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WHAT EXACTLY IS ECONOMIC COMPETITIVENESS? IS THIS AN ETERNAL QUESTION?

The article is devoted to logical analysis of the enterprises', regions' and countries' competitiveness concept definition and justification of the methodologically correct formulation of the concept definition.

Based on the specified requirements of logic and methodology of science to the definitions of scientific concepts, the paper contains a critical analysis of the best known definitions of the competitiveness concepts of economic agents of various types, identifies their strengths and reveals typical methodological mistakes while formulating definitions of this concept, gives the most likely reasons for unsatisfactory state of the conceptual and categorical apparatus of the economic theory of competition, justified as a decisive in research the conception of economic agents as their ability to achieve their inherent goals of functioning in a competitive environment on a long-term basis.

The proposed definition of the competitiveness concept unambiguously defines the object of measurement and its nature, as well as the structure of theoretical and methodological issues that must be solved within the framework of the problem of managing the competitiveness of economic agents of various types.

Keywords: scientific concept, definition, economic agent, competitiveness, logical analysis.

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ЩО ТАКЕ КОНКУРЕНТОСПРОМОЖНІСТЬ? ЦЕ ВІЧНЕ ПИТАННЯ?

Стаття присвячена логічному аналізу визначень поняття конкурентоспроможності підприємств, регіонів і країн і обґрунтуванню методологічно коректного формулювання визначення зазначеного поняття.

На основі вимог логіки і методології науки, що пред'являються до визначень наукових понять, в статті проведено критичний аналіз найбільш відомих визначень поняття конкурентоспроможності економічних суб'єктів різного типу, вказані їх сильні сторони і виявлені типові методологічні помилки, що допускаються при формулюванні визначень даного поняття, наведені найбільш ймовірні причини незадовільного стану понятійно-категоріального апарату економічної теорії конкуренції, обґрунтована як та, що вирішує досліджувану проблему концепція конкурентоспроможності економічних суб'єктів як їх спроможності досягати внутрішньо властиві їм цілі функціонування в конкурентному середовищі на довготривалій основі.

Запропоноване визначення поняття конкурентоспроможності однозначно визначає об'єкт вимірювання і його природу, а також структуру теоретичних і методичних питань, що підлягають обов'язковому розв'язанню в рамках проблеми управління конкурентоспроможністю суб'єктів економіки різного типу.

Ключові слова: наукове поняття, визначення, економічний суб'єкт, конкурентоспроможність, логічний аналіз.

Introduction. What exactly is economic competitiveness? An article with this title is posted on the WEF website [10]. As the analysis of the scientific literature on the economic theory of competition shows, this question has occupied the minds of scientists all over the world for about four decades. And all these years, up to the present, in the opinion of most of them a satisfactory definition of the key concept of the theory of competitiveness – the concept of competitiveness, has not been proposed.

In the age of economic globalization and increasing competition at all levels of the economy (from the level of enterprises to the level of countries and economic unions of countries), the issues of improving the competitiveness of economic agents are at the core of management system and management theory. The solution to this problem involves the implementation of mandatory steps, strictly defined and generally accepted in the theory of management, among which the main ones are the following:

- strict unambiguous definition of the competitiveness concept of any type of an economic agent;
- meaningful definition of indicators that characterize the level of competitiveness;
- identification and systematization of the entirety of competitiveness factors;
- identification of indicators characterizing the state of competitiveness factors;
- development of methods for measuring the factors' state and the level of competitiveness;
- identification of patterns of influence (identifying dependencies) of the economic agents' competitiveness

level on the state of competitiveness factors;

- identification of manageable competitiveness factors;
- determination of possible methods of influence (through managed factors) on the economic agents' competitiveness level and the choice of optimal methods for managing the competitiveness.

Without a correct solution of the first issue, which should serve as the basis of all theoretical constructions and applied solutions in the field of managing the competitiveness of economic agents, generally, the correct solution of other problems and problems of management is impossible. Nevertheless (without above issue settlement) and despite the lack of scientifically based definitions of economic agents' competitiveness of various hierarchical levels, including national and supranational levels, numerous approaches to measuring competitiveness have been developed around the world. The best known among these approaches are WEF and IMD frameworks, according to which the countries' competitiveness comparisons have been carried out for decades, and many governments are guided by these results. From the point of view of exact sciences representatives, such as physics, chemistry, engineering, etc., such a situation (as in the case of measuring and management competitiveness, i.e., a property of an economic system that is poorly defined) seems impossible.

For the economic theory of competitiveness, as well as management practices, which level of formalization is extremely low, as well as the level of reasoning rigidity, this situation is considered to be quite acceptable, which does not stimulate the search for answers to unresolved or poorly studied issues and does not hold progress, i.e. does not limit attempts to solve subsequent issues and tasks without settlement of basic issues.

When the papers on this issue are reviewed, covering the above period, it appears that the question "What exactly is economic competitiveness?" is eternal one. Is it so? How such insignificant progress in solving a fundamental theoretical issue can be explained, despite the fact that there are necessary prerequisites in economic theory, in competitiveness theory, and in papers containing various definitions of the concept of competitiveness of economic agents of various types, to resolve it? This paper is devoted to the study of these issues and search for answers.

Formulation of the paper's objectives. The purpose of the paper is a logical analysis of the best known definitions of the competitiveness concept of economic agents with emphasis on the concepts of competitiveness of enterprises and countries with regard to the requirements of the logic and methodology of science imposed on scientific concepts and categories; identification of positive aspects and typical methodological mistakes in the formulation of definitions, as well as possible reasons for this; formulation of a methodologically correct definition of the competitiveness of an enterprise and the national economy, which provides answers to the questions in the heading of the paper.

Literature review and discussion of the results. The key principles of logic are taken as the basis and, in particular, the theory of concepts as referred to in [12, 15, 16]. Whereby, the priority will be given to the wording of the competitiveness concept definitions, rather than to related explanations. This is determined by the fact that, firstly, it is duly defined scientific concepts which form the basis of any theory but not comments to them, and, secondly, the wording of the competitiveness concepts' definitions is often differ from explanations contained in papers and subsequent theoretical constructs.

Within the framework of this analysis, an arbitrary economic agent (enterprise, region, country, supranational economic association) is considered as an holistic adaptive economic dynamic system, which is characterized by the following features (properties):

- continuation of its activities in the foreseeable future (compliance with the going concern principle);
- inherent goals (intentions);
- rationality (optimality) of behavior.

Taking into account the above, let's analyze the most typical formulations of the competitiveness concept definition of arbitrary economic objects in terms of the following:

- (a) competitiveness carrier;
- (b) competitiveness concept content;
- (c) scope of the concept;
- (d) object of measurement;
- (e) key features of competitiveness as an attribute;
- (f) compliance with the methodological requirements for scientific concepts;
- (g) compliance with the basic provisions of economic theory.

Porter's study [25, p. 76] contains the following statement: "The only meaningful concept of competitiveness at the national level is *national productivity*".

This statement concerns the competitiveness of the national economy, which being one of the economic agents, is considered as the carrier of this attribute. In this statement, competitiveness is identified with another well-known concept in economics – productivity. Thus it automatically follows that with such a definition, the concept of competitiveness cannot be considered as an independent scientific concept of economic theory. The term "competitiveness" plays the role of a synonym for the term "productivity", and measuring competitiveness is come down to (equivalently) measuring the productivity of the national economy. (Note that the concept substitution is a very common misstep when formulating definitions of scientific concepts [15].)

It is easy to see that such a definition of the national economy competitiveness's concept is un-efficient. It does not provide insight into specific nature of competitiveness as an attribute of the national economy, disorienting

when choosing tools to measure competitiveness and is completely unsatisfactory from a methodological point of view.

As the main reasons for the methodologically incorrect formulation of the national economy competitiveness's concept given by M. Porter, the following can be assumed:

- disregard of exact formulations and the rigidity of theoretical constructions as traditional for insufficiently formalized theories;
- lack of understanding of the importance of constructing a methodologically perfect foundation of the theory and, in particular, its conceptual and categorical system;
- identification of such an attribute of the national economy as competitiveness with one of the factors of competitiveness, which undoubtedly include the productivity of the national economy, which itself presents one of the typical gross methodological mistakes.

Despite the inconsistency of such a definition it must be noted that, in accordance with it, competitiveness is an instant (point in time) and absolute (inherent to economic object as such) attribute of a national economy.

The following views on the nations competitiveness, cited by M. Porter in [26, p. 30] as an example, suffer from similar methodological shortcomings: "The most intuitive definition of competitiveness is *a country's share* of world markets for its products". In such a formulation, the competitiveness of nations as one of the attributes of the economic system of the national level is not associated with another well-known attribute of the national economy, as in previous case, but is replaced by an attribute of another economic object – the supranational economic system and, in particular, one of the attributes of international market that from a methodological position is unacceptable. With this interpretation, there is no need for the concept of competitiveness, as well as the term corresponding to this concept. Also there is no need for special methods for measuring competitiveness, since this task is solved by methods of measuring the country's market share.

World Economic Forum defines economic competitiveness as "*the set* of institutions, policies and factors that determine the level of productivity of a country" [10]. It is remarkable that the note's author presents the following reasoning leaving aside the wording of the definition: "Another way to think about what makes a country competitive is to consider how it actually promotes our well-being. A competitive economy, we believe, is a productive one. And productivity leads to growth, which leads to income levels and hopefully, at the risk of sounding simplistic, improved well-being". In this regard, the authors of Report 2015–2016 are more consistent [29, p. 4], who provide more comprehensive wording: "We define competitiveness as the set of institutions, policies, and factors that determine the level of productivity of an economy, which in turn sets the level of prosperity that the country can earn".

In the reduced version of definition, a country's competitiveness is defined as a set of qualitatively different entities (institutions, policies, factors), which have one thing in common – they all influence the productivity of a country.

The first methodological mistake in formulating the definition is that such an attribute as a country's competitiveness is defined through poorly defined entities (this is a typical mistake when defining concepts).

The second methodological mistake is that according to this definition, the competitiveness is anything and everything that affects the productivity of a country. But everything that affects a country's productivity is nothing more than a set of productivity factors. Consequently, the concept of competitiveness is replaced by another concept in this definition, that is a set of productivity factors' concept, which is methodologically unacceptable.

Another weak point of such a definition is its unconstructiveness from the point of view of measuring competitiveness problem, since, in strict accordance with definition, it makes the task of measuring competitiveness more difficult or even impossible to measure institutions, policies, factors and their entirety. Therefore, it is not surprising that the GCI itself is actually based on indicators characterizing the state and/or trends in the state of productivity factors, i.e. it is an aggregate assessment of the productivity factors state, but not an assessment of institutions, policies, etc., i.e. competitiveness.

The full version of a country's competitiveness definition only underlines the imperfection of the wording itself. In fact, it is not necessary to focus on production factors in the definition that are only intermediate with respect to the factors of "prosperity that the country can earn". The latter should be reflected in one form or another in the country competitiveness concept's definition.

Based on the above noted, it can be concluded that the countries competitiveness concept, as defined, is methodologically incorrect and cannot be considered as an element of a theory's foundation, as a tool for solving applied problems of management and development of the theory itself.

IMD [19] defines the international competitiveness as follows: "International competitiveness can be defined as *a process* in which higher levels of competitiveness are achieved at different levels, that is, at firm, regional and national levels" followed by clarifications: "As such, competitiveness becomes international when it pertains to two or more countries. Such process is captured by definitions of competitiveness which move from a general perspective to more specific understandings at the firm and country levels. There are several definitions of competitiveness that must be considered before one can build a particular understanding of international competitiveness". It is remarkable that in another document international competitiveness is already called global: "Global competitiveness can be understood as a process in which. ..." [20], which indicates some inconsistency of

its authors. It follows from this definition that the carriers of competitiveness are firms, economic systems of regions, countries and groups of countries. In this regard, it should be noted that, firstly, the definition of "international" in formulation of the competitiveness definition in relation to the level of national economy and supranational entities is redundant, and, secondly, it would be more logical to derive the definition of the concept of international competitiveness of economic agents from the competitiveness concept as such.

In this case the competitiveness of the economic agent is defined as *a process*. This assumption, unjustified assumption, is illogical, because it does not follow from any theoretical constructions (see one of the key requirements for scientific concepts, according to which scientific concepts should reflect objective and subjective reality as known [15]). In fact, the class of processes, which are generalized by the "international competitiveness" concept, as well as the object of this attribute measurement, is also uncertain.

Presumably, the authors of such a definition had in mind that the competitiveness of economic systems of higher levels of the hierarchy is formed on the basis of the competitiveness of economic systems of lower hierarchical levels. But such ideas can in no way claim to be the definition of the concept of competitiveness as an attribute of an economic system of one kind or another.

The terms "international" and "global" themselves with regard to competitiveness also cannot be considered successful. Recognizing the existence of such an attribute as competitiveness among supranational entities (associations of national economies of a group of countries), it is fair enough to indicate the economic system competitiveness of the corresponding group of countries.

Taking into account the above mentioned facts it is impossible to speak about the compliance of the considered definition of competitiveness with all generally accepted methodological requirements for scientific concepts. It is not surprising that the definition of the country's competitiveness contained in the same document ([20]) differs from the definition of a global (international) competitiveness: "Country competitiveness refers to *the ability* of the government to generate prosperity for its people". With regard to this formulation of a country's competitiveness definition, the following has to be stated. A country's competitiveness is an attribute of (the ability of) a national economy, not a government. According to this definition, the competitiveness of a country is regarded as an instant attribute. And if the first circumstance should be regarded as a methodological error (mistake), then the second one is as a debatable point to be discussed below.

It is stated in Buckley et al paper [8, p. 176], that systematization of the existing definitions of the competitiveness concept, carried out by the authors of the Lords on Overseas Trade (1985) (The Aldington Report) is the best one at that time, whereby "A firm is competitive if it can produce products and services of superior quality and lower costs than its domestic and international competitors. Competitiveness is synonymous with a firm's long-run profit performance and its ability to compensate its employees and provide superior returns to its owners".

As it can be easily seen, there is a mismatch between these statements. The first one claims that competitiveness of the company is an *ability* to produce goods and services of higher quality and with lower costs than its competitors. The second one claims that competitiveness is a firm's *long-run profit performance* and its *ability* to compensate its employees and provide superior returns to its owners. This circumstance, in itself, indicates the absence of a clear understanding of the firm competitiveness concept among the authors of the report.

Let's consider each of these statements separately.

According to the first formulation: (a) the firm's competitiveness is its specific ability; (b) it is the ability to produce goods and services of a certain quality and cost; (c) both the quality of products (services) and the costs of the company must be better than those of competitors; (d) it is an instant comparative attribute. Thanks to para. (b) and para. (c) the scope of the firm's competitiveness concept is greatly shortened (limited). Thus, for example, in accordance with para (c), the concept of competitiveness cannot be applied to firms that do not possess the ability indicated in this paragraph. This is a weak point of such a definition. Para. (b) contains a limited and debatable list of abilities associated with competitiveness. This is particularly apparent in comparison with the alternative formulation of the firm's competitiveness concept.

According to this definition the object of measurement is specified in the definition of the firm's ability.

The second formulation of the firm's competitiveness definition is controversial itself. On the one hand, competitiveness is *a long-run profit performance*, on the other, *the ability*, i.e. the competitiveness is identified with two qualitatively different entities. As noted above, the identification of competitiveness with any other well-known and generally recognised economic attribute, in this case with such an attribute as *a long-run profit performance*, deprives the concept of competitiveness of any independent meaning. At the same time, it is worth drawing attention that in this case the competitiveness is defined as a time-interval absolute attribute.

When identifying the competitiveness of a firm with its specific abilities, reference to the ability to compensate its employees is debatable (since redundant). Also, there is no reference to the competitiveness's integral nature as a firm's attribute in this part of definition. As it will be shown further, postulation in determining the level of profit for the firm's owners (superior returns) is debatable.

The object of measurement arising from the second formulation is also defined ambiguously and inaccurately. On the one hand, this is *long-run profit performance*, on the other hand, it is *the ability* to compensate its employees and provide superior returns to its owners.

It's not surprising that the authors of the paper [8, p. 176] make an improper conclusion regarding the object of measurement. They believe that "This suggests that measurement of a company's "competitiveness" should incorporate quantitative measures of costs, prices and profitability, and qualitative indicators of non-price factors, specifically quality, if the definition is to be satisfied". However, measuring the ability to produce goods and services of a certain quality and at certain costs, the ability to compensate for its owners is not equivalent to measuring the quality of products, costs and profitability of a company. In addition, the measurement of interval criteria (indices) requires an indication of the measurement period: previously or in future, and if in future, under what possible conditions.

Let's consider the country's competitiveness definition as formulated in [24, p. 237]: "competitiveness is *the degree* to which, under free and fair market conditions, a country can produce goods and services which meet the test of foreign competition while simultaneously maintaining and expanding the real income of its people".

In accordance with this formulation, competitiveness is defined as the *degree (level)* of certain *abilities* of a country's economy under certain *conditions*. It is the ability to produce simultaneously goods and services that meet the requirements of international competition, to maintain and improve citizens' well-being. As conditions under which such abilities should be realized, the market's openness and fairness are postulated.

As can be seen, the scope of a country's competitiveness concept is defined quite unambiguously. The identification of competitiveness with the level of abilities but not with the abilities themselves is debatable and even wrong. This issue is studied in the paper [9] in details and will be considered further.

There are cases (from the class of objects summarized by this concept) when a country can not simultaneously produce goods and services that meet the requirements of international competition and maintain (increase) the level of citizens' well-being (a); can produce goods and services that meet the requirements of international competition, but it cannot maintain and/or improve the level of citizens' well-being (b); can maintain and/or improve the level of citizens' well-being, but cannot produce goods and services competing at foreign markets (c); does both, but not in open and fair market conditions (d). The concept of the country's competitiveness, introduced in [24], is not applicable to all such cases indicating the concept's narrowness, which is a serious logical and methodological disadvantage of a scientific concept definition.

The object of measurement, consequential from the concept's formulation, is clearly defined. This is the level of relevant abilities (the ability to produce goods and services that meet certain requirements, and maintain (improve) the well-being of citizens). Thanks to a clear definition of the object of measurement, the scope of the task of developing a methodology and methods for measuring the countries' competitiveness is also quite transparent, which enables to consider the problem of developing such methods as a completely independent scientific problem with a clearly defined role and place in the theory of competition.

According to these authors, competitiveness is defined as an absolute attribute of the national economy. There are also the first indirect signs in this definition that competitiveness is a time-interval attribute. This is indicated by the following wording of the definition: "while simultaneously maintaining and expanding ...".

The OECD defines competitiveness as "*the ability* of companies, industries, regions and nations or supra-national regions to generate, while being and remaining exposed to international competition, relatively high factor income and factor employment levels on a sustainable basis" [18].

According to above formulation, let's sum up as follows: (a) firms, industries, regions, national economies, and supranational economic systems can act as carriers of competitiveness; (b) the competitiveness of an economic agent is defined as a certain ability; (c) the ability to provide a high level of profitability and employment on a sustainable basis amid international competition; (d) the object of measurement of competitiveness is indicated ability.

As one can see, this definition defines the content and scope of the competitiveness concept quite unambiguously. Problematic (debatable) are the essential attributes of economic agents, by means of which a set of objects is defined to be generalized by the competitiveness concept. In particular, the concept of competitiveness, as so defined, cannot be applied to economic agents that are not able to provide a high level of profitability and/or employment amid international competition, because according to this definition, such economic agents don't possess such an attribute. This is a significant methodological limitation in the definition under the study.

The requirement to ensure a high level of employment as stated in the definition is under discussion. A high level of employment cannot be the main goal of any type of economic agents functioning and, especially for companies and industries. For the same reason, synergy of competitiveness of regions and countries with the profitability level is debatable. All in all, there is every indication that the attempt to give a general definition of competitiveness for economic agents of different types is failed.

At the same time, the definition of competitiveness as an attribute inherent in an economic agent over a certain long run (on a sustainable basis) is quite reasonable, which indicates that the authors of this definition consider competitiveness as an absolute and interval (in time) attribute of economic agents.

Interpretation of competitiveness proposed by The US Competitiveness Policy Council is significantly more balanced in terms of methodology. The US Competitiveness Policy Council defines the country's competitiveness as "*the ability* to produce goods and services that meet the test of international markets while our citizens earn a standard of living that is both rising and sustainable over the long run" [11].

As a result of above definition, let's sum up as follows: (a) the country's competitiveness is an absolute and time-interval attribute; (b) it is a certain ability of the national economy; (c) it is the ability to produce goods and services at appropriate level (that meet the test of international markets) amid (under condition of) sustainable and increasing on a long-term basis the standard of living of citizens; (d) the object of competitiveness measuring is, that is extremely important, trajectory of the level (prospective) of the indicated ability. The last one follows from all definitions of competitiveness as a time interval attribute.

Let's specify the debatable points of such a formulation of a country's competitiveness definition.

Firstly, in accordance with the definition, class of objects generalized by this concept is limited. In particular, such a concept is not applicable to cases where stable and increasing in the long run standard of living of citizens is not ensured, and/or the goods and services produced do not meet the requirements of international markets. This is a significant methodological disadvantage of this definition.

Secondly, this is the association of a country's competitiveness not only with the ability to provide a certain level of quality of living for its citizens, but also with the ability to produce goods and services that meet certain requirements. It is easy to show that the ability to produce goods and services depends on the ability to provide a certain level of quality of living and, as a matter of fact, is one of the competitiveness factors.

Thirdly, the citizens' standard of living requirement in the country's competitiveness definition is also debatable and to be discussed further.

The strength of this definition is clear indication that competitiveness is the ability to achieve certain results on a long-term basis, i.e. in the long run in the future. This feature of competitiveness imposes certain requirements on its measurement methods, which significantly complicates the problem of measuring competitiveness and is usually ignored somehow in the best-known methodological approaches to measuring competitiveness.

J. Fagerberg in his paper [13, p. 355] concerning the competitiveness of national economies points out: "However, few would probably disagree with the view that it refers to *the ability* of a country to realize central economic policy goals, especially growth in income and employment, without running into balance-of-payments difficulties".

Generally, in this definition the content, the scope and the object of measurement are well defined. Its distinctive feature is that the author clearly indicates that the country's competitiveness is the ability to achieve certain goals, which, in our opinion, is extremely important for the formation of a methodologically correct definition of the competitiveness concept. However, the type of goals (economic policy goals) and their decoding (growth in income and employment problems) are still debatable in the definition. The interval nature of competitiveness as an attribute of the national economy is supposed indirectly (through goals) only.

In the definition of national competitiveness B. R. Scott focuses on the concept of "standard of living" and ways to improve it: "National competitiveness refers to a nation's *ability* to produce, distribute and service goods in the international economy in competition with goods and services in other countries, and to do so is a way that earns a rising standard of living" [28, p. 14-15].

The competitiveness of a nation in above definition is defined as the *ability* of a national economy to produce, distribute and service goods under certain *conditions* and with a certain *result*.

The following points are debatable in this definition. Firstly, indication of specific ways to achieve certain results of functioning of the national economy. Secondly, list of the national economy's abilities (produce, distribute and service goods). Thirdly, mentioning a rising standard of living requirement in the definition.

As a consequence, the competitiveness concept, as defined, does not apply to cases characterized by other conditions and other results, which makes it excessively limited and unsuitable for use in measuring the competitiveness of any countries. In fact, if any national economy doesn't possess an ability as indicated in the definition, and therefore the corresponding attribute, then the measurement of such an attribute (i.e. missing) for such an economy is impossible and meaningless.

This definition only implicitly (and to do so is a way that earns a rising standard of living) states that this is a time-interval attribute, but as a matter of fact (by definition) the attribute is absolute.

The authors of the paper [17] while defining the competitiveness of a country also use the concept of standard of living and emphasize that national economy must possess this ability on a long-term basis: "The proper test of competitiveness, then, is not simply *the ability* of a country to balance its trade, but its *ability* to do so while achieving an acceptable improvement in its standard of living" and "What is an acceptable rate of improvement in living standards? An advanced country like the United States, which possesses many natural advantages, should be able to maintain a living standard at least as high as that of other advanced countries; thus, we would not view the United States as competitive unless it is able in the long run to maintain a rate of growth in living standards that keeps pace with that of the rest of the industrial world".

As in the previous case, reference to specific types of abilities of the national economy, as well as the level of improvement (acceptable improvement) its standard of living limits the scope of competitiveness concept, depriving its universality, i.e. applicability to national economies of any countries.

An important feature of this definition is the fact that competitiveness, following the concept of "an acceptable rate of improvement in living standards", is not considered as an absolute, but as a comparative attribute. This feature is also restrictive, since it excludes the possibility of measuring the competitiveness of an individual country apart from measuring the competitiveness of other countries.

In one of his more recent papers [14], J. Fagerberg has formulated the definition of a country's international competitiveness in a different way: "A consensus definition of international competitiveness might perhaps be that it reflects the ability of a country to secure a high standard of living for its citizens, relative to the citizens of other countries, now and in the future".

From methodological point of view, there are minimum of claims to such a formulation. Firstly, the term "international" in the phrase "international competitiveness of the country" is redundant. A country as an economic system cannot compete with its own elements, components and subsystems. Secondly, the requirements to the standard of living level contained in the definition wording limit the concept's area of application. Thirdly, referencing the country's level of standard of living to the level of standard of living of other countries also acts as a limiting factor and turns this attribute (competitiveness) into the category of comparative attributes, i.e. into the category of attributes, manifested only in comparison with other countries.

According to this definition, competitiveness is a time-interval attribute.

The lack of direct reference to a country's competitiveness property as an attribute of national economy can be considered as one of the weak points in competitiveness's definition, as formulated by K. Aiginger in [5]: "competitiveness should be defined as the ability to create welfare". Another is that, without a direct reference to the competitive environment, in fact, this definition is a definition of the country's viability.

In more recent papers [6, p. 13; 7, p. 502] K. Aiginger with co-authors clarifies the country competitiveness concept's definition as follows: "competitiveness can be defined as the "ability of a country (region, location) to deliver the Beyond GDP goals for its citizens today and tomorrow" eliminating one of the above stated disadvantages of definition.

At the same time, in this formulation, specifying the specific goal (to create welfare) of the national economy is replaced by its amorphous description (to deliver the Beyond GDP goals for its citizens), that is a step backwards, while creating a methodologically correct definition of the country's competitiveness. The reasons for this are clear from the context of these authors' studies. The authors' idea is quite understandable, however, since it was not adequately reflected in the competitiveness concept's definition, methodological value of the definition is greatly reduced.

The assessment of the reasons for unsatisfactory situation regarding the formation of a methodologically impeccable definition of the competitiveness concept given as stated by these authors deserves attention: "The competitiveness of nations or regions is an amorphous and evasive concept. The term is usually not well-defined, neither derived from nor often even related to economic theory" [7].

This is what distinguishes the approach to the development of the conceptual system of the theory of competitiveness, which is proposed in Savchuk S. I. studies, systematized in the fundamental monograph [27], and his associates. The theory's basic concepts development, based on the analysis of the structure and patterns of functioning of economic systems at arbitrary hierarchical levels, starting with the simplest and up to supranational economic entities is its key feature.

As S. I. Savchuk believes, the background for the competitiveness concept definition should be the concept of the economic agent viability. The economic agent is considered "viable if it's able to implement "normal" functioning over the long run," i.e. "the viability of the economic agent – this is an agent's property, which characterizes its ability to "normally" exist infinitely over the long run" [27, p. 129].

Further, op.cit., there are arguments in favor of the following definition of the economic agents competitiveness concept: "The competitiveness of microeconomic agents, and enterprises in particular, is natural to define as their ability to carry out the reproduction cycle for infinitely long time at their own expense in a competitive environment, i.e. as enterprises' viability in a competitive environment" [27, p. 130].

Therefore, the enterprise's competitiveness, as well as its viability, is defined by Savchuk S. I. as an absolute and time-interval attribute.

This definition of the enterprise viability's concept is closely related to the definition given by J. Y. Lin [23, p. 141], who believes that the viability of an enterprise is "the ability of a normally managed enterprise to obtain an acceptable normal profit in an open, free and competitive market without external support and protection". In such a formulation, the main goal of the enterprise is specified – obtaining normal profits. It must be also emphasized that in fact, Lin's definition is not a definition of the enterprise's viability but its competitiveness.

The definition of the enterprise's viability, formulated by A. B. Alyokhin in [1] is more stringent. The author of this paper defines the enterprise's viability as follows: "An enterprise's viability is the ability of an enterprise to achieve its own economic goals, that is, to satisfy the owners' (top management) interests on a long-term basis at the expense of their own capabilities (without external assistance)". In this regard, it is significant that the definition (chronologically earlier) of the enterprise's competitiveness of the same author [2], whereby the enterprise's competitiveness is "the ability of an enterprise to provide, while remaining open to competition (in a competitive environment), "normal" (satisfying social and economic interests of the enterprise's owners) process of functioning at the expense of its own capabilities on a stable basis", is less accurate and doesn't provide clear description of the relevant ability of the economic agent. This disadvantage is eliminated in the above definition of the enterprise's viability by specifying the concept of "normal" process of functioning and clarifying the enterprise's main goal.

A. B. Brutman summarizes the results of this theoretical direction as follows [9]: "Enterprise competitiveness is the ability of an enterprise to generate acceptable (for owners, an enterprise's top management)

profit at the expense of its own capabilities (without outside assistance) in a competitive environment on a sustainable (long-term) basis".

As can be seen, within the framework of the conception of viability and competitiveness developed by these authors, relevant wording of these concepts definitions reflects the economic essence of an arbitrary enterprise and its immanently inherent goals, which are as follows: any enterprise is created to multiply the invested capital (enterprise's main goal) on the long term basis (going concern principle) and forced to operate in a competitive environment. According to relevant definitions, the carrier of viability (competitiveness) is an economic agent; necessary and sufficient condition for its survival is the ability to generate profits acceptable to the owners (top management) of an enterprise level (a) on a long-term basis (b) in the current external environment (c) without outside assistance (d).

As regards the country's level, S. I. Savchuk [27] and A. B. Alyokhin's [2] attitude practically coincide. S. I. Savchuk believes that "a country's competitiveness is its ability as an economic agent to ensure over the long run a "normal" level of needs satisfaction ("normal" standard of living) of the population in a competitive environment, i.e., under conditions of economic rivalry with all (regardless of hierarchical level) competitors" [27, p. 164]. A. B. Alyokhin formulates the definition of this concept as follows: "The country's competitiveness is the ability of the national economy to ensure, while remaining open to international competition, a high level of citizens' well-being ("quality" of life) on a sustainable basis" [2].

Above mentioned definitions are based on the fundamental position, that the main goal of the national economy functioning (considering the state as an institution) is to ensure an adequate quality of living for its citizens on a long-term basis. According to this definition, the competitiveness's carrier is the national economy; competitiveness is a certain ability of the national economy; it is an ability to provide high level of citizens' well-being on a sustainable basis in a competitive environment and on a long-term basis; competitiveness is an absolute and interval feature; corresponding ability is an measuring object.

In the framework of the theory of competitiveness developed by the authors as mentioned above, the competitiveness definition of various types of economic agent remains the same both in essence and form, only the main goal of relevant economic agent functioning varies. For enterprises, it's an ability to generate profit for the enterprise's owner at acceptable level, for a country it's an ability to provide a high standard of living for citizens.

The concluding step in this direction is that taken by A. B. Brutman outlined in paper [9]. The paper's author considers methodologically incorrect fixation in the concept's definition of economic agent's competitiveness the requirement to the level of inherent goals achievement in the process of functioning, reflected in the well-known definitions in the form of words and phrases such as "normal", "acceptable", "high", "rising", "no worse than competitors", etc. The author's logic is based on the need to differentiate such concepts as the economic agent's property (attribute), the property's level of manifestation (attribute's level), the requirement imposed on the attribute's level (criterion of viability/competitiveness). A. B. Brutman grounds that the enterprise's specific attribute must be reflected in general definition of enterprise competitiveness (like any other economic agent). Then this attribute, as an absolute property of relevant agent, would be common to any agent, regardless of its main goal's level of achievement. Then this attribute (its level) can be measured for any single agent. So any economic agents, whatever type and condition, would be comparable in terms of competitiveness.

This allows the author of considered paper to define the concept of enterprise competitiveness as follows: "The competitiveness of an enterprise is its ability to generate profits at the expense of its own abilities in a competitive environment on a long-term basis". With regard to the level of national or supranational economy, this idea can be implemented in formulation such as: "The competitiveness of the national (supranational) economic system is the ability of such a system to create in a competitive environment the population's quality of life without outside assistance on a long-term basis.

It is clear that all definitions of this scientific direction accumulate the ideas of different authors' definitions, formulated for the entire period of the theory active development, are based on fundamental concepts of the economic theory and systems analysis and offer precise wording of the scientific concepts' definitions under consideration.

In this regard, it is extremely important to note the following: In the framework of this conception of competitiveness, the carrier of this attribute is only an economic agent. No other economic objects (things) possess this property. This fully applies to the concept of product competitiveness, widely used by scientists all over the world. In particular, there is strong evidence in favor of the scientific inconsistency of the concept of product competitiveness provided in the paper by S. I. Savchuk [4]. The paper's author shows that well-known definitions of this concept are well within modern conceptions of the product quality's concept (see, in particular, [3]) and justifies that higher-quality products is only an instrument of economic agents rivalry, a tool (method) to achieve the main goal of the enterprise.

Summary. Despite numerous attempts by scientists all over the world to define one of the key concepts of the theory of competition – the concept of competitiveness, in the opinion of leading economic scientists this task has not been solved for many decades. This situation is even more than surprising, since, in an open economy, the task of managing the competitiveness of enterprises, regions and countries comes to the fore in the system of practical management tasks.

Under uncertainty of the management object, the management of economic agents turns into one of the arts, which in practice often leads to failures, causes heated discussions both among politicians, managers, and among scientists, up to recognition of competitiveness concept as meaningless and even dangerous. Well-known debate, raised by the Nobel laureate Paul Krugman in the 90s of the last century serves as evidence [21, 22].

Analysis of the scientific literature on the theory of competitiveness reveals leading Western scholars' disregard of the problem of forming a conceptual-categorical system of theory; lack of rigor of formulations and reasoning verging on irresponsibility; a failure to understand the importance of solving this scientific problem – the problem of forming a rigorous, scientifically grounded and internally consistent system of concepts of the theory of competitiveness, reflecting the fundamental properties and patterns of economic systems' functioning. Only a lack of understanding of the need for preliminary rigor definition of the management object and measurement can explain the development (considering poorly defined competitiveness concept) of numerous methods for measuring the competitiveness of various economic agents and, above all, countries, as well as using the results of applying these methods in management practice.

Logical analysis of the best known definitions of the competitiveness concept of economic agents of different hierarchical levels indicates their incompetence with basic requirements of logic and methodology of science and gross methodological mistakes, making by the authors, among which the most common are non-compliance with the concept's requirement of proportionality (usually narrow definitions); substitution of the defined concept by other well-known concepts; a concept definition through poorly defined concepts; a concept definition through concepts of different hierarchical levels and insignificant concepts, fuzzy differentiation (confusion) in the definition wording of such general scientific concepts as an object's attribute (property), attribute level, indicators reflecting the attribute level, criteria, influencing factors, etc. and their eclectic use in defining the competitiveness concept.

The vast majority of the competitiveness concept's definitions aren't a logical consequence (reflection) of the well-known fundamental principles of economic theory and competition theory in particular. In the foreign scientific literature there is a lack of critical analysis of the competitiveness concept's definitions. Actually, discussions take place around the consequences arising from one or another formulation of the competitiveness concept definitions, which is inevitable in the absence of a systematic approach to solving a problem.

The approach developed by S. Savchuk and his co-thinkers is free from the most of the methodological limitation as noted in the paper. The basis of this approach is the idea of the competitiveness concept logical deduction from the patterns of the design and functioning of economic agents. The ideas about the economic as dynamic systems with inherent goals and aspirations that satisfy the principles of going concern and rationality (optimality of activity) are the key ones. This made it possible to ground the concept of competitiveness of an arbitrary-type economy as a special case of its viability's concept (viability in a competitive environment), i.e. define competitiveness as an objective inherent in every individual economic agent and, as a result, allowing independent measurement and management, as well as competitive comparisons of economic agents of arbitrary type.

Defining the competitiveness of an arbitrary economic agent as the ability without outside assistance to achieve immanent goals (to generate net income for their owners (level of enterprises) and form a quality of living for their citizens (level of countries) on a long-term basis unambiguously defines the object of measurement and management (strictly defined ability) and its nature as an object of measurement (absolute and time-interval), and also defines (in case of systems approach and systems analysis methods application) structure of theoretical and methodological issues to be solved within the framework of problem of the competitiveness management of economic agents of different types. These are the tasks of identifying and systematizing the entire set of competitiveness factors, including the task of identifying manageable factors; theoretical and methodological issues of measuring the state of competitiveness factors and the level of economic agents competitiveness; studying the patterns of influence of the factors' state on the competitiveness level and the development of scientifically based methods for managing the level of competitiveness.

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