ANALYSIS OF SCIENTIFIC APPROACHES TO THE ECONOMIC EFFICIENCY OF GROWING NUTS

I.O.Yunusov, PhD, "Tashkent Institute of Irrigation and Agricultural Mechanization Engineers" National Research University

U.N.Sadullaev, Researcher, PhD of the International Center for Strategic Development and Research in Food and Agriculture

Abstract

This article discusses the various approaches of leading economists to economic indicators, the concept of efficiency in the production of walnuts, the features of growing walnuts, assessing the effectiveness of growing walnuts, including the formation of a system of indicators that determine economic efficiency and improvement, methods for their calculation.

Keywords: modern economy, economic efficiency, high-yielding varieties, walnut, indicators, approaches, etc.

Introduction. The development of the external environment in the modern economy is characterized by its rapidly changing conditions, the competitiveness of products, the implementation of activities, the provision of services in the domestic and foreign markets determine the successful operation of the enterprise in the market as a whole. Through the category "Economic efficiency" the most important features of the economic activity of the enterprise are reflected, namely, dynamism, integrity, competitiveness, multidimensionality, business planning, etc.

Economic efficiency is considered a complex category of economic science, it covers all areas of human practical activity, all stages of the production process and serves as the basis for ensuring the actual implementation of decisions. The concept of assessing the economic efficiency of processes implemented in economic entities is of a general nature and applies to organizations of any form and field of activity.

Economic efficiency comprehensively reflects the result of the economic activity of the enterprise and the interaction of its elements. Criteria for evaluating economic efficiency is a system of absolute, relative and dynamic performance indicators that allows you to evaluate the effectiveness of the methods and means used at the enterprise to ensure economic efficiency.

If we consider the term "efficiency" in a broad sense, then we can emphasize that this is a general concept, since this term can be used in any area of human activity. One of the founders of the concept in economic science was D. Ricardo, who in his work "Political Economy and the Beginning of Taxation" (1817) expressed economic efficiency as the ratio of the result to certain types of costs [1].

Later, the concept of "economic efficiency" was actively used in the works of such foreign scientists as K. Marx, who considered economic efficiency as the main condition for the transition from one stage of socio-political development to another [2], A. Pigou [3], it is believed that the economic system achieves maximum efficiency when the marginal utility of all factors is the same, J. Galbraith [4] wrote that economic efficiency is determined by the ability to achieve goals.

Considering the works of Russian economists, we can distinguish the following definitions of the concept of "Economic efficiency": A. N. Asaul gives a comprehensive definition of economic efficiency, recognizing it as a category of quality. This category is reflected at all stages of economic activity (production efficiency, level of system organization, level of achievement of goals, etc.) [6]. ZA Demchenko and others define economic efficiency as the final result of using all production resources in a certain period of time [7].

N.A.Polyanskaya recognizes economic efficiency as the result of economic activity, economic programs and measures, emphasizing that the resulting economic effect is characterized by the ratio of factors that led to this result, resource costs [8].

In economic dictionaries, efficiency is understood as the ratio of the effect (achieved result) to the costs spent on obtaining it [9]. Comparing the definitions of foreign and domestic economists, we can conclude that the concept of "economic efficiency" is characterized by the versatility of the category of economic efficiency, on the one hand, and the complexity of expressing it in indicators and units of measurement. However, many authors still put forward similar ideas that economic efficiency is the ratio of the final result (result) to the resources spent on it. An analysis of foreign and domestic economic literature revealed that the question of the relationship between the concepts of "economic efficiency", "efficiency" and "performance" is currently relevant.

It is worth noting that all of the above concepts are closely related to each other, so it is advisable to clearly study and explain the economic nature of these concepts. After analyzing the concept of "economic efficiency", we note that the concept of "efficiency" is included in the definition of economic efficiency: economic efficiency is expressed as the ratio of the final effect (result) to the resources spent on it.

Materials and analysis. "Effect" is an absolute value that is the result of some process [10]. Thus, the result of the production activity of the enterprise can be considered both the volume of production and the volume of sales from economic activities, the financial results of ordinary activities, profit, net profit. "Efficiency" is a relative indicator obtained by comparing the absolute value of the effect with the absolute values of costs and resources, and it determines the activity of the enterprise.

In other words, the meaning of efficiency lies in determining the cost (costs, resources) of the results obtained. Efficiency should be understood as the degree of achievement of the planned result, that is, the ratio of actual and planned results [11].

Interesting scientific approaches to the relationship between the concepts of "efficiency" and "effectiveness" were formed by the famous economist P. Drucker, who identified the following characteristics of the terms under study: he describes the effectiveness as "how to carry out a specific activity"; and emphasizes that efficiency is associated with the "correct organization of work". According to P. Drucker, it is possible to achieve the set goals at the lowest cost by defining a clear strategy and setting a specific goal at the initial stage [12].

Based on the above considerations, we can conclude that the concepts of "efficiency", "effect" and "effectiveness" complement each other and are interrelated, but are not exactly identical.

At the same time, foreign and domestic scientists [13] presented a lot of comments and approaches to the concepts of economic indicators and efficiency in the field of nut growing. In particular, a number of Russian economists say that the low productivity of nut orchards is mainly due to non-varietal composition, insufficient pollination, fruit fall, diseases, etc.

A.F.Zarubin [14] and F.S.Baryshman [15] noted that one of the main reasons for the low productivity of nuts is the density of nut plantations. In addition, A.F. Zarubin [16] concluded that the yield per unit area remains the same before and after thinning nuts. As noted by V.A.Olisaev [17], according to some authors [15], one of the main reasons for the low productivity of nuts is the density of plantations. And as a result, this leads to a lack of light and a sharp decrease in yield. Therefore, in production, it is recommended to organize plantings according to a scientifically based planting scheme.

Many foreign economists dealt with the issues of growing nuts and increasing their size, the economic indicators of growing nuts, and the development of the industry. In particular, Iranian researcher Mahmoud Bakhshinejad's Ph.D. thesis [18] "Comparative Advantages of Nut Family Culture in Iran" argues that Iran has a high potential to increase its relative advantage in the production and export of walnuts. In his opinion, it is advisable to develop and implement a set of measures to create the proper conditions for efficient production, including the formation of a material and technical base, personnel training, and infrastructure development. Workers can be re-engaged in agricultural production when the necessary conditions are created for growing crops such as walnut.

The report "Walnut Industry Research & Best Practice Implementation" by H. Adem & Peter H. Jerie from Australia examines the prospects for increasing economic efficiency in the industry through the organization of production in the form of associations of walnut producers. It was emphasized that the processes of preparation, planting and processing of walnut seedlings are important factors in achieving efficiency. Also, during the development of the walnut grove, incomes and expenses were compared by years, and it was suggested that it was possible to achieve an increase in economic efficiency through special investment programs and tax incentives [19].

US researchers Larry Harper, Dr. William Kurtz's "Economics of Eastern Black Walnut Agroforestry Systems" analyzes the profitability of growing walnut trees in Missouri's primary agroforestry system. In most cases, he mentions that the stable profitability of the enterprise practically depends on the production of walnuts and explains that in the development of walnut growing there should be mechanisms for economic incentives from the state [21].

Using the example of our country, we can say that the indicators of the economic efficiency of growing nuts have not yet been fully studied, but have been partially considered in the framework of a number of studies in the field of fruit growing.

For example, according to one of the economists of our country, N. S. Khushmatov and T. Fayzullaeva [22], the period of walnut cultivation, which requires large expenditures, is the period of laying a walnut plantation, and the period of long-term production (up to 250-300 years) after cutting down trees. Extremely low cost makes it an attractive investment for the entrepreneur. The economic efficiency of growing products is very high, and if you pay attention to the calculations of specialists, high-yielding varieties of walnuts will begin to produce a good harvest in 8 years, and one tree will produce an average of 18 kilograms of products.

According to A. Inobatov [23], it is necessary to stimulate the creation of new varieties of walnut trees and agricultural technology, which will allow growing walnuts and entering the market with high-quality products that meet the demands of the world market. Also, when determining the quality of walnut fruits, they distinguish between its competitiveness in the market, the size and appearance of the fruit, the presence of white flesh in demand on the world market, and most importantly, the presence of quality and price factors, as well as high yields.

B. Rakhmonova in her research work reveals the role of the walnut market at the national and regional levels and the need to develop their activities. It is emphasized that the current state of walnut growing in rural areas and the possibility of increasing its economic efficiency are directly related to the directions of economic stimulation of the development of walnut growing in rural areas [24].

According to Sh.M. Murodov, cooperatives are effective because they do not have a large number of farms and peasant farms for the simultaneous cultivation of fruits and vegetables, purchase of material and technical resources, market research, search for buyers, delivery of quality products to consumers [25].

S.K. Eshmatov noted that when growing fruit and vegetable products, crops are not placed based on the requirements of the global and domestic market conditions, the cultivation of export varieties, the lack of a scientific and innovative system for combating diseases and pests, the failure to take into account the capacities of processing enterprises in the regions, the introduction of intensive technologies. Factors such as slow maturation cause a decrease in yield and an increase in the cost of production [26].

Ensuring a high level and stable yield in intensive orchards, the convenience of manual harvesting due to the small number of fruit trees, increasing the weight of quality products offered on the market by preventing mechanical damage to the harvested crop provide an increase in the economic efficiency of intensive orchards by 20-25%, as well as scientifically -practical approaches to vegetation, such as carrying out fertilizing activities, creating greater convenience in the use of the drip irrigation system and mechanization, are reflected in the O. Sattorov's [27] scientific works.

In general, today a number of leading scientists of our republic with scientific research on the cultivation and sale of fruits and vegetables, the development of the value chain, the increase in the market for nuts and their production volumes, the assessment of sales opportunities in the domestic and foreign markets, organizational and economic relations in the field of walnut growing, N.S. Khushmatov, Sh.M. Murodov, S.K.Eshmatov, O.B.Sattorov, T.Fayzullaeva, A.B.Inobatov, F.Polvonov, B.Rakhmanova and others are engaged in their scientific work and research and make an important contribution with their practical suggestions and recommendations.

Discussion. In our opinion, the study of economic indicators and features of growing walnuts, the analysis of the walnut pricing stages, the assessment and analysis of incomes of the population through the shares of value added, the participants in the chain from growing walnuts to selling them to the end consumer are necessary in our country today, especially clearly determines the

economic and social necessity of growing fruit and berry products, such as walnuts, pistachios and almonds in arid lands, in mountainous and foothill areas. Also, a step-by-step analysis and evaluation of economic indicators in the cultivation of walnuts serves as the basis for the proper organization of work in the processes of growing and selling walnuts, business planning and increasing production volumes, as well as offering quality products to consumers and exports.

Analyzing the various approaches of leading economists to economic indicators and concepts of efficiency in the field of walnut growing, we can say that, in our opinion, it is advisable to take into account the specifics of growing walnuts, evaluating the effectiveness of growing walnuts, including the formation of a system of indicators that determine economic efficiency and improve methods their calculation (Table 1).

Conclusion. Based on the above scientific approaches and opinions, we can say that the concept of economic efficiency in the cultivation of walnuts is, first of all, in taking into account the economically important features of growing walnuts, the economical use of directly available resources, as well as the profit received through the widespread use scientific methods and intensive technologies in the cultivation of walnuts, expressed as a ratio to total costs, helps to correctly assess and analyze the activities of walnut farms today.

When determining the indicator of economic efficiency, first of all, it is advisable to carefully analyze which costs are relatively high in the costs of growing and selling walnuts. According to the analysis, in the cost of growing walnuts, the largest share of costs in the initial period of creating walnut plantations is the cost of delivering seedlings and seedlings, agrotechnological costs.

In general, in our opinion, when assessing the economic efficiency of growing and selling walnuts, it is important first of all to determine the components of the costs of growing and selling walnuts and keep proper records, therefore, along with the peculiarities of growing walnuts, economic aspects, the number of planted seedlings and schemes plantings, diseases and the presence of a pest control system, the stability of demand for goods in the domestic and foreign markets, pricing features in the market and other aspects, after a detailed analysis, and then the economic efficiency indicator can be scientifically and theoretically fully substantiated.

Table 1.

Different approaches of leading economists to the economics of growing nuts[1]

№	Name of the Scientists	The concept of "Efficiency", various approaches to the organizational and economic foundations of growing nuts.	Author's approac hes
1.	D.Ricardo, J. Galbraith	They expressed economic efficiency as the ratio of the result to certain types of costs. It is determined by the ability to achieve the goal.	It is desirable to take into account the peculiarities of growing walnuts, evaluating the effectiveness of growing walnuts, including the formation of a system of indicators that determine economic efficiency and improve methods for calculating them.
2.	A.N. Asaul	He recognizes that economic efficiency as a category of quality is reflected at all stages of economic activity (production efficiency, level of organization of the system, level of goal achievement, etc.).	
3.	Z.A. Demchenko	Economic efficiency is defined as the final result of the use of all production resources in a certain period of time.	
4.	Chepurnoy V.S., Vasilenko I.I.	The low productivity of walnut orchards is mainly due to non-varietal composition, insufficient pollination, fruit fall, diseases, etc.	
5.	A.F. Zarubin, F.S. Baryshman	One of the main reasons for the low productivity of walnuts is the density of walnut plantations.	
6.	M. Bakhshinejad	It is desirable to develop and implement a set of measures to form the material and technical base, train personnel, and develop infrastructure in the field of walnut growing.	
7.	H. Adem & Peter H. Jerie	During the period of development of the walnut grove, annual income and expenses were compared, and it was suggested that economic efficiency could be improved through special investment programs and tax incentives.	
8.	N.S. Khushmatov, A. Inobatov	The economic advantages of growing walnuts are highlighted. In particular, the presence of a stable demand for walnuts in the domestic and foreign markets, the possibility of obtaining a long-term stable income, etc.	
9.	N.S. Khushmatov, T. Fayzullaeva	The fact that growing a walnut is more expensive during the period of laying a walnut plantation and extremely low-cost in the subsequent long period (up to 250-300 years) makes it an attractive investment for an entrepreneur.	

References:

1. Ricardo D. Beginnings of political economy and taxation. M.: ESKMO, 2007. 960. P. 48.
2. Marx K. To the criticism of political economy. M.: LIBROKOM, 2012. 178 pp. 42.; Masyukova T. G. On the essence of the concepts of "performance" and "efficiency" in the economy / T. G. Masyukova // Science of the Third Millennium. - 2016. - №. 1. - pp. 105–07.
3. Huerta de Soto H. Socio-economic theory of dynamic efficiency / Jesus Huerta de Soto; per. from English. V. Koshkin, ed. A. Kuryaeva. - Chelyabinsk: Sotsium, 2011. 409 p.; Ricardo D. Beginnings of political economy and taxation. M.: ESKMO, 2007. 960 p. P. 48.
4. Elantsev S. V. Problems of growth in the efficiency of the corporate sector of the Russian economy. 2013. №, pp. 143–146.
5. Oborina, O. E. Economic efficiency: concept and essence / O. E. Oborina. - Text: direct // Young scientist. - 2020. - № 23 (313). - pp. 427-429. - URL: https://moluch.ru/archive/313/71251/ (date of access: 07/26/2022).
6. Rodionova V. N. Organization of production at enterprises in modern conditions / V. N. Rodionova. - Voronezh: VSTU, 2015. - 212 p.
7. Demchenko Z. A., Bykovsky E. I. Economic efficiency of an enterprise: concept, essence, indicators, methods of determination // Science of the XXI century: St. Petersburg, 2016. P. 141–145.
8. Polyanskaya N. A. Some approaches to determining the efficiency of the use of production resources // Vestnik NGIEI. 2014. № 4 (5). T. 1.
9. Azrilyan I. N. Big economic dictionary / I. N. Azriliyan. - M.: Institute of New Economics, 1999. - 1248 p.; Raizberg B. A. Modern economic dictionary / B. A. Raizberg, L. Sh. Lozovsky, E. B. Starodubtseva. - M.: INFRA-M, 2007. - 495 p.
10. Kozyrev V. M. Fundamentals of modern economics: textbook. - 2nd ed., revised. and additional - M. Finance and statistics, 2001. - 432 p.
11. Ivanitsky V. S. Evaluation of the economic efficiency of the functioning of an enterprise in market conditions: diss. cand. economy Sciences: 08.00.05. - Yekaterinburg, 2003. - 149 p.
12. Masyukova T. G. On the essence of the concepts of "performance" and "efficiency" in the economy / T. G. Masyukova // Science of the Third Millennium. - 2016. - № 1. - p. 105–07.; Polyanskaya NA Some approaches to determining the efficiency of the use of production resources. Vestnik. 2014. № 4 (5). T. 1.
13. Chepurnoy V.S., Vasilenko I.I. Reserves for increasing the yield of walnuts.// Horticulture and viticulture. 1991. № 11. - p. 36-39.
14. Dorofeev P.P. Walnut culture in Moldova. Chisinau.: Gosizdat., 1948. - 36 p.
15. Baryshman F.S. Walnut breeding to increase the productivity of protective forests.// Proceedings of the Kuban Agricultural Institute, 1975. Issue 111 (139), - p. 83-94.
16. Sukhorukih Yu. I. P. 91 Selected works: in 3 books / Yu. I. Sukhorukih. - Maykop: LLC "Quality", 2008 - Book. 2: Walnut. - 2008. - 396 p.
17. Olisaev V.A. On walnut plantations.// Rural dawns. 1979 № 11. - p. 57-58.
18. Mahmud Bakhshinejad. "Comparative advantages of walnut family crops in Iran" thesis for the degree of candidate of economic sciences. Moscow State University named after M. Lomonosov (2012).
19. H. Adem & Peter H. Jerie. "Walnut Industry. Research & Best Practice Implementation". A report for the Rural Industries Research and Development Corporation. 2004. Publication №.04/032. Project No. Dav-164A.
20. B. Nosirov, B. Rakhmanova / Innovations in Economy/ №4. 2020. – Б.176. https: // www.researchgate.net / publication / 347360735 Ways to improve the organizational and economic bases of walnut production in Uzbekistan.
21. Larry Harper, Dr. William Kurtz. "Economics of Eastern Black Walnut Agroforestry Systems". School of Natural Resources, University of Missouri, USA. 2014.
22. Khushmatov N., Fayzullaeva T. Pricing and characteristics of the walnut growing market volatility. Zh.: Agroscience - agriculture and water management of Uzbekistan. - № 5. 2019. P.106.
23. Inobatov A. Use of competitive varieties in the export of walnuts grown in Uzbekistan to world markets. J. "Science and innovative development". 3/2021. - P.73-83.
24. Rakhmanova B. Perspective ways of organizational and economic foundations of walnut growing in our republic. Collection of materials of the republican scientific and practical conference on the topic "Implementation of the concepts of "Smart Agriculture" and "Agriculture - 4.0" in Uzbekistan: problems and solutions." T.: 2021. - P.47-58.
25. Murodov Sh. Formation of cooperation relations in the sphere of fruit and vegetable production. Doctor of Philosophy (PhD) Thesis in Economics. 2020. - P.21-22.
26. Eshmatov S. Directions for the development of the value chain in the fruit and vegetable industry. Doctor of Philosophy Dissertation in Economics. 2021. - P.25-26.
27. O. B. Sattorov, Doctor of Philosophical Sciences, Candidate of Economic Sciences "Directions for Improving the Economic Base for the Development of Intensive Horticulture in Farms." 2021. - D.12.