competitiveness and growth of positive image of the enterprise in the market. Solving this problem is useful in the context of improving methodological approaches to planning and forecasting the impact of solutions in the system of social orientation of business.

The practice of introducing the socially oriented marketing system of domestic trading networks on the international market has led to a number of related problems that need to be solved, namely, the problem of ensuring harmonization of buyers interests, business and enterprises; existing consumer desires sometimes run counter to the social well-being; the excessive increase in the output of individual goods creates "social costs". There is a need to find a way to restore the balance between individual and socially important goods.

The concept of the social responsibility of international business determines the priorities of marketing. Accordingly, in terms of terminology, it is appropriate to talk about the social responsible marketing, since the ethics of behavior is considered only as part of the social responsibility [1].

Marketing tools must be transformed to meet the concept of the social responsible marketing. There are the few questions here. First, do the properties and nature of an activity of a particular marketing mix tool change if the concept changes? Second, are new tools emerging that help the trading network implement its social policy [3]?

Social responsible marketing sees a socially significant goal as improving the quality of life, that is, ensuring not only the quantity, quality and affordability of goods/services, but also the quality of the place of existence – physical and cultural [3]. The improvement of the quality of life is ensured by trade networks through the formation of cost-effective activities, timely feedback to consumers; Production of quality goods and services that are favorable and safe for the health of consumers; conscientious business practices; the development and

application of the voluntary ethics codes and corporate policies that govern relationships with stakeholders and cover the activities of organizations; preservation and development of labor potential of employees, creation of decent working conditions, motivation of personnel and others; respect for human rights; Implementation of socially oriented policies and programs aimed at promoting the economic, social and cultural development of the territories where networks are located, participation in solving socially significant problems at the regional and national level, support of the civil initiatives; implementation of initiatives to mitigate the effects of products and services on the environment, manage natural resources, preserve the natural environment, including through the creation and dissemination of environmentally sound technologies; business partnership and engagement with interest groups.

In order to realize the social responsibility of trading networks in the international market, the area of responsibility of marketing is defined as formation and support of interaction with all interested parties, i.e. orientation to the consumer, as the main principle of marketing, to the system of interested parties, stakeholders, which are also partners, investors and shareholders, state structures, local commonwealth, public organizations, employees, mass media and competitors.

Chosen by the trading network, the goal and actors transform the marketing tools towards, first, intensive social innovations, the response to which by external interest groups forms the basis of interaction; Second, forms of interaction with internal interest groups (application of internal marketing, which forms relations of the company and employees on the same principles as with clients). The trading network “offers” a special product – a position in the enterprise with its specific rights and obligations. The employee “buys” this product by “paying” it with his labor. That is, the internal marketing toolkit fully meets the concept of social responsible marketing.

The results of the comprehensive diagnostic study of trends in retail trade development, problems of harmonization of interests of producer, consumer and society showed that it is not feasible to provide the trading network exclusively with the external or internal nature of social responsible behavior [4]. It is quite difficult in practice to separate the sources of competitive advantage formed by traditional and social competitive solutions. Very often socially oriented behavior is formed under the influence of a complex of internal and external factors of the systemic nature.

Based on the results of the analysis of the experience of regional and national operators of the product retail segment in the sphere of formation of social responsibility taking into account the current conditions of network development, it is possible to highlight the specifics of the work of regional retail networks in Ukraine, namely low social marketing spending, medium/low profitability, due to intense competition in the network format, which creates little value added, and indicate a low level of utilization of socially oriented initiatives and, consequently, a lack of potential benefits (social competitive advantage) [5].

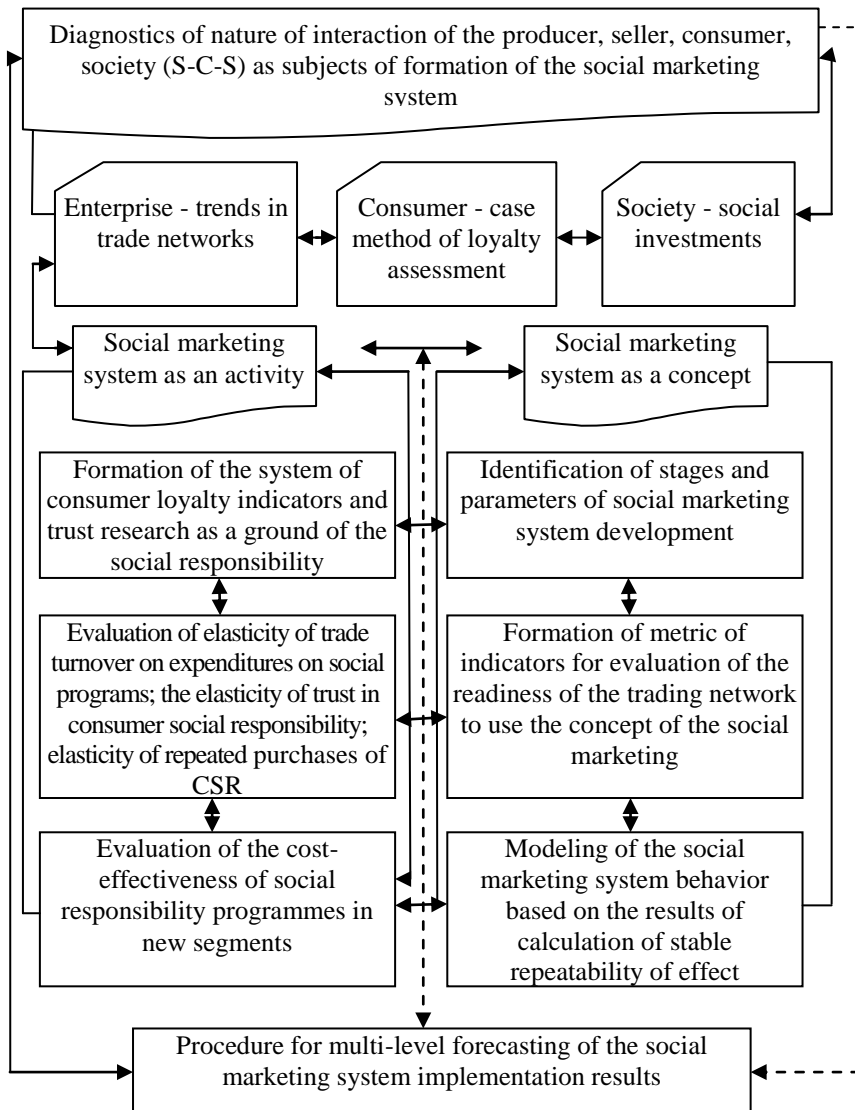
Using the methods of expert surveys (case technology), during the content analysis of references in the media and having analyzed the data of foreign and domestic empirical studies, it can be noted that the practical absence of examples of successful marketing technologies ensuring social responsibility of trade networks is determined, among other things, by low level of expectations and support from influence groups (society, state, consumer), which are the main channels of influence on trends and formats of marketing technologies use in the system of ensuring socially responsible behavior.

We have already stressed that the necessary condition for the implementation of the social marketing system, especially related to significant marketing expenses, is the absence of a clear vector of development of domestic trading networks in the external market, low level of adaptability, resilience, balance sheet and internal growth.

In the system of tools proposed by us for assessing the prospects and expediency of introducing the social marketing system, the sustainable development of the trading network is provided by a fundamentally new format of formation and content of competitive advantages of the social type on the basis of perceived consumer loyalty. Adaptability and balance of growth and network development processes is ensured by clear compliance of the stage of formation of the social marketing system with the criteria of efficiency by groups and subjects of influence (producer/seller, consumer, society).

Systematization of developed tools for implementation of social marketing system into traditional marketing subsystem is shown in the Figure 5.1.

In order to implement strategic tasks regarding the implementation of the social marketing system, an assessment of the readiness of the trading network to use all elements of the marketing system without exception plays a fundamental role.



**Figure 5.1 Tools for realization of the social marketing system in trade networks**

*Source: author's development*

Based on the metric of readiness indicators, we have concluded that

by focusing on the parameter of stable repeatability of the effect ( $R_E$ ), which acts as the manager, it is possible not only to trace the evolution of the use of one stage or another of social marketing, but also by focusing on the level of return, to avoid possible miscalculations and errors.

The basic element of the proposed system of implementation of social marketing is the system of diagnostic support of social initiatives in the system of interaction “enterprise – consumer – society”. At the same time, it is important to note that diagnostics aimed to identify aspects of interaction, and deep development of diagnostic tools can become the focus of further research in this industry. At this stage of the research, we have focused on studying general retail trends in the international market; understanding the nature of social responsibility by producers and sellers; the degree of readiness of the marketing communications subsystem to social responsibility challenges; the role of society and the level of social investment in the positive dynamics of trade development in the international market.

The use of case technology of the research of perceived consumer social responsibility has significantly expanded analytical support of the marketing solutions of social nature due to detailed analysis of the level of consumer satisfaction, loyalty, trust on the part of consumers. Summarizing the results of the analysis, it can be concluded that if the marketing concept changes, new tools emerge and the nature of the activity of a particular marketing mix tool changes due to the emergence of social innovation. Social responsibility orientation changes the configuration of the marketing mix towards the addition of another “P” – internal marketing, or marketing of personnel, regardless of the company's membership in the service sector, as the development of personnel becomes one of the strategic priorities of the organization.

The stages of its development on the principle of “activity – concept” should become the basis of revision of principles and methods of marketing planning and forecasting, taking into account the specifics of social marketing. In addition, it is necessary to focus on shifting the traditional system of indicators of evaluation of marketing solutions efficiency taking into account the orientation of business to socially important projects and growth of competitive advantages on a fundamentally new basis.

Strategic planning related to the development and implementation of a socially oriented marketing system in trading networks is characterized by a number of key features [6]. These features need to be

taken into account, as each allows for the manufacture and adoption of a specific management decision in the socially oriented marketing system. The first is the need for flexibility and adaptability in policy guidance. The second is the need to combine the functions of forecasting external characteristics, developing and justifying planning figures, as well as implementing the plan. The third feature is the full and timely resupply of planned activities. The fourth feature is the continuity of the planning and management process, which forms a closed loop that involves a series of successive steps. A comprehensive marketing plan is an interlinked consideration of all functional elements of the marketing system.

The process of forecasting indicators during the implementation of plans within the final phase of its use – socially oriented strategic marketing - consists in the implementation of the following stages (Fig. 5.2):

1. When different tasks are solved, prediction is determined by a set of diagnostic levels. The levels noted may be the trading network; consumer; society; state; national, sectoral, local levels.

2. Formulation of forecasting objectives according to strategic analysis tasks. These strategic aspects can be economic, social, innovative, environmental and other. In general, for each level, the forecasting results will be different and also contradictory.

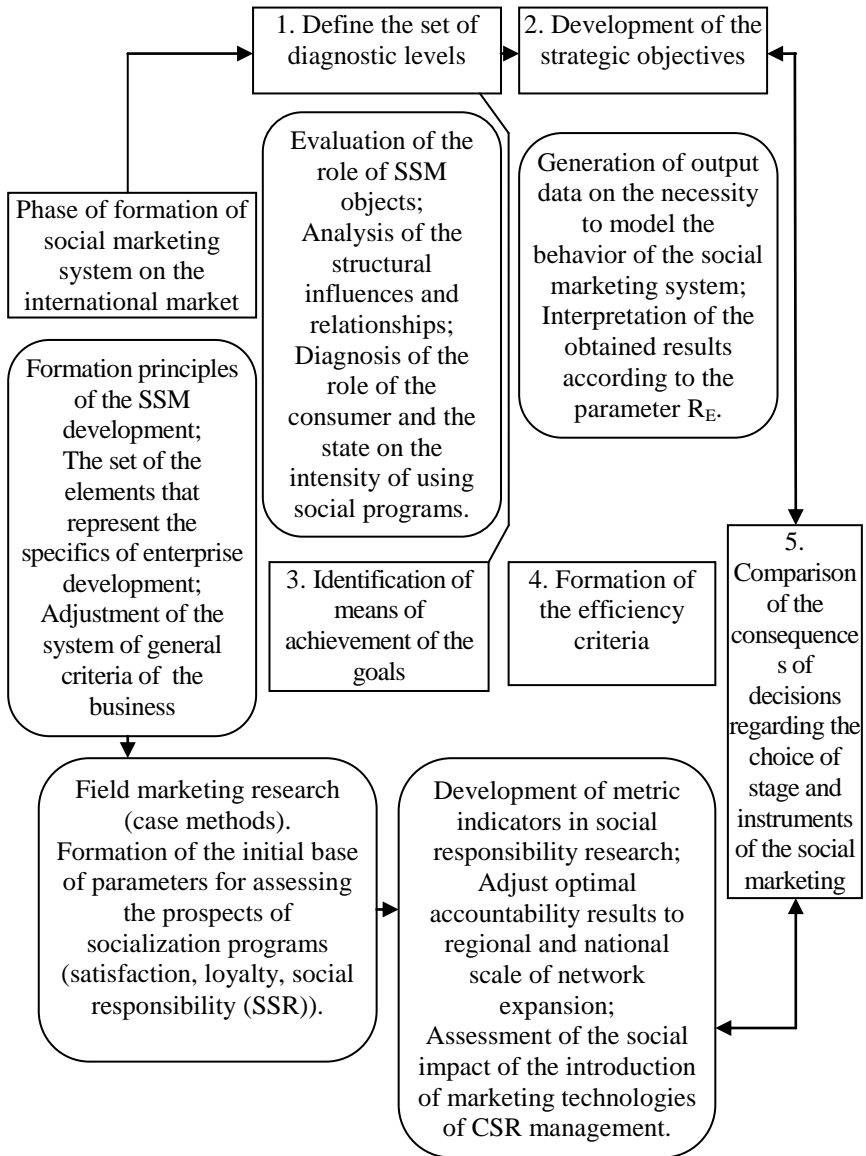
Therefore, it will be necessary to agree on the decisions that are taken at each of the levels and to select the generalizing criterion after which the transition to a certain stage of social marketing takes place.

3. Define means to achieve prediction goals for the objects under investigation. The existence of different indicators for measuring the effectiveness of social orientation, which relate to different levels, requires the use of different managed factors for analysis. That is why it is important to use as quantitative and qualitative indicators, the results of evaluation, by which will form a metric of parameters of research of behavior of the social marketing system in dynamics.

4. Formation of the criteria of the decisions efficiency, which are made at each level of forecasting.

5. The definitions of the external factors that govern come from the higher levels of analysis and are information about decisions that are made at the lower levels. These include: selection of forecasting strategies, models and methods, resources used, expected forecasting results, and so on.





**Figure 5.2 Procedure of multilevel forecasting of results of implementation of the system of social marketing of trade networks on the international market**

*Source: author's development*

Summarizing the practice of transforming marketing tools during the implementation of the social and social marketing concept, approaches, parameters, indicators and models provide an additional property that can be characterized as openness to interaction with all interested parties and interactivity of communications. Openness should manifest itself not only when the company itself initiates a social project and is ready to attract partners to implement it, but also when the initiative comes out of the outside environment or from employees. Thus, social innovation can transform traditional marketing tools so that it can interact with new target markets and achieve local goals of improving quality of life.

Modern perceptions of different interest groups about social responsibility of business do not allow significant development of marketing tools, and fair performance of traditional functions. That is, by adhering to the concept of traditional marketing, the trading network can consider itself socially responsible. However, this is not enough to realize social responsible marketing [7, p. 351–361].

Significant signs of application of the concept of social responsible marketing by trade networks can be considered such: proactive position of the company on improvement of quality of life, expectations of public groups on social responsibility; change the marketing mix configuration to add internal marketing tools; changing traditional marketing mix tools through social innovation; the link between marketing communications and the strategic objectives of the organization; involvement of all interested parties prior to formation of marketing relations; openness and interactivity of marketing communications.

Thus, in order to justify the tactical and strategic possibilities of implementing the concept of social marketing of trading networks on the international market, a procedure has been developed for multilevel forecasting of the results of the formation of the social marketing system, which is based on the improvement of diagnostic support, the results of the assessment of the readiness of the network to use social orientation as a key competitive advantage, allows to provide trading enterprises with adequate information on the nature and performance of marketing decisions on the future.

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**ORGANIZATION OF  
PRODUCTION AND  
PROCESSING OF  
HOP PRODUCTS**

Due to the high demand for hops, the world hops market has a positive dynamic in its development. The hallmarks of the global hop market are integration between hop growers and processing plants, which are combined into large-scale corporations that provide a continuous hop production process (from producer to consumer of hops). This experience of integration relations between hop growers and brewers, pharmaceutical companies is especially relevant for domestic producers, especially in the face of steadily increasing demand for hop products as a raw material for beer production, medicine and other fields of its application.

The domestic hop market in Ukraine is heavily influenced by external factors, which should be taken into account when making prudent management decisions by enterprises of different organizational and legal forms, and especially when formulating a state policy for the development of the hop industry. The lion's share of raw materials used by domestic brewers is imported, respectively, and the global hops environment has a significant impact on Ukraine's domestic market. Therefore, analyzing and forecasting global trends and developing strategies for further development of the industry on this basis are quite important tasks.

Over the period under review, the global area under hops and hop production decreased and then increased. In 2018, the area under hop cultivation in the world was 60.4 thousand hectares, which is 1.5 thousand hectares more than in 2017 and 3.1 thousand hectares – from 2008. Gross hops collection over the past two years was at the level of 118.5-118.4 thousand tons, which is 7.2 thousand tons more than in 2008. The lowest hop and crop yields were recorded in 2012-2015, when the global market was oversaturated with alpha-acid production and demand for hop production declined markedly. Yields of hop growers in this period ranged from 1.69 to 2.01 t/ha.

The reasons for such fluctuations were the increase in the yield of hops due to the introduction into production of more productive varieties, fluctuations in the price of hops and overproduction of alpha acids in the world.

Currently, the largest world producer of hops is the USA, which in 2018 has grown 38 % of gross hop production, while Ukraine's share in the global market is only 0.5 % (this is in a country that was one of the largest producers of this culture in the last century). The top five in the industry are also Germany (33 %), Czech Republic (6.0), China (5.0) and Poland (3.0 %).

In 2018, the area of hop planting in Ukraine was 400 hectares, the gross hop yield was 637 tonnes, and in 2019 these figures were 420 hectares and 600 tonnes respectively. The yield is 1.4-1.6 t/ha. The production areas of hops are concentrated in the Polissia and Forest-Steppe zones, which differ in climate change with sufficient moisture for culture and are most suitable for growing aromatic type of hops. Due to why Ukraine has the opportunity to develop an industry complex of hops, to grow sufficient amount of hops of excellent quality to meet their needs and increase their export potential. An important prerequisite for ensuring a sufficient level of competitiveness of domestic hop

products is to expand its range by creating new high-yielding hop plantations.

Production of aromatic and fine aromatic varieties is increasing every year in the world, which is why Ukraine's hop growing may well take its niche in the international market. The share of aromatic type varieties in the world is increasing every year, accounting for 67.2 % of the area. More than 30 countries are engaged in horticulture in the world, but the top five accounts for 90 % of world hop production and 93% of world  $\alpha$ -acid production.

Aromatic varieties of domestic breeding in yield and content of alpha acids are not inferior to foreign varieties, and in some biochemical indicators of raw materials even exceed them. The plantations of domestic varieties are characterized by better adaptation to the regional conditions of the growing zone, and therefore greater yield stability. Even in adverse weather conditions, 3-5 ha of higher productivity of 1 ha of hops is provided. The most widespread varieties of domestic breeding nowadays grown in Ukraine are not inferior to the best world analogues in terms of yield and technological qualities and are competitive under the international hops market under the proper growing conditions.

The undisputed leaders of hops – the USA, Germany, the Czech Republic, China and Poland – play a major role in shaping the price of hops, which is why they determine the state of affairs on the world market. The rest of the countries produce no more than 7 % of the world's hops and, mainly, satisfy their domestic needs.

Along with the increase in gross hop collection, there is also an increase in production of alpha acids, but in 2015 another wave of shortage of hop products is observed in the world market – only 6838 tons of alpha acids were produced, which is 1512 tons less than in the previous year. In 2018, 9543 tonnes of alpha acids were produced, 3762 tonnes of aromatic varieties, 5785 tonnes of bitter hops, which is 354 tonnes less than in 2017. This has led to increased demand and selling prices not only in the global spot market but also in the domestic hop market. Therefore, 2016 was characterized by a new stage of increasing the world area of plantations and gross hop production. The shortage of recent years has led to the fact that breweries' stocks have decreased significantly and the brewers have taken the opportunity to replenish their stocks. The 2016 crop as a whole met the total demand for alpha acids with an excess of 348 tons, and in 2017 there was a need for a shortage of 548 tons of alpha acids, in 2018 – 563 tons of alpha acids.

Of the 116,2 thousand tons of hop cones grown in 2018, 74 % were processed into pellets, 25 % – into hop extracts (Table 5.1). While in 2010, granules were processed with 57 % hop production and extracts – 41 %. The trend of recent years indicates an increasing demand for the use of granulated hops, which is widely used in brewing.

*Table 5.1*

**Consumption of hops and its products in the world**

Years	Total hops, tons	Hops in pellets		Hops extracts	
		tons	% to the total volume	tons	% to the total volume
2010	96680	55108	57,0	39639	41,0
2015	87358	63160	72,3	22189	25,4
2016	110496	84972	76,9	23757	21,5
2017	117718	88312	74,3	28017	23,8
2018	116227	86008	74,0	29057	25,0

Trends in the global hops market influence demand fluctuations and sales prices. In the years of a noticeable shortage of hops, its market price increased slightly and, conversely, in the years when there was an excess of inventory of hops, the price for it was decreasing.

The study and development of a system of methods and ways of reforming economic relations in the field of hops is based on the study of the basics of production management, methods of promoting competitive products in the market, interaction with other economic entities and various elements of market infrastructure, foreign economic activity.

In Ukraine, it is advisable to produce hop processing products in the system of the hops industry, because hops are economically interested in supplying finished hop products rather than cheaper raw materials (cones); with a certain assortment of hops and their processing products in the future, hops will be able to regulate their supply to the market depending on the situation, market situation and consumer requirements.

Today, hops are represented by a wide range of processing products, namely: natural hops in bales; briquetted hops; granulated hops (conventional granules (type 90), concentrated granules (type 45), modified granules; hop extracts (non-isomerized hop extracts, isomerized hop extracts, recovered isomerized hop extracts); hop essential oils.

In addition to brewing, hops are increasingly used in medicine,

perfumery, food and other sectors of the national economy. It, as a medicinal plant, is a valuable raw material for the pharmaceutical industry. In folk medicine, hops, as part of the meeting, is used in the treatment of more than 100 different diseases, and in scientific medicine, it is officially authorized for use in complex drugs for the treatment of diseases of the cardiovascular system, digestive, liver, biliary and urinary tract, kidneys, organs. breathing, skin diseases and other diseases. However, the pharmaceutical industry of Ukraine offers only about a dozen preparations of hops.

Hops are also used in the chemical industry – from bitter substances (in the form of resins) make valuable insulation materials with high resistivity. Strong, homogeneous, light-brown fibers that are not inferior in strength to hemp can be obtained from the hops of the hops. For dyeing of viscose and woolen products use paint made from hop cones. A long time ago there is a known method of making paper from hop pellets. Hop cones contain a substance that is an alternative to tobacco replacement. Hop crumb corresponds to hay and contains about 50% easily digestible substances, but due to the presence of bitter substances, its use is only possible as additives for animal feeding.

The effective use of hops was acquired in the production of yeast. Recently, the use of hops in industrial baking has become increasingly widespread, although it has been used since ancient times. Nowadays, several methods of bread making for hops have been developed, which improves the taste, quality and safety of baked goods, extend their shelf life and expand the range of products.

The main focus of hop cones is brewing, which has important economic characteristics. First of all, it is a high speed of capital turnover, high profitability and low, in comparison with other industries, the capital intensity of production.

An analysis of the current state of cone hop use shows that its use for bittering of wort is only 25-30 % effective in the use of bitter substances. In addition, during storage, the most valuable substances for brewing are easily oxidized under the influence of external factors: oxygen of air, high temperature of the environment, sunlight, high relative humidity. During one year of storage, even at 0-2°C, hops lose more than 50 % of alpha acids and up to 90 % of essential oil. More than 90 % of hop cones are processed into hops in order to make more efficient use of hops and increase the storage time of their valuable substances (to create transitional stocks, timely realization depending on market demand and market conditions).

*Barth Innovations Ltd* is a leading center for the development of new hop-based innovative products, improving production processes and reducing production costs, as well as positioning itself in the market for new high-quality products, which is an innovative center for research and development services to European companies belonging to the *Barth-Haas Gruppe (Bart-Haas Group)*. *Barth-Haas Gruppe* is a family-owned business, including *Joh. Barth & Sohn GmbH* is the world's largest supplier of hop products and services. Branch offices and manufacturing facilities are located in Germany, the United States of America, the United Kingdom, Australia and China.

Community *HVG Hopfenverwertungsgenossenschaft e.G.* combines the German hops of Hallertau, Tettngang, Elbe Saale and Hersbrook. He owns more than 25% of the world's current processing facilities. *Yakima Chief, Inc.* was founded by representatives of 14 hop families, which occupy more than 20% of total US hops by area of their own farms. The corporation is one of the most well-known United States hop associations specializing in both cultivation and hop production. The campaign is located in the US, Brazil, Belgium, Hong Kong, and China. Such communities support the development of the hop industry and serve as a liaison between hop producers and breweries, facilitating the development of integration processes in the industry to ensure efficient hop production and profit maximization.

These problems in Ukraine are addressed by scientists of the Institute of Agriculture of the Polissya of the National Academy of Sciences of Ukraine, who with their research in the field prove the importance of cultivation of this culture.

The transition of the Ukrainian brewing industry to modern brewing technologies leads to increased requirements for the assortment and quality of hop products. All powerful Ukrainian breweries, as well as in the whole world, use different hop processing products in their technologies – mostly foreign production, and this is caused not only by the quality, but by the interest of the breweries with foreign capital and insufficient domestic production – the industry is provided with only 15-20 % domestic hop production.

According to JSC Ukrpivo, the following hop processing products are used in the production of domestic beer: hop compressed – 0.4 %; hops granulated (type 90, type 45) – 66,6 %; hop extracts (ethanol, carbon dioxide, isomerized and modified extracts) – 33 %.

The annual requirement for hop production for the production of 220-250 million dal of beer is 110-125 tons in terms of 100 % alpha



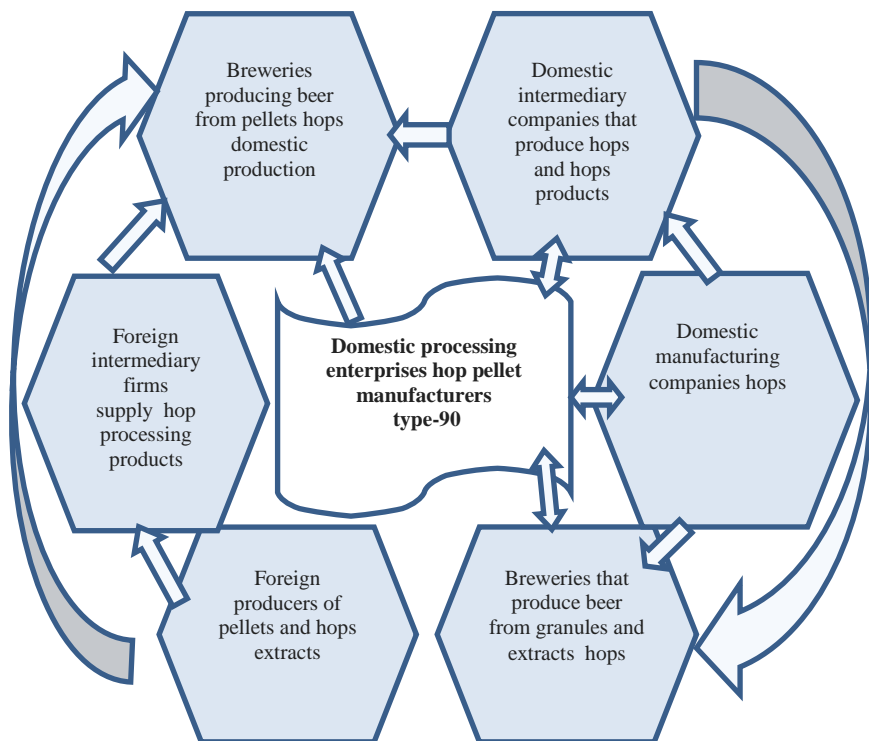
acids (5.0 - 5.2 thousand tons of hops with a basic alpha acid content of 3.5%). The analysis of domestic and foreign developments shows that the most rational way of processing cones of hops is the production of type 90 granules, which in chemical composition are almost indistinguishable from native cone hops. It is this technology that provides a fuller storage of the entire complex of valuable hops substances for a long period before being used in beer production, more stable hops and higher quality of the target product. Granulated hops are also more convenient to transport and dispense when packing or hopping the wort. The advantage of using pellets over pine hops is that when worming the wort improves the dispersion, extraction and isomerization of alpha acids.

In Ukraine there are modern enterprises for quality hop processing. High granularity of the equipment for granulation and optimum combination of aromatic and bitter substances in the cones of hops of Ukrainian breeding provides granules with excellent brewing qualities. On the basis of comparative characteristics of hops granules type 90, produced in Ukraine and European countries, the conformity of quality of Ukrainian hops products to the world level is established. But only small regional breweries, which own 6 % of the Ukrainian beer market, and PJSC Obolon (16-20 % of the beer market) use hops granules of type 90 in their technologies.

The main producers of beer are the brewing giants with foreign capital, which dominate the beer market (about 65 %), buy exclusively imported hops in the form of granules and extracts of bitter varieties of American and German production, as well as isomerized preparations, covered hop varieties in the formulations of large breweries. The main reason for this situation is the lack of proper protectionist policy on the part of the state, the emergence of a steady negative balance of export-import trading operations in the hops market over recent years, manifestations of unfair competition and the interest of the parent companies operating in the territory of the brewery in Ukraine production, which led to the abuse of the monopoly position of breweries with foreign capital. Hop suppliers to processing plants and to regional breweries are hop-growing enterprises and intermediary companies that harvest hops (Fig. 5.3).

Thus, a vicious circle emerges in the field of hops. On the one hand, the main consumers of hop products – large breweries do not buy domestic raw materials due to the lack of the possibility of ensuring their production by large homogeneous batches of raw materials, on the

other hand, small hop farms that can not independently form large batches homogeneous in varietal composition and quality, proper storage (to avoid annual losses of 10-30 %), as well as proper marketing of hop products in the domestic and foreign markets sales.



**Figure 5.3 Movement of hops and hop products from producer to consumer**

The deepening of the hop processing process is a positive factor in the process of diversifying the ways of development of the hop industry. The practice of hops shows that it is technologically and economically feasible to produce hops directly on the farms. This will help to remove some of the technological processes of post-harvest processing of hops in the process of raw materials processing: preservation of cones, conditioning them by moisture after drying, dense pressing, special packaging, etc.

It should be noted that only in the process of integration into a single

chain of all stages of production, processing and sale of competitive hop products will the revival of the hop industry be possible. The economic efficiency of the industry can be achieved only if the farms of farmed and processed hops produce good quality in accordance with the rules of national standards and requirements of the European community.

Therefore, one of the main factors for ensuring the development of the industry is the confidence in the sale of grown and processed hop products, the main consumer of which in the domestic market are brewing companies.

The basic requirements for hops are the compliance of the varieties with high brewing criteria – the presence in them of the necessary bitter substances for brewing, in particular, alpha and beta acids, a certain composition of essential oil, xanthohumol and a certain ratio of components in the composition of these groups of substances. Hop cultivation in Ukraine has always been focused on the needs of the domestic beer industry, taking into account the national centuries-old traditions of consumers of foam beverage. Basically beer in Ukraine was brewed from aromatic hops. Beer made from such hops is fragrant and has a pleasant mild bitterness.

The basic requirements for hops are the compliance of the varieties with high brewing criteria – the presence in them of the necessary bitter substances for brewing, in particular, alpha and beta acids, a certain composition of essential oil, xanthohumol and a certain ratio of components in the composition of these groups of substances. Hop cultivation in Ukraine has always been focused on the needs of the domestic beer industry, taking into account the national centuries-old traditions of consumers of foam beverage. Basically beer in Ukraine was brewed from aromatic hops. Beer made from such hops is fragrant and has a pleasant mild bitterness.

In today's economic environment, developing a sound development strategy requires the use of innovative management tools and the formation of an integrated strategic management system based on them. This integrated approach forms a universal coordinate system to justify strategic decisions and work out ways to implement them.

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**IMPROVEMENT  
OF THE  
EDUCATIONAL  
PROCESS UNDER  
THE PRESENT  
ECONOMIC  
CONDITIONS**

Technological modernization of industry and innovative development of the state economy require specialists who are able to work with up-to-date technologies and to carry out innovative activities successfully.

It is impossible to ensure high quality training for university students without modernizing the educational process in accordance with the new educational standards.

The present educational reform is associated with the rapid development of information, virtual and communication technologies and is aimed at reducing the period of students' learning, changing the

content of the curriculums, extending the students' knowledge, expanding their horizons, as well as individualization and differentiation of education.

Annual renewal of the disciplines curriculums makes it possible to train specialists who are able to solve current and future tasks of the industry taking into account strategic goals of development.

The teachers differ significantly in their degree of suitability for pedagogical activity and the level of their qualification that affects directly the effectiveness of the educational process.

Economics considers the modern stage as a transition from an industrial society to a post-industrial one. The latter is characterized by such properties as an increase in the share of creative and intellectual work, an increase in the volume of scientific knowledge and information used in production, as well as the predominance of services, science, education and culture in the structure of the economy over industry and agriculture. The main feature of the economy of the post-industrial society is the knowledge which becomes the main source of competitive advantage. Such situation is caused by the intensive development of technologies and introduction of the results of technological progress in production and services, which is associated with an increase in orientation of labor to intellectual activity. At the same time, the demand of economy for unskilled labor is significantly reduced, and requirements for most jobs are becoming more complicated.

The most important factor determining the requirements for professional qualities of a specialist at the moment is the level of workability of production processes. A necessary requirement for the level of modern specialists training is information technologies knowledge, as well as technologies used in the workplaces.

The second most important factor in formation of requirements for specialists is development and application of the latest methodological approaches.

The main goals of education at this stage are the following: training in order to master new skills when working with software and hardware for those employees who perform work that requires an increase in the level of automation; retraining of those categories of employees whose work is replaced by the work of new equipment; training of personnel performing new tasks related to the use of new equipment and information technologies in the production process.

Generally accepted quality standards of educational services are the following:

1. The use of advanced teaching methods based on creative and interactive approaches. This group of methods has been widely used in recent decades in the field of corporate training and professional development. Such methods include method of specific situations, business games and role plays, brainstorming, discussions, case methods, etc. Such methods are based on the principles of adult education, which are significantly different from the approaches used in traditional pedagogy.

2. Equipment for classrooms:

- presence of presentation equipment (multimedia projector and computer) for demonstration of teaching materials in PowerPoint presentations;
- classrooms should be appointed with the equipment necessary for studying specific subject fields.

3. The level of organization of the educational process:

- presence of learning materials, scorecards (questionnaires), coffee breaks, organization of round tables, etc.

4. Qualification and pedagogical skills of the teacher (trainer). This is the most important aspect of education. It is the level of teaching that is the most important condition for high quality training; therefore organizations implementing educational programs pay special attention to the teachers' training and development.

According to the principles of quality management, an educational service consists in transferring the skills and knowledge to the students that they need to carry out their present and future professional activities. Thus, quality management is turned out to the development and implementation of the system of measures enabling to provide educational services of the quality that ensures that the result of education meets the requirements of the students.

The present state policy in the field of higher education in Ukraine is aimed at the solution of the following problems:

- elaboration and implementation of the national strategy for development of higher education, which is adequate to the objective needs of Ukrainian society in conditions of state structural and social and economic changes;
- definition and implementation of the set of practical measures aimed at overcoming crisis processes and phenomena, stabilizing higher education, its reforming and developing mechanisms and methods on the basis of new institutions;
- integration of higher education in the global university system and

academic community, development of effective intellectual communications.

The educational system provides for the following number of elements of diversification:

- development of the system of higher education should be connected with the existing historically established Ukrainian system of higher education;
- it should be evolutionary in nature;
- the staff of educational institutions based on the principles of their autonomy and academic freedom should be the subject;
- individual components of the system should be based on the principles of succession, which ensure the continuity of education;
- each level of education should be characterized by appropriateness of academic and practical training and at the same time by their different correlation.

The ever-increasing role of education in modern society is determined by the scientific and technological revolution and global technologization of the most developed countries of the world community. The level of development of modern technologies in each country depends not only on the development of the corresponding resource base, but even more on the intellectual potential of the society.

Currently, the task is to reform the educational system in Ukraine, to create a mechanism for the constant renewal of its content. At the same time, "... the fundamental goal is in transition to the diverse and continuous education that encompasses the entire active life of a person and implementation of the principle of lifelong education."

"Lifelong education as a pedagogical system is an integral set of tools, methods and forms of acquiring and extending general education, professional competence, culture, fostering civic and moral maturity and aesthetic attitude to the reality" [1].

For the state, lifelong education is a priority in the development of its social policy and it is a condition for stable development of social production.

Characteristic features of the lifelong educational system are the following:

- Fundamentalization of education (focus on formation of systemic thinking, integral scientific worldview ensuring the priority of information components in a long-term educational system).
- An advance nature of education is focused on the future and

conditions of professional activity.

- Increasing the accessibility of the educational system for the population is associated with the introduction of distance learning, accessible databases and telecommunication technologies.

- Particular properties of lifelong education.

- An essential increase in the duration and significance of the stages of self-education in general system of lifelong education.

- A growing role of teaching aids (information and telecommunications) in teaching technology.

- Actualization of the task of forming the skills of independent cognitive and practical activities of the students.

- Strengthening the role of the principle of individualization of education, implementation of individual “educational trajectories” for each student.

- Transition from the disciplinary-oriented training system to the design-creative one, which is characterized by the personality-active approach to teaching.

- Differentiation of the educational processes at various stages according to orientation, purpose, level and features of implementation.

Taking into account the lag of our country in the field of information technologies, we have to admit that our goal in the coming years is not to “leave behind” other countries, but to choose a breakthrough strategy in relatively few but the most important areas, which include, first of all, education. Without informatization of the educational sector, the lag in our economy will already be laid at the stage of young specialists training.

The key features of the learning technology are the following:

- specific organization of the educational process;
- learning objectives and diagnosed planned learning progress;
- learning content;
- diagnostics and monitoring tools for learning progress;
- teaching methods;
- tools of education;
- students;
- teachers (trainers);
- training results;
- the need of modernization of educational technologies.

Development of the Ukrainian society is an organic part of the



process of gradual transition to a new stage of its development. A characteristic feature of this process is the change in dominant type of human activity caused by the transition from the industrial to the informational stage of development of social production.

Dynamics of transformations in production technologies and social and economic structures has become noticeably ahead of the dynamics of the human generations change. So, lifelong education is becoming an integral part of every person's life. This is the main influence of the informatization of society on the educational system.

The pace of technological progress nowadays increasingly depends on the effectiveness of the educational system, which, in turn, cannot but change and reflects new requirements of society caused by development of science and production. All this constantly sets new and more complex tasks for education and upbringing the youth and at the same time initiates the creation of more and more advanced tools and educational technologies that contribute to the solution of these problems.

The most promising among them are tools and technologies related to informatization of education.

According to Filatov O.K., informatization of education can be defined as a set of measures related to the saturation of the educational system with information tools, technologies and products [2].

Methodology and strategy for improving the selection of content, methods and organizational forms of training are focused on the development of the students' personalities, their intellectual potential, their effective preparation for their life and professional activity in the "information-oriented society".

As new technologies displace unskilled and routine labor, human resources are mobilized for creative work related to decision-making. It requires an appropriate level of intellectual and professional training.

At the present stage of development, in the transition to a knowledge-based economy, the most important management function is the knowledge management. The knowledge management is a coherent approach to revelation and identification of knowledge necessary for an organization in order to achieve its goals.

Today, the concept of supplementary education covers a wide range of educational services. The main directions of supplementary education are professional retraining, internship and advanced training. Professional retraining involves mastering additional qualifications (professions) based on the existing higher education. Professional

retraining is carried out by higher educational institutions. Advanced training is a short-term training aimed at acquiring the skills necessary to perform professional functions [3, 4].

The main directions of advanced training are the following:

- training to close the gap between the position requirements and personal qualities, filling in the lack of knowledge;
- training to improve general qualifications;
- training for work in new areas of organization's development;
- training to learn new methods and techniques for performing labor operations.

Changes in the market field are taking place constantly. It means that specialists need systematic learning and retraining for themselves and their subordinates. Training takes a special place among the measures of vocational education and development. Training is a short intensive course of professional development (1-4 days) aimed at the formation and improvement of special skills. Characteristic features of training are practical orientation and interactive group learning.

Modern companies spend significant time and financial resources on training and retraining their employees. Internal company training and retraining of personnel in well-developed countries are similar to powerful industry.

The most widespread development of the system of internal company training was in Japan, where a special Law on vocational training at the enterprises was adopted. Training for employees in Japanese organizations is carried out both on a part-time basis and in the workplace.

In the USA, on the contrary, employers finance staff training programs less, because investments made in training due to high competition and personnel mobility may be lost or transferred to competitors.

In the UK, the percentage of professionals participating in training and professional development activities has increased from 24 to 39 % in recent years.

Strategic management of the staff training is developing in France. A company acts as an organizer, producer and user of knowledge, and also defines the rules and framework for knowledge actualization.

One of the most interesting forms of implementing corporate training and personnel development systems is considered to be corporate university, which is a set of comprehensive training programs based on modules principle and consisting of separate courses of advanced

training and professional development.

Writing dissertation for PhD or Doctoral Degree is also an important aspect of professional development of scientific and pedagogical personnel.

Universities usually organize measures to advanced training for the staff at higher educational institutions.

Main directions and prospects for development of education. Today the problems of functional and technological incompetence of specialists, structural unemployment have become more acute as a result of “final” education. A shortage of economic, legal, technical, social and psychological, environmental knowledge has arisen. The human estrangement from nature and society has intensified.

The need for constant systematic renewal of knowledge, its maintaining at the required level of readiness to perform more and more complex social and professional functions led to the appearance of various types of lifelong parallel education and such initiative forms of self-education, which are designed to smooth over the shortcomings of the existing system to some extent. Necessity in such types of education as advanced training for employees and specialists as well as retraining of personnel arose. Various forms of supplementary adult education began to develop. However, at the same time, the existing links in the system of general and vocational training remained unchanged. Their orientation toward the “finiteness” of education was kept [5].

Widespread introduction of information technologies can lead to the fundamentally new approach to the technology of education itself, which will be based, along with others, on didactic capabilities of a person.

A famous American psychologist Carl Rodgers [6] has formulated the following psychological features of adults, which are prerequisites for successful learning:

- people have great potential for learning by nature;
- training is effective when its subject is relevant to a person and when an individual (his “I”) is not in danger;
- the whole personality is involved in training; as a result it causes changes in self-organization and self-perception;
- most of the learning is achieved by action; openness to the experience remains;
- self-criticism and high self-esteem activate the creative process, strengthen such qualities as independence and self-confidence.

Obviously, Rogers sees an adult as a responsible participant in the process and as an initiator of his/her own learning.

Education of adults is the stage of vocational education, the basis for which is created by a comprehensive school, and even preschool education. A simple addition to the existing educational systems with new links without qualitative change in their nature and forms of implementation as a whole neither introduced the continuity properly into existing educational practice nor contributed to resolving the contradictions that arose.

Today, adult professional education is a staged, integral and lifelong process. At the stage of active creative activity, education acts as a means of solving important problems in various areas of life; at the more mature age, it attracts with its actualization, implementation, reflectivity, and evaluation. Education becomes truly continuous when there is an external problem that is replaced by an adult's internal need for constant renewal of his/her knowledge and wealth.

Scientific and technological progress contributes to the continuous renovation of production technologies, and their detailed study is currently ineffective. Professional disciplines along with general academic knowledge should enable students to get acquainted with new promising technologies, priority areas of modernization and technological development of the economy (energy saving and improving energy efficiency, resources saving), the best available technologies included in domestic industrial reference books, as well as those which have already been used in countries with developed market economies.

The need for periodic review of the content of the discipline helps to increase competence of the teacher in this subject area and activates significantly his/her teaching activities.

Thus, the development of the economy, leading to constant changes in the requirements for the employee and the level of his/her readiness for professional activity at educational institutions, requires continuous improvement of teaching activities at technical universities, thereby increasing the level of professional competence and quality of pedagogical activity.

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**FEATURES OF  
FORMATION OF  
COMPETITIVE  
ADVANTAGES OF  
RESTAURANTS IN  
THE  
INTERNATIONAL  
MARKETS**

All over the world, the restaurant business is one of the most attractive thing to investors, and its profitability in developed countries is not below 40%, at the same time, reaching in the “tourist” zones of 100%. As for Ukraine, according to experts, until 1997 the market operators worked in good conditions: the presence of not very demanding to the level of service of solvent customers allowed to achieve a profitability of 50%. It was during this period that many new private hotels and restaurants appeared in the country, and old “players” could completely reconstruct their own funds. Today’s situation is fundamentally different. The customer’s insidences on the level of service, competition between players and adverse economic situation have changed the rules of the game in the restaurant business to stricter.

In general, the restaurant business in the international sphere is an integrated area of business activity, primarily related to the organization of production and management of the restaurant, aimed at meeting the needs of consumers and profit. These are the specific features of the international restaurant sector. The restaurant business is a service business. The catering service is the result of the economic activity of the restaurant enterprise, aimed at satisfying various biogenic and cultural requests of the guests.

The main task in the restaurant industry is determined by the concept of hospitality technology, the determinant of which is to meet the most demanding consumer needs. If the guests do not enjoy the restaurant, then everything else does not matter. The organization of food services provides not only the satisfaction of gastronomic needs, but also the organization of recreation and entertainment, that is, the satisfaction of socio-cultural needs.

The tendencies of the development of the hospitality industry enterprises, which have developed over the last decades, include:

- deepening the specialization of hotel and restaurant offer;
- formation of international hotel and restaurant chains;
- development of a small business network;
- introduction of new computer technologies into the hospitality industry.

The restaurant business, as a major component of the hospitality industry, consists of both powerful businesses that produce a variety of food products and small private businesses: restaurants, cafes, and bars. Their activities are focused on the “client”, who should be regarded as the highest value. Providing its needs should be the higher end result of the business activity of the entrepreneur.

They can be reduced to two methods: differentiation and cost leadership; the other methods are derived from two main methods. Ukrainian companies, which are going to compete successfully under the laws of modern international business, should pay primary attention to their internal resources, distinctive competencies and, taking into account the factors of external influence, choose the methods that will allow to achieve sustainable competitive advantages in the domestic and foreign markets.

Over the last decade, companies have applied many approaches in marketing, both in the field of commodity and communication policy. One of the most popular approaches in the world is to use the “blue oceans” strategy. Ukrainian companies, which are the first to experience

foreign experience, get the competitive advantage of creative ideas, low costs and the “winning” provision of a critical resource – sometimes. It should be noted that when the strategy of “blue oceans” ensures the achievement of the set goals, it is advisable to apply the strategy of forming the brand of the enterprise, which will allow to consolidate competitive positions in the market.

At the present stage of society, the world of business actually consists of two different types of space, which is commonly known as the purple and blue oceans. The purple oceans represent all the industries that exist today – the famous market space. Their limits are well-defined and generally accepted, and the competitive rules of the game are well understood. Here, companies are trying to outstrip their rivals to capture much of the demand that already exists. And as the space becomes more and more crowded, the prospects for developing and generating more revenue are diminishing. Products are becoming consumer goods, and growing competition is making water bloody.

The blue oceans denote all industries that do not exist now – an unknown market space, not tainted by competition. In the blue oceans, demand is created, not reclaimed. This is where the biggest growth opportunities come – fast and profitable.

In order to formulate development strategies and recommendations for maintaining competitive positions in the market, it is necessary to study and analyze in detail the experience of domestic and world companies in the use of “anti-ideas”, namely the creation of a product that will attract consumers through its special action, which is fundamentally different from the canons of consumer perception. The Blue Oceans strategy is particularly widespread in the service sector, in particular the restaurant business, as the classic example of the Blue Ocean in Ukraine is a restaurant chain FEST.

Holding emotions “FEST” is a series of creative restaurants with original concepts, founded in 2007 in Lviv. Bold projects and their professional realization make the company unique. Already the first project – the restaurant “Kryivka”, has brought great success throughout Ukraine and abroad, in the first month of its work it was visited more than 50 thousand people and during the year this number has not decreased.

Today there are 17 establishments of the Company in different original styles and formats: Kryivka restaurant, Masoch-cafe, open-air cafe “Diana in the Market”, Halytskiy pub “Under the Golden Rose”, restaurant-museum “Gas Lamp”, “Left Bank”, “Galicia’s Most

Expensive Restaurant”, “Lviv Chocolate Workshop” and its shops, “Misko Pstrug and Petro Bratvanka”, “House of Legends”, “Zenik. Mytnyk”, “Zenik No Glamor”, “Lviv Coffee Mine”, souvenir shop “Lviv Tsetsky”, “Paving Workshop”, sushi-pub “Maki”, “Strudel and Cheesecake City Bakery” and all other conceptual establishments to be opened over the coming years.

The attendance and popularity of existing restaurants is one of the largest in Western Ukraine, they have attracted the attention of the Ukrainian press, as well as international channels and publications from around the world: Poland, Slovakia, Russia, USA, Zimbabwe, Hungary, France.

The popularity and positive image of the restaurant projects of the company is facilitated by its active position, participation in the cultural and tourist life of the city, holding open events, participation and support of progressive city events and initiatives.

Also, to extend the life cycle of a product or service, you can create historical value for consumers or tourist value, that is, the product or service must so impress and give certain emotions to the consumer that he wants to try again and tell about the uniqueness of the enterprise. It can become a traditional one, which is a must-buy for everyone at least once in a lifetime.

The game on emotions was used by the Fest restaurant chain, thus gaining popularity among consumers (tourists) and becoming a historical value of the city of Lviv and a must-visit when visiting this city, that is, a traditional monument.

All projects are located exclusively in the historical center of Lviv – the Holding calculates and catches the largest tourist flows and routes. One of the most important principles is to avoid mediocre things and create strong points of differentiation.

The obvious themes of Lviv are not used, simple and banal restaurants are not opened. The Holding constantly searches for new and little-known stories and presents them in various ways. For example, the idea of the restaurant “Gas Lamp” comes from the fact that a kerosene lamp was invented in Lviv by Jan Zeg and Ignatius Lukashevich. In this pub-museum was collected the largest collection of such lamps in Ukraine (more than 200) and was added elements of the show – an alchemist walks on the premises, and a conceptual man in a tailcoat meets and tells about the legend of Lviv. Ideologically, “Kryivka” is connected with the history of the UPA (The Ukrainian Insurgent Army), and “Masoch-café” – with erotic themes. In the TV story CNN,



“Masoch café” was named one of the most unusual establishments in the world.

Now the holding does not position itself as an exclusively restaurant business – it is engaged in souvenir business, launched sightseeing tours of restaurants, offers catering, has an online shop and opened three Internet radio stations, the first of which of course was Radio from Kryivka.

In recent years, there has been a tendency in the restaurant business to synthesize cuisines of different ethnic groups within one institution (enterprise) of the same menu, which allows to offer the guests of the institution of public catering a maximum of gastronomic variety. This is done by restaurants with Slavic, European and Caribbean cuisines, Oriental, East-Ukraine, West-Ukraine, East-West cuisines, and more. There are no limits to excellence in the restaurant business, so new types of services are emerging: sommelier services, fortune hours and happy hours for guests; gastronomic shows; solemn presentation of dishes; bar show; fishing and cooking in the presence of a guest; karaoke; smoking rooms; discounts for regular customers; catering with a wide variety of services.

Recently, there has been a steady tendency to move services from the organization of consumption of products and services of consumers from the halls of catering establishments to workplaces (offices, establishments); places of rest; venues for celebrating anniversaries and other official and informal holiday events; to the house.

The largest restaurant business is booming in France, Germany and England, in fact they are setting the tone for culinary fashion around the world. The world’s most important restaurants today are the atmosphere. Neither the concept nor the interior matter so much. The atmosphere is made up of quality food and excellent service. If a restaurant cannot provide this to its customers, then even the most fashionable interior will not save it. But at the same time, everything in the restaurant that touches the eye or the guest’s hand must be of high quality.

This is why chefs create set-menus in many European restaurants of original cuisine. Thanks to this menu, restaurant guests can instantly appreciate the whole slice of the cuisine – from snacks to desserts, to get an idea of the products, to communicate, to discuss dishes. Such a menu immediately conveys the atmosphere of this institution.

In Europe, there is a growing interest in healthy and tasty foods. Because of this, a minimum of processing is used in cooking. Customers want to taste the product, not the large amount of spices. More and more

vegetables and fruits are on the menu. And in general, vegetables in Europe are now the most popular product.

As a result, there is an increasing number of restaurants serving new formats: soup bars, salad bars, and vegetarian restaurants.

Restaurant owners are increasingly experimenting with different styles of food and concepts to satisfy their customers. As a result, interest in fusion-food is increasing.

In English, fusion means merger, alloy. In cooking, the tastes, styles, traditions of East and West, old and new, are harmoniously combined; exotic ingredients are skillfully replaced by local products, and other culinary traditions adapt to the usual local flavors. Often the fusion style is deliberately accepted or given a deliberate inclusion in the dish of incompatible ingredients.

Molecular cuisine is a trend in modern cooking that emerged at the end of the 20<sup>th</sup> century. The appearance of the product changes a lot when cooking. The texture can be transformed in such a way that you can only guess what you are eating.

The essence of molecular cooking lies in the fact that the process of preparation uses the latest technologies and the achievements of molecular chemistry, which gives the opportunity to get dishes of unusual consistency and original taste. The main techniques of this kitchen are: processing of products with liquid nitrogen, emulsification (mixing of insoluble substances), spherification (creation of liquid spheres), gelling, carbonization or enrichment with carbon dioxide, vacuum distillation. The peculiarity of molecular cooking is that it can significantly enhance the taste of a product.

The cuisine of Restaurant "Fat Duck" (UK) has long been considered one of the most famous sights of Bray, west of London. A visit there can be compared to a visit to a laboratory where your eyes are crushed, mixed, heated with different ingredients, and something so unusual will appear on the plate that it will be impossible to recognize.

For a long time, American gourmets did not take molecular cuisine seriously, and its popularity in the Old World was gaining ground. So when chef Grant Achatz announced the opening of the restaurant "Alinea" in Chicago, where he would cook such unusual dishes, he was called nothing more than a "pioneer." He is now the chief guru for creating anything like dishes, flavors and even solid sauces.

The restaurant Iggy's (Singapore) is the dream comes true of its owner, Ignatius Chan, one of Singapore's most famous sommeliers. This is the kind of restaurant he dreamed of: small (with only 60 seats),

cozy, serving exceptional dishes, unusual, surprising and even shocking. Iggy's is located on Orchard Road, called almost the main shopping street of all Southeast Asia.

Formats of serving food are also becoming more diverse in Europe. Very popular are finger-food (cocktails where only hands are eaten) and tapas (one huge plate is served on everyone's table). These formats help bring people to the table closer together. In Europe, too, much attention is paid to the rules of table setting, proper layout and the "neighborhood" of exquisite affairs. Culinary tourism has grown in popularity and efficiency in the world. Culinary tourism is a complex direction of development of tourism and restaurant industries. The restaurant industry itself plays a much greater role here than tourism. For the Ukrainian national restaurant services, this development path is very promising.

Today, all major cities have sushi bars, Italian, French, Spanish restaurants, pizzerias. But it is clear that the dishes prepared in these restaurants are very different from the same ones prepared in their country of origin. That is why a great number of gourmets and just people who want to taste authentic national cuisine go on culinary tours. In addition to offering local specialties, culinary tourism has taken another very important direction: seeing firsthand how delicacies are made, learning the secrets of culinary craftsmanship, and even creating your own masterpiece under the guidance of a national chef.

Today, countries can offer culinary tours for every taste. France offers a large number of wine tours, which include visits to the wine cellars and the Bordeaux Wine Museum, wine therapy and tasting of the world's famous wine and brandy brands. In Spain, you can visit traditional bakeries, vineyards and wine cellars, get acquainted with the tradition of tapas, cheese production or take part in saffron harvesting. Germany is, first and foremost, beer and all sorts of snacks. In Switzerland, most tours are devoted to cheese and chocolate. In Italy, tourists can be offered a culinary art lesson in the preparation of olive oil or homemade dough using traditional ingredients. Culinary tours are also offered by countries such as Peru, Argentina, USA, Japan, Thailand, Brazil, Bali, Singapore, Azerbaijan, Uzbekistan and Russia.

In recent years, a new trend has emerged in the restaurant business - democratic restaurants, which combine "fast" food technology and quality national (or mixed) cuisine that require an individual approach. Free-flow means free movement. In the case of restaurant business, it is free movement for both visitors and food. Signs of such enterprises –

cooking in the presence of guests, the absence of waiters, open kitchen, a wide range. This democratic concept of restaurant service is characteristic of the Autogrill (Italy), Casino (France), Lido (Latvia), Rakey restaurants, etc.

Among the usual establishments of the restaurant industry are those that draw attention to their originality. Yes, the most unusual restaurants are Pret A Diner in Germany. Every week, the restaurant changes its location: from Berlin, Munich, Frankfurt am Main, to Paris, London, Barcelona. It happens that the restaurant stays in the same city for several weeks or travels to different countries every week. It all depends on the mood of its owners and chefs. The Pret A Diner project has been organizing a series of pop-up-art restaurants for several years in various unexpected and non-eating places: galleries, exhibitions, museums, and amusement parks.

There is a small restaurant “Ithaa” in the Maldives that can accommodate only 14 people at a time. The originality of this restaurant is that it is located at a depth of 5 meters, its walls and ceiling are made of transparent material.

The restaurant chain “Dinner in the sky”, hanging in the open air, has spread around the world. The design itself resembles an extreme attraction in Luna Park. Visitors at the table are lifted to a height of 50 meters by means of a special crane. You can order live music – a group of musicians will pick you up on another platform.

A list of the world’s finest restaurants by Restaurant Magazine is released every year in London. Fifty of the world's best restaurants annually identify the 800 best-known chefs, restaurateurs and gourmets around the world. The first place in 2017 was taken by American Eleven Madison Park, in second place by Italian Osteria Francescana, closes the top three – the Spanish El Celler de Can Roca. Ukrainian restaurants are not in the list of the 50 best in 2017. A full list of winners is published annually by Restaurant Magazine and this ranking, along with the Michelin Guide, is recognized as a gourmet guide in the culinary world.

Thanks to such methods of strengthening the competitive advantages, such as the use of the “blue ocean” strategy, the company will long occupy a larger share of the market and the customer due to the uniqueness of the product and receiving unforgettable emotions from it will pay much more than the cost price. Therefore, the life of goods “on the shelf” – increasingly, and an important component of the value proposition is not only a product or service, but also emotion.

To increase competitiveness, restaurants need to constantly innovate

in order to remain leading in their segment and be two steps ahead of their competitors. One of the biggest problems with the restaurant business is the lack of advertising. Therefore, it is necessary to introduce intensive advertising on social networks, on sites, in magazines, which to some extent will reduce the external competition. Support for various festivals and a competition is profitable for advertising. The Ukrainian restaurateur must invent something new every day. Therefore, the owner must either constantly reduce the price or offer a larger range of services for the same price. Corporate clients are very valuable, so restaurants go for a number of concessions: they can cook from customer products, there are no fixed discounts for corporate clients, the rule is: the more invited, the greater the discount the customer gets.

So, every year in the world there is a large number of new food establishments very diverse in their characteristics and methods of service. Chefs and restaurateurs must constantly come up with something new and unusual to attract customers. Every year the restaurant industry is being modernized, refined and expanded, offering new dishes, approaches to production and conceptual ideas for a variety of food establishments.

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## Chapter 6

# DECENTRALIZATION AND THE FORMATION OF SUSTAINABLE SOCIO- ECONOMIC DEVELOPMENT OF THE REGIONS

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## REFORMING THE MUNICIPAL FACILITIES ENTERPRISES AS THE BASIS FOR THE SUSTAINABLE SOCIO-ECONOMIC REGIONS’ DEVELOPMENT STRATEGY IN UKRAINE

Reforming Ukraine’s economy requires development of certain economic relations organization to ensure its equal membership in the global community. Therefore, this process should aim at regionalization and decentralization of the economy. Only then will it be possible to ensure the rational use of local resources and to revive the city’s efficient economy, which will create favorable conditions for the life and development of the region’s population.

The utility companies are the important component of the city’s communal resources, the efficient functioning of which ensures

reinforcement of the local budget revenue. These enterprises have inherited from the command-administrative economy a whole range of problems, which are of particular relevance due to the rapid transition of the economy to market relations.

The key issues of the utility companies that need priority solving are, first of all, the legal framework imperfection and decision-making inconsistency, the inadequate attention of the public officials to this case, which together with the lack of institutional transformations led to a devastating and crisis conditions of urban enterprises.

The process of the communal property formation in Ukraine is still ongoing, so issues related to the management of these objects need to be addressed.

The current legislation does not solve the problem of clear separation of state and communal property. There is still no separate law regulating communal property rights, so the latter remains a subtype of state ownership.

In addition, there are no rights and powers in the process of managing the objects owned by territorial communities, which leads to government interference in the development and redistribution of the city's financial resources.

Under current conditions, the question of determining the legal status of utility companies remains relevant, since in the course of economic transformations the legal conditions for their stable and gradual development have not yet been fully established. There are still no clear criteria for the need to set up and operate these businesses. The low efficiency of municipal services leads to a lack of revenue in the local budget, and the management system that exists today is inefficient and needs to be reformed.

In addition, there are no legal documents regulating the mechanism of fixed assets transfer to enterprises for management, lease, and concession. Issues of economic activity in territories that are negatively impacted by processes of anthropogenic and natural character, including those of national significance such as flooding, landslides, etc., are not regulated.

There is a lack of standards for the social sectors, as well. The centralized endowment fund used today, in practice, only creates tension between regions and, of course, does not stimulate own sources of local revenue.

Secondly, most municipal utilities companies have large service areas. This limits the ability to simultaneously influence all parts of the organization. Also, insufficient level of computer and office equipment,

as well as software results in untimely receipt and processing of management decision-making information.

Third, the imperfection of the billing system for housing and utilities consumed by the population and organizations leads to a considerable amount of population's debt for services payment, inability of some utilities to pay for services provided to them by other enterprises in the industry.

In many regions, chronic non-payment of consumers for completed work remains an acute problem for utilities.

The reasons for the occurrence and further accumulation of accounts payable and receivable are:

- low solvency of the population;
- late payment for services by consumers;
- inconsistency in the level of tariffs for services;
- lack of budget subsidies to cover the difference between the tariff level and the full cost of services;
- existence of penalties for utility companies from creditors who, in turn, have no right to impose appropriate sanctions on the public;
- absence of penalties against non-payers.

Due to their neglect, the problem of debt does not have an unambiguous solution: there are no sufficient funds either for the population or for the budget. But at least it is necessary to determine how to solve it.

The lack of financial liability of consumers for non-payment or late payment of services is a serious factor in the unsatisfactory financial condition of enterprises. There is no mutual responsibility of the parties for the quality of the services provided and the payment for their consumption.

The termination (shutdown) mechanism for supplying the services does not work. It is necessary to establish clear and transparent mutual rights and obligations of all subjects of the public utilities production and consumption process, as well as the possibility of the real disputes settlement in the case of violation.

In addition, large financial losses are experienced by utilities due to a system of financing benefits that are largely taken by the state at the expense of urban enterprises. Recently, social policy issues have had a direct impact on these enterprises: the expansion of preferential categories of citizens, the constant social programs underfunding have led to the deterioration of the communal property enterprises status.

Fourth, the unsatisfactory condition of many utilities, both domestic



and industrial, including those that produce and distribute heat, water, electricity, wastewater treatment plants, transportation pipelines, etc. The reasons are moral and physical wear and tear, inefficient forms of management. In particular, today most of the structures and networks that have actually worked out their depreciation period are in a state of emergency. The volumes of fully depreciated fixed assets and equipment of heat power, water supply, sewage, urban electric transport, waste treatment systems are 1.5-2 times larger than in any other industry. The elevator farm is on the verge of full stop. Scheduled-preventive repair gave way to emergency restoration work, the cost of which is 2-3 times higher.

The length of emergency thermal networks today is 14 thousand km. The number of boiler houses at utilities has increased by more than 1.5 times, with their total capacity doubling, however, heat production increased by only 6% over the same period. That is, almost half of the sub-sector's fixed assets are ineffective and the coolant enters the network at a lower temperature than the regulatory one. The service life of 21% of boilers exceeds 20 years, 38% of boilers are inefficient and less than 82% are obsolete. Imperfect and outdated automatic control of the combustion process does not allow achieving the maximum completeness of fuel combustion and gas saving.

The housing stock is constantly deteriorating. The actual cost of overhaul in most areas is only 60-80% of the plan, with a regulatory requirement 1.5 times greater than planned. Aging of housing stock is a serious problem for Ukraine. The program of the first mass series houses reconstruction is not performed.

Over the last 10 years, the number of rolling stock of electric vehicles has decreased by 3.4 thousand units (30%), and more than 70% of the existing fleet of urban electric transport rolling stock has fulfilled the normative term of operation.

Of the 3710 bridges and overpasses, 73% do not meet the requirements of current standards for load capacity or dimensions, and 140 items are in an emergency condition. The unsatisfactory condition of non-categorical bridges, especially across the Dnieper river in the cities of Kyiv, Dnipropetrovsk and Zaporizhzhia, is of concern.

There is no modern system of household waste management in the cities and towns, which has a very negative impact on the sanitary and epidemiological state of the environment. Most landfills are environmentally hazardous.

Some of the most pressing issues in the materials submitted by the

regional state administrations are the following. The condition of buildings of educational, health, cultural and other types of institutions is satisfactory. The state of public utilities, on the other hand, was found to be unsatisfactory. All urban utility companies that supply file have losses, their capacities are retarded, and energy-intensive utilities require significant investment. About 40 to 60% of water and heat supply networks, drainage systems require replacement (Grynchuk, 2003).

In recent years many urban enterprises are practically in the area of losses. This tendency, of course, affects negatively the technical condition of the fixed assets of these enterprises.

Fifth, there is a scarcity of resources. For the most part, urban enterprises operate today, in fact, at the expense of those resource capacities that were accumulated before the early 1990s. Due to the fuel and energy crisis, there is a need to reduce overall and specific energy costs.

In particular, one of the main structures of housing and utilities is the water and sewerage industry, which has developed extensively over the decades. The misconception that unlimited supply of water is an indicator of a high level of public utilities has taken root in the minds of consumers. Such a policy has resulted in water scarcity in some regions.

60% of the total electricity consumed in the utilities is consumed by the water and sewerage sector. Therefore, its savings should come first. The high energy consumption of the housing stock is largely due to the fact that in order to reduce the cost, the houses were built without the adoption of their optimal thermal protection. The energy crisis, the dependence on Russian and other foreign oil and gas suppliers, and the rise in their prices, necessitate a significant strengthening of the state's regulatory role in saving energy.

The key object of energy efficiency is the existing housing stock and communal infrastructure. Re-equipment of this fund for the purpose of its warming, improvement of municipal equipment are the main directions of the energy resources expenses reduction. The analysis shows that 50-60% of the fuel intended for heating is lost due to poor thermal insulation: heat is lost through the ceilings, walls, poorly adjusted doors, windows (Khizhnyak, 2003).

The market principle of price liberalization during the transition of the state as a whole to the market system of functioning of the economy caused a significant rise in price of housing and communal services, the tariffs for which did not cover their cost.

The problem of inefficient use of resources has become very urgent.

This was due to the fact that outdated technologies introduced in the Soviet era, given the cheapness and virtually scarcity of resources in the former USSR, were geared to extensive development of the industry. In the early 1990s, such technologies proved to be extremely inefficient. However, the budget funds for their modernization were no longer allocated, and the tariff, as before, did not cover these costs.

As the cost of housing and communal services in the energy sector reaches more than 50% in some enterprises, the increase in energy prices has inevitably led to a faster, higher cost of housing and communal services than other goods. But even under such conditions, the share of the cost paid by the population remained very small, forcing the state to pay subsidies to housing and communal services. This led to a shortage of financial resources (Semchuk, 2002).

The city's constant budget deficit is caused by both a weakening of the tax base and inefficient funds spending. In case of severe lack of funds in the local budgets, local authorities are not able to implement the planned measures for the social infrastructure development. It's worth noting that there is not enough money for science, culture, education, health care, environmental protection, etc.

In order to improve the technological level of service, we also need basic and circulating financial resources, which are in short supply today due to known crisis situations in our economy. On the one hand – huge accounts receivable, and on the other – under market conditions, the unilaterally controlled old utility system of utilities' maintenance, a sharp fall in the performed services volume and unregulated energy consumption.

If there are conditions for self-payment at the enterprises of household services, trade and public catering, then they are not available in the housing and communal services and urban transport. The latter receive missing funds from the state budget through higher organizations at the regional level. Education and health care institutions are financed from the local budget, only kindergartens have other sources of funding like funds from industrial and construction organizations, parental fees. The sources of funding for physical education and sports are funds from trade unions and businesses along with the city budget.

Investment attraction is needed to solve the problem of various resources scarcity in utilities, but in Ukraine there are no economic incentives to attract investment to the utility sector. Lack of investment in the industry and working capital of enterprises has led to a significant

deterioration of the fixed assets' technical condition, increase of the accident rate of housing and communal services facilities, increase of specific costs and unproductive costs of material and energy resources, which negatively affects the level and quality of utilities.

In the cities there is a difficult situation with the functioning of the objects of social area, transferred to the municipal property from the balance of enterprises. The problem of their financing has not been resolved.

Over the past two years, there has been a trend to revive economic activity in most cities of regional significance. However, in cities with a population of less than 50,000 people and a mono-functional economy, there are sharp fluctuations in local budget revenue levels. The economic situation of enterprises operating in the territory of the city (settlement) council of different ownership types is unstable, their level of profitability changes almost every year from +8 to -20%.

Also the following complex of the most important problems can be distinguished under the new economic conditions for urban enterprises:

- the system of resource saving is not formed;
- cumbersome management structures, staffing swell;
- lack of product quality control;
- asynchronous functioning of utility objects;
- regulation and control of enterprises' activity is not provided;
- unformed competitive relations in the area of production and services, etc.

Thus, it is necessary to carry out the reform of communal property enterprises, the important directions of which should be demonopolization, privatization, leasing, creation of a competitive environment in the management and service system, etc.

Building a competitive market in the utility sector is possible under a radical transformation of economic relations within appropriate conditions, including: relevant legislative and regulatory framework, institutional and financial-credit factors, macroeconomic, socio-political and psychological conditions, advanced and accessible.

The composition and structure of communal property needs to be improved. Privatization is one of the most effective means of improving the composition and structure of communal property. Communal property should remain, first of all, the enterprises providing the minimum guaranteed services to the population free of charge, the objects, providing services to the population free of charge or for a reasonable fee, which guarantees their accessibility for all population

segments, infrastructure, enterprises, providing paid services to the public but can be easily monopolized. All other businesses have and can be privatized through auctions and tenders, as these are the most attractive to private investors.

Local authorities should take care on improving the utility companies' efficiency and reducing budget expenditures on this basis. As experience in the world shows, such an increase in the utility companies' efficiency is possible only if they attract private capital to the municipal property. At the current stage of urban development, it is advisable to further implement lease and concession agreements.

It is necessary to ensure the break-even functioning of public utilities with a transparent economically justified system of determining the level of tariffs for utilities, optimize the costs of material, energy and other resources of utilities. In addition, it is necessary to restructure the debt, take steps to formulate and implement tariffs that would offset the cost of services, as well as increase the level of payment collection, etc.

**Conclusions.** A number of negative socio-economic factors have led most municipal enterprises to decline in their activities. Experience has shown that market reforms are proceeding rather inefficiently, demonstrating significant weaknesses in the legislative framework of the reform itself. Today, it is necessary addressing the problem of ensuring the municipal enterprises' profitability, which is not only a matter of pricing, but also an in-depth issue of effective management of the public utilities' financial resources. It is necessary to pay attention to the inflationary losses modeling in the tariffs development, accounts receivable management, relations with the state. Timely identification and resolution of the public utilities problems is the basis of the sustainable socio-economic regions' development strategy in Ukraine.

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**FINANCIAL COVERAGE  
OF THE LOCAL  
COMMUNITIES IN  
UKRAINE: CONTENT  
AND FORMATION  
STAGES**

**Introduction**

Decentralization reform is currently taking place in Ukraine, with local self-government receiving special attention. This form of regional economic development is present in different countries and in different forms.

With the accelerated unification of local communities in Ukraine, the issue of the proper financial coverage of resources necessary for the fulfillment of their functions becomes increasingly acute. The solution of this problem is generally to determine the content and nature of the financial resources that will be provided to the communities. But an insufficient number of skilled local communities workers who can correctly and effectively make decisions and solve different problems becomes a certain barrier to reaching a solution to this issue. In view of this, the study of this issue is especially relevant for scientists.

Obi, C.K. and Ifelunini, I. (2019) stressed the complexity and incompleteness of the financing flow from external to local sources, its negative impact on sustainable financial development in developing countries. And it is advisable that these countries should consider the internal resources of the regions as a reliable and sustainable source of financing, sustainable economic growth and development.

Indus, K. (2018) believes the differentiation of regional development to be the basis for monitoring the components of sustainable development, including financial ones, in order for territorial features to be taken into account in the process of forming regional financial resources. Basing on a synthesis of scientific approaches, the author has formulated a real vision on how 'financial potential' should be interpreted, and this financial potential is, in its turn, determined by the proper resource support, which encompasses real and potentially

available financial resources, as well as the country's capabilities, including organizational, managerial, functional, infrastructural and adaptive to accumulate financial resources, their transformation into productive financial capital, its redistribution between economic entities and the use of capital to ensure sustainable development of the country and its regions.

Dziekanski, P. (2017) emphasizes that the process of socio-economic development carried out by the municipality is a set of transformations aimed at meeting the needs of the local community. One of the fundamental factors important for the development process is the economic base of individual units.

Briazkalo, A. (2016) notes that the proper investigations of the financial resources, their classification, structure, possible sources and methods of attracting resources, that will give an opportunity to build an effective financial system, is highly important under the conditions of a shortage of local communities' financial resources and unstable financial coverage.

The purpose of this research is to develop the content and methodology for determining the state of financial coverage of the local communities in Ukraine, with a view to helping local self-government bodies in making decisions on these issues.

The following methods were used during the research:

theoretical analysis, synthesis and generalization methods of for defining the meaning of the 'financial coverage of local communities' concept;

structuring and classification methods for to determining the structure of local communities' revenues and indicators to reflect the state of financial coverage of local communities in Ukraine;

grouping and scaling methods for developing the levels of the financial coverage of the local communities and the scale of their measurement;

information processing method for creating a financial database of the results of the Dnieper region economic performance;

methods of financial and economic analysis and ranking for conducting the research to determine the levels of financial coverage of the local communities of the Ukrainian Dnieper region.

### **About the content of 'the financial coverage of local communities' concept**

As for the clarification of the meaning of the concept of the financial coverage of the local communities in different publications, there were determined that in different countries those territorial entities, which are referred to in Ukraine as the 'local communities', not only go by different names, but also have different structural entities and territorial features.

Thus, in various publications we see the results of the investigation concerning local authorities (Briazkalo, A., 2016); local self-government units (Dziekanski, P., 2017); local government units (Satola, L., Standar, A., Kozyra, A., 2019); rural communities (Laing, C., Lewis, A., 2017); local communities (Trostsianska, K., Semencha, I., Yerina, M., 2019).

In Ukraine, there are many scientific works in various fields of study dedicated to the concept of financial coverage (provision).

For example, Subbot, A. (2012), studying the financial, material and technical support of law enforcement agencies, defines financial coverage as a system of financial relations, clearly defined by state and department legal acts, which functions within the financial system of the state in its every aspect and is one of the forms of the funds distribution which manifests in obtaining financial resources by the respective entities or bodies.

According to the research by Rookolainina, I.E. (2013), the financial security of the law-enforcement bodies of Ukraine is a sectoral system of financial resources usage that the principles, sources and forms of financing of the law-enforcement bodies, whose activities are aimed at protecting public order and ensuring public safety.

Avramenko, I.V. in his research of 2014 refers to financial coverage as to the process of accumulation of capital by economic entities, its subsequent distribution and purposeful use for the purpose of ensuring the profitability of the enterprise, as well as timely and complete satisfaction of the needs of society.

Kravchenko, S.O. and Markovsky, S.S. (2011) define financial coverage of the national regional financial policy as a structured system, activities for mobilization, accumulation, transformation and distribution of state, private and public financial resources among objects and subjects of state regional policy in order to reconcile the interests of the state and regions, which consist of a functional and a management subsystem.

Muntian, V.V. (2017) presents the interpretation of financial coverage from the perspective of youth policy, i.e. financial coverage is a system of financial relationships that includes forms, methods, tools



for their implementation, and is created as a result of the search, involvement and distribution of financial resources for the effective work of the state government bodies, public organizations and other social institutions in the sphere of the youth policy, creating proper conditions and guarantees for the self-realization, intellectual, moral, physical development, implementation of creative potential of the young people both for their own benefit, and for the benefit of the country.

Buzluhan, Ya. (2008), studying the financial coverage for health care system in Ukraine, provides the following definition of the concept : the method of financial mechanism, which defines the principles, sources and forms of financing of economic entities whose activities are aimed at the health protection, improvement and restoration.

As we delve into the subject of the research, we analyzed the works of scientists who studied the concept of the financial coverage from the perspective of the local communities' activities. Thus, Dalevska, T. (2016) in her research determines the financial coverage as a set of measures aimed at attracting available resources, identifying and mobilizing potential financial resources of the local authorities, the state, economic entities, local communities, external investors and which are also aimed at forming the financial basis for the implementation of socio-economic processes.

Honcharenko, M.V. (2012) considers the territorial financial coverage to be a set of measures aimed at mobilizing available resources and identifying and attracting potential financial resources of the local authorities, the state, economic entities, local communities, as well as the resources of external investors and is also focused at the formation of financial basis for economic processes in the respective territories ,for implementation of the planned social programs and projects, for support of stable infrastructure functioning and improvement of local environment through combining and uniting all types of resources.

According to the point of view presented in the research by Sukharska, L.V. (2016), financial coverage for the development of local communities is a system of interrelated elements necessary for the formation and use of financial resources in the process of developing a local community.

Thus, we can see that all Ukrainian authors interpreted 'financial coverage' in their own way. They offer to consider financial coverage as:

- a system of financial relations (Subbot, A., 2012; Muntian, V.V., 2017);

- a sectorial system of the financial resources usage (Rookolainina, I.E., 2013);
- a process of capital accumulation (Avramenko, I.V., 2014);
- a structured system (Kravchenko, S.O., Markovsky, S.S., 2011);
- a method of financial mechanism (Buzluhan, Ya, 2008);
- a set of activities (Honcharenko, M.V., 2012; Dalevska, T., 2016);
- a system of interrelated elements (Sukharska, L.V., 2016).

We also agree that financial coverage involves systematic character both as to the construction of the financial structure (Kravchenko, S.O., Markovsky, S.S., 2011) and as to the formation of the entities relations (Subbot, A., 2012; Sukharska, L.V., 2016; Muntian, V.V., 2017). And with the help of certain methods of the financial mechanism a set of measures is taken (Buzluhan, Ya, 2008) in the process of capital accumulation (Avramenko, I.V., 2014). At the same time we cannot agree with Rookolainina, I.E. (2013), because the provision of the resource takes place at the beginning of the economic cycle and the actual usage and allocation of the financial resources take place in the middle or at the end of it.

Summarizing all the aspects that shape the meaning of the term ‘financial coverage’, we propose our own definition concerning local communities.

Financial coverage of the local community is the process and result of formation, mobilization, accumulation and systematic structuring of financial resources of the local community, obtained as a result of their own economic activities and in the course of financial relationships between local communities and other country’s economic entities of the micro- and macro- level, as well as entities of foreign countries, and which is assigned to provide efficiency and high performance in implementing all the functions and responsibilities of the community.

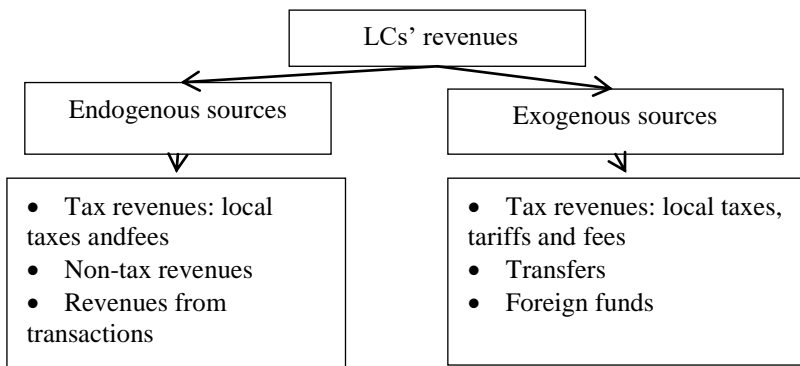
Generally speaking, a local community as a new administrative and territorial unit was formed in Ukraine not so long ago and has very specific features. When other countries had already begun to implement the decentralization reform, Ukraine was only at the beginning of its own formation as a state. Moreover, the very definition of such a unit along with is very different from foreign countries, along with its process of formation. For example, in France thus units exist in the form of a commune, Denmark’s analogue of such units is a municipality. Therefore, local communities themselves, as well as the features of their financial coverage, are a very interesting subject for research in Ukraine.

## Specifics of financial coverage of local communities in Ukraine

As a result of the 2014 decentralization reform, 1002 local communities have already been formed in Ukraine as of November 2019. These are groups of residents living together in a village, settlement, city, which are autonomous administrative territorial units, or it can be a voluntary association of residents of several villages with a single administrative center.

The main objective for the local community is to establish effective local self-government, create comfortable living conditions for citizens, provide them with high-quality and accessible public services, establish institutions of direct democracy. It is impossible to meet the set objectives without the proper economic development of the respective territories, their financial coverage and sufficient sources to fill the budgets. The determination of the state of financial security will largely guarantee and contribute to the successful functioning of the community.

Having defined the interpretation of financial coverage, we suggest considering the peculiarities of its formation in the communities of Ukraine. We propose to pay attention to the structure of local communities' revenues, which provides replenishment of financial resources of the local communities (Fig. 6.1).



**Figure 6.1 Structure of local communities' revenues in Ukraine**

Tax revenues are national taxes and fees and local taxes and fees, established by the legislative system of Ukraine.

Non-tax revenues are property and business revenues; administrative fees and payments, non-commercial economic activities revenues; other non-tax revenues.

Revenues from transactions are receipts from the sale of capital assets (fixed assets, government reserve stocks and inventories, land).

Transfers are funds generated by state government bodies and self-government bodies, or international organizations on a free and non-repayable terms.

Foreign funds are grants, financial support programs, investment programs, sponsorship assistance from foreigners.

Local communities have been created relatively recently in Ukraine, so the channels of financial revenues have not been well established yet, they are on the stage of their formation both in terms of national financing policy for decentralization, and at the level of local communities. Therefore, nowadays there are no actual statistics data on the volume of local communities' revenues obtained from each financial channel.

In order to become fully aware of the given issue on this topic, of the strengths and weaknesses of financial coverage, of ways of financial development of the local communities, indicators of financial performance, that may indirectly capture the state of financial coverage of the local communities, can be used. The Table 6.1 represents the content, calculation and the range of measurement of these indicators.

Per capita income characterizes the financial potential of a local community, the ability to provide a community with the resources generated solely within its territory.

The level of budget subsidization reflects the financial independence of a local community from external sources of funding (state budget subsidies).

Percentage of in LCs' financial resources defines the financial capacity of the local community. Since, with greater financial capacity, administrative expenses will be lower, as such costs are relatively fixed, and thus, in budgets with a larger number of resources, administrative expenses in percentage terms will be also lower. Therefore, communities have the opportunity to spend more money on the development of their territories.

Percentage of salary in general fund expenses characterizes the resource capacity of a local community to ensure the socio-economic development of the territory.

Table 6.1

**Indicators of financial performance of local communities in Ukraine, which can reflect the state of their financial coverage**

Name of the indicator	Calculation	The range of measurement
1. Income per capita (thousand UAH)	Ratio of general fund revenues without transfers to the number of the given LC's residents	[1;5] – low financial potential, [5;10] – sufficient, >10 – high
2. The level of budget sibsadization (%)	Ratio of the basic or reverse subsidy to the amount of LC's general fund revenues, without including subsidies from the state budget	[-30;0] – low rate of subsidies dependence, [0;15] – weak dependence, [15;30] - mean rate, >30 – high rate
3. Percentage of administrative expenses in LCs' financial resources (%)	Percentage of administrative expenses in the total of LCs' general fund revenue, without including transfers from the state budget	[0;20] – low financial capacity, [20;40] – mean, >40 – high
4. Percentage of charge on payroll expenditures in general fund expenses (%)	Percentage of general fund expenditures on charge on payroll with accrual to the total expenditures of the general fund excluding transfers from the LC's budget to other budgets	[0;30] – low resource capacity, [30;50] – mean, >50 – high

**Methodological basis for determining the state of local communities' financial coverage**

Different values of indicators reflect the specific state of financial coverage, which, above all, provide for a certain level of financial resources available. In view of the fact that local communities have specific features and differ from each other, we propose to consider the author's approach to the classification of the level of financial resources and its description in Table 6.2.

Each level corresponds to a certain state of financial security that a local community acquires in the course of its economic activity.

Table 6.2

**The classification of the level of local communities' financial resources**

The level of financial resources	Description
Insufficient	Funding areas and the ability to finance the meeting of the new objectives are reduced, as well as the level of LC's performance in terms of accomplishing the set tasks, which leads to the lack of material, labor and other resources, and, as a result, to further reduction of financial resources for the community
Sufficient	Local communities are provided with sufficient financial resources for a long period of time, and consequently, there are enough funds for meeting the set objectives. On this basis, there appear prospects for expanding activities. Adequate material and labor security, financial stability are ensured
Excessive	Revenues from existing sources of financing are increased, which enables to conduct new types of economic activity, as well as the provision of all necessary material, technical and labor values, which will lead to the increased level of financial resources and a greater financial independence of a LC from external sources of financing

Since only 4 indicators are currently evaluated, which are currently available in database of financial performance of local communities, we propose the following way of scaling the local communities' performance figures.

An interval  $\leq 0$  means that the indicator corresponds to a low level of financial coverage when financial resources of a local community are scarce and insufficient;  $[0; 1]$  – this interval corresponds to the average level of financial coverage when the financial resources are sufficient;  $\geq 2$  – local communities which fit into this interval as to the results of calculation, evidently have sufficient financial coverage which enables to further development.

If we combine the possible financial performance indicators, with the indicators of the level of their financial resources and apply the proposed scaling pattern, we will obtain the following table of correspondence of results to different the states of financial coverage (Table 6.3).

Table 6.3

**The correspondence of the levels of local communities' financial resources, scaling results of the financial performance to the states of financial coverage**

State of financial coverage	The level of financial resources	Scaling of the results of the LCs' financial performance
Low	Insufficient	$\leq 0$
Average	Sufficient	$]0; 1]$
High	Excessive	$\geq 2$

Thus, the following steps are proposed for the analysis of the states of the local communities' financial coverage:

- a. to select the necessary local communities for research;
- b. to systematize the data of financial performance for specific local communities with the help of the web-site Decentralization
- c. to determine the levels of financial resources of the local communities on the basis of the obtained data;
- d. to determine the state of the local communities' financial coverage in accordance with the scale of the results of financial performance and the evaluated levels of financial resources,;
- e. to make appropriate conclusions.

**The analysis of the states of financial coverage of the Dnieper region local communities in Ukraine**

The developed methodology for assessing the state of the local communities' financial coverage was implemented on the example of the Dnieper region local community.

Using the information from the web-site Decentralization (2019), with the help of Microsoft Excel, a database of the results of the financial performance of the Dnieper region local communities was created. Using the proposed methodology, there was determined the current state of financial coverage of each local community in the region. Figure 6.2 shows the fragment of the calculation.

According to the analysis of the state of financial coverage of 62 local communities in the Dnieper region of Ukraine, it was determined that 4 local communities, which accounted for 7% of the total number of local communities, have a high level of financial coverage and already

receive sufficient financial resources and, consequently, can expand their areas of economic activities by attracting and increasing their own budgets revenues.

LC of the Dnieper region of Ukraine	Income per capita	The level of budget subsidization	The share of expenses for the maintenance of the management apparatus in the financial resources of the LC	Share of wages in general fund expenditures	The volume of financial resources	Scaling of the results of the financial activity of the LC	State of financial provision for LC
1 Troiyicka	16229.9	-21.5%	13.1%	53.6%	Excessive	2	High
2 Slobozhanska	11038.7	-19.5%	9.8%	60.0%	Excessive	2	High
4 Verbkivska	8482.1	-26.5%	14.9%	50.1%	Sufficient	1	Average
5 Bogdanivska	8361.8	-23.4%	13.9%	43.3%	Sufficient	0	Average
6 Novolativska	7515.4	3.0%	12.5%	72.7%	Sufficient	0	Average
7 Karpivska	7161.3	0.0%	12.4%	68.5%	Excessive	1	High
8 Grechanopodivska	5589.9	6.2%	16.5%	77.5%	Sufficient	0	Average
9 Pershotravnevska	5199.3	-18.5%	19.1%	56.6%	Sufficient	0	Average
10 Chumakivska	4867	-10.7%	22.1%	68.2%	Sufficient	1	Average
11 Mikolajivska (Petropavl.)	4649.8	-15.1%	14.1%	52.4%	Sufficient	0	Average
12 Novooleksandriivska	4230.9	0.0%	13.7%	70.6%	Sufficient	0	Average
13 Lichkivska	2670.6	0.0%	22.3%	71.6%	Sufficient	1	Average

**Figure 6.2 Fragment of the calculation of the state of the local communities' financial coverage on the example of the Dnieper region of Ukraine as of the first half of 2019**

72% or 45 local communities, which are the majority, are on the average level of financial coverage. This means that these local communities are on their way to generating sufficient financial resources and having a lot of opportunities for further economic development.

The 13 local communities, which made up 21% of the total number, proved to have a low level of financial coverage and are in a unfavorable financial situation. Most of these local communities are situated in rural areas. Therefore, without sufficient financial and human resources, one of the option can be to consider joining other larger and more prosperous communities, thereby increasing their capacity for development.

## Conclusions

As we can see, the financial coverage of the local communities in Ukraine has never been subject to a systematic research in terms of determining the state of financial resources availability. So far, the state



has not been collecting sufficient economic information regarding the financial and economic indicators of the local communities' state. Another problem is that local communities themselves do not have common methods for assessing their financial state in general and financial coverage in particular.

As a result of this study, a number of questions were solved:

1. The interpretation of the concept of 'financial coverage' by different scientists in different fields was analyzed and on the basis of this analysis we formed our own definition. This will help to disclose the author's position and build one's own approaches to the development of the local communities' financial coverage issue.

2. The author's method of determining the state of local communities' financial coverage was offered. The usage of this approach will help to unify the pattern of assessment of the state of local communities' financial coverage and to identify the strengths and weaknesses of their state.

3. The analysis of the state of communities' financial coverage on the example of the Dnieper region of Ukraine was conducted. Owing to this analysis, the local communities of the region will be able to determine their own financial state, potential financial problems and the opportunity to solve them in a timely manner.

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**PRIORITIES OF  
UKRAINE'S  
REGIONAL  
DEVELOPMENT  
STRATEGY**

The 21<sup>st</sup> century marked the emergences of irreversible challenges and megatrends on development. Globalization, scarce resources, environmental and social and economic threats aging population have forced the governments of the world step up their efforts it is made to prevent negative impacts and ensure sustainable development.

The ideology of sustainable development is a new development concept that satisfies the needs of present generations but does not compromise the ability of future ones to meet their needs and interests. It is determined by three imperatives of development, in particular:

*ecological environmental* – establishes “a system of formal and informal requirements, rules, norms which regulate anthropogenic activities and affect on changes in the environment”;

*economic* – implies the achievement of balanced developing parameters of the state and its regions. It will stimulate the strengthening of the innovative component of production and promote economic growth;

*social* – affirms the need to meet the basic needs of citizens and maintain high standards of life and living standards of the population.

Although encyclopedic and explanatory dictionaries identify the term “permanent” as “permanent”, unchangeable, “continuous”, “long-term”, there is an absolute distinction between the principles, constant and systems for achieving sustainable development at the state and territorial level. One of the priorities, in accordance with the Sustainable Development Strategy “Ukraine 2020” decentralization and reform of public administration. The achievement is provided by moving away from a centralized model of public administration, building an effective system of power organization in the context of territories based on subsidiarity, commonality and financial self-sufficiency of local self-government.

In the system of components of decentralization, fiscal decentralization plays an important role. The specific tasks of which are to balance the social and economic disparities of development, increase the financial autonomy of local governments, strengthen the revenue base of budgets of territorial communities. It is made to ensure the effective provision of public goods and services at the territorial level.

It should be noted, that fiscal decentralization (the theoretical basis of which is the theory of public finances) been practically implemented in the budget policy of most countries of the economic avant-garde, starting the last century. In contrast, in Ukraine, the practical implementation of fiscal decentralization processes began in 2015 and resulted in the adoption of changes to the Budget and Tax Codes of Ukraine. by transferring additional budgetary powers to local governments and providing stable revenue for their implementation.

The main principles of the reform of intergovernmental budgetary relations were based on the reform of the tax system, in terms of changes in the volume of specific revenues to local budgets; transfer policy for changing the share of receiving transfers from different entities; the budget system, the changes of which consisted in increasing the level of responsibility of local budgets by granting greater powers to local self-government bodies and by delegating the authority to develop and implement various programs of socio-economic development, Gabby I. (2014).

The prerequisites for fiscal decentralization were: disproportions of sectoral and sectoral structure; insufficient effectiveness of economic reforms at regional level; loss of production capacity; insufficient level of entrepreneurship innovation; subsidies of local budgets. Instead, the benefits of fiscal decentralization were reduced to: establishment of effective relations between the center and regions; expanding and strengthening the rights and powers of local self-government bodies; intensification of economic development of the country; increasing the competitiveness of the state in the external environment; purposeful and efficient use of financial resources; enhancing the financial capacity of territorial communities; effective implementation of social, economic and environmental needs of the population at the local level.

The key priorities pursued in the course of the fiscal decentralization of innovations were the extension of the functional powers of local governments to make decisions, while giving them full budgetary autonomy to complete their budgets and exercise their spending powers. It was planned that the amendments to the Tax Code of Ukraine would

strengthen the powers of local self-government bodies in terms of determining tax rates and establishing benefits for their payment. However, local taxes and fees play an insufficient role in the process of forming local budgets, and they are not capable of significantly affecting the financial capacity of local governments.

In the context of decentralization of budgetary powers, increases the role of local budgets. The Ukrainian Sustainable Development Strategy “Ukraine 2020” stipulates that the share of local budgets in the consolidated budget should be at least 65% by 2020. In this context, is very important the level of decentralization of budgetary resources through indicators of budgetary decentralization of revenues and expenditures and the general indicator of budgetary decentralization (Table 6.4).

The data in Table 6.4 indicates that about 40% of all expenditures were made from local budgets. Local budget revenues in the Consolidated Budget of Ukraine for the period 2010-2018 averaged 22.3%, with a minimum of 18.5% in 2015 and a maximum of 25.6% in 2010.

This indicated the important role of local budgets in ensuring the state's implementation of its functions and the low level of provision of local budgets with its own financial resources. In particular, the share of local budget expenditures from 2010 to 2017 ranged from 43% in 2015 to 50.4% in 2010, with a significant increase in 2018 (up to 54.2%). However, this increase is still indicate the low capacity of local governments to perform their functions.

In general, the level of fiscal decentralization in Ukraine is relatively low and does not meet the declared principles of decentralization. This is due to the low share of local budget revenues in the consolidated budget structure. However, revenue sources transferred to local budgets are not sufficient to finance even current expenditures, which is why territorial communities cannot manage additional resources at their own discretion, since the central budgets have transferred additional costs to local budgets.

Therefore, despite the positive developments related to the introduction of amendments to the Tax and Budget Codes of Ukraine, it should be noted that the role of fiscal decentralization in ensuring the sustainable development of Ukraine is progressing rather slowly, and insufficient progress has been made in budget reform in this area. Therefore, further measures to increase the role of fiscal decentralization need to increase the effectiveness of the mechanism of budgetary

regulation of socio-economic development, while enhancing the rights of local authorities, strengthening their budgetary autonomy and determining responsibility, and should include:

*Table 6.4*

**The level of fiscal decentralization in Ukraine in 2010 - 2018 years**

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenues of the Consolidated Budget of Ukraine, uah bln	3145	3986	4455	4428	4561	6520	7827	10168	11843
Local budget revenues, uah bln.	805	867	1008	1052	101,1	1205	1706	2295	2635
<i>The indicator of budgetary decentralization by incomes, %</i>	256	21,7	22,6	23,8	22,2	185	21,8	22,6	22,3
Consolidated Budget expenditures, uah bln.	3778	4169	4925	5058	523,1	6798	8356	10568	12502
Local budget expenditures, uah bln.	1598	181,0	222,6	2198	225,6	280,1	350,4	496,1	4860
<i>The indicator of budgetary decentralization by expenditures, %</i>	42,3	43,4	45,2	43,5	43,1	41,2	41,9	46,9	38,9
<i>Share of local expenditures in local budget revenues, %</i>	50,4	47,9	45,3	47,9	44,8	43,0	48,7	46,3	54,2
<i>General indicator of fiscal decentralization, %</i>	340	326	339	336	32,7	298	31,9	34,8	306

1. Adoption of amendments to the legal framework of Ukraine, including the Constitution of Ukraine regarding the decentralization of power and defining the functions of local communities with a clear separation of powers of local governments and the state, ensuring the transfer of functions of executive power from local administrations to

executive bodies of councils of the appropriate level, ensuring the powers of local self-government bodies with financial resources through their participation in national taxes and compensation of their expenses, if they arose solutions for public authorities;

2. Outlining the list of rights and authorities of local self-government bodies and united territorial communities, which are created in accordance with the legal provisions and perspective plan of formation of territories of communities;

3. Development and approval of state social standards and development of Methods for calculating the cost of social services and their composition for all sectors (education, health, etc.). These measures will help to optimize the number and structure of budgetary institutions, as well as make it possible to increase the efficiency of planning and use of budgetary funds of budgets of all levels;

4. Development and approval by the relevant ministries (in particular, the Ministry of Finance of Ukraine and the Ministry of Social Policy of Ukraine) of an effective mechanism of targeted provision of benefits and determination of their financial evaluation;

5. Adoption of amendments in the sphere of fiscal legislation to introduce a mechanism for transferring to the local budgets part of the corporate income tax, which are included in the register of large taxpayers and have legal registration, production facilities and operate in the regions territory;

6. Improving the efficiency of local taxes and levies by improving the mechanism of their administration and creating a single database (in particular on real estate tax) based on appropriate analysis and monitoring of information by the State Fiscal Service of Ukraine and the Ministry of Regional Development, Construction and Housing and Communal Services of Ukraine;

7. Improving the functioning of the mechanism for financing regional development and ensuring the effectiveness of intergovernmental budgetary relations through the development by the Ministry of Finance of Ukraine together with the Ministry of Regional Development, Construction and Housing and Communal Services of Ukraine of appropriate regulatory support and adoption of appropriate amendments to the existing tax and budget legislation;

8. To conduct an inventory of land plots of the united territorial communities in order to improve the system of functioning of the single automated system of the state land cadastre of Ukraine – the Cadastral map, providing access to entering and receiving information;

9. Legislative regulation of local referendums. With the adoption of the Law of Ukraine “On the All-Ukrainian Referendum” in 2012, the legal mechanism of holding a local referendum, which is a form of resolving issues of local importance through direct expression of will, was lost by the territorial community;

10. Ensuring the systematic and coherent regulatory support of the budget process in Ukraine, which is the key to stabilizing the dynamics of socio-economic development and ensuring the implementation of state functions;

11. Implementation of a system of measures to intensify the efforts of local self-government bodies in order to identify internal reserves for financing capital needs;

12. Analysis of opportunities for emergence and growth of new stable external sources of financial resources (including with the participation of non-state institutions and foreign funds, with a view to further implementation of programs of regional, cross-border, sectoral development) to cover the needs of territorial communities;

13. Effective management of communal property (in particular, land) to maximize local budget revenues;

14. Formation of a competitive basis for the allocation of a transfer budget resource in order to create incentives for the development of local initiatives, Bak N. (2018);

15. Increased use of public-private partnership opportunities at territorial level.

In addition, further transformational measures require the search for tools to improve the effectiveness of the mechanism of state regulation of socio-economic development, while strengthening the financial autonomy of the regions.

Such tools are the concept of smart specialization, which has identified the main priorities for the development of a market economy of the countries of the European Union, and declared in the Europe 2020 Strategy.

The main priorities were: smart development based on knowledge, technology and innovation; sustainable development, which ensures a more efficient, optimal and environmentally friendly use of resources; enhancing the competitiveness of countries and regions locally and globally; inclusive development, which allows maximum involvement of all segments of the population, leads to an increase in the employment rate of economically active population, social and territorial unity.



The identified priorities for smart, sustainable and inclusive development that underpin the European 2020 Strategy have been established on the basis of the so-called Smart Specialization concept. Smart specialization is a constructive strategy of local/regional development, aimed at the unique synergy of state support of countries / regions in order to enhance their innovative potential based on the identification of competitive advantages, stimulate the development of business environment by using of unique regional structural features.

Although smart specialization strategies are a relatively new approach, it has become widespread in EU national policy measures. As the creators of this concept point out, the rapid implementation of its provisions in the practical plane is a perfect example of “policy running ahead of theory”, Foray D., David P.A. & Hall B.H. (2011).

The main objectives of the concept of smart specialization in the practical activities of EU governments are reduced to the possibility of: a structured transition of less economically developed regions/countries to more competitive and innovative models of functioning, capable of bringing to a new level of development and ensuring economic growth; avoiding dissipation of the EU research funds and for focusing the research, innovation, human and financial resources on those innovative sectors which are high performing, strategic from a social and economical perspective, eco-friendly and attractive for investors, Rusu M. (2013); strengthening the position of regions and countries in the global market, enhancing their resilience through close integration into national, international and global value chains.

A characteristic feature of smart specialization policy is that it acts as a whole, denying the dichotomy of bottom-up and up-and-down approaches. Traditional policy orientation with clear directions for setting development priorities by definition Foray, D., David, P.A. & Hall, B.H. (2011) is a “source of injury to political constraints” because it can capture neither the economic requirements nor the political logic of reasonable specialization as a process of development. Therefore, the policy of smart specialization is the embodiment of bidirectional iterative measures, within which it is possible:

- 1) identification of niches of entrepreneurial potential and inventions;
- 2) support for entrepreneurial initiatives and their stimulation through various mechanisms of public and private support;
- 3) monitoring and evaluation of directions and intensity of realization of entrepreneurial plans and projects;

4) formation of a common strategic vision for the future strategic development program of the region based on the identified new potential;

5) strengthening coordination and cooperation mechanisms to stimulate the emergence and development of new business projects;

6) control and evaluation of the degree of conformity of the implemented measures to: increase the level of development of the region with the established strategic priorities; overcoming the lack of coordination of participants' efforts; identification of economic, social and environmental effects of the initiatives undertaken; assessment of the level of financial stability of the region without constant state support.

In the smart specialization strategy, the role of public policy is not contradictory, but on the contrary it becomes indispensable, as it concerns the identification, assessment and purposeful support of new directions of regional development.

The Association Agreement with the EU stipulates that, by the end of 2025, Ukraine should approximate its legislation as closely as possible to that of the EU and comply with the provisions of around 350 EU directives, regulations and decisions in national law. One such change is the introduction of intellectual specialization into the strategic planning system for regional development, which is already defined by the relevant legislative framework.

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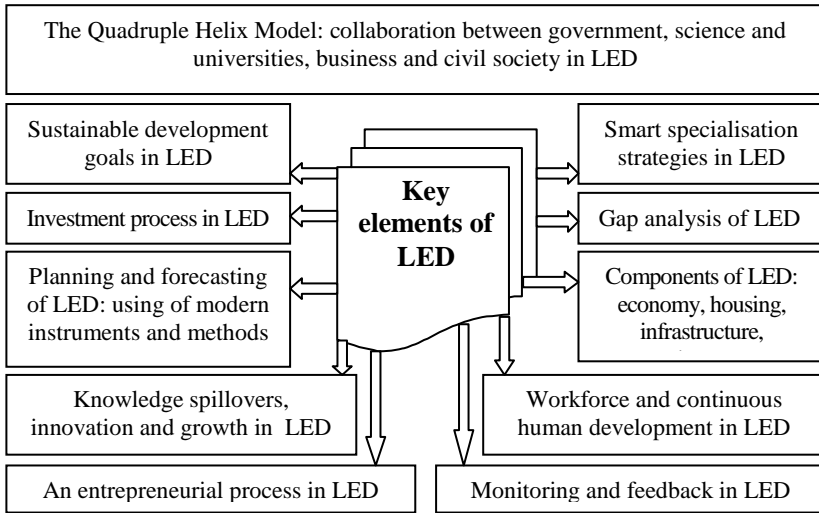
**LOCAL ECONOMIC  
DEVELOPMENT AS A TOOL  
OF INCREASING THE  
COMPETITIVENESS OF THE  
TERRITORIES UNDER  
CONDITIONS OF  
DECENTRALIZATION IN  
UKRAINE**

In the conditions of forming of the modern innovative model of economic development of the countries of the world, at the same time the processes of globalization and decentralization of regulation are accelerated. The steady development of information and communication technologies, digitization of production processes, provision of services, social sphere, smart specializations in the process of developing strategic vision of the territorial development are also introduced. The spread of Industrial Revolution 4.0 and the adoption of big data technologies are becoming more widespread. Therefore, the necessity of introducing methods and instruments of local economic development and intermunicipal cooperation as the priority approaches to securing sustainable competitive advantages of territories in the conditions of globalized world economic area is growing.

Local Economic Development (LED) is an approach towards the economic development which allows and encourages local population for working together, achieving the sustainable economic growth and development thereby bringing economic benefits and improved quality of life for all residents in the local municipal area [6].

Integration into the international economic area and the introduction of a number of local economic development tools, such as partnerships, cross-border, interregional, international cooperation, lead to the generation of joint projects capable of enhancing the competitiveness of communities. In turn, by acting as a hotbed of innovation, territorial communities turn into the engine of economic growth for the national economy [10].

The key elements of LED under the modern conditions of decentralization are presented in Figure 6.3.



**Figure 6.3 The key elements of Local Economic Development**

*Source: formed by authors*

In the context of LED efficiency increasing it's very important to create the mechanisms of collaboration between government, science and universities, business and civil society. Nowadays, the best practices of such collaboration are based on the Quadruple Helix Model, which allow forming effective territorial innovation ecosystems, raising the degree of community involvement in the innovation process [4].

According to the analysis of international comparators of the competitiveness level and cooperation of stakeholders in the world countries (Table 6.5), the Global Competitiveness Index in Ukraine (57,0) in 2018 is lower than in the neighboring countries – Romania (63,5), Bulgaria (63,6), Poland (68,2), and much smaller than in the leading countries – the USA (85,6), Germany (82,8), Japan (82,5). Accordingly, the indicator of multi-stakeholder collaboration shows an even bigger gap (45,5 in Ukraine, while in USA – 79,2), as well, as the indicator of university and industry research collaboration (39,8 in Ukraine, while in the USA – 78,4). Thus, the issues of collaboration among the main stakeholders in Ukraine need immediate resolution.

Table 6.5

**International comparators of the competitiveness level and cooperation of stakeholders in the world countries (2018)**

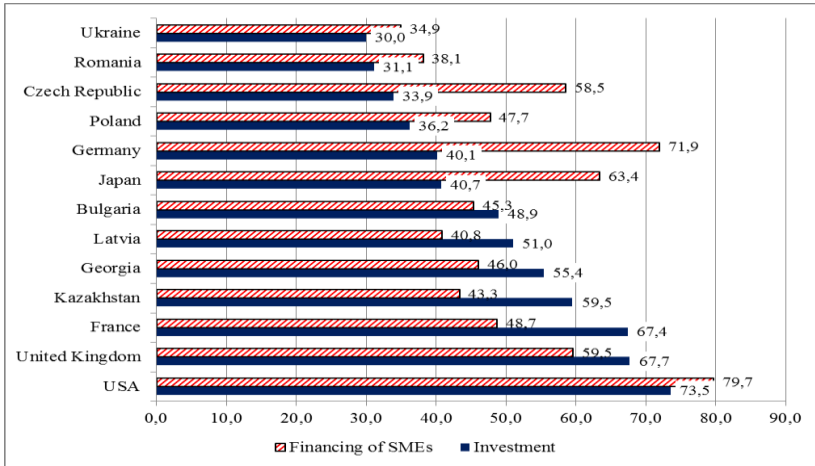
Countries	Global Competitiveness Index (max = 100)	Multi-stakeholder collaboration	University / industry research collaboration
Ukraine	57,0	45,5	39,8
Romania	63,5	36,3	35,7
Bulgaria	63,6	43,3	39,3
Georgia	60,9	39,0	29,3
Kazakhstan	61,8	45,2	39,1
Latvia	66,2	41,0	34,4
Poland	68,2	34,9	37,1
Czech Republic	71,2	50,6	47,6
France	78,0	53,8	53,7
United Kingdom	82,0	67,5	73,1
Japan	82,5	62,6	62,3
Germany	82,8	73,4	72,9
USA	85,6	79,2	78,4

*Source: formed by authors based on [11; 12]*

Very important tasks of LED to get concentrated in terms of attracting investment, developing entrepreneurship and solving the problems of labour market. It will allow increasing the competitiveness of the territories and to solve a number of social issues.

The indicators of the investment and financing of SMEs among the selected group of countries show the next differentiation (Figure 6.4). So, the leaders by metric of the investment are the USA (73,5), the United Kingdom (67,7), France (67,4), while in Ukraine this indicator only reaches a value 30,0 in 2018. The leading positions by level of financing of SMEs occupy the USA (79,7), Germany (71,9), Japan (63,4) in 2018. The high enough level of financing of SMEs demonstrate also Czech Republic (58,5) and Poland (47,7), but in Ukraine it's level reaches only 34,9. This allows us to conclude, that under conditions of decentralization the efforts of the participants of LED in Ukraine should be directed to enhancing the investment attractiveness of territories for domestic and international investors, taking into account specific factors of competitive advantages.

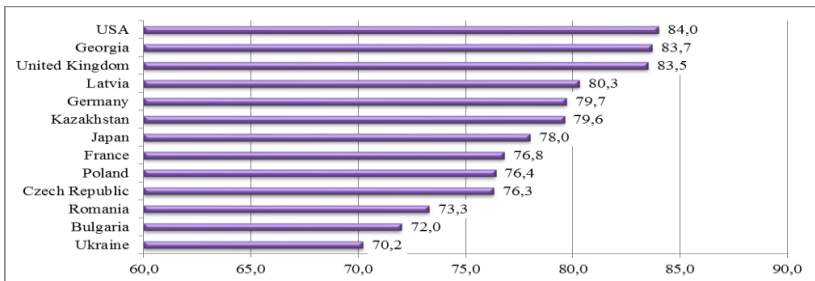
The following important indicator deals with the support of entrepreneurship at all fields and levels. According to the international indicators, in general it can be evaluate by the ease of doing business ranking (Figure 6.5).



**Figure 6.4 The indicators of the investment and financing of SMEs in the world countries (2018)**

*Source: formed by authors based on [11; 12]*

As we can see, the ease of doing business score in the USA is 84,0, in Georgia – 83,7, in the United Kingdom – 83,5, while in Ukraine – 70,2. Slightly higher are the meanings of the ease of doing business in Bulgaria (72,0) and Romania (73,3).



**Figure 6.5 The ease of doing business ranking for the world countries (2018)**

*Source: formed by authors based on [14]*

It is necessary to mark, that excepting the ease of doing business, potential investors consider also many other factors, such as the overall quality of an economy’s business environment and its national

competitiveness, macroeconomic stability, development of the financial system, market size, rule of law, and the quality of the labour force [14].

Taking into account the negative demographic situation and increased migration among the population of Ukraine, aspects of staffing the territories by well-qualified specialists become one of the main priorities of LED.

The scientists underline, that a job creation plan could include aspects such as the establishment of a central employment agency with a database, mentorship programmes, public works programmes, intensive technical and business skills training, development of incubators and job centres, youth development programmes and policy formulation with incentives for job creation [7].

In Ukraine the process of active decentralization and forming the amalgamated hromadas started in 2015.

The formation of the amalgamated hromadas implies the ability to use the aggregate resources of individual territories for economic benefit, capacity building and rational use. Costs are reduced through resource sharing, positive experiences and well-established contacts, which leads to higher quality metrics with unchanged (or reduced) quantitative values. That is, the formation of the amalgamated hromadas contributes to the positive synergistic effect due to the more efficient use of resource, financial, labour, innovation, information, management, intellectual, infrastructure, investment potential of the territories [1].

As of November 10, 2019, in Ukraine were created 1002 amalgamated hromadas, at the territory of them live 11.2 million people, or 31.9% of the total population of Ukraine. The area of amalgamated hromadas is 238.8 thousand square meters, or 42,8% of the total area of Ukraine. For comparison, in 2015 there were only 159 amalgamated hromadas with a population of 1,4 million, covering an area of 36,8 thousand square meters. The average population of one amalgamated hromada in 2018 was 18965 people, in 2019 – 14929 people, on average for 2015-2019 – 11213 people.

It is necessary to note quite significant differences in the intensity of the processes of formation of able amalgamated hromadas by regions of Ukraine by indicators of the population and cities of regional importance, their area, the number of territorial communities that have not been united, coverage of prospective plans, etc. The leaders of the rating in 2019 among 24 regions of Ukraine are Zhytomyr (1 place), Dnipropetrovsk (2 place), Khmelnytskyi (3 place), Chernihiv (4 place) and Zaporizhzhia (5 place) regions, and the last places in the ranking



take Lviv (20 place), Kyiv (21 place), Vinnytsia (3 place), Transcarpathian (23 place) and Kirovohrad (24 place) regions.

Very low is the proportion of youth, which are living in the amalgamated hromadas – only 1342,5 thousand persons, or 7,7% of all youth, which are living in the regions of Ukraine (10333,0 thousand).

As of November 10, 2019, by territorial communities were concluded 488 intermunicipal cooperation agreements, of which: 84 in the housing and communal services sector, 29 contracts in the sphere of public employees, 43 contracts in the sphere of fire safety, in the fields of education and protection health, social security – 129 contracts, in other fields – 203 contracts [9].

At the same time, the functioning of the amalgamated hromadas is accompanied by a number of problems and unresolved issues of effective performance, many of which are related to the lack of proper professional and personal skills, experience and management skills of the residents of the integrated communities.

Reforming local self-government provides real opportunities for community development, as well as certain benefits for citizens to develop businesses in their territories, as part of taxes remains at the disposal of the territorial community [2]. It allows achieving such benefits, as: exchange of experience and knowledge; pooling of financial resources; saving on the development and purchase of new technologies; sharing of supplies of raw materials, equipment, technical and technological base; maximum use of investment potential [1].

The ways of improving the processes of vitality of the amalgamated hromadas are mainly focused on improving the legal support of local self-government, building a network of socio-cultural infrastructure, creating a favorable business environment, involving the population in active entrepreneurial activity, coordination of economic activity between their territorial communities [8].

By the analysis of the best national practices in the field of intermunicipal cooperation development, the following recommendations and proposals could be presented: development of public awareness and partnership between public authorities and citizens in the preparation and further realisation of intermunicipal cooperation projects; organisation of the training programmes for local elected representatives and decision makers as well as the representatives of other target groups; strengthening the financial basis of local authorities etc. Intermunicipal cooperation could be also used for further realization of the reform of the administrative and territorial structure of Ukraine as

well as improvement of the quality of the municipal services to be provided by local authorities to the citizens [13].

In the context of staffing needs satisfaction are necessary such directions of LED improvement: forecasting quantitative and qualitative needs of the labor market in specialists, taking into account the requirements of the innovative model of economy as a basis for making adjustments to the volume of training in the future; transformation of the content of vocational training according to the new requirements for knowledge, skills and competences of staff, the emergence of new professions, the spread of distance forms of employment; expansion of cooperation with foreign partners, exchange of experience, implementation of best practices in the field of human resources development; promotion of social and labour relations, the implementation of human values to governance [3].

The scientific and practical recommendations for improving the social-economic situation in accordance with the strategic priorities of the development of regions of Ukraine consist in the development of infrastructure (youth housing, road infrastructure, social infrastructure), creation of the innovative-integrated structures in the regions (innovative agrarian and industrial clusters, innovative centers for organizing the effective cooperation between the authorities, business, educational and scientific institutions, communities), directing public funds to local budgets support for businesses in the region, improving the functioning of the amalgamated hromadas.

Very expedient is the increasing the professional competence of amalgamated hromadas managers and specialists by acquiring the modern organizational, managerial, analytical and other skills necessary to ensure the integrated, effective, innovation-oriented development of territorial associations of the regions in the context of decentralization. To reach this purpose, the following algorithm of action can be suggested:

- to carry out an analysis of the status and trends of the functioning of the amalgamated hromadas in the regions;
- to identify the most “scarce” competencies for managers and specialists of all levels the amalgamated hromadas in the regions;
- to analyze the best domestic experience in the field of efficient functioning of the amalgamated hromadas, as well as the leading foreign practices of decentralization reforms;
- to develop short-term and long-term training and advanced training programs for the managers and specialists of the amalgamated hromadas

in the regions;

– to organize professional development courses for managers and specialists of the amalgamated hromadas, taking into account individual needs and thematic areas of study, including the use of foreign experience gained through participation in different international projects.

The result vector of interaction of key stakeholders in LED should be concentrated in such areas as: educational component of training of specialists, professional development of employees, areas of improvement of organizational and regulatory influence in terms of decentralization of power, financial analysis, audit and information, tax regulation, staffing, investment support, stimulation of entrepreneurial activity, social development, national security [5].

By improving the efficiency of LED, such benefits can be achieved:

1. In the economic sphere: increasing the cost-effectiveness in the areas of road management, construction of municipal facilities, education, health care, participation in grant programs, ensuring transparency of the budget process; raising the level of life quality for the population; increasing the investment attractiveness of entities within the amalgamated hromadas to investors.

2. In the social sphere: reducing social tensions in society by effectively resolving conflict situations, establishing communicative interaction, and engaging residents to solve the problems of socio-economic development; increasing the level of social protection of the population living in the territory of the amalgamated hromadas.

3. In the environmental sphere: the introduction of environmentally-oriented, resource-saving management of LED will help to improve the environmental situation in the regions.

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## Chapter 7

### **CURRENT GLOBALIZATION TRENDS: DIGITALIZATION, VIRTUALIZATION, THE FORMATION OF GLOBAL NETWORKS, ICT-BASED TECHNOLOGYIZATION, GREENING**

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**DIGITAL MARKETING  
OF ENERGY SERVICE  
COMPANIES’  
PERSONNEL IN THE  
CONTEXT OF SOCIO-  
ECONOMIC  
DEVELOPMENT**

The gradual change of the socio-economic development priorities from the globalization to the alterglobalization based on the sustainable development causes the use of a client-oriented approach to the organization of the marketing activities of energy service companies. This approach involves taking into account the development trends of both the energy market, the information technology market and the labor market. In particular, the growth of the labor mobility, the preference for the project and distance forms of employment, the development of the cross-sectoral competence of employees and smart specialization of the business entities, the promotion of the socially-oriented values in the professional activity (energy efficiency and environmental protection) are accompanied by the search and implementation of the innovative brand loyalty to the energy service companies.

The digitization of the business processes at the different levels of the enterprise functioning and the development of the digital literacy of employees, on the one hand, and the automation of the work space – on the other, shows the growing role of the intellectual work, the need to use a capable approach to the formation of personnel, which is based on

creating of the environment for harmonizing the goals of the enterprise, employees and society. Considering the above noted, it is important to develop the energy service companies branding as reliable employers in the virtual business environment, the use of the digital marketing communication instruments to promote the energy efficient and environmentally friendly technologies at the market.

The organizational structure of the energy service companies is the basis of the technological process management. Properly structured, with a clear division of the functional responsibilities and subordination of employees, it allows increasing the efficiency of the project management.

Energy Service Companies (ESCOs) are usually differentiated from other firms that offer energy efficiency improvement or energy services, such as consulting firms and equipment contractors, by the concept of performance- based contracting, which means that the ESCO's payment is directly linked to the amount of energy saved (in physical or monetary terms). Energy services may include for instance energy audits, energy management, energy or equipment supply, provision of services such as space heating [1, p. 2].

At the same time, the digital challenges for the development of the enterprise management system in general indicate the need to change the approach to the organizational structure of managing the energy service company by integrating the functional areas, harmonizing the hierarchical relations, decentralization, forming the flexible communication channels in the virtual environment. Thus, the general pattern of the digital economy projects is consumer-oriented and comprehensive use of information as a driving force, consideration of the specific features of a particular consumer at a particular place, and the world-wide use of the digital transformation technologies of business processes [2].

In the context of the cost minimization and the desire to achieve the maximum profit effect on the way of digitization of the personnel management system of energy service companies, it is important to develop a step-by-step program of business process digitization at the enterprises. In particular, it is expedient to begin the effectiveness of such a process by optimizing the organizational structure of both enterprise management in general and personnel management in particular, by integrating the functions of the structural units horizontally and vertically. The next step should be to apply a project approach to the organization of work of employees. The implementation of the project activity of personnel at the enterprise actually narrows the

scope of the classic (full) employment and extends remote (freelance), flexible (virtual) employment.

Let's consider the functions of departments directly related to the energy service:

1. The Energy Audit and Certification Department conducts:

- collection of raw data;
- drawing up of balances of the energy consumption and distribution;
- analysis of financial and technical information;
- identification of the irrational losses;
- development of energy saving measures;
- submitting of recommendations and determining the effect of their implementation.

2. The Department of Energy Saving, whose staff will be engaged in the feasibility study of the energy-efficient projects, as well as documentation for those projects that are accepted for implementation (financing).

Functions of employees of the Department: conducting a comprehensive energy survey;

- developing recommendations for improving the efficiency of the energy use;
- development of recommendations for providing the facility with modern energy efficient equipmen;
- development and provision of feasibility studies to finance the proposed measures;
- development of concepts of effective engineering support of objects;
- design of energy generation systems with the implementation of the green tariff mechanisms;
- design and implementation of the energy efficient measures, design, supply, installation, maintenance of energy efficient equipment.

3. Project Support Department will carry out the project support work from the development of the project documentation of delivery on a turn-key basis, performing the functions of general contractor.

4. The functions of the Risk Management Department in an energy service company can be presented as follows:

- selection of methods for the risk assessment of the investment projects and their evaluation;
- selection of the risk management methods in the implemented projects;

- formation of the energy efficient and gentle behavior of the customer's staff;
- assessment of the external risks and threats;
- interaction with the insurance companies, assessment of the required insurance coverage, estimation of the eligible amounts of insurance costs, scenario modeling of the insurance coverage, obtaining the optimal insurance rates, etc.

The first function of the Risk Management Department is necessary because every energy preservation project is a kind of investment for an energy service company. As a consequence, the energy preservation projects should be considered as the investment projects, and among the majority of the potential customers, select the most solvent, honest, those who have the least risks in the business, and select only those projects where the risk / return ratio is the most acceptable to the company.

5. The functions of the employees of the Construction and Installation Works Department will be to carry out the preparatory work and the installation of the energy-saving equipment. At the same time with the preparatory work and the installation of equipment, it is necessary to implement the preventative measures. Preventive measures have two goals, to reduce the risk, and to reduce the cost of insurance (it will be logical to examine the list of the precautionary measures required by insurers before concluding an insurance contract, as they are the most effective). Also, at this stage, employees need to monitor the supply of equipment to avoid delays, and monitor the implementation of the key energy-saving measures to eliminate the risks arising from this process as quickly as possible.

The developed organizational management structure should meet the objectives and tasks of the energy service company, obey the technological processes and should be changed in accordance with their implementation. It should reflect the functional responsibilities and the extent of the employee's authority.

In addition, it should be noted that the project approach to the organization of the enterprise personnel management structure in terms of the business process digitization leads to the development of the innovative competencies (time management, adaptability, emotional intelligence, digital literacy, creative and critical thinking, decision making, delegation, leadership etc.), the increasing role of the intellectual labor, the change of the value orientations in the development of the human resources of the enterprise towards their



capitalization. Considering the above noted, the pressing issue is the use of the innovative personnel technology formation.

Today the innovative development of the energy service company is determined by the speed of updating of corporate knowledge, the level of development of dynamic abilities, introduction of the principles of creative management, taking into account the concept of the sustainable development. At the same time the diversification of the alternative energy sources and the use of energy-efficient technologies needs to take into account the trends in the digital technologies.

In addition, an essential feature of the new “network” society is the removal or weakening of the social control and coercion, since interaction in the virtual reality, complicates or even makes social control impossible, information is transformed into the communication and, accordingly, into a product [3, p. 80-81]. In turn, the founder and executive chairman of the World Economic Forum, K. Schwab, described the Fourth Industrial Revolution as a fusion of technologies that blur the boundaries between the physical, digital and biological spheres [4].

The activity of the energy service companies by types of services provided to the customers is divided into:

- investment assessment of the energy efficient projects, development of the business plans, conducting the energy audits, seeking and attracting investments for the energy efficient projects, implementation of the energy management systems;
- thermal imaging, development of technical and economic feasibility (TEF) of the project, development of schemes of heat and water supply of cities;
- complex services (development and realization of the turnkey project) [5, p. 17].

In view of this, the use of the digital technologies by the energy service companies forms a basis for the development of the smart specialization at the municipal level and the implementation of the principles of a “sustainable smart city”, taking into account the urban trends in society. This allows ensuring the return on the energy projects by saving the energy resources, operating costs, payroll, co-financing by the customer. In addition, the energy service digitization is considered as an environment for the development of the innovative types of services such as the use of the modernization facilities, placement of telecommunication equipment, various sensors and advertising on the supporting structures of the external lighting and other upgraded

facilities [6, p. 52].

In the Table 7.1 a comparative characteristic of the typical features of traditional (stationary) and virtual enterprises is conducted. The key difference between a virtual enterprise and a traditional one is the lack of the physical contact. In addition, before running a virtual enterprise, the management functions need to be adapted to the particularities of the artificial intelligence (for example, the use of chatbots, mobile applications). Accordingly, the digitization of the personnel management system of energy service companies makes it possible to consider the willingness of workers to combine the work with rest, and to consider the training process as a vacation, expanding the network of acquaintances in the virtual space, creating the inclusive workplaces, synergies of generations of XYZ employees and management. In turn, the digitization of the business processes in the personnel management system is aimed at optimizing the process of personnel management, which as a result will help to reduce the costs, prevent risks and increase the efficiency of the human capital utilization.

*Table 7.1*

**Comparative characteristics of traditional (fixed) and virtual enterprises**

Criteria	TRADITIONAL (STATIONARY) ENTERPRISES	VIRTUAL ENTERPRISES
	Specific features	
Form of strategy, development	Business plan	Startup (venture approach)
Hierarchy structure	Linear and functional	Network, matrix, flexible, project
Form of labor relations	Labor agreement (formal> informal employment)	Civil contract (formal> informal employment)
Territory	Country-specific attachment (resource location)	Transnationality, global character (resource allocation)
Information communication system	Static, bureaucratic, man-man	Network, free style, man-technique-man
Professional career	Time (age) factor (man-hours) is taken into account	Individually differentiated approach (effectiveness indicators)

*Source: composed by the author*

In general, the organizational changes in the personnel management system of the energy service companies imply the digitization of the

personnel management processes in order to minimize the costs of organizing the work of the personnel management service and increase the efficiency of personnel work by obtaining the prompt analytical information. In practice, the transformation of the enterprise personnel management system occurs through the automation of the individual processes and creation of virtual (online) corporate platforms (websites), which involves the presence of the personal offices of employees, the algorithm of functioning of organizational and economic mechanism of enterprise management, electronic workflow, channels of communications (e.g., email, Telegram) etc.

Such digital transformation of the organization of personnel management system of energy service companies should be aimed at strengthening of the brand of the company as an employer. This also indicates the need to take into account the aspects of the digitization of processes at the labor market.

Unlike the classical market, the virtual labor market is characterized by the following features [7, p. 482]:

- the result of the labor use is an information product (service) or intellectual product, that is, the information presented on the material carriers that contains new knowledge that results from the intellectual creative work;

- availability of the virtual entities, which should be attributed to the customers of the services and their contractors (electronic freelancers);

- availability of the virtual infrastructure, which includes the online platforms for job search and offering services (freelance exchanges, crowdfunding platforms, professional social networks, groups and pages on social networks, career sites or sections of companies and organizations, sites of recruiting agencies and career consultants, employment services and profile associations), electronic payment systems, information systems etc.

As a consequence, the success of forming the loyalty to the energy service companies brand depends on the level of coherence of digitization processes in the personnel management system of the enterprise and in the labor market. Instead, the complexity of implementing a virtual HRM system in the energy service companies, in our opinion, is to take into account the following components:

- analysis of investment policy in the field of information technology (the presence of programmers, system administrators, testers in the team), the level of digitization of personnel management processes by other enterprises;

- risks of rotation and redundancy of employees as a result of the workflow automation, coordination and decision making, etc.;
- recruitment by the electronic application, online interview, online testing, application of a recruiter-bot, etc.;
- evaluation of the personnel activities through the unified criteria, introduction of an automated rating system, etc.

This demonstrates the expediency of considering the personnel marketing as a form of the internal marketing. Inasmuch as according to M. Sahaidak statements [8, p. 112] the combination of these two types of marketing allows providing the enterprise with the highly qualified personnel, organizing its activity as efficiently as possible by creating the necessary working conditions, incentives and motives, that is, it allows properly “selling” the enterprise to its employees.

For this reason, we share the opinion of the scientist that personnel marketing should be considered as a system, the main elements of which are the external environment (labor market, recruiting, state policy in the field of education and employment) and the internal environment (adaptation, training, development and evaluation of personnel, organization of the system of motivation and remuneration, delegation of authority, communication and information flows) [8, p. 112].

To implement the personnel digital marketing in the energy service companies it is important to select the most effective and easy use of the digital monitoring instruments (such as Google, Facebook, Instagram, Hurma), the implementation of the electronic document management. This speaks about the transformation of functions of personnel manager at the enterprise towards the growth of its multifunctionality, development of digital competences.

In the context of the socio-economic development, the competitive advantage of the energy service companies at the market is their ability to respond promptly to the potential challenges and maintain the uniqueness in their “niche” at the market and, as a consequence, to apply a customer-centric approach to the marketing activities of companies. With the advancement of the digital technologies and the adoption of the trend of doing business in the virtual environment (for example, on social networks), the role of the man at the enterprise is changing by shifting the priorities from the physical labor to the intellectual work and, as a consequence, increasing the value of the personnel development, as well as the automation of business processes.

The digital challenges of functioning of a modern enterprise require the searching for the innovative technologies of the personnel formation.

The digital marketing of the energy service companies' personnel is considered as an enterprise brand formation technology, the introduction of which provides the increasing of the level and frequency of contact with the target audience, flexibility and timeliness of decision making, information obtaining. The application of this type of marketing in practice shows the integration of the internal marketing and personnel marketing with digital marketing and, as a consequence, the need to increase the digital literacy of employees.

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**CONCEPTUAL ASPECTS OF  
THE NATURE RESEARCH OF  
DIGITALIZATION AND ITS  
ROLES IN THE MODERN  
SOCIETY DEVELOPMENT**

Problems of digitalization are reflected in numerous studies by economists. However, the high speed of the transformation processes taking place in the modern world causes a rapid change in many aspects of the digital economy. Digitalization is spreading to an increasing number of processes and phenomena, which requires appropriate research and determines their relevance.

In days past, revolutionary changes in the economy resulted from technological inventions, i.e.: steam engine, internal combustion engine, conveyor production, microelectronics. Today is the time for digital technology. Digital economy involves the digital transformation of all spheres of life, giving them significant economic and social effects. All this opens up new powerful opportunities for the state, society and citizens.

Increasing the speed and distribution of broadband Internet access, mobile and app extensions are shaping new businesses, commonly referred to as virtual, information, digital and network. However, over the last ten years, the trends of virtual business have changed from a partial extension of the business model in the internal business network to the full coverage of business models in the global Internet network. It should be noted that the introduction of digitalization in the world and in Ukraine was preceded by the information society, which prepared the information and telecommunications infrastructure, provided access to information technology training and implementation in all spheres of life (economy, trade, business, management, etc.).

The phenomenon of “digitalization” is a manifestation of a new economy (neo-economy) – a new type of social and economic system, which is gradually being formed within the post-industrial period of economic development by introducing the achievements of scientific and technological progress and innovative methods of management, intellectualization of human capital, use of advanced technologies,

accelerated development of knowledge-intensive industries, giving priority to the production of knowledge and services, establishment of the mentality of creative, effective, rational business. The new economy is based not only on intellectualization

The term “digitalization” came to us from the US from the word “digitalization”, which is translated as digitization. The impetus for the emergence of this concept was the development of the Internet, emergence of the first commercially successful sites, start of sales with this tool. First authors who introduced this term into scientific use include such scientists as D. Tapscott, P. Samuelson, B. Nalebuff. Literally, digitalization is the process of translating a certain information field from analog to digital for easier later use on modern electronic devices [6].

In international practice, there has not yet been a harmonized definition of digitalization. In most foreign sources [4; 5; 6], when interpreting the concept of “digitalization”, the emphasis is on technologies and methods of interaction of economic agents. Herewith, specific types of technology, or some form of change in economic processes in the social sphere may be mentioned. Thus, for instance, Gartner consulting company specializing in information technology marketing studies, understands digitalization as a process of moving to a digital business based on the use of digital technologies to change the business model in order to provide new opportunities for profit and value creation [4]. Organisation for Economic Co-operation and Development (OECD) defines the term “digitalization” as a process of interconnected use of data and digital technologies that promotes the emergence of new or changing existing activities [5].

Scientists in their writings [6; 7; 8] put Internet technologies at the forefront, which became a kind of technological mainstream in the 1990s, at least in developed countries. The authors of the later definitions draw attention to the development of mobile and wireless networks [9], as well as cloud and big data technologies [10], or refer to the more general concept of “digital technology” according to the simple definitions mentioned above.

The author Koliadenko S.V. in his work “Digital Economy: Preconditions and Stages of Formation in Ukraine and the World” defines digitalization as a way of bringing any kind of information to digital form [2, p. 107]. A similar definition is in the monograph of Meshko N.P. “Strategies for high-tech development in the context of globalization: national and corporate aspects”, the author characterizes

digitalization as a process related to the tendency of bringing various kinds of information into electronic form [11, p. 88].

In researches of [12, p. 94] Sokolova G.B., digitalization is characterized as the creation of a digital (based on bytes and bits – minimally addressed units of information) version of analog things on paper documents, video and photos, sounds.

Digitalization is a necessary process of the modern society development in the conditions of neo-economy. It aims to simplify and accelerate the work with large databases, provide automation of all types of activities (basic and auxiliary operating, investment, financial), improving communication with customers, suppliers and partners and all environmental institutions, formation of new principles of interaction within the enterprise – between units, employees, management, transition to new organizational forms of management (network and virtual economy).

Based on the analysis of theoretical studies and provisions, we have identified and formulated 4 approaches to considering digitalization:

1. Resource-oriented approach – aimed at using modern technologies and information resources.

2. Procedural approach – processing of information and data using information technology.

3. Structural approach – involves transformations in the economy.

4. Business oriented approach – orientation of the economy to new business models (network business, e-commerce).

Having investigated the existing approaches to defining the term “digitalization”, we shall formulate our own vision of this process based on the use of the information approach.

Digitalization is a modern, innovative stage in the development of both the economy and society as a whole, aimed at integrating physical resources into digital ones through the generation, processing, storage and transmission of information in all spheres of human activity.

There are four directions of digitalization in scientific researches [9; 12]:

1) Digital products and services. This component includes digital products as well as types of services, mainly delivered in digital form (i.e., online information services, software sales, e-learning, etc.).

2) Mixed digital products and services. This category includes retail sale of real goods (for example, books, flowers, hotel rooms, and related sales and marketing).

3) Services or production of goods dependent on IT. This group



includes services that are critically dependent on information technology (for example, accounting services or complex technical projects), the production of real goods, in the process of which information technology is crucial (those categories of goods that require high-precision numerical machine control or computer-controlled chemical plants).

4) An IT industry segment that serves the three digital economy segments under consideration. Products and services of the IT sector, which are mainly designed to serve the three aforementioned components of the digital economy, are considered. Manufacturers of network equipment and personal computers, as well as IT consulting companies are related there (some analysts apply broader concepts to the IT industry and include communications equipment, including television and radio broadcasting, and communications services, in this list).

Digitalization helps to increase information space, creating information products, reducing information costs. This significantly speeds up and simplifies the search for information, mutual exchange and helps to strengthen the cohesion and cooperation of companies, which, accordingly, affects the methods of operating activities of business entities, finding people favorable living conditions, as well as understanding and interaction between the population of the country and its government. Theoretical understanding of the impact of increasing data flows on the modern social and economic system can be noted in the concepts of post-industrial and information society.

Changes in production processes, reorientation of production to create tangible goods for services, and globalization of the economy are noted by digital society theorists as the most fundamental features of a new type of information-driven society.

Opportunities for the use of digital technologies in the economy are increasing every year. In addition to humans, about 10 billion machines and mechanisms – devices, sensors and devices – now “use” the Internet, and by 2020, Gartner researchers predict a twofold increase in this number [4].

Consequently, human participation in production and intermediate consumption will decrease. The digital age is changing the way we do business and the requirements of information technology: marketing, sales and service management systems; telephony and messengers; workflow and personnel management systems; accounting systems and many other corporate applications.

Responding to current challenges, the government, together with Hi-

Teck Office Ukraine and market experts, has developed a concept and plan for the development of digitalization in Ukraine by 2020 [13]. These documents form the basis for the implementation of Ukraine's digitalization scenario. The plan includes the following key activities: development of digital infrastructure as a basis for digital economy (hard – broadband infrastructure, digital television, infrastructure for the Internet of Things, cyber security and cloud storage technologies and soft – identification infrastructure, online billing, block chain, public services, and life support infrastructure – education and medicine.); digitalization of the real sector, including through the promotion of the infrastructure of Industry 4.0, the digital workplace, the smart factory, digitalization of basic life spheres, including through the digital transformation of secondary schools and the development of STEM education, introduction of eHealth and e-security, the concept of “smart cities”; development of digital literacy of the population [15, p.20].

**Conclusions.** Thus, digitalization is a modern type of business, characterized by the predominant role of data and methods of managing it as a determining resource in the field of production, distribution, exchange and consumption. Acceleration of Ukraine's digitalization, which is encouraged at the highest level of government, should have a positive impact on its economic development and efficiency in the near future, but this requires not only legislative initiatives but also scientific justification.

In today's society, digital companies are emerging as growth points providing the economy with a digital resource. If at the beginning of the 20<sup>th</sup> century, major driving forces of the global economy were large oil, metallurgical, machine-building and mining enterprises, and now the largest companies are representatives of the digital sector.

Thus, the main prerequisites for the digitalization development in Ukraine are an education system that has a high potential for training digital professionals; original organizational and technological solutions for creating an efficient digital economy infrastructure; integration and development of specific cases based on modern principles of digitalization will create a synergistic effect that will lead to the overall growth of the economy and society.

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**ACCOUNTING  
AUTOMATION OF THE  
BUDGETARY INSTITUTIONS  
IN THE CONTEXT OF  
MODERN DIGITAL  
TENDENCIES**

Today, budget sector institutions are far behind the rates of implementation of modern information technologies compared to the domestic private sector enterprises, not to mention the indicators of economically developed countries. Current trends of the digital economy, which are the criterion and the key of success for budgetary institutions, in most of their displays and tools pass by the processes of accounting and reporting, due to economic, legal, organizational, information and other factors.

Despite the fact that the automation of accounting functions brings many benefits (promptness and reliability of information, reducing costs for its processing and storage, improving the efficiency of organization of accounting staff work, the use of financial resources, the credibility of control over such use, its intensification, etc.), many budgetary institutions still use manual or partly automated work of an accountant. Against this background, and the fact that recent changes in legislation (Decree of the President of Ukraine, 2017; 2018) have made the search for alternative software solutions for accounting in the budgetary field virtually inevitable, the study of the status, features and possibilities of accounting automation in the budgetary sphere institutions became extremely relevant.

Problematic aspects of accounting automation in budgetary institutions were studied by such scientists as A.M. Bereza, F.F.

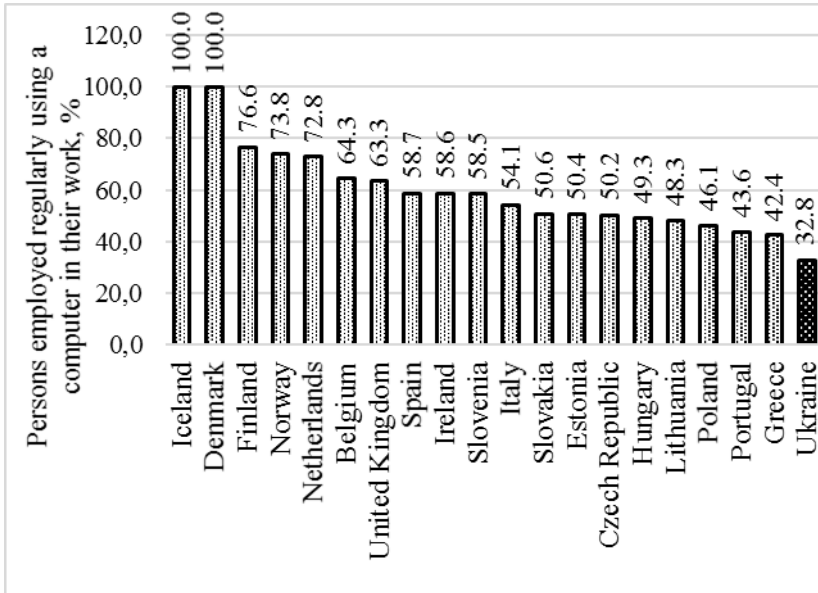
Butynets, C.J. Hendriks, S.V. Ivakhnenkov, T.V. Larikova, M.R. Luchko, V.O. Osmyat, O.A. Sarapina, T.V. Shakhraichuk, O.I. Shara, M.L. Smith, S.V. Svirko, L.O. Tereshchenko, V.H. Vasilyeva, F.D. Villa et al. However, despite the considerable contribution of these scientists, many issues related to the analysis of capabilities and the justification of software choice for such institutions in the context of budget resource savings in today's dynamic and innovative digital environment need permanent monitoring and additional study.

Digitalization is not just for large companies – any organization that manages more than 3000 documents per year can benefit from it (Digitalization of accounting and administrative processes, 2014, p. 2). Moreover, automation belongs to the the drivers of change in a digital world, as well as consumer empowerment, globalisation, geopolitics, regulation, demography and digital technologies (Farrar, 2019, p. 8). According to some studies, accounting function has 56,08% probability of automation (Mutlak, 2018, p. 7).

In general, due to the introduction of digital technologies in accounting practice ability to identify outliers and anomalies will increase, real-time insights into areas of heightened risk and internal controls will be possible, data quality and data consistency will improve; there will be increased focus on processes; reporting speed will increase and employee qualifications will expand in the direction of information technologies. Additionally, costs of a budgetary institution will be reduced, more tasks will be bundled internally, business processes will become quicker, easier, more effective or more efficient and overall productivity and competitiveness of an organization will increase (Digitalisation in accounting, 2017, p. 17; Digitalization of accounting and administrative processes, 2014, p. 3; Digital transformation, 2017, p. 10).

Based on the latest KPMG researches, the major digital transformations in accounting are paperless accounting, interfaces to (external) systems, management of data quality, process automation, uniformity of systems, integrated consolidation system, real-time reporting, creation of transparency, big data analysis, tools for visualisation and cloud computing (Digitalisation in accounting, 2017, p. 11). At the same time, new technologies are in demand in four main areas: document recognition (22% of companies surveyed), sharing data directly with customers and suppliers (20%), payment transfers (19%) and replacement of Excel sheets (14%) (Justenhoven, Loitz, Sechser 2018, p. 27).

However, information and communication technologies in Ukraine are not as developed as in European countries. For example, only 32.8% of all employees of domestic enterprises use computers in their work, whereas in the leading countries this indicator reaches 70-100% (Fig. 7.1).



**Figure 7.1 Share of employees that use a computer in their work in the total number of employees of an enterprise in 2018, %**

*Source: compiled by the author according to (Use of information and communication technologies at the enterprises, 2018; ICT access and usage by businesses, 2018)*

To date, vast majority of budgetary institutions use Microsoft Word and Microsoft Excel programs for accounting purposes (Skaliuk, 2015, p. 90), which negatively affects the quality of an accounting process, since mentioned products automate only certain functions and do not fit for the formation of a holistic and integrated system of its management. However, in recent years, the readiness of budgetary institutions to automate accounting and to change programs used has been evidenced by such indirect signs as activity on the tender platforms, increasing number of requests for consultations and demo versions of programs, methodological materials and employees training instructions. In

addition, the Strategy of modernization of the public sector accounting and financial reporting system for the period up to 2025 has declared at the state level the intention to create and implement unified software for accounting and financial reporting in budgetary institutions (Cabinet of Ministers of Ukraine Ordinance, 2018).

Qualitative software product for accounting automation in the Ukrainian budget sphere should take into consideration following features:

- 1) the problems with funding, specialists and server equipment;
- 2) the need for increase and integration with other services and programs (Microsoft Word, Microsoft Excel, etc.), for instance, for tendering proceedings in electronic form;
- 3) the necessity to download, process and save accounting information from previous programs;
- 4) the focusing on the areas of cash, income and expenses, fixed assets, budgetary obligations, payments to accountable persons, payroll accounting;
- 5) the need of budgetary institutions (as participants in a single budgetary system with a complex hierarchical structure and subordinate units) for an accounting records consolidation;
- 6) the necessity to ensure the transparency of the financial reporting, in particular with regard to spending of budgetary funds, as well as to control the correctness, rationality and economy of such spending in accordance with the fixed amounts of financing and earmarking;
- 7) the need to set up additional functions, to have a constantly updated legislative framework;
- 8) the requirements for electronic reports submission and data exchange with treasury system;
- 9) the need to ensure the rational use of a budget institution resources, the fight against mismanagement;
- 10) the application of software solutions that provide a high level of data security.

It is important to add one more feature in the field of budgetary institutions accounting automation – prohibition of the use of programs, developers of which are sanctioned according to the legislation and official confirmation of the State Service for Special Communication and Information Protection of Ukraine (for example, SE “Eurosoftprom”, LLC “1C”, CJSC “Galaxy Center”, LLC “Parus Corporation”, as well as producers of software products “Athena”, “jSolutions”, “jParus”) (Decree of the President of Ukraine, 2017; 2018;

Information statement, 2017). In addition, informatization programs implemented by budgetary institutions within budget programs related to the field of information, and contracts for their implementation, have to be agreed with the Ministry of Digital Transformation of Ukraine, and selected software products just like the procedure to their transition – set in the order on accounting policy of such institutions.

Nowadays, budgetary institutions are experiencing a lack of comprehensive software that will provide automation of budgeting, management accounting, workflow, payments for subsidies, etc. (and its creation should be financed from public funds, as often institutions financed by the state budget have not enough money to buy a quality program). Therefore, the mentioned prohibition of the use of specific accounting automation systems has become a kind of catalyst for changes and progress in the software development and distribution market, the emergence of qualitatively new software products. However, in an effort to keep up with the development of digital information technologies, budgetary institutions should not forget about the critical analysis of the feasibility and the impact from the implementation of certain technologies and computer programs.

Generally, when evaluating the efficiency of accounting automation, scientists propose to be guided by the following criteria: technological, commercial and ergonomic (Shara, 2010, p. 268). According to DSTU ISO/IEC 9126-1:2013 the characteristics of software quality (external and internal) are functionality, reliability, usability, efficiency, maintenance, mobility (State Standard of Ukraine, 2014, p. 7).

We will analyze the compliance of the most common domestic programs used for budgetary institutions accounting with the main criteria of modern and effective software (Table 7.2).

There are also other software products used by budgetary institutions, however, for the automation of only specific fields of accounting: “Triola” (payroll accounting), “Chiz-budget” (accounting and control of planned allocations, as well as creation of budgetary requests), “E-Reporting” and “M.E.Doc” (electronic reporting), etc.

In addition to illustrated in Table 7.2, there exists free software from the State Treasury Service of Ukraine ( “MeregaM”, “zvgrk”, “Zv7\_m”) and third-party developers (“Courier”, “K\_Files”), offered for use by state funds recipients.

It should not be forgotten that there are also products of foreign developers on the market of automated accounting solutions for budgetary institutions.



Table 7.2

**Comparative characteristic of accounting software in the budgetary institutions of Ukraine**

Characteristic of the software	Name of the software						
	Master: Budgetary institutions	UA-Budget	Fit-Budget	ISpro: Budget	Debit Plus	SaaS Accounting	Happy-Buh Budget
Adaptation to the requirements of current legislation	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud version, access to the software from different devices	Yes	No	Yes	No	No	Yes	Yes
Work with estimates	Yes	Yes	Yes	Yes	No	Yes	Yes
Integration with other software	Yes	No	Partly	Yes	Partly	Yes	Yes
Tax accounting	Yes	Yes	Partly	Yes	Yes	Yes	Yes
Payroll accounting	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Banking and cash transactions accounting	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed assets accounting	Yes	Yes	Yes	Yes	Yes	Yes	Partly
Inventory accounting	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Directories and reporting	Yes	Yes	Partly	Yes	Yes	Partly	Partly
Accounting of services	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Support of various operating systems	Yes	No	No	No	No	Yes	Yes
Updates and technical support	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demo version	Yes	Yes	Yes	No	No	Yes	Yes
Guidance and educational materials	Yes	Yes	Yes	Partly	No	Yes	Partly
Price (without VAT) for the basic version for 1 user, UAH	13999	12900	10000	3600	8750	4800	5000

*Source: created by the author according to the data from official software developers' websites*

Today, the most popular in the international context are “Pro Fund Accounting”, “MAIS”, “FreshBooks”, “CenterPoint Fund Accounting

for Municipals”, “4-Gov Fund Accounting”, “Black Mountain Software Government Accounting”, “Sage Intacct Software”, “BMSI Financial Software System”, “Adagio Accounting Suite”, “Abila MIP Fund Accounting”, etc. (Government software, 2019). Such software has several advantages: integrates functions of budgeting, receipting, payroll management, billing, analytical tracking, tracing operational costs, managing cash flow, developing budgets and is designed to fit budgetary institution’s specific needs.

However, serious counter arguments for the implementation of foreign products in the Ukrainian institutions: their inconsistency with Ukrainian legislation and business conditions, difficulties in obtaining technical support and maintenance, compared to domestic analogues, low level of popularity and limited positive experience of use in domestic realities, often also high price.

In order to make the choice of accounting automation software for a budgetary institution more successful, there are several stages in its process: to analyze the possibilities of such automation, the degree of fulfillment of the accounting tasks by the program, to estimate the necessary expenses (their compliance with the budget) and the benefits; to consult with developers and vendors; to investigate potential and terms of possible adaptation of the software in accordance with the peculiarities of the institution activities, employees training to work with such a software; to analyze the reputation of the software developer, the duration and positive experience of using the program by other institutions of the budget sector, the clarity and simplicity of its interface, the presence of support and after-sales service system, the complementarity of an software solution; formulate the clear forecast of the future development of a budgetary institution through an automation computer program.

It should be noted that when implementing accounting automation measures in budgetary institutions in the digital economy, we should not only consider the advantages, but also the difficulties and limitations of such automation, due to the lack of transparency concerning the financial consequences of automation projects, appropriate working skills of accounting staff regarding digital tools, limited budgetary funds for the purchase and implementation of effective software, imperfection and obsolescence of Ukrainian legislation in the field of modern accounting technologies use, issues of data retention and protection in the digital environment.

Thus, to improve the activities of budgetary institutions in Ukraine in

all their directions, it is necessary to change radically the information base of such institutions on the basis of an automated accounting system using modern methods and tools of such automation.

The results of the study showed that today Ukraine is lagging behind developed countries in terms of information technologies implementation, including the daily work of an accountant, but in recent years there has been a tendency of reviving the market of domestic software for accounting in budgetary institutions (“Master: Budget institutions”, “UA-Budget”, “Fit-Budget”, “ISpro: Budget”, “Debit Plus”, “SaaS Accounting”, “Happy-Buh Budget”, etc.). There are also computer programs with foreign background, but when choosing them the possibility of adapting such software to the peculiarities of domestic legislation and running of economic activities by the budgetary institutions should be especially taken into consideration.

Efficiency gains of the process of budget institutions accounting automation in the digital environment requires the development and implementation of a comprehensive system that takes into account all the features and needs of such accounting (limited financial resources, the need to streamline their use, integration with other computer programs, data consolidation, transparency of budgetary funds spending, etc.).

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**RECREATIONAL  
LEISURE IN THE  
DIGITAL AGE  
PARADIGM AND  
ESTABLISHMENT OF  
INDUSTRY 4.0**

The intensity of the processes of globalization, due to the expansion of information and communication technologies in all spheres of public life, creates new challenges and threats related to the nature of human and the existentials of his being. The development and introduction of new technologies, according to K. Schwab, founder of the World Economic Forum in Davos, are characterized primarily by the uncertainty of the transformation processes caused by the Digital Age and contribute to the formation of the sixth technological structure and the Fourth Industrial Revolution, the G7 countries, most notably Germany, China, South Korea, Japan, and the United States, where the Industrial Internet Consortium was formed in 2014, among the founders of which appear General Electric, AT&T, IBM i Intel (The fourth industrial revolution, 2019).

Industry 4.0. (Fourth Industrial Revolution) as defined by K. Schwab is based on the fusion of technologies and the blurring of the boundaries between the physical, digital and biological spheres, the mass introduction of cyber-physical systems in all spheres of functioning of society (Schwab, 2018).

Thus, with the development of information, bio-, nano-, cognitive and socio-humanitarian technologies, photonics, micromechanics, the synthesis of achievements of which should provide access to a fundamentally new level in the systems of government, society, economy, culture, the prospect of a new technological revolution is

connected and the emergence of industry 4.0. (Schwab, 2018).

The convergent effects of megatechnology are fundamentally transforming human reality, its natural and social existence, repeatedly amplifying the impact of the above technologies human and society, forming the essence of the phenomenon referred to as the NBICS Convergence (Global Future 2045, 2013)

The Digital Age, in turn, is an era of “high technology”, NBICS convergence, the digitalization of all spheres of society, and therefore a universal virtualization, the formation of which is based on the achievements of the previous Information, “Computer”, “Electronic” and “New Media” era, the origin of which is associated with the name of the American mathematician Claude E. Shannon.

Today, NBICS convergence, the Digital Age and Industry 4.0 are the main catalysts for the technology modification of the technological and social environment, in which the sphere of leisure and recreation is capable not only to restore the lost vital forces of the person, but also to promote its self-realization and self-perfection, to achieve maximum energy, harmonization of interests and needs, get exceptional impressions.

Investigating the Impact of Information and Communication and “High” Technologies in the Digital Age Paradigm and Industry 4.0 to the sphere of leisure and recreation determines the appeal to consider the transformational processes that became the basis in the formation of these epochs. For example, he was one of the first to study the revolutionary impact of technologies labeled “technical and information mutations” on the development of civilization in the fields of work, communications, management, and so on. E. Toffler (Toffler, 1999, p. 53).

The scientist emphasized the need for a new approach to understanding the nature of human in the post-industrial age, predicting the emergence of new, more diverse, arts-related leisure activities (Toffler, 1999, p. 253). E. Toffler linked technological breakthroughs with worldview transformations, giving the idea that transformations in industrial, economic, scientific and technological spheres should be described in the context of cultural changes and the formation of new identities. The thinker in the civilizational development of the third wave society emphasizes the tendency for a certain merger of producer and consumer, the recovery of the sector of economy based on production for consumption, not for the market under the slogan “do for yourself”.

Thus, the scientist testified the birth of the consumption society. It is worth noting that the scientific and technological advances and digital age of the Digital Age have significantly modified social relations, in fact provoking the rise of mass consumption, creating the conditions and means to meet it. It should be noted that most of the workforce is redistributed to the services and information sector, achieving competitive advantages through original creative ideas, individual approaches and a wide range of proposals.

M. McLuhan, analyzing the leisure and recreational sphere, attaches particular importance to the functioning of the development of high-speed urban highways. While noting that the countryside ceases to be a hub and the city becomes a hotbed of leisure and leisure, emphasizing that the introduction of high technology has led to improvements in roads and vehicles, and in fact turned over the old configuration by making cities hubs and suburbs, relaxation and recovery (McLuhan, 2003, p. 48).

In such a context, there is a tendency to desire solitary leisure, which promotes peace of mind and restoration of harmony and balance. The active operation of suburban leisure centers testifies to their popularity today, especially if they combine wellness, including Wellness & Spa with entertainment and educational activities. In the modus of healthy lifestyles, we believe that the intelligence of the German sociologist M. Kleinberg deserves attention, in which the scientist describes the means of maintaining health in the digital age through the prism of self-realization, self-measurement and wellness (Kleineberg, 2018, p. 20).

The author examines the smartphone and Internet applications with a variety of fitness trackers and self-tracking that, in turn, capture, measure, record, store, evaluate and compare human body metrics and are at the same time key elements of new physicality as they enhance health man. Such applications appear as automatic trainers that control the achievement of the goals set by the person and encourage them to move to the next level. It is noteworthy that such programs are able to control not only the physical actions of the person (eating, rhythm of sleep or time spent at work on the Internet, heart rate, pressure, blood sugar), but also changes in psycho-emotional state (changes moods, happy moments) (Kleineberg, 2018, p. 22).

These trends in the functioning of leisure, in particular, recreational sphere, in our opinion, are extremely important, because they represent a certain symbiosis of the introduction of “high technology” and the desire for self-improvement not only physical health and attractiveness, but

also improve emotional well-being and emotional well-being, that can counteract the negative effects of the current Digital Age and Industry 4.0.

This perspective on the study of recreational and leisure in the paradigm of Digital Age and Industry 4.0 suggests that the process of leisure aesthetics is underway, where the term kinesthetics is interpreted by R. Dilts as a set of all kinds of sensory experiences, including tactile, visceral, and visceral and emotions, feelings of balance) (Dilts, 1997, p. 164). With the introduction of convergent technologies, leisure activities with elements of tactility and sensitivity are actualized. Examples of such recreational and leisure practices can be various types of massages, SPA, aroma therapy.

It is worth noting that the only form of leisure and recreation at the beginning of the World Wide Web can be considered as chat or e-mail. Over time, as access has evolved, access has been simplified and the speed of data transmission has increased, making the Internet a large-scale transformation from business-to-business to expensive entertainment for ordinary people, which in turn has helped change the essence of the latter. Sites with a variety of topics began to emerge, and the Internet gradually began to gather the multimedia features, attracting more and more visitors to their space for leisure and recreation.

The representatives of the Club of Rome, established in 1968 as an international intellectual prediction center, emphasize the importance of humanitarian technologies that contribute to the self-realization and self-improvement of a person, the realization of his creative potential. The report of the Club of Rome, dedicated to the 50th anniversary of its founding and in the context of global concern about the development of digital technologies, discusses their instability and exponentiality, stresses the real danger of uncontrolled implementation and unethical use of the latter (Weizsäcker, 2018, 220 pp).

At the heart of the Report is the idea of a “new enlightenment”, the problem of human development, self-improvement and self-realization (Weizsäcker, 2018, 220 pp).

Therefore, in our opinion, the sphere of leisure and recreation, which contributes to the recovery of human psychophysical forces, self-improvement, self-realization, should play a dominant role in understanding the functioning of society in the era of widespread virtualization and in the paradigm of Digital Age and Industry 4.0. The most ambitious attempt to create a model of virtuality was made by M. Castells, who considered the technological revolution and the global



media culture as the main features of the formation of a new world order. In his fundamental work, *Information Age: Economy, Society and Culture*, he analyzes trends in the development of a new society, which he identifies as Networking (Castells, 2000).

M. Castells outlines the boundaries of the IT paradigm, noting that new technologies encompass all kinds of human activity. The scientist believes that in the 1970s, qualitative transformation processes began in the organization of work and production, and therefore in the field of leisure and leisure, because the revision of labor relations, which provides for the saving of labor costs and the introduction of automated jobs, increased the share of free time from work time (Castells, 2000).

These changes affect, first and foremost, the organization of social activities, which blurs the boundaries of working and leisure time, full-time work, a clear definition of job responsibilities, as well as the characteristics of the workplace.

New information and telecommunications technologies are displacing human labor both from industry (J. Rifkin) and from service, agriculture and high-tech sectors of the economy, which leads not only to unemployment but also to the disappearance of mass employment as such, and which is indisputable is a consequence of the fundamental restructuring of social structures (Rifkin, 2014&Sidorina, 2014, p. 17).

The nature of the work is therefore changing. Modern flexible employment practices such as novorking, precarization, coworking and freelancing, generated by virtualization and the introduction of information and communication technologies, on the one hand, blur the line between work, leisure and recreation, and thus contribute to the growth of creative potential beforehand overwork. However, on the other hand, A. Korsani argues that a part-time employee is often only free formally, in fact, his availability is limited, and he becomes forced to coerce ... like time, while waiting for a phone call (Korsani, 2015, p. 65).

J. Fried, one of the leading researchers of modern technology in conceptual discourse and co-author of *Rework 7*, examining new forms of work and leisure, criticizes the inviolability of office space, while at the same time favoring virtualization of work and leisure (Fried&Hansson, 2010).

Today's employer does not require a call-to-call workplace, but the employee unconditionally adheres to the requirement of 24/7 communication. Thanks to this approach, the organization of work creates a unique space of social activity, which combines with workers

and areas for rest and relaxation. This, in turn, causes the disappearance of the dichotomy of division into the working and leisure space characteristic of an industrial society. The tendency to blur the spatio-temporal continuum, generated by the flexibility of working time, allows to realize fully the essential forces of man and the existentials of his being. Promotes communication with friends through social networks, and when needed find new jobs that are relevant to changing inquiries and interests. What M. Mayatsky notes today is not a betrayal but a desire for comprehensive self-realization in a wide range of activities (Mayatsky, 2015, pp. 72-88).

It is worth noting that the most fully described changes in the era of digital and cognitive production of the relationship between work and leisure P. Arora, A. Korsani and M. Mayatsky. A. Korsani, analyzing the transformations of labor and its temporalities, argues that working time, although significantly reduced over the last hundred years, is now dominating as never before; not only the present but also the future is dreaming of work; life, and therefore leisure, is colonized by labor in the production of the self. The intermittent nature of employment appears not as alternating periods of intensive work and rest, but rather as a fragmentation of time, of the ever-accelerating time over which control is lost (Korsani, 2015, p. 66).

As a result, the author is convinced that, paradoxically, despite the fact that capitalist use of technology has made it possible to save more free time, there is a keen sense of its lack. Transformational dynamics in the perception of time are in this case the result of the global process of social acceleration, through which the modernization project turns for the person against it (Korsani, 2015, p. 67).

For the French scientist H. Rose, the fear of a person hanging on a mobile phone expresses a fundamental fear that has gripped people in postmodern societies – the fear of missing out on opportunities or important contacts. The organization of free time, as the scientist notes, is subordinate to work, although it is really unclear whether individuals do their work for themselves or in the interests of the profession (Hartmut).

At the same time, P. Arora states that some companies are now deliberately introducing leisure and recreation into the production space, including hammocks, billiard tables, volleyball fields, video games rooms, pianos, ping-pong tables and halls yoga is becoming a feature of these new working conditions (Arora, 2015, p. 91).

Also, current trends in the organization of the workplace can identify

game motives that reduce the disciplinary practice of controlling the workspace, and therefore contribute to the emergence of new creative ideas and increase productivity. During the Digital Age, the office ceases to be the main place of work, for the sake of effective creative social activity, the modern worker prefers a park, a cafe, and a house. That is, in such a perspective there is a merger of work and leisure, in particular recreational spaces, where the participants of the production process, he recreation has the opportunity to perform various tasks, if necessary, and recreational function, which will facilitate the restoration, reboot of their own essential forces.

In order to involve employees in cooperation and to increase the effectiveness of the last and adequate solution of urgent problems, elements of the game are introduced into the culture of work, called “gamification”. It is no wonder, then, that the leaders in electronic communications technology, Microsoft, Apple, Google, or Facebook, have decided to reformat their corporate offices to resemble a gaming space (Goldstein&Luger, 1990).

It is worth noting that the rapid development of the Internet, which has accelerated the transmission and processing of information, as well as due to the process of digitalization and digitization is associated with the creation in a relatively short period of time powerful IT companies, whose activities are aimed at meeting the diverse needs of consumers and they are today determine the functioning of the Digital Age Information Age. Among them are many influential brokers of companies, from Mark Zuckerberg in (Facebook) to Bill Gates (Microsoft) and from Steve Jobs (Apple) to Jack Patrick Dorsey (Twitter).

It is significant that online companies created solely to meet leisure and recreational and information and communication needs (Facebook, Instagram, Twitter) today have become a powerful tool in establishing economic, business, political and cultural activities.

By analyzing leisure digital networks in the context of global cities, P. Arora points to the evolution of social networks, decorative interests began to penetrate, at first glance, innocent leisure and open spaces, accruing to the carefree leisure to subordinate human commerce behavior (Arora, 2015, p. 122).

Moreover, huge corporations (Microsoft) who have previously been negative about using social networking workers have realized their impact on public opinion and have come to the conclusion that, with a strategically sound approach, such online leisure spaces enhance the

positive image of the company. Microsoft, Twitter, Facebook, Instagram today are actively posting corporate blogs on their own site where employees can express their opinions on a particular issue, exchange ideas and ideas (Arora, 2015, p. 92).

The popularity of blogs and bloggers in online spaces indicates a rather recent trend in leisure and recreation, which is based on virtualization, an interactivity that has vastly unexplored potential. Thanks to the latter, you can keep up with well-known cultural events, learn and learn about new leisure activities, become closer to idols and places of interest in the world. However, it should not be forgotten that it is the process of digitization in the absence of critical thinking and conscious approach that contributes to changing patterns of behavior, interests, ways of meeting the needs of leisure recreational space, and therefore contributes to the spread of social dysfunctions, asocial psychophysiological manifestations of human personality psychological exhaustion, loss of meaning in life, depressive disorders, which often lead to a new form of Internet alienation of man from person, making it asocial. Mr Arora notes that the active development of the Internet and social networks hides some deviant forces interested in globalizing the network. The point is that a certain digital product that crosses borders and is declared illegal in one nation state may find a new consumer in another. Terrorism, trafficking in human beings or drugs – these traditional forms of social and mass deviance has learned to use leisure digital networks and platforms to their advantage (Arora, 2015, p. 119).

As a result, leisure creates dissatisfaction and turns into “meaningless”, “dangerous” pastime, hostile to the essence of human. Leisure time, rather than counteracting the negative trends of the Digital Age, creates, on the contrary, a sense of longing and loneliness, as well as self-doubt.

There is no doubt, that the Internet is at the same time a medium of communication that offers the individual new opportunities to realize their abilities, meet cognitive, communicative, creative and recreational needs. However, it is important to keep in mind the boundaries of virtualization in the leisure and recreation space, noting the negative consequences of its development: the attempt to manipulate people’s consciousness; loss of moral guidance in the organization of daily life, spatial-temporal adequacy; virtualization of consciousness.

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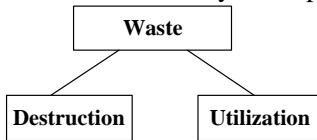
**SECONDARY  
PAPER  
RECYCLING  
ALGORITHM****Introduction**

**Used paper or waste paper** (waste of various types of paper or cardboard) – is a secondary raw material used in the reproduction of paper or paperboard. In particular, waste paper is often used as a secondary raw material by enterprises of all kinds of activities – from the production of toilet paper, humpback pads to thermal insulation materials, building materials and other products, which include cellulose. The amount of waste paper used in standard varieties of cardboard and paper products is most often determined by the level of available prices for pulp and cellulose, as well as the demand for these products. From the very beginning of its existence, it has been a source

of income for people (enterprises) engaged in the collection and subsequent sale of such recyclables to interested factories. It should be noted that establishing such a business involves careful consideration of all aspects and mechanisms, which will allow to receive a sufficiently good income to the person (enterprise) who implements such processes in their work. This article is devoted to reviewing such processes, ways to improve and the feasibility of using them in the circular economy.

**Analysis of recent research and publications.**

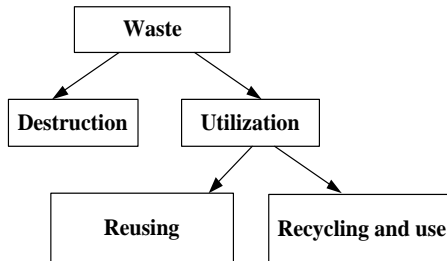
In general, any waste can be followed by the steps shown in Figure 7.2.



**Figure 7.2 General scheme of waste management**

**Destruction** – the process of eliminating waste through disposal or incineration [1, 2].

**Utilization** (from the Latin. *utilis* – useful) includes direct re-use and recycling after use.



**Figure 7.3 Ways of waste management at the disposal stage**

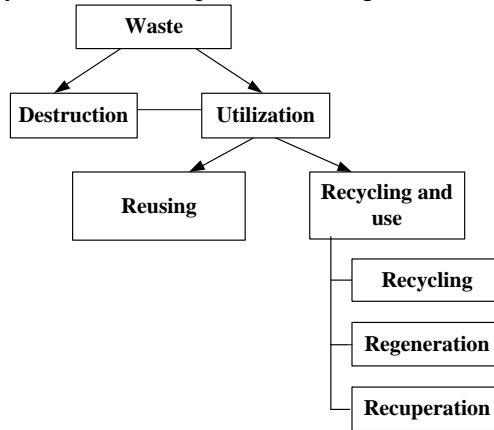
Reusing is the use of waste without prior or additional processing where it is technically possible, technologically necessary and permitted by law. This may be the reuse of clothing (after disinfection and (or) thermal operation) or glass containers (which are undamaged and reusable).

Recycling and use of products (Fig. 7.3), performance of works, provision of services, including waste reuse, is divided into:

- **Recycling** – activities involving the management of waste with a view to their safe disposal or to the re-use in the national economy of raw materials, energy, products and (or) materials;

- **Regeneration** – the process of returning waste to the production cycle after proper preparation;
- **Recuperation** – recovery – the process of extracting useful components from waste for their re-use [3].

Graphically this division is presented in Figure 7.4.



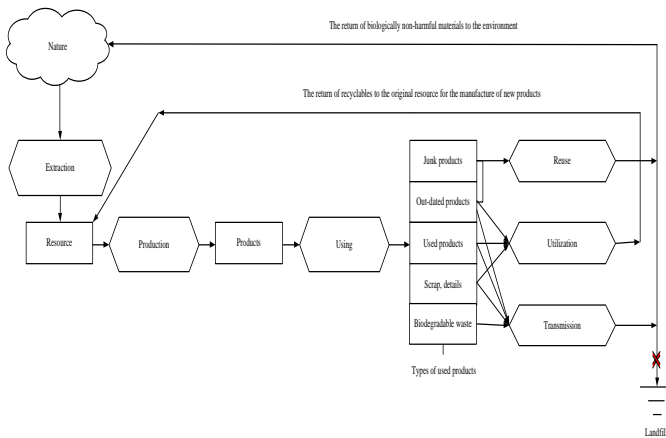
**Figure 7.4 Ways of waste management at the sub processing stage**

A general scheme for the implementation of this approach to the management of waste that is subject to any type of disposal is presented in Figure 7.5.

Waste disposal is a major challenge for humanity. In America and Europe, the technologies that make the most efficient use of recyclable materials are widespread. Ukraine is still lagging behind in this area, although the country has extensive recycling experience.

Combining waste production and the destruction of timber resources in the region is another huge problem for humanity. Every year hundreds of thousands of trees are cut down in the world, including for paper production. After the first use, the waste paper is sent to the trash. Also noteworthy is the fact that one person now has a huge amount of paper. In addition, private offices and government agencies accumulate incredible amounts of paper of varying quality over a period of time. If there were no secondary processing of raw materials, the timber reserves on our planet would simply not be sufficient for continuous production in various industries. All this paper is stored in archives and stored over time, after which it can be used for recycling. Recycling archives by recycling paper helps to preserve the environment of the region while providing it with the required amount of paper.





**Figure 7.5 Scheme of the waste to be treated any type of disposal**

In Western countries, a viable and effective method of waste management – recycling paper recyclables, is actively developing. For example, in European countries, the percentage of paper waste used for the production of sanitary paper and various types of cardboard (box, tare, corrugated cardboard) ranges from 75% to 100%. Recycling used paper in Ukraine as well as in the world is one of the basic components of recycling. The possibility of using this type of secondary raw material to save money, as well as to improve the environment, contributes to the creation of new technologies and approaches to the sustainable development of the region, as a component of the circular economy, as a whole, and of any enterprise or institution in particular.

**The purpose of this article** is to identify the main stages of recycling paper as secondary raw materials, to identify the main restrictions on the way of their realization, to form a generalized classification of paper that is and is not recyclable.

The production of recyclable paper goes through the following stages: organizational and technological. At the *organizational* stage, you first need to understand why do you need to recycle paper. Earlier in the post-Soviet countries, it was clearly explained why it is vital to hand over waste, cardboard and other raw materials for recycling. Today, the state pays less attention to educational work, and society does not collect newspapers and magazines to hand over for recycling, although the need to preserve the environment is not only diminished, but also steadily increasing as environmental problems increase.

There are several reasons you need to dispose of or recycle paper or cardboard. First, paper production can *severely damage* the environment, especially in the early stages of the production process. Many toxins (formaldehyde, chlorine dioxide, etc.) are released into the environment. The decomposition of the paper in nature, depending on its type occurs within the time frames given in Table 7.3.

Table 7.3

<b>The decomposition of the paper in nature</b>	
<b>Type of paper</b>	<b>Decomposition time</b>
Newsprint	From 1 month to 1 year
Plain paper (office)	2 years
Cardboard	2 months
Cardboard boxes	Up to 1 year
Cardboard milk packaging	5 years

Waste recycling is a *much less hazardous process* for the environment, less harmful chemicals and toxins are released into the atmosphere. According to data from US environmentalists in the process of waste recycling the water and air pollution is reduced by 35% and 74% respectively [4]. Secondly, paper recycling reduces the amount of energy consumed by businesses or industries. According to various estimates, a properly organized waste recycling process can reduce the amount of electricity used from 40% to 65%. Third, the organization of the recycling process, in general, and of cardboard, in particular, contributes to the reduction of deforestation, which is extremely important for Ukraine.

Over the last few decades, humanity has started to use more paper 4-5 times [5]. This means that we consume millions of ton of paper each year. More than a third of all trees felling on the planet goes to pulp and paper mills, with only 16% of the total being trees specially grown for industry. After using the paper, it must be collected. Usually, it can be collected, and even required, according to type. Ordinary household paper is processed, almost all. However, let's find out which paper is to be recycled. The classification of the paper into different categories according to type is as follows:

- Types of *recyclable* paper:
  - cardboard;
  - tough paper ( $> 100 \text{ г/м}^2$ );
  - newspapers;
  - magazines;

- advertising leaflets, small brochures;
- envelopes (without plastic windows);
- paper for copies (80 gr/m<sup>2</sup>);
- newsprint;
- other types of paper that are slightly more complicated in the recycling process and less accepted for recycling:
  - shredded paper – it is accepted when the enterprise has specialized equipment for such processing;
  - note paper – it is accepted when the enterprise has the ability to remove the glue from the paper;
  - wrapping paper – some businesses accept plain wrapping paper if it does not have such inclusions as shiny particles, sticky tape or other decorations;
  - usually *not recyclable*:
    - dirty or wet paper;
    - pizza boxes;
    - paper cups;
    - wrappers for confectionery, confetti;
    - napkins;
    - toilet paper;
    - paper towels;
    - copier.

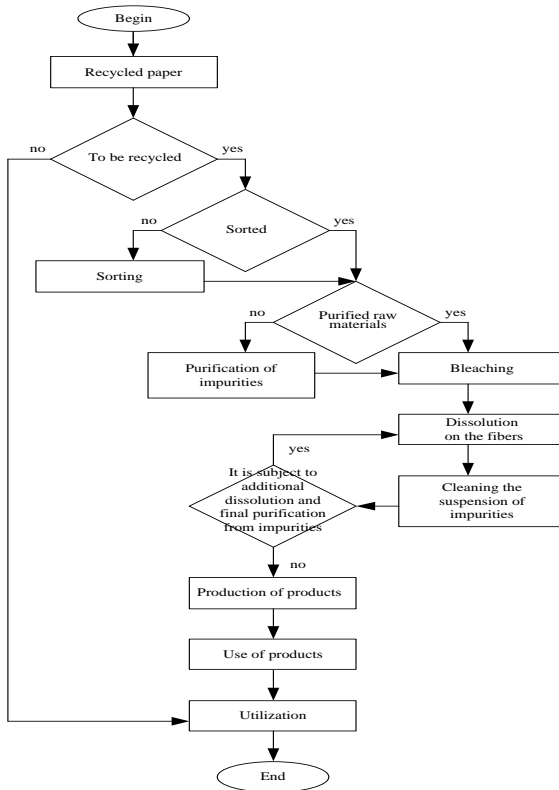
However, *clean napkins*, toilet paper, paper towels can be used to produce handmade paper. As the recycling methods for the equipment used by the experts depend on the quality of the raw material and the requirements for the final product, therefore, all the paper used must first be collected and sorted. In particular, sort the paper into ordinary, paper with graphics, kraft paper and cardboard.

The next stage is *technological*. Actually, it is at this stage that the recycling process takes place. Recycling technology depends on the material being recycled and the final product. Properly handled, virtually all types of paper are recyclable and can be used to produce new paper. Some paper is more difficult to process because it contains foreign elements. For example, plastic window envelopes are not recyclable at first – plastic must first be removed. Plastic coated paper can also be a problem, but in any case it is necessary to clarify the possibility of recycling in the respective industries with special equipment. In general, the technological process of recycling waste paper consists of several successive steps. To get quality recycled paper, the raw materials may need to be discoloured first – to remove old paint

and print. It should be emphasized once again that paper or other products of only low quality can be made from unlearned fibers, so the need for such work is determined by the ultimate purpose of recycling. Next, the dissolution of the fibers occurs, which occurs in the hydraulic breaker, in which the waste paper rotates in an aqueous medium. In this step, there is also a separation of inclusions. Upon its completion, the suspension contains fibers and broken particles of waste paper. Then there is a cleaning of the suspension of waste mass from foreign impurities. Heavy impurities are removed by rotation in the drum when microscopic impurities of sand, glass, paper clips, etc. are deposited in the bin, and light impurities by passing the mass through a sieve. When the processing cardboard and paper of problematic structure, the thermo-mechanical treatment is applied to neutralize the action of inclusions of glue, paraffin, wax, etc. Further, the pulp is dissolved by grinding in a mill and subjected to fine cleaning (Figure 7.7).

However, it should be remembered that the process of recycling pressed cardboard is slightly different from the process of recycling paper: raw materials must undergo heat treatment, which removes glue, wax and other inclusions from the cardboard. In the final step, the resulting raw material is dissolved into small elements and subjected to the most thorough purification.

Although waste paper recycling is a multi-stage process that aims at restoring paper fibers and (or) other paper components (such as mineral fillers), modern waste paper recycling techniques can be called ideal. The methods used at the factories allow to process paper recyclables several times (from 3 to 7 times, depending on the equipment). In addition, it should be remembered that any subsequent work with raw materials reduces the length of the fibers, as a result, they become unusable for the production of quality paper, cardboard or any other goods. Subsequently, the paper turns yellow and usually for the production of new paper products the secondary fiber is mixed with the new one. That is why mankind can't yet completely abandon the production of new paper, although the cost of recycling and secondary use is constantly reduced due to the development of new technologies. With the *proper design* of modern waste recycling facilities, businesses are considering a set of indicators that ensure the efficient disposal of waste – a full range of technologies: from production and operation to decommissioning. According to statistics, some businesses that take a rational approach to recycling paper waste can make profits of up to \$ 50,000 a year.

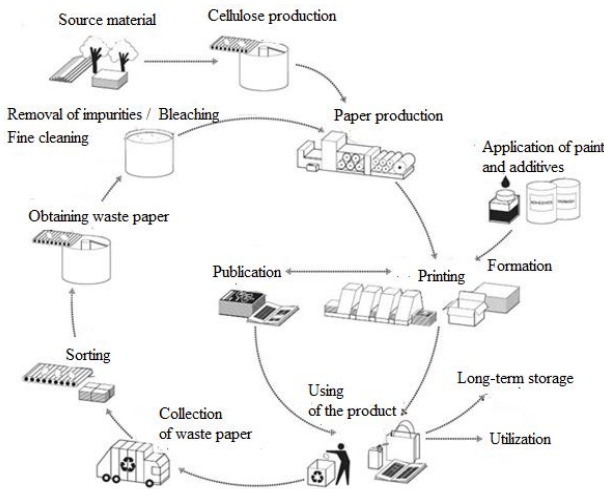


**Figure 7.6 Generalized algorithm for recycling paper recyclables**

The advantages of recycling paper raw materials have been discussed above. However, there are some limiting points. One of them is air and water pollution. As already mentioned, the industrial production of *recyclable paper* has a negative impact on the environment at the initial stage of raw material production and processing, and has a much smaller effect on the next steps. However, in *primary* paper production, highly toxic chemicals such as toluene, methanol, chlorine dioxide, hydrochloric acid and formaldehyde are released into the air and water throughout the paper production process. In addition, creating recycled paper requires less chemicals and bleaches than creating new paper. However, it should be noted that the production of recycled paper may form more slag. According to the US Environmental Protection Agency [6], when recycling waste paper compared to the production of new paper, water pollution is reduced by one third and air pollution is

reduced by two thirds. The use of recycled waste paper reduces energy consumption, but there are controversies over specific savings. The US Energy Information Administration [7] states that energy savings from recycled paper pulp reduce energy consumption by 40% compared to pulp paper production, while the Bureau of International Recycling [8] states that energy costs are reduced by 65%. However, the production of paper pulp actually consumes more solid fuel than the production of pulp through craft processes, when most of the energy is consumed by burning wood waste (bark, roots, wood waste) and lignin by-products (black liquor).

Another downside to creating primary paper compared to recycling used paper is deforestation. World paper consumption has increased by 400% over the last 40 years. It currently consumes about 300 million ton of paper a year. Basically, primary pulp is used for paper production, recycled waste accounts for 38% of the world's fiber supply, non-wood fibers from plants such as hemp or kenaf account for 7%. Trees specially grown in nurseries produce 16% of the world's pulp. Most timber for paper production comes from secondary wood. Less than 9% of cellulose is produced from ancient forests. It should be noted that nurseries can partially meet the demand for wood, but they cannot ensure the existence of diverse plants and animals, as in natural forests.



**Figure 7.7 The general scheme of modernity**

**Conclusions.** Despite the still high energy and resource costs of recycling waste, the benefits to the environment as a whole and to any region in particular are obvious. By recycling cardboard and paper, you can get products that are not inferior in quality to those made from cellulose. Therefore, recycling points, which are very popular in the past, have begun to resume their work. For example, recycling of one ton of newsprint saves about 1 ton of wood, and processing 1 ton of better quality paper (for printing or copiers) – almost 2 ton of wood. In a market economy and a global approach to improving the environmental and economic situation in the region, introducing paper recycling approaches where there is high paper turnover is absolutely feasible and economically viable. And even if it does not work out that the material benefit of the waste paper will be useful, it will be possible to benefit the community and preserve several hundred trees in the region.

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## CONCLUSION

In the context of global changes one of the most important factors for the successful functioning of economic systems is the formation and developing of a strategy for the sustainable socio-economic development of economic entities. The transition to a model of sustainable socio-economic development largely depends on the existing potential of expanded reproduction of the resource base, socio-economic recovery on a new institutional and technological basis. The experience of advanced countries and the consequences of structural and systemic restructuring of most segments of the economy indicate that real shifts in the direction of creating the prerequisites for the sustainable development of economic systems are possible only if building up not only production, but also natural resource, demographic, scientific, technical, recreational, information and socio-cultural potential. That is, we are talking about all the components of socio-economic potential, as well as the human factor and institutional changes in the system of economic relations when choosing priorities for the transition of national and regional economic complexes to a model of sustainable development.

The results of the author's research in a collective monograph are devoted to solving the problems of formation and implementation of strategies for the sustainable socio-economic development of economic entities and the mechanisms for their realization in the global dimension based on the implementation of modern innovations and managerial decisions.

An important component of the collective monograph is the developing of basic principles, approaches and strategic directions for rationalizing all components of use the resource potential of economic entities in the context of increasing the efficiency of using the socio-economic potential of sustainable development based on an assessment of self-sufficiency the economy.

The presented results of the research in a collective monograph reflect the theoretical and practical aspects of the implementation of mechanisms for the realization of strategies for sustainable socio-economic development of economic entities in different sectors of the economy.

It has been established that ensuring the effectiveness of the formation and realization of strategies for the sustainable socio-economic development of economic entities in the context of global changes is based on improving the process of management the innovative development of an enterprise.



Sustainable development of a socio-economic system is its ability to reduce the negative influence of external and internal environmental factors on the processes occurring in it, using structural and qualitative changes of the system as opportunities to realize additional competitive advantages, while keeping the progressive nature of development and maximizing the full realization of the system reserves, expressed in the internal potential.

The goal of management the sustainable development of an enterprise as a socio-economic system should be to ensure a state of internal equilibrium and balance of interchange with the external environment, which will contribute to the optimal adaptation of the system (enterprise) to the external environment and create conditions for continuous development.

The results of the research indicate that an important aspect of the transition of the economy to the principles of sustainable development is the formation of organizational-economic mechanism for management of sustainable development processes as part of the overall system of development management in general.

Formation and further realization of the approach to the management of socio-economic systems are largely dictated by the use of traditional and conventional economic development factors, which have lost not only their importance, but also efficiency, and the necessary force of action.

Traditional management methods are not effective enough in a dynamic external environment. Sustainable socio-economic development implies the alignment of the short-term goals and interests of different groups and individual entities with the long-term strategic goals determined by the requirements of internal development.

Ensuring sustainable socio-economic development requires investment in the creation of new technologies, first of all, the emergence of social innovations, changing priorities and goals of civilization development. In the context of globalization, dynamism of external and internal processes, there is a need for a fundamental understanding of management theory in the conditions of transition to the principles of sustainable socio-economic development and the formation of ecological systems, as well as the development of theoretical-methodological provisions and methods of management in modern conditions.

The mechanism of sustainable socio-economic development is a set of organizations, institutions, forms and methods for harmonizing interests at different hierarchical levels, ensuring balanced and proportional development of subsystems within sustainable development and

preserving the integrity of the socio-economic system. The specificity of function the mechanism for management of sustainable socio-economic development is that the actions of the management entity are always determined by both the laws of social development and the laws of nature. Methodology management of sustainable socio-economic development should be a comprehensive, coordinated approach to the assessment, regulation and planning of measures to ensuring sustainable socio-economic development in modern conditions under the influence of external and internal factors.

The high variability and dynamism of the market environment necessitate the introduction of measures at the enterprises aimed at maintaining the stability, adaptability and flexibility of functioning. However, the need to maintain a high level of competitiveness of national enterprises in the world market necessitates their sustainable development, which can be defined as balanced quantitative, structural and qualitative changes that meet the goals of the enterprise and take into account the constraints imposed by the external environment and potential of the enterprise. Sustainable development is possible only through the formation of an appropriate management mechanism, which should be understood as an integrated system of organically linked economic, organizational, social, financial and other forms and methods of management, ways, tools and levers of influence on the processes of functioning, which meet the parameters of the internal and external environment, restrictions and conditions of economic activity. The creation of such a mechanism should be based on the principles and methods of developing and realization of management decisions, certain objects and entities of development management, the well-defined management functions, selected structural elements of the mechanism and the considered features of their use.

A prerequisite for ensuring the progressive development of the enterprise is the choice of a rational strategy, which should ensure the improvement of the conditions of operation of the enterprise, ensure the full use of available resources and opportunities and, as we approach the boundary of the field of sustainable functioning, ensure the transition to a new qualitative state, thereby ensuring the correlation of evolutionary and revolutionary model development.

The process of innovation implementation and the realization planned of the enterprise transformation processes must be pre-planned and managed, which is possible in order to create an optimal change program. Its development should be based on the parameters of changes in the

work, certain variants of realization of the developed program and approaches to carrying out transformations, the proposed method of allocating resources for the program of development and taking into account the presented system of limitations.

Effective realization of the chosen strategy, conducting transformational changes, reduction of structural tension and overcoming of personnel resistance to innovations are possible only on condition of involvement of employees of the enterprise in participation in current management and establishment of strategic alternatives of development, expansion of processes of self-organization.

On the whole, the authors of the collective monograph have come to believe that in the current conditions, innovation and knowledge should become the main factor of economic growth. Ensure of sustainable socio-economic development will help to formulate an appropriate scientific-innovation policy in line with the strategy of sustainable socio-economic development of economic entities, which will ensure competitiveness in the conditions of globalization.

# **Strategies for sustainable socio-economic development and mechanisms their implementation in the global dimension**

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