

# **CHAPTER 11. DETERMINANTS OF SUSTAINABLE DEVELOPMENT OF ENTERPRISES IN THE SPATIAL AND INFORMATION ECONOMICS**

## **PROCESS MANAGEMENT OF ENTERPRISE DEVELOPMENT IN THE CONTEXT OF ECONOMIC POTENTIAL IMPROVEMENT**

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Transformation of economic actions in the modern market conditions causes a necessity of formation of essentially new approaches in the activity of the companies, as usual systems do not provide their effective development and reception of the necessary norm of profit. However, before choosing a certain trajectory of action to improve the functioning and the choice of a business model, it is necessary to consider possible before the definition and prediction factors of influence on the formation of economic potential of enterprises and accordingly design a successful structure of its components, the interaction between them, which will be a fundamental basis for a further development. It is the economic potential of the enterprise that accumulates both its competitive advantages and renewable abilities and reflects the opportunities to acquire new ones in time on the basis of intellectualization of management processes, improvement of the functional content and adaptation of employees' competences.

Justifying the composition and structure of economic potential of an enterprise by its components, it should be noted a significant number of researchers' points of view on this issue from the position of interpretation and priority of each in the implementation of development. Each author puts

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into the concept of the structure of the economic potential of the enterprise his own vision, often significantly different from others, as it reflects the peculiarities of the influence factors in accordance with the studied industry, the degree of competition, opportunities for entry of new investors, access to credit resources and others. This is explained by the fact that the development of a post-industrial society has undergone transformational changes in the economy and the need to apply new business models and a management system through their spatial and process content.

Thus, the modern understanding of the process orientation of business to value was first proposed by M. Porter, when justifying the theory of competitive advantage in the form of a value chain as a sequence of «strategically important activities». He identifies five primary (supply of raw materials and supplies, input logistics, production, output logistics, marketing activities and sales, after-sales service) and four secondary activities (infrastructure formation, human resource management, technology development and logistics), which make up such a chain at any firm [12].

A dynamic external environment determines the search for methodological foundations of quality change management in the enterprise, which affected the updating of the quality management ideology and continuous improvement system, the emergence of the modern theory of innovation, the development of the concept of reengineering business processes. The introduction in enterprises of management philosophy, based on the desire to create and a continuous qualitative improvement of the added value and quality of goods for consumers, has led to new transformations and led to a new stage through the target-competence attitude of the existence of modern business. The works of classics of the modern management P. Drucker, M. Porter, M. Hammer, J. Harrington formed the methodological basis of the process management, which today is recognized by the majority of scientists as fundamental bases of design of a management system of the company development [13]. A modern research in the field of the process management has gone beyond modeling of business processes, holistic process concepts of the company management have appeared, which define the principles of qualitative changes in all elements of the management system, penetrate into all structural and functional components of management [2].

Changing approaches to its understanding post-industrial, information, network, knowledge economy, the new economy needed the involvement

of appropriate resources, generating the development of new approaches to their implementation in the economic activity of enterprises, which developed new types of potentials.

Traditional thinking, both scientific and decision-making, is based on an analytical approach, where a more complex system is divided into subsystems and elements. This, according to one of the most famous researchers, the application of the holistic concept in economics R. Ufimtsev [17, p. 46], gives the illusion of control over the system. Any system is potentially very complex and probabilistic, which together with emergent nature makes such control on the basis of a traditional analysis. Therefore, according to the holistic concept, it is necessary not to divide the system into components, but to perceive it in all its diversity and complexity. It is this approach that is actively developing today in a new milestone in the evolution of the process-oriented control.

The process-oriented customer orientation within the knowledge management environment provides the development and transfer of knowledge about the needs of individual customer groups (company owners, employees, external counteragents – customers, suppliers, competitors, etc.), preferences and business directions that provide growth, and also promotes the use of organizational knowledge to solve customer problems. The formalization of knowledge plays an important part in this, which in the concept of knowledge management is successfully carried out with by ontologies. Ontologies allow to provide the user with a holistic, systematic view of a certain subject area, unify knowledge about the subject area and reproduce the necessary logical relationships within a certain subject area [4]. The ontological approach to the design of knowledge management processes in the enterprise contributes to the creation of a system in which the knowledge accumulated within the organization becomes available to a wide range of users. The importance of the ontological approach is due to the fact that the knowledge, which has not been formalized, becomes obsolete and unclaimed, and vice versa, the knowledge, distributed, attracted and exchanged, in turn, generates new knowledge. In contrast to the well-known expression «knowledge is power», it is not the knowledge as such, but the existence of a real mechanism of its transformation into concrete actions and measures, including those aimed at creating sustainable competitive advantages of the enterprise, should be recognized as the effective force of the organization.

Besides, the value represented by knowledge is conditioned by their complex structure and specific characteristics. According to D. Tees [6], the most significant components of knowledge assets of the enterprise are technological know-how and business process know-how and the reputation of the enterprise. Knowledge asset management is significantly different from the management of tangible assets, and not only because knowledge can be moved, transferred, knowledge leakage, imitation, copying are possible. There is another peculiarity: knowledge is inseparable from organizations, specific people and the processes they organize and carry out.

In forming a process-oriented approach, enterprises must rely on the improvement of the economic potential through changes in organizational behavior, implementation of flow interaction in supply chains, infrastructure provision of commercial relationships and others, which are divided into internal and external ones. A formation of the enterprise capacity is the process of identifying and creating a range of entrepreneurial capabilities, structuring and building certain organizational forms to ensure sustainable development and effective reconstitution. The concept of the enterprise potential is a complex category. It is introduced in the practice of researching the activities of the enterprise in order to resolve the uncertainty associated with the lack of any information about the conditions of functioning in the future.

Determination of the prospects of the enterprise activity is associated with the allocation of potential options for restructuring and multi-criteria selection of the best of them. The best option is understood as the potential of the enterprise to maximize profits, ensure the effective interaction of available resources (financial, human, technical, material, etc.) and guarantee its viability in the long term by balancing the components of the enterprise's potential [9, p. 227].

Outside of reference to a specific area of activity and use, the potential can be considered as the ability of matter to move from possibility to reality, from one state to another, including this approach does not take into account the material production of goods, as it is quite difficult, if not impossible, to make changes in technology when replacing raw materials. In this case, the potential is a measure of the unity of the achieved, which can be used for certain purposes, and the possible, i.e. achievable under certain conditions when planning future efficiency and determining the rate of growth

(reduction) of the selected market segment. As the potential of the enterprise is a complex economic system, wishing to achieve the maximum effect of its formation (synergistic effect), it is necessary to optimally form each of its natural and structural components from the position of timely resource provision. This is certainly a complex and both theoretical and practical task, but without its solution it is impossible to achieve and maintain the stability of development, justify the strategic guidelines. Formation of the economic potential from market positions and marketing component stipulates the increase of economic stability as a necessary condition for development and maintenance of economic security of the enterprise.

Partnership marketing is a continuous process of determining and creating new values together with individual buyers, then jointly receiving and distributing the benefits of this activity between the participants of the interaction [5, p. 35]. The nature of the enterprise today is manifested in the pursuit of joint value creation with consumers (external customers), as well as in the penetration of the consumer into the mechanism of enterprise business process management [15, p. 38].

The formation of the process approach during all stages of its formation and development was influenced by the concepts of marketing, which were formed in accordance with market conditions. Marketing has passed four stages in its evolution: from the period when the concept of marketing had an applied character and was directed on search of buyers of made production to individualization of marketing which led to development of the concept of marketing of relations. Marketing of partner relations is a continuous process of definition and creation of new values together with individual buyers, then joint reception and distribution of benefits from this activity between participants of interaction [5, p. 35].

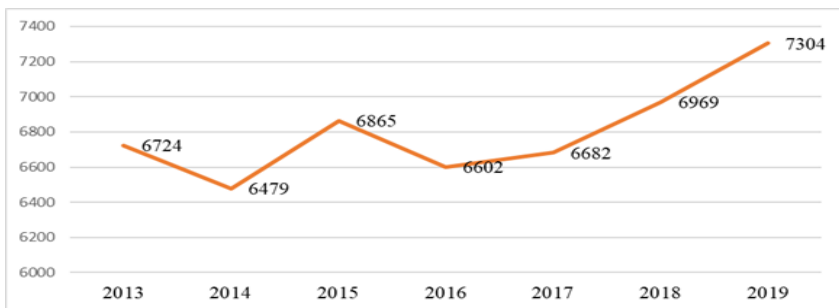
For more complete reflection of the current situation and future development of the economic potential of the enterprise it is advisable to create the key components of the process-oriented management of the economic potential of the enterprise. Since the use of potential is mainly aimed at future periods, it also creates a request for the formation of economic potential of the enterprise and clustering in the territorial and sectoral perspective to establish a competitive position in space.

A cluster of enterprises is usually defined as a group of industry companies located in the same territory. A typical cluster consists of

medium-sized companies, each of which does not benefit significantly from competing with another company in the cluster, but profits from the compact location associated with the use of specialized resources (staff qualifications and specialized infrastructure necessary to conduct business). Cluster enterprises have additional competitive advantages due to the possibility of internal specialization and standardization, minimization of innovation costs. The development of clusters strengthens the interaction between industries and thus contributes to the multiplication of growth (for example, concerning technology transfer, employment, etc.) [19, p. 356].

The analysis of prerequisites for managing the economic potential of mechanical engineering enterprises needs to assess some indicators of the enterprises' activity at the industry level, which is due to their macroeconomic nature. Note that, despite the reduction in the share of processing enterprises in GDP and the fall in the index of industrial production in recent years, since 2017 there has been an increase in the number of mechanical engineering enterprises (Figure 1) [16, p. 123–124], which reflects the presence of economic potential of the industry and is one of the first consequences of Industry 4.0, whose conditions allow even small enterprises to produce competitive mechanical engineering products.

To increase the number of enterprises of the year requires improvement of the economic situation in the country to ensure an appropriate level of satisfaction of both economic interests and appropriate capacity building,



**Figure 1. The number of business entities in the machine-building industry in 2013–2019**

*Source: created by the author according to the data [7]*

because in order to apply an effective system of management it is necessary to use all the available resources of the enterprise and the possible prospects for the future.

The performance evaluation of an enterprise is one of the three cornerstones of the modern enterprise management system. Since performance evaluation has the characteristics of a directional evaluation and an incentive evaluation, it is the basis of compensation policy and influences decentralized decision-making. Thus, it is relevant for the enterprise at the modern stage of the economic management to develop a system of assessing the effectiveness of its functioning as a prerequisite for adapting to changes. In modern business activities there is a fierce market competition, which requires enterprises, a complex and changing environment and the rapid development of the knowledge economy made the process-oriented management an important trend in the modern management.

The development potential of financial architectonics for economics, management, and marketing is related to the functions it performs.

- construction of monetary parts of the models of functioning and integration of these systems;
- formation of a financial infrastructure mediating economic relations, management and marketing;
- external financial regulation of economic relations, management, marketing, including through regulation on the basis of the Tax and Budget Codes of Ukraine, codes of corporate governance, financial norms and standards;
- internal financial regulation of economic relations, management, marketing, including on the basis of financial controlling (allocation of centers of expenses, revenues, responsibility);
- development and realization of financial strategy and tactics of management, economic and marketing policy;
- reduction of financial risks that accompany economic, managerial and marketing activities [10, p. 13].

It is more expedient to apply the value-oriented approach as the base concept and their integration into all functions of the enterprise management – planning, organization, motivation and control. Therefore, an enterprise management model based on the implementation of the stakeholder value-

based approach as a conceptual framework should be implemented through all management functions [8, p. 155]. Thus, the basic principles of the value-based approach to the enterprise management are fully consistent with modern trends in the development of the general management theory, consistent with the concept of the strategic management and stakeholder theory. This provides prerequisites for a quite successful application of the value-oriented approach in the management of innovative activity of an enterprise.

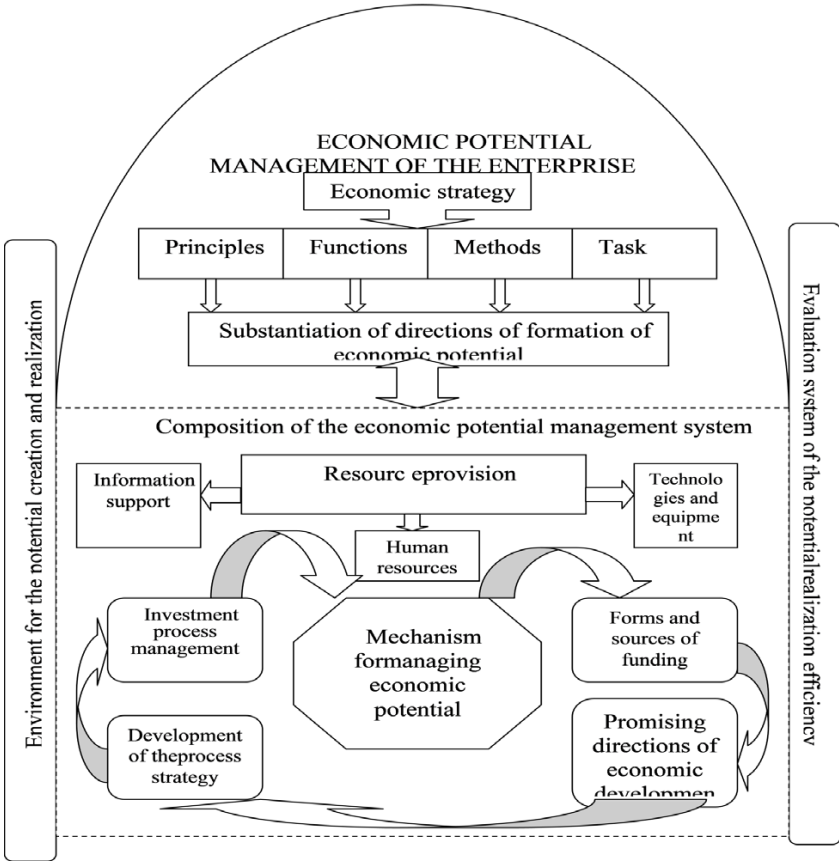
The economic potential management system is a future-oriented, long-term and general plan for the sustainable development of an enterprise. The process-oriented management indicates the direction of how to build a flexible organizational system, how to form the basic competitiveness of the company and how to form the strategic competition with other forces. The evaluation system can help companies effectively implement strategic management, reflect the main characteristics of functioning and develop management decisions when implementing innovative configurations. So, how to carry out an organic combination of a system of estimating therealization efficiency of both economic potential as a whole, and separate components with the external environment of its formation and became the actual problem which needs to be solved in the context of advantages of the sustainable development.

The process-oriented management can be considered as a process of adoption and implementation of economic strategy through justification of directions of formation of the economic potential, as well as composition of the economic potential management system (Figure 2).

The purpose of the process-based economic potential management mechanism is to increase the efficiency and effectiveness of the enterprise to achieve the goals defined in the strategic plan, which the company should have.

Traditional organizations are often structured as a hierarchy of functional units. Usually they are managed vertically, the responsibility for the results are distributed between the functional units. The end consumer or other interested party cannot always see everything that is in question. Consequently, problems that arise at the interface are often given less priority than the short-term goals of the units. The capability performance framework focuses on stakeholder improvement because actions are often





**Figure 2. The constituent elements of the process-oriented management of the economic potential of the enterprise**

focused on functions rather than the overall benefit of the enterprise. The process approach relies on horizontal management, crossing barriers between different functional units and unifying their approaches to realizing its core goals. This creates a basis for determining the strategic directions of the economic potential formation and its adaptation to the changing conditions of the external environment.

The process, spatial approaches to the management of the economic potential of the enterprise are inextricably linked with the value-oriented one, because determining the value of property, tangible and intangible assets, future development prospects in promising markets is the basis for managerial decisions on the implementation of changes.

At the same time from the point of view of value management it is important to create a general system of factors that can influence the growth of value. The system of value creation factors should meet the following requirements:

- the factors should be directly related to value creation and delivered to all levels of the enterprise with the necessary detail;
- the value creation factors should be established and measured as an indicator of value (the chosen indicator should not only cover the stage where financial results and value are directly formed (financial indicators);
- the coefficients of value creation should reflect the level of efficiency realization and long-term growth prospects [2, p. 33].

The process-oriented approach can be used as a basis for planning, organizing and managing the environment of the potential formation and realization, as an activity aimed at creating value for the customer and other stakeholders. The efficiency of the enterprise can be increased through the use of the approach based on the management of the investment process. The very implementation of investment projects allows enterprises to update the technique and technology of production of goods with improved (new qualities) for consumers, to better meet the needs.

Processes of intellectualization of activity along with the management of holistic development of the enterprise serve as the basis for the growth of the efficiency of all types of enterprise activity, and modern information and communication technologies allow the continuous exchange of information and creative solutions both within one enterprise and in the network of partnerships. These technologies, when implemented in management activities, allow making informed decisions more quickly and effectively. Intelligent enterprises in the context of a global competition are an effective mechanism, capable of effective implementation of all stages of the holistic development management. The combination of functions possessed by these enterprises allows creating new impulses for the development of the scientific research, technical developments, managerial and product

innovations, the latest types of marketing and the formation of a long-term development strategy [1, p. 34–35].

The process-oriented management implies the organization of an enterprise's activity on the basis of its delimitation into separate processes, and the management system – into blocks of management corresponding to the processes. That is the process-oriented management requires creating an organizational-and-economic mechanism as a set of subjects and objects of management, channels for transmitting command information and state information (feedback, purposeful processing of this information, activities for preparing and making managerial decisions). Such system will cover the entire spectrum of the enterprise activity, promote the processes that determine and ensure the balance of the enterprise management structure, effectively interact with external environment – with suppliers, consumers and partners.

To the general principles of the organizational-economic mechanism of the process-oriented management of the economic potential of the enterprise we propose to include:

- consistency, according to which the economic potential of an enterprise is considered as a set of interrelated elements, most often such functional components as marketing, production, financial, scientific, technical, logistical and human resource potential;

- comprehensiveness, which takes into account different aspects of the implementation of the economic potential (economic, social, technical, informational);

- purposefulness – the components of the developed concept in the complex should be focused on achieving a single goal;

- dynamism – the process of management of the economic potential of the enterprise is continuous and sensitive to changes in the external environment;

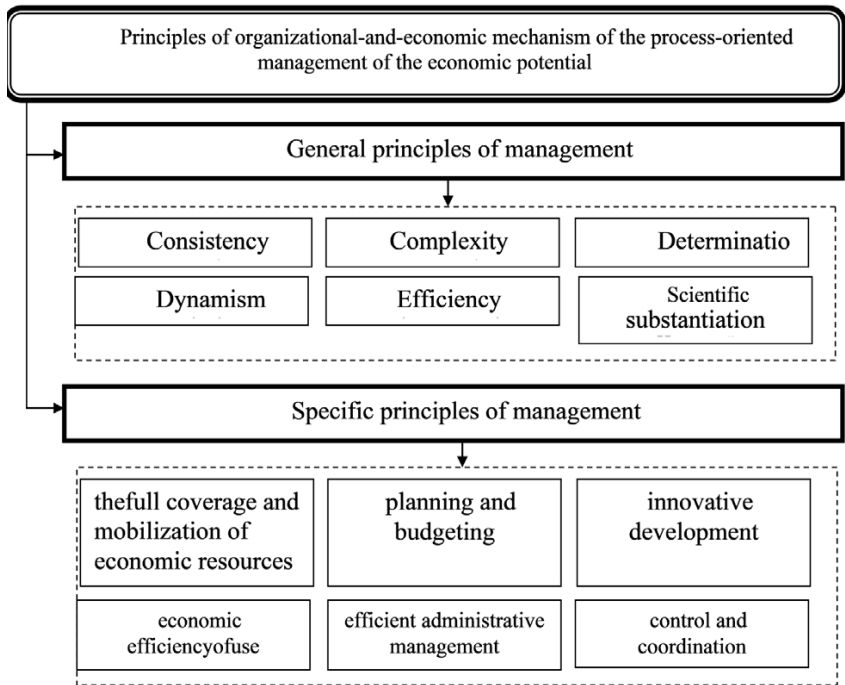
- scientific validity of separate indicators, such as volume, structure and use of the economic potential of an enterprise allows to provide integrity and efficiency of management process;

- the principle of efficiency is conditioned by the fact that it is impossible to imagine a static environment in business, in this connection the task of constant search of the most effective methods of organization of business processes is actualized. Management of the economic potential should be

process-oriented, avoiding conservatism; possess the willingness to create and implement new technologies, effective adaptation of the system of incentives for enterprises (Figure 3).

Thus, the process management is carried out as a system by creating and understanding a network of processes and their interaction.

These approaches are not mutually exclusive, as their choice is determined by the specific tasks that the analyst must solve.



**Figure 3. Principles of the mechanism of the process-oriented management of the enterprise’s economic potential**

However, to identify the conditions and factors of process-oriented management an enterprise needs to determine the relationship between the past and the future, it is suggested to expand a strategic analysis on the basis of economic genetics, which allows to identify the internal mechanism,

patterns of development, assess the content and prospects of periodically occurring organizational changes under the influence of the external environment and managerial decisions.

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