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ECONOMIC EFFICIENCY: DEFINITION, ANALYSIS OF CONCEPTS

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Economic Efficiency: Definition, Analysis of Concepts

At the present stage of economic development, there is a certain crisis in studying economic efficiency of performance results. Despite the interest of many scholars and practitioners to investigating the notion and concepts of economic efficiency, there are still many contradictions in its definition. Theoretical aspects of economic efficiency are highlighted in works of C. McConnell and S. Brue, A. Makhmudova, A. Krasnov, V. Kondratov, B. Raizberg, S. Mochernyi, and others. The aim of the article is to analyze the existing approaches to the definition of economic efficiency in the area of sustainable development of a region. There are several approaches to studying efficiency: "resource-based" approach that provides for the fullest use of scarce resources in order to fully meet the limited needs; "cost-based" approach, which considers the ratio of performance results and costs. The article presents the views of scientific schools on the concept of "efficiency", namely: representatives of the Classical School consider efficiency as a comparative ratio of production factors to their productivity and resource availability; the Neoclassical School considers efficiency from the point of view of social reproduction quality; according to representatives of the School of General Equilibrium, the basis of countries' competitive advantages is the prices for goods being less than equilibrium prices, as well as the conditions of countries that provide mutual demand and supply. The equalization of aggregate demand and aggregate supply can be either performed by changing prices with constant quantities, or by changing quantities with constant prices, or by changing quantities and prices simultaneously; representatives of the Institutional and Non-Institutional Schools consider efficiency through the prism of transaction costs; the School of Competitive Advantages considers efficiency as a competitive advantage of the state and business levels. Efficiency is always associated with the ratio of result value to costs value, s

Keywords: economic efficiency, concept, result.

Fig.: 1. Tbl.: 2. Bibl.: 22.

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Михайленко Д. Г. Економічна ефективність: визначення, аналіз концепцій

Сучасний етап розвитку економіки характеризується певним кризовим станом у дослідженнях економічної ефективності результатів діяльності. Незважаючи на зацікавленість багатьох учених та практиків до вивчення поняття та концепцій економічної ефективності, існує безліч протиріч у його визначенні. Теоретичні аспекти економічної ефективності можна дослідити в працях К. Макконелл і С. Брю, А. Махмудова, А. Краснова, В. Кондратова, Б. Райзберг, С. Мочерного та ін. Метою статті є аналіз наявних підходів до визначення економічної ефективності у площині збалансованого розвитку регіону. Виділяють декілька підходів до вивчення ефективності: «ресурсний» підхід передбачає можливість найбільш повного використання обмежених ресурсів з метою найбільш повного задоволення обмежених потреб; «витратний» підхід – співвідношення результатів діяльності і затрат. В статті наведено погляди наукових шкіл на поняття «ефективність», а саме: представники класичної школи розглядають ефективність як порівняльне співвідношення чинників виробництва, з їх продуктивністю і забезпеченістю ресурсами; неокласична школа ефективність розглядає з позицій якості суспільного відтворення; на думку представників школи загальної рівноваги, основою конкурентних переваг країн є ціни товарів, що менші рівноважних цін, а також умови країн, які забезпечують взаємний попит і пропозицію. Зрівняння сукупного попиту і сукупної пропозиції може здійснюватися: або через зміну цін, при незмінних кількостях, або через зміну кількостей при незмінних цінах, або через зміну кількостей і цін одночасно; представники інституційної та неоінституційної школи ефективність розглядають УДК 332.1 JEL Classification: O18; P25

Михайленко Д. Г. Экономическая эффективность: определение, анализ концепций

Современный этап развития экономики характеризуется кризисным состоянием в исследованиях экономической эффективности результатов деятельности. Несмотря на интерес многих ученых и практиков к изучению понятия и концепции экономической эффективности, существует множество противоречий в его определении. Теоретическим аспектам экономической эффективности в своих в трудах уделяли внимание К. Макконнелл и С. Брю, А. Махмудова, А. Краснов, В. Кондратов, Б. Райзберг, С. Мочерный и др. Целью статьи является анализ существующих подходов к определению экономической эффективности в плоскости сбалансированного развития региона. Выделяют несколько подходов к изучению эффективности: «ресурсный» подход предполагает возможность наиболее полного использования ограниченных ресурсов с целью наиболее полного удовлетворения ограниченных потребностей; «затратный» подход – соотношение результатов деятельности и затрат. В статье приведены взгляды научных школ на понятие «эффективность», а именно: представители классической школы рассматривают эффективность как сравнительное соотношение факторов производства, с их производительностью и обеспеченностью ресурсами; неоклассическая школа эффективность рассматривает с позиций качества общественного воспроизводства; по мнению представителей школы общего равновесия, основой конкурентных преимуществ стран являются цены товаров, которые меньше равновесных цен, а также условия стран, обеспечивающих взаимный спрос и предложение. Уравнивание совокупного спроса и совокупного предложения может осуществляться: либо через изменение, при неизменных количествах, или из-за изменения количеств при

через призму трансакційних витрат; школа конкурентних переваг розглядає ефективність як конкурентну перевагу державного та підприємницького рівнів. Ефективність завжди пов'язана з відношенням цінності результату до цінності витрат; суб'єктивна, особистісна оцінка об'єкта, має кінцевий результат.

Ключові слова: економічна ефективність, концепція, результат.

Рис.: 1. Табл.: 2. Бібл.: 22.

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неизменных ценах, или из-за изменения количеств и цен одновременно; представители институциональной и неоинституциональной школы эффективность рассматривают через призму трансакционных издержек; школа конкурентных преимуществ рассматривает эффективность как конкурентное преимущество государственного и предпринимательского уровней. Эффективность всегда связана с отношением ценности результата к ценности затрат; субъективная, личностная оценка объекта, имеет конечный результат.

Ключевые слова: экономическая эффективность, концепция, результат.

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Problem statement. At the present stage of economic development, there is a certain crisis in studying economic efficiency of performance results. Despite the interest of many scholars and practitioners to investigating the notion and concepts of economic efficiency, there are still many contradictions in its definition. However, the accuracy and precision of formulations of the conceptual and categorical apparatus, operationalization of its structure and factors have an important theoretical significance for constructing the picture of the research world.

Analysis of recent researches and publications. Theoretical aspects of economic efficiency are highlighted in works of C. McConnell and S. Brue, A. Makhmudova, A. Krasnov, V. Kondratov, B. Raizberg, S. Mochernyi, and others.

The aim of the article is to analyze the existing approaches to the definition of economic efficiency in the area of sustainable development of a region.

Presentation of basic material of the research. The term "efficiency" is used when describing phenomena that relate to different branches of knowledge and spheres of activity. However, "efficiency" is a key concept of practical and theoretical economics. Thus, well-known classical economists C. McConnell and S. Brue by means of efficiency reveal the essence of economics.

These authors state that economics "... explores the problems of the effective use of scarce productive resources ..." [1].

One cannot object to the statement by A. Makhmudova that efficiency is a multifaceted concept, approaches to the measurement of which are currently being discussed and improved, thus indicating the incompleteness of the process of its studying, revealing the essence and achieving certainty in the interpretation by researchers and practitioners [2].

When exploring the definition of "efficiency", it is advisable to draw attention to the opinion of A. Krasnov, who believes that efficiency is one of the fundamental concepts, since it reflects the laws inherent in any kind of human activity [3].

V. Kondratov defines efficiency as a purposeful activity of a human aimed at studying different aspects, properties, ties, relationships in investigating processes, objects, systems and phenomena of the material world [4].

The examples of two approaches to the definition of "efficiency" are given in Table 1.

Proponents of the first ("resource-based") approach emphasize the possibility of the fullest use of scarce resources in order to completely meet the limited needs. So, the team of authors led by S. Mochernyi determines the economic efficiency in terms of achieving the greatest results at the lowest cost of

Table 1

Approaches to the definition of "efficiency"

Approach	Source	Definition
Resource-based approach: efficiency of using resources	[5]	Indicator of goods and services output in the calculation: per cost unit; or per unit of capital spent; or per unit of total costs of all the productive resources
	[4]	Productivity of using resources in achieving any goal
Cost-based – result-cost ratio	[6]	Result of economic activity, economic programs and measures, characterized by the ratio of the resulting economic effect to the costs of factors and resources, having led to this result, achievement of the largest volume of production with the use of resources of a certain value
	[7]	The relative effect, effectiveness of the process, operation, project that is defined as the ratio of the effect, result to the costs, expenditures having caused and ensured its onset

Developed by the author based on [4-7]

labor. In their view, the general indicator of economic efficiency is profit margin, as well as productivity and capital intensity of labor, returns on assets, capital intensity of products, material productivity and material intensity of products, economic efficiency of capital investments, new technology, energy intensity of products, etc. [8]. L. Abalkin defines the notion of "economic efficiency" as obtaining a certain result per unit of resources used [9].

Proponents of the second ("cost-based") approach define the concept of "efficiency" as the ratio of effect to costs or resources that have been spent on its achievement. The essence of the "cost-based" approach is that economic efficiency is the ratio of performance results to costs [10]. That is, it is the ratio of result or effect of any activity to costs associated with its implementation. P. Orlov characterizes efficiency, firstly, as the ratio of result to costs; and secondly, as the ratio of costs to performance results [11, p. 367].

According to V. Rybin, the main element reflecting the concept of "economic efficiency" is the form of the result of useful activity, with the effect being an absolute excess of results over costs [12, p. 7–8]. One can agree that efficiency is not inherent in any interaction but only in focused one. In this regard, the notion of "efficiency" is more inherent to management and reflects the degree of goal achievement. Thus, efficiency is always a correlation (the result and the goal or result and the cost of its achievement).

One of the reasons for the lack of consensus among representatives of the scientific world is the evolution of the approaches to understanding the concept of "efficiency" and the formation of scientific schools. Each scientific school has its own understanding of the "efficiency" concept (Tbl. 2).

An English economist, T. Mun, was one of the first to take an interest in the problems of efficiency at the state level. Being

The views of scientific schools on the "efficiency" concept

School Characteristic Classical School Efficiency is seen as a comparative ratio of production factors to their productivity and resource availability [13-15]Neoclassical School [16] Efficiency is considered from the point of view of social reproduction quality Efficiency is considered at the macro level. According to the representatives of this school, the basis of the competitive advantages of the countries is the prices of goods being less than equilibrium School of General Equilibrium prices, as well as the conditions of countries that provide mutual demand and supply. The equalization of aggregate demand and aggregate supply can be either performed by changing [16] prices with constant quantities, or by changing quantities with constant prices, or by changing quantities and prices simultaneously Efficiency is considered in terms of the transaction cost. It should be noted that within the Institutional and Nonframework of the institutional and non-institutional economy, special attention was paid to the Institutional Schools problems of the influence of market institutions on the efficiency of functioning of socio-economic systems of various levels, including regional ones School of Competitive Efficiency is considered from the point of view of competitive advantages at the state and business

the author of the book "England's Treasure by Foreign Trade", he outlined the possibilities of the state in the field of profitable foreign economic activity: "...I will take that for granted which no man of judgment will deny, that we have no other means to get Treasure but by foreign trade... I have already showed, that it is done by making our commodities which are exported yearly to over balance in value the foreign wares which we consume [18].

levels

Advantages [16; 17]

In the opinion of this scholar, money generates profits only when in circulation. In this regard, he actively opposed the ban on its export. Only a positive trade balance contributes to an increase in the amount of money in the country [18].

T. Mun emphasizes the need to create a system of economic regulation that would provide the state with a positive balance. However, there are problems of long-term excess of exports over imports, for example, the inflow of surplus funds to the country inevitably leads to an increase in domestic prices. When analyzing the efficiency of foreign economic activity, it is necessary to take into account the existing set of external relations.

The representative of the classical school, A. Smith did not consider "efficiency" as an independent economic concept. He used the term "productivity" to evaluate government or private goals, depending on whether they promoted activating economic life or not. In his work "An Inquiry into the Nature and Causes of the Wealth of Nations" he states that wealth is a performance indicator of the activity of representatives of all kinds of labor and occupations. He examined performance indicators and determined that the larger these indicators the higher the effect and the result – the greater the wealth [13].

Laws of labor division and growth of labor productivity, discovered by A. Smith, can be considered classical. In his opinion: "The division of labor, however, so far as it can be introduced, occasions, in every art, a proportionable increase of the productive powers of labor" [13]. The increase of labor productivity entails the increase of the volume of manufactured products, and thus contributes to the increase of efficiency of both society and enterprises.

At the beginning of the $20^{\rm th}$ century, the economic concept of such notion as "efficiency" accrued other aspects of its

Table 2

various manifestations. In the future, "efficiency" was formed under the influence of the effective use of labor and technology in industrial production.

According to an American scientist H. Emerson, the loss due to inefficiency was the evil that penetrated the entire American industrial system of that time. He was one of the first to present scientific views on the efficiency of work from a managerial point of view. In his book "Efficiency as a Basis for Operation and Wages" he proposed options for solving the problem of inefficiency, which include developing a system of methods that would allow workers to achieve maximum results. According to him, it requires a thorough analysis of all the elements of labor and training of workers the optimal ways of doing any work [19].

H. Emerson focuses readers' attention on the thought that is not labor, capital or land that created and continue creating today's modern wealth. Ideas – that's what create the wealth. All that is needed is the ideas that more rationally create the natural conditions, as well as the reduction of labor, capital and land for the production unit. Ideas were the dominant force and they should be focused on reducing losses when creating a more efficient industrial system. H. Emerson felt that the main disease of the industry is a defective organization. Thus, the position of this scientist regarding the rational organization of economic activity reveals the question of production efficiency on a large scale. According to H. Emerson, the most advantageous ratio between aggregate costs and economic benefits is efficiency. He believed that true performance always ensures maximum results with minimal effort while the exertion, on the contrary, leads to significant results only with extraordinary efforts. Exertion and productivity are not just the same things, but things being exactly the opposite. To work hard means to put maximal efforts into action. To work productively means to apply minimum efforts. [19].

Fundamental provisions of the classical school were subsequently developed by new methods of studying the issues of production efficiency by neoclassical school representatives.

V. Pareto, in his theory of economic optimum, sought optimal solutions in the interests of the greatest efficiency of economic activity. He made a point to solve the problem of optimal distribution of economic resources and produced goods. However, as a criterion, the condition was accepted: under certain conditions, no one can improve his/her position without worsening the position of any other [8].

V. Pareto stated that the problem of growth in welfare of poor classes is more likely to be the problem of production and preservation of wealth than of distribution. He believed the most faithful means of improving the situation of poor classes are to make wealth grow faster than the population [21]. This scientist sees production increase as a determining factor in increasing the well-being of the population in comparison with the distribution of wealth.

An important contribution of V. Pareto to science is the formulation of the concept of "Pareto optimality". By optimality he understood "equilibrium state" from which any redistribution of resources or products cannot be made so as to make the position of any one rational subject better off without making the position of at least one worse off... Therefore, the movement towards optimality is associated with such a movement of resources that raises the welfare of at least one person, not worsening the situation of others under conditions of achieving economic optimality [19].

The literature provides many approaches to the evaluation of efficiency, which is connected with theories concerning its formation and definition.

O. Kuznetsova in her article "On the Essence of Economic Efficiency" distinguishes five theories of efficiency (Fig. 1) [22].

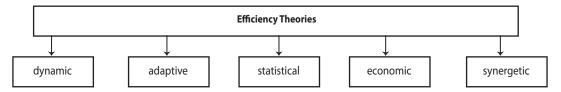


Fig. 1. Efficiency Theories

According to O. Kuznetsova, the adaptive theory considers efficiency as creativity of entrepreneurial activity in view of the present situation; the dynamic one — as using available resources over a period of time; the statistical theory—as the efficiency of production systems functioning under the influence of time factor; the synergistic theory—as the result of interaction of two or more elements in a general system, which are characterized by the fact that their effect in the form of their simple sum significantly exceeds the effect of each individual element; the economic theory—as the ratio of the useful result to costs of the factors of the production process [22].

Conclusion. The generalization of the evolution of views on the formation and development of economic efficiency has allowed to state that the authors of the analyzed works made a significant contribution to the development of

modern science. The carried out analysis has shown that the concept of "efficiency" is always associated with the ratio of result value to costs value. Economic efficiency is considered as a subjective, individualized assessment of an object and has a final result.

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