

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
КИЇВСЬКИЙ НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ
ТЕХНОЛОГІЙ ТА ДИЗАЙНУ**

МЕНЕДЖМЕНТ

№ 1 (31), 2020

DOI: 10.30857/2415-3206.2020.1

Наукове видання

Періодичність виходу журналу: 2 рази на рік

Київ 2020

Журнал «Менеджмент» є науковим виданням Київського національного університету технологій та дизайну як правонаступника Державного вищого навчального закладу «Міжгалузева академія управління» (наказ Міністерства освіти і науки України від 19.06.2015 р. №661 «Про реорганізацію державного вищого навчального закладу «Міжгалузева академія управління»)

**№ 1 (31)
2020** Свідоцтво про державну реєстрацію друкованого засобу масової інформації: серія KB №22130–12030 ПР від 16.05.2016 р.
Свідоцтво суб'єкта видавничої справи: ДК № 993 від 24.07.2002 р.

Журнал входить до переліку наукових фахових видань.
Наказ МОН України від 18.12.2018 № 1412 (додаток 10, рішення щодо присвоєння Категорії Б) – фаховість із економічних наук.
Спеціальності: 051, 071, 072, 073, 075, 076, 241, 281.

ISSN 2415-3206 Журнал зареєстровано в Міжнародному центрі періодичних видань (ISSN International Centre, Париж, Франція) 24.03.2016 р.
Журнал реферується та індексується у наступних міжнародних базах даних: International DOI Foundation, CrossRef, WorldCat, Google Scholar, Національна бібліотека України імені В.І. Вернадського, Інституційний репозитарій Київського національного університету технологій та дизайну

**Правонаступник і
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Україна, 01011, м. Київ, вул. Немировича-Данченка, 2

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Рекомендовано до друку Вченою радою Київського національного університету технологій та дизайну, протокол № 8 від 30.06.2020 р.

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MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
KYIV NATIONAL UNIVERSITY
of TECHNOLOGIES and DESIGN

MANAGEMENT

Issue 1 (31), 2020

DOI: 10.30857/2415-3206.2020.1

Scientific publications

Issued: 2 times a year

Kyiv 2020

Journal "Management" is a scientific edition of Kyiv National University of Technologies and Design as a successor of State higher educational institution "Interbranch Management Academy" (order of Ministry of Education and Science of Ukraine from 06.19.2015 №661 «About reorganization of state higher educational institution" Interbranch Management Academy")

Issue 1 (31) 2020	Certificate of print media registration: KV series №22130–12030 PR from 16.05.2016 License for publishing activity is DK №993, originating date 24.07.2002
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The journal is listed & reregistered in Higher Attestation Commission of Ukraine: № 1412, originating date 18.12.2018. Fields: economical. Specialties: 051, 071, 072, 073, 075, 076, 241, 281.

ISSN 2415-3206

The journal is registered in the International Center of periodicals (ISSN International Centre, Paris, France) 03.24.2016
The journal is abstracted and indexed by International DOI Foundation, CrossRef, WorldCat, Google Scholar, The Vernadsky National Library of Ukraine, Kyiv National University of Technologies and Design Institutional Repository

**Assignee and
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**Kyiv National University of Technologies and Design
Ukraine, 01011, Kyiv, str. Nemirovich-Danchenko, 2**

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The journal is aimed at a wide range of researchers, professors, students, and graduate students and to bring the results of scientific research carried out under a variety of intellectual traditions and organizations of procedures to the attention of a specialized readership.

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EDITORIAL ADDRESS:

01011, m. Kyiv, str. Nemirovich-Danchenko, 2, Bldg. 4, cabinet 1409

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офіційний сайт: <http://menagement.knutd.edu.ua>

Recommended for publication by the Academic Council of Kyiv National University of Technologies and Design, protocol № 8 from 30.06.2020

Printed materials mixed languages: English, Polish. Responsibility for the translation, the accuracy of the facts, quotations, proper names, geographical names, names of companies, organizations, institutions, and other information are authors of articles. Reprints and translations of articles permitted only with the consent of the author (-s) and the publisher.

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JEL Classification: A22; I23; P36

UDC 339.138

DOI: 10.30857/2415-3206.2020.1.1

90 YEARS – HISTORICAL FORMATION OF BRAND CAPITAL OF KYIV NATIONAL UNIVERSITY OF TECHNOLOGIES AND DESIGN (KNUTD)

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Introduction. The modern higher education market is highly competitive. Universities compete for budget seats, for applicants, for attracting and retaining highly qualified personnel, for attracting additional funds from various sources. Universities are interested in finding additional competitive advantages in the form of brand capital of the university.

Research hypothesis. The image of the national system of education acquires a special importance for building the university brand, which is important to take into account when positioning the university brand on the global market of educational services. The conceptual basis of the university brand is its mission, which absorbs the values shared by the university staff and transmitted to external audiences.

Purpose of this article: to offer methodological tools for forming brand capital of an innovative university.

Research methods: comparative analysis, ratings, graphical, tabular and specific methods of marketing

comparative analysis, rating, tabular, graphical, specific methods of marketing research: field (target audience surveys) and desk surveys.

Results: The process of formation and subsequent formation of brand capital of KNUTD was analyzed. The concepts of competition and competitiveness, brand capital and branding within higher education are compared. The degree of possible influence of brand on the level of competitiveness of the university and the graduate within the framework of further employment is considered. The evaluation of international and Ukrainian ratings is given, which allows to draw a conclusion about the importance of using brand capital of the university in the educational sphere.

Conclusions. The proposed modified model of evaluation and promotion of brand capital allows to increase the efficiency of the university activities.

Keywords: competitiveness; brand capital; brand-platform; branding; university; image; brand.

JEL Classification: A22; I23; P36

УДК 339.138

DOI: 10.30857/2415-3206.2020.1.1

90 РОКІВ – ІСТОРІЯ ФОРМУВАННЯ БРЕНД-КАПІТАЛУ КИЇВСЬКОГО НАЦІОНАЛЬНОГО УНІВЕРСИТЕТУ ТЕХНОЛОГІЙ ТА ДИЗАЙНУ (КНУТД)

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Вступ. Сучасний ринок вищої освіти відрізняється високим рівнем конкуренції. Університети конкурують за отримання бюджетних місць, абітурієнтів, залучення та утримання висококваліфікованих кадрів, додаткових коштів з різних джерел. Університети зацікавлені в пошуку додаткових конкурентних переваг у вигляді бренд-капіталу університету.

Гіпотеза дослідження. Особливе значення для побудови бренду університету набуває іміджу національної системи освіти, що важливо враховувати при позиціонуванні бренду університету на глобальному ринку освітніх послуг. В якості концептуальної основи бренду університету виступає його місія, яка вбирає в себе цінності, що розділяються співробітниками університету та транслиуються на зовнішні аудиторії.

Мета даної статті: запропонувати методичний інструментарій формування бренд-капіталу інноваційного університету.

Методи дослідження: порівняльного аналізу, рейтингу, табличний,

графічний, специфічні методи маркетингових досліджень: польові (опитування цільової аудиторії) і кабінетні.

Результати. Проаналізовано процес формування і подальшого становлення бренд-капіталу КНУТД. Проведено порівняння понять конкуренції і конкурентоспроможності, бренду, бренд-капіталу та брендингу в рамках вищої освіти. Розглянуто ступінь можливого впливу бренду на рівень конкурентоспроможності університету і випускника в рамках подальшого працевлаштування. Наводиться оцінка міжнародних і українських рейтингів, що дозволяє зробити висновок про важливість використання бренд-капіталу університету в освітній сфері.

Висновки. Запропонована модифікована модель оцінки і просування бренд-капіталу дозволяє підвищити ефективність діяльності університету.

Ключові слова: конкурентоспроможність; бренд-капітал; бренд-платформа; брендинг; університет; імідж; марка.

Formulation of the problem. Today, educational institutions are actively mastering market mechanisms. The race for resources is more about higher education. Today they have to compete for budget seats, paid forms of education, qualified teachers, additional funding. In recent years, education has become a growing and promising sphere of the economy. The demand and supply of educational services is increasing every year. The higher education system is developing most dynamically. The global educational market is being intensively formed, which leads to competition for applicants not only between Ukrainian universities, but also foreign intermediaries offering educational services in the Ukrainian market. The universities have to defend competitiveness, introduce innovations in management and achieve quality standards. Under the current conditions it is impossible to do without marketing, namely, marketing of educational services. Marketing of educational services is understood as a scientific and practical discipline that studies and forms the philosophy, strategy and tactics of civilized behavior and interaction of subjects of the market of educational services that produce (provide), sell (provide), buy and consume educational services and related services. Thus, the higher school resorts to the introduction of one of the most effective marketing tools – brand.

Analysis of recent research and the unresolved part of the problem. Both foreign and domestic authors, theorists and practitioners pay great attention to the problems of brand formation and effective use of branding: K. Keller [1], D. Aaker [2], J.-N. Kappferr [3] and others. The image and brand of an educational institution as a competitive advantage, which allows to increase the attractiveness of the university itself in the eyes of target audiences (employers, applicants, authorities, etc.), as well as the educational and other services offered by it are considered in the works of V. Shcherbak [4], O. Nifatova [5], S. Marchenko [6], G. Plisenko [7], J. Karabel [8], I. Gryshchenko, N. Krahmalova [9], A. Prokhorov [10], E. Neretina, I. Gvozdetskaya, Yu. Korokoshko [11]. At the same time, insufficient research has been devoted to the problem of brand capital assessment in universities and its further development. The necessity to overcome these difficulties pushed the universities to master marketing management technologies, including those related to the mechanisms of building an attractive image and a competitive brand of an educational institution.

The aim of the article is the theoretical substantiation and improvement of the methodological tools for the development of the image, specific competitive advantages, reputation, name, recognizable brand – the university brand.

Research results. Changing vectors of strategic development of universities, increasing competition on labor markets and educational services, wide use of modern information technologies and means of communication in the conditions of emerging Smart-Community encourage higher education

institutions to search for new ways to increase competitiveness and create competitive advantages. Each university tries to be more attractive to its target audiences (applicants, students, employers, government authorities, investors). The solution to this problem is related to creating and maintaining a memorable image and brand of the university.

The opinion of representatives of target audiences about the image of the university forms its image. All components of the image (location, name, mission, corporate identity, logo, history, legends, outstanding personalities, website and other attributes) should be used in such a way that the university is attractive, arouses interest among target groups and encourages them to take certain actions. Therefore, each university should translate the solution to this problem in a strategic way and deal with the image on a permanent basis. If this task is not solved in time, the target audiences will still have their own perception of the university and its services, and not the fact that it will be positive. Image formation is complicated by the fact that image is a subjective opinion and an intangible process. It is influenced by many external and internal factors (fame in the region, country, world, rating positions, demand for university graduates, qualification of the faculty, level of material and technical base, infrastructure, etc.). Many foreign and domestic universities have realized the necessity of purposeful systematic work on forming positive image through the use of technologies and marketing tools. The most widely used by them is branding, which is understood as a marketing process to create, recognize and increase the popularity of a brand (brand) for consumers [10].

Branding in relation to a university can be defined as a management process aimed at the formation and development of its special tangible and intangible characteristics, which allow it to stand out among competitors and be unique. At the same time, it is important to bear in mind that the boundaries of uniqueness are rapidly eroding. Branding technologies make it possible to bring the distinctive features of the university, its products and services, to make them understandable and recognizable to the target audience, to preserve and improve competitive positions. In addition, a university's branding provides it with a number of other competitive advantages:

- to be more attractive to consumers, employers and other target groups, to form their loyal attitude towards both the university itself and its products and services;
- to create barriers for competitors in the labor and educational services markets;
- be more successful in bringing new products and services to the market compared to competitors;
- to establish close ties with leading domestic and foreign universities;

- be attractive for investment. In this regard, the formation and development of brand and image are the most important strategic objectives of any university. They should be solved on a professional level by marketing and brand management specialists.

The main purpose of branding is to personalize the offered product or educational service in the market and help consumers identify it as something different, better, special, unique, unique. Therefore, a brand is needed in order to explain to consumers how a given university service differs from other universities and why consumers should give it their preference. Moreover, it is desirable that the product (service) is not just liked by the consumer, but that the consumer wants to buy it again and again and has the opportunity to do so (was available).

The use of branding technology is complicated by the fact that the educational service has a dual conflicting form of provision in market conditions. On the one hand, it is a "public good" designed to enhance the social status of the citizen, to ensure the right to get a well-paid job and to adapt quickly to changes in the external environment. On the other hand, educational service is a market category reflecting the commercial interests of the university, which may contradict the social and cultural needs of the individual, the state and society. If before the end of the twentieth century education was considered to be a public good in Ukraine, nowadays there is a growing perception of it as a market category. In this regard, contradictions in the process of brand formation are increasing. On the one hand, the university wants to promote as many products and services as possible at higher prices, and on the other hand, to build its brand on a unique offer, paying attention to public and personal values of education. Therefore, by expanding the audience of users, the university should not sacrifice its uniqueness, otherwise it will inevitably lead to the deterioration of its image.

It is also necessary to systematically present its brand to consumers from new angles, focusing on solving their problems and the benefits they can derive from the brand. In addition, by changing the promises of a brand, the university can change the 'field' of competition, restoring and maintaining the unique value of its marketing offer. Brand formation, as a rule, is carried out in two directions: external and internal positioning. The first direction is related to market positioning (for the university it is the markets of labor, educational services, intellectual property, scientific products and technologies), which is designed to ensure a certain competitive position. The second direction reflects internal brand positioning through brand identification, communications, internal marketing and organizational support.

In the process of positioning, the university should bring its main idea – uniqueness – to the consumer. It is designed to reflect its values, mission and

vision. This is how well-known higher education brands such as Harvard, Oxford, Cambridge, Humboldt, Sorbonne and others do it. [4; 6; 8; 10]. They focus on history, graduates' achievements, highly qualified teachers, freedom and democracy in learning and research processes, and decision-making. A special role is played by marketing communications with target groups (advertising, PR, use of mass media, modern means of communication, among which Internet communications and direct marketing play a special role). While positioning the university itself as well as its products and services, it is necessary to take into account the goals and objectives of competitors in target markets, which also seek to maintain and improve their positions. In this regard, it is important not only to monitor market situations, but also to predict competitor behaviour.

Brand creation and development is a complex task. Their solution should be the result of well thought out product, price and communication policies of the university, which form the brand platform. Brand platform development is carried out after the university has chosen the strategy of positioning, which is one of the components of the university development strategy (Figure 1).



Source: [4; 6; 8; 10].

Figure 1. University Brand Platform

The brand platform of the university, which includes a set of elements, should be presented as a document describing the image of the university to be formed. The initial start of building the brand platform is the search for the main idea of positioning the university. Any brand of the university should be formed and reinforced with a system of visual and auditory techniques that will help to remember information about the university among potential consumers more quickly. Such techniques include: logo, symbols, motto and style. Very often in

marketing they are combined and called the common term "trademark". Thus, a trademark, together with the emotional component and subjective evaluation of the university image, forms its brand in the eyes of consumers. One of the important factors that has a significant impact on the development of the university brand is its entry into the world and Ukrainian rankings of universities. The leading international rankings of universities are (Table 1).

Table 1

Leading international university rankings

№	Title	Features	Criteria for calculating the rating position
1	ARWU – Academic Ranking of World Universities, Shanghai Jiao Tong University Ranking	Includes Top 500 of the world's top universities.	The rating is based on the choice among all world universities of those in which teachers and graduates are Nobel or Fields Prize winners, as well as publish their scientific works in publications indexed in Science Citation Index-Expanded and Social Science Citation Index. The best university is awarded 100 points for each index, while for other universities it is calculated as a percentage of the maximum.
2	THE Times – The Times Higher Education World University Rankings	Includes the top 300 universities in the world. Rating is based on the methodology of the British publication Times Higher Education (THE) with the participation of the information group Thomson Reuters.	Universities are ranked according to 13 different criteria grouped into 5 groups: teaching (30% of the total score), research (30%), citation in research circles (30%), innovation and economic impact (2.5%), international cooperation at all levels – students, faculty, university staff (7.5%).
3	QS World-University-Rankings	Annually compiled by Quacquarelli Symonds and includes 100 best universities in the world.	The ranking is based on six criteria (the importance of the criterion is given in descending order): 1) academic reputation – 40% of the total evaluation; 2) employer's attitude towards university graduates – 10% of the total evaluation; 3) the level of citation of university staff publications – 20%; 4) the ratio of students to teachers – 20%; 5) the number of foreign students at the university – 5%; 6) the number of foreign teachers at the university – 5%.
4	International ranking of universities Webometrics	It is conducted by the research group from Spain "Laboratoriode Internet". Includes 4000 of the best universities in the world.	The place of universities in the ranking is assessed by the quality of the university website reflecting the educational and scientific achievements of the university. The methodology is based on 4 criteria:

End of Table 1

№	Title	Features	Criteria for calculating the rating position
			1. Website size (size – S) – total number of pages on the website (weight – 25%); 2. Quotability/visibility (visibility – V) – number of unique hypertext links to the site from other resources (weight – 50%); 3. "Rich" files / data files (richfiles – R) – number of files of publications of scientific works and research results (weight – 12.5%); 4. Number of scientific publications of the site and links to them by other authors, which are collected from Google Scholar database (Sc weight – 12.5%). All four criteria (the given values – criterion V, criterion S, criterion R and criterion Sc) are summed up taking into account weightings: $4 \times \text{criterion V} + 2 \times \text{criterion S} + 1 \times \text{criterion R} + 1 \times \text{criterion Sc}$

A university that is positioned as competitive and innovative should perform new functions:

- innovation and venture capital, associated with the introduction of innovative products created by the university into specific business practices;
- entrepreneurial related to the development of economic independence of the University, the ability to profitably and competitively promote the results of its educational, scientific and production activities in the regional, national and international markets;
- support of an educational career, development of the system of continuous education and inclusion of "service" in it;
- cluster, related to the positioning of the university as an ideological and innovative educational center of regional development [12, p. 37–38].

The brand, which is formed on the basis of the model of innovative university, is designed to transmit the above mentioned functions through the values, which are the core of the brand itself. The key values of such a brand should include: entrepreneurial activity, commercialization, strong corporate culture, etc.

While forming the brand capital of the university, it is necessary to follow the following principles (Table 2).

The conducted analysis of the influence of the brand on the competitiveness of the university allows us to offer a modified approach to the evaluation of brand capital of the university in six groups of parameters (both individually and in aggregate) taking into account the weighting factors:

- 1) educational activity (0.2);

- 2) research activities (0.2);
- 3) social environment of the university (0.15);
- 4) international activities (0.15);
- 5) university brand (0.15);
- 6) innovation and entrepreneurship (0.15).

Table 2

Principles of forming a university brand

#	Principle	Description
1	The principle of continuity of the university brand creation activities	Even when a brand is already considered to be successful, further work on its improvement is needed.
2	The principle of targeting brand building programs	Each university is unique in its own way, so brand formation should be individual for each institution.
3	The principle of orientation of brand formation programs towards consumers	Act on the principle of "the client is always right", regularly monitor potential students and employers for their perception of a "successfully functioning university".
4	The principle of partnership with clients	Maintain partnerships with students, introduce an information accessibility system at the university.
5	Synergistic principle	The conclusion is to ensure mutual coordination and mutual complementing of different marketing directions
6	The principle of parallel organization of brand formation programs	Brand formation takes place simultaneously and in parallel in the internal and external environment of the university.
7	The principle of adaptability of the university brand formation programs	Adapting the process of formation of the university brand to the current and changing environment conditions, both external and internal.

The group № 5 includes the following parameters of the university brand (Table 3) [4].

In accordance with the proposed modified approach of brand capital assessment we will analyze the history of brand capital formation of KNUTD and the degree of its implementation at this stage.

Kyiv National University of Technologies and Design (KNUTD) is a multi-disciplinary educational and scientific-innovative complex with a widely developed infrastructure and modern material and technical base, which provides multi-level training of qualified specialists in various specialties. The University is a flagship in the field of training specialists for light and chemical industries, fashion industry, business, art and technical modeling and design of industrial products, art, economics and consumer services, law, etc. This is one of the oldest higher educational institutions of technological profile in Ukraine. The University has a number of unique scientific schools engaged in scientific and innovative activities and recognized both in Ukraine and abroad.

Table 3

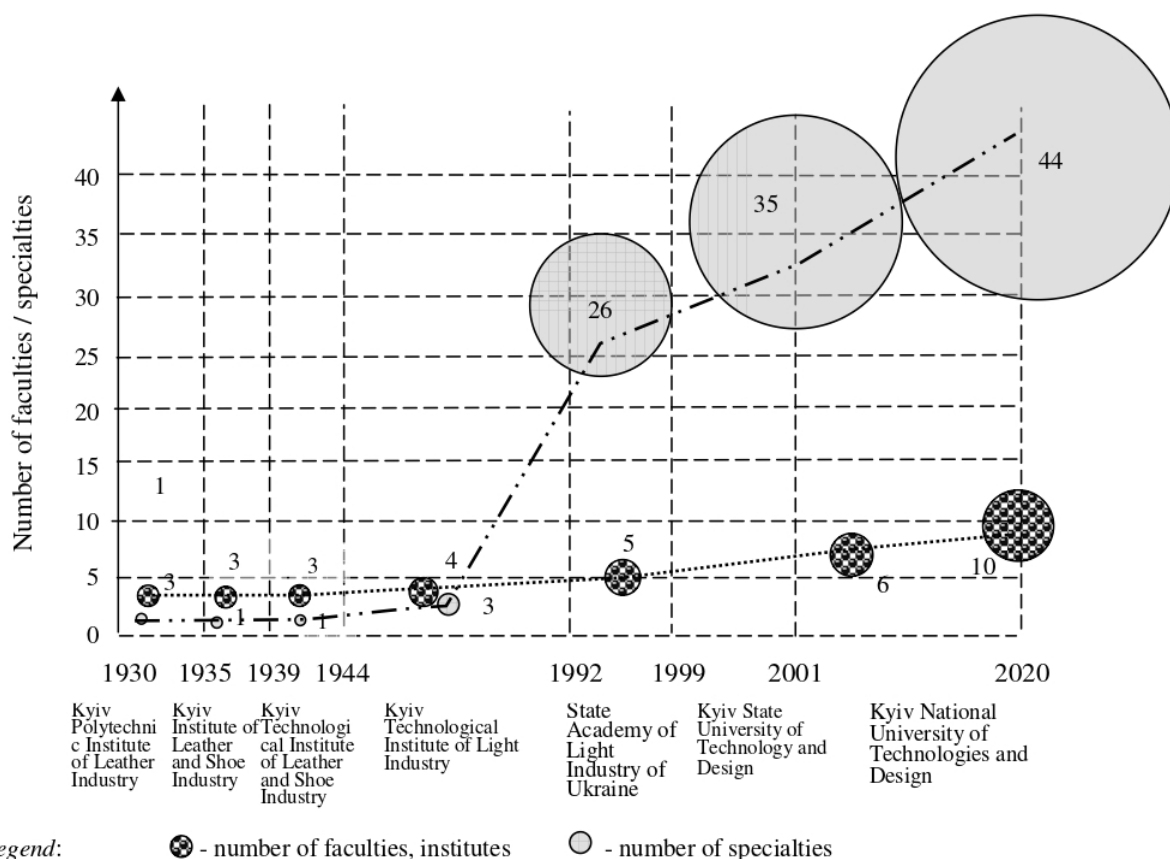
**Parameters of the Brand Group in the modified brand equity
valuation tour of the university**

Estimated parameter	Weight criterion, %	Data Sources
University Brand	0.15	
B1. University contribution to the formation of national elites – academic, public administration, business.	0.3	Own data
B2. Level of quality and efficiency of university communications with target audiences.	0.3	Website assessment tools and social media data
B3. Level of media activity of the university, public activity of the rector and representatives of the university during the calendar year.	0.3	Social network data: Facebook, Telegram, Instagram
B4. Level of perception of university research activity results by international academic community.	0.3	Scopus and Web of Science data
B5. Level of perception of results of research activity of the university by Ukrainian academic community.	0.3	Google scholar data

Kiev National University of Technology and Design was founded on April 17, 1930 by order of the Supreme Council of National Economy № 1240 as an Institute of Leather Industry. This date can be considered as the starting point of the history of the university in the formal approach, because research into the origins of training indicates that in fact it should have been attributed to the beginning of the XIX century. when the professional training of craftsmen who produced goods from leather, fur, textiles by hand and cooperative methods (Figure 2).

The analysis of brand-capital potential development of separate components of KNUTD has proved that during the historical period of its existence (1930–2020) there was a constant growth, which mainly took place before 1992 due to internal activation of social factors, development and implementation of complex programs to activate educational activities, implementation of complex measures for transition from unprofitability to competitive stability. The data in Figure 2 shows that the NGTTC is developing dynamically in accordance with rapidly changing requirements of the time. As evidenced by the data of Figure 2 KNUTD received the initial stimulus in its development in 1992, when the Kiev Institute of Light Industry was accredited at the fourth (highest) level of special training and renamed the State Academy of Light Industry of Ukraine, and then in 2001 – the Kiev National University of Technologies and Design (KNUTD), which testifies to the national and

international recognition of the results of the university and its significant contribution to the development of national education and science.

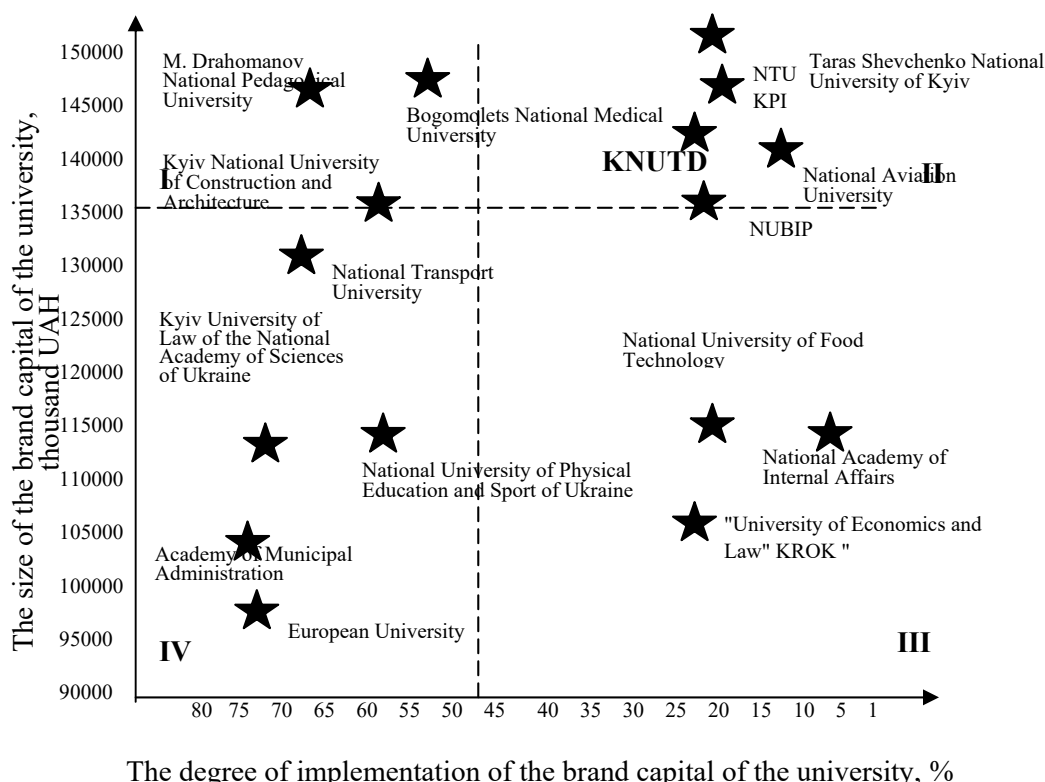


Source: [4; 5; 6].

Figure 2. Historical digression of the KNUTD brand development

In addition to international rankings of universities, there are several national domestic rankings "Top-200 Ukraine", Consolidated ranking of free economic education of Ukraine, TOP 10 best Kyiv free economic education. In the used calculation methodology, university activity is assessed using an aggregate indicator (integrated index) (Figure 3).

Direct measurement (80%), expert assessment of the quality of graduate training by representatives of employers and academia (15%), as well as using international scientometric and webmetric data (5%). The integrated index is represented by three components: the quality of scientific and pedagogical potential, quality of education, international recognition [13; 14; 15]. To determine the degree of realization of the brand capital of KNUTD, a comprehensive approach to estimating their value is proposed, where based on the application of the proposed modified approach, university brand positioning maps are developed by parameters: the size and degree of realization of brand capital.



Source: [4; 5; 6].

Figure 3. Map of brand positioning of the capital's higher education institutions on the educational services market

According to the results of these assessments, since the first publication of the ratings (2012) KNUTD took 200 places in the ranking of TOP 200: from 24 (2014) to 31 (2019), in the ranking of "Best Higher Education Institutions of the Capital of Ukraine" – 6–7 places, respectively. The Osvita.ua information and education resource in 2015 compiled a consolidated rating of higher educational institutions of Ukraine, which used the most authoritative national and international ratings of higher educational institutions of Ukraine among experts and the media: "Top 200 Ukraine", "Scopus" and "Webometrics", each of which uses different criteria for evaluating higher educational institutions. According to the results of this assessment, in 2019 KNUTD received the following rating places: according to the "Top-200 Ukraine" – 32nd place, "Scopus" – 32nd, place in the general rating – 31st, the final point – 140 [14].

According to the constructed map of brand positioning (Figure 3) KNUTD except for the well-known leaders of higher education (Kyiv National University named after M.V. Lenin). Shevchenko Kiev National University, "National Technical University of Ukraine" Kiev Polytechnic Institute", National University of Bioresources and Environmental Management of Ukraine, National Aviation University) is also in the elite segment, but to get closer to

prestigious universities need to strengthen the reputation among employers. A high image on the labour market and the educational services market will increase the success of graduates, as well as the cost of education, in order to increase investment in the development and implementation of new information technologies in the educational process. Thus, an effective product offering of KNUTD brand can be formulated: an innovative university, which implements modern information technologies of education, is a flagship in science, has a high reputation among employers and ensures the success of graduates on the labor market.

Looking at the TOP-200 universities on the parameter "Brand" of the analyzed rating and taking into account the above mentioned modified model of brand capital evaluation, the following conclusions can be drawn:

- 1) basically all Ukrainian ratings in the TOP-200, ratings of the best brand capital are presented by the same universities;
- 2) the ratings take an important, but not the main place in the formation and formation of the university brand;
- 3) the university brand should be based on professionalism and high qualification of the faculty;
- 4) human resources should be put as a basis for forming the brand;
- 5) in the modern market of educational services there is a tendency to increase the importance of the university brand in conditions of competition between educational institutions;
- 6) constant work of the university in the direction of brand strengthening is necessary.

The following activities can be singled out among the tools: expanding international partnership with universities and enterprises, offering new types of educational services, conducting PR-companies, offering potential students additional education and training courses, building partnerships with students, as well as improving the recognition of the university brand.

Conclusions and suggestions for further research. The main idea of KNUTD positioning is dual education, which is based on a harmonious combination of training of future specialists both within the walls of the university and at the enterprise. The idea of positioning the university brand is designed to incorporate the values of academic and corporate culture, which are synthesized in its mission. The proposed structure of the brand platform of the university allows to develop the values of the university culture also projected to the external and internal audience through the brand of the educational institution. The functional model of an innovative university can be considered as an economic engine. It is this category of universities that should form a competitive brand on the basis of the model of an innovative university and fight for inclusion in the cohort of world-class universities.

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JEL Classification: C 78; K 13; M 14;
L 90; R 40

UDC 330.341.42(476)

DOI: 10.30857/2415-3206.2020.1.2

IMPROVEMENT OF THE PUBLIC-PRIVATE PARTNERSHIP SYSTEM IN THE ROAD TRANSPORT SERVICES MARKET

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Introduction. The active use of the institution of public-private partnership (PPP) allows us to distinguish PPP from the totality of financial and economic relations between the state and the private sector based on the principles of equality and freedom of PPP participants, stability of the agreement and its flexibility, responsibility of the parties, competitiveness, non-interference, incentive and guarantees, retribution.

The research hypothesis. The algorithm for selecting and assessing the effectiveness of projects in the road transport market to select the most effective form of financing with the participation of the state and the private sector will create conditions for attracting private investment in the development of transport infrastructure on the basis of public-private partnership.

The purpose of this article is to improve the system of public-private partnership in the market of road transport services.

The methodology of the study: expert, statistical, comparative, factor and scenario analysis; empirical data analysis using grouping, generalization methods.

Results. An algorithm for selection and evaluation of the efficiency of projects in the sphere of the road service market to select the most effective form of financing with the participation of the state and the private sector has been proposed and tested, in particular: four alternative options for project financing to select the optimal one (state order, life cycle contract (LCC) without extra-budgetary financing, LCC with extra-budgetary financing, concession agreement); clarification of the methodology for evaluation of commercial, socio-economic and budgetary indicators of the road service market.

Conclusions. Theoretical provisions developing the methodological basis of public-private partnership were formulated, including: the concept of public-private partnership was defined and its main principles were highlighted; classification of PPP forms and models was proposed taking into account the existing world and national practice; methodological tools for evaluation of PPP projects efficiency were improved.

Keywords: public-private partnership; life cycle contract; automotive services.

JEL Classification: C 78; K 13; M 14;
L 90; R 40

УДК 330.341.42(476)

DOI: 10.30857/2415-3206.2020.1.2

УДОСКОНАЛЕННЯ СИСТЕМИ ДЕРЖАВНО-ПРИВАТНОГО ПАРТНЕРСТВА НА РИНКУ ПОСЛУГ АВТОМОБІЛЬНОГО ТРАНСПОРТУ

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Вступ. Активне використання інституту державно-приватного партнерства (ДПП) дозволяє виділити ДПП з усієї сукупності фінансово-економічних відносин держави і приватного сектора на підставі принципів рівності і свободи учасників ДПП, стабільності угоди і його гнучкості, відповідальності сторін, конкурентності, невторчання, стимулювання і гарантій, оплатне.

Гіпотеза дослідження. Алгоритм відбору та оцінки ефективності проектів на ринку послуг автомобільного транспорту для вибору найбільш ефективної форми фінансування за участю держави і приватного сектора дозволить створити умови для залучення приватних інвестицій у розвиток транспортної інфраструктури на основі державно-приватного партнерства.

Метою даної статті є удосконалення системи державно-приватного партнерства на ринку послуг автомобільного транспорту.

Методи дослідження: використані експертний, статистичний, порівняльний, факторний і сценарний аналіз; аналіз емпіричних даних за допомогою методів угруповання, узагальнення.

Результати. Запропоновано і апробовано алгоритм відбору

та оцінки ефективності проектів в сфері ринку автомобільних послуг для вибору найбільш ефективної форми фінансування за участю держави і приватного сектора, зокрема запропоновані: чотири альтернативні варіанти фінансування проекту для вибору оптимального з них (державне замовлення, контракт життєвого циклу (КЖЦ) без позабюджетного фінансування, КЖЦ з позабюджетних фінансуванням, концесійну угоду); уточнення методики оцінки показників комерційної, соціально-економічної та бюджетної ефективності, що дозволяють врахувати специфіку проектів ДПП; інтегральний показник для зіставлення зазначених варіантів і вибору найбільш оптимального з них.

Висновки. Сформульовано теоретичні положення, що розвивають методичні основи державно-приватного партнерства, в тому числі: визначено поняття державно-приватного партнерства і виділені його основні принципи; запропонована класифікації форм і моделей ДПП з урахуванням ситуації, що світової та вітчизняної практики; удосконалено методичний інструментарій оцінки ефективності проектів ДПП.

Ключові слова: державно-приватне партнерство; контракт життєвого циклу; автомобільні послуги.

Formulation of the problem. The most progressive way to increase the efficiency of the state's performance of public functions is the public-private partnership (PPP), which provides for the transfer of economic, organizational and management functions to private business in the production of public goods, provision of public services to the population, management of state property. This is legislated by a number of laws and by-laws (the Law of Ukraine "On Public-Private Partnership" [1]; the Law of Ukraine "On Amending Certain Laws of Ukraine regarding the Removal of Regulatory Barriers to the Development of Public-Private Partnership and Stimulation of Investments in Ukraine" [2]; the Law of Ukraine "On Concession" [3], etc.). These documents substantiate the architectonics of the organizational and legal basis for interaction of state partners with private partners and business; determine the basic principles of public-private partnership on a contractual basis.

The development of public-private partnership in Ukraine, given the limited financial resources of the state, should become one of the factors of economic growth and development of its infrastructure sectors. It is assumed that budget investments in the economy should stimulate private investment growth and contribute to the formation of modern transport and engineering infrastructure. One of the reserves for optimizing the structure of budget expenditures is the active use of mechanisms of public-private partnership, which allows to attract investments and services of private companies to solve state tasks.

The advantages of public-private partnerships are confirmed by the practice of their use in foreign countries. In particular, PPP makes it possible to attract financial resources from the private sector in industries and spheres of activity under the state responsibility, to use the experience of private structures to improve the efficiency of public property management, and also promotes the introduction of innovative technologies in capital-intensive industries. Implementation of the first PPP projects in Ukraine has started relatively recently, mainly in the infrastructure sector (transport, energy, housing and utilities sector, etc.). At the same time, the analysis of their implementation process reveals the insufficient level of theoretical, legal and methodological support for PPP in Ukraine, which prevents successful implementation of such projects.

An analysis of recent research and an unresolved part of the problem. In the domestic literature on the topic of public-private partnership and its mechanisms of use, the most significant are the works of R. Kucher [5], M. Solodarenko [6], Y. Pashchenko [7], K. Lernichenko [8] and others. The works of Graeme H., Carsten G. can be noted in foreign literature on the topic of PPP. H. Graeme, G. Carsten [9], G. Fishbein, B. Suman [10], A. Quim [11], T. Frye, A. Shleifer [12], as well as materials and publications by specialists of

the World Bank, International Monetary Fund, consulting organizations, departments responsible for implementation of PPP projects in foreign countries. Despite the high degree of development of the problem of implementation of PPP projects abroad, this problem requires detailed analysis and generalization from the standpoint of the specifics of the national economy. In recent years, there is an increased interest to this topic in the Ukrainian scientific environment. At the same time, the available publications are mainly of theoretical, fragmented nature. In this regard, the conceptual apparatus and methodology in this field need to be developed; the theoretical generalization of the first results of PPP projects implementation in Ukraine is necessary. It is also necessary to identify the main problems of implementing PPP in the system of providing socially important services, including motor transport, and develop specific proposals for their solution in order to improve the efficiency of budget funds use and development of this sector of the economy.

The aim of the article is to improve the system of public-private partnership in the market of automobile transport services.

Research results. Legislation in Ukraine identifies 11 main areas of PPP, which include: construction and / or operation of highways; provision of socially important services to the population, which include road transport services. Efficient functioning of the road complex is the main condition for modernization of the Ukrainian economy and improvement of the quality of life of the population, the activity of which is carried out in accordance with the Concept of Long-term Social and Economic Development of Ukraine until 2050 and the Transport Strategy of Ukraine for the Period until 2030 [4] and other strategic documents on transport development.

The successful functioning of the road transport complex depends on the coherence of the work of executive authorities, enterprises and organizations: public and commercial carriers, repair factories, petrol stations, bus stations, motor stations, logistics enterprises and road services.

One of the directions of GPT system reforming is introduction of strategic management elements [6]. The highest level of management is public authorities. At this level, the task of organization of centralized transportation management on a single base with the possibility of effective data exchange between dispatching and information systems of different ministries and departments, ensuring coordination of transport and other subdivisions of city services during the performance of functional tasks is solved. Functions of road transport regulation should be assigned to an organization (government agency) that will be administratively independent from the carriers. This agency should concentrate all primary information about the city's transport operations, collected by technical means, the reliability of which will not depend on the human factor.

It is reasonable to assign such basic functions to the state institution of road transport management:

- formation of indicators of planned work and schedules of rolling stock movement on the route network;
- fixing the actual work of the rolling stock and operational dispatching control of traffic on the entire route network;
- preparation of reports on the work of the rolling stock on the line to cover the losses of carriers from the budget (for work on social routes).

The transport policy of the state in the field of GPT as a whole should be based on the principle of distribution of state regulation functions of the region and performance of economic functions. At the same time, the state, reducing its participation as a business entity in competitive sectors of the road transport services market, should improve the efficiency of intersectoral regulation in transport, directing it to improve the quality of service and reduce public costs associated with transport activities.

During the formation of a promising financial and economic model for the functioning of road transport, the State is called upon to address the following tasks:

- make it impossible to create unjustified competitive advantages for some operators over others;
- to reduce monopoly spheres of activity with gradual replacement of direct state regulation (including by means of tariff setting) by market regulation methods (including by methods of antimonopoly regulation and control);
- when subsidizing certain types of activities, to ensure a transition from covering losses of transport operators to the purchase of transport services or to targeted compensation of consumers of transport services.

The improvement of the system of SPT regulation should, in our opinion, cover a number of important areas.

One of the promising areas of improving the efficiency of the transport industry in general and SPT in particular is the attraction of private capital in the form of public-private partnerships. The PPP mechanism also makes it possible to overcome the limited opportunities for financing infrastructure projects. With the help of the PPP mechanism, it is possible to optimize the distribution of risks between the state and private sector, to establish effective control over the use of budgetary funds. It was important to keep in mind the advantages of PPPs, such as the distribution of public and private sector obligations, the sustainability of their interaction, ownership of assets and profit sharing.

The main features of the institution of public-private partnerships for road transport service provision are:

- unification of possibilities of the state and private business for general provision of socially significant services and implementation of socially significant projects;
- finding the optimal balance between two extremes - 100% state provision of services and their full privatization;
- preserving the PPP object (depending on the source of investment and creation of this object) in public or private ownership;
- direct regulation of activities of the sole operator of transport services where it is impossible or unreasonable to develop competitive environment;
- transparency of relations between the state and private sector and competitiveness in the choice of commercial contractors.

When assessing the feasibility of implementing a PPP-based project in each case, it is important that the higher cost of attracting financing is compensated by an increase in the efficiency of project implementation through a better distribution of risks and introduction of new technologies. In the world practice for these purposes is used indicator of comparative cost (Public comparator, PSC), not without disadvantages.

The main directions of the development of the transport system of Ukraine are determined in the approved program documents based on the needs of the development of the economy as a whole and the need to eliminate "bottlenecks" on the transport network, on the basis of which a list of objects can be formed, and thus the problem can be presented in the form of a diagram according to Figure 1.

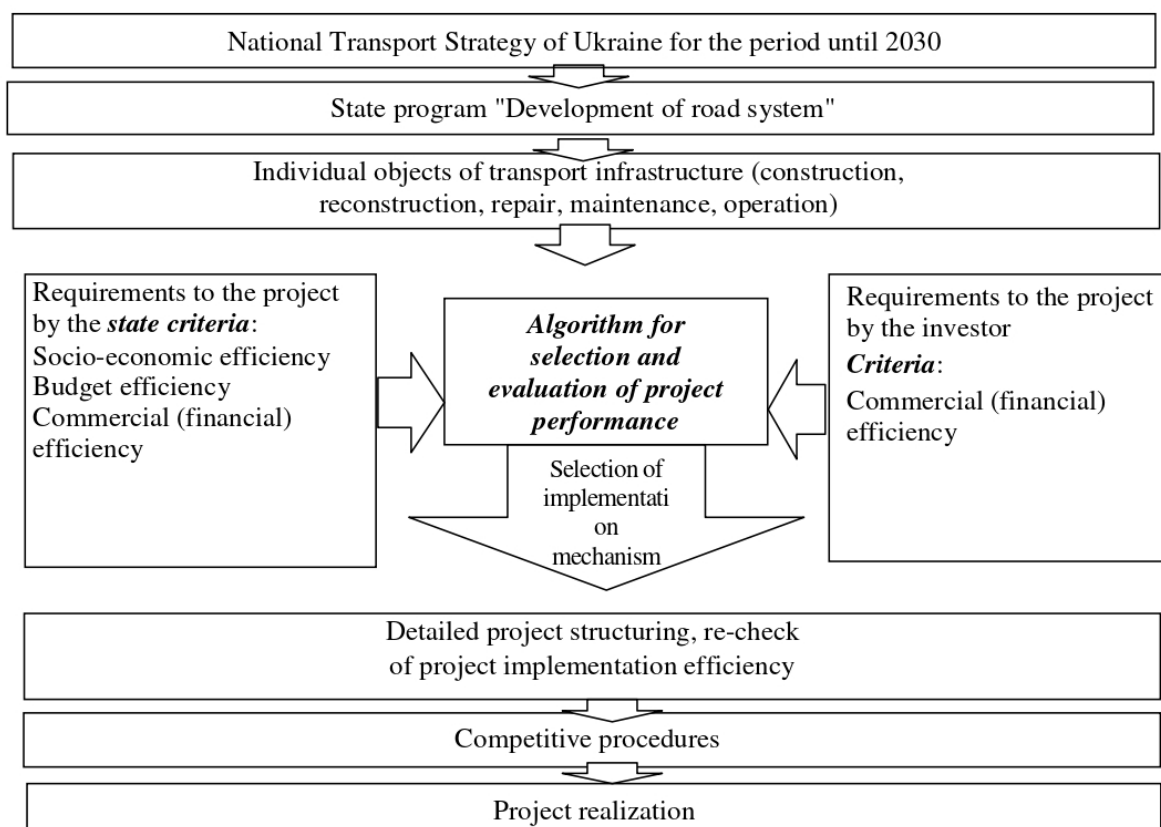
Possible schemes of project implementation depend mainly on the level of its profitability as well as on the level of project risks. Implementation of a complex contract, uniting several stages of the object's life cycle (LC) can be carried out both without attracting extrabudgetary funding and with its involvement. Methodological recommendations on efficiency assessment of investment projects do not take into account the specifics of PPP and do not establish any order or algorithm of decision-making on the implementation of projects based on PPP as an alternative to the public order.

In this connection, an algorithm of project selection has been proposed that provides for comparison of the following implementation options (both for projects with and without income flow), taking into account project risks (hereinafter – options 1 – 4 respectively):

1) the traditional state order which assumes the conclusion of separate state contracts for each stage of life cycle of object (estimation of cost of realization of the project on the given variant taking into account risks corresponds to PSC indicator used in world practice);

2) CGC without extra-budgetary funding;

- 3) CGT with attraction of extrabudgetary funding, with reimbursement of costs and cost of financial resources to a private party at the stage of operation;
- 4) Concession with reimbursement of costs to the private party from the flow of income from the object, including state support at the stage of market entry.



Source: proposed by the author.

Figure 1. Selection of mechanism for implementation of PPP projects in the automobile transport services market

The efficiency of projects for their subsequent selection and ranking is assessed on the basis of commercial (financial), socio-economic and budgetary efficiency. Calculation of these indicators can be carried out in accordance with current methodological documents (indicators of net present value (NPV), internal rate of return (IRR), payback period (PBP) and discounted payback period (DPBP) for the project as a whole, as well as these indicators for budget cash flows (VNPV, VIRR, VRVR) and economic cash flows (ENPV, EIRR, ERVR), taking into account the following clarifications due to peculiarities of PPP projects implementation:

- inclusion of the project debt sustainability indicators (DSCR and PLCR debt coverage ratios) in the calculation of commercial efficiency;

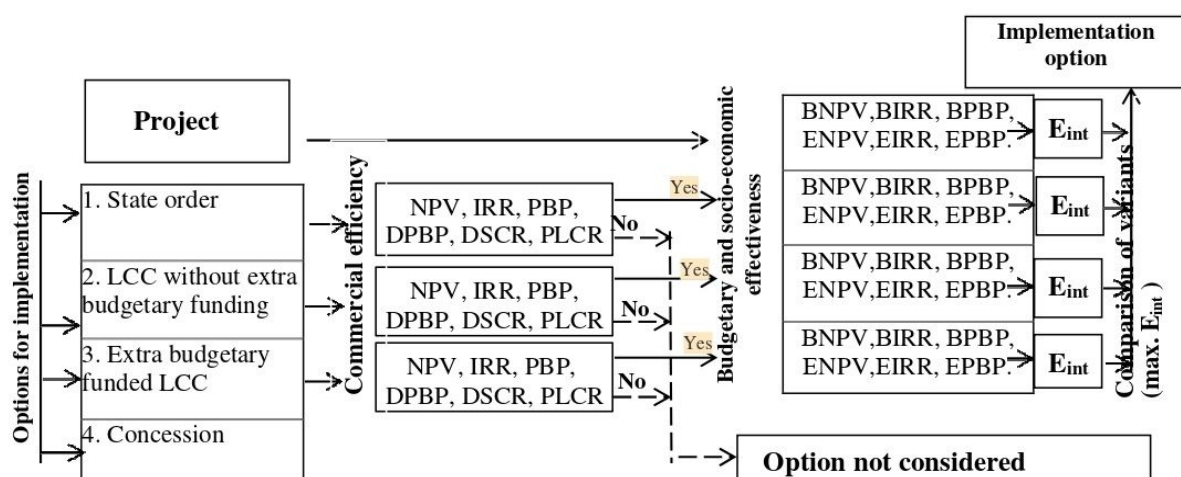
- calculation of social and economic efficiency based on monetization of external effects (monetary conversion) with subsequent inclusion in the financial model.

At the same time, the commercial efficiency indicators, including debt sustainability, are the criteria of feasibility and attractiveness of the project for the investor, but not the efficiency of the PPP project in the automobile market for the government and society as a whole, therefore, their consideration as one of the criteria for comparing the projects when deciding on the implementation mechanism seems inappropriate.

Therefore, when choosing the implementation option, it is proposed to be guided by the criteria of budgetary and socio-economic efficiency during the project implementation period. The PPP option is considered when the financial efficiency values are positive. As an integral performance indicator (E_{int}), it is proposed to use the arithmetic sum of NPV of the budget and socio-economic performance indicator, since a large benefit for the budget (BNPV) can compensate for a lower socio-economic performance of the project as a whole (ENPV), and vice versa. In this case, the sum of these indicators reflects the benefit of the state and society as a whole, in accordance with equation (1).

$$E_{int} = BNPV + ENPV. \quad (1)$$

The variant with the highest value of the integral efficiency indicator is chosen as the most optimal one. Taking into account the above, the algorithm for selecting and assessing the effectiveness of transport infrastructure projects to determine the form of financing can be presented in the form of the following scheme in accordance with Figure 2.



Source: proposed by the author.

Figure 2. Algorithm for selection and evaluation of project effectiveness

For approbation of the proposed algorithm of selection and efficiency assessment of the projects, the investment project on provision of PAT "CONNECTOR" transport automotive services for penitentiary system enterprises was considered.

The calculations performed by the author have shown the realizability of variants 3 and 4 for the investor (variant 4 is more profitable – NPV for the investor makes UAH 2 80.0 m, against UAH 16.0 m in variant 3, IRR – 15.8% against 12.3%). Debt sustainability indicators are acceptable for financing organizations in option 3 (minimum DSCR values = 1.1 LLCR = 1.23 PLCR = 1.3), and may be unacceptable for financing organizations in option 4 (minimum DSCR value = 0.88 in the first year of project implementation). Estimated budgetary and socio-economic performance indicators for the above options are presented in accordance with Table 1.

Table 1

Value of performance indicators for different options of project implementation (for the period up to 2050)

Indicator	Case 1	Case 2	Case 3	Case 4
<i>Budget efficiency</i>				
BNPV, UAH million	-13 872,4	-12 831,7	- 6 852,3	- 18 630,8
BIRR, %	3,6	4,1	4,3	-
BPBP, years	19	20	21	25
BDPBP, years	33	31 года	30	35
BBCR, coefficient	0,85	0,87	1,00	1,01
<i>Socio-economic efficiency</i>				
ENPV, UAH million	-1 537,7	383,0	6 362,4	-6 313,1
EIRR, %	5,6	6,1	7,1	4,4
EPBP, years	19	18	18	19
EDPBP, years	29	25	24	29
<i>Integral index</i>				
Eint	-16 413,1	- 13 537,7	- 588,9	- 25 857,9

Source: proposed by the author.

Calculation of integral efficiency index for the analyzed project shows the highest efficiency of variant 3 implementation (Eint = - 219.9 million UAH with the project implementation term of 26 years). It should be noted that when extending the time interval for 12 years (the period between overhauls) the indicator takes a positive value, which indicates a long payback period even for projects of state and society as a whole.

Based on the analysis, the following conclusions can be drawn:

- the best option for the state to implement the project is Case 3 (LCD with attraction of extra budgetary funding);

- financial performance indicators indicate that the project is feasible for the investor as well as for the financing organizations (in terms of debt coverage ratios);

- the option based on concession with direct fee collection is more profitable for the investor, but less profitable for the state and society, which confirms the need to compare both PPP options within the selection algorithm;

- the project even with monetization of external effects shows positive budgetary and socioeconomic efficiency only for a sufficiently long period of time, which indicates the importance of monetization in the calculation of performance indicators.

The performed calculations allow us to say that the proposed project selection algorithm can be used when making decisions on the form of project financing with the participation of the state and private sector.

Conclusions and suggestions. Implementation of the proposed measures on improvement of mechanisms for financing of projects on development of automobile services market on the basis of PPP, including development of methodological tools for selection and evaluation of projects efficiency, improvement of regulatory regulation of PPP, as well as development of tools for financing and activation of attraction of private investments into PPP projects, will contribute to improvement of efficiency of financing of automobile services market, attraction of private investments and introduction of new technologies in this sector.

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JEL Classification: G38; L9; O18;
O31; R4

UDC 338.49:656.078.1

DOI: 10.30857/2415-3206.2020.1.3

NATIONAL INNOVATIVE TRANSPORT HUB AS A SYSTEM OF STATE REGULATION OF INNOVATIVE DEVELOPMENT OF TRANSPORT INFRASTRUCTURE

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Introduction. The transport industry and its supporting component – transport infrastructure are extremely important for ensuring the innovative development of the country. This is due to the fact that the operation of transport infrastructure, transport networks and vehicles covers almost all types of innovations: product, procedural, marketing, management.

The hypothesis of scientific research is finding out that the results of the transport industry obtained in the course of innovation activities extend to other sectors of the economy (there is a so-called diffusion of innovations).

The aim is substantiation of the architecture of the national innovative transport HUB as a system of state regulation of innovative development of transport infrastructure.

The research methodology is comparative analysis and graphical method – to reflect trends in transport infrastructure; systematization and classification – for the classification of structural elements of transport infrastructure; system approach – for the formation of theoretical foundations of state regulation of transport infrastructure in the system of economic knowledge; modeling – to substantiate the model of innovative development of transport infrastructure.

Results: the main factors determining the conditions and nature of forced internal migration in Ukraine in 2014–2017 were determined. The main directions of forced

internal migration since the beginning of hostilities in the Donbass were determined. The emergence of regional asymmetry of migration processes at the level of aggregate migratory flows is investigated developed a model of innovative development of transport infrastructure in the form of national innovative transport HUB as a system of state regulation of the hexagon of individual components: innovation-production, resource-energy, environmental, investment, international and social, the use of which will create integrated into the world transport network safe, interactive, innovative and efficient transport infrastructure of Ukraine, increase the level of competitiveness of the national economy.

Conclusions: the concept of innovative development of transport infrastructure is specified; a systematic analysis and classified models of state regulation of transport infrastructure, proposed a theoretical and methodological approach to the formation of national innovative transport HUB as a system of state regulation of innovative development of transport infrastructure, the implementation of which will bring the level of their provision and infrastructure to European standards. environment, to ensure socially responsible innovative development of transport infrastructure.

Keywords: innovative development; transport infrastructure; national innovative transport HUB; state regulation.

JEL Classification: G38; L9; O18;
O31; R4

УДК 338.49:656.078.1

DOI: 10.30857/2415-3206.2020.1.3

НАЦІОНАЛЬНИЙ ТРАНСПОРТНИЙ HUB ЯК СИСТЕМА ДЕРЖАВНОГО РЕГУЛЮВАННЯ ІННОВАЦІЙНОГО РОЗВИТКУ ТРАНСПОРТНОЇ ІНФРАСТРУКТУРИ

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Вступ. Транспортна галузь та її забезпечуючі складова – транспортна інфраструктура мають виняткову важливість для забезпечення інноваційного розвитку країни. Це пояснюється з тим, що функціонування об'єктів транспортної інфраструктури, транспортних мереж і транспортних засобів охоплює практично всі види інновацій: продуктових, процесуальних, маркетингових, управлінських.

Гіпотеза наукового дослідження є з'ясування, що отримані в ході інноваційної діяльності результати транспортної галузі поширюються на інші галузі економіки (відбувається, так звана дифузія інновацій).

Метою є обґрунтування архітектури національного інноваційного транспортного HUB як системи державного регулювання інноваційного розвитку транспортної інфраструктури.

Методологією дослідження є порівняльний аналіз і графічний метод – для відображення тенденцій розвитку транспортної інфраструктури; систематизація і класифікація – для класифікації структурних елементів транспортної інфраструктури; системний підхід – для формування теоретичних основ державного регулювання транспортної інфраструктури у системі економічних знань; моделювання – для обґрунтування моделі інноваційного розвитку транспортної інфраструктури.

Результати: розроблено модель інноваційного розвитку транспортної інфраструктури у вигляді національного інноваційного транспортного HUB як системи державного регулювання шестикутнику окремих складових: інноваційно-виробничої, ресурсно-енергетичної, екологічної, інвестиційної, міжнародної та соціальної, використання якої дозволить створити інтегровану до світової транспортної мережі безпечну, інтерактивну, інноваційну та ефективну транспортну інфраструктуру України, підвищити рівень конкурентоспроможності національної економіки.

Висновки: уточнено поняття інноваційного розвитку транспортної інфраструктури; проведено системний аналіз і класифіковані моделі державного регулювання транспортної інфраструктури, запропоновано теоретико-методичний підхід щодо формування національного інноваційного транспортного HUB як системи державного регулювання інноваційного розвитку транспортної інфраструктури, реалізація якого дозволить забезпечити наближення рівня їх надання та розвитку інфраструктури до європейських стандартів, зменшити негативний вплив на навколишнє природне середовище, забезпечити соціально-відповідальний інноваційний розвиток транспортної інфраструктури.

Ключові слова: інноваційний розвиток; транспортна інфраструктура; національний інноваційний транспортний HUB; державне регулювання.

Formulation of the problem. Innovations play a paramount role in the development of the transport sector and further increase the efficiency of its operation. Innovative activities of transport service manufacturers should be aimed at improving their quality, increasing productivity, increasing the range of transportation and, ultimately, increasing market share, entering new markets and at the same time increasing their own flexibility, reducing production costs.

According to the latest CIS (Community Innovation Survey) survey in Ukraine [1], the share of enterprises engaged in innovation was 14.6%, and the share of innovation-active transport enterprises – only 7.13% [2, p. 87–92]. Today the innovative activity of transport enterprises of Ukraine is characterized by negative dynamics, namely: reduction of the number of innovatively active enterprises, reduction of the share of implemented and developed innovations, reduction of the number of innovation partners.

An analysis of recent research and an unresolved part of the problem. Issues of innovative development of transport infrastructure are studied by well-known foreign and domestic scientists: O. Kotlubay [3], O. Edin, Yu. Tsvetov, L. Sokolov [4], Yu. Pashchenko, A. Davydenko, L. Chernyuk [5], E. Sich, V. Ilchuk [6], D. Dabiev, U. Dabieva [7], T. Vermienko [8]. In their works, these scientists consider such important issues in determining the main factors influencing the state regulation of innovative development of transport infrastructure. All these studies allow us to identify the main aspects and issues that arise in the field of state regulation of innovative development of the transport sector. Some institutional-organizational and socio-economic aspects of establishing a system of effective relations between public authorities and business, innovative development of transport infrastructure remain out of the attention of scientists and legislators and need to be considered and addressed.

The aim is to determine the main factors influencing the state regulation of innovative development of transport infrastructure.

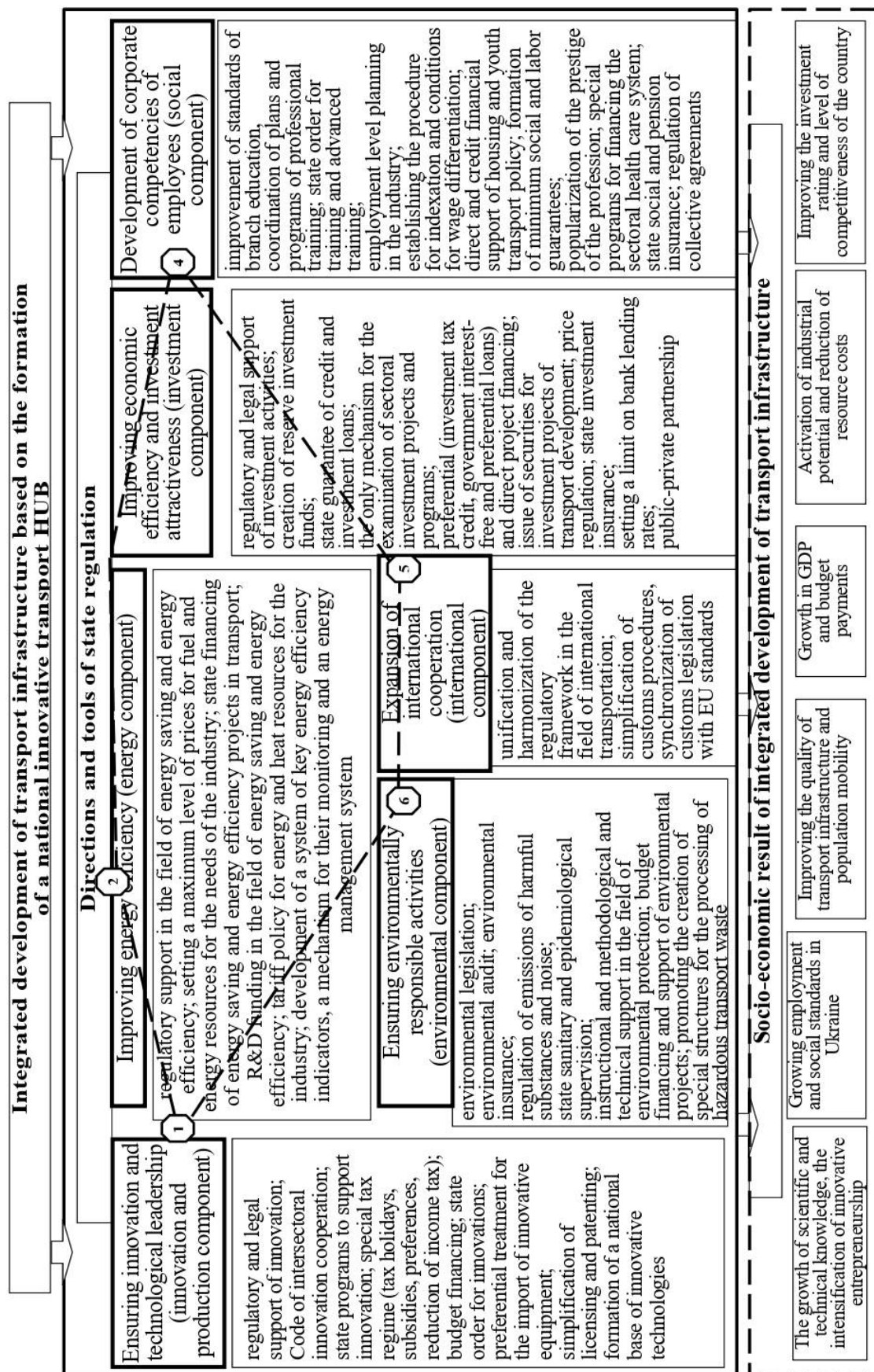
Research results. The transport infrastructure includes the following technological facilities: railways, trolleybuses, trams, domestic air and waterways, highways and routes, contact lines, overpasses, tunnels, bridges, railway and bus stations, railway stations, subways, navigable hydraulic structures, marine, river trade, fishing, specialized ports, port facilities, airports and airfields of international and domestic communication, navigation facilities, communication systems, traffic control of all types of vehicles, ensuring the functioning of the transport complex of buildings, devices, structures, equipment. Subjects of transport infrastructure: legal entities and individuals of various forms of ownership, have objects of transport infrastructure and vehicles owned or used on other legal grounds. In addition to the facilities that ensure the operation of transport to the actual vehicles include: rail, road, electric urban land passenger rolling stock, various types of vessels: aircraft, merchant

shipping or shipping. The transport industry and its supporting component – transport infrastructure are extremely important for ensuring the innovative development of the country. This is due to the fact that the operation of transport infrastructure, transport networks and vehicles covers almost all types of innovations: product, procedural, marketing, management. The results obtained in the course of innovation activities extend to other sectors of the economy (there is a so-called diffusion of innovations). Due to its initial "communication" purpose – as a means of ensuring material communication between the territories – the transport industry also affects the balance of innovative development. First of all, this should be achieved through the technical development of the industry and the elimination of existing gaps from more developed countries. The innovative development of the industry should be aimed at full and effective satisfaction of existing needs in passenger and freight transportation. Innovations fill the transport industry in the form of interconnected supply systems, cargo tracking and tracing systems, radio frequency identifiers, software optimization, etc.

The model of state regulation of innovative transport development in the form of a national innovative transport HUB is shown in Figure 1.

According to Figure 1, the model of the national innovative transport hub as a system of state regulation of innovative development of transport infrastructure is a hexagon of connection and interaction of individual components: innovation and production, energy, environmental, investment, international and social, which will implement the main mission of the National Transport Ukraine's strategy for the period up to 2030 – the creation of an integrated into the world transport network safe, interactive innovative and efficient transport infrastructure of Ukraine, the operation of which will meet the needs of the national economy in transportation, improving business conditions on the basis of corporate social responsibility to ensure competitiveness and efficiency economy. The implementation of each of the components is as follows.

The implementation of the innovation and production component allows to provide innovation and technology leadership in each segment of the transport infrastructure. Formal provision of this component is due to the implementation of regulatory and legal support for innovation in accordance with European standards; implementation of state programs to support innovation; special tax regime (tax holidays, subsidies, preferences, reduction of income tax); state order for innovations; preferential treatment for the import of innovative equipment; simplification of licensing and patenting; formation of a national base of innovative technologies.



Source: proposed by the author.

Figure 1. Model of national innovative transport HUB as a system of state regulation of innovative development of transport infrastructure

The tools for implementing the innovation and production component are the introduction of transport and logistics technologies by expanding the use of multimodal transportation, the introduction of e-government to reduce the workload and simplify administrative procedures for business; introduction of electronic services of administrative services in the transport sector; securing Ukraine's place in the top 50 in 2025 and in the top 20 of the world ranking in the logistics efficiency index (LPI of the World Bank) in 2030 through the development of a system of multimodal transport and logistics clusters and logistics centers at borders, ports and airports; ensuring the separation of the infrastructure operator of PJSC "Ukrzaliznytsia" from freight and passenger carriers; separation of unusual functions of public administration of the state enterprise "Administration of seaports of Ukraine"; improving the management of state assets in aviation infrastructure; ensuring the development of multimodal transportation technologies, modernization and reengineering of infrastructure complexes to ensure interactive interaction of different modes of transport; creation of a network of multimodal transport and logistics clusters, "dry ports", basic logistics centers, terminals, specialized transshipment complexes; optimization and proportional redistribution of freight traffic towards rail and inland water transport.

The target indicators for achieving the planned indicators of development of the innovation and production component should be: the share of non-state-owned carriers in railway transport; the percentage of multimodal cargo transportation is not lower than 10–15% of the transport market; door-to-door delivery speed and on time; the share of container traffic in the total volume of traffic; specific weight of mobile dimensional and weight complexes in the total volume of traffic.

The implementation of the second component – energy allows to increase energy efficiency in each segment of the transport infrastructure. Formal provision of this component is due to the implementation of regulatory and legal support in the field of energy saving and energy efficiency; tariff policy for energy and heat resources for the industry.

The tools for the implementation of the energy component are the establishment of a maximum price level for fuel and energy resources for the needs of the industry; state financing of energy saving and energy efficiency projects in transport; R&D funding in the field of energy saving and energy efficiency; introduction of a system of key energy efficiency indicators, a mechanism for their monitoring and an energy management system.

Targets for achieving the planned indicators of energy component development should be: the percentage of R&D funding in the field of energy saving and energy efficiency; the share of electric cars in the total fleet.

Implementation of the third component – investment allows to increase economic efficiency and investment attractiveness of the transport infrastructure. Formal provision of this component is due to the implementation of regulatory and legal support for investment activities; branching out of the system of public-private partnership; price regulation; carrying out of reform of tariff regulation of transportations according to the European experience; state investment insurance; implementation of structural reform of PJSC "Ukrzaliznytsia" – financial and organizational separation of the infrastructure operator and the carrier.

The tools for implementing the investment component are the creation of reserve investment funds; state guarantee of credit and investment loans; introduction of a single taxation system for all entities engaged in one type of activity; the only mechanism for the examination of sectoral investment projects and programs; preferential (investment tax credit, government interest-free and preferential loans) and direct project financing; issue of securities for investment projects of transport development; setting a limit on bank lending rates.

The target indicators for achieving the planned indicators of investment component development should be: the share of preferential (investment tax credit, government interest-free and preferential credit), direct project financing in the total amount of loans issued for the development of transport infrastructure; share of securities issue under investment projects of innovative transport development in the total volume of securities issues.

Implementation of the fourth component – social allows to ensure the development of corporate competencies of employees, to increase the social and corporate responsibility of transport activities. Formal provision of this component is due to the introduction of a new approach to licensing of road carriers in compliance with the requirements of business reputation, financial capacity, professional competence of staff and ensuring access to the road transport market in accordance with EU legislation; improvement of standards of branch education, coordination of plans and programs of professional training; state order for training and advanced training; employment level planning in the industry; establishing the procedure for indexation and conditions for wage differentiation; direct and credit financial support of housing and youth transport policy; formation of minimum social and labor guarantees; popularization of the prestige of the profession; introduction of a special program for financing the sectoral health care system; state social and pension insurance; regulation of collective agreements.

The tools for implementing the social component are the development of a network of road service points to ensure verification of compliance with the requirements of work and rest of drivers in accordance with the European Agreement on Crews of Crews of Vehicles Performing International Road

Transport (EUTR) (Law of Ukraine of September 7, 2005 № 2819-IV), and regulations; guaranteeing equal, open and transparent access of operators to the transport infrastructure; ensuring the transparency of the national market of freight forwarding services; entry of the transport industry in the top 5 sectors of the national economy in terms of attractiveness in the labor market.

The target indicators for achieving the planned indicators of the development of the social component should be: the level of wages of workers in the industry; the share of points of road service of rest of drivers in the total volume of stopping points of vehicles; the level of labor productivity in transport (ton-kilometers, passenger-kilometers per employee per year), the number of new jobs created.

The implementation of the fifth component – international – allows to expand international cooperation on a new, innovative and interactive basis. Formal provision of this component is due to the unification and harmonization of the regulatory framework in the field of international transport; gradual liberalization of international transportation; implementation of the Common Aviation Area Agreement with the EU; liberalization of the transport services market in accordance with the Association Agreement and the Common Aviation Area Agreement with the EU; organization and use of Ukraine's airspace in accordance with ICAO standards and recommended practices, the European Organization for the Safety of Air Navigation (Eurocontrol), other international aviation organizations and EU legislation.

The tools for implementing the international component are the provision of an interoperable national transport system with a world transport network (railway network of 1435 mm wide track); increase the efficiency of internal logistics operations of freight transport by removing existing barriers and improving the relevant infrastructure for international transport, integration with the international and trans-European transport network (TEN-T); simplification of customs procedures, synchronization of customs legislation with EU standards; reduction of time of cargo handling and registration of documentation by simplification of administrative procedures during international transportations; technical improvement of the air navigation system for the organization of air traffic; introduction of free routes (FRAU) and navigation technologies based on GNSS in the airspace of Ukraine; development of terminal passenger and cargo complexes with multimodal technologies; creation of a cyber security system for civil aviation in accordance with ICAO practice and EU legislation.

The target indicators for achieving the planned indicators of the international component development should be: the volume of transit traffic through Ukraine; the number of ship calls to the ports of Ukraine, the level of quality of transport services during export transportation; obtaining a rating of

the top 100 largest ports in the world by Ukrainian sea trade ports in terms of the number of processed containers; the share of cargo transportation in intermodal transport units from the total volume of traffic; interoperability of the transport system of Ukraine; the number of routes of regular container / multimodal freight trains synchronized with the routes of trains of EU member states; time of cargo handling and documentation during international transportation.

Implementation of the sixth component – environmental allows to ensure environmentally responsible activities in transport. Formal provision of this component is due to the implementation of environmental legislation; creation of an environmental insurance system; support and development of an interactive system of state sanitary and epidemiological surveillance.

The tools for implementing the environmental component are the introduction of environmental audit; regulation of emissions of harmful substances and noise; instructional and methodological and technical support in the field of environmental protection; budget financing and support of environmental projects; promoting the creation of special structures for the processing of hazardous transport waste.

Target indicators for achieving the planned indicators of development of the environmental component should be: the percentage of environmentally insured vehicles in the total volume of rolling stock; the number of special structures for the processing of hazardous transport waste.

Conclusions and suggestions. The implementation of the proposed model of interaction between public authorities and business allows to implement a comprehensive interactive mechanism of state regulation of innovative development of transport infrastructure. As evidenced by the analysis of all components, forms, tools and targets of formation and implementation of the national innovative transport HUB as a system of state regulation of innovative development of transport infrastructure will bring the level of their provision and development of infrastructure to European standards, reduce the negative impact on the environment socially responsible innovative development of transport infrastructure.

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JEL Classification: E24; J24; I23;
L32

UDC 331.101

DOI: 10.30857/2415-3206.2020.1.4

HUMAN CAPITAL MANAGEMENT IN HIGHER EDUCATION INSTITUTIONS

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Introduction. The specifics of the formation and evaluation of the effectiveness of human capital in national research universities of technical profile is aimed at creating conditions that meet the interests of the development of the innovation economy of Ukraine. Institutions of higher education, which can be classified as national research technical universities, have a significant role in the formation of human capital, the development of the national innovation system and innovation culture, thus contributing to the development of the innovation economy of Ukraine.

The research hypothesis. The human capital management of the university on the basis of application of three-level model of human capital management will provide increase of efficiency of formation of human capital by means of expansion of possibilities, increase of competitiveness and improvement of image of national research university of technical profile.

The purpose of this article is to improve the human capital management system in higher education institutions.

The methodology of the study: comparative, scenario analysis; analysis of empirical data using grouping, generalization methods.

Results. The proposed model of human capital formation in national technical universities can be used to assess the comparative efficiency of Ukrainian and foreign research universities, to determine their impact on the innovative development of the economy, the performance of an important social and economic function of human capital formation, ensuring its use in their own scientific and business activities.

Conclusions. It is proposed to improve the mechanism of human capital management on the basis of the principles of partnership, which ensure the effectiveness of higher education by increasing its capacity in the context of national research universities, it is justified to increase the profitability of research universities while reducing the amount of public funding.

Keywords: public-private partnerships; national research universities; human capital.

JEL Classification: E24; J24; I23;
L32

УДК 331.101

DOI: 10.30857/2415-3206.2020.1.4

УПРАВЛІННЯ ЛЮДСЬКИМ КАПІТАЛОМ В ЗАКЛАДАХ ВИЩОЇ ОСВІТИ

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Вступ. Специфіка формування і оцінка ефективності використання людського капіталу в національних дослідницьких університетах технічного профілю спрямована на створення умов, які відповідають інтересам розвитку інноваційної економіки України. Установи вищої освіти, які можна віднести до категорії національних дослідницьких технічних університетів, покликані зіграти значну роль у формуванні людського капіталу, розвитку національної інноваційної системи та інноваційної культури, тим самим сприяючи розвитку інноваційної економіки України.

Гіпотеза дослідження. Управління людським капіталом університету на основі застосування трирівневої моделі управління людським капіталом забезпечить підвищення ефективності формування людського капіталу за рахунок розширення можливостей, підвищення конкурентоспроможності та поліпшення іміджу національного дослідницького університету технічного профілю.

Метою даної статті є удосконалення системи управління людським капіталом в закладах вищої освіти.

Методи дослідження: використані порівняльний, сценарний аналіз;

аналіз емпіричних даних за допомогою методів угруповання, узагальнення.

Результати. Запропонована модель формування людського капіталу в національних технічних університетах може бути використана для оцінки порівняльної ефективності українських і зарубіжних дослідницьких університетів, для визначення їх впливу на інноваційний розвиток економіки, виконання важливої соціальної та економічної функції по формуванню людського капіталу, що забезпечує його використання при здійсненні їх власної наукової і підприємницької діяльності.

Висновки. Запропоновано вдосконалення механізму управління людським капіталом на основі принципів партнерських відносин, що забезпечують підвищення ефективності діяльності вищої школи за рахунок розширення її можливостей в умовах національних дослідницьких університетів, обґрунтовано підвищення прибутковості дослідницьких університетів при скороченні обсягів державного фінансування.

Ключові слова: державно-приватне партнерство; національні дослідницькі університети; людський капітал.

Formulation of the problem. Transition to innovative economy requires from all subjects of economic activity complex organizational and economic work on development of national economy with application of the most advanced technologies and methods, creating conditions for realization of high-tech manufactures, provided with professional personnel capable of embodiment and commercialization of innovations. Orientation on innovative principles of development of economy is an argument in favour of creation of single strategy of management of formation of human capital (physical conditions and creative abilities, scientific knowledge and specialized unique skills).

Human capital is one of the most complex objects of management in the economy; its formation occurs in different directions and goes through different stages of human life cycle. However, traditionally, the system of higher education is recognized as the main sphere of public life directly affecting the formation of human capital.

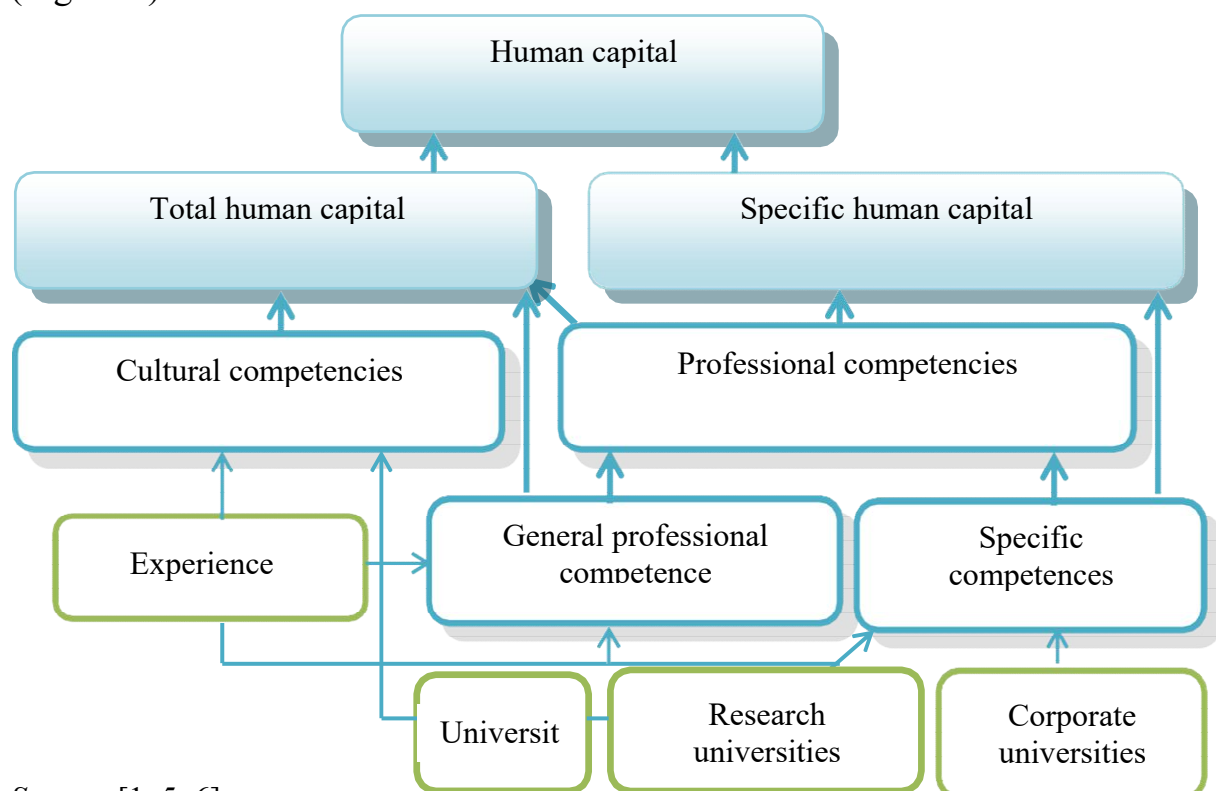
An analysis of recent research and an unresolved part of the problem. Such famous foreign scientists as G. Becker [3], E. Denison, J. Kendrick, J. Clark, D. Minzer, J. Stiglitz, L. Thoreau, J.R. Walsh, L. Hansen, B. Chiswick, T. Schultz, and others made significant contributions to the development of the theory of human capital in different periods. Among Ukrainian scientists, the most prominent representatives are: O. Giselo [1], A. Grishnova [2], T. Oksenyuk [4], O. Bilichenko [5], A. Bazilyuk [6], A. Antonov [7], V. Cherednik [8], O. Kubatko, J. Pronikova [9], V. Shcherbak [10] and others. Mainly human capital is considered as an object of investment, while insufficient attention is paid to human capital as an object of this process. Therefore, there is a need for further research into the essence of human capital and its difference from other types of capital, and for research into the efficiency of human capital development in universities.

The aim of the article is the development of theoretical and methodological provisions on the formation of the human capital management system in national technical universities for their integration into the national innovation system and the world innovation process.

Research results. In this study, human capital is considered by the author on the basis of fundamental approaches as a factor of economic development of the country and increase in public productivity, a source of increasing income of the employee and a separate economic entity. Human capital in the broad sense should be regarded as a qualitative characteristic of the used human potential, i.e. stock of physical and mental health (physical potential), professional training and other acquired abilities (acquired potential) of qualified labor resources. Namely, as a set of acquired physical conditions, creative abilities, accumulated knowledge, skills, experience and skills of people (or a person), obtained in the process of training and professional activity, which the labor resources of the country (or individual workers) possess and which make them valuable for the

economy (or economic entity). Taking into account that at the present stage of society's development the main source of human capital increase is the system of higher education, it is proposed to consider human capital, in the narrow sense, as a set of acquired knowledge, skills, and creative abilities of qualified labor resources, which are productively used by business for profit making.

In the current social and economic conditions, the opportunities to realize the potential inherent in human capital largely depend not only on the intellectual capital of the employee, but also on the availability of abilities and willingness to use it to create intellectual property objects. In this connection, an important element of human capital, capable of increasing the intellectual capital of a business entity, is organizational and entrepreneurial capital. The study of modern approaches to the formation of human capital (continuous education and competence approach) allows to determine the structure of human capital in terms of the purpose of competencies acquired in the process of training, as well as to determine the role of higher education in the process of its formation (Figure 1).



Source: [1; 5; 6].

Figure 1. Competencies that form human capital in higher vocational education

With regard to the issue of human capital formation in the higher education system, the total human capital is a set of general cultural and part of the professional competencies of the educated part of the labor force (person), acquired as a result of general professional training and experience. Specific

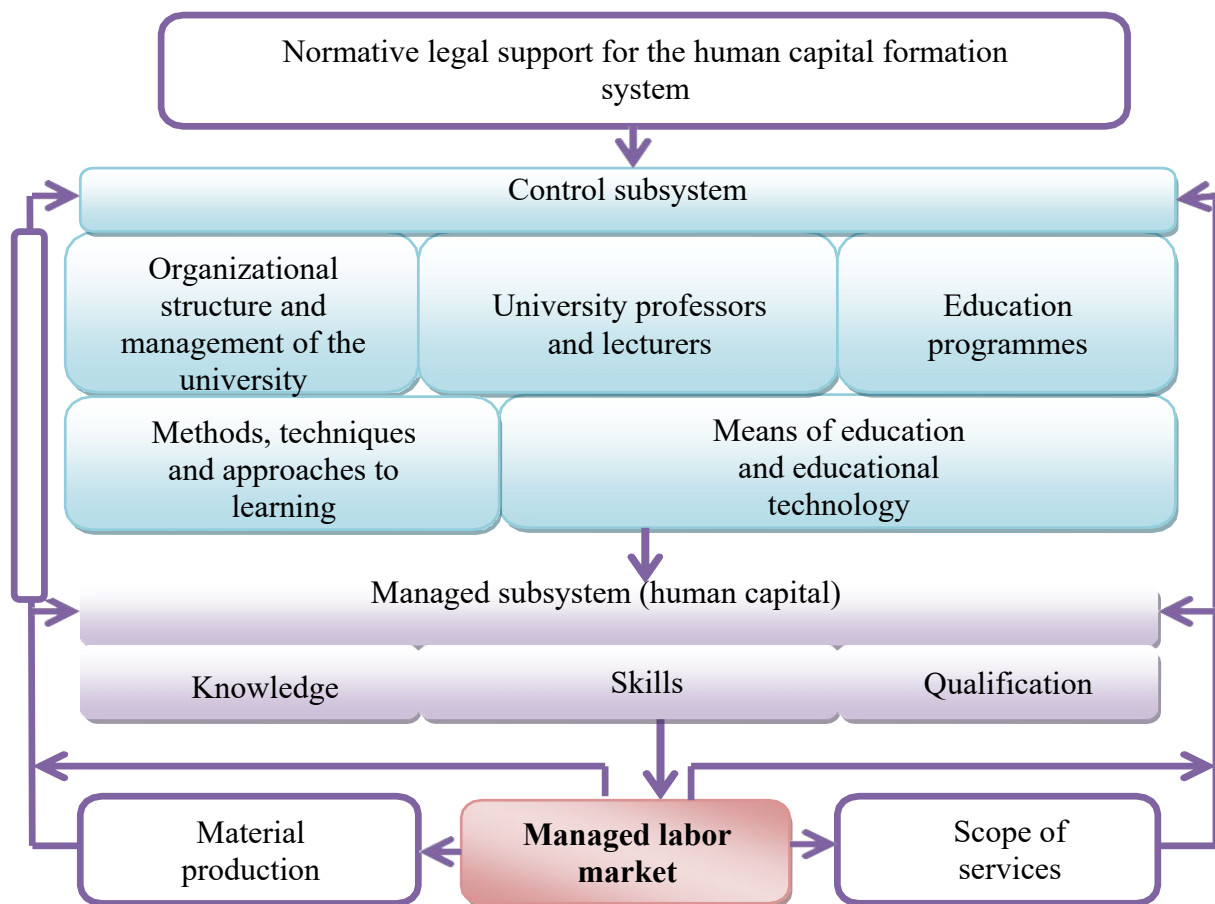
human capital, in the author's opinion, should be considered as a set of professional competencies acquired by a person and yielding the maximum result from their use not only within a single organization, but also within a certain type of professional activity, such as scientific activity.

The process of formation and accumulation of specific human capital comes to the fore and is realized mainly on the basis of world-class research universities, which actively attract business to participate in its formation and are active subjects of innovative activity. In accordance with the role assigned to research universities in the development of innovative economy, the main components of human capital formation in a research university can be identified: educational, intellectual, organizational-entrepreneurial and social capital.

In order to develop the innovation economy of Ukraine, it is necessary to close the gap that has arisen over the past two decades between higher education, science and innovation, given the significant potential contained in human capital. As a theoretical basis for improving the system of human capital formation in higher education it is proposed to use a model that includes subsystems of formation, development, accumulation and evaluation of the effectiveness of investment in human capital at different levels of the economy: 1 macro level – national, 2 meso level – regional (sectoral), 3 micro level – higher education institutions and enterprises.

In modern conditions, changes in approaches to education affect the nature and types of interaction of all elements of the human capital formation system. Principles of the organization, methods of education in higher education and, accordingly, the whole system of formation of the human capital change. At formation of the human capital in higher education institutions managing influence is carried out by management (administrative and administrative personnel) and the faculty (scientific-teaching) structure of higher education institution. The main objects of influence are the knowledge, skills and abilities of the student (Figure 2).

The management subsystem influences the managed subsystem by means of development and implementation of educational programs, application of special methods, techniques and technologies of training, as well as various forms of education (full-time, part-time and part-time (distance) education). The development of the management measures system is based on the concept of human capital formation, which determines the final requirements to the system of knowledge, skills and abilities acquired in the learning process. Together with a set of other elements of the management subsystem it is regulated on the basis of the existing regulatory framework, according to the needs of the development of tangible and intangible spheres of social production and other factors of the external environment to create a managed labor market.



Source: [2; 8; 9; 10].

Figure 2. Human capital formation management system in the university

Taking into account the global mission of national technical universities, the problem of evaluating the effectiveness of human capital formation in national technical universities is the difference in criteria and indicators (indicators) of evaluation of universities at the national and international level. On the basis of analysis and systematization of methods to assess the effectiveness of technical universities, established in the global and Ukrainian practice, the author has developed a system of criteria and indicators to assess the effectiveness of human capital formation management.

The issue of improving the quality of human capital is closely related to the ability of national technical universities to accumulate the necessary resources for its formation, as well as their ability to use these resources for their own accelerated development and increase of intellectual capital under conditions of active changes in the external and internal environment. The author identified and classified the main tools to improve the quality of human capital: changing the organizational and legal form of the university, restructuring, improving the marketing strategy and tactics of the university, improving the system of motivation for work and training, the development of entrepreneurial activity

and much more. To improve the efficiency of management of human capital formation, national technical universities need to focus on priority areas of development, as well as to bring the organizational structure of management of a classical university in line with the requirements and objectives of national technical universities.

Conclusions and suggestions. The correlation between the notions "human capital" and "intellectual capital" has been revealed, their role in increasing the competitiveness of a business entity has been schematically reflected, and the correlation between the quality of human capital formation and the stages of national economy development has been established. The competences forming general and specific human capital in the system of higher professional education, as well as the structure of human capital in research universities, have been defined. The main characteristics of national technical universities have been defined and their key goal has been to transform them into world-class research universities by actively stimulating the educational, scientific, business, innovation and marketing activities of the university. It is recommended that all the proposed mechanisms and tools be used to improve approaches to human capital management in national technical universities and to improve the efficiency of university management by using available resources, taking into account the experience of world-class research universities for the innovative development of Ukraine.

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JEL Classification: D04; E31; G13;
L42; M31; P22

UDC 659.15

DOI: 10.30857/2415-3206.2020.1.5

USE OF PRICE MARKETING IN EXHIBITION ACTIVITIES

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Introduction. The use of methodical tools of pricing in the marketing of exhibition activity by the companies-organizers of exhibition events allows to strengthen their competitive positions in the internal and external markets of exhibition services, to improve the financial results of their activities.

The research hypothesis. When improving the methodological tools of pricing in the marketing of exhibition activities, it is advisable to use the concept of extremely high, preventing the formation of demand, the price, which the author called the "price of alternative".

The purpose of this article is to offer methodological tools of marketing pricing in the field of expo business and to substantiate the economic and mathematical model of the optimal market price of the exhibition area.

The methodology of the study: methods of observation and collection of facts, statistical, content analysis, comparative and functional analysis, system approach based on modeling of economic reality, tabular, graphic, specific methods of marketing research: field (surveys of exhibition organizers, participants of expositions) and desk research.

Results. The four-level marketing model of the exhibition service as a set of various interrelated attributes and benefits expressing the usefulness of the considered expo service for the participants of the exhibition event was developed. The use of the developed model allows exhibition organizers to form marketing relations with all market participants in the best possible way, to position the company taking into account consumers' expectations, and to differentiate expo-services suppliers taking into account their quality characteristics.

Conclusions. The use of the "price of alternative" allows the company organizer of the exhibition events to get scientifically grounded toolkit of exhibition pricing, developed on the basis of benchmarking and containing economic and mathematical model of the optimal market price, which takes into account the interests of the client and the organizer of the exhibition events and promotes the development of interaction between them.

Keywords: marketing; price; expoevent; exposervice; exhibition; expobusiness.

JEL Classification: D04; E31; G13;
L42; M31; P22

УДК 659.15

DOI: 10.30857/2415-3206.2020.1.5

ВИКОРИСТАННЯ ЦІНОУТВОРЕННЯ В МАРКЕТИНГУ ВІСТАВКОВОЇ ДІЯЛЬНОСТІ

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Вступ. Використання методичного інструментарію ціноутворення в маркетингу виставкової діяльності фірмами-організаторами експозаходів дозволяє посилити їх конкурентних позицій на внутрішньому і зовнішньому ринках виставкових послуг, поліпшити фінансові результати їх діяльності.

Гіпотеза дослідження. При вдосконаленні методичного інструментарію ціноутворення в маркетингу виставкової діяльності доцільно використовувати поняття гранично, яка перешкоджає формуванню попиту, ціни, яка названа автором «ціна альтернативи».

Мета статті запропонувати методичний інструментарій маркетингового ціноутворення в сфері експобізнесу і обґрунтувати економікоматематичну модель оптимальної ринкової ціни виставкової площі.

Методи дослідження: методи спостереження і збору фактів, статистичний, контент-аналізу, порівняльного і функціонального аналізу, системного підходу, заснованого на моделюванні економічної дійсності, табличний, графічний, специфічні методи маркетингових досліджень: польові (опитування організаторів виставок, учасників експозаходів) і кабінетні.

Результати. Розроблено чотирьохрівнева маркетингова модель виставкової послуги як сукупність взаємопов'язаних між собою різних атрибутів і вигід, що виражають корисність даної експопослуги для учасників виставкового заходу. Використання розробленої моделі дозволяє організаторам виставок найкращим чином формувати маркетингові відносини з усіма учасниками ринку, здійснювати позиціонування компанії з урахуванням очікувань споживачів, а експонентам – диференціювати поставальників експопослуг з урахуванням їх якісних характеристик.

Висновки. Використання «ціни альтернативи» дозволяє для фірми-організатора експозаходів отримати науково обґрунтований інструментарій виставкового ціноутворення, розроблений на основі застосування бенчмаркінгу і містить економікоматематичну модель оптимальної ринкової ціни, що враховує інтереси клієнта і організатора експозаходів і сприяє розвитку взаємодії між ними.

Ключові слова: маркетинг; ціна; експозахід; експопослуга; виставка; експобізнес.

Formulation of the problem. The establishment of market economy in our country, including in the field of exhibition services, began relatively recently – in the 90s of XX century. This led to the use of the marketing concept based on a set of marketing tools. These tools allow us to have a significant impact on the consumer behavior of the target audience and interact with it regularly through the established feedback. The use of a complex of marketing communications in exhibition activities plays a crucial role in a number of economic spheres. In turn, the success of this activity largely depends on the adopted pricing policy for the main exhibition service, which is provided by the organizing firms (sellers) to exhibitors (buyers) in the form of providing them with booth space at market price.

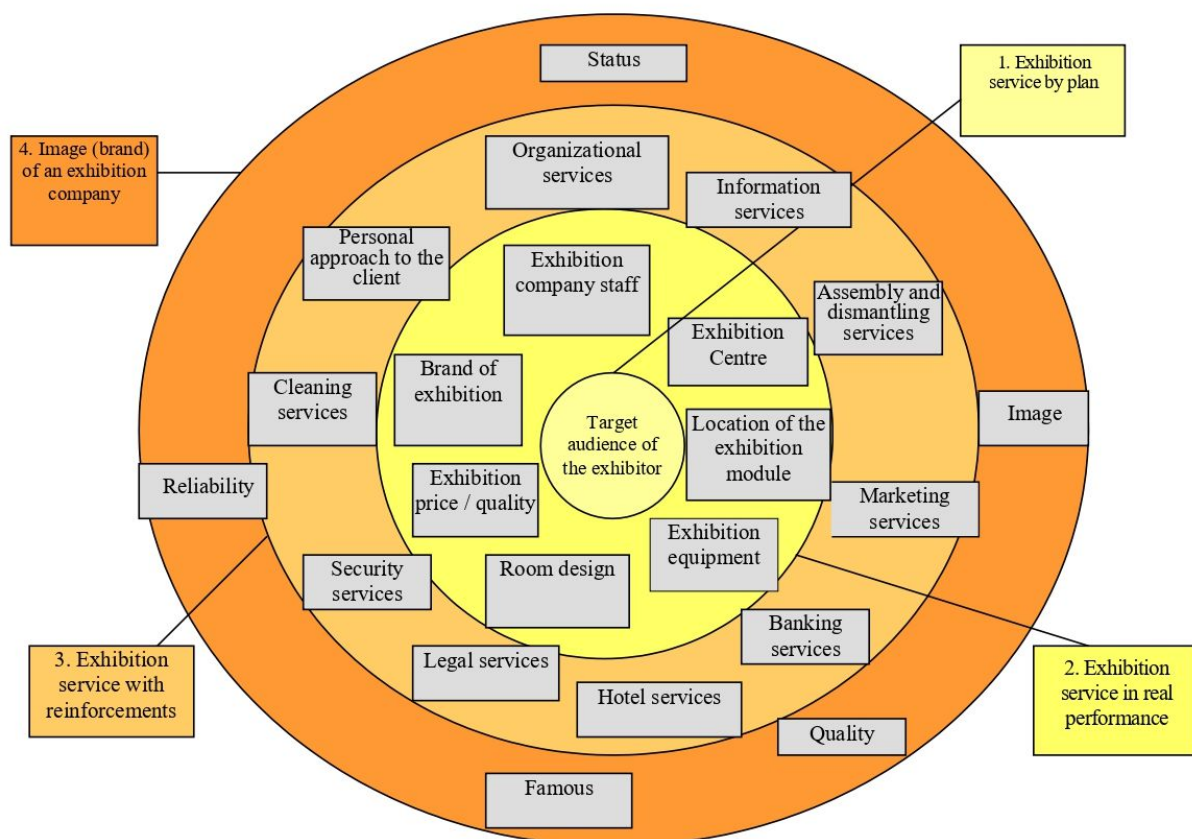
Practice shows that the solution of pricing issues in the exhibition business so far has been carried out mainly on the basis of the cost method, taking into account, first of all, the commercial interests of the firms-organizers of exhibitions, which in a competitive environment does not always lead to the expected results. Besides, their activity is characterized by the insufficient level of practical use of marketing pricing policy instruments. There are market approaches to pricing alternative to cost methods. They are based on research of demand of participants (exhibitors) of exhibition events and competitive environment and are used very rarely due to labor intensity and cost of use. In this regard, the improvement of methodological tools for pricing in the marketing of exhibition activities seems to be quite relevant, which led to the choice of research topics.

An analysis of recent research and an unresolved part of the problem. The substantive essence of the concept of marketing in the service sector is considered in the works of foreign authors: G. Armstrong, R. Best, F. Kotler, J.-J. Lamben, E. Rice, D. Trout, J. Evans. The study of exhibition and fair activity and its marketing aspects are devoted to the works of I. Antonenko, T. Duplyak [1], M. Arshevskoy [3], N. Aleksandrova, I. Arshevskoy [3], I. Filonenko [4], I. Burgela [5], T. Tkachenko [6], E. Dobrobabenko, N. Dobrobabenko [7], G. Zaharenko [8], O. Melnikovich, T. Burgimova [9], V. Pekar [10] and other authors. Nevertheless, the issues of scientific substantiation and effective use of methodological tools of pricing in the sphere of exhibition services are not fully developed.

Their solution would contribute to the improvement of marketing pricing for the main exhibition service, which is provided by the companies-organizers to the participants of exhibitions in the form of providing them with the stand space at the market price, and at the same time – to the development of interaction between the buyers of the service (exhibitors) and its sellers (organizers), which was the basis for choosing the topic of the article.

The aim of the article is the theoretical substantiation and improvement of the methodical tools of pricing in the marketing of exhibition activities, which allows to increase the competitiveness of the companies-organizers of exhibition events on the internal and external markets of exhibition services.

Research results. For deeper understanding of the need to improve the methodological tools of pricing in the marketing of exhibition activities, the author has analyzed and systematized various approaches to the definition of the concept of "marketing". By analogy with the three-level model of F. Kotler's goods, the author developed a four-level marketing model of the exhibition service, which contains a set of hierarchically interrelated attributes and benefits, reflecting its overall utility, or consumer value, for the participants of the exhibition event, that is, exhibitors (Figure 1).



Source: [2].

Figure 1. Four-level marketing model of exhibition service

As a result, the concept of marketing of exhibition activities was clarified and thoroughly disclosed – as a multifunctional communication process providing interaction between subjects of the exhibition services market to meet the commercial interests of each participant of this process through the implementation of product, price and other strategies of the exhibition organization. The author considers the price strategy in the expo business as an

important element of the marketing policy of the exhibition company which is aimed at formation and management of the expo space price taking into account the characteristics of the exhibition service, factors of the marketing environment, conditions of the expo services market, goals and financial possibilities of the company.

According to the graphical representation of the linear function of demand (1) presented in Figure 2, the sought optimal market price of the exhibition area is in the gap between the above marginal values of the original price (P). The marginal high price, at which the zero value of exhibitors' demand for the exhibition area is set, is proposed to be called the "alternative price" and denoted ($P_{alt} = a/b$). Then the equation of linear demand function (1) can be presented in the following form:

$$Q=a(1 - P/ P_{alt}), \quad (1)$$

which also makes it possible to better understand the economic essence of the price of the alternative (P_{alt}) in relation to the export-oriented business. It consists of the fact that at the specified "alternative price" the demand of exhibitors for this exhibition event disappears due to the possibility of participation at the same price in an alternative exhibition event characterized by higher quality.

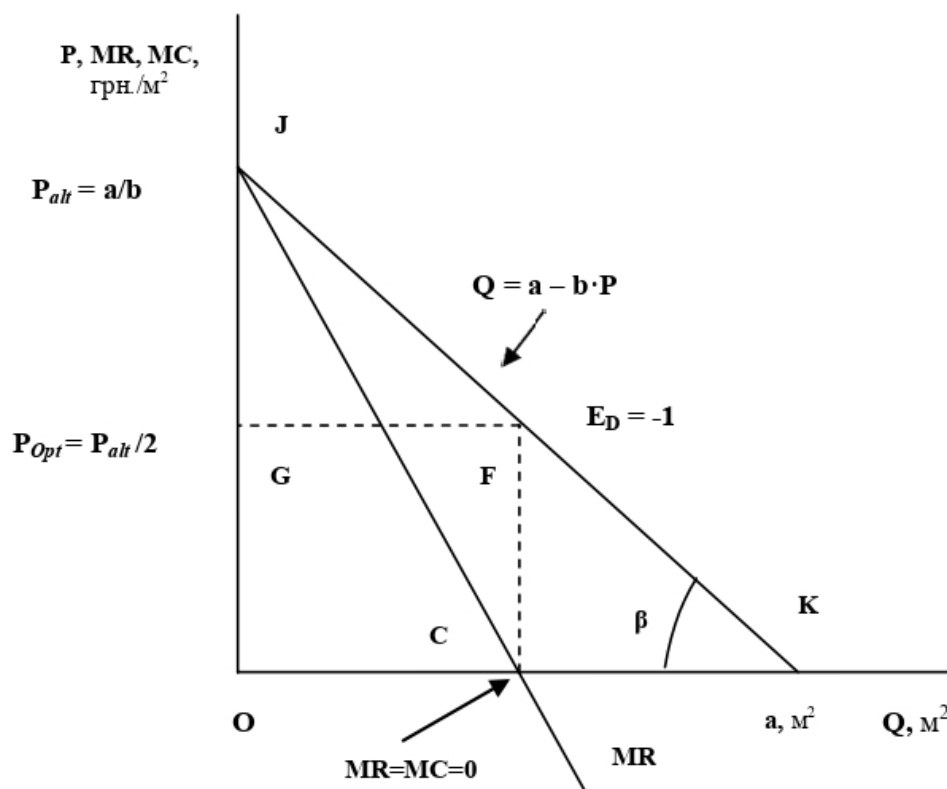
The economic and mathematical model of determining the optimal market price of the exhibition area (point G, Figure 2), which together with the price of the alternative (point J, Figure 2) takes into account the marginal costs (MC) of the organizer of the exhibition events:

$$P_{Opt} = 0,5(P_{alt} + MC), \quad (2)$$

where P_{Opt} – the optimal market price of the exhibition area (UAH/m²), which maximizes the total profit of the company organizing the exhibition. This is possible if (P_{Opt}) is higher than the average full costs ($P_{Opt} > ATC$), and the marginal income (MR, UAH/m²) is equal to marginal costs (MC, UAH/m²), which arise at the organizer firm in connection with the service to the exhibitor and its stand space during the opening, holding and completion of the exhibition event.

The process of determining the optimal market price is presented in Figure 2.

In a market economy, the main exhibition service is in the form of goods and therefore has two important properties – utility, or consumer value – for the buyers of the service represented by exhibitors, and value – in the form of the market price of the exhibition space.



Source: suggested by the author on the basis [1; 3; 5].

Figure 2. Graphical representation of the process of determining the optimal market price of the exhibition space, based on the search for a balance between marginal income and marginal costs

Proceeding from the assumption that in the market conditions the only source of positive cash flow is the client, the author has placed the target audience of the exhibitor in the "core" of the model under consideration (its first level – exhibition service by design), which is represented by clients in the form of visitors to the exhibition. In the course of searching for ways to improve the methodical tools of pricing in the marketing of exhibition activities was conducted a study of pricing policy of exhibition companies in Kiev (Ukraine) and a survey of exhibitors to identify their attitude to exhibition pricing. The results are presented in Table 1.

The conducted research has shown that at the exhibition enterprises of Kiev (Ukraine) there is an insufficient level of practical use of tools of marketing price policy, and the survey of exhibitors has allowed to reveal their attitude to the exhibition price formation carried out by the organizing firms. According to the results of the marketing research, the author made recommendations to the companies-organizers of exhibitions to establish the price of the booth space offer taking into account the competitive situation on the market of expo

services and the attitude of the exhibitors to the exhibition pricing, which should contribute to the development of the expo business sphere.

Table 1

Level of practical use of pricing tools by organizers of exhibition events and attitude of exhibitors to exhibition pricing

Organizers of expo events (5 companies represented in the market of expo services in Kiev, Ukraine)		Exhibitors of exhibition events held in Kiev Ukraine in 2019 (sample – 315 participants)	
Questionnaire "Tools of marketing price policy"	Level of practical use of pricing tools	Questionnaire "Tools of marketing price policy"	Attitude of exhibitors to exhibition pricing
1	2	3	4
Application of the pricing algorithm in practice.	Not used by any exhibition company.	The role of the price for exhibitors when deciding on the purchase of exhibition services.	Price is important, but not a determining factor (140 exhibitors, 44.4%). Price is the key factor (119 exhibitors, 37.8%).
Setting the pricing goals.	One company out of five.	Factors that influence the decision to buy an exhibition service.	1st place – event theme, 2nd – related services, 3rd – price.
Study of demand and competitive environment.	Two out of five companies.	Optimal price for exhibitors.	The average market price of the exhibition area (175 exhibitors, 55.6%).
Pricing methods use.	Predominantly expensive method (three companies out of five).	Threshold price for exhibitors, above which they will give up the company's services.	Above the average market price or 3.5–4.0 thousand UAH (133 exhibitors, 42.2%).
Account in exhibition pricing of strategically important factors of internal and external marketing environment of an enterprise.	No company takes such factors into account: "availability of specialized exhibition space".	Qualitative characteristics of an exhibition event for which exhibitors are willing to pay a higher price than specified in the price list at the time of purchasing the service.	Large-scale advertising campaign (210 exhibitors, 66.7%), territorial (geographical) location (71 exhibitors, 22.5%), availability of specialized exhibition space (42 exhibitors, 13.3%).
Optimal price of stand space for organizers.	"energy appreciation", "foreign policy" and "unemployment rate".	–	–
The use of discounting system.	A price that covers costs and makes a profit (5 companies).	–	–

In order to establish the price of the exhibition space depending on the quality of the exhibition events, the author, through a correlated analysis, has processed a large amount of information about 67 international exhibitions held in 2019 in four countries (Ukraine, Germany, Italy, France) in such a leading sector of the economy as "Machine Building, Industry, Manufacturing, Machinery, Tools, Equipment" (Table 2).

Table 2

Estimate the tightness of the relationship by using the correlation coefficient between the number of visitors, exhibitors and the size of the leased space at exhibitions (Ukraine, Germany, Italy, France) in 2019

Indicators	The size of the exhibition area, sq. m.	Number of exhibitors, legal and physical persons	Number of visitors, person per day
The size of the exhibition area, sq. m.	Ukraine	0,930718	0,781029
	Germany	0,8011913	0,810515
	Italy	0,964913	0,934048
	France	0,916914	0,979132
Number of exhibitors, legal and physical persons	0,950608	Ukraine	0,886711
	0,811923	Germany	0,644155
	0,964913	Italy	0,869213
	0,927964	France	0,881019
Number of visitors, people per day.	0,790029	0,886751	Ukraine
	0,810505	0,634355	Germany
	0,923038	0,869213	Italy
	0,9591132	0,881019	France

As can be seen, correlation coefficients are close to one, which indicates a high degree of correlation between random variables that characterize the quality of exhibitions. Similar researches of the author of statistical data on exhibitions for 2019 confirmed the regularity established in Table 2, which is inherent to specialized exhibitions held in other sectors of economy, as evidenced by the research conducted by the author. Due to the fact that in practice the contract for participation in an exhibition and fair event is based on the size of the leased exhibition space by the exhibitors, rather than the number of visitors or exhibitors, this gave the author a reason to consider the size of the leased exhibition space as a generalized (integral) indicator of the quality of the conducted exhibition event. It allows to determine the value of the relative price/quality ratio established at this or that exhibition event.

Conclusions and suggestions. Justified recommendations for improving the methodological tools of pricing in the marketing of exhibition activities take into account the interests of both the organizers of exhibitions and their participants (exhibitors). Thus, in accordance with the author's recommendations, exhibitors will pay for their participation in a particular

exhibition at a price determined depending on its quality, and the organizers of exhibition events at this price will maximize the total profit, but only if the market price calculated by the proposed methodology covers the costs of the exhibition. Offering the exhibition area to the exhibitors at the market price calculated in accordance with the methodology developed by the author will lead to an increase in competitiveness of the organizer firms. The coincidence of interests of the main subjects of the exhibition market will contribute to the development of cooperation between the organizers of exhibition events and exhibitors.

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JEL Classification: L 22; F 23; G 34

UDC 339.138:659.127.6 (043.3)

DOI: 10.30857/2415-3206.2020.1.6

MANAGEMENT OF BRANDS' PORTFOLIO POSITIONING OF DOMESTIC ENTERPRISES

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Introduction. Nowadays, the development of the economy of Ukraine is a demonstration of the trend towards globalization and the necessity for enterprises, including greater understanding, to give more nutrition to the form and brand development.

Hypothesis of scientific research. The management of brands' portfolio positioning should not be based only on trademarks, which belong to an enterprise, but also on the construction of molecule of brands portfolio, which affect on the decision of the consumer independently of holding them, that allows the increasement of the validity of proper brand in the eyes of consumer.

Aim of this research is the extension of the theoretical foundations and the development of science-and-practical recommendations, which is followed by the complete management of the brand portfolio.

Methods of investigation: The following tools: (goal setting, information and marketing communications; marketing research); models, methods and techniques (traditional methods of statistics, analysis, marketing) modeling; model of brand code and mental fields according to T. Ged; naming techniques); the method of generalization of information, the result of which is the development of the brand / brands, the formation of the portfolio; formation of a brand beech were used in the study.

Results of research. Based on the analysis of portfolio concepts in brand management, the essence of the brand portfolio as a set of brands that make up the brand carrier and affect the associated position in the perception of the consumer, regardless of ownership of the company is precised. The meaning "brand carrier" refers to a product, brand, enterprise, organization, person or character associated in the minds of consumers with a certain distinctive quality.

Conclusions: Approaches to the formation of brand portfolios, which can be centric (based on the hierarchy of brands and based on systems / networks of brands) and invariant – based on the "molecule" of the portfolio. The model of the organization of management of a brand which includes principles, the purpose, tasks, essence of management and directions of works is formed. Systematized principles of brand management, which we divide into general and specific. Methodical approaches to brand management on the basis of brand positioning are studied, it is established that the method of brand management on the basis of brand positioning should be understood as a way of its practical implementation, then the method is a set of methods and techniques of its appropriate application.

Keywords: brand; molecule of brand; brand-code; portfolio of brands.

JEL Classification: L 22; F 23; G 34

УДК 339.138:659.127.6 (043.3)

DOI: 10.30857/2415-3206.2020.1.6

УПРАВЛІННЯ ПОЗИЦІОНУВАННЯМ ПОРТФЕЛЯ БРЕНДІВ ВІТЧИЗНЯНИХ ПІДПРИЄМСТВ

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Вступ. Сучасний стан розвитку економіки України демонструє тенденцію до глобалізації та необхідність для підприємств, в тому числі і вітчизняних, більше уваги приділяти питанням формування та розвитку брендів.

Гіпотеза дослідження. Управління позиціонуванням портфеля брендів має ґрунтуватися не тільки на товарних марках, що належать підприємству, а й на побудові молекули портфеля брендів як сукупності всіх брендів, що впливають на рішення споживача незалежно від володіння ними, що дозволяє посилити в очах споживача значимість власного бренду.

Метою даної статті є узагальнення теоретичних основ і розробка науково-практичних рекомендацій щодо вдосконалення управління позиціонуванням портфеля брендів.

Методи дослідження. Використано інструменти (цілепокладання, інформаційно-маркетингові комунікації; маркетингові дослідження); моделі, методи і методики (традиційні методи статистики, аналізу, маркетингу) моделювання; модель бренд-коду і розумових полів по Т. Геду; методики неймінга); спосіб узагальнення інформації, результатом якого є розробка бренду / брендів, формування портфеля; формування бренд-бука.

Результати. На підставі аналізу портфельних концепцій в управлінні брендом уточнена сутність портфеля брендів, як сукупності брендів, складових бренд-носій і впливають на асоціювану позицію в сприйнятті споживача незалежно від володіння підприємства ім. Під бренд-носієм розуміється товар, торгова марка, підприємство, організація, персоналія або персонаж, що асоціюються в свідомості споживача з певним відмітною якістю.

Висновки. Визначено підходи до формування марочних портфелів, які можуть бути центристськими (на основі ієрархії брендів і на основі систем / мереж брендів) і інваріантним – на основі «молекули» портфеля. Сформована модель організації управління брендом, що включає принципи, мета, завдання, сутність управління і напрямки робіт. Систематизовані принципи управління брендом, які розділені нами на загальні і специфічні. Досліджено методичні підходи до управління брендом на основі марочного позиціонування, встановлено, що під методом управління брендом на основі марочного позиціонування слід розуміти спосіб його практичного здійснення, то під методикою – сукупність методів і прийомів його доцільного застосування.
Ключові слова: бренд, молекула бренду, бренд-код портфель брендів.

Formulation of the problem. Modern achievements in engineering and technology are very significant, which led to a situation where the product is easier to produce than to ensure its marketing. There are many enterprises and commercial offers with different characteristics, quality, price characteristics, and so that the consumer can more easily recognize the product or enterprise in this variety of offers, a brand is needed, the main task of which is to take some stable position in the consumer's head. In recent years, a large number of translated and native literature has appeared regarding marketing, management, advertising and promotion; foreign terms are firmly used in business practice, but there are a number of issues that require more systemic knowledge for successful business, including those related to promotion, brands, branding and managing the positioning of a portfolio of brands, which confirms the relevance of the research topic.

Analysis of recent research and unresolved part of the problem. The concept of brand, brand management were considered in their scientific works by the following domestic and foreign scientists: D. Aaker [4], M. Batey [5], E. Du Plessis [6], I. Ellwood [7], J. Engel, R. Blackwell, P. Miniard [8], J.-N. Kapferer [9], F. LePla, L. Parker [11], T. Nilsson [12], P. Temporal [13], M. Thompson, H. Pringle [14]. The following Ukrainian scientists dealt with the issues of the brand: V. Shcherbak [15], O. Nifatova [1], L. Hanushchak-Yefimenko [15], L. Balabanova [2], O. Shevchenko [3]. At the same time, previous research can serve as a basis for the formation of adequate to modern realities of the concept of product promotion management and brand portfolio positioning. Insufficient elaboration of the theory, unresolved problems of theoretical, methodological and practical nature in the management of brand portfolio positioning determine the relevance of the research topic.

The aim of the study is generalization of theoretical foundations and development of scientific and practical recommendations for improving brand portfolio positioning management.

Results of research. The development of methodological aspects and the expansion of scientific approaches to improve the process of managing the brand portfolio positioning made it possible to clarify the concept of "brand portfolio", substantiate the principles of managing a portfolio of brands, developing conceptual provisions that reveal the essence, content and main stages of managing the formation and positioning of an enterprise's portfolio of brands, which complements a number of sections of the modern theory of marketing, brand management, systematic use of the methodology of the molecular approach to managing the positioning of a portfolio of brands.

In particular, the categorical apparatus for managing brand portfolio positioning has been refined by defining the brand category as follows. A brand is an associated position specially developed and systematically supported by

the brand owner in the perception of the consumer of the brand object, which steadily distinguishes it from competitors or other competitive offers. The category of brands' portfolio – as a set of brands that make up a brand carrier and affect the associated position in the perception of the consumer, regardless of the ownership of the enterprise); a carrier brand (product, trademark, service, enterprise, personality or character associated in the consumer's mind with a certain distinctive quality). The "key brand" category – as the leading brand of the manufacturer in relation to which the "brand molecule" is being built). Categories of sub-brands – as brands that are associated with the main brand and are determined depending on the product range of the manufacturing company). The category of supporting brands – as trademarks that may become a household name in the future). The category of "auxiliary" brands – as all organizations that directly or indirectly participate in the process of promoting a key brand and enhance the ability of making a transaction with a buyer). The brand molecule category is a model that allows the management entity to deeply understand the brand's organizational structure, take into account the specifics when setting up a promotion budget, clearly establish the goals of the brand's strategy and positioning the brand portfolio, contributing to adequate consumer perception of the brand. The systematic principles of brand management, which are divided into general (related to management organization) and specific (directly related to brand management features).

When managing a brand based on brand positioning, it is important to understand and focus on the fact that positioning allows you to emphasize the individuality of both the product offered by the enterprise and the corresponding brand, and the brand as a whole.

As studies have shown, at the basis of positioning lies the implementation of three elements:

- determination of the features of the proposed product or the enterprise as a whole, expressed in the benefits that the consumer / buyer receives;
- the establishment of the needs and expectations of the target market segment from the proposed product or enterprise as a whole;
- tracking the positions of competitors in the market of interest to the enterprise.

Absolutely any strategy should be based on these fundamental elements, since deviation from the implementation of these positioning elements or their incomplete implementation leads to the fact that:

- the company can spend time, efforts (including financial) to implement a position that is already taken by competitors;
- the company's actions may not meet the expectations and needs of the entire market segment;

- the actual capabilities of the product offered by the company or the enterprise itself may not coincide with the actual capabilities.

From the point of view of the choice of strategies, studies have shown that it is possible to distinguish the well-known eight strategies used by world companies (Table 1), although there are many more, and creative ones as a continuous process of their development by various enterprises in order to most fully meet the expectations and needs of its customers, which is unstoppable.

Table 1

The main brand positioning strategies of global brands of companies

Strategy name	Essence	Company Name / The direction of use
Competitive positioning	It is based on opposing the brand to competitors and is based on desires that have remained unsatisfied. Example: a car as a carriage without horses.	Used by second / third place companies.: 7up; Coca-Cola; IBM; Apple.
Category positioning	Emphasis on brand promotion as a leader in a specific product category. Example: - an innovative solution for the market; - the product has unique properties; - there is a demand for a new approach to solving the problem.	Xerox – new marked was created; Tesla Motors – created a new alcove.
Consumer positioning	Focusing on a specific target audience. An example of theses: "created for ... ", "for those, who..."	PrivatBank; Lenovo; Pepsi; Linux; Famous Fixtures.
Positioning by profit	Emphasis on emotional and rational benefits. Example: an unambiguous answer to a customer's question "What will I get by choosing this brand?"	Honda; Toyota; Volvo; Crest; Nike.
Brand price positioning	Implemented approaches: - the same for less cost; - greater for greater cost; - more for the same cost; - more for less cost; - less for much less.	When selling goods FCGM; for economy segment
Positioning of use	Snapping to a specific consumption situation.	Saab; Coca Cola.
Positioning by the attribute	The brand's distinctive characteristics are used, based not on differences from competitors, but on the presence of unique product properties, its uniqueness.	Schlitz; Schlitz; Pillsbury; Ready Crisp Bacon.
Prestige positioning	Emphasis on prestige or luxury.	Chanel; Tiffany; Vera Wang; Parker; Rolex; Maserati; Bentley; Porsche.

Source: compiled by the author according to [18].

When managing a brand, positioning should ensure a steady difference between the product offered by the company and competitors or other competing offers in the perception, in the "minds", in the thoughts of the consumer. Moreover, for positioning purposes, it is advisable to use the well-known models of T. Gad's brand code and thought fields [16], the Rossiter and Percy models [17] and the logical differentiation method [3]. Based on our studies, we developed a conceptual approach to managing the positioning of a portfolio of enterprise brands (Figure 1).

The main goal of the proposed conceptual approach is to create a brand and determine its place in the market to most fully meet the needs of consumers and make a profit.

From our point of view, in order to ensure effective brand management on the basis of brand positioning, it is very important to take into account the hierarchy of portfolio brands depending on the place occupied, the scenario used – "House of brands" or "Branding house"; the portfolio visualization is chosen by taking into account the possibilities of compiling the molecule and opinions about consumer brands. So, from our point of view, a portfolio of enterprise brands can be formed:

- on the basis of a wide range of brands included in it, which is financially less costly for the enterprise and is consistent with such a scenario as "House of brands";
- on the basis of a long line, when the portfolio includes many brands, which is financially more costly for the enterprise and is consistent with such a scenario as "Branding house".

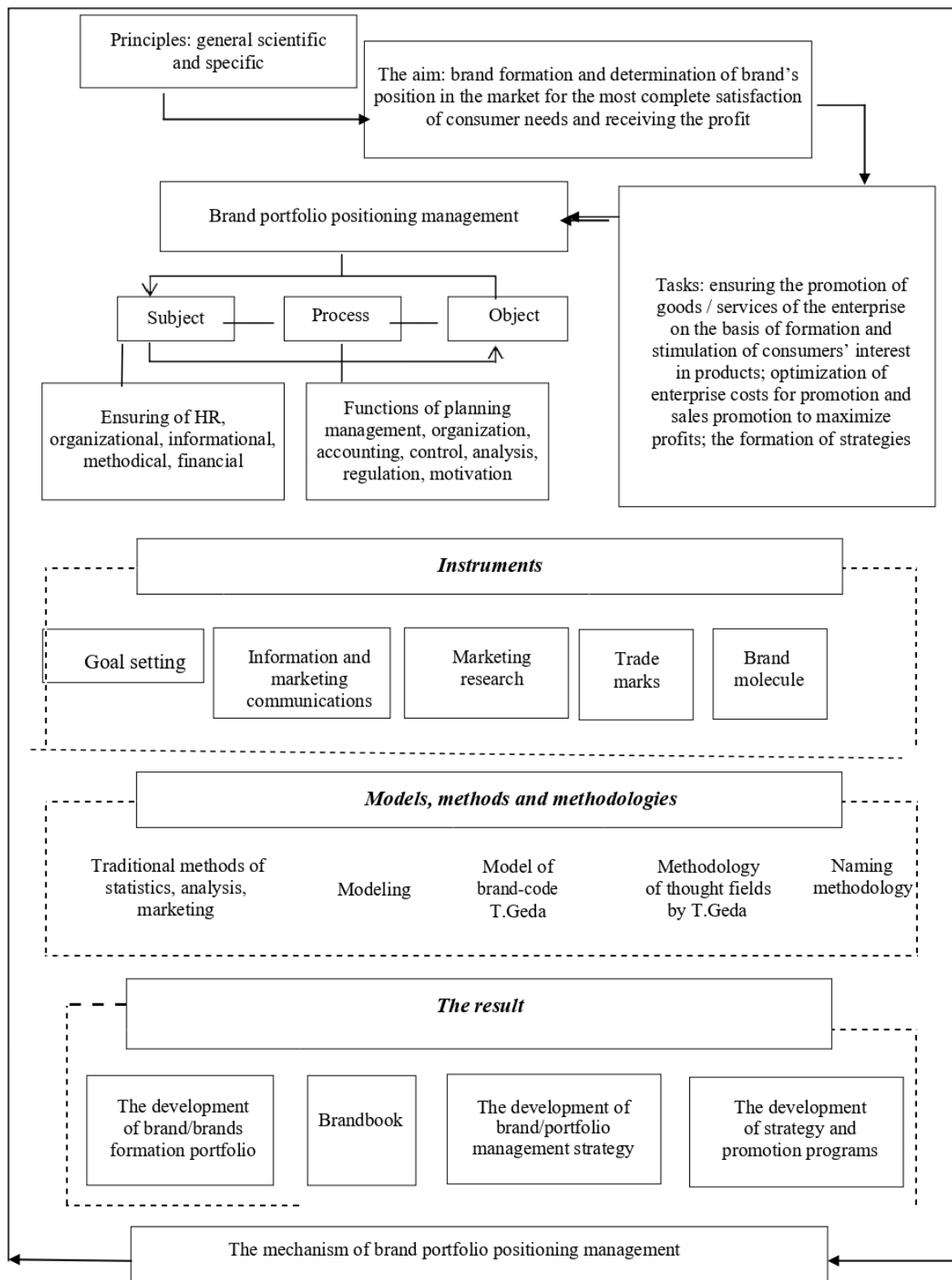
The work of organizing and conducting activities carried out by the company at each stage of brand development aimed at implementing integrated regular management by building and improving is called brand management or trading mark management.

The goal of brand management is to maximize sales of the branded product offered by the company to the selected target audience.

Based on the goal, we can distinguish several important tasks that must be solved in the process of brand management, namely:

- ensuring the attractiveness of the proposed branded product of the company for the selected target audience, i.e. final consumer;
- development and implementation of activities related to the promotion of the proposed branded product of the company within the marketing channel.

The essence of brand management is manifested in the identification and monitoring of new opportunities related to the consolidation of a branded product in the minds of selected target consumer groups. Consequently, when implementing brand management, it is positioned as an independent object of marketing management using the marketing mix that the company implements.



Source: author's development.

Figure 1. The conceptual approach to the management of brand portfolio positioning

The construction of the molecule of the company's portfolio of brands allows a deeper understanding of the organizational structure of the brand, takes into account its features when setting the budget for promotion, clearly sets the goals of the brand's strategy and positioning of its portfolio, contributing to an adequate perception of the brand by consumers.

It should be noted that the most important stage of positioning is precisely the choice of strategy, which determines the competitiveness of the most promoted brand and the emergence of consumers loyal to it.

Brand portfolio positioning is a process caused by the active actions of the enterprise (brand owner), as well as the activities and reactions of all market entities directly or indirectly involved in the branding process. The positioning process is aimed at creating a positive brand image, which will ensure its certain position in the market.

The proposed conceptual approach to the management brands' portfolio positioning is based on the construction of a molecule of brands' portfolio as the aggregate of all brands that influence the decision of the consumer regardless of their ownership, which makes it possible to strengthen the importance of their own brand in the eyes of the consumer.

The studies have shown that in relation to documents such as a brand book, guideline and cut guide there is no uniformity in understanding and using them in practice, which requires the removal of attention to this issue, since it is directly related to the topic research.

A common document, which is mistakenly called a brand book in practice, is a guideline or Corporate Identity, used to satisfy most of the requests of stakeholders (partners, consumers, contractors, clients, etc.) with which the company has relationships and that use or otherwise the style of her brand. The purpose of the document is to regulate the actions of stakeholders using the company's trademark. Guideline – corporate identity – this is the image of the company, its decor.

Corporate identity – a certain set of visual elements aimed at identifying a trademark and ensuring its recognition, which allows it to stand out among competitors. Its development includes a selection of unique color and graphic solutions, the search for interesting stylistic moves that are later used to design letterheads, business cards, souvenirs, promotional materials and much more. Upon completion of work on an individual corporate identity, a brand book is formed as a document, which is a detailed guide to its practical application.

Katgayd is a technical documentation regarding the technology of creating complex (non-printing) components and corporate identity components (for example, outdoor advertising structures, websites, interiors and decor of buildings and structures, etc.).

A brand book is a philosophy of a company – a document representing a trade secret describing the values and characteristics of a brand, i.e. the ideology of the company, as well as ways to convey them to consumers, which includes the documents described above – Guideline – corporate identity and Katgayd – technical documentation.

A brand book is a set of guidelines and rules that describe the practical application of the components and composites of a corporate identity and the technical side of its implementation, as well as a document that contains information about the essence, idea, mission, philosophy and values of a brand, including information on relative features product, corporate culture, implemented in the company and other nuances significant for it, which constitute a trade secret and are not intended for general use. Thus, methodological approaches to brand management based on brand positioning have been investigated; substantiated the conceptual foundations of brand portfolio positioning management.

Conclusions and suggestions for further research. The practical significance of the results of the study consists in expanding the methodological apparatus of brand management (a methodological approach to the formation and promotion of a portfolio of brands is proposed, the use of a die matrix of a brand book for assessing the quality of a document, the main directions for increasing the value of the portfolio of enterprise brands are indicated). The scientifically based recommendations received by the author can be used in practical marketing activities to manage the positioning of a portfolio of brands and are of interest not only for enterprise management, but also for specialists involved in research and development of brands and branding.

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JEL Classification: A22; I23; P36

UDC 339.138

DOI: 10.30857/2415-3206.2020.1.7

UNIVERSITY REBRANDING AS AN EFFECTIVE TOOL OF COMPETITION

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Introduction. Efficient functioning of educational organizations is impossible

without scientifically grounded activity on creation and promotion of a brand of educational services rendered by them. The problem of increasing competitiveness in front of modern

Ukrainian universities, which have faced in the last decade with a decrease in the number of applicants and the need, in this regard, to strengthen the branding of their capabilities in the market of educational services, is particularly acute.

The research hypothesis. The creation and promotion of educational services of a modern university will be carried out effectively if the tools of rebranding educational services are used.

Purpose of the article: development of the rebranding system as a component of the university development strategy, factors and tools, conditions of its implementation

and evaluation of the efficiency of its use.

The methodology of the study: methods of system, structural, situational approaches, survey methods, expert evaluation method, SWOT-analysis.

Results. The developed concept of KNUTD rebranding allows to determine the main directions of KNUTD rebranding based on domestic and foreign experience and the basic directions of the university rebranding in modern conditions.

Conclusions. The developed concept of KNUTD rebranding allows to determine the main directions of KNUTD rebranding based on domestic and foreign experience and the basic directions of the university rebranding in modern conditions.

Keywords: competitiveness, brand, rebranding, university, SWOT analysis.

JEL Classification: A22; I23; P36

УДК 339.138

DOI: 10.30857/2415-3206.2020.1.7

РЕБРЕНДІНГ УНІВЕРСИТЕТУ ЯК ЕФЕКТИВНИЙ ІНСТРУМЕНТАРІЙ КОНКУРЕНТНОЇ БОРОТЬБИ

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Вступ. Ефективне функціонування освітніх організацій неможливо без науково обґрунтованої їх діяльності зі створення та просування бренду надаваних ними освітніх послуг. З особливою гостротою постала проблема підвищення конкурентоспроможності перед сучасними українськими університетами, що зіткнулися в останнє десятиліття зі зменшенням контингенту абітурієнтів і необхідністю, в зв'язку з цим, посиленням роботи з брендінгу своїх можливостей на ринку освітніх послуг.

Гіпотеза дослідження. Створення і просування освітніх послуг сучасного університету буде здійснюватися ефективно, якщо буде використаний інструментарій ребрендингу діяльності.

Мета даної статті: розробка системи ребрендингу як складової стратегії розвитку університету, факторів і інструментів, умов його впровадження і оцінки ефективності його використання.

Методи дослідження: методи системного, структурного, ситуацій-

ного підходів, опитувальні методи, метод експертних оцінок, SWOT-аналіз.

Результати. Виявлено ключові фактори маркетингу, що дозволили виділити головні компоненти для успішної розробки концепції ребрендингу Київського національного університету технологій та дизайну (КНУТД). Запропоновано механізм ребрендингу університету, під яким розуміється план заходів, спрямованих на інтеграцію соціальних та ринкових компонентів для ефективного використання потенціалу іміджу КНУТД.

Висновки. Розроблена концепція ребрендингу КНУТД дозволяє визначити основні напрямки ребрендингу КНУТД, виходячи з вітчизняного і зарубіжного досвіду та базові напрямки ребрендингу університету в сучасних умовах.

Ключові слова: конкурентоспроможність, бренд, ребрендинг, університет, SWOT-аналіз.

Formulation of the problem. Due to high competition in the market of educational services and introduction of market principles into the process of higher education institutions reform, universities everywhere strive to become more attractive for their potential clients – applicants, students, investors. In recent years, many higher education institutions have seen a way out of this situation – to create a strong and memorable brand. University brand is formed by the opinion of target groups, it is a subjective opinion, a process that is complicated by external and internal factors. With the help of the name, location, logo, history, corporate identity, website and other attributes can make an educational organization attractive and desirable in the eyes of the target audience. Based on this, we can conclude that the formation of a brand is a strategic task, which should be done on a permanent basis. If this task is not solved in time, the image of the university will be formed spontaneously.

An analysis of recent research and an unresolved part of the problem. Leading domestic and foreign economists, such as D. Aucker [1], K. Keller [2], S. Coomber [3], P. Temporal [4], J. Trout [5], D. Aucker [5], D. Elzinga, J. Gordon [6], S. Wheeler, E. Hirsch [7], F. Wang, X. Zhang, M. Ouyang [8], J. Karabel [9], V. Shcherbak, S. Marchenko [10], G. Plisenko [11], V. Savon [12], E. Neretina, I. Neretina [12], and others. I. Gvozdetskaya, Yu. Korokoshko [13] and others paid considerable attention to the essence and peculiarities of rebranding development. These scientists understand rebranding as renewal, revival, brand improvement, and increase of its effectiveness. Leading foreign and domestic universities in recent years began to actively use it. At the same time, in the activities of many domestic universities there is an inefficient use of methods and techniques of rebranding, as well as their inexpedient application. Today, in Ukraine, for some universities the introduction of rebranding tools is inexpedient, while for others it is an important factor for competitive success in the market of educational services. Under such conditions, the problem of research into the specifics of the application of types, tools and conditions of rebranding implementation for higher education institutions becomes particularly relevant.

The aim of the article is to analyze rebranding as a component of marketing strategy of the higher school, factors and tools, conditions of its implementation in the university and evaluation of the effectiveness of use.

Research results. Domestic and foreign institutions of higher education realize the need to create a positive perception of their organization and use a well-known marketing tool – rebranding. Rebranding is a management process, which is aimed at the creation and development of important material and non-material characteristics of the university, which will allow it to be unique and stand out among similar ones on the market of educational services. Today, there are few domestic universities, which are ready to boast of their "name" at

least on the national scale. On this basis, there is a need to systematize the existing concepts of rebranding to apply them in practice in future work, as well as to create practical effective recommendations.

Rebranding is an active marketing strategy, which includes a set of measures to change the brand (both the company and its products) or its components: name, logo, slogan, visual design, with a change in positioning. It is carried out in line with the change of the conceptual ideology of the brand. This implies that if quite significant changes have occurred in the company (product), it is necessary to carry out restyling and repositioning of the brand as components of the rebranding process. The main purpose of this process is to strengthen relations between the brand and the consumer through the development of four components of brand quality, functional quality of the product, individual quality of the brand (values), social quality (respect) and communicative quality (ability to establish and maintain contacts with the consumer). There are many reasons for brand renewal: the brand is outdated, there is a competitor with a more interesting brand, the brand has to perform new tasks, the company changes or covers a new field of activity. Brand rebranding tasks: strengthening of the brand (i.e., increase in consumer loyalty); brand differentiation (strengthening its uniqueness); increase in the target audience of the brand (attracting new consumers).

The practice of branding activity of Ukrainian universities confirms the thesis that Ukrainian universities are actively searching for competitive advantages, including the university brand. The work on building and maintaining the brand is carried out in a constant mode by ensuring brand communication with the target audiences, monitoring the perception of the brand by the audience, the tone of media mentioning, covering various criteria of the educational system of the university rebranding leads to a holistic image of a prestigious university.

In the process of positioning the university brings to the target markets the main idea – its uniqueness. As the world practice shows, the leading world universities – Oxford, Cambridge, Harvard – carry out their positioning in this way. These universities focus on traditions, famous graduates, highly qualified teachers, freedom and democratic values in the process of education and research. Summarizing the Western experience, experts note that the main idea of positioning universities in Germany, Switzerland and Austria is a dual education, which is based on a harmonious combination of training future specialists both within the university and in the enterprise. The positioning of university brands in these countries often emphasizes the absence of a gap between theoretical and practical training of students. The brands of these universities are associated by applicants and their parents with job security and the demand for graduates [4, p. 16]. The idea of positioning the university is

designed to incorporate the values of academic and corporate culture of a particular university, which, as a rule, are synthesized in its mission. The mission is, as a rule, a brief formulation characterizing the uniqueness of the university through its strategic goal or perspective vision (Table 1).

Table 1

Features of national university concepts

Country	Features of national university concepts
Great Britain	- the concept of liberal education; - high attention to the formation of the learner's personality, his individual characteristics; - preference for graduates with broad intellectual abilities and personal qualities; - aspiration to fulfil the university's super task by educating individuals' personal characteristics; - striving for high quality of research and professional training.
France	- professional, educational model of education; - strict hierarchy of subordination to the state; - high degree of differentiation of scientific practice into intra- and extrauniversity ones; - activation of the university work in the direction of professionalization based on the results of pragmatically oriented university science.
Germany	- a strong emphasis on scientific research; - high cohesiveness and cooperation of students and teachers for science and research, interaction of their work for co-research; - high speed of processing of research results and their transformation into material for curricula and other educational purposes.
US	- the consistent implementation of three models of European education; - adoption of the English system model at the first level of higher education in the form of four-year colleges; - using the experience of French education, expressed in the form of universities with six-year training; - active use of the experience of German higher education in the form of research orientation; - a great deal of attention is paid to the master's degree.
Japan	- considerable planning in the field of education; - focus on long-term, well-established ties with certain social strata – elitism; - focus on priorities and expectations of consumers of educational services; - focus on organizations that are branded in terms of staff; - a high degree of orientation to the requirements to the intra-company atmosphere, to the traditions of the personnel; - caste and elite principles of the university model construction.

Practice shows that the models of education in each country are determined to a greater extent by the national structure: political system, mentality, set of

values of peoples, their history, traditions and the established social and economic system [5, p. 141]. Despite the fact that individual educational institutions reflect the characteristics of national models of higher education to varying degrees, in general, the outlined features are quite tangible. A SWOT analysis was carried out to develop a rebranding of the Kyiv National University of Technology and Design (KNUTD). This analysis allows identifying the factors directly affecting its activities and the most promising and effective areas of rebranding (Table 2).

Table 2

SWOT-analysis matrix KNUTD

	Strengths (S)	Weaknesses (W)
	Availability of budget seats; State subordination (status); The status of "university"; High accreditation figures; Location in the capital of Ukraine; Wide range of educational services; Stable team; Availability of social security mechanism for employees and students; Availability of: thesis defense councils, scientific schools, scientific journals of category B, international relations, employment service for graduates, hostels; Implementation of the system of continuous education; Demand for graduates; Recognition of achievements by the society and professional community; Ranked 62nd among the world's best fashion and design schools; High quality of students' training Ranks 71st in the world among the best medical and pharmaceutical schools in the world.	Impressiveness of technical professions; Low percentage of young scientific and pedagogical staff (SPS); Weak material and technical base (laboratories, workshops); Insufficient space; Lack of sponsorship funds; Insufficient relationship with employers; Lack of mobility of SPS; Small number of economic contracts; Small number of status graduates; Low percentage of foreign students.

End of Table 2

Opportunities (O)	SO-strategy	WO-strategy
Grants; Additional education in all specialties; Social and professional partnership; Contractual relations; Opening of "remote" departments, branches (subdivisions); Opening of small innovative enterprises; Development of distance education and learning technologies; Nostrification of diplomas; Strengthening of international relations.	Additional education on all specialties using remote technologies and with the involvement of foreign teachers	Strengthening ties with employers, attracting foreign students through international cooperation
Threats (T)	ST-strategy	WT-strategy
High level of competition; Demographic situation; Economic crisis; Public policy on education; Decrease in the state order for university services; Decrease in budget financing; Decrease in budget places; Profiling of universities; Lack of housing for newly employed workers.	Reduction of budget places, decrease in financing of demographic decline and decrease in the number of applicants in the next 3–5 years. Increased competition in target market segments: increase in the number of non-state universities in the region, dumping policy and wide use of modern educational technologies by competitors.	Lack of accommodation facilities for international students. Reduced demand for graduates in a number of specialties, problems with their employment. High and constantly growing level of expenses for maintenance of educational buildings and scientific and laboratory equipment. Availability of resource limitations in the implementation of complex programs..

The SWOT-analysis revealed the following prospects for the development of KNUVD: additional education in all specialties using remote technologies and with the involvement of foreign teachers; strengthening the relationship with employers; attracting foreign students in international cooperation. Besides, the following risks were revealed: demographic decline and decrease in the number of applicants in the next 5 years; decrease in demand for educational services due to high requirements on entrance tests and high cost of education; increase of competition on target market segments: increase in the number of non-state universities in the region, dumping policy and wide use of modern educational

technologies of education by competitors; decrease in demand for graduates on a number of specialties, problems of their employment; high demand for graduates on a number of specialties, problems of their employment and employment.

Conclusions and suggestions. The analysis of the KNUTD brand shows the increasing loyalty of consumers to the brand, positive satisfaction with the education received at the university, complex and not always clearly expressed perception of the brand leadership by clients (students). The increase of brand popularity requires considerable efforts of PR and advertising companies. We also believe that serious analysis requires the perception of brand values by internal audience. The individual features of the university brand are quite high. But in order for the public to feel the same way, a number of targeted PR-campaigns are required. Consumers in the market of educational services face the problem of differentiation of KNUTD brand and brands of other universities. The solution of this problem also requires strengthening PR and advertising campaigns. The same can be said about the general low awareness and public information about the university brand in Ukraine. In general, the history of KNUTD existence and development testifies to the successful and dynamic formation of its brand awareness. The market behavior of the university can be called effective.

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JEL Classification: O31; O32; Q55;
L24; M15

UDC 378(338.24)

DOI: 10.30857/2415-3206.2020.1.8

THE CURRENT STATE OF INNOVATION AND TECHNOLOGY TRANSFER IN UKRAINE

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Introduction. The implementation of modern tools for the transfer of innovative technologies from research centers to the business environment is one of the main criteria for Ukraine to enter the globalization space of technologically advanced countries. In view of the above, the analysis of the current state of innovation and technology transfer in Ukraine in order to form development priorities with a focus on advanced global models becomes relevant.

Research hypothesis. It is assumed that the implementation of modern tools for the transfer of innovative technologies from research centers to the business environment will be the basis for the creation of a new type of university, the effectiveness of which will be measured by the introduction of enterprises in various fields of innovation and projects.

The purpose of the article is to analyze the current state of innovation and technology transfer in Ukraine.

Research methods: statistical analysis and logical generalization – to study trends in the field of technology transfer in Ukraine.

Results: the current state of innovation and technology transfer in Ukraine is analyzed. Ukraine's place in the global innovation index is assessed according to the main indicators. Factors of efficiency of commercialization of university inventions are allocated. The functioning of effective technology transfer centers on the example of Spain is considered.

Conclusions: technology transfer is a promising mechanism for economic stabilization of a country. In Ukraine, due to weak interaction between science and business, technology transfer is not developed at the proper level. To overcome such negative trends, it is necessary to use institutional factors – improving the legal framework in the field of technology transfer and developing public policy on the commercialization of intellectual property, intensifying the development of technology market infrastructure and involving enterprises in working with intellectual property.

Keywords: technology transfer; university; business environment; global innovation index; patent; utility model.

JEL Classification: O31; O32; Q55;
L24; M15

УДК 378(338.24)

DOI: 10.30857/2415-3206.2020.1.8

СУЧАСНИЙ СТАН ІННОВАЦІЙ ТА ТРАНСФЕРУ ТЕХНОЛОГІЙ В УКРАЇНІ

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Вступ. Для України імплементація сучасного інструментарію передачі інноваційних технологій від наукових осередків до бізнес-середовища є одним з головних критеріїв входження до глобалізаційного простору технологічно розвинених країн світу. З огляду на вищезазначене, актуальності набуває аналіз сучасного стану інноваційної діяльності та трансферу технологій в Україні з метою формування пріоритетів розвитку з орієнтацією на передові світові моделі.

Гіпотеза наукового дослідження. Передбачається, що імплементація сучасного інструментарію передачі інноваційних технологій від наукових осередків до бізнес-середовища стане основою для створення університетів нового типу, результативність роботи яких вимірюватиметься упровадженням у практичну діяльність підприємств різних галузей інноваційних розробок і проектів.

Метою статті є аналіз сучасного стану інноваційної діяльності та трансферу технологій в Україні.

Методи дослідження: статистичного аналізу та логічного узагальнення – для дослідження тенденцій розвитку сфери трансферу технологій в Україні.

Результати: проаналізовано сучасний стан інноваційної діяльності та трансферу технологій в Україні. Оцінено місце України за основними індикаторами к глобальному індексі інновацій. Виокремлено фактори ефективності комерціалізації університетських досліджень. Розглянуто функціонування дієвих центрів трансферу технологій на прикладі Іспанії.

Висновки: трансфер технологій є перспективним механізмом економічної стабілізації держави. В Україні, через слабку взаємодію науки і бізнесу, трансфер технологій не розвинуто на належному рівні. Для подолання таких негативних тенденцій необхідно задіяти інституційні чинники – вдосконалення законодавчої бази у сфері трансферу технологій та розроблення напрямів державної політики щодо комерціалізації результатів інтелектуальної діяльності, активізацію розвитку інфраструктури ринку технологій і залучення підприємств до роботи з інтелектуальною власністю.

Ключові слова: трансфер технологій; університет; бізнес-середовище; глобальний індекс інновацій; патент; корисна модель.

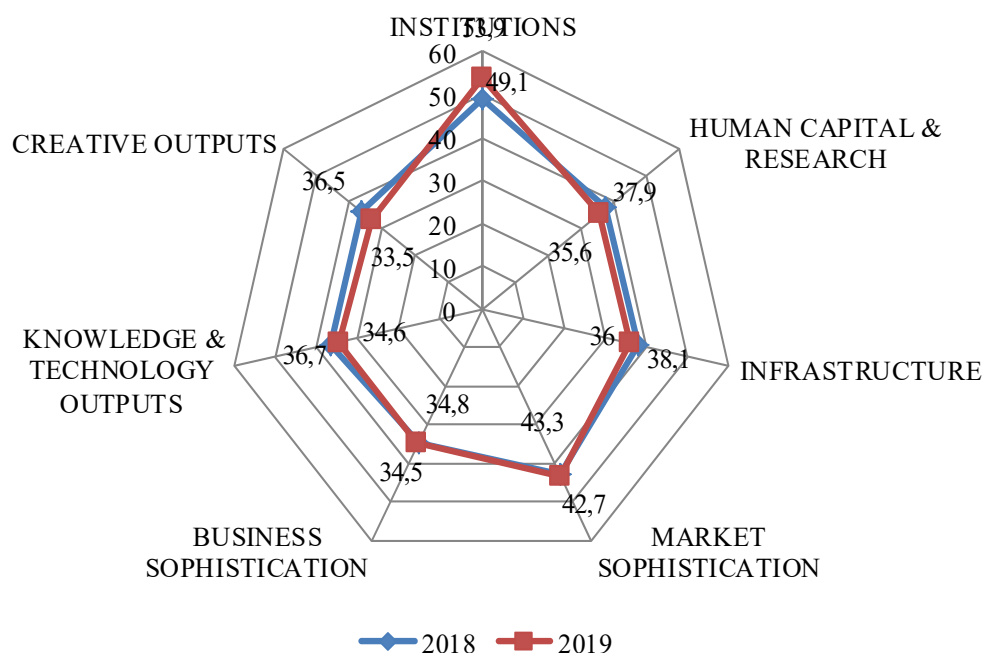
Formulation of the problem. The innovative way of economic development is one of the priority directions in the global sphere. The positive experience of the developed countries of the world confirms the primary role of scientific centers in the formation of the country's innovation potential. Research and development (R&D) is an activity aimed at gaining new knowledge and their practical application in creating a new product or technology. In developed countries, such as Canada, the United States, Germany and Japan, 70% of total R&D expenditures are concentrated in a small number of powerful research centers. Among such research centers, universities and research institutions play an important role. For the successful transfer of technology from universities to business, it is necessary to realize the importance of close cooperation between the inventor and the company. The commercialization of university research today is becoming an important economic and globalization stimulus for a country. In addition, the cooperation of universities with business in the field of research, licensing agreements, the possibility of establishing joint ventures, can bring additional income to the universities and employment opportunities for academic researchers and students.

For Ukraine, the implementation of modern tools for the transfer of innovative technologies from research centers to the business environment is one of the main criteria for entering the globalized unity of technologically advanced countries. In view of the above, the analysis of the current state of innovation and technology transfer in Ukraine, in order to form development priorities with a focus on advanced global models, becomes relevant.

Analysis of recent research and unresolved part of the problem. An analysis of previous research on the effectiveness of technology transfer from the research community to the business environment has shown that most scientists emphasize the importance of establishing a relationship between science, innovation and business [3–7]. In most developed countries, universities aim to facilitate the rapid and effective conversion of their know-how into commercial use [8]. Veugelers R. argues that in order to achieve this goal, universities need to create an effective strategy aimed at developing guidelines for technology transfer management [9]. D. Siegel notes that a barrier to the commercialization of university research is the inability of scientists to disclose their inventions to a wide range of business environments. Overcoming this barrier is possible through the creation of technology transfer centers in universities [10]. Clearly defined license agreements can act as a mechanism to encourage inventors to disclose their inventions and participate in the commercialization process [6, 11].

Research results. The main indicator of innovation development on a global scale is the estimated Global Innovation Index. Ukraine is among the top 50 countries that have maintained a relatively stable rating since 2014.

According to the Global Innovation Index, Ukraine in 2019 ranked 47th among 129 countries. The Global Innovation Index includes 81 indicators of innovation activity and is divided into seven areas: 1) Institutions; 2) Human capital & research; 3) Infrastructure; 4) Market sophistication; 5) Business sophistication; 6) Knowledge & technology outputs; 7) Creative outputs. Global Innovation Index – calculated as the average between the sub-indices of innovation resources (Innovation Input Sub-Index) and innovation results (Innovation Output Sub-Index). Estimates of Ukraine on the main indicators to the global index of innovations in comparison with 2018 and 2019 are presented in Figure 1.



Source: based on data [8].

Figure 1. Estimates of Ukraine on the main indicators of the global index of innovations in comparison between 2018 and 2019

Since the focus of this study is on science and technology, the greatest interest in the global innovation ranking is the "Knowledge & technology outputs" indicator, because it reflects the development of science and technology. The analysis of this indicator shows a paradoxical trend for Ukraine. On the one hand, the number of patent applications for inventions filed with the national patent authority per billion dollars of GDP and the number of patent applications for utility models, Ukraine is in the lead. On the other hand, the GDP growth rate due to the introduction of new technologies is less than 1%, while in developed countries it is 60–90% (Table 1). This situation necessitates a thorough analysis of the effectiveness of innovation for Ukraine.

Table 1

**The place of Ukraine in the world ranking
of Knowledge & technology outputs**

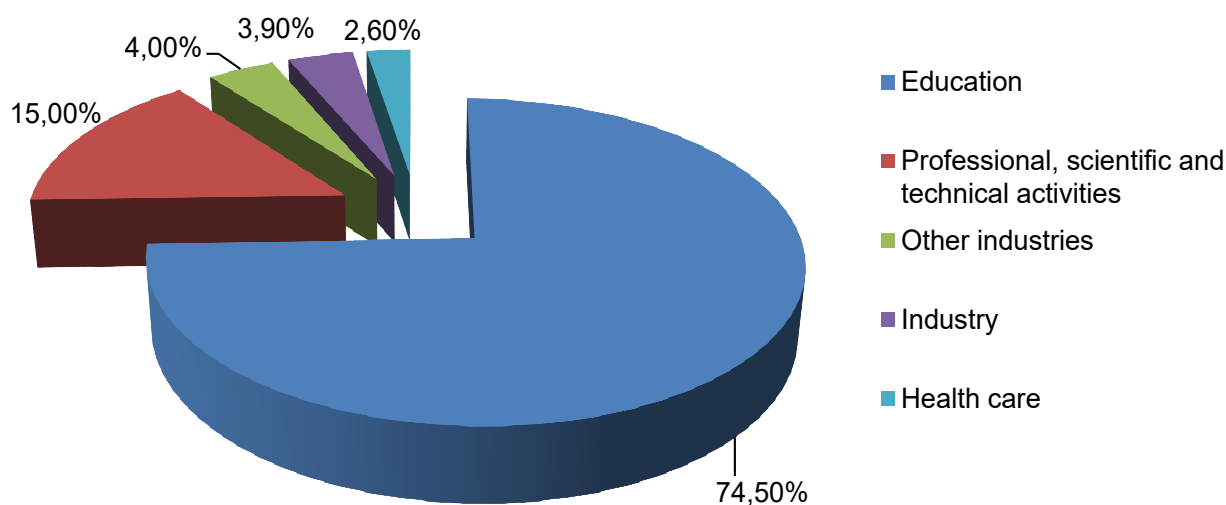
Indicator	Score	Place
Patents by origin/bn PPP\$ GDP	6.2	17
PCT patents by origin/bn PPP\$ GDP	04	38
Utility models by origin/bn PPP\$ GDP	24.3	1
Scientific & technical articles/bn PPP\$ GDP	9.2	54
Citable documents H-index	15.0	49
Growth rate of PPP\$ GDP/worker, %	3.2	22
New businesses/th pop. 15–64	1.5	60
Computer software spending, % GDP	0.5	19
ISO 9001 quality certificates/bn PPP\$ GDP	3.5	70
High- & medium-high-tech manufactures, %	0.2	56
Intellectual property receipts, % total trade	0.2	43
High-tech net exports, % total trade	2.0	53
ICT services exports, % total trade	4.8	11
FDI net outflows, % GDP	0.1	96

Source: [8].

One of the indicators that characterizes innovation activity and the possibility of creating a facility for technology transfer is the number of applications for inventions and utility models. It should be noted that in the first quarter of 2020, the number of applications for inventions and utility models submitted by national applicants – judicial person decreased compared to the corresponding period of 2019 by 42.7% and amounted to more than 1 thousand. Accordingly, their share in the total number of applications decreased (59.8% against 65.0% in 2019). Individual applicants submitted 685 applications for inventions and utility models, and their activity decreased by 28.6%.

The distribution of the submitted applications by types of economic activity of the applicants allows to determine the industries with the largest number of applications. 74.5% of the total number of applications for inventions and utility models were submitted by organizations working in the field of Education, 13.5% – in the field of Research and Development, and only 12.0% of applications were in other fields. In the first quarter, there was a sharp decline in the number of applications for inventions and utility models in the field of "Education" (–44.6%), in the field of "Research and Development" (–48.5%) compared to the same period last year. It should be noted that the number of applications submitted by educational institutions annually exceeds the number of applications submitted by scientific organizations [1].

The level of inventive activity in industry remained quite low. Thus, industrial enterprises submitted 40 applications for inventions and utility models, which is 3.9% of the total number of applications. The most active in submitting applications in the industry were enterprises for the production of machinery and equipment (16 applications), vehicles (8 applications), electrical equipment (4 applications), computers and metallurgical production (3 applications each) (Figure 2).



Source: [1].

Figure 2. Distribution of applications for inventions and utility models submitted in the first quarter of 2020, by type of economic activity of applicants

The American and European experience shows that in order to manage the transfer of technology between the main providers of innovation (universities) and those who can potentially commercialize them, universities must create specialized intermediary structures. Technology transfer centers are generally the most important intermediaries in the commercialization of university research.

The analysis of 147 institutions of higher education of Ukraine showed that, in 29 institutions there is no activity on technology transfer and academic entrepreneurship at all, 118 institutions have relevant departments. With regard to the structural unit responsible for technology transfer issues, 10 institutions of higher education and research institutions reported the absence of such unit in their structure, 108 – indicated the existence of a separate unit, or a specialist responsible for such activities (in 96 institutions of higher education and scientific institutions the issues of technology transfer belongs to the competence of 1 structural subdivision, in 7 – to the competence of 2–3

structural subdivisions, in 5 – such activity is assigned to one specialist). Such statistical analysis shows a very low level of development of technology transfer university centers.

Regarding the structural subdivision, which is responsible for academic entrepreneurship, 50 institutions of higher education reported the absence of such a subdivision in its structure, 68 – indicated the existence of a separate subdivision or a specialist responsible for carrying out such activities. Thus, in 58 institutions of higher education the issues of academic entrepreneurship belong to the competence of 1 structural subdivision, in 3 institutions – to the competence of 2 structural subdivisions and in 3 institutions – such activity is carried out by only one specialist.

Thus, the results of the study confirm the presence of a problem regarding the existence of effective technology transfer centers in Ukrainian institutions of higher education.

It should be noted that the effectiveness of the commercialization of university research depends on many factors. The most influential among them are – patents and licenses, income from licenses and the formation of companies through start-ups (Figure 3).

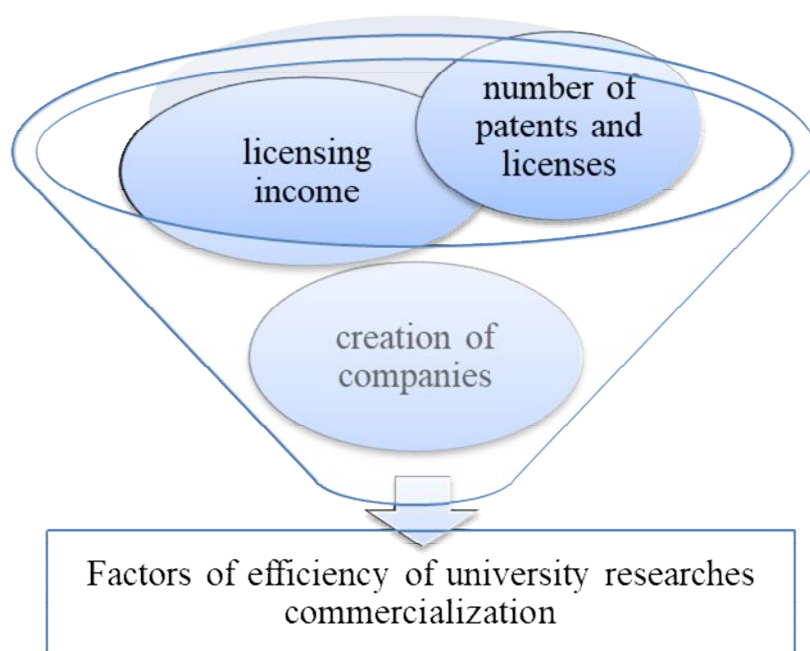


Figure 3. Factors of efficiency of university researches commercialization

In addition to the listed factors of effectiveness of university research commercialization, university science parks can also play a positive role in generating knowledge clusters and improving technology transfer between universities and industries. The effectiveness of scientific developments in the higher education sector can be assessed by the number of applications for

copyright documents. It is noteworthy that higher education institutions submit the largest share of the total number of applications for the issuance of copyright documents in Ukraine. Ukraine shows relatively high activity in the field of patenting, although the levels of patenting in some sectors differ significantly.

A good example of the implementation of experience in the formation of effective technology transfer centers is Spain. Virtually every Spanish university has a technology transfer center that provides a number of services, including: quality assessment of inventions, support for patent applications, negotiation of license agreements, support for researchers in creating university spin-offs. About half of all Spanish universities have a science park. Geographical proximity optimizes information flows, reducing the cost of finding and monitoring technology consumers and increasing the likelihood of a successful relationship between the university and the business environment. In addition, science parks provide infrastructural support for further development of inventions. Given that most university inventions are in the process of implementing innovation at the time of patenting, science parks take on the process of developing and testing new technology and bringing it to market needs.

Successful technology transfer depends not only on the quality of research and involvement of inventors, but also on the size and experience of the technology transfer center. Successful and experienced technology transfer centers have a high-quality portfolio of inventions, which gives them certain competitive advantages in the market of innovative technologies.

In addition, research shows that universities that give a higher share of royalties to the inventor generate more inventions and higher licensing income. This stimulating effect seems to work both by streamlining scientists and by streamlining the efforts of scientists.

Insufficient funding remains one of the main factors hindering the transition of universities to the full application of the model of innovative development. This is due to a number of reasons: the general economic crisis, the lack of a sufficient number of competitive educational products, the imperfection of the mechanisms of interaction between universities and the business environment, foreign partners and so on. This causes a devaluation of the innovation potential of most domestic free economic zones.

Thus, Ukraine has great potential for technology transfer from universities to the business environment, but even some technological breakthroughs cannot provide the main result – a new competitive economy based on innovation. This requires a set of measures based on effective public administration, successful interaction between universities, business, government and society, and so on.

Conclusions and suggestions. In the environment of globalization and integration, the level of economic development of the country is determined by

the ability to commercialize the results of R & D and the efficiency of technology transfer. Technology transfer is a promising mechanism for economic stabilization of a country. In Ukraine, due to weak interaction between science and business, technology transfer is not developed at the proper level. Due to the insufficient spread of advanced technologies, the opportunities to use the strategy of building innovation potential in priority areas are lost, which threatens to consolidate the extensive model of economic development. To overcome such negative trends, it is necessary to use institutional factors – improving the legal framework in the field of technology transfer and developing public policy on the commercialization of intellectual property, intensifying the development of technology market infrastructure and involving enterprises in working with intellectual property.

Today, technology transfer is becoming one of the most important factors in ensuring sustainable socio-economic and environmentally safe development of both individual countries and the world as a whole. For the effective implementation of the link "higher education – research – innovation" it is necessary to provide conditions for the creation and active operation of new types of universities, the effectiveness of which will be measured by the introduction into practice of enterprises in various fields of innovation and projects.

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JEL Classification: F15; F23; P33;
L41; M21; M31

UDC 339.9:659.126

DOI: 10.30857/2415-3206.2020.1.9

INTERNATIONAL BRANDING AS A TOOL OF INTEGRATED BUSINESS STRUCTURES DEVELOPMENT IN UKRAINE

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Introduction. At the present stage of world economic relations, integrated business structures (IBS) are equal participants in international economic market. Acting as both a derivative and a conductor of globalization, they have become the structure-forming factors of world development, have an increasing impact on the functioning of the world economy, specific economic entities, and individual emerging markets.

Research hypothesis. A full adaptation of foreign methods for evaluating and promoting brands will take into account the specifics of the Ukrainian economy, use branding as a source of corporate competitive advantages for Ukrainian business participants, and help improve the investment climate by strengthening national brands.

Purpose of this article: to offer methodological tools for international branding of integrated business structures in Ukraine.

Research methods: comparative analysis, ratings, graphical, tabular and specific methods of marketing research.

Results: a methodological approach is proposed, according to which it is necessary, on the one hand, to distinguish between international branding technologies depending on

the level of the country's economic development, and on the other, to take into account the mutual influence of the country's image, global competitiveness of its economy and the main directions of the branding development strategy of national companies; countries' approaches of implementing the international branding strategy are evaluated depending on their level of development, taking into account the importance of branding as a marketing tool and as a means of increasing companies' capitalization.

Conclusions. The modern mechanisms of brand promotion in IBS strategies in Ukraine are evaluated on the basis of assessing the advantages and disadvantages of global marketing programs in assessing the effectiveness of international brands, choosing the best methods for expanding the brand portfolio; modern strategies and a global planning system for international branding are defined in terms of standardization criteria, product specifics, IBS capabilities and the international competitive environment, and criteria for brand relationships within the portfolio.

Keywords: competitiveness; brand; international branding; integrated business structures.

JEL Classification: F15; F23; P33;
L41; M21; M31

УДК 339.9:659.126

DOI: 10.30857/2415-3206.2020.1.9

МІЖНАРОДНИЙ БРЕНДІНГ ЯК ІНСТРУМЕНТ РОЗВИТКУ ІНТЕГРОВАНИХ БІЗНЕС-СТРУКТУР В УКРАЇНІ

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Вступ. На сучасному етапі світогосподарських зв'язків інтегровані бізнес-структури (ІБС) є рівноправними учасниками міжнародних економічних відносин. Виступаючи одночасно похідною і провідником глобалізації, вони перетворилися в структуру утворюючі чинники світового розвитку, роблять все більший вплив на функціонування світового господарства, конкретних господарюючих суб'єктів, окремі ринки, що розвиваються.

Гіпотеза дослідження. Повноцінна адаптація зарубіжних методик оцінки і просування брендів дозволить врахувати специфіку української економіки, використовувати брендінг як джерело корпоративних конкурентних переваг українських учасників бізнесу, сприяти поліпшенню інвестиційного клімату шляхом посилення національних брендів.

Мета даної статті: запропонувати методичний інструментарій міжнародного брендінгу інтегрованих бізнес-структур на Україні.

Методи дослідження: порівняльний аналіз, рейтинг, графічний, табличний, специфічні методи маркетингових досліджень, компаративний аналіз.

Результати. Запропоновано методичний підхід, відповідно до якого

необхідно, з одного боку, розмежовувати технології міжнародного брендінгу в залежності від рівня економічного розвитку країни, а з іншого – враховувати взаємовплив іміджу країни, глобальної конкурентоспроможності її економіки і основних напрямків стратегії розвитку брендінгу національних компаній; оцінені підходи країн до реалізації стратегії міжнародного брендінгу в залежності від рівня їх розвитку з урахуванням значення брендінгу як інструменту маркетингу і як засобу зростання капіталізації компаній.

Висновки. Оцінені сучасні механізми просування брендів в стратегіях ІБС на Україні на базі оцінки переваг і недоліків програм глобального маркетингу при оцінці ефективності міжнародних брендів, вибору оптимальних методів розширення портфеля брендів; визначено сучасні стратегії і глобальна система планування міжнародного брендінгу з точки зору критерію стандартизації, специфіки товару, можливостей ІСБ і міжнародного конкурентного середовища і критерію взаємин брендів всередині портфеля.

Ключові слова: конкурентоспроможність; бренд; міжнародний брендінг; інтегровані бізнес-структури.

Formulation of the problem. The process of globalization of the world economy in the 21st century is largely realized due to the growing role IBS and increased competition between them, accompanied by widespread standardization of marketing technologies and cost reduction. One of the tools to increase competitiveness for IBS in such conditions is the increase in the cost and effectiveness of brand portfolios. International branding for IBS in recent decades has become a vital factor in the formation of additional competitive advantages.

The parallel development of the global consumer goods market and fierce competition on it between manufacturers, large intermediary networks and other participants contributes to a change in the branding concept in IBS strategies towards taking into account the socialization trends of the world economy, the factor of its further post-industrialization and the transformation of many national economies of large developing countries from production society into a consumer society.

As a result of the development of international integration in the field of intellectual property, there is also a tendency to increase the capitalization of IBS brands. Therefore, the relevance of the topic is also explained by the need for a comprehensive study of the experience of leading IBS in the field of the formation of strong brands. The value of this experience, especially in the field of optimizing and increasing the capitalization of brand portfolios, can hardly be overestimated for Ukrainian companies, especially from the angle of the importance of creating a reliable legal base, increasing the competitiveness of domestic brands and stimulating their integration into international economic relations.

Analysis of recent research and the unresolved part of the problem. In domestic and foreign literature, the range of questions devoted to the study of globalization and transnationalization of the global economy has been studied and worked out quite widely, however, it should be noted that the number of works exploring the relationship between IBS strategies and international branding, key aspects of the impact of internationalization of the global economy on branding strategies has been studied slightly. The following foreign scientists dealt with the problems of international branding: D. Aaker [2], J.-N. Kapferer [3], L. Keller [1], K. Hanna [4], M. Porter, S. Shindo, N. Matsubayashi [5], L. Blăjuț [6], E. Becerra, V. Badrinarayanan [8], M. Roll [9], D. Knights, M. Tullberg [11] and others. The analysis of the importance of international branding in the development and enhancement of the competitiveness of world economy entities is barely considered. The work of the following domestic researchers is devoted to the study of similar problems: L. Ganushchak-Efimenko, V. Shcherbak, O. Nifatova, O. Kolodiziev, R. Rębilas [7], V. Marchenko [10], S. Starov, O. Alkanova [12] and others. The circle of

developments in the field of international branding, which was confirmed in the course of this study, is reduced to the study of its theoretical and methodological issues and practical tools for use in relation to IBS in Ukraine.

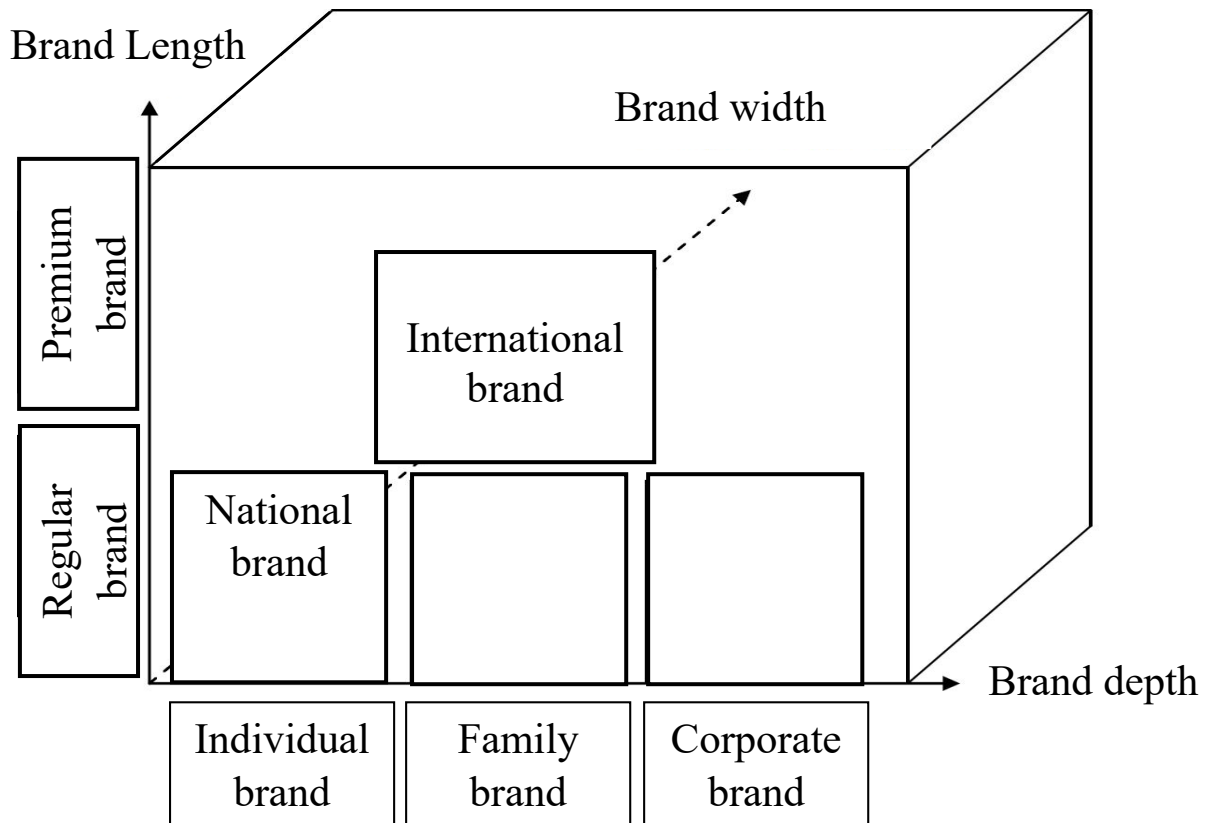
The aim of the article is the theoretical and methodological overview and improvement of the tools of international branding for the development of integrated business structures in Ukraine.

Research results. The study of the main approaches to the analysis of competitive strategies of IBS in the modern world economy revealed that the transition of globalization of the world economy to a new stage of its development contributed to a serious transformation of the system of competitive relations among leading IBS. The growth in the volume and significance of foreign direct investment, the further internationalization of IBS activity, their technological leadership are the most significant factors determining their competitiveness in world economic relations.

The global financial and economic crisis has actualized the problem of finding new effective standards of corporate governance, which, in the context of financial globalization, has made the growth of market capitalization and investment attractiveness the key parameters of IBS competitiveness. In addition to these factors and parameters, the specifics of their network structure, the scale of internal corporate competition and the change in the value of intangible assets in their activities play a decisive role in the development of competitive IBS strategies. Despite the fact that their participation in international strategic alliances, mergers and acquisitions has become a successful competitive strategy of IBS on the world market, they cannot be called the most effective tools for expanding the activity of IBS. In the state of overflowing brand portfolios of many IBS, the most urgent problem is the effective management of brands of leading companies, ensuring their unhindered promotion in foreign markets, which becomes a key element in ensuring competitiveness. For IBS, brands have become the most important and most valuable intangible asset, and the increase in their role in corporate strategies is associated with the rapid development of corporate management and information technologies. The creation of multi-brand IBS that had arisen in recent decades on the basis of cross-border mergers and acquisitions has become one of the sources of increasing the competitiveness of IBS, previously operating under one or two brands.

Strategic branding is gaining a significant place in the formation of competitive advantages of IBS. The decision to choose a branding strategy is made by IBS when it is going to develop or buy a new product (service) that it is going to make part of the brand. A similar question arises when restructuring an existing portfolio of brands. In the world market over the past two decades, many multi-brand companies have developed mainly through mergers and

acquisitions. In particular, this is especially noticeable in the global automotive industry. For example, Ford Motor Company acquired Volvo Cars (Sweden), Aston Martin (Great Britain), Jaguar Cars Ltd, Land Rover (Great Britain) and a significant stake (29%) in Mazda Motor Corporation (Japan). The options for branding strategies are mutually overlapping, so there are many different models that IBS can use to create and manage their brand portfolio (Figure 1).



Source: compiled by the authors.

Figure 1. The model of relation of national and international brand

Creation and support of successful brands is the basis of the corporate strategy of most IBS. The studies note that successful branding can be considered both from the perspective of the concept of brands (formed in the strategy of the corporation), and from the perspective of the image of brands (formed in the minds of consumers). The following stages of brand development can be distinguished (Table 1).

The intangible and "global" nature of international brands has made them objectively less manageable than domestic brands. Until now, a unified approach to assessing the value of an international brand has not been developed in foreign practice; existing ones do not fully take into account such parameters as internal and external goals of cost estimation, category of goods, size of advertising costs in IBS, as well as the geographical extent of distribution,

features of positioning and differentiation of international brands in the world market (the latter applies mainly to strong brands).

Table 1

Stages of brand development in corporate strategy

# of stage	Name	Content
Stage 1	Unbranded goods	Characterized by excess demand over supply, which is typical for developing countries and is rare in developed countries. Manufacturers do not make efforts to make their products distinctive and the consumer perception of these products is purely utilitarian.
Stage 2	Brand as a Reference	Competition encourages manufacturers to make their products distinctive. They begin to use "brand names", which allow consumers not only to achieve utilitarian goals, but also to get some pleasure from owning or using similar goods. "Brand name" is registered and protected legally. At this stage, the emphasis is not only on the functional usefulness of the product, but also on the pleasure that the consumer experiences. Therefore, the term 3Fs (fantasies, feeling, fun) was introduced, which are of key importance when deciding on the purchase of a product.
Stage 3	Brand as Personality	At this stage, consumers are offered a huge number of brands. Technological advances make it difficult to maintain functional benefits. To highlight their products, emphasis is placed on the emotional appeal of the brand.
Stage 4	Brand as Icon	At this stage, the brand becomes a symbol. Successfully created symbols (icons) that have been used for decades are associated with quality, prestige, status (for example, a star in a circle is a Mercedes symbol, a red-and-white packaging of cigarettes is a Marlboro symbol). The selected symbol creates a certain brand perception in all countries.
Stage 5	Brand as Policy	Few companies have entered this stage, which is characterized by a harmonious relationship of the company with the ethical, social and political aspects of life (the most famous examples are The Body Shop and Benetton)

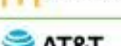
Source: compiled by the authors.

An analysis of the structure of key international brands showed that:

First, it should be noted that often the brand value can exceed the value of all tangible assets of the company (even taking into account the value of the company's production volume added to the assets) (Figure 2).

The top 100 most expensive brands in the world for the year rose by an average of 7%, up to 4.7 trillion dollars. For comparison, in 2006 their total cost was \$ 1.6 trillion. There were eight American brands in the top 10, and there were 54 in the top 100. China accounted for 15 top brands, Germany became the third with eight companies. Ukrainian brands were not included in the top 100 according to BrandZ.

BrandZ™ Top 100 Most Valuable

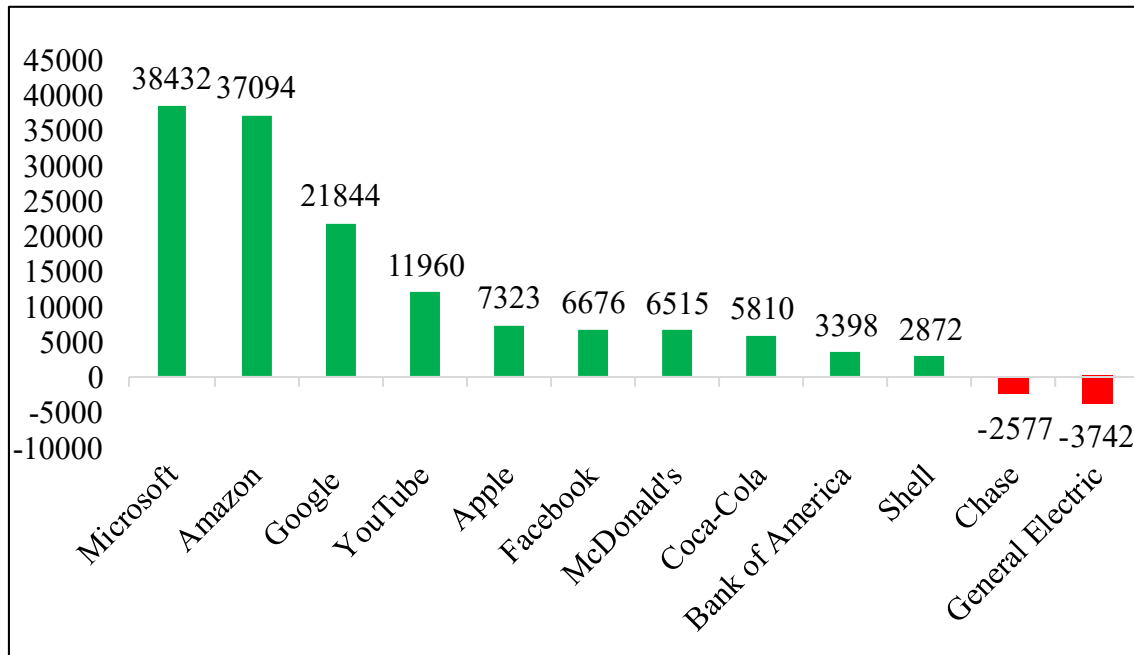
	Brand	Category	Brand Value 2019 \$Mil.	Brand Contribution	Brand Value % Change 2019 vs. 2018	Rank Change	Country of Origin
1	 amazon	Retail	315,505	4	+52%	2	
2	 Apple	Technology	309,527	4	+3%	0	
3	 Google	Technology	309,000	4	+2%	-2	
4	 Microsoft	Technology	251,244	4	+25%	0	
5	 VISA	Payments	177,918	5	+22%	2	
6	 facebook	Technology	158,968	4	-2%	0	
7	 Alibaba Group	Retail	131,246	3	+16%	2	
8	 Tencent 腾讯	Technology	130,862	4	-27%	-3	
9	 McDonald's	Fast Food	130,368	4	+3%	-1	
10	 AT&T	Telecom Providers	108,375	3	+2%	0	
11	 verizon	Telecom Providers	94,598	4	+11%	1	
12	 Mastercard	Payments	91,929	4	+30%	3	
13	 IBM	Technology	86,005	4	-11%	-2	
14	 Coca-Cola	Beverages	80,825	5	+1%	0	
15	 Marlboro	Tobacco	71,958	3	-12%	-2	

Source: compiled according to [14].

**Figure 2. 100 of the most expensive brands
in the world according to BrandZ**

The top ten most expensive brands in the world in 2019 also included Microsoft, VISA, Facebook, Alibaba Group, Tencent, McDonald's and AT&T. The best dynamics over the past year was shown by Instagram, which rose from 91st to 44th place, whose value increased by 95% to \$ 28.2 billion. Uber added 51% over the past year, Netflix – 65%, Linked In – 46%, Salesforce – 58%, Adobe – 57%. In the new list, 9 new companies entered the BrandZ top-100: Chanel made the best debut, rising right up to the 31st line of the rating.

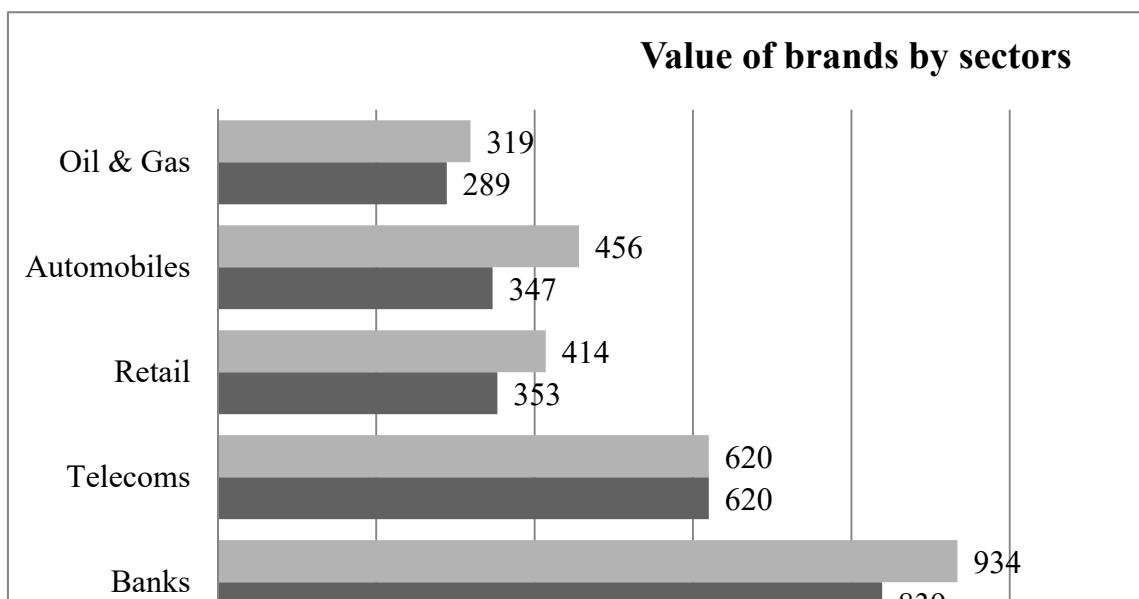
Secondly, one should point out the unequal growth rate of the value of various international brands. In addition, it should be noted that there is a serious increase in the value of brands of high-tech companies, while the cost of brands of traditional "giants" is declining or has a very moderate growth (Figure 3).



Source: based on [15].

Figure 3. Dynamics of growth in the value of some international brands in 2018–2019, (+ -) in USD m

Thirdly, if we analyze the dominance of certain sectors and industries among key international brands (in terms of total cost), then for 2018–2019 it turns out that the value of brands in the high-tech sector has increased significantly (Figure 4).



Source: based on [15, 16].

Figure 4. Change in the total value of brands by sectors in 2018–2019 (in the context of the 500 most expensive brands)

A study of the differentiation of international branding used by countries of different levels of development allowed us to conclude that the country's image is a determining factor in the formation of corporate and product branding strategies. The relationship between international branding and the country's global competitiveness, which was observed earlier, is currently lost due to the active development of large companies from developing countries (primarily China) in the international branding system (Table 2).

Table 2

The interconnection of international brands of the country and the global competitiveness index

Country	The number of brands included in the rating "The most expensive brands in the world – 2019"	Ease of doing business ranking – 2019	The Global Competitiveness Index – 2019
USA	55	8	2
China	14	46	28
Germany	8	24	7
Great Britain	4	9	9
France	4	32	15
Japan	3	39	6
Spain	2	30	23
...		...	...
Ukraine	0	86	85

Source: compiled from [17–19].

The success of developed countries in the creation of international brands is due to the fact that they became the founders of the creation of strong brands, and also successfully rebranded both to maintain the position of their international brands and to penetrate new market segments. Except for a few, developing countries mainly pursue a policy of exporting resources, without focusing on creating strong brands and promoting them on the world market. International brands of developing countries have not yet reached the level of developed countries in terms of their power, cost, and geographical coverage.

The increased attention of IBS to brand promotion and the expansion of the brand portfolio is the result of: the objective need for international branding for some product markets, which is determined by the development of global communications and the activity of IBS itself; the presence of the same market segments (there are no completely identical markets, however, each of them has a niche that exists in any country); increasing consumer loyalty to international brands.

For the effective functioning of communication at the international level and the creation of an international brand of IBS, it is necessary to take into account both the local characteristics of various countries and the global changes taking place on the world market. The mechanism for promoting an international and national brand is not much different from each other, but in practice, significant differences in the situation in foreign markets, consumer behavior in them, and national legislation on marketing approaches dictate their own rules for IBS. One of the key aspects of promoting an international brand is the growth of its capitalization and profitability, while the appearance of new products on the market, changes in the top management of companies, the activities of competitors and problems with antitrust laws can affect the capital of an international brand.

Meanwhile, the construction of an international brand is associated with a number of limitations: the inability to achieve full-scale savings, since local programs can be more efficient and less costly than adapting and importing their global options; one may not find the optimal strategy for supporting an international brand in the form of a lack of human resources, creativity, information; fundamental differences between markets. The impact of an international brand will be small when: there are serious differences in market shares; there is a different brand image in the country of origin and in the foreign market; strong market leaders with similar identities; consumer motivation and their reaction to symbolism and advertising are differentiated; the wrong strategy of international branding was chosen, since the priority should not be the formation of international brands, but brand leadership, i.e., its presence in all markets and its support from effective brand management.

A key determinant of international branding is the competent and effective application of brand valuation methodology. Different models of brand value forecasting, for example, Brand Equity Ten, Brand Dynamics, Brand Assets Valuator, TNS (Taylor Nelson Sofres), BrandZ, Brand Capital, Imager Power, are most widely used abroad. Their disadvantage, in our opinion, is the use of many non-financial, difficult to formalize indicators. More effective methods are cost-based methods (calculating brand replacement costs), various revenue methods (future earnings, stock returns), as well as an Interbrand cost model. The main advantage of the latter model is a financial assessment of the brand value and taking into account the brand "global" factor, therefore we consider it necessary to use this model to assess the value of international brands, while other methods should be applied only at the level of factor analysis of brand value.

Conclusions and suggestions for further research. To successfully position Ukrainian brands in the international brand environment, it is proposed: when developing and promoting a brand, special attention should be paid to all

four classical factors ("4P") of the marketing mix; it is necessary to describe the target consumer audience of the brand as detailed as possible, taking into account the demographic, social structure of the export market and the differentiation of consumer income in this market; when creating a brand, it is necessary to pay special attention to its mission and identity, which should reflect the values of potential consumers; at the same time, the brand's mission under which goods will be exported should initially determine those specific market segments in which the brand will be successfully competitive; at all stages (from brand formation to its promotion), non-traditional communication methods, means and methods of BTL marketing, direct marketing should be actively used, while comparing, evaluating and choosing methods suitable for brand promotion in the domestic market and, conversely, not suitable for overseas; use the most effective brand promotion mechanism: franchising, which can be especially effective when promoting brands, for example, catering establishments; it is necessary to strictly focus on the interests and motives of foreign consumers, which will help to correct the image of a given brand, improve its perception and will contribute to the growth of products under this brand.

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JEL Classification: D92; J54; O31;
O32; Q55

UDC 330.341

DOI: 10.30857/2415-3206.2020.1.10

**METHODOLOGICAL ASPECTS OF
EVALUATING THE EFFECTIVENESS OF
MANAGEMENT OF INNOVATION AND
INVESTMENT ACTIVITIES OF
ENTERPRISES**

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Introduction. One of the complex social and economic problems facing Ukraine in the XXI century, is the urgent need to transfer the economy to a new technological base of post-industrial development. This becomes the most important condition for rapid overcoming of the technological backwardness of the country. This problem can be solved by relying on innovative technologies in production and management.

The research hypothesis. The practical implementation of tactical and operational management in accordance with the chosen strategy of innovation and investment activities of the enterprise will achieve a positive economic effect based on the optimization of technological and business processes, marketing, logistics, financial relations.

Objectives to offer methodological tools for evaluating the effectiveness of management of innovation and investment activities of enterprises.

The methodology of the study: methods of comparative analysis, rating, tabular, graphical, cluster analysis.

Results. The key feature of the proposed approach is the choice of innovation strategy based on the effectiveness of management of innovation and investment activities of enterprises, analysis of the parameters of the projected stability of the enterprise under given conditions of implementation of both product and technological and managerial innovations by attracting foreign investment.

Conclusions. Methodical tools for evaluating the effectiveness of management of innovation and investment activities of enterprises are proposed.

Keywords: innovation and investment enterprises; management strategy; innovation strategy; venture enterprises.

JEL Classification: D92; J54; O31;
O32; Q55

УДК 330.341

DOI: 10.30857/2415-3206.2020.1.10

**МЕТОДИЧНІ АСПЕКТИ ОЦІНЮВАННЯ
РЕЗУЛЬТАТИВНОСТІ УПРАВЛІННЯ
ІННОВАЦІЙНО-ІНВЕСТИЦІЙНОЮ
ДІЯЛЬНІСТЮ ПІДПРИЄМСТВ**

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Вступ. Стратегії управління інноваційно-інвестиційною діяльністю підприємства дозволяє менеджменту і власникам підприємства визначити найбільш прийнятну інноваційну стратегію розвитку з попередньою оцінкою форм і розмірів необхідних інвестиційних ресурсів при можливості коректування стратегії на будь-якому етапі її практичної реалізації.

Гіпотеза. Практична реалізація тактичного і оперативного управління відповідно до обраної стратегії інноваційно-інвестиційної діяльності підприємства дозволить досягти позитивного економічного ефекту на основі оптимізації технологічних і бізнес-процесів, маркетингових, логістичних, фінансових зв'язків.

Цілі: запропонувати методичний інструментарій щодо оцінювання результативності управління інноваційно-інвестиційною діяльністю підприємств.

Методи: порівняльного аналізу, рейтингування, табличний, графічний, кластерного аналізу.

Результати. Ключовою особливістю запропонованого підходу є вибір інноваційної стратегії на основі результативності управління інноваційно-інвестиційною діяльністю підприємств, аналізу параметрів прогнозованої стійкості підприємства при заданих умовах необхідності впровадження як продуктових і технологічних, так і управлінських інновацій за допомогою залучення зовнішніх інвестицій з урахуванням екзогенних факторів зовнішнього інноваційного ринку.

Висновки: запропоновано методичний інструментарій щодо оцінювання результативності управління інноваційно-інвестиційною діяльністю підприємств.

Ключові слова: інноваційно-інвестиційні підприємства; стратегія управління; інноваційна стратегія; венчурні підприємства.

Formulation of the problem. In order to make an innovative breakthrough in the national economy, transition from stagnant situation in all sectors of the economy to innovative structural transformations in high-tech sectors of the national economy, wide introduction of know-how, the company's development strategy should be developed through the introduction of product and technological and managerial innovations, volumes.

At the same time, a positive innovation effect from the activities of enterprises at this time can be obtained by using existing innovation and investment strategies through the realization of endogenous and exogenous potential, finding a niche market segment, not just adapting their economic activities to external conditions.

The purpose of the article is to study the methodological tools for evaluating the effectiveness of management of innovation and investment activities of enterprises.

Research results. Innovation policy is a powerful lever to overcome the consequences of the crisis in the economy, to ensure its structural adjustment and sustainable economic growth, to saturate the market with a variety of competitive products [4]. The formation of the innovation and investment activity mechanism starts with specific objects and subjects of management. Managers (organizers of production) can be state bodies, enterprises, individuals and legal entities that are capable of carrying out innovation and investment activities, taking appropriate decisions and participating in the production process. The industrial, economic and business relations which arise in the course of innovative and investment activity allow transforming objects of management into economic subjects (Figure 1).

Currently, only the economic effect is determined when calculating the effect of an innovation development strategy. Other types of effects are not quantified due to the lack of methodological guidelines and difficulties in collecting information. At the same time, ecological and social types of effects play a major role in the evaluation of strategic development alternatives, especially for industrial enterprises.

$$Ef_{str} = Ef_{pr} + Ef_{technol} + Ef_{manag} + Ef_{exter/invest} + Ef_{inter/invest}, \quad (1)$$

where Ef_{str} – efficiency of the existing strategy of innovation and investment activity of business; Ef_{pr} ;

$Ef_{technol}$; Ef_{manag} – efficiency, respectively, of product, technological and managerial innovations;

$Ef_{exter/invest}$; $Ef_{inter/invest}$ – efficiency, respectively, the attraction and use of external and internal investment resources.

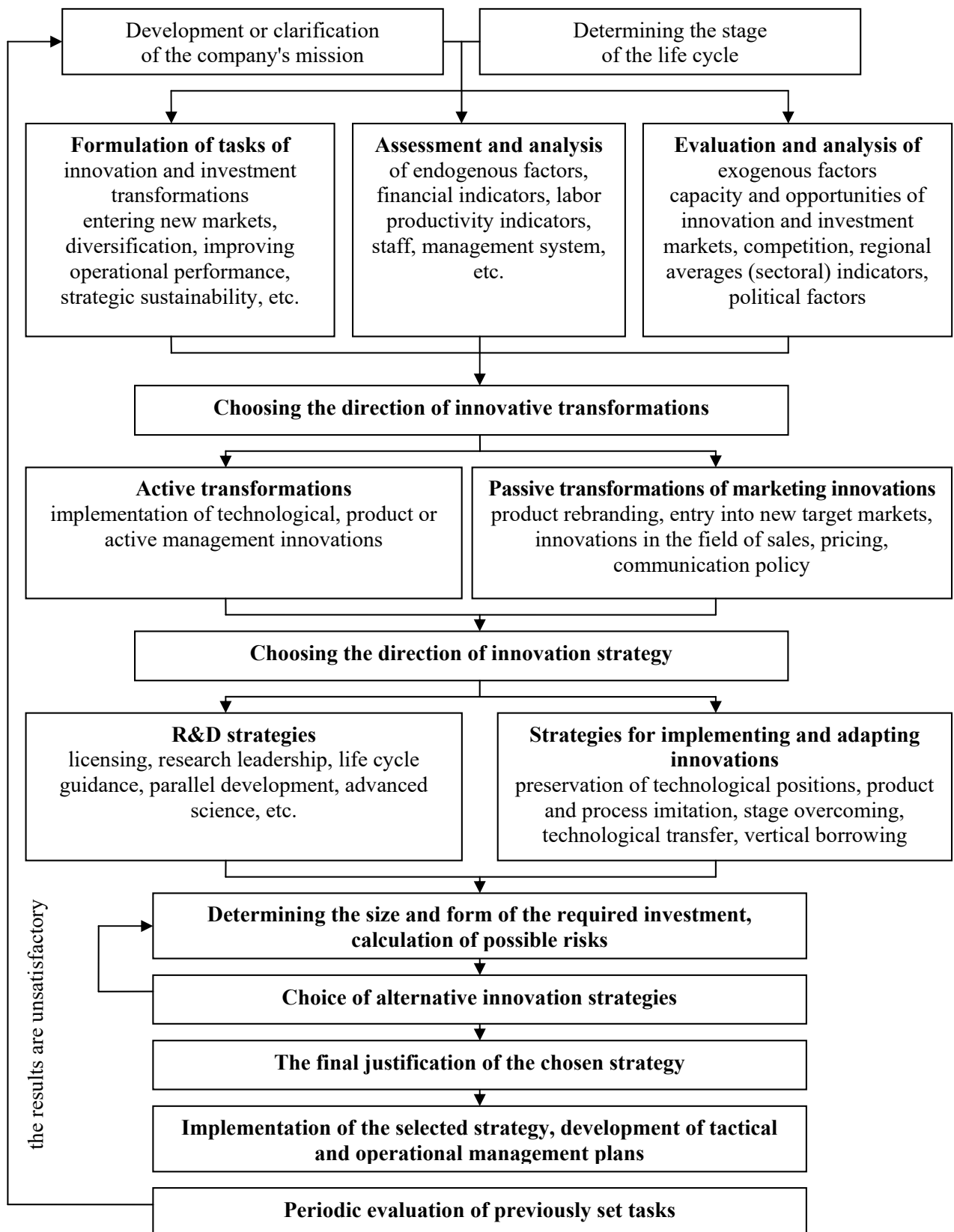


Figure 1. Algorithm for building a strategy for managing business innovation and investment activity

The efficiency of product innovations should be understood as an increase in the share of innovative products, the effectiveness of technological innovations – the introduction of innovative technologies, and, accordingly, the effectiveness of managerial innovations – an increase in the overall profitability of management.

The analysis of the theory and practice of domestic business, the main types of strategies for innovative development of enterprises were identified and characterized (Table 1).

Table 1

Type of strategies of innovative development of the enterprise

Characteristic	Type of strategy for innovative and investment business development		
	Regressive	Adaptive	Progressive
Business development	Focus on government subsidies, lack of promising development, lack of innovation	Simple playback with elements of advanced, simulated innovation	Comprehensive innovative development
Ways to create added value	Operating	Point investments	Investment and innovation
The relative value of value added	Low	Average	High
Type of enterprises	Uncompetitive, lost market position	State corporations, extractive industries	Leadership in creating/promoting high technology
Stability and stability of the enterprise	A financially unstable company	Financially stable enterprise in the short and / or long term	An economically stable enterprise with balanced stability
The most relevant forms of risk	Lack of opportunity to borrow, due to unsatisfactory indicators of financial stability, liquidity	Business processes, planning levels, staff resistance to innovation, the necessary transformation	Investment long-term risks due to the introduction of innovations

The performed classification allowed to conclude that each strategy of development of domestic enterprises differ in the degree of risk, stability and opportunities for hedging innovation and investment activities, which determine the key features of tactical and operational levels of management of agricultural enterprises in terms the need to invest in different types and levels of economic activity. Therefore, the strategy of the enterprise can be represented as the following dependence:

$$St = f\left\{\frac{\partial G}{\partial t}, \frac{\partial R}{\partial t}\right\}, \quad (2)$$

where St – enterprise strategy;

$\frac{\partial G}{\partial t}$ – changing the degree of stability of the enterprise;

$\frac{\partial R}{\partial t}$ – change in the risks of the enterprise.

On the other hand, all endogenous and exogenous processes of industrial and economic activity of enterprises should be considered at three interdependent levels: macro (state economy); meso (industry, region) and micro (enterprise, business). Therefore, the process of substantiation of the strategy of innovation and investment activity management of the enterprise as a function of the parameters of its projected stability and the total relative amount of risks of its activities in terms of the need for both product and technological and managerial innovations. taking into account exogenous and endogenous factors in the innovation market. The obtained dependence can be represented by the following equation:

$$St = f \left\{ \overbrace{\left\{ \frac{\partial G}{\partial t}, \frac{\partial R}{\partial t}, \frac{\partial NPV}{\partial t} \right\}}^{f(\text{innov})}} \right\}, \quad (3)$$

$\underbrace{\hspace{10em}}_{f(\text{exo})}$

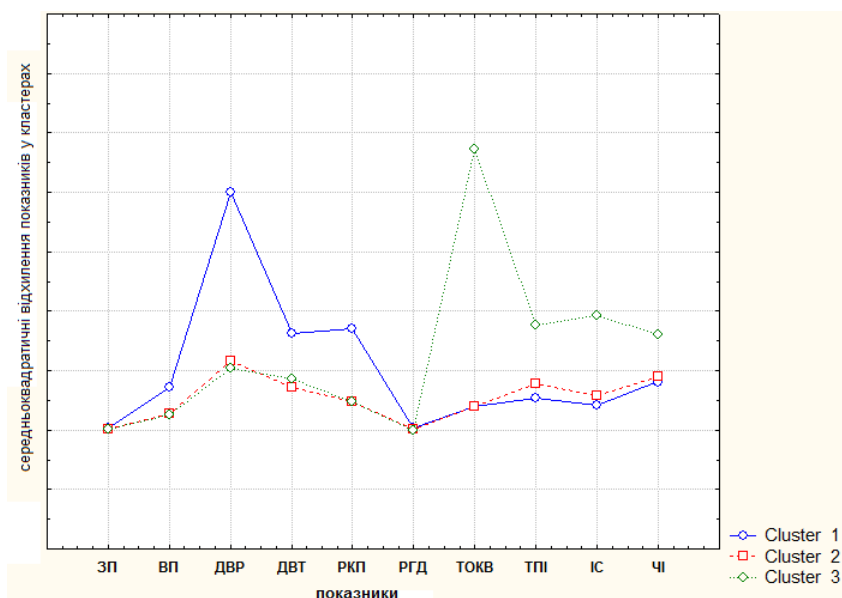
where $f(\text{innov})$ – business attractiveness for innovation and investment;

$f(\text{exo})$ – exogenous and endogenous innovation market factors;

$\frac{\partial NPV}{\partial t}$ – change in the net present value of the enterprise.

In order to assess the effectiveness of management of innovation and investment activities of enterprises, we will typologize the surveyed enterprises on the basis of "Results of innovation and investment activities" by cluster analysis using the application package STATISTICA 7. Initial data for analysis of innovation and investment activities of enterprises in Kyiv region. The results of calculations by the method of cluster analysis (listing of the program STATISTICA7) are shown in Figure 2.

The results of the analysis of production and economic performance of 25 agro industrial enterprises (Figure 2) allowed to distinguish three clusters. We will analyze the composition of each of the obtained clusters – a group of enterprises that have homogeneous specific features of the results of innovation and investment activities. The list of enterprises that were part of the first cluster is shown in Figure 3. The RMS value of indicators of innovation and investment activities of enterprises of the first cluster according to the results of cluster analysis is shown in Figure 3.



Source: calculated by the author.

Figure 2. K-average performance chart of 25 agricultural enterprises (STATISTICA listing)

Analysis (исх.дан.25 предпр)	Members of Cluster Number 1 (исх.дан.25 предпр)				
Means clustering results dialog	and Distances from Respective Cluster Center				
Plot of Means for Each Cluster	Cluster contains 6 cases				
Members of Cluster Number 1	Distance				
Members of Cluster Number 2	П7	118444,1			
Members of Cluster Number 3	П8	100102,3			
	П11	52109,1			
	П19	88001,0			
	П24	61311,8			
	П25	60524,7			

Source: calculated by the author.

Figure 3. RMS value of indicators of innovation and investment activities of enterprises of the first cluster (listing of the STATISTICA7 program)

As evidenced by the data from Figure 3 to the first cluster got mostly large enterprises – violets (6 enterprises out of 25 studied). In relation to innovation and investment, violent behavior is characteristic of large companies with large resources, they operate in the market from a position of strength, allocate a lot of funds for research and development, marketing and distribution networks. The list of enterprises that are part of the second cluster is shown in Figure 4.

As evidenced by the data from Figure 4 the second cluster includes mainly moderately active in innovation and investment activities, medium and small enterprises – patients, which are characterized by serving the needs of consumers of mass, but not standard; specialized profile of production of innovative products, adaptation to a special market (17 enterprises out of 25

studied). The list of enterprises that are part of the third cluster is shown in Figure 5.

3*

Analysis (исх.дан.25 предпр)
Means clustering results dialog
Plot of Means for Each Cluster
Members of Cluster Number 1
Members of Cluster Number 2
Members of Cluster Number 3

Members of Cluster Number 2 (исх.дан.25 предпр) and Distances from Respective Cluster Center Cluster contains 17 cases	
	Distance
П1	89795,8
П2	141669,2
П3	73404,5
П4	91782,7
П6	98404,9
П9	82993,3
П12	242719,8
П13	97187,8
П14	66817,1
П15	49573,3
П16	105171,4
П17	67048,5
П18	53132,0
П20	65307,5
П21	224349,5
П22	62267,5
П23	91087,2

Source: calculated by the author.

Figure 4. RMS value of indicators of innovation and investment activity of enterprises of the second cluster (listing of the STATISTICA7 program)

3*

Analysis (исх.дан.25 предпр)
Means clustering results dialog
Plot of Means for Each Cluster
Members of Cluster Number 1
Members of Cluster Number 2
Members of Cluster Number 3

Members of Cluster Number 3 (исх.дан.25 предпр) and Distances from Respective Cluster Center Cluster contains 2 cases	
	Distance
П5	79794,98
П10	79794,98

Source: calculated by the author.

Figure 5. RMS value of indicators of innovation and investment activities of enterprises of the third cluster (listing of the STATISTICA7 program)

As evidenced by the data from Figure 5 the third cluster includes expert companies (venture enterprises) – enterprises characterized by servicing the innovative needs of consumers; high level of R&D expenditures, advancement in innovations, low level of stability in the market (2 enterprises out of 25 surveyed). The results of calculations by this method are shown in Figure 6. In the listing, the indicators that have an impact on the studied process are highlighted in red.

Показники	Factor Loadings (Unrotated) (исх.дан.25 предпр) Extraction: Principal components (Marked loadings are >,700000)				
	Factor 1	Factor 2	Factor 3		
ЗП	0,947528	0,136939	-0,102248		
ВП	0,967737	0,179234	-0,014858		
ДВР	0,964241	0,213981	0,033271		
ДВТ	0,924994	0,295035	0,117382		
РКП	-0,223495	0,242523	0,766943		
РГД	0,948388	-0,234214	0,231238		
ТОКВ	0,296315	0,741028	-0,132541		
ТПИ	0,478221	0,557436	-0,371898		
ИС	0,543605	0,320672	0,782692		
ЧИ	0,257035	0,855428	0,602998		
Expl.Var	5,248632	1,804293	1,062014		
Prp.Totl	0,524863	0,180429	0,106201		

Source: calculated by the author.

Figure 6. Listing of factor analysis of indicators that have an impact on the effectiveness of innovation and investment activities of the surveyed enterprises

As can be seen from Figs. 6, the effectiveness of innovation and investment activities of the surveyed enterprises are influenced by 3 components (respectively: factor 1, factor 2, factor 3 listing). Thus, the components of the first component of the diagnosis of the effectiveness of innovation and investment activities of enterprises are characterized by the following dependence on the analyzed indicators:

$$F1 = 1/5,248632 \cdot (0,947528 \cdot ЗП + 0,967737 \cdot ВП + 0,964241 \cdot ДВР + 0,924994 \cdot ДВТ + 0,948388 \cdot РГД). \quad (4)$$

The second component, which includes indicators: TOKV (return on capital investment / investment), CHI (investment in successful innovation projects), has a load of 18.0429% and is responsible for the effectiveness of investment activities of enterprises. Thus, the components of the second component of the diagnosis of the effectiveness of innovation and investment activities of enterprises are characterized by the following dependence on the analyzed indicators:

$$F2 = 1/ 1,804293 \cdot (0,741028 \cdot ТОКВ + 0,855428 \cdot ЧИ). \quad (5)$$

The third component, which includes indicators: RCP (level of qualification of employees), IP (implementation of innovative projects at the enterprise), has a load of 10.62014% and is responsible for the effectiveness of innovative activities of agricultural enterprises. Thus, the components of the third component of the diagnosis of the effectiveness of innovation and

investment activities of enterprises are characterized by the following dependence on the analyzed indicators:

$$F3 = 1/1,062014 \cdot (0,766943 \cdot PKII + 0,782692 \cdot IC). \quad (6)$$

According to the results of the multifactor analysis, we can propose a model for assessing the effectiveness of management of innovation and investment activities of enterprises on the basis of determining the maximum values of both innovation and investment and economic effects. In the offered model it is necessary to carry out a gradation of results of activity of the enterprises on economic and innovation-investment signs. It should be noted that increasing efficiency and increasing profits of enterprises leads to a synergistic effect:

$$Ef_{\text{innov/invest}} = Ef_{\text{innov}} + Ef_{\text{invest}}, \quad (7)$$

where $Ef_{\text{innov/invest}}$ – efficiency of innovation and investment efficiency of economic activity of the enterprise depending on its type;

Ef_{innov} – achieved economic effect from innovative transformations;

Ef_{invest} – achieved economic effect from investment transformations.

In turn, the innovation, investment and economic effects, which correspond to the 3 factors of the program listing, can be calculated using the following equations:

$$\begin{cases} Ef_{\text{invest}} = \frac{\partial B}{\partial t} + \frac{\partial E_{\text{кон}}}{\partial t} \\ Ef_{\text{инновац}} = \frac{\partial B}{\partial t} + \frac{\partial \text{Технол}}{\partial t} + \frac{\partial \text{Интел}}{\partial t} + \frac{\partial \text{Информац}}{\partial t} \end{cases}, \quad (8)$$

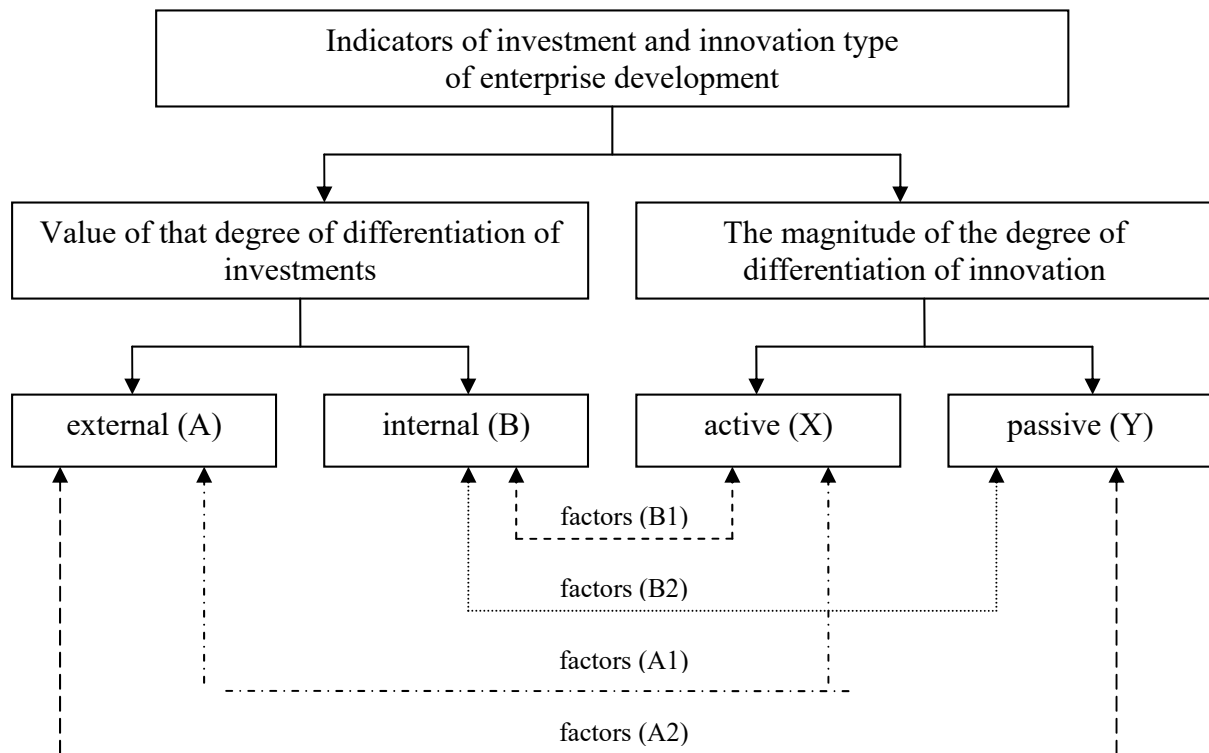
where $\frac{\partial B}{\partial t}, \frac{\partial \text{Технол}}{\partial t}, \frac{\partial \text{Интел}}{\partial t}, \frac{\partial \text{Информац}}{\partial t}, \frac{\partial E_{\text{кон}}}{\partial t}$ – change, respectively, of production, technological, intellectual, information and economic efficiency, acceleration of scientific and technological progress, increase in economic efficiency, increase in income of enterprises engaged in innovation and investment activities.

Substituting the data of the system of equations (8) into equation (7), we obtain the following dependence:

$$Ef_{\text{инновац}} = 2 \cdot \frac{\partial B}{\partial t} + \frac{\partial E_{\text{кон}}}{\partial t} + \frac{\partial \text{Технол}}{\partial t} + \frac{\partial \text{Интел}}{\partial t} + \frac{\partial \text{Информац}}{\partial t}. \quad (9)$$

Efficiency of management of innovative-investment development of the enterprise is defined as efficiency of use of the allocated budget for the innovative changes received incomes from innovative-investment activity. The

conducted analysis has allowed to differentiate determinants of innovative-investment development of the agro industrial enterprises in two directions: degrees of innovative activity and characteristics of industrial and economic activity (Figure 7).



Source: proposed by the author.

Figure 7. Types of factors of innovative support of system transformations of the enterprise

The conditions for transition to an innovative type of enterprise development are determined by four classification indicators: external active (AX), external passive (AY), internal active (BX), internal passive (BY). This differentiation allows for a comprehensive description of all possible stimulators and distimulators of innovative activity, taking into account the nature of the sources of formation, possible limitations and risks of innovative development. At the next stage it is offered to consider an indicator of probability of realization of innovative transformations at the level of the enterprise in the form of a matrix of the factors different on classification type.

$$W_{INV} = \begin{Bmatrix} AX_1 & AX_2 & & AX_i \\ AY_1 & AY_2 & & AY_j \\ BX_1 & BX_2 & & BX_n \\ BY_1 & BY_2 & & BY_m \end{Bmatrix}, \quad (10)$$

where W_{INV} – relative probability of introduction of innovations in production and economic activity of the enterprise.

The use of the proposed indicator for practical purposes allows for a comparative analysis of the level of innovative development, probability and degree of realization of innovative potential. The use of the proposed indicator for practical purposes allows potential investors to hedge risks when making an investment decision when forming an investment portfolio. Thus, probability of introduction of innovations in practical activity of the enterprise and, accordingly, maximization of a degree of return of investments, is defined as follows:

$$W_{INV} = \frac{\sum_{i=1} AX_i + \sum_{j=1} AY_j + \sum_{n=1} BX_n + \sum_{m=1} BY_m}{\max(\sum_{i=1} AX_i + \sum_{j=1} AY_j + \sum_{n=1} BX_n + \sum_{m=1} BY_m)} * 100\%, \quad (11)$$

where $\sum_{i=1} AX_i, \sum_{j=1} AY_j, \sum_{n=1} BX_n, \sum_{m=1} BY_m$ – general assessment, respectively, of external active, external passive, internal active, internal passive indicators of the transition to an innovative type of enterprise development;
 $\max(\sum_{i=1} AX_i + \sum_{j=1} AY_j + \sum_{n=1} BX_n + \sum_{m=1} BY_m)$ – maximum possible value of indicators.

The degree of market influence on the innovation activity of an enterprise may vary. The degree of market influence can be ranked in three gradations: negative, zero (no influence) and positive. Selection of the most significant factors was made with the help of equations 4–6 taking into account the obtained correlation-factor relations on sufficiency principle (Table 2).

The substantiated set of factors is sufficient for carrying out the analysis of efficiency of innovative and investment development of the enterprise. For carrying out of a complex estimation of efficiency of innovative-investment management of business it is enough to minimize effect of cross-correlation. In some cases it is possible to expand the offered list by separate factors which as a result of the spent analysis render less essential influence on efficiency of business and a competitive position of the enterprise. The positive moment of the offered technique is carrying out of the analysis of degree of use of innovative and investment potential of development of the enterprise. As a result of this analysis it is possible to compare individual market operators by the degree of use of their innovative and investment potential, the possibility and probability of their transition to a higher level of development. The calculations

of the WINV indicator have proved that the achieved level of innovative development of an enterprise directly depends on the size of the spent investment resources (Table 3).

Table 2

**Ranking and classification of factors of transition
to an innovative type of enterprise development**

Classification type	Factor
External active factors	Direct sectoral or targeted grants or state guarantees on loans Tax policy Sectoral regulatory and technical regulation
External passive factors	The level of competition in the market The degree of development in the areas of activity of the enterprise Innovation infrastructure Legislation in the field of innovation regulation Presence of barriers to entry into the foreign capital market
Internal active factors	Availability of strategic and tactical levels of enterprise planning Innovative orientation of staff Management qualification
Internal passive factors	Existing production and technical base Form of organization, management and ownership

Table 3

**Assessment of the degree of probability of transition
of enterprises to innovation**

Indicator value WINV	The degree of probability of the company's transition to an innovative path of development	Ensuring innovative transformation with the help of investment capital
$+100\% < \text{WINV} < 0\%$	Maximum possible market position of the company for further innovative development	Low
$\text{WINV} = 0\%$	Possibility to use "inhibition" factor for innovative development of the enterprise	Average
$0\% < \text{WINV} < -100\%$	Extremely negative position of the enterprise in the market, lack of practical opportunities for further innovative development	High

Based on the proposed approach in the study, an assessment of the effectiveness of innovation and investment activities of the surveyed enterprises, the results of which are presented in Table 4.

Table 4

**Evaluation of the effectiveness of innovation and investment activities
of the studied enterprises**

Indicator	Result, %		
	Violents	Patients	Experts (venture companies)
Efficiency of product innovations	58	21	72
Efficiency of technological innovations	71	13	82
Effectiveness of managerial innovations	32	17	44
Efficiency of external investment resources	48	21	17
Efficiency of domestic investment resources	56	37	10

Conclusions and suggestions. The analysis of the effectiveness of management of innovation and investment activities of the studied enterprises allowed to determine the differences in the investment resources involved in the enterprises of 3 defined clusters (the largest in violent – large enterprises (up to 60%), the smallest – in small enterprises of venturers – 10–17%, in the use of its own financial and resource subsystem – components of investment potential, organizational and economic subsystem for the implementation of innovative projects: (the largest in small enterprises of experts (venture enterprises) (up to 80%), the smallest – in patients – medium enterprises (about 20% Comprehensive consideration and analysis of the components of innovation and investment potential will allow the company to identify weaknesses and strengths in its innovation and investment activities, and as a consequence – to increase its efficiency.

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JEL Classification: F15; G34; O32;
R5

UDC 35.072.8

DOI: 10.30857/2415-3206.2020.1.11

**PRIORYTETOWE
EFEKTYWNOŚCI
INNOWACYJNYM ROZWOJEM STRUKTUR
INTEGROWANYCH W PODZIALE REJONÓW**

KIERUNKI

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Wstęp. Osiągnięcia nauki oraz technologii występują głównym faktorem polepszenia jakości produkcji i usług, oszczędzenia siły roboczej i zasobów materiałowych, zwiększenia wydajności pracy, polepszenia organizacji wytwarzania oraz jego efektywności. Reasumując, to wszystko tworzy konkurencyjność państwa i jego odrębnych rejonów. Niestety, zacofanie struktur technologicznych, niski poziom techniczny bazy przemysłowej, słabe fundowanie przez państwo rozpraw naukowych oraz prac badawczo-rozwojowych, brak środków finansowania, nie dają możliwości narodowej gospodarce rozwijać się na podstawie własnej bazy naukowo-technologicznej, kiedy naukowe oraz badawczo-rozwojowe prace stają się podstawowym elementem produktywności.

Hipoteza. Ukraina posiada potężny potencjał naukowo-technologiczny, który jest obecny we wszystkich rejonach, ale wyniki przeprowadzonego monitoringu zarządzania rozwojem innowacyjnym struktur integrowanych potwierdzają tendencję istnienia jądra przemysłowego rozwoju kraju, do którego należy m. Kijów, charkowski, zaporoski, dnipropropetrowski obwody.

Cele. Uzasadnienie priorytetowych kierunków efektywności zarządzania rozwojem innowacyjnym struktur integrowanych na podstawie rejonów.

Metody. Analiza porównawcza, rankingowa, tablicowa, metody graficzne.

Wyniki. Obiektywnymi predyspozycjami dla przejścia do innowacyjnej gospodarki Ukrainy jest bliski kontakt z największymi centrami nauki, obecność interdyscyplinarnego centrum naukowo-dydaktycznego, wysoki poziom innowacyjnej aktywności struktur integrowanych, działalność przedsiębiorstw wysoko uprzemysłowionych w kompleksie wojskowo-przemysłowym, mały biznes, który dynamicznie się rozwija, wysoki poziom edukacji społeczeństwa oraz jego umiejętność przyswajając nową wiedzę.

Wnioski. Dla ciągłego rozwoju gospodarki jest niezbędny system rozwiązań w kierunku ochrony i rozwinięcia naukowo-technologicznego, a także potencjału innowacyjnego, dzięki którym kwestie zostaną rozwiązane za pomocą kolejnych zadań: wsparcia prac badawczo-rozwojowych w celu rozwiązania problemów rozwoju rejonu, zapewnienie jednolitego badawczo-technologicznego oraz ekonomicznego progresu, wraz ze społecznym i duchownym rozwojem, udoskonalenie mechanizmu państwowej kontroli innowacyjnego rozwoju gospodarki rejonu, realizacji oraz zachowania innowacyjnego potencjału dzięki kształtowaniu i efektywnemu zarządzaniu strukturami integrowanymi biznesu.

Kluczowe wyrazy: kooperacja; integracja; stowarzyszenie; rozwój innowacyjny; przedsiębiorczość; integrowane struktury biznesu; ekonomia wiedzy.

JEL Classification: F15; G34; O32;
R5

УДК 35.072.8

DOI: 10.30857/2415-3206.2020.1.11

ПРІОРИТЕТНІ ВЕКТОРИ ЕФЕКТИВНОСТІ УПРАВЛІННЯ ІННОВАЦІЙНИМ РОЗВИТКОМ ІНТЕГРОВАНИХ СТРУКТУР В РОЗРІЗІ РЕГІОНІВ

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Вступ. Досягнення науки і технологій виступають ключовим фактором поліпшення якості продукції та послуг, економії трудових і матеріальних затрат, зростання продуктивності праці, вдосконалення організації виробництва та підвищення його ефективності. Все це, у кінцевому підсумку, забезпечує конкурентоспроможність як держави, так і окремих регіонів. На жаль, відсталість технологічної структури, низький технологічний рівень виробничої бази промисловості, слабе фінансування з боку держави наукових робіт та НДДКР, брак фінансових ресурсів не дають можливості національній економіці розвиватися на власній науково-технічній основі, коли наукові та дослідницько-конструкторські розробки перетворюються на базовий елемент виробництва.

Гіпотеза. Україна володіє потужним науково-технологічним потенціалом, який зосереджено по всіх регіонах, але результати проведеного моніторингу управління інноваційним розвитком інтегрованих структур підтверджують тенденцію щодо наявності ядра промислового розвитку країни, до якого відносяться м. Київ, Харківська, Запорізька, Дніпропетровська області.

Цілі є обґрунтування пріоритетних векторів ефективності управління інноваційним розвитком інтегрованих структур в розрізі регіонів.

Методи порівняльного аналізу, рейтингування, табличний, графічний.

Результати. Об'єктивними передумовами для переходу до інноваційної економіки України є територіальна близькість до найбільших наукових центрів, наявність багатопрофільного науково-освітнього комплексу, високий рівень інноваційної активності інтегрованих структур, наявність високотехнологічних підприємств воєнно-промислового комплексу, малий бізнес, що динамічно розвивається, високий освітній рівень населення та його здатність освоювати нові знання.

Висновки. Для подальшого економічного зростання необхідним вбачається реалізація системи заходів у напрямі збереження та розвитку науково-технологічного й інноваційного потенціалу, завдяки яким проблемні питання знайдуть можливості для вирішення наступних задач: підтримки науково-дослідних робіт для розв'язання проблем розвитку регіону, забезпечення єдності науково-технологічного прогресу з економічним, суспільним та духовним розвитком, удосконалення механізмів державного регулювання інноваційного розвитку економіки регіону, розвитку, реалізації та збереження інноваційного потенціалу за рахунок формування та ефективного управління інтегрованими структурами бізнесу.

Ключові слова: кооперування; інтеграція; об'єднання; інноваційний розвиток; підприємництво; інтегровані структури бізнесу; економіка знань.

Sformułowanie problemu. Epoka globalizacji oraz zwiększenie dynamiki środowiska zagospodarowania w połączeniu z informowaniem społeczeństwa, stają się podstawą do nowego modelu rozwoju ekonomicznego w narodowym systemie gospodarki. Jednocześnie odbyła się pogorszenie warunków prowadzenia konkurencyjnej walki oraz aktualizuje się potrzeba wyjścia narodowych producentów na rynek światowy. Natomiast wsparcie efektywnej działalności gospodarki zewnętrznej u przemysłowców jest możliwe tylko pod warunkiem wzrostu potencjału. Jednym z kierunków tego wzrostu jest poszerzanie procesów integracyjnych i powstanie stowarzyszeń przedsiębiorstw.

Nierozwiązanie części zagadnień. Ważne znaczenie w tym procesie mają aktualne zagadnienia kształcenia ekonomii wiedzy i informatyzacja społeczeństwa. Wiadomo, przetłaczająca część dorobku naukowego staje się odrębnym rozdziałem zarządzania wiedzą dla poszczególnego podmiotu gospodarczego.

Celem artykułu jest uzasadnienie priorytetowych kierunków efektywności zarządzania rozwojem innowacyjnym struktur integrowanych na podstawie rejonów.

Wyniki badania. Tendencja wzmacniania tradycyjnych innowacyjnych centrów technologicznych na Ukrainie ściśle powiązane z naukową, innowacyjną oraz inwestycyjną aktywnością odpowiednich rejonów i to potwierdza obecność potencjału zasobów dla realizacji przełomowej strategii innowacji w kierunku podwyższenia konkurencyjności Ukrainy i zapewnia jej systemowi gospodarczemu godne miejsce w skali światowej. Jednak opóźnienie w jej innowacyjnym rozwoju na poziomie rejonów jest wynikiem niskiego stopnia elastyczności i zdolności adaptacyjnych przedsiębiorstw. Do podstawowych przyczyn tego zjawiska zalicza się:

- niska aktywność wewnętrznych i zewnętrznych inwestorów;
- spowolnione tempo wzrostu odnowy podstawowych zasobów w wyniku gwałtownej dewaluacji obecnej techniki na przedsiębiorstwach;
- dysonans poziomu rozwoju technologicznego przedsiębiorstwa z wysokoprogresywnymi parametrami innowacji;
- wysoka cena rodzimych wzorów nowej techniki itd.

Analiza statystyk w ciągu ostatnich lat daje możliwość zrobić wniosek o stabilnie powolnym stanie innowacyjnej aktywności struktur integrowanych w rejonach Ukrainy i ten stan odpowiada jego ogólnym tendencjom rozwoju innowacyjnej działalności w całym kraju. Mimo tego obecne są niektóre zmiany: częśćka innowacyjnie aktywnych przedsiębiorstw przemysłowych w ogólnej liczbie przedsiębiorstw przemysłowych w 2019 r. na ogół po całym kraju zwiększyła się do 14,2% w porównaniu do 11,2% w 2018 r. Zasługuje też na uwagę zmiana rejonów-liderów według tego wskaźnika, do których zalicza się oprócz tradycyjnego m. Kijowa (33,4% innowacyjnie aktywnych

przedsiębiorstw), obwód iwanofrankowski (30,6% w 2019 r. w porównaniu do 12,9% w 2018 r.), a także wołyński (23,9 w porównaniu 12,5 w 2018 r.), czerniowiecki, lwowski, kirowogradzki, czernichowski oraz poławski obwody, które mają ten wskaźnik powyżej średnicy na Ukrainie [7,8].

Z reguły w 2019 roku największy ciężar właściwy przedsiębiorstw przemysłowych, który wprowadza innowacje za rejonami w 2019 roku, został oszacowany w m. Kijowie, obwodach winnickim i iwanofrankowskim i wskazuje na powstanie nowych liderów w kształtowaniu innowacyjnego środowiska rejonów.

Głównymi źródłami tej sytuacji są:

- obecność naukowo uzasadnionych strategii naukowo-technologicznego oraz innowacyjnego rozwoju zaznaczonych rejonów, a także działanie monitoringu ich realizacji;
- wysoki poziom zaawansowania technologicznej polityki modernizacji na przedsiębiorstwach przemysłowych;
- rozwój obiektów innowacyjnej infrastruktury;
- wprowadzenie nowoczesnych metod zarządzania innowacyjną działalnością itp. [1].

Zgodnie z wynikami analizy zarządzania innowacyjnym rozwojem struktur integrowanych w rejonach obecnie wymagają udoskonalenia metodologiczna oraz metodyczna strony ilościowego i jakościowego oceniania odrębnych składników innowacyjnego progresu [3]. Do głównych elementów zasobu innowacyjnego potencjału, które warto zmierzać ilościowo, zaliczany jest personel, wyposażenie materiałowe i techniczne, zabezpieczenie finansowe, informacyjne, struktura informacyjna i zarządcza. Na podstawie rankingu ocen innowacyjnego potencjału rejonów Ukrainy można wnioskować, że na pierwszych miejscach w 2020 r. znajdowały się: m. Kijów ($R_j = 2,392384$), charkowski ($R_j = 1,192027$) oraz lwowski ($R_j = 1,14072$) obwody Tablica 1.

Tablica 1

Grupowanie regionów według poziomu potencjału innowacyjnego w 2019 r

Wartość oceny R_j	Poziom innowacyjnego potencjału	Rejony
$1,000 \leq R_j < 3,000$	Bardzo wysoki	Kijów, charkowski, lwowski
$0,500 \leq R_j < 1,000$	Wysoki	zaporoski
$0,300 \leq R_j < 0,500$	Średni	dniepropetrowski, winnicki, sumski, mikołajowski, odeski
$0,000 \leq R_j < 0,300$	Niski	kijowski, kirowogradzki, poławski, czernihowski, czerkaski, żytomierski, iwanofrankowski, zakarpaci, wołyński, tarnopolski, chersoński, rówieński, chmielnicki

Źródło: wyliczone przez autora na podstawie [7, 8].

Owszem, najwyższy poziom innowacyjnego potencjału na Ukrainie mają wspólnie m. Kijów oraz obwód kijowski. Niezmiennymi liderami w ciągu pięciu lat z niektórymi zmianami są obwody charkowski, lwowski i dnipropropetrowski. Jednak w 2018 r. na 4 miejscu zasiadł obwód zaporoski, dzięki wprowadzeniu nowych procesów technologicznych na przemysłowych przedsiębiorstwach obwodu na 144%, a także zwiększeniu finansowania prac naukowych i technicznych, także innowacyjnej działalności (odpowiednio 17,5% i 36,1%). Średnie miejsca te wszystkie lata bez szczególnych zmian przypisywane do sumskiego, mikołajowskiego i czernihowskiego obwodu [7]. Te rejony mają stabilny potencjał innowacyjny, chociaż nie bardzo wysoki. Niski potencjał innowacyjny mają obwody rówieński i chmielnicki.

Należy uwzględnić, że podana analiza podaje tylko ogólną charakterystykę zarządzania innowacyjnym rozwojem struktur integrowanych w rejonach bez wliczenia struktury przemysłu. Oczywiście, że w grupie rejonów ze średnim poziomem innowacyjnego potencjału może być osiągnięta wysoka stopa efektywności zainwestowania w poszczególnym przemyśle. I na odwrót priorytetowe rejony mogą nie dać wysokiej wydajności zainwestowanego kapitału w poszczególniej branży.

Drogą dla wybudowania konkurencyjnej gospodarki jest wykorzystanie w przemyśle obecnej bazy naukowej i technicznej, czyli nawiązanie ścisłego związku między naukowymi osiągnięciami oraz wprowadzeniem wynalazków technologicznych w proces produkowania. Jeśli rozpatrywać dynamikę w rejonach, widać, że prawie dwie trzecie ogólnej liczby organizacji naukowych znajduje się w przemysłoworozwiniętych rejonach: 24,8% – w m. Kijowie, 15,7% – w obwodzie charkowskim, 7,2% – w dnipropropietrowskim, 5,6% – lwowskim, 5,4% – donieckim [7, 8].

Częstka innych obwodów w ogólnej ilości organizacji naukowych jest niewielka. Od 2% do 5% wynosi winnicki (2,0%), czerkaski (2,1%) kijowski (2,5%), zaporoski (2,5%), mikołajowski (2,7%) i odeski (4,9%) obwód. Inne regiony w ogólnej liczbie organizacji, które wykonują prace naukowego i technicznego charakteru, nie osiągają 2%, a niektóre mają pojedynczą liczbę organizacji naukowych [7, 8]. Warto podkreślić, że z powodu braku zgody w metodologii prowadzenia obserwacji statystycznych na Ukrainie oraz UE, niektóre wskaźniki bardziej charakteryzujące europejską działalność innowacyjną, nie da się oszacować i przeanalizować.

Badania na poziomie ekonomicznego rozwoju przemysłu oraz dynamiki postępu technologicznego w strukturze kompleksu przemysłowego rejonów ujawniły, że liderami występują tylko te rejony, gdzie jest połączony przemysł z branżami nauki i technologii (m. Kijów, charkowski, dnipropropietrowski,

lwowski oraz odeski obwód), one są najbardziej konkurencyjne i atrakcyjne dla inwestycji.

Dominujące jest wytwarzanie trzeciego oraz czwartego paradygmatu technologicznego w przemysłowym kompleksie, których ciężar właściwy wynosi około 80%. Podstawą piątego oraz szóstego paradygmatu technologicznego jest elektroniczny przemysł, oprogramowanie, telekomunikacje, usługi informacyjne, biotechnologie, które wynoszą nie więcej 5% w ogólnej wielkości produkcji. Archaiczna struktura technologiczna skojarzona z archaiczną strukturą eksportu produkcji, w której część gotowych wyrobów to 30–35%, a część surowców i półfabrykatów – 65–70% (w światowym eksporcie produktów gotowe wyroby wynoszą 77,5%, surowce i półfabrykaty – tylko 12,5%).

Mimo pozytywnej dynamiki wzrostu krajowego produktu brutto, część ojczyściej naukochołonnej produkcji w strukturze PKB prawie nie zmieniła się, ona wynosi około 6%. Wysokotechnologiczne przemysły piątego i szóstego paradygmatu technologicznego ulokowane są w kijowskim, charkowskim i lwowskim obwodach [7].

Nie każdy rejon Ukrainy jest w stanie ukształtować skuteczny model rozwoju produkcji przemysłowej, który będzie stale generować nowości technologiczne, know-how, wynalazki, a także móc przysposobić się do nowych procesów, technologii, produktów stworzonych w innych krajach. Akurat temu celowi ma służyć innowacyjny rozwój struktur integrowanych, których kłopoty instalowania w różnych rejonach zależą od poziomu rozwoju czynników produkowania, strategii, konkurencyjnych zalet, wzięcia oraz zasobów ludzkich. Modele innowacyjnego przemysłu struktur integrowanych pracują w winnickim, wołyńskim, zakarpacim, iwanofrankowskim, lwowskim, mikołajowskim, odeskim, rówieńskim, tarnopolskim, chersońskim, chmielnickim, czerniowieckim obwodach. Wraz z tym, mimo braku zgody w sferze prawniczej oraz małowzroszonej infrastruktury, na Ukrainie odbyła się wprowadzenie nowych zasad gospodarczych, które są oparte na sieciowym modelu organizacji produkcji oraz adaptacji do gospodarki kraju, która przebywa w stanie transformacji. Niebagatelną pomoc w tym kierunku zabezpieczyli naukowcy lokalnych uniwersytetów oraz instytutów [7].

W okresie informacyjnym, które charakteryzowany jest bardziej wysokim stopniem niepewności, gwałtownym nasileniem zmian na rynku pod wpływem globalizacji, powstają nowe wymagania. W dzisiejszej dobie ważne są nie tylko obecne surowce, ale nawyki władz lokalnych oraz biznesu do rozwoju i tworzenia nowych. W warunkach dominującego biznesu prywatnego administracja regionalna może dokonywać wpływu wyłącznie poprzez kreowanie atrakcyjnego klimatu biznesowego na podwładnym terytorium.

Tworzenie innowacyjnego rozwoju gospodarki krajowej, jak i wcześniej pozostaje jednym z priorytetowych kierunków reformowania państwowego systemu ekonomicznego. Przy ukształtowaniu państwowej innowacyjnej polityki trzeba ściśle określić, iż udoskonalenia struktury przemysłu we wcześniejszej postaci stają się niemożliwe i ekonomicznie nieuzasadnione. Warto spróbować możliwości wewnętrznego i zewnętrznego środowiska i wytyczyć „wektory wzrostu” dla adresowanego wsparcia inwestycyjnego. Potrzebna jest precyzyjna polityka innowacji, która przewiduje komplet zasobów skierowanych na stymulację sprzedaży produktu lokalnego na ukraińskim i zewnętrznym rynku, wsparcie eksportu przemysłowego oraz ochrona producentów lokalnych, elastyczna regulacja cen i taryf na usługi monopolu przyrodniczego itd. Głównym ilościowym wskaźnikiem skuteczności przebudowy strukturalnej powinno zostać zwiększenie liczby produktów przetwórstwa gałęzi kompleksu rolno-przemysłowego, radioelektronicznego przemysłu, częściowo przywrócenie wielkości produkcji w przemyśle obronnym i w szeregu gałęzi innowacyjnych innych sfer budowy maszyn, gdzie obecna odnawiana baza materiałowa.

Przeciwdziałanie negatywnym dla ukraińskiego przemysłu procesom i ochrona jej konkurencyjności może stać się pomysłem tylko pod warunkiem planowania strategicznego, koncentracji ekonomicznej oraz kreowania struktur integrowanych, które sprostająby się światowym standardom, więc mogłyby przeciwdziałać agresywnej polityce korporacji transnarodowych na rynku regionalnym [2].

Warto zaznaczyć, że dominująca w kraju wewnętrzna przemysłowo-terytorialna organizacja większości rejonów nie przewiduje ich konkurencyjności na rynku globalnym. W wyniku polityki rozmieszczenia sił wytwórczych na Ukrainie nie istnieje prawie żadnego konkurencyjnego klastra terytorialnego jako dynamicznej i wewnętrznej współzawodniczącej sieci blisko położonych przedsiębiorstw, które wytwarzają taką samą lub podobną produkcję i wspólnie zabezpieczają pomyślnie rynkowe pozycje dla kraju, branży i samych przedsiębiorstw.

W warunku stałego deficytu krajowych środków finansowych, które skierowane są na wsparcie i zabezpieczenie działalności naukowej, technicznej oraz innowacyjnej, rozwoju struktur integrowanych to obiecująca droga podjęcia oraz wzrostu innowacyjnej aktywności we wszystkich branżach działalności ekonomicznej na poziomie regionalnym. Dla pomyślnej realizacji takiej perspektywy niezbędne jest wykreowanie systematycznego mechanizmu współdziałania organów władzy regionalnej z korporatywnym sektorem gospodarki (szczególnie jego naukochłonnym elementem), który mieściłby intuicyjne, organizacyjne, finansowe, ekonomiczne oraz socjalne dźwignie, skierowane na zabezpieczenie stymulującego środowiska rozwoju wszystkich

etapów innowacyjnego procesu zarówno na regionalnym, jak i na mikro poziomach.

Więc jednym z kierunków innowacyjno-technologicznego rozwoju krajowej gospodarki musi zostać wykreowanie warunków dla modernizacji przemysłu oraz wsparcia i rozwoju konkurencyjności terytorialnie integrowanych struktur biznesu na rynku globalnym. Jak już zostało określone, konkurencyjnych struktur integrowanych w skali globalnej prawie nie istnieje. Natomiast ich powstanie jest warunkiem wejścia Ukrainy do długotrwałej konkurencyjności, toteż stymulacja ukształtowania struktur integrowanych powinna należeć do liczby priorytetów państwowej polityki rozwoju ekonomicznego. Oprócz tego, struktury integrowane powinny zostać rodzajem integracji oraz wsparcia małego i średniego biznesu. To znaczy, iż tradycyjne makroekonomiczne i gałęziowe podejścia do rozwoju małego i średniego biznesu warto uzupełnić lokalnym, który jest uwzględniany jeszcze na poziomie kształtowania terytorialnych struktur integrowanych.

Obecnie należy połączyć wysiłki oraz zasoby, które są dostępne państwu w celu rozwiązania podstawowego zadania – przejścia krajowego systemu ekonomicznego na innowacyjną drogę rozwoju. Strukturalne oraz technologiczne transformacje, niezbędne dla podwyższenia tempa wzrostu ekonomii, wymagają złożonego podejścia, który przewiduje opracowanie oraz realizację systemu współzależnych środków skierowanych na wsparcie, oraz koordynację działalności wszystkich sektorów procesu (organów władz lokalnych, naukowców, przedstawicieli finansowych i kół przemysłowych).

Wnioski. Ukształtowanie skutecznej infrastruktury dziedziny nauki oraz innowacji jest ważną częścią państwowej polityki skierowanej na zabezpieczenie strategicznych państwowych priorytetów Ukrainy, do których należą podwyższenie jakości życia obywateli, osiągnięcie wzrostu ekonomicznego, rozwój fundamentalnej nauki, edukacji, kultury, zabezpieczenie obrony i bezpieczeństwa kraju. To powinno stać się strategicznym przewodnikiem dla struktur integrowanych. Pomyślne funkcjonowanie modelu rozwoju innowacyjnego wymaga rewidowania działającej infrastruktury innowacyjnej i potrzebuje poważnego udoskonalenia.

Niezbędne jest jak najszybsze ukształtowanie naukowo-innowacyjnych, technologicznych struktur integrowanych powstałych na podstawie przodujących uczelni wyższych. Taki system powinien zabezpieczyć integrację szkoły wyższej z rzeczywistym sektorem gospodarki w celu rozwiązania socjalno-ekonomicznych kwestii i realizacji docelowych oraz branżowych programów, najpierw związanych z technologicznym rozwojem przemysłu. Do najlepszych nowoczesnych kształtów można zaliczyć naukowo-innowacyjne klasterne połączenia.

Podstawowym narzędziem mechanizmu realizacji krajowej polityki innowacyjnego rozwoju mogą być programy innowacyjnego rozwoju rejonów skierowane na:

- najbardziej aktywne zaangażowanie konsumentów do procesu opracowania nowej produkcji mającej na celu najlepszą adaptację jej charakterystyk do warunków rynku;
- stowarzyszenie przedsiębiorstw w różnych formach struktur integrowanych dla podziału wydatków i ryzyku związanych z wprowadzeniem innowacyjnej produkcji;
- zintegrowanie naukowo-badawczych organizacji i przemysłu w celu powstania wydziałów naukowo-badawczych, wykonania wspólnych programów naukowych, wymiany doświadczeniem.

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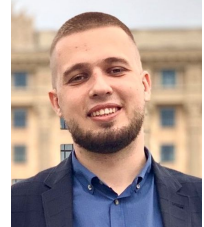
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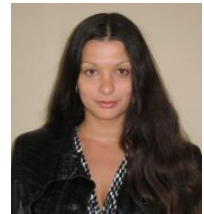


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**Загальні відомості щодо подання рукопису статей в журнал:
«Менеджмент» Київського національного університету технологій та дизайну
“Management” of Kyiv National University of Technologies and Design**

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Вартість публікації: 60 грн. за одну сторінку публікації.

Вартість одного примірника: 150 грн.

Банківські реквізити для оплати публікації:

Отримувач: Київський національний університет технологій та дизайну

Код ЄДРПОУ отримувача: 02070890

Банк отримувача : ДКСУ у м. Києві

Код банку отримувача: 820172

Розрахунковий рахунок: UA038201720313251003202003551

Призначення платежу:

П.І.Б. (автора (-ів) публікації) – за публікацію у журналі «Менеджмент»

МЕНЕДЖМЕНТ

журнал

Комп'ютерний набір та макетування

Кривонос О. О.

Технічний редактор

Дудко П. М.

Відповідальна за друкарські роботи

Пугач А. В.

Підп. до друку 30.06.2020. Формат 60×84 1/16.
Ум. друк. арк. 8,13. Облік. вид. арк. 6,36. Наклад 100 пр. Зам. 1451.

Видавець і виготовлювач Київський національний університет технологій та дизайну.
вул. Немировича-Данченка, 2, м. Київ, 01601, Україна.

Свідоцтво суб'єкта видавничої справи ДК № 993 від 24.07.2002 р.

MANAGEMENT

Journal

Computer Typesetting & Modeling

Kryvonos O. O.

Technical Editor

Dudko P. M.

Responsible for printing

Puhach A. V.

Printing proof 30.06.2020. Format 60×84 1/16.
Conditional sheet 8.13. Calculated sheet 6.36. Circulation 100 copies. Order N 1451.

KNUTD Instant Printing Department.
Nemirovich-Danchenko Street, 2, Kyiv, 01601, Ukraine.

Certificate ДК № 993, 24.07.2002.