

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
ЗАПОРІЗЬКИЙ НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ

**ФІНАНСОВІ СТРАТЕГІЇ  
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Економіка праці, управління персоналом та маркетинг  
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### **УПРАВЛІННЯ ПРОЄКТАМИ ТА ФІНАНСОВО-ЕКОНОМІЧНА БЕЗПЕКА В УМОВАХ ГЛОБАЛІЗАЦІЇ**

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*The life of an educator-scientist is worth something when it is interspersed with research pathways, landmarks of theoretical achievements and practical effects that he or she uses or the society will use.  
This is properly the life and work of my associate,  
Professor Bohdan Andrushkiv (from the review of Professor Alla Cherep)*

### **SCIENTIFIC AND LITERARY PALETTE OF THE CREATIVE PERSONALITY**

(Using the example of the life and professional experience of the Vice-President of the National Academy of Sciences of Ukraine, Doctor of Economics, Professor of Ivan Puliui Ternopil National University B.M. Andrushkiv, the secrets of his high literary and scientific performance are revealed).

*On the 60th anniversary of the professional experience of the  
Honored Scientist and Engineer of Ukraine,  
B.M. Andrushkiv*

#### **Instead of an Introduction or Let's be Generous with Good Words for our Colleague.**

Once in the 7th building of Ternopil Ivan Puliui National University (TNTU) we met up with the former first deputy head of the Ternopil Administration, and now a well-known scientist, Professor Bohdan Andrushkiv. He has been recently awarded the Alfred Nobel Order by the National Academy of Sciences of the Higher Education of Ukraine for his active civic position and merits in the development of education, science and economy.

As it happens, we asked about what a respectable pensioner does today? The answer was prosaic.

– Between fits of disappointment and depression, I write something...

– And what are you writing about, in this difficult, troubled time of war?

– Well, today, for example, I am writing a review of an article by a young scientist, yesterday I wrote a review of a dissertation. I write reviews of literary works of friends and acquaintances. Somewhere, sometime, articles and ... books.

– Regarding feedback and reviews. "They probably value your opinion," I asked.

– Not even close. I just don't refuse anyone, so they apply. Today, no one wants to read, analyze, write...

They joke: Talk to Andrushkiv, and he will not refuse and will do everything...

Whatever you may say, and Andrushkiv B.M. is right. Our mutual friend from Kherson National University, Professor Halyna Savina, died not long ago in the hospital in Kyiv. A story is going about that before her death, she appealed to a colleague from another university with a request to write a appropriate obituary about her, because ... the colleagues from her university would not "manage". Sure enough, every supervisor, scientist, politician or public figure really wants to be proud of his students. If these relationships are in a healthy, benevolent harmony, then the educatees respect their mentors, teachers and are proud of them. However, truth be told, it does not always happen that way.

Seems it was a common encounter, a short systemless conversation, nevertheless it caused many thoughts and an urge to write something about this anything but common man.

#### **Brief Information about the Hero of the Essay and an Arbitrary Description of his Activities.**



Andrushkiv Bohdan Mykolaiovych, Doctor of Economics, Honored Scientist and Engineer of Ukraine, Honorary Professor of the Chair of Management of Innovative Activities and Services Sector of Ternopil Ivan Puliui National Technical University, Academician of the Academy of Economic Sciences of Ukraine, President of the Academy of Social Management, Vice-President of the National Academy of Sciences of the Higher Education of Ukraine, Full Member of Shevchenko Scientific Society, will be 78 years old next year, and he is, as they say, "highly sought", active, and... resourceful. The list of his literary and scientific papers is impressive. When asked how and when he manages to write, he prosily answered:

– Someone likes fishing, someone likes hunting animals, someone likes low-key hunting (goes to the forest for mushrooms). Many people like to spend their free time in cafes, restaurants, some play cards, gambling, others play musical instruments. I always find myself at the table (once upon a time) with ink and a pen, and today at the laptop...

Having read his papers, I thought, really, it is necessary to write a couple of kind words about this man. Fortunately, there are more than enough materials and information about him.

Andrushkiv B.M. was born in 1947, in the village of Meteniv, Zboriv district, Ternopil region. He worked his way from a grain combine harvester to the positions of head officers of the region. He worked as a mechanist, engineer, economist, company manager, chairman of the District Planning Department, deputy chairman of the Zbaraz District Executive Committee of Ternopil region, deputy chairman of the Ternopil Regional Planning Commission, deputy and first deputy chairman of the Ternopil Regional State Administration, deputy chairman of the Regional Council, chairman of Ternopil Regional Council of Trade Unions. All his work went hand-in-hand with creative literary and scientific findings, publication of articles in mass media, specialized publications, publication of books, record of rational proposals, patents, etc.

Currently, Andrushkiv B.M. is a well-known scientist, writer and public figure in Ternopil and in Ukraine. Many generations of managers who today work in production and science, taking up policy-making positions, studied in the text of his book “Fundamentals of Management”, which come out under the code of the Ministry of Education and Science in the early nineties of the last century. Surprisingly enough, all his literary works and scientific articles, which are really a great lot, despite the time are relevant.

He receives offers from foreign magazines to publish; however, he works for a domestic community.

Andrushkiv B.M. really and truly spent his life actively, achieving high positions and awards, while maintaining high moral and business qualities. During his more than sixty years of work experience (the first entry in the employment record book was made in 1963) and scientific activity, he obtained the highest scientific degrees and titles. The practical achievements of his scientific career are dozens of tutorials, textbooks, monographs, more than 800 other scientific and scientific-journalistic papers, innovative proposals, patents, unconventional ideas, founding specialized publication “Socio-economic Problems and the State” and Specialized Council D58.052.02 at Ternopil National University, “Elita” laboratory, etc., of which he is currently a member.

He was involved in the founding and establishment of a number of public academic formation, including not merely the Academy of Economic Sciences of Ukraine, social management, NAS of Higher Education but also Ivan Puliui Ternopil National Technical University from the time of the creation of the first department until it was awarded the title of “National”. Currently, he is an editorial board member of a number of professional and public publications in Ukraine.

Analysts at the University, where Bohdan Mykolaiovich works, note that there are always many, if not the most references to scientific works and articles by B.M. Andrushkiv. It is a common fact that this is an indicator of the relevance of works, which qualifies them as “hot topic”.

Scientific and literary palette of Andrushkiv B.M. as a creative personality is colorful and bright like a rainbow after a long-awaited rain. His creative scientific and literary lines are intertwined in their relevance, revealing the psychological world, confirming economic projections on humanitarian and psychological experiences of the average person and vice versa.

Creative prose vectors of Bohdan Mykolaiovych are versatile, but they are not limited by humor or only spiritual area. His works, even in artistic form, consider current socio-economic problems, issues of a psychological nature, etc.

### **Implementation of Creative Initiatives is an Organic Need of an Intellectual Personality.**

As a scientist Anrushkiv B.M. works both on national management problems, and on regional problems of the service sector and other topical issues of state formation. All his papers are based on the principles of logic and worthwhileness.

Being an academician of Academy of Economic Sciences of Ukraine, he noted that the social component is poor in the academy. In order to strengthen and fill the social spectrum of the Academy of Economic Sciences with a social component, he created the public Academy of Social Management and organized training and published pioneering book “Fundamentals of Social Management” (theoretical principles and applied mechanisms) – Ternopil, Terno-graf LLC, 2007. – 1024 pages.

The creation of a public fund for the registration of unconventional ideas and projects was his handiwork.

No matter where Bohdan Mykolaiovich worked, no matter what section he headed, there were positive results everywhere. We will not mention his industrial achievements and work in state management bodies. Let’s take the last years of his educational and scientific work.

For example, the former Chair of Management of Innovative Activities and Entrepreneurship of TNU, which he headed at the time, opened a number of relevant specialties and almost always ranked first and was top performer. Today, due to his health, he does not give lectures so often. (Professes problems of management theory and practice, anti-crisis management, economic and property security, applied aspects of the innovation market, etc.). However, while still working in the Regional State Administration, combining his work with teaching activity at the then Economic Institute, and then at the Academy of National Economy, he developed his teaching methods for his subjects, which consisted in... transferring everyday life examples to production-economic examples. It seems elementary, although under the conditions of part-time and correspondence study (shortage of time) it significantly facilitated the assimilation of the material, as evidenced by the results of the assessment of students’ knowledge.

On the initiative of B.M. Andrushkiv, Ukraine’s only Museum of Management Tools and Economic Literature of the Totalitarian Period was created at the university (a book was published on this topic, TV programs were organized on Ukrainian television), a Ukrainian-Polish higher educational institution – Ternopil Institute of Social and Information Technologies (TISIT), (Currently due to circumstances, it stopped his activity).

We do not want advert his production activities and work in public positions in the Regional State Administration. This is a separate matter. However, as judged by his publications, which are based on specific production experience, we are sure that if his ideas were implemented into manufacturing practical aspects, the regional economy would have much better indicators than it currently has.

According to the scientist, the unpretentious Ternopil region had and still has enough resources not only for survival but for the successful solution of socio-economic problems of the region as well as. There is oil under the surface of the earth in the former Terebovliansky, Buchachsky, and Monastirsky districts (1800m...1200m, and an oil fountain hit from one well, while in Ukraine, oil is extracted from a depth of 5,000 m) and this is at a distance of 100 km from the Nadvirnia Oil Refinery?. In order to use this resource in Ternopil region, the Regional State Administration at the time organized a scientific and practical conference upon his initiative with the participation of scientists from the Western Science Center, which confirmed his calculations and new economic opportunities, however the state showed no interest in its further promotion.

Ternopil region has coal, raw materials for the production of cement of the highest construction grades, etc. Once upon a time, porcelain and glass factories worked here successfully. According to his beliefs, under certain conditions, it is possible to restore machine building and the textile industry. The National Technical University, which cooperated with these plants and factories, is successfully operating in Ternopil. Such thoughts were confirmed by the former head of the Regional Council B.F. Boiko in his interview with Free Life newspaper, in which he mentioned that at the time he recommended Andrushkiv B.M. for the position of Ternopil regional manager. However, the capital did not want to take into account the local recommendation for political reasons and acted differently.

All his ideas are relevant today and have scientific novelty and practical significance. Perhaps some time will come under the conditions of the EU, when the newest leaders of the state and region will return to them (creative ideas) and implement them in manufacturing practical aspects... It is his natural way to solve all problems and find answers to all questions, regardless of their scale. As a leader of the regional level, he always believed that his own system of interest was needed to activate the work.

### **Inspiration with Awards Can Destroy Ruthlessness, Everyday Routine and Trigger off the Innovative Development Factors.**

This creative point in the life of B.M. Andrushkiv began during his work as the head of the Regional Council of Trade Unions. Under his initiative, a number of name prizes of our compatriots known in Ukraine and the world, including I. Puliui, V. Vykhreshch, S. Podolynskiy, were established, which over the years became All-Ukrainian ones and were awarded by the Federation of Trade Unions of Ukraine for respective achievements. The following awards were introduced – the Gold Medal named after Tugan-Baranovskyi, which is awarded by the Academy of Economic Sciences of Ukraine for significant achievements in the field of economic sciences, the Order of the Ukrainian Cossacks named after Baida Vyshnevetskyi, the Order of Prince Konstantin Ostrozky, the distinction: “ORA et LABORA” (pray and work), “For Outstanding Achievements in the Development of Science, Education, and Economy” awarded to scientists of Ternopil National University, National Academy of Sciences of Higher Education, Academy of Economic Sciences of Ukraine, members of Shevchenko Scientific Society on jubilee dates and professional holidays.

Currently, he submitted a sketch of the future Order of Victory in the War with the Muscovites to the awards department of the office of the President of Ukraine. He has published several articles on the subject of awards in professional publications of Ukraine.

It is characteristic of him to perpetuate the memory of good people in any way. He has a vivid recollection and loves to talk about those famous people who came across on his life journey, helped and supported him in his scientific and literary ventures. For nine years in a row, Ternopil National University has been organizing All-Ukrainian scientific and practical conferences dedicated to the first president of the Academy of Economic Sciences of Ukraine, Academician of the National Academy of Sciences of Ukraine M.H. Chumachenko, who was Honorary Professor of Ternopil National University.

It should be emphasized that Bohdan Mykolaiovych also received many industry, departmental, state and international awards for his work, Honorary Professor of Ternopil National University – Honored Scientist and Engineer of Ukraine, he was awarded with the State Order of Merit, Certificate of Merit of the Verkhovna Rada and the Cabinet of Ministers of Ukraine, honorable distinction of the President of Ukraine “Cross of Ivan Mazepa”, honorable distinction of the Head of State Administration “Honor and Glory of Ternopil region”, many other awards, including those of Ternopil town.

Subsequent to the results of his creative activity, the National Academy of Sciences of Ukraine included his name in the “Modern Encyclopedia of Ukraine”.

Andrushkiv B. M is respected by the academic community of Ukraine, as well as the leaders of the region, the University and the population of the region. He was repeatedly elected a deputy of regional and district Councils. Currently, he is a member-representative of the Federation of Scientists of Ukraine from the Ternopil region.

Several books and a number of articles were written about the scientific and literary life path of Andrushkiv B.M. in regional and all-Ukrainian mass media, encyclopedic guides, festive publications of structures and bodies where he worked.

### Fruitful Literary Activity be Indicative of Spiritual Generosity and Spiritual Warmth

Andrushkiv B.M. is fond of literary activity. He published more than 40 fiction and non-fiction books. His first book was "Bread for the Mind" (reprinted several times and translated into Esperanto). I might add that this book was his first piece of writing. The next was "Tales for Adults" (144 pages). In it, as written in the abstract, animals, trees and plants live the lives of people, being in different positions. Acting in different roles. Here things talk about the past, present and future.

The first books (Publishing Houses: "Guides and Textbooks", "Zbruch", "Lileia", "Dzhura", "Ternograph", "Palyanitsia" Individual Entrepreneur, etc.) were easy to understand. Rich in humor. "The Story of a Funny Life or Adventures of the Loser-boy", was republished twice (in Ternopil and Kyiv) and was on everyone's lips. At that time, it was considered to be a book about "Ukrainian Shveik" (279 pages).

"It's Fun and Farce" (147 pages) is a separate work, in which the author reveals electoral and other paradoxes of the post-Soviet system with sarcasm using the examples of the transitional period, from totalitarian to democratic. Book "Life is Like a School, and you are a Lifelong Learner at it" is devoted to the subject of funny and unfortunate periods of state formation.

The title of the book: "Soul inside out or a Dialogue with Oneself and Others" (265 pages), speaks for itself. The author answers the trickiest questions through the prism of personal perception. Work "The King is an Echo of Ages and Modernity" (85 pages) is dedicated to the self-proclaimed King of Ukraine-Rus, Metropolitan Roman Karelin-Romanyshyn of the Carpathian Orestes1.

Book "Life Kaleidoscopes or Memories of the Past for Those Going to the Future" (183 pages) is full of rational conclusions based on the results of observations of our sorrowful life. It is not for nothing that Dmytro Pavlychko, recommending him to the National Writers Guild of Ukraine, remarked: "... we lack of such smiling writers as Bohdan Andrushkiv very much." Then there were books of memories about the "happy" Soviet period, in which (after the famine of 1946–47), field sorrel (leaven), acacia flowers, etc. served as food "treats" for post-war children. Spiritually interesting are books: "Zarvanytsia, the Shrine of the Ukrainian Land" and "Our Sins" (145 pages).

Book "Groggy Story" sadly tells about the rise and fall of a young man who tried to please everyone and fell into the trap of alcoholism under totalitarianism. The prototypes of the heroes of his works were present in his life. As he once admitted, he has lived many lives with his heroes. No matter how pathetic it looks, however, reading his books is as if you are talking to the author and you fall under the impression that he was writing... about himself.

With the increase of years, the author's range of information expanded, there were books about the Ukrainian Insurgent Army (UPA) "Incurable Pain" and about the commander of the Ternopil District wing of the Ukrainian Insurgent Army Omelian Polovyi: "Thorny Paths" (237 pages). Book "Unbreakable" (127 pages) was written about Anna Kovalchuk (Linko), a long-term prisoner of the Gulag, communication agent and soldier of the Ukrainian Insurgent Army.

His literary works are noted with watchfulness, a philosophical approach, and always with lucid humor... The titles of his books are always in a form a vivid, relevant, eternal aphorism. Probably it is not a mere coincidence that he became the laureate of the All-Ukrainian literary awards named after the Lepkyi brothers, I. Kovalchuk and others.

The Chernobyl tragedy touched his chord with the only books in Ukraine at that time: "The Black Tablet of Ukraine" (320 pages) and "Echoes of Chernobyl. Social, Economic and Sociological Consequences of the Disaster" (365 pages), which were dedicated to the 15th and 20th anniversaries of this tragic event.

Being at the time the elected head of the Regional Society for the Protection of Historical of Cultural and Antique Artifacts, he not only wrote historical essays on this topic, among them: "What does the Windswept Feather Grass of the Gray Cossack Graves Sing about", "How does the Galician-Volyn Mace or Cossack Ternopil Region Revived", which were dedicated to the 10th anniversary of the creation of the Ternopil Regional Cossack Kosh named after Dmytro Vyshnevetskyi, on the basis of which the Halychia-Volyn Cossack District "Necropolis of Ternopil Region" was formed, (co-author of the book "Necropolis of Ukraine"), etc., but also by his own efforts built a monument to 2,500 Cossacks who died in the Ukraine-Polish War in Zboriv region, a monument to the Angel, the symbol of the trade unions, the protector of the poor and the disadvantaged, near the building of Trade Unions. Upon his initiative, the commemoration and construction of a memorial sign was organized on the occasion of the 365th anniversary of the founding of the famous village Baikivtsi in Ternopil region, etc. Book "Baikivtsi – a Self-governing Ukrainian Village: Vectors of Development under the Conditions of Communal Reforms" (297 pages) is dedicated to Baikivtsi.

In general, the following books are devoted to local history and problems of the region's development: "Oh, your Beautiful Wonders, Ukraine. The Phenomenon of Historical, Natural, Ethnographic and Patriotic Traditions of Ternopil Region" (265 pages). "Vectors of Socio-economic Development of Rural Settlements under the Conditions of Administrative-territorial Reform", using the example of Mshantsi Village Council in Ternopil region (414 pages). "Peculiarities of the Management of Health Resort Institutions..." (Using the example of the "Medobory" Health Resort and the Mykulyntsi territorial community). (482 pages). "Our Tomorrow. Finding Ways to Manage the Development of the Region" (195 pages).

After the declaration of state independence, the books were published that perpetuate the memory of famous, honored people of Ternopil region, and in particular, the long-term political prisoner, honored artist of Ukraine: "Yaroslav

Omelian – a View of Life through the Prism of Suffering and Hope” (239 pages). War and post-war life stories told after Oleksii Popadiuk: “Life Milestones or War and Post-war Roads of Zahidniak Popadyuk and ... Patriot of Ukraine Shtirlits” (277 pages). A separate book was written about the suffering of the Lemkos resettled in the Ternopil region: “Humiliated Dignity or the Withered Branch of the Lemko Region” (Research on the peculiarities of the career growth of the Lemkos in Ternopil region and their contribution to the development of the economy and culture of the region) (299 p.).

The author is also mindful of his immediate supervisors and sworn brothers: “Poets Die in Order to Live...”. Memories of the famous manager, economist, poet, and his long-term supervisor Volodymyr Vykhreshch. (155 pages).

Andrushkiv B.M. is not antithetical to science fiction. His booklet: “Ginger” (67 pages) is devoted to the possible development of scientific research in the field of using, so saying, animal intelligence for the needs of society by the method of transmitting the astral and spiritual principles of a person into a dog’s body. Book: “The Great Illusion of Truth or About the Mysticism of the Word and the Traces of Universal Reason against the Background of Ukrainian Absurdity” (287 pages) is dedicated to the sudden clarification of ordinary citizens of Ukraine.

The poetry collection: “Maidan, my destiny, I’m yours...” was published in 2014, during youth protests in Kyiv. There, on Khreshchatyk and Maidan Nezalezhnosti, it was dispersed. Small circulation (300 copies) ... did not cause a public respond. That was not the case then. The work was written under the impression of wild injustice... In the poem “Dream” he addresses the then President of Ukraine:

...I walked along Khreshchatyk being lost in thoughts,  
I inhaled the poisonous smoke from the tires...  
And my heart was grief-stricken,  
At the thought that under the batons... was his son.

The author, while working as the deputy head of the Ternopil Regional State Administration, had the honor, through Academician of the National Academy of Sciences of Ukraine M.H. Chumachenko, to personally get to know the deputy of the Donetsk State Administration at the time, (later the President of Ukraine) Viktor Yanukovich. In the poem, the author imagined one of his sons under batons...

Many books have been written. You read, for example: “An Artist’s Observation of Life. Novels, Etudes, Sketches, Aphorisms” (143 pages) and you are surprised by the depth of outreach of curiosities, events, phenomena and peculiarities of our life and it is as if you are communicating with the author himself.

Many other works ask the reader the question about what are we living for? Do we need to protect freedom? Who should do it? How to do it? Why were we silent for so long? The concerned heart of a person with scientific inclinations can answer them. His heart sometimes speaks, sometimes sings, sometimes screams with pain.

### **A Scientific Diversity of a Man who Cares about Science**

Due to him and with his support, about 70 scientists received scientific degrees and the titles of Candidate of Sciences, Doctor of Sciences, Associate Professor and Professor.

Furthermore, in order to intensify public activity, he was the one who established a number of previously mentioned awards for scientists – people, our compatriots, known in Ukraine and the world, which are presented for outstanding achievements in the development of education, science, economy, social sphere, etc.

Actually, during the period of his adaptation to the scientific and pedagogical faculty of Ternopil National University, one by one his tutorials, monographs, articles and books come out. Among them, a certain response in academic and literary communities was caused by the previously mentioned relevant large-scale pioneering publications: “Fundamentals of Social Management”, “Metatheory of Life Management”, which is dedicated to solving the problems of suicide in our country, “Tourism of Ukraine: Economic and Organizational Mechanisms of Formation”, “Anti-crisis Management... Anti-raiding”, “Economic Wisdom...” “Narratives on the Problems of Forming the Institutional Foundations of the Economic Constitution of Ukraine”, “Complete Economic Accountability – a Way to Increase the Effectiveness of a Territorial Unit to Ensure its Sustainable Development”, “Innovative Means of Developing Non-traditional Energy Sources in the Socio-humanitarian Complexes of Ukraine”, “Resource Economics”, “Strategy for the Development of an Administrative District”, “Organization and Management of an Amateur Museum...”, “A Chair: Peculiarities of the Evolution of University Science under the Conditions of Social Revolution”, etc. which came out under the code of Ternopil National University and public academic formations and many others.

He is an originator of scientific school: “Regional and Interregional Aspects of Supporting Socio-economic Reform, Innovative Contexts of Entrepreneurship Development.” His educatee, the vice-rector for economic development of Ternopil National University, R.P. Sherstiuk, wrote wonderful book: “Scientific School of Bohdan Andrushkiv: Phenomenon, Milestones, Achievements, Philosophy” with a volume of 310 pages...

To grasp his scientific horizons, one probably needs more than one volume. We will dwell only on the modern stage of his life.

The last period after the 75th anniversary was particularly fruitful for Andrushkiv B.M. as a scientist. The war, the unstable economic situation in Ukraine, which in many cases is accompanied by political confrontations, excites the creative imagination and initiative not only of ordinary citizens, government officers and scientists. It has triggered prof. Andrushkiv B.M. One by one, he developed proposals for improving economic mechanisms on the scale of the national

economy, social policy, restoring war-ravaged infrastructure... Still others for selecting phenomenological alternatives for the development of Ukraine's economy based on the implementation of an integral concept of economic growth with justification of dominant objects and production volumes.

In the course of the years as head of the Chair and public formations, in addition to providing the teaching and learning activities and scientific work, B.M. Andrushkiv, as previously mentioned, opened a doctoral program at the University, which is currently successfully functioning, founded magazine: "Socio-economic Problems and the State", which gained popularity and was included in numerous foreign scientific and metric bases, and Specialized Council where candidate and doctoral dissertations of the University teachers are defended.

All teachers of the Chair have obtained scientific degrees. A number of new specialties in the social sphere and corresponding laboratories were opened. Based on the results of the laboratory's activities, a number of copyright certificates and patents have been recorded in the Ministry of Education and Science of Ukraine.

His textbook "Fundamentals of Management" and research paper "Tourism of Ukraine: Economic and Organizational Mechanisms of Development" were submitted to the State Prize, and manual "Fundamentals of Management Principles and Practices" received honorable distinction of INKO joint-stock bank as the best manual in Ukraine among similar publications on the subject. The author's works were not overlooked by the management of the University

Academic Council of Ternopil Ivan Puliui National University, head of the Chair of Management of Innovative Activity and Entrepreneurship of Ternopil National University, Honorary Professor of the University Andrushkiv Bohdan Mykolaiovych was nominated for Ivan Franko International Prize full member of Academy of Sciences of Higher Education for his significant achievements in the field of social and humanitarian sciences, writing scientific and artistic-journalistic books in this field. The nomination was supported by: the International Association of Business Community in Ukraine, St. Nicholas MLOUK, other creative formations of Ukraine.

Of particular note are the final books of the author:

– "Requiem for Lost Opportunities, or the Confession and Repentance of a Ukrainian" Aston Publishing House Limited liability company, 2015. – 440 pages – "Meteniv – the Road to Home". Ternopil Palianytsia V.A. Individual Entrepreneur, 2017.-414 p. which were timed to his 70th anniversary.

In the scientific and literature communities, these original publications give a frank assessment of today's socio-economic situation in the state and offer specific ways to solve pressing problems based on high spiritual considerations. Andrushkiv B.M. continues creative research publishing his worldview reflections not only in professional publications, but also in periodicals and the Internet, popularizing the life and activities of public academic associations, the formation of which he was a participant, namely Academy of Economic Sciences of Ukraine, National Academy of Sciences, Academy of Sciences of Higher Education, Shevchenko Scientific Society etc.

We will be able to understand and properly evaluate the activities of state thinker when we read his "Economic Wisdom...".

In the review of the two-volume book "Economic Wisdom in Aphorisms" by Doctor of Economic Sciences, Professor Andrushkiv Bohdan Mykolaiovych, it was said:

*Ternograph Publishing House issued the second, supplemented, unique edition of "Economic Wisdom in Aphorisms" (5,000 catchphrases and sayings in comments and mastery in 2 volumes: "Catchphrases" 462 pages and "Thinkers Speaking", 382 pages) authored by originator of the publication: B.M. Andrushkiv, Doctor of Economic Sciences, Professor of Ternopil Ivan Puliui National Technical University, Honored Scientist and Engineer of Ukraine, Member of the National Writers Guild of Ukraine.*

*The reviewers of the first edition were well-known scientists of Ukraine: the late M.H. Chumachenko, Doctor of Economic Sciences, Professor, Honorary President of the Academy of Economic Sciences, Academician of the National Academy of Sciences of Ukraine (Kyiv); Hutsal I.S. Doctor of Economic Sciences, Professor (Ternopil); V.P. Badiak, Doctor of Philosophy, Professor of Lviv National Academy of Arts (Lviv).*

As it was said in the advertisement of the publication, in the book, for the first time in Ukraine, an attempt was made in an aphoristic form to highlight the views of ancient and modern well-known philosophers, politicians, managers and public figures not only on economic categories, but also on the problems of the formation of statehood and economy, morals and spirituality in their relationship and from different angles. Apt comments and interpretations in the framework of today's socio-economic situation are offered to each of the aphorisms in the form of author's digression. The authors' conclusions are considered from the standpoint of modern scientists, managers, writers, philosophers, cultural experts, etc. Processes, events, phenomena are projected on Ukrainian society. For the first time, the aphorisms of the brilliant Taras Shevchenko, Ivan Franko, etc. have been quoted.

By means of aphorisms and concentrated wisdom, sometimes in a sarcastic and humorous form, the author explains certain stagnant phenomena in the development of statehood and its economic component. From the point of view of universal processes, the publication presents a kind of recipe for getting out of the recession and economic crisis. Ways and organizational and economic mechanisms of stabilization of social processes in the state have been proposed, warnings are given against negative social phenomena and processes etc.

It is far from easy for average people to comprehensively understand and objectively evaluate them in all their complexity and contradictory manifestations of social life, which are not related to their professional education. One of these spheres is the economy, which at the current stage of society's development has at once become its system-forming

component, the effectiveness of all other spheres of society's life depends on its functioning. This problem is especially acute for Ukrainians, who are obviously tired of three decades of chronic troubles in the national economy and want to understand the reasons why successive changes in power do not produce the positive results expected by the society in this important area, on which everyone's well-being depends.

In his book "Economic Wisdom in Aphorisms" Doctor of Economic Sciences, Professor Andrushkiv Bohdan Mykolaiovych for the first time in Ukraine makes an attempt to comprehensively cover a wide range of managerial, economic, political, environmental, social and other problems through the use of short and apt statements of classics and famous people and the author's comments on them, which are designed to help everyone form their own independent and holistic understanding of the social processes that are developing in our controversial society, to contribute to the deepening of the meaning of decisions made by people who are endowed with the appropriate powers and allow revealing lucrative impulses in the decisions made by those in power.

What is more, the author of the publication, outstanding Ukrainian scholar-economist Andrushkiv Bohdan Mykolaiovych, with extensive life and professional experience, the author of more than 800 scientific papers, has been noted by the ability to identify the main and essential things, to identify promising innovations, even when valuable ideas have not yet gained general recognition in the society and even among most colleagues in the scientific environment. It is obvious that if, at the beginning of economic transformations in Ukraine, the leaders of the state would have given credence to the warnings of the author of this interesting and extremely important book for Ukrainian society, it would have been possible to avoid many distortions in the economy, which the country received as a result of quasi-reforms. It would be possible to prevent many negative phenomena including separatism, decline in the standard of living of the majority of the country's citizens, unfair results of denationalization and privatization, lack of economic growth, reduction of jobs, mass emigration of the employable and most qualified population, corruption of state officials, the subordination of state institutions to the interests of the oligarchy, the destruction of existing fixed assets, lack of investment and modernization processes in the domestic economy. This is not anywhere near to the full list of negative consequences not only of the outcome of the country's leadership, but also of problems with the adequacy of the perception of economic reality, which has been established in the consciousness of Ukrainian society.

The book to a large extent allows a wide range of people not only to overcome the gaps in the understanding of politics, economy, etc. but to understand the priority areas of transformations in them, the solution of which should be found in the near future, and also allows you to understand that the economy is too important a sphere of life for every person to completely give control over it to politicians, officials or oligarchs, even when the fashionable euphemism "market" is used for this.

Basically, we will understand and properly evaluate the activities of state wise men when we read "Economic Wisdom..." and draw the appropriate conclusions.

The publication is intended not only for economists, managers but also for politicians, philosophers, government employees, public figures. It can be successfully used by students of a higher school of economics, philosophers, psychologists, managers, etc. And last but not least, "Economic Wisdom in Aphorisms" will be of interest to professors and teaching staff of higher education institutions and to the general public of common readers who are interested in the problems of the functioning and development of the economy, the state, and society.

**Andrushkiv B.M. is considered to be a person who works his fingers to the bone.  
The fire of his soul lights the way for both young specialists and highly qualified scientists**

As it happens that last year, we had the honor of witnessing the presentation of "Golden Commemorative Tablet" to him by friends and scientists of the Ternopil region on the occasion of his birthday. We would like to say that this is not the first award of the scientist. He has many different awards: state, educational and scientific, from international and public organizations including the National Academy of Sciences of Ukraine, which he especially values.

**Bohdan Andrushkiv's life motto:** "To live and create for people, feel on top of the world and enjoy life in a family and with friends." In the "Golden Memorial Tablet" on the occasion of his anniversary, it was noted that during the years blessed by God, his life has passed with one beloved: Two beautiful children were born together: (Natalia and Olga) and five grandchildren: (Bohdan, Mykhailyk, Irynka, Nastia and Olenka). He has made many, many loyal friends. Dozens of scientific and journalistic books, hundreds of articles have been written, and thousands of specialists have been trained. Basically, his Life was a success! But it is not his cup of tea to calm down and rest on his laurels. Indeed, he belongs to those people who works his fingers to the bone, and the fire of his soul lights the way for both young specialists and highly qualified scientists. This gentle fire is a life-giving one and it is not getting dull for many decades.

Even sixty years of work has not made him tired. The unstable economic situation in Ukraine, economy effected by the war, today continues to excite his creative initiative and causes special activity. He develops proposals for the mechanisms of the economy improvement on the national level, and for the improvement of social policy, selection of phenomenological alternatives for the development of the economy of Ukraine.

Only in 2023, the following books have come out: "The Paradigm of a Scientist in the Formation of the Social and Economic Development of Ukraine in the Postwar Period" (380 pages), "Senselessness or Mindless Disaster" (470 pages), other monographic collective publications, numerous articles in professional magazines of Ukraine.

In the world of science and literature, Bohdan Andrushkiv candidly assesses today's socio-economic situation in the country and offers specific ways to solve pressing problems.

We analyzed only a part of his literary, prose and scientific works. A complete and in-depth analysis requires a lot of time and paper. Someday our descendants will do it. We are sure that many of his books will be reprinted in mass circulation. Many of his ideas will receive further development under the new European conditions, which the author foresees looking forward in his works.

Based on high spiritual considerations, Andrushkiv B.M. continues to be in a creative process publishing his worldview reflections not only in professional publications but also in periodicals and the Internet, popularizing the life and activities of his own University and public academic formations, both Ternopil National University and the National Academy of Sciences of Ukraine.

The solemn acknowledgement of his creative activity by the National Academy of Sciences of Ukraine with the Order of Alfred Nobel will undoubtedly contribute to the continuation of his active life.

*May life bloom like a cherry orchard,  
And every day is joyful with a smile.  
And fate sends us a shooting star shower of  
Health, Peace, Happiness and Hope...*

His hard work has been noted in numerous articles and books. His love for life and professional knowledge are systematically transferred to students and young scientists who proudly carry them into the future of our independent state with the glorious name of Ukraine.

Dear Bohdan Mykolaiovych, may your hands never get tired of doing good and may God send you health, strength and inspiration in this matter, and the fulfillment of all your cherished dreams and wishes.

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# ECONOMICS AND BUSINESS MANAGEMENT

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## SUBSTANTIATION OF THE STRATEGY FORMING PRACTICABILITY FOR THE INNOVATIVE ACTIVITY OF INDUSTRIAL ENTERPRISES

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**Key words:**

innovative development  
of the enterprise, classification,  
trend of innovative development  
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strategy of innovative  
development of the enterprise

This article deals with the innovative strategy of the company's development as one of the main factors in the development of the company's competitiveness. Available approaches to building a strategy for innovative development of industrial enterprises have been analyzed. It has been established that the approach to the management of innovative development of the enterprise can be defined as strategic management. It also has been established that the sustainability of the innovative development strategy of the enterprise has a priority value, increasing the cost of the economic and social consequences of its decisions and actions implementation. The purpose of the research has been determined – substantiation of the practicability of forming a strategy of industrial enterprise innovative activity as a guarantee of strengthening competitive positions, meeting the needs of consumers, and further development of the enterprise. The outcome of the development of any business largely depends on the combination of strategies it chooses and the tools it uses for that. Innovation strategy is one of the main strategies of enterprise development. An innovation strategy is a plan used by a company to encourage advances in technology or services, often through investment in research and development. The goal is to create a mechanism of effective organizational and economic management that can contribute to the innovative development of the enterprise. Innovative strategies are necessary for companies that want to gain a competitive advantage. After all, modern market conditions provide for a fast pace of product life cycles; new discoveries are made and new products are manufactured every day. This article presents the relevance of innovation strategies and the types of innovation strategies considered by various authors. The problems of this topic, the authors who explore the subject are brought into sharp focus. The main tasks of the innovation strategy are shown. The stages of its formation and principles of construction are considered. It has been analyzed that whether the innovation process is revolutionary or evolutionary depends on the trend chosen by the company, as well as on its effective strategy of innovative development. For another thing, the level of intellectual resources of the company and human intellectual capital will also play a significant role in determining the result of this process. It was concluded that the process of determining the direction of innovative development of these enterprises can be compared with the development of an innovative development strategy. It was determined that the innovative strategy of the organization should be considered as a system of enterprise actions, aimed at achieving the long-term goals of its activity, further development, strengthening competitive positions, satisfying consumer needs, ensuring steady demand for products, through the use of complex considerations of the external and internal environment, influence, determination of strategic innovation goals and development indicators, and formation of a system based on this trends of innovative development, types of market strategic behavior, distribution of innovative achievements, etc. The questions that need to be answered when forming a strategy are identified: How do innovations create value for potential customers? How will the company distribute the value of the innovations that gave rise to them?

## ОБГРУНТУВАННЯ ДОЦІЛЬНОСТІ ФОРМУВАННЯ СТРАТЕГІЇ ІННОВАЦІЙНОЇ АКТИВНОСТІ ПРОМИСЛОВИХ ПІДПРИЄМСТВ

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### **Ключові слова:**

інноваційний розвиток підприємства, класифікація, напрям інноваційного розвитку підприємства, стратегія інноваційного розвитку підприємства

У даній статті розглядається інноваційна стратегія розвитку підприємства як один із основних факторів розвитку конкурентоспроможності підприємства. Проаналізовано наявні підходи до побудови стратегії інноваційного розвитку промислових підприємств. Встановлено, що підхід до управління інноваційним розвитком підприємства можна визначити як стратегічний менеджмент. Встановлено, що раціональність стратегії інноваційного розвитку підприємства має пріоритетне значення, збільшуючи вартість економічних і соціальних наслідків її реалізації рішень і дій. Визначено мету дослідження – обґрунтування доцільності формування стратегії інноваційної активності промислових підприємств як запорука зміцнення конкурентних позицій, задоволення потреб споживачів, подальший розвиток підприємства. Результати розвитку будь-якого бізнесу значною мірою залежать від комбінації стратегій, які він обирає, та інструментів, які він використовує для цього. Інноваційна стратегія є однією з основних стратегій розвитку підприємства. Інноваційна стратегія – це план, який використовується компанією для заохочення прогресу в технологіях або послугах, часто шляхом інвестицій у дослідження та розробки. Метою є створення механізму ефективного організаційно-економічного управління, який може сприяти інноваційному розвитку підприємства. Інноваційні стратегії необхідні компаніям, які хочуть отримати конкурентну перевагу. Адаже сучасні ринкові умови передбачають швидкий темп життєвих циклів продукції, щодня виробляються нові відкриття та вироби. У цій статті представлено актуальність інноваційних стратегій та типи інноваційних стратегій, які розглядаються різними авторами. Висвітлено проблематику даної теми, авторів, які досліджували дане питання. Показано основні завдання інноваційної стратегії. Розглянуто етапи її формування і принципи побудови. Проаналізовано, що те, чи є інноваційний процес революційним чи еволюційним, залежить від напрямку, який обирає компанія, а також від її ефективної стратегії інноваційного розвитку. Крім того, рівень інтелектуальних ресурсів компанії та людського інтелектуального капіталу також відіграватимуть значну роль у визначенні результату цього процесу. Зроблено висновок, що процес визначення напрямку інноваційного розвитку цих підприємств можна порівняти з розробкою стратегії інноваційного розвитку. Визначено, що інноваційну стратегію організації слід розглядати як систему дій підприємства, спрямовану на досягнення довгострокових цілей його діяльності, подальший розвиток, зміцнення конкурентних позицій, задоволення потреб споживачів, забезпечення сталого попиту на продукцію, через використання комплексних міркувань зовнішнього та внутрішнього середовища, впливу, визначення стратегічних інноваційних цілей та показників розвитку та формування на цій основі системи напрямків інноваційного розвитку, типів ринкової стратегічної поведінки, розподілу інноваційних досягнень тощо. Визначено питання, на які потрібно відповісти при формуванні стратегії: Як інновації створюють цінність для потенціалу клієнтів? Як компанія розподілить свою вартість інновації, які їх породили?

### **Problem statement**

Innovative companies obtain a greater competitive advantage. Innovations introduced by companies are in the position to penetrate production processes at all levels and provide the most objective and comprehensive assessment of their activities. In the context of corporate economic development, technological, product, management,

marketing and organizational innovations occupy a special place. These particular innovations will be able to solve the problem of providing enterprises with resource potential, promote their rational use and increase the efficiency of work. Therefore, the rationality of the innovative development strategy of the enterprise has a priority value, increasing the cost of the economic and social consequences of its implementation of decisions and actions.

### Analysis of latest research and publications

The scientific papers of O.V. Bozhanov, V.V. Prokhorov [1], M.P. Denisenko, N. Yu. Lesyut [2] are dedicated to creation of a mechanism of effective organizational and economic management of the innovation process, O.I. Didchenko [3], O.S. Efremov [4] considered the tasks that must be solved for the effective development of the enterprise, A.S. Zakharchenkov [5] highlights the problems of innovative development of the enterprises, M.I. Zolevska [6] and S.V. Filippov [7] consider the strategy of innovative development under the lens of dynamic changes in the external environment, A.V. Cherep, O.G. Cherep [8] consider it as a tool for the development of innovative activity based on the calculation of financial, economic, technological, innovation-investment, production, and marketing criteria.

However, despite the accumulated scientific and practical experience, issues regarding the definition of the content, the sequence of formation and implementation of innovative development strategies, which can increase the effectiveness of innovative activities, continue to be relevant.

### Purpose statement

The purpose of the study is to substantiate the practicability of forming a strategy of innovative activity of industrial enterprises as a guarantee of strengthening competitive positions, meeting the needs of consumers, and further development of the enterprise.

### Presentation of the basic material of the research

The systematization of various methods of determining the defined categories [4; 5] allows considering the strategy of innovative development as a package of measures related to transformation. By introducing innovations in various directions (technology, products, management, organization, etc.), enterprises can enter a new state with new characteristics and become the basis for the formation of competitive advantages and positioning of the enterprise in the highly competitive product market. Therefore, the strategy of innovative development is a functional strategy of the enterprise, which actually determines the type of market behavior of the enterprise.

The approach to managing the innovative development of the enterprise can be defined as strategic management. This method involves careful planning and execution of strategies to promote the implementation of new and innovative ideas in the enterprise. The task is to reveal the main concepts and subject that fall under the categories of strategic management, innovative strategies of enterprise development, innovation in the enterprise and promotion of innovation in the enterprise. The main task of scientific research in the field of strategic management and innovative development of the enterprise is to determine the subject and object of research. Potential ways for innovative business growth can be established by identifying and evaluating the main components of these categories. The relationship between a company's innovation progress and the elements that make up its intellectual capital is a key aspect

to establish. The purpose is to establish the fundamental principles of strategic management to promote innovative growth in business. The goal is to create a complex set of strategies for innovative development of the enterprise. This system will consider different directions of innovative development and their correlation with the components of the enterprise's intellectual capital.

The establishment of evaluation indicators and indicators of innovative development of the enterprise can be substantiated in different ways. The purpose is to create a mechanism of effective organizational and economic management that can contribute to the innovative development of the enterprise. The constant progress in the quality of the company can be attributed to the innovative developments it carries out.

Whether the innovation process is revolutionary or evolutionary depends on the direction that the company chooses, as well as on its effective innovation development strategy. For another thing, the level of the company's intellectual resources and human intellectual capital will also play a significant role in determining the outcome of this process [2].

When making economic decisions, in particular of a managerial nature, the choice of the direction of innovative development of industrial enterprises is a critical stage. To a wide extent, the process of determining the direction of innovative development of these enterprises can be compared with the development of an innovative development strategy [1].

Nowadays, in the process of evaluating the effectiveness of innovative strategies, importance is being increasingly attached to a value-based approach, namely, taking into account dynamic changes in the external environment to evaluate the outcomes of innovative solutions. The ability to change management decisions in order to optimize them has become one of the elements of modern management. Changing management decisions simultaneously affects the cost of innovative projects and requires their practical evaluation using modern methods. A key aspect in solving this task is the discounting of cash flows using metrics that evaluate the effectiveness of innovative solutions [6].

There are four main tasks in creating and implementing an innovation strategy.

The opening step involves answering the question: What innovations are we waiting for to create value for customers and for our company? This is an important question we need to ask ourselves in the capacity of a business. Our success as a company depends largely on our customers, and we must prioritize their satisfaction and loyalty. Without our customers, our company would not exist and we would not be able to provide our products or services. Therefore, it is important to recognize and appreciate the value of our customers and the role they play in the prosperity of our business.

The second task is to develop a comprehensive project strategy. Attribution of resources to different innovation categories is an important factor. Ultimately, the decision to allocate your resources, be it money, time or effort, is entirely up to you. You can determine where and how to invest your resources by yourself.

Strategy is the decisive point. It cannot be overlooked or devalued in any way. The third one is compromise solution management. This involves balancing each individual function. It is natural for a person to prioritize their own interests, but it is also possible that they are motivated by lofty ideals. Managers are able to make optimal decisions. The fourth one is facing senior management, consists in the recognition that innovative strategies should be developed [3; 7].

### Conclusions

The innovative strategy of the organization should be considered as a system of actions of the enterprise, aimed at achieving the long-term goals of its activity, further development, strengthening competitive positions, meeting the needs of consumers, ensuring

stable demand for products, through the use of complex considerations of the external and internal environment, influence, definition of strategic innovation purposes and indicators of development and formation on this basis of a system of directions of innovative development, types of market strategic behavior, distribution of innovative achievements, etc.

The process of forming an innovation strategy should begin with a clear understanding and agreement on specific goals related to assistance. The company gets a sustainable competitive advantage. This requires going beyond the generally accepted framework of the general characteristics of a strong innovation strategy. The following questions need to be answered: How does innovation create value for potential customers? How will the company distribute the value of the innovations that gave rise to them?

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## ANALYSIS OF COMPETITIVENESS OF INDUSTRIAL ENTERPRISES IN UKRAINE: CHALLENGES AND PROSPECTS

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**Key words:**

analysis of competitiveness,  
enterprise economy, environment,  
ecological monitoring,  
socio-economic marketing,  
innovative development strategy

The article examines the analysis of the competitiveness of industrial enterprises of Ukraine, which is a complex process and requires a comprehensive approach and consideration of many factors that can affect the economic situation in Ukraine and its enterprises. The impact on the environment and the improvement of the image of industrial enterprises are determined. It was analyzed that reducing the impact on the environment contributes not only to the improvement of the image of the enterprise, but also of the owner. A system of internal and external control of environmental monitoring and performance evaluation is defined, which allows for active feedback from stakeholders and ensures the effectiveness of environmental practices. Developed recommendations for improving the image of an industrial enterprise based on the concept of innovative socio-economic and environmental marketing, which include a creative approach to strategic changes and improve the perception of the enterprise by society, which ensures more active participation in the development of society. Innovative approaches in marketing strategy have been developed. The internal control and improvement of the image, which allows to contribute not only to the stable functioning of the enterprise, but also to its competitiveness on the market of metallurgical products in order to realize the strategic goals of the state, has been analyzed.

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## АНАЛІЗ КОНКУРЕНТОСПРОМОЖНОСТІ ПРОМИСЛОВИХ ПІДПРИЄМСТВ УКРАЇНИ: ПРОБЛЕМИ ТА ПЕРСПЕКТИВИ

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**Ключові слова:**

аналіз конкурентоспроможності,  
економіка підприємства,  
навколишнє середовище,  
екологічний моніторинг,  
соціально-економічний  
маркетинг,  
стратегія інноваційного  
розвитку

У статті розглянуто аналіз конкурентоспроможності промислових підприємств України, який є складним процесом та потребує комплексного підходу та врахування багатьох факторів, які можуть вплинути на економічну ситуацію в Україні та її підприємства. Визначено вплив на навколишнє середовище та покращення іміджу промислових підприємств. Проаналізовано що зниження впливу на навколишнє середовище сприяє не лише покращенню іміджу підприємства, а й власника. Визначена система внутрішнього а зовнішнього контролю екологічного моніторингу та оцінка результативності, яка дозволяє забезпечити активний зворотний зв'язок із зацікавленими сторонами та забезпечити ефективність екологічних практик. Розроблені рекомендації для покращення іміджу промислового підприємства на основі концепції інноваційного соціально-економічного та екологічного маркетингу які включати творчий підхід до стратегічних змін та покращувати сприйняття підприємства суспільством що забезпечує більш активну участь у розвитку суспільства. Розроблені інноваційні підходи в маркетинговій стратегії. Проаналізовано внутрішній контроль та покращення іміджу який дозволяє сприяти не тільки стабільному функціонуванню підприємства, а й його конкурентоспроможності на ринку металургійної продукції задля реалізації стратегічних цілей держави.

### Statement of the problem

Analyzing the competitiveness of industrial enterprises in Ukraine during the Russian invasion is a complex process that requires a comprehensive approach and consideration of multiple factors that can impact the economic situation in Ukraine and its businesses. For a long time, the competitiveness of major industrial companies in Ukraine was conditional due to the existence of agreements among major owners. Therefore, understanding the actual dynamics demands a deep grasp of the country's economic, social, and political context. Market overview and competitive environment entail evaluating market structure and competitive landscape, identifying the prospects of key players dominating the sector. By analyzing their positions, market share, as well as their competitive advantages (technological level, reputation, scale, etc.), one can assess the nature of competition. Evaluating their financial indicators such as turnover, profit, assets, and liabilities is also imperative. It's essential to analyze their ability to repay debts, overcome potential financial difficulties, and invest in innovation. Assessing the level of technological infrastructure, innovation capability, and adoption of new technologies by companies is crucial. Examining research and development conducted by companies, along with their patents and intellectual property, provides insights. Understanding the workforce potential of companies, examining management quality, the professionalism of employees, strategies for attracting and retaining talented and promising staff are equally important.

The risks of agreements among major owners always exist, so the analysis must also consider the possible consequences of such agreements for company competitiveness. Within the analysis, potential impacts on production processes, strategic decisions, and overall business resilience are explored, assessing the possibility of conflicts arising and the influence of these factors on the financial status and image of companies. In the modern economic context of Ukraine, it's necessary to account for the political and legal framework, specifically the impact of political and legal factors on company competitiveness. When analyzing business environment stability, the risks of legislative changes and potential impacts of political decisions on company operations are considered.

### Analysis of recent research and publications

He dealt with issues of comparative advantages that a specific enterprise has in relation to other enterprises that are competitors in the markets of goods and services P.L. Altukhov [1, p. 3]. A.E. Voronkova, G.I. Dibnis [2] studied the totality of the company's capabilities (production, innovation, personnel, resource) in various spheres of activity that interact with each other in a certain way. Study and analysis of literary sources by problem [3] allows to generalize terminological visions. Yes, a group of authors O.O. Getman, Dzh. L. Gibson, N.I. Gorbali, D. Kh. Donelli, D.M. Ivantsevich, V.I. Kramarenko, O.Ye. Kuzmin, V.M. Shapoval [4, p. 45] emphasize the market characteristics of the concept of enterprise competitiveness, i. e. define it in general as the ability to

gain a foothold and maintain a position in the relevant market. It is worth noting that such a position is quite narrow, as it considers only one aspect of the company's activity, which is not always related to its competitiveness, but can be formed due to the uniqueness or vital need for certain products.

### Objectives of the article

The purpose of the article is the theoretical and methodological justification and strategic assessment of the analysis of the level of innovative development of the competitiveness of industrial enterprises of Ukraine.

To achieve the goal, the main tasks were set and solved in the article:

- development and analysis of the national innovative model of competitiveness of industrial enterprises of Ukraine;
- improvement of the experimental base and assessment of the level of technological capacity of Ukrainian industrial enterprises, their ability to innovate and introduce new technologies;
- analysis of the influence of political and legal factors on the competitiveness of companies;
- conducting an analysis of the stability of the business environment, taking into account the risks of changes in legislation and the possible impact of political decisions on the activities of enterprises.

### The main material of the research

Successful competitiveness analysis requires gathering a substantial amount of information, utilizing various sources, and a meticulous approach to evaluating each aspect. To comprehend the current situation regarding event progress and their impacts on the competitiveness of Ukrainian enterprises in 2023, a general framework approach to analysis can be employed, which can prove beneficial.

The general structure of competitiveness is shown in fig. 1.

1. Economic Impact: Analyzing the economic impact on production, sales, profitability, and other indicators of enterprises will help determine their competitiveness.

2. External Markets: Partial losing the market could prompt Ukrainian companies to actively seek new markets and engage with partners from other countries. Analyzing the development of foreign trade and market diversification will help evaluate the ability of enterprises to adapt to new conditions.

3. Innovation and Technology: During a crisis, companies may focus on developing innovative products and technologies, expanding their existing product range. This could positively impact their long-term competitiveness.

4. Resource Provision: Access to resources (raw materials, energy) is vital for industrial enterprises. Losses in this direction can significantly affect their efficiency and competitiveness.

5. Risk Management: Analyzing potential risks and developing strategies for their management will help enterprises adapt to unforeseen circumstances and maintain competitiveness.



Fig. 1 – General structure of competitiveness

6. Government Support: Active government support can mitigate the negative impact of the crisis on enterprises, aiding in preserving jobs and the ability to produce goods and services.

7. Quality Management: Continuously improving product quality and ensuring its control within the existing production framework through organizational and technical solutions are integral to systematic enterprise development. The certification of production and finished products expands opportunities for sales, even in conditions of consistent quality, enabling access to new markets and enhancing competitiveness.

8. Customer Orientation: In-depth work with the customer base, studying to satisfy additional customer needs, and understanding specific product requirements are key tools for enhancing competitiveness amid market competition.

The situation is constantly changing, and current analysis requires access to fresh data and specialized research. To obtain specific information about the state of industrial enterprises in Ukraine in the context of the Russian invasion, it is advisable to refer to current sources or analytical agencies specializing in this matter [5].

Among the primary aspects of industrial competitiveness are financial stability, technological advancement, product quality, market access, and marketing strategies. Major challenges faced by Ukrainian enterprises include limited investment in research and development, underutilization of innovative technologies, low management efficiency, and underdeveloped marketing strategies.

Among the primary aspects of industrial competitiveness are financial stability, technological advancement, product quality, market access, and marketing strategies. Major challenges faced by Ukrainian enterprises include limited investment in research and development, underutilization of innovative technologies, low management efficiency, and underdeveloped marketing strategies. Therefore, it's crucial to delve more deeply into potential avenues for enhancing the competitiveness of Ukrainian industrial enterprises. Specifically, the necessity of adopting innovative technologies, improving product quality, attracting investments, and enhancing managerial efficiency should be thoroughly discussed. Additionally, exploring opportunities to access external markets and boosting the export potential of Ukrainian enterprises remains pertinent. *The main assumption of this study is that enhancing the competitiveness of industrial enterprises in Ukraine through innovation and customer orientation is*

a crucial task for achieving sustainable economic growth. To achieve this, let's explore comprehensive approaches that encompass financial support, innovative development, marketing strategies, and improved management [6].

To understand contemporary trends in this direction, let's provide a few specific examples of innovations in enhancing the competitiveness of industrial enterprises:

1. Implementation of New Production Technologies: Industrial enterprises can enhance their technological processes by implementing advanced technologies such as automation, robotics, Internet of Things (IoT), artificial intelligence (AI), etc. This can lead to reduced production costs, increased efficiency, and improved product quality.

2. Development of New Products and Services: Innovative industrial enterprises continuously work on developing new products or enhancing existing ones. This might involve creating new materials, energy-efficient technologies, products with high functionality, or improving service quality. New products and services can help enterprises enter new markets and boost competitiveness.

3. Innovative Marketing Strategies: Industrial enterprises can utilize innovative marketing strategies to promote their products and services. For instance, they can use digital marketing, social media, product personalization, brand management, and other strategies to attract customer attention, create a positive image, and increase sales.

4. Innovation Management and Collaboration with Startups: Industrial enterprises can actively collaborate with innovative startups to bring in new ideas and technologies. This might include establishing innovation labs, partnering with universities, or placing open orders for new solutions. Collaborating with startups allows industrial enterprises to quickly adapt to changes, implement new ideas, and create competitive advantages.

5. Creation of Innovation Ecosystem: Enterprises can contribute to the development of innovation ecosystems by collaborating with other companies, universities, research centers, and governmental bodies. This fosters knowledge exchange, resource sharing, and opportunities for joint innovation projects. Establishing an innovation ecosystem enhances the competitiveness of all participants and creates a favorable environment for innovative development.

These innovation examples demonstrate how industrial enterprises can introduce new ideas, technologies, and strategies to enhance their competitiveness. The key to success lies in continuous exploration and implementation

of innovations, adapting to market changes, and partnering with other participants in the innovation ecosystem.

Consider a real-world example of an industrial enterprise in Ukraine that utilizes innovation to enhance its competitiveness. Public Joint Stock Company “Turboatom” is one of the leading manufacturers and suppliers of power equipment in Ukraine. The company specializes in producing and modernizing steam turbines, generators, pumps, and other elements of power equipment [7].

To enhance its competitiveness, “Turboatom” actively employs innovative solutions. Here are a few examples:

1. Implementation of New Technologies: “Turboatom” continually improves its production processes by implementing cutting-edge technologies. For instance, the company uses computer modeling and simulation to enhance the efficiency and quality of its products. It also employs automation and quality control to ensure high precision and reliability of its products.

2. Development of New Products and Solutions: “Turboatom” constantly works on developing new products and solutions that align with modern energy industry trends. The company engages in research and development of energy-efficient technologies, such as utilizing waste heat recovery or implementing smart energy management systems.

3. International Collaboration: “Turboatom” establishes partnerships with foreign companies and research organizations for technology and innovation exchange. This allows the company to access advanced developments and knowledge, as well as expand its market reach.

4. Focus on Quality and Certification: “Turboatom” dedicates significant efforts to ensuring high product quality. The company holds quality certificates compliant with international standards like ISO 9001, affirming its adherence to quality and reliability requirements. These are just a few examples of innovations “Turboatom” employs to boost its competitiveness. This company showcases how integrating innovative approaches can help Ukrainian industrial enterprises develop and maintain competitive advantages on the global market.

Another giant, Metinvest, one of Ukraine’s largest industrial holdings, implements innovative solutions to enhance its competitiveness. Here are a few examples of such innovations:

1. Digital Technologies and Smart Manufacturing: Metinvest employs digital technologies like the Internet of Things (IoT), artificial intelligence (AI), and data analytics to optimize production processes and increase productivity. For example, they implement monitoring and predictive systems to manage equipment, reduce energy consumption, and improve product quality.

2. Innovative materials and products: Metinvest focuses on the development and production of innovative materials and products that meet market requirements. For example, they develop high-strength steel alloys for special applications, environmentally friendly materials and products with coatings that provide durability and performance. At the “Zaporizhstal” and “Kamet-Stal” enterprises, new assortment lines of products are systematically being developed to compensate for the capacities lost in the eastern

territories, in particular commodity slabs for consumers in Europe (including the holding’s own European assets), the production of rolled products at the capacities of PJSC “Zaporizhstal” from ingots of alloyed and high-alloyed steel, smelting and casting of which was carried out at the “Kamet-Stali” industrial site.

Currently, PJSC “Zaporizhstal”, in addition to the certificate of compliance with international quality management standards ISO 9001, is also certified for product compliance with European standards EN10025-1:2004 and EN10130:2006, which confirms the high quality of products and provides the opportunity to sell them on the markets of Europe and other regions of the world.

3. Energy efficiency and environmental sustainability: Metinvest actively improves the energy efficiency of its production processes and directs efforts to reduce the negative impact on the environment. They use energy-efficient technologies, renewable energy and optimize the use of resources, which allows to reduce emissions of harmful substances and ensure environmental sustainability.

The experience of PJSC “Zaporizhstal” in the implementation of environmental protection projects has repeatedly been recognized as one of the most successful in the Ukrainian industry. Since 2012, the plant has directed about 15 billion hryvnias to the ecological transformation of production, and continues to invest. In 2008, the plant was certified for compliance with international standards of environmental and energy management, quality management, as well as occupational health and safety management. According to the results of the audits, PJSC “Zaporizhstal” was certified for compliance with the standards ISO 14001:2015, ISO 19001:2015, ISO 45001:2018 and OHSAS18001.

4. Innovative Research and Development: Metinvest invests in scientific research and the development of new technologies. They collaborate with research institutions, universities, and research centers to implement innovative solutions and stay at the forefront of their industry.

5. Social Responsibility and Management: Metinvest emphasizes social responsibility and management. They implement community support programs, environmental initiatives, and socio-economic projects to contribute to sustainable development in the regions where they operate. These examples illustrate how both “Turboatom” and Metinvest use innovation to enhance their competitiveness, improve efficiency, and address industry challenges.

6. Customer Orientation: With the aim of organizing interaction between the Sales Directorate, the Technology Directorate, and technical support and production departments of Metinvest’s product development, a special procedure for managing the customer base has been developed. Specifically, among the entire array of clients, the identification of Key Clients has been regulated. These clients have significant preferences in key matters related to product quality, implementation of additional requirements, and technical support organization. Such a work arrangement allows for the maximum concentration of efforts in the interaction between the manufacturer and the significant consumer of the product, minimizing the time required to make decisions regarding necessary



changes to the technological process for maximum customer satisfaction [8].

These innovative solutions by Metinvest demonstrate how the holding implements cutting-edge technologies, creates new products, and focuses on sustainable development to enhance its competitiveness in the market.

In general, this study demonstrates the importance of implementing socio-ecological and innovative practices in the marketing strategy of metallurgical industry enterprises and recognizes the significance of corporate social responsibility for improving the enterprise's condition and reducing risks. The final points elucidate additional aspects related to the development and improvement of PJSC "Zaporizhstal" activities based on the concept of socio-economic and environmental marketing.

### Conclusions

In conclusion, this study should focus on several key points:

1. Impact of Socio-Ecological and Innovative Implementation on Enterprise Development: The author's analysis indicates that the dynamics of socio-ecological and innovative practices directly influence the development of the enterprise's economic status and profitability. As seen in the experience of large companies, there is a need to expand basic marketing through new tools to cater to the specific market segments' and society's needs.

2. Concept of Socially Ethical Marketing: The author has identified the main components of this concept and the peculiarities of its application in the metallurgical industry. It is also noted that socio-ecological and innovative marketing is an integral part of modern enterprise activities.

3. Impact of Marketing Environment on Social Responsibility: The influence of marketing environmental

factors on the opportunities for implementing corporate social responsibility was researched. This analysis proved that corporate social responsibility policies, particularly in areas of ecology, safe working conditions, philanthropy, and cooperation with local communities, can help enhance the enterprise's status and mitigate the negative impact of external factors such as political and economic instability.

4. Impact on the Environment and Image Enhancement: Reducing the impact on the environment contributes not only to the improvement of the company's image but also to that of the owner. This enables the company to operate steadily in an industrial region where the company's activities have always had a significant impact on the environment.

5. Internal Control System and Performance Evaluation: The process of enhancing the internal control system, which includes evaluating the outcomes of decisions made through the implementation of internal and external control practices. Implementing an ecological monitoring system allows for active feedback with stakeholders and ensures the effectiveness of environmental practices.

6. Recommendations for Image Enhancement: Recommendations for improving the image of PJSC "Zaporizhstal" based on the concept of innovative socio-economic and ecological marketing may include a creative approach to strategic changes that enhance the perception of the company by society and facilitate more active participation in societal development

In conclusion, this study demonstrates that the development and implementation of innovative approaches in marketing strategy, internal control, and image enhancement can contribute not only to the stable functioning of the enterprise but also to its competitiveness in the metallurgical product market.

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## WAYS TO ELIMINATE THE ONSET OF BANKRUPTCY AT THE ENTERPRISE OF “SILPO-FOOD” LTD

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### Key words:

bankruptcy, crisis,  
ways to eliminate, analysis,  
management, marketing

The article studies the concept of “bankruptcy” and provides the author’s own definition of this economic concept. The author analyzes the number of Ukrainian enterprises in 2014–2023, including Silpo-Food LLC, identifies the main areas of activity, the number of supermarkets in 2019–2022, the company’s response to military operations in Ukraine, and analyzes the dynamics of profit at the enterprise. According to the profit analysis, the expediency of assessing the probability of bankruptcy based on discriminant analysis was determined. A comparative analysis of the Altman, Matviychuk, Tereshchenko, and Taffler models was carried out and the probability of bankruptcy at the enterprise Silpo-Food LLC was estimated on their basis. The article also identifies the strengths and weaknesses of the enterprise, as well as the problems and threats it faces. The author suggests ways to prevent bankruptcy, including opening a cafe at a supermarket, cooperation with more Ukrainian farmers, implementation of an environmental initiative in supermarkets, and discounts for long waiting times at the checkout.

## ШЛЯХИ УСУНЕННЯ НАСТАННЯ БАНКРУТСТВА НА ПІДПРИЄМСТВІ ТОВ «СІЛЬПО-ФУД»

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### Ключові слова:

банкрутство, криза,  
шляхи усунення, аналіз,  
менеджмент, маркетинг

У статті досліджено поняття «банкрутство» та надано власне визначення даної економічного поняття. Було проаналізовано кількість українських підприємств за 2014–2023 рр., ТОВ «Сільпо-Фуд», визначено основні напрямки діяльності, кількість супермаркетів протягом 2019–2022 рр., реакцію підприємства на військові дії в Україні, проаналізовано динаміку прибутку на підприємстві. Згідно аналізу прибутку було визначено доцільність оцінки ймовірності банкрутства на основі дискримінантного аналізу. Було зроблено порівняльний аналіз моделей Альтмана, Матвійчука, Терещенка і Тафлера та здійснено на основі них оцінки ймовірності банкрутства на підприємстві ТОВ «Сільпо-Фуд». Також було визначено сильні та слабкі сторони підприємства, а також проблеми та загрози з якими воно стикається. Запропоновано шляхи попередження настання банкрутства, серед яких відкриття кафе при супермаркеті, співпраця з більшою кількістю українських фермерів, впровадження екологічної ініціативи в супермаркетах та знижки при довгому очікуванні на касі.

### Problem statement

Ukrainian enterprises are currently developing quite actively and trying to establish their work on a par with European enterprises in order to attract more investment and expand their work not only within Ukraine but also abroad.

However, in 2022, a large number of businesses failed to withstand the crisis caused by Russia’s invasion of Ukraine and were permanently closed. Businesses that continue to

operate are trying to adapt to the current environment and avoid being in crisis.

Therefore, the development of ways to prevent bankruptcy at an enterprise is quite relevant in today’s environment.

### Recent research and publications analysis

Over the past two centuries, a large number of scholars have studied the concept of “bankruptcy”, among them are T.A. Babayeva [2], S.V. Breus [2], S.M. Horska [3],

D.O. Horska [3], M.P. Khokhlov [4], M.V. Podymailo [4], V.I. Rudyka [5], Y.M. Velykyi [5], O.D. Zioma [5], A.V. Cherep [6; 7], V.Z. Buhai [6; 7], A.V. Horbunova [6; 7] who have formed their own approaches to the definition and reflected it in their own scientific works.

In order to determine the probability of bankruptcy, in the 20th century, the scientist Edward Altman developed an approach based on integral indicators that allowed to assess the state of the enterprise. Among the Ukrainian scientists who developed similar models are M. Matviychuk and O. Tereshchenko.

**The purpose of the article**

The article is aimed at developing ways to eliminate the onset of bankruptcy at the enterprise “Silpo-Food” LLC.

**Presentation of the main material**

In Ukraine, the number of enterprises that have been liquidated or are on the verge of bankruptcy is growing rapidly due to the unstable political and economic situation. Therefore, it is important for each company to identify the indicators of a crisis at the enterprise in time and avoid bankruptcy.

There are many different approaches to the definition of “bankruptcy” (table 1).

Analyzing the definitions from Table 1, we can conclude that bankruptcy is a state of an enterprise in which the debtor cannot fulfill its financial obligations to creditors and overcome financial difficulties arising from a deep financial crisis, except through liquidation procedures.

Ukrainian enterprises are currently operating in an uncertain and unstable economic environment, the coronavirus crisis and Russia’s military aggression against Ukraine have led to the closure of enterprises and the emergence of a crisis in most of them (fig. 1).

Analyzing Figure 1, it should be noted that the number of Ukrainian enterprises during the study period was the highest in 2015 and amounted to 1974318, but the lowest was in 2022, which was caused by Russia’s military aggression against Ukraine, many enterprises were destroyed, occupied or closed because the owners left the country. In 2023, the number of businesses increased, but only slightly.

Therefore, assessing the likelihood of bankruptcy and making timely decisions to eliminate this situation is quite

Table – 1 Approaches to the definition of “bankruptcy”

Author	Definition
Code of Ukraine on Bankruptcy Procedures	The inability of the debtor to restore its solvency through the rehabilitation and restructuring procedure and to repay the monetary claims of creditors established in accordance with the procedure established by this Code other than through the application of the liquidation procedure or the procedure for repayment of debts of the debtor, recognized by the economic court
Khokhlov M.P., Podymailo M.V.	bankruptcy is the inability of the debtor to restore its solvency and repay the established monetary claims of creditors
Rudyka V.I., Velykyi Y.M., Zioma O.D.	Bankruptcy is the absolute insolvency of the debtor, which is the result of a deep financial crisis, as a result of which the company cannot satisfy the claims of its creditors
Breus S.V., Babaeva T.A.	Bankruptcy is a process in which an individual or an organization unable to pay its creditors, by a court decision, the debtor's property is distributed among creditors in accordance with the statutory order of payment of debts to creditors, such as taxes and wages to employees of the bankrupt organization
Gorska S.M., Gorska D.O.	bankruptcy is a crisis financial condition of an enterprise in which it has no liquid assets to pay off its obligations to creditors and the budget, is unable to restore its solvency through rehabilitation and restructuring procedures, or to pay off creditors' monetary claims other than through the use of liquidation procedures

Source: compiled by the author on the basis of [1–5]

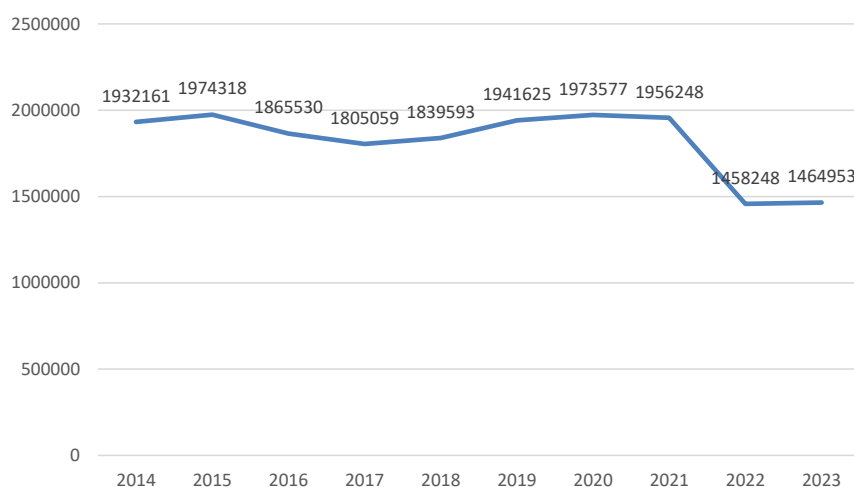


Fig. 1 – Number of enterprises in Ukraine in 2014–2023.

Source: compiled by the author based on [8]

important for each enterprise, in this paper we will consider various methods of assessing the likelihood of bankruptcy, including innovative methods, using the example of Silpo-Food LLC.

Silpo-Food LLC is one of the largest food supermarket chains in Ukraine, which is the flagship business of Fozzy group. The first store was opened in 1998, and today more than 300 stores operate throughout the country. The Company is controlled by PJSC “Retail Capital” Closed Non-Diversified Venture Corporate Investment Fund.

The Group’s principal activity is 47.11 wholesale and retail trade in non-specialized stores mainly in food, beverages and tobacco products, in addition, the company is engaged in its own production of products: bakery products, confectionery, smoked meat and fish, etc [9].

Analyzing fig. 2, in 2017–2022, the number of supermarkets increased from 235 to 333 and the total retail space from 339.8 to 484.2. In 2022, the number of supermarkets decreased by 28, and the total retail space decreased by 56.2, due to Russia’s military aggression against Ukraine.

The chain also includes 4 LE SILPO delicatessens with a premium range of food and non-food products and 4 OffTop stores specializing in non-food products. A total of 81 supermarkets were closed during the hostilities, of which 49 have been reopened as of early 2023.

Due to a significant decrease in the number of enterprises, Silpo-Food LLC loses a significant part of its income, so it is advisable to analyze the dynamics of changes in the company’s profit during 2019–2022.

Analyzing the dynamics of profits according to fig. 3, the company made a profit in 2019, after which the

company made a loss for 3 years, although in 2021 the company significantly reduced the amount of loss, 2022 turned out to be quite difficult for the company, which led to a significant loss of UAH 7366923 million.

Therefore, it is advisable to estimate the probability of bankruptcy of Silpo-Food LLC using the Altman, Tereshchenko, Matviychuk, and Taffler models.

The Altman and Taffler models are foreign models that were created based on the experience of foreign enterprises in the last century. The Tereshchenko and Matviychuk models are Ukrainian models that were developed specifically for Ukrainian enterprises, but the Matviychuk model was developed more with a focus on banking enterprises.

Analyzing table 2, it is worth noting that the Tereshchenko model is the most suitable for assessing the probability of bankruptcy of Silpo-Food LLC, as it was based on international practice and took into account the specifics of Ukrainian enterprises. However, other models are also quite accurate and convenient, so all four models should be considered for a more accurate assessment of the probability of bankruptcy.

Based on the values of the integral indicator, it can be concluded that the probability of bankruptcy of an enterprise is low throughout the entire period under study. Thus, according to the analysis, the company has a low probability of bankruptcy in 2019–2022.

According to table 4, in 2019–2022, the company was not threatened with bankruptcy, but in 2022, the financial balance of the company is disturbed, which may be due to the unstable economic situation caused by the Russian invasion of Ukraine.

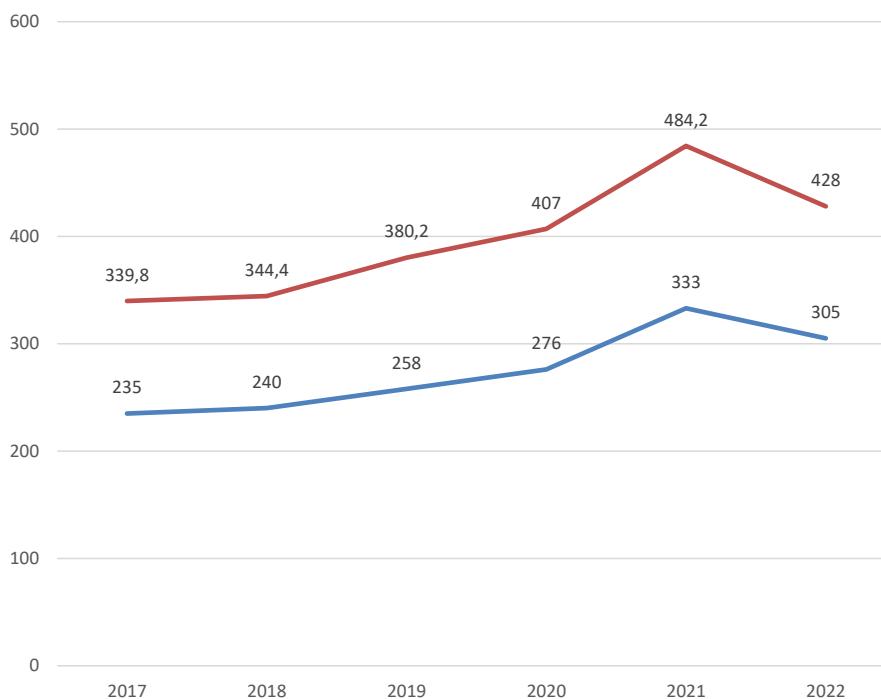


Fig. 2 – Number of supermarkets of Silpo-Food LLC in 2017–2022.

Source: compiled by the author based on [9]

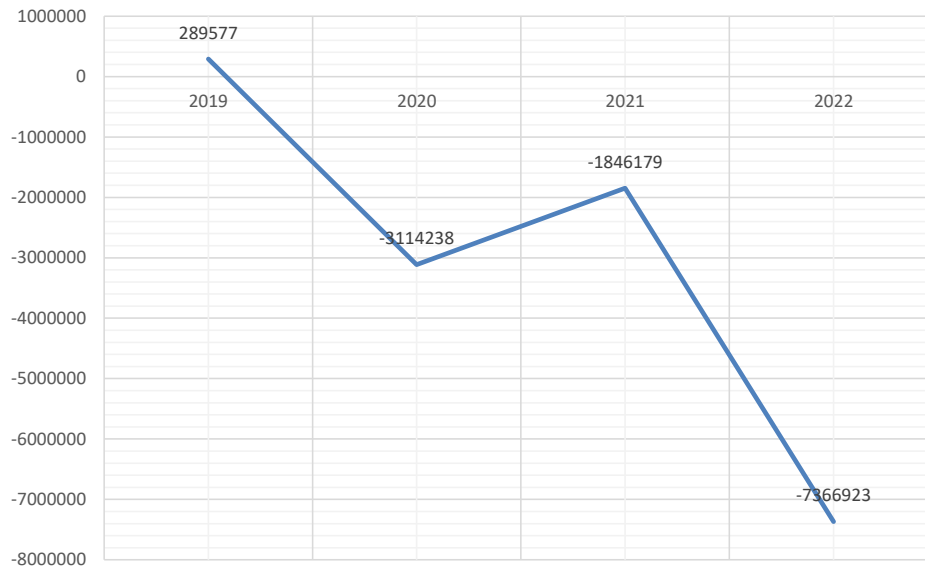


Fig. 3 – Profit dynamics of Silpo-Food LLC in 2019–2022.

Source: compiled on the basis of Annex B

Table 2 – Comparative characteristics of bankruptcy probability models

Model	Calculation formula	Advantages	Disadvantages
The five-factor model of E. Altman	$1,2X_1+1,4X_2+3,3X_3+0,6X_4+0,999X_5$ , where $X_1$ is the ratio of equity working capital to total assets; $X_2$ is the ratio of retained earnings to total assets; $X_3$ is the ratio of earnings before interest to total assets; $X_4$ is the ratio of equity to liabilities; $X_5$ is the ratio of net income to total assets.	simplicity of calculations; accuracy and quality of results; availability of source data; forecasting accuracy of 95%	The Western economy is different from the Ukrainian one. The model's bias
Tereshchenko O.	$1,5X_1+0,08X_2+10X_3+5X_4+0,3X_5+0,1X_6$ , where $X_1$ is the ratio of cash receipts to liabilities; $X_2$ is the ratio of the balance sheet currency to liabilities; $X_3$ is the ratio of net profit to average annual assets; $X_4$ is the ratio of profit to revenue; $X_5$ is the ratio of inventory to revenue; $x_6$ is the ratio of revenue to fixed assets.	convenience; when using domestic statistical data, modern international practice is taken into account; consideration of the company's industry specifics	requires additional analysis of financial stability indicators
Taffler R.	$0,53X_1+0,13X_2+0,18X_3+0,16X_4$ , where $X_1$ – operating profit/total assets; $X_2$ – current assets/total assets; $X_3$ – short-term liabilities/total assets; $X_4$ – net income (revenue) from sales/total assets.	Simplified calculations and high accuracy of bankruptcy probability forecasting.	Designed for joint-stock companies whose shares are actively traded on the stock market
A. Matviychuk	$0,033X_1+0,268X_2+0,045X_3-0,018X_4-0,004X_5-0,015X_6+0,702X_7$ , where $X_1$ – current assets / non-current assets; $X_2$ – net sales revenue / current liabilities; $X_3$ – net sales revenue / equity; $X_4$ – balance sheet / net sales revenue; $X_5$ – (current assets - current liabilities) / current assets; $X_6$ – amount of liabilities / balance sheet; $X_7$ – equity / amount of liabilities.	Based on the factors influencing the financial condition of Ukrainian bankrupt companies	A situation of low values of some indicators and high values of others compared to the normative values

Source: compiled on the basis of [10- 13]

Table 3 – Analysis of the probability of bankruptcy of the enterprise according to the five-factor model of E. Altman for 2019–2022

Indicators	Formula for calculation	2019	2020	2021	2022
$X_1$	$(\phi.1,p.1195-p.1695)/\phi.1 ,p.1300$	-0.13	-0.14	-0.34	-0.46
$X_2$	$\phi.2 p 2350(2355)/\phi.1 ,p.1300$	0.01	-0.10	-0.05	-0.22
$X_3$	$\phi.2 p 2290(2295)/\phi.1 ,p.1300$	0.01	-0.10	0.05	0.22
$X_4$	$\phi.1 p 1495/(\phi.1 ,p.1595+ p.1695)$	0.07	-0.04	-0.07	-0.23
$X_5$	$\phi.2 p 2000/\phi.1 ,p.1300$	2.18	2.06	1.88	2.06
Z (integral indicator of the level of bankruptcy threat)	$1,2X_1+1,4X_2+3,3X_3+0,6X_4+0,999X_5$	2.10	1.38	1.53	1.78
Probability of bankruptcy		High	High	High	High

Source: compiled based on [9]

Table 4 – Analysis of the probability of enterprise bankruptcy according to Tereshchenko's model for 2019–2022

	Calculation method	2019	2020	2021	2022
x1	p.2000(φ.2)/p.1695(φ.1)	3.52	3.27	2.59	2.59
x2	p.1900(φ.1)/p.1695(φ.1)	1.62	1.59	1.38	1.25
x3	p.2350(φ.2)/p.1900(φ.1)	0.01	-0.10	-0.05	-0.22
x4	p.2350(φ.2)/p.2000(φ.2)	0.00	-0.05	-0.03	-0.11
x5	p.1100(φ.1)/p.2000(φ.2)	0.08	0.09	0.09	0.09
x6	p.2000(φ.2)/p.1900(φ.1)	2.18	2.06	1.88	2.06
Z (integral indicator of the level of bankruptcy threat)	1,5X1+0,08X2+10X3+5X4+0,3X5+0,1X6	5.77	3.99	3.61	1.52
Probability of bankruptcy		No threat of bankruptcy	No threat of bankruptcy	No threat of bankruptcy	financial the equilibrium is disturbed, in case of transition to crisis management management, bankruptcy is not threatened

Source: compiled on the basis of [9]

The integral indicator of the Taffler model indicates a low probability of enterprise bankruptcy over the past four years.

According to Table 6, which examines the probability of bankruptcy of Silpo-Food LLC, the company had a satisfactory financial condition only in 2019, after which there was a threat of a financial crisis.

Therefore, using different models for assessing the probability of bankruptcy, we can conclude that the probability of bankruptcy at Silpo-Food LLC, according to the Matviychuk and Altman models, is high, but the Taffler and Tereshchenko models indicate that bankruptcy was not threatened during 2019–2021, but in 2022 there was a possibility of bankruptcy.

In order to avoid a crisis at Silpo-Food LLC, it is advisable to improve its anti-crisis strategy.

Since the company is not currently in a crisis, it is necessary to use such tools as monitoring; diagnostics; early detection and response system; discriminant analysis, expert evaluation, SWOT analysis; forecasting and strategic planning to prevent it.

The results of the discriminant analysis are presented above, and in this paper, in order to identify weaknesses and threats to Silpo-Food LLC, we conducted a SWOT analysis (table 7).

According to table 7, Silpo-Food LLC has a great potential for growth and expansion in the market due to the

constant increase in consumer demand, the development of the online segment, and the conclusion of strategic partnerships. However, it also faces a large number of competitors and other external threats. The company's internal environment has its advantages, such as a well-known brand, an extensive network of stores, and high quality products. However, the presence of a loss at the enterprise can lead the company to a crisis.

According to table 7, Silpo-Food LLC needs to develop a strategy that can respond to unforeseen situations. One of such unforeseen situations was a blackout caused by the shelling of Ukrainian critical infrastructure by Russian troops, when the company's management decided to urgently purchase generators, and to increase profits, the store shelves were stocked with relevant goods, such as candles, flashlights, matches, burners, etc. Therefore, the introduction of risk management helped to ensure the reliable operation of the company during times of crisis.

Also, to increase profitability, the company should expand the range of Ukrainian craft products. The company already has several collaborations with Ukrainian farmers, but we believe it should be expanded to include Ukrainian fruits and vegetables, craft cheeses, fish from Ukrainian ponds and microgreens on the supermarket shelves.

Silpo-Food LLC is quite an innovative company; for several years now, supermarkets have been operating cash registers and opening themed supermarkets, but to increase

Table 5 – Analysis of the probability of enterprise bankruptcy according to the Taffler model for 2019–2022

	Calculation method	2019	2020	2021	2022
x1(working capital/total assets)	p.2190/p.1695	0.09	0.01	0.01	0.04
x2(operating profit/total assets)	p.1195/(p.1595+p.1695)	0.52	0.47	0.36	0.26
x3(retained earnings/total assets)	p.1695/p.1900	0.62	0.63	0.73	0.80
x4(equity/debt)	p.2000/(p.1300)	2.18	2.06	1.88	2.06
Z (integral indicator of the level of bankruptcy threat)	0,53X1+0,13X2+0,18X3+0,16X4	0.58	0.51	0.49	0.53
Probability of bankruptcy		The probability of bankruptcy is low	The probability of bankruptcy is low	The probability of bankruptcy is low	The probability of bankruptcy is low

Source: compiled based on [9]

Table 6 – Analysis of the probability of enterprise bankruptcy according to the model of A. Matviychuk (2005) for 2019–2022

	Calculation method	2019	2020	2021	2022
x1	(current assets/non-current assets)	0.95	0.96	0.63	0.51
x2	(net sales revenue/current liabilities)	3.52	3.27	2.59	2.59
x3	(net sales revenue/equity)	34.60	-56.34	-23.81	-6.71
x4	(balance sheet/net sales revenue)	0.46	0.48	0.53	0.48
x5	((current assets-current liabilities)/current assets)	-0.27	-0.29	-0.87	-1.36
x6	((long-term liabilities + current liabilities)/balance sheet)	0.94	1.04	1.08	1.31
x7	(equity / (provision for future expenses and payments + long-term liabilities + current liabilities))	0.07	-0.04	-0.07	-0.23
Z (integral indicator of the level of bankruptcy threat)	$0,033X1+0,268X2+0,045X3-0,018X4-0,004X5-0,015X6+0,702X7$	2.84	-1.39	-0.24	0.37
Probability of bankruptcy		satisfactory financial condition and low probability of bankruptcy	the threat of a financial crisis	the threat of a financial crisis	the threat of a financial crisis

Source: compiled on the basis of [9]

Table 7 – SWOT analysis of “Silpo-Food” LLC

Strengths	Weaknesses
1. A well-known trademark 2. An extensive network of stores covering most regions of the country 3. Large assortment of goods 4. Innovative approach to creating new supermarkets 5. Production of own products	1. The presence of a loss at the enterprise
Opportunities	Threats
1. Expansion of the supermarket chain in Ukraine and abroad	1. Unstable political situation in Ukraine 2. Increased competition in the market from domestic companies 3. Deterioration in the solvency of the population 4. Disruption of logistics routes

Source: compiled on the basis of [9]

the amount of time a customer spends in a supermarket, supermarkets located near large business centers or large crowds of people, such as tourist destinations, should open coffee shops or bistros where they can drink coffee or tea and taste their own products.

In addition, you can learn from the experience of attracting customers and increasing competitiveness from European companies. The Swedish company Ikea, in 2020, introduced a rather interesting marketing strategy, since most supermarkets are located outside the city and take a long time to get to them, customers were offered to pay in their own time, the price of goods is indicated on the price tags in dollars and time, this initiative attracted customers. It is not relevant enough for Silpo-Food LLC to use this idea, but it is possible to partially adopt this experience and introduce a system of discounts for long waits at the checkout, for example, if a customer waited more than 10 minutes to pay for goods, his or her check is reduced by 5%. Silpo-Food LLC is quite active in supporting environmental initiatives, which also increases interest among consumers. Thus, one of the ways to increase the

company's competitiveness may be to install plastic bottle deposit machines, an environmental initiative that works quite well in Germany, where customers receive a receipt for the purchase of goods in this particular supermarket after handing in their plastic.

### Conclusions

In summary, we can conclude that bankruptcy is a state of affairs of an enterprise in which the debtor cannot fulfill its financial obligations to creditors and overcome financial difficulties arising from the deep financial crisis except through liquidation procedures.

Quite a number of Ukrainian enterprises went bankrupt and were forced to close down, which was caused by a large number of factors. In this paper, we have analyzed the work of Silpo-Food LLC in the context of uncertainty in the Ukrainian economy. At the moment, the company is operating at a loss, which may precede the company's future bankruptcy. Evaluating various bankruptcy models, we concluded that in 2022 the company was likely to go bankrupt. Also, having analyzed the SWOT analysis of the

company, it should be noted that the company has certain threats in its activities, including high competitiveness, disruption of logistics routes and deterioration of the company's solvency. Therefore, in order to avoid the enterprise, it should add cheaper, but at the same time high-quality products to the assortment, so that less protected consumers can make purchases from Silpo-Food LLC, and should also sign cooperation with local farmers who could deliver products to supermarkets located near them.

In addition, we proposed to open a cafe at the supermarket and make a discount for long waiting times at the checkout, as such marketing strategies are quite active abroad, so we believe that Ukrainian consumers will also be interested.

In general, Silpo-Food is a fairly innovative supermarket, with several of its stores ranked among the top 20 supermarkets in Europe, so if it continues to grow and focuses on customer satisfaction, the likelihood of bankruptcy will be quite low.

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# ECONOMIC AND MATHEMATICAL MODELING AND INFORMATION TECHNOLOGIES IN ECONOMICS

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## METHODS OF ASSESSING THE LEVEL OF APPLICATION OF INTELLECTUAL TECHNOLOGIES IN THE COUNTRY'S ECONOMY

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**Key words:**economic growth,  
intelligent technologies,  
technological innovations

The article systematizes methods for assessing the level of application of intelligent technologies in the country's economy, which is an important task that allows determining the degree of use of innovative solutions in the business sphere and increasing the country's competitiveness in the global world. The classification of indicators for the assessment of intellectual potential has been carried out. Various evaluation methods are considered, including analysis of economic indicators, surveys of business and population, measurement of the relative importance of markets and the amount of investments in the development of intelligent technologies. International ratings that evaluate human capital have been determined. The basic levels of assessment of intellectual potential are considered. The positive aspects of the application of intelligent technologies in the creation of new markets and business models, which are able to ensure the growth of the economy and the development of society as a whole, have been established. The main purposes and tasks of intelligent technologies are defined, which is characterized by understanding the state of the economy and determining the strategy of its development. Scientific works on the assessment of the level of application of artificial intelligence (AI) and machine learning (ML) in the economy and the use of methods for measuring the impact of AI and ML on productivity, reducing costs and improving the quality of work in business have been studied. It is emphasized that the assessment of the level of application of intelligent technologies in the country's economy is a complex process that requires the involvement of a large amount of various data and its analysis using modern methods of information technology, however, with a thorough assessment, it allows to identify the weak points of the economy and provide recommendations for their improvements, which helps increase the efficiency of the intelligent technologies and ensures the economic growth of the country, reducing costs and improving the quality of business operations.

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## МЕТОДИ ОЦІНКИ РІВНЯ ЗАСТОСУВАННЯ ІНТЕЛЕКТУАЛЬНИХ ТЕХНОЛОГІЙ В ЕКОНОМІЦІ КРАЇНИ

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інтелектуальні технології,  
технологічні інновації

У статті проводиться систематизація методів оцінки рівня застосування інтелектуальних технологій в економіці країни, що є важливою задачею, яка дозволяє визначити ступінь використання інноваційних рішень у сфері бізнесу та підвищення конкурентоспроможності країни в глобальному світі. Проведено класифікацію індикаторів для оцінки інтелектуального потенціалу. Розглянуто різні методи оцінки, зокрема аналіз економічних показників, опитування бізнесу та населення, вимірювання відносної вагомості ринків та кількості інвестицій у розвиток інтелектуальних технологій. Визначено міжнародні рейтинги, які проводять оцінку людського капіталу. Розглянуто

базові рівні оцінки інтелектуального потенціалу. Встановлено позитивні аспекти застосування інтелектуальних технологій у створенні нових ринків та бізнес-моделей, які здатні забезпечувати зростання економіки та розвиток суспільства в цілому. Визначено основні призначення та завдання інтелектуальних технологій, що характеризується розуміння стану економіки та визначення стратегії її розвитку. Досліджено наукові праці з оцінки рівня застосування штучного інтелекту (AI) та машинного навчання (ML) в економіці та використання методів вимірювання впливу AI та ML на продуктивність, зменшення витрат та покращення якості роботи в бізнесі. Наголошено, що оцінка рівня застосування інтелектуальних технологій в економіці країни є складним процесом, який вимагає залучення великої кількості різноманітних даних та їх аналізу з використанням сучасних методів інформаційних технологій, проте, при ретельній оцінці дозволяє визначити слабкі місця економіки та надавати рекомендації щодо їх подолання, що допомагає підвищувати ефективність використання інтелектуальних технологій та забезпечує економічне зростання країни.

### Formulation of the problem

Current events constantly create challenges for the economic stability of the vast majority of countries in the world. The crisis that arose during the COVID-19 pandemic was greatly exacerbated by the full-scale Russian invasion. The result was a reduction in production, a decrease in income, austerity and a slowdown in development. In this state, entire industries become uncompetitive. One of the key solutions, which aims to help quickly adjust and make quality decisions during a rapid change in the market situation, is the introduction and application of intelligent technologies, which determines their special role. Increasing the level of application of intelligent technologies leads to rapid optimization of production processes, improvement of product quality and reduction of production costs.

### Analysis of recent research and publications

Methods of assessing the level of application of intellectual technologies in the country's economy are a topical problem for many scientific studies. For example, economists are investigating the impact of the use of intelligent technologies on increasing labor productivity and increasing economic growth. Computer science and artificial intelligence explore the development of new machine learning algorithms and other methods of applying intelligent technologies. Sociological research studies the attitude of the population to intellectual technologies and their use in the economy.

Methods of assessing the level of application of intellectual technologies in the country's economy are of practical importance for enterprises, state structures and public organizations. The results of the study will allow to determine the most effective methods of using intelligent technologies in various fields.

In recent years, several studies have been conducted on the problem of assessing the level of application of intelligent technologies in the country's economy. For example, Bartos Wachnyk in his article "Analysis of the use of artificial intelligence in the management of Industry 4.0 projects" describes the methodology of analyzing the use of artificial intelligence in the projects of Polish enterprises and determines the factors affecting the level of application of artificial intelligence [1].

In the article by Stefania Albanesi, Antonio Diaz da Silva and others "Artificial Intelligence and Jobs: Evidence from Europe", the authors examine the relationship between AI adoption and employment rates in European Union countries using panel data. The authors concluded that occupations potentially more prone to AI-enabled technologies have increased their share of employment, which undoubtedly has an impact on social and economic development [2].

In the article by Bernd Karsten Stahl, Josephine Antoniou and others "Systematic Review of Assessments of the Impact of Artificial Intelligence", the authors describe the methodology and conduct a review of assessments of the impact of the application of artificial intelligence on the development of society, and also describe the basic process of implementing artificial intelligence technologies, which can be used by regulators and external observers as a critical criterion for evaluating the approaches of the organization of intelligent technologies [3].

So, the latest studies confirm the importance of assessing the level of application of intelligent technologies in the country's economy for the development of business and the economy as a whole. In addition, methods for assessing the level of AI application have been developed, which allow taking into account various aspects of the development of intelligent technologies, such as economic impact, social consequences and impact on business processes. The multi-criteria approach, which allows taking into account various aspects of the development of intelligent technologies, has become very popular in research in recent years.

In general, the assessment of the level of application of intelligent technologies in the country's economy is becoming an increasingly relevant topic in connection with the growing influence of intelligent technologies on business and social development. The development of methods for assessing the level of application of intelligent technologies is an important task for business entities and government bodies to understand how intelligent technologies can help improve business efficiency and contribute to the social development of the country.

### Formulation of the goals of the article

The purpose of this article is to analyze the methods of assessing the level of application of intelligent technologies

in the country's economy and to determine their advantages and disadvantages.

### Presenting main findings

Modern society has entered a new stage of economic development, in which information and knowledge play one of the main roles. Much attention in business is paid to the intellectual component. In Ukraine, one of the priority areas of development is the formation of the innovative character of the national economy. More and more scientists and experts consider the efficiency of using intellectual potential to be the key success factors of this process.

In modern day-to-day life, systems with artificial intelligence have gone far beyond the scope of laboratory use, which has significantly influenced human world perception, creating the latest everyday use of systems with artificial intelligence (or part of it) significantly transforms modern day-to-day life and forms a special type of worldview. Naturally, this led to the development of intelligent information systems (IIS), which is the next stage in the development of such systems.

An intellectual information system (IIS) is an information system that is based on the concept of using a knowledge base to generate algorithms for solving economic problems of various classes, depending on the specific information needs of users. [4]

Every day, the range of application of intelligent technologies is constantly growing due to the increase in the amount of knowledge and the creation of new concepts about artificial intelligence. Based on the understanding of the structure of intellectual potential and the forms of its realization through different types of capital, the following classification of indicators for the assessment of intellectual potential is proposed:

- Human potential (HP). The main parameters for evaluating the indicator: literacy of the adult population; the number of students of educational institutions of higher professional education in a group of 10.000 people; specific weight of students in the total population.

- Creative (innovative) potential (CP). The main parameters for the evaluation of the indicator: number of persons with an academic degree in the number of researchers; internal spending on research and development, as a percentage of the gross regional product (GRP), percentage, value of the indicator for the year; the number of graduate students per 1000 persons of the employed population, people

- Information and communication potential (ICP). The main parameters for evaluating the indicator: specific share of organizations that used the Internet (as a percentage of the total number of surveyed organizations); specific share of organizations that used personal computers (as a percentage of the total number of surveyed organizations); the number of subscriber devices of mobile radiotelephone (cellular) communication (at the end of the year; per 1000 people of the population).

- Vital potential (VP). The main parameters for evaluating the indicator: the number of doctors per 10.000 people; the number of people engaged in physical culture and health clubs, sections and groups per 1000 people.

- Cultural potential (CP). The main parameters for evaluating the indicator: the number of spectators of professional theaters on average per 1000 people of the population; the number of visits to museums on average per 1,000 people, units; library stock on average per 1,000 people, copies.

It is proposed to combine the described indicators into an integral indicator – the index of intellectual development (IID).

IID will be calculated as the arithmetic average of five sub-indices characterizing the level of development of education, science, innovation, informatization of society, health care, and cultural component. The calculation of private indices is carried out in the same way as when calculating the index of human development and is highlighted in the formula [5]:

$$IID = \sum_{j=1}^{aj} \frac{Xi - mi}{Mi - mi}, \quad (1)$$

where:  $Xi$  is the actual value of the indicator describing the  $j$ -th element of the development of human potential;  $mi$  and  $Mi$  are the minimum and maximum value of the indicator describing the  $j$ -th element of the development of human potential;  $aj$  is the weight of the corresponding IID element index

According to the scale of the assessed object, approaches to assessment are divided into three levels: micro-level (assessment at the level of an individual and organization), meso-level (at the level of large corporations and regions), macro-level (at the level of the country's economy) [6].

At the micro level, human capital valuation more or less focuses on estimating the value of an organization's human capital and/or evaluating the return on investment (including training costs) in an organization's human capital, which in turn can play a significant role in determining the value of a company after a sale. Studying the impact of employees on the company's financial activities is a key element of career opportunity analysis, professional development, and successful personnel management. The assessment of human capital is used in the assessment of development prospects, development of innovative policy. The methodology for evaluating the human capital of an enterprise is presented below [7]:

- Assessment of structural elements. Scientists distinguish two components of human capital – advanced and developed. In order to estimate the value of advanced human capital, investments in education (preschool, special, general) are brought to a single dimension and summed up.

- Depreciation assessment. It is characterized by the equation, which is illustrated by the following formula:

$$HCP = \sum_{k=1}^k A_i * T_i * K_i, \quad (2)$$

where:  $A_i$  is the annual amount of depreciation investments in human capital;  $T_i$  is the depreciation term of this type of investment;  $K_i$  is the number of depreciable objects

- Estimation of costs incurred. It is characterized by an indirect method (Tobin coefficient) and a direct method (estimation of all costs of the enterprise for the creation and development of human capital)

• Evaluation of the effects of elements. It is characterized by the equation, which is illustrated by the following formula:

$$HCP = \frac{\sum(E_{ch} + E_{wc} + E_{ic} + E_{oec} + E_{cmc})}{N_{Einv}}, \quad (3)$$

where:  $E$  – annual effects of labor, intellectual, organizational-entrepreneurial, cultural-moral capital and health capital;  $N_{Einv}$  is the required efficiency of investments, the coefficient is from 0.15 to 0.25.

• Assessment of managerial added value. It is characterized by the equation, which is illustrated by the following formula:

$$AM = BAV - AIC - MC, \quad (4)$$

where:  $BAV$  – business added value;  $AIC$  – alternative income on capital;  $MC$  – management costs.

• Cost estimate. It is characterized by a cost factor (expenditure on human capital), added value (adjusted rate of return), profit (ROI of the organization’s employees), profit factor (assessment of the effectiveness of the use of human capital)

• Integral evaluation. Integral assessment of human capital based on qualitative and quantitative indicators characterizing the elements of human capital. In its simplest form, it is a combination of indicators with corresponding weighting factors.

At the level of countries and regions, human capital is used in rankings to compare countries’ level of development, scientific potential and technological progress. The main international ratings are presented in Table 1:

Table 1

We will provide several examples of calculations related to methods of assessing the level of application of intelligent technologies in the country’s economy:

1. Calculation of the cost of developing an intelligent system to support decision-making in business. It may include the costs of software development, the purchase of necessary equipment and other technical solutions, the salary of programmers, analysts and other employees who will be engaged in the development and maintenance of the system.

2. Calculation of the effectiveness of the implementation of an intelligent production system. Such a calculation can be made on the basis of data on increased labor productivity, reduced production time, reduced waste, and other indicators that reflect the impact of intelligent technologies on production.

3. Calculation of indicators of the economic efficiency of the use of intelligent technologies relative to alternative methods of solving tasks. This may include comparing the cost of production using intelligent technologies with the cost of production that would be achieved using traditional methods, as well as comparing performance and product quality indicators.

4. Calculation of the level of application of intelligent technologies in the country’s economy based on data analysis of relevant statistics and reporting. This may include identifying the number of companies using smart technologies.

Calculation of the cost of developing an intelligent system to support decision-making in business. Let the software development costs amount to UAH 500.000, the equipment purchase costs to UAH 100.000, and the salaries of programmers and analysts to UAH 300.000 per year. Then:

$$\begin{aligned} \text{Total expenses} &= 500.000 + \\ &+ 100.000 + 300.000 = 900.000 \text{ UAH.} \end{aligned} \quad (5)$$

Thus, the total costs are equal to the costs of software development, to which are added the costs of equipment and the salaries of programmers and analysts.

Calculation of the effectiveness of the implementation of an intelligent production system. Suppose that thanks to the implementation of the system, it was possible to reduce production time by 10%, increase labor productivity by 15% and reduce waste by 5%. Then you can calculate the efficiency of system implementation as follows: Efficiency is equal to the sum of increased productivity, reduced production time, and reduced waste divided by 3. That is:

$$\text{Efficiency} = (15\% + 10\% + 5\%) / 3 = 10\% \quad (6)$$

Calculation of indicators of the economic efficiency of the use of intelligent technologies relative to alternative methods of solving tasks. Let the cost of production using intelligent technologies be UAH 2,000 per unit of production, and the cost of production using traditional methods be UAH 2,500. Then you can calculate the economic efficiency of using intelligent technologies according to the following equation: economic efficiency is equal to the difference between the cost of production by traditional methods and the cost of production using intelligent technologies, divided by the cost of production by traditional methods. That is:

Table 1 – Evaluation of human capital in international ratings

Rating	Compiler	Comment
Knowledge Economy Index	The World Bank	Evaluates conditions for effective use of knowledge in economic development [8].
Global Knowledge Index	UN	Assesses the country's ability to generate and disseminate knowledge [9].
Human Development Index	UN	Measurement of standard of living, literacy, life expectancy [10].
Global Competitiveness index	It is preparing for the World Economic Forum	Included in the sub-indices: health and primary education, higher education and professional development, availability of technologies [11].
The Global Innovation Index	INSEAD	The sub-indices include an assessment of education, qualifications, results and effectiveness of their use [12].

$$\begin{aligned} \text{Economic efficiency} &= (2500 - 2000) / 2500 = \\ &= 0.2 = 20\%. \end{aligned} \quad (7)$$

The obtained result means that the use of intelligent technologies allows to reduce the production costs by 20%, which can have a significant positive effect on the company's profit.

Calculation of ROI (return on investment) in intelligent technologies. Let the cost of investments in intellectual technologies be UAH 1 million, and the expected profitability from their use is UAH 2 million per year. Then you can calculate the ROI, which is the difference between the expected return and the cost of the investment, divided by the cost of the investment. That is:

$$\text{ROI} = (2 \text{ million} - 1 \text{ million}) / 1 \text{ million} = 1. \quad (8)$$

The obtained result means that the ROI is equal to 100%. In turn, this shows that the expected profitability of intelligent technologies exceeds the cost of investment by 100%, which is very beneficial for the enterprise.

### Conclusions

Determining the optimal method of evaluating intellectual resources remains a problem area. The

complexity of choosing methods for evaluating an intellectual resource is due to a number of factors, among which one can highlight the variety of definitions of an intellectual resource, its elusiveness and intangible essence, and the uniqueness of its individual elements.

There are three approaches to the assessment of intellectual resources: the first approach is based on the theory of human capital; focuses attention on a person, his basic qualities, abilities. The second approach is based on the theory of intellectual capital; the assessment of the company's financial indicators, related to the use of intangible assets and features of the company's organizational structure, prevails. The third approach considers the system of relations for the production of new knowledge and intellectual abilities of individuals.

Most methods of human capital assessment can be conditionally divided into two groups of models. Asset models use the similarities between human and fixed capital and estimate the cost of capital creation and its depreciation. Utility models evaluate the effectiveness of investments in human capital or its structural elements. Such models contain an economic assessment of changes in employee motivation, to estimate the additional profit of the enterprise from hiring or retaining an employee.

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## DATA MINING AND BUSINESS INTELLIGENCE IN MANAGING THE BUSINESS PROCESSES OF THE PROJECT OFFICE OF AN OUTSOURCING COMPANY

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**Key words:**intelligent data analysis,  
data mining, business analytics,  
project management,  
project office, data analysis,  
managerial decision-making,  
information technology

The article carries out a comprehensive study of the possibilities of applying modern business analytics and intelligent data analysis methods to optimize project management processes in the conditions of an outsourcing IT company. The work justifies the relevance of the problem associated with the avalanche-like growth of data volumes during the implementation of IT projects and the possibilities of innovative technologies for their intellectual analysis to identify hidden patterns. Scientific works of leading experts in project management and informatization have been critically analyzed, but a lack of comprehensive studies regarding data analysis specifically for project offices was noted. To achieve the research goal, a thorough analysis of the essence and possibilities of business analytics and intelligent data analysis was carried out, their role in managing modern organizations was examined in detail, and the scientific advantages of implementation in project offices of outsourcing companies were justified. The study of the practical use of business analytics and intelligent data analysis tools to solve the specific task of searching for new projects in the marketing activities of the IT outsourcing company was conducted. Effective methods of data collection, processing, and analysis concerning clients, market, competitors, communication channels, etc., were thoroughly analyzed. Thus, the article carries out a comprehensive study of the theoretical foundations and applied aspects of using advanced business analytics and intelligent data analysis tools with the aim of improving and optimizing the marketing activities of the modern project office of an outsourcing IT company by making timely well-founded managerial decisions based on deep analysis of available data sets.

## ІНТЕЛЕКТУАЛЬНИЙ АНАЛІЗ ДАНИХ ТА БІЗНЕС-АНАЛІТИКА ПРИ УПРАВЛІННІ БІЗНЕС-ПРОЦЕСАМИ ПРОЄКТНОГО ОФІСУ АУТСОРСИНГОВОЇ КОМПАНІЇ

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data mining, бізнес-аналітика,  
управління проектами,  
проектний офіс, аналіз даних,  
прийняття управлінських  
рішень, інформаційні технології

У статті здійснено комплексне дослідження можливостей застосування сучасних методів бізнес-аналітики та інтелектуального аналізу даних для оптимізації процесів управління проектами в умовах аутсорсингової ІТ-компанії. У роботі обґрунтовано актуальність проблеми, пов'язаної з лавиноподібним зростанням обсягів даних під час реалізації ІТ-проектів та можливостями інноваційних технологій їх інтелектуального аналізу для виявлення прихованих закономірностей. Критично проаналізовано наукові праці провідних фахівців з питань управління проектами, інформатизації, проте констатовано відсутність комплексних досліджень стосовно аналізу даних саме для проектних офісів. Для досягнення мети дослідження проведено ґрунтовний аналіз сутності та можливостей бізнес-аналітики й інтелектуального аналізу даних, детально розглянуто їхню роль в управлінні сучасними організаціями та науково обґрунтовано переваги впровадження в проектних офісах аутсорсингових компаній. Дослідженню практичного використання інструментів бізнес-аналітики й інтелектуального аналізу даних для вирішення конкретного завдання пошуку нових проектів у маркетинговій діяльності ІТ-аутсорсингової

компанії. Детально проаналізовано ефективні методики збору, обробки та аналізу даних щодо клієнтів, ринку, конкурентів, каналів комунікації тощо. Отже, у статті здійснено комплексне дослідження теоретичних засад та прикладних аспектів використання передових інструментів бізнес-аналітики й інтелектуального аналізу даних з метою удосконалення та оптимізації маркетингової діяльності сучасного проєктного офісу аутсорсингової ІТ-компанії шляхом прийняття своєчасних обґрунтованих управлінських рішень на основі глибинного аналізу наявних масивів даних.

### Statement of the problem

In the modern world, where data volumes are growing exponentially, the ability to analyze vast arrays of information and extract useful knowledge from them is of paramount importance. Data mining is the process of discovering hidden patterns, subtle correlations, and significant trends in data using automated methods. The application of data mining is becoming increasingly prevalent in various sectors, especially in the management of companies' business processes. Analyzing vast amounts of information about business processes helps to identify "bottlenecks", optimize procedures, and increase efficiency.

One of the most promising areas for the application of data mining is project management and project offices. This is because project management accumulates a vast amount of diverse information – about task execution, resource expenditure, risks, team communication, changes in requirements, and so on. According to analysts, on average, a large IT project generates over 1 terabyte of data. However, the potential of data mining of these data is still underutilized. There are numerous studies dedicated to analyzing specific aspects of project management using data mining methods. These include tasks related to predicting the duration and cost of projects, risk assessment, team productivity analysis, resource allocation optimization, etc. However, there is no comprehensive research regarding the capabilities of data mining tools to model and support all key processes in project office management.

The relevance of such comprehensive research is determined by several important factors.

Firstly, in the context of rapid changes and stiff competition, project-oriented companies desperately need effective tools for making informed managerial decisions in projects. The capabilities of traditional approaches to project data analysis are exhausted, as the volumes of information are rapidly increasing. Without the implementation of modern technologies for intelligent data analysis, the competitiveness of project-oriented companies significantly decreases.

Secondly, the volume of data generated during project activities is rapidly increasing. According to analysts, on average, a large IT project generates over 1 terabyte of data. Analyzing them using traditional methods (manual processing, simple charts) is becoming increasingly complicated. Without intelligent analysis, it's impossible to effectively process such data.

Thirdly, the latest technologies for intelligent data analysis (machine learning, artificial intelligence, neural networks, etc.) open up vast opportunities for project management. They can drastically improve the quality

of analytics and forecasting in projects. However, these possibilities are not yet sufficiently studied and generalized.

Conducting a comprehensive study of intelligent data analysis tools specifically for the field of project management will allow the systematization of achievements in the field of using intelligent data analysis in project management and will promote the development of effective solutions based on modern data processing technologies for optimizing the activities of project offices.

### Analysis of recent studies and publications

The study of the features of business process management of the project office of the outsourcing company is devoted to the work of many researchers who cover various aspects of project management, organizational culture, international standards, innovative methods and tools for optimizing business process management.

In the Project Management Handbook, Harold Kerzner [1] provides a comprehensive overview of the basic principles, methods, and tools used in project management. The author considers a systematic approach to planning and control, which is relevant for the analysis of the project office of outsourcing companies.

One of the most important sources of project management knowledge used in outsourcing companies is the PMBOK® Guide from PMI [2], which includes a description of processes, essential tools and techniques.

The key principles, topics and processes that help ensure effective project management are presented in the PRINCE2® international project management standard [3], which is used by many outsourcing companies.

A comprehensive approach to risk management in projects using international standards ISO 31000 and IEC62198 is provided in the Project Risk Management Manual [4], in which the author discloses the methods of identification, analysis and response to risks, as well as provides recommendations for the implementation of an effective risk management system in outsourcing companies.

The analysis of the influence of organizational culture on the management of business processes in the project office of outsourcing companies examines Edgar Shane [5], who reveals the influence of organizational culture on the success of companies, as well as the role of leadership in the formation and development of such culture.

In his work [6], Thomas Davenport considers the possibilities of using information technologies to optimize business processes. The work reveals strategies and approaches to the reengineering of work processes through the introduction of the latest technologies, which is an important aspect for research in the context of the project office of outsourcing companies. In the article [7],

the authors present a model of the success of information systems, which considers critical success factors for the implementation and evaluation of the effectiveness of information systems in various organizational contexts. The model can be used to analyze the impact of information technology and automation on business process management of the project office of outsourcing companies.

In the studies of Kaplan and Norton [8], the concept of a balanced system of indicators is presented, which helps organizations to translate their strategy into concrete actions, which allows to develop methods of measuring the effectiveness of business process management in the project office of outsourcing companies.

In their work, Jeff Sutherland and Ken Schwaber offer a deep understanding of the Scrum methodology – an agile approach to project management that can be applied in the project office of outsourcing companies to increase flexibility and adaptability in managing business processes and resources.

Despite the large number of scientific works devoted to the peculiarities of business process management of the project office of the outsourcing company, several problems remain unsolved, namely the application of intelligent data analysis and business analytics systems to improve the efficiency of management decisions of the project office of the outsourcing company, which functions in constantly changing requirements clients without losing control over resources and the quality of project implementation.

**Objectives of the article**

The aim of this article is to explore the peculiarities of applying business analytics and intelligent data analysis in managing business processes for making marketing decisions, specifically in finding new projects for an outsourcing IT company.

**The main material of the research**

In the current conditions of digitalization of management processes, artificial intelligence, cloud computing, distributed database technologies, and numerous other cutting-edge technical directions define the methodologies of the project management office of an outsourcing company. The emergence of innovative technologies that allow connecting devices to the network, storing and processing data in virtual clouds, and automating business processes, facilitate the refinement of intelligent data analysis systems.

Intelligent data analysis and business analytics systems allow the integration of all the enterprise’s informational resources into a single digital environment. This assists

in thoughtfully allocating resources and timely making essential management decisions based on the study and interpretation of relevant data. Such analysis systems are actively used in numerous business sectors to support the making of informed economic decisions.

Together, business analytics and intelligent data analysis help outsourcing companies effectively use information, considering constant changes in the IT project market.

Business analytics (Business Intelligence) involves examining data to discover trends, patterns, and new ideas. Conclusions based on this data provide a clear understanding of business operations and their outcomes. Business analytics can anticipate future performance. By analyzing past and current data, business analytics systems track trends and demonstrate how these trends will evolve over time.

Data mining is a method of processing large data sets to discover relevant information. Companies use data mining for business analytics and to identify specific data that can assist in making more considered management decisions.

Business analytics and data mining tools analyze key performance indicators (KPIs) in different ways. While business analytics monitors and reports, data mining uncovers and visualizes information (Table 1).

The information under study is chaotic and unorganized, yet data intelligence analysis allows for deciphering these complex data arrays, providing companies with the ability to identify the primary causes of certain trends and apply business analytics to determine ways to benefit from them.

Software for business analysis gives companies the opportunity to consolidate different data sources into a single standard, align and organize the information, and also provide end-users with an interface for generating reports and dashboards for making informed business decisions.

Business analytics systems vary in performance indicators, functionality, and features of cloud solutions, yet they share common methodologies and technical subsystems for information processing (Fig 1).

Typical business analytics systems have the following functionalities:

- Generating reports based on data from various sources;
- The complexity, reliability, and accuracy of data are ensured through special methods of working with information;
- Comprehensive analysis in different aspects: the ability to introduce new indicators and analytical tools without modifying the repository;
- Automatic creation of ready-to-use reports;
- Generating reports thanks to a graphical editor that does not require knowledge of programming languages;

Table 1 – Distinctive features of Data Mining and Business Intelligence

Characteristic features	Data Mining	Business Intelligence
Goal	Studying and formatting data to find answers to business problems	Interpret and present data to stakeholders to justify data-driven decisions
Amount	Processing specific data sets for targeted analysis	Relational database processing to track metrics at the enterprise level
The results	Unique data sets in a user-friendly format	Dashboards, graphs, charts, reports
Direction	Definition of new KPI	Demonstration of KPI progress



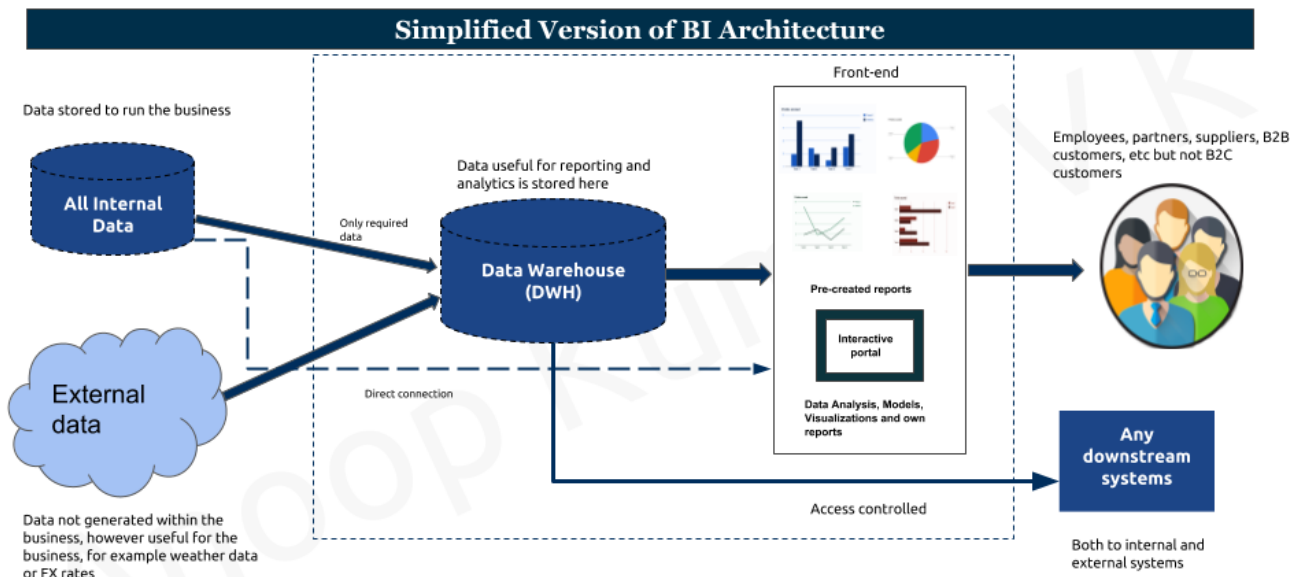


Fig. 1 – Workflow scheme of the business analytics system

- Version support: current and archived reports for tactical and strategic decisions;
- Choice of visualization type: diagrams, schemes, charts, tables;
- Access via a web browser from any device, including mobile ones;
- System deployment on specific servers or in the cloud;
- Setting up user profiles with variable access rights;
- Operation in both open and closed networks.

The process of data analysis and management decision-making using the business analytics system is depicted in Figure 2.

In the process of digital transformation of outsourcing companies, a vast amount of data emerges. These data are formed by different information systems and have various appearances. The business analytics system transforms this data into a unified standard, stores it in a centralized location, and presents it as comprehensible infographics.

Creating reports manually requires time and high expertise of employees. The business analytics system quickly generates reports using an intuitive interface that doesn't require programming knowledge. It's challenging to track the source and credibility of certain metrics.

However, the business analytics system clearly indicates the origin of each one.

The mutual impact of company performance indicators on others may not always be evident. Therefore, optimization decisions might not lead to expected outcomes. Thanks to the business analytics system, causal relationships between metrics can be identified, enhancing the quality and speed of analysis and decision-making.

In today's conditions, with the development of big data and open information initiatives, business analytics is becoming more accessible for companies of any size. Now, thanks to intelligent tools, data analysis is more efficient, paving the way for business analytics systems with artificial intelligence. Intelligent data analysis allows for detecting valuable patterns and making managerial conclusions, helping companies understand trends. Given the vast volumes of information, modern enterprises use intelligent solutions for big data analysis, ensuring informed decision-making.

Outsourcing companies have already recognized the advantage of increased accuracy provided by data analytics software. New solutions and improvements in these tools also indicate that the implementation of data analytics methodologies for various businesses has become simpler and more beneficial.

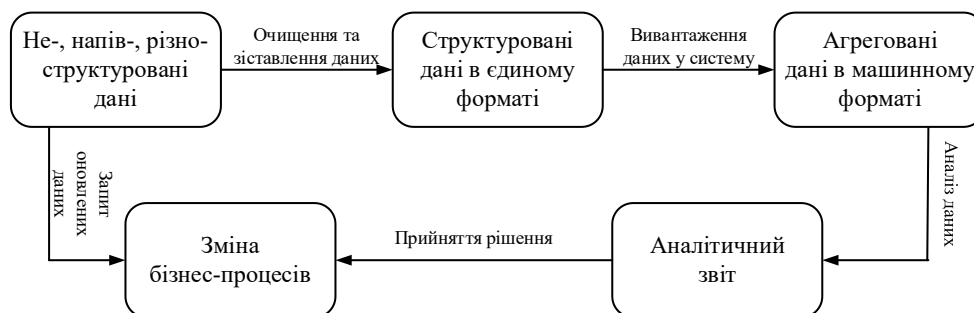


Fig. 2 – Cycle of data analysis and management decisions based on the business analytics system

There are several different methods of data analytics that can be applied.

**Classification** – used for data segmentation by categories. The process is done by reviewing already classified data and then using artificial intelligence rules to apply them to new information.

**Association** – used to identify patterns in datasets and to determine relationships between them. Artificial intelligence uses detected patterns to predict future behavior. For example, how retail sites offer products to customers based on their previous purchases or the issuance of potential projects on freelance exchanges for outsourcing agencies.

**Clustering** – involves classifying data by segments created by software. One of the biggest advantages of this method is that the technology can detect subtle differences or similarities, thus creating more accurate segments.

Enterprises investing in both business analytics tools and data analytics tools can execute, test, and interpret big data in real-time. Therefore, data analytics and business analytics help simplify marketing processes and enhance financial returns.

While business analytics systems primarily focus on monitoring datasets and tracking data according to business goals and key performance indicators (KPIs), the practice of data analytics is used to analyze datasets to identify new patterns and market trends. Data analytics does this by applying complex methods to data that help organizations achieve a specific goal or business task.

Data analytics is an integral part of business analytics when it comes to standardizing and using business data to create accurate and reliable forecasts that can allow companies to operate at a higher level than just relying on historical data.

Business analytics and data analytics are actively used in making marketing decisions, specifically in the search for new projects for an outsourcing IT company.

To support and stimulate financial flows, outsourcing IT companies almost always face the task of searching for new projects to execute. Given that the decision to take on a project might not be made by a single person, but by a group, it can be quite challenging to not miss some of the available information during the communication process for making this decision. To simplify the decision-making process regarding project selection, it is advisable to use a data analysis system that can

provide recommendations to all participants in this process regarding the projects under consideration.

Practical applications of business analytics in addressing the issue of finding new projects for an outsourcing IT company include:

**Client Analysis.** In today's digital world, consumers have more opportunities to interact with a brand, including: social networks, email, chatbots, web forms. All these touchpoints allow tracking numerous metrics and gathering more data about the target market and clients. This offers the opportunity to determine which elements of the marketing strategy are effective and which are not, as well as to identify similarities and behavior patterns that will ensure a steady influx of new projects and clients.

**Market Research.** Business analytics and intelligent data analysis provide a deeper understanding of competing companies and the market as a whole by analyzing web traffic, reviews, mentions on social media, and market trends.

**Communication Channels Research.** Determining the most effective communication channels with the target audience by analyzing different types of channels used by consumers or types of clients that need to be attracted.

Data analytics is used in the marketing activities of an outsourcing IT company for processes such as sales forecasting, market segmentation, and database marketing. Intelligent data analysis allows increasing the company's revenue by identifying, for example, which products or services interest clients, which then allows tailoring their experience, reducing client churn.

## Conclusions

The demand for data analytics and business analytics is growing due to the ubiquitous spread of big data and cloud technologies. Data analytics professionals can set up data pipelines that feed directly into business analytics tools. As long as customers continue to use the Internet, mobile apps, and social networks, data analytics and business analytics will continue to evolve in the process of attracting new clients and acquiring new projects for outsourcing companies.

Investments in data analytics help outsourcing companies maintain a competitive edge. The ability to efficiently and timely process and interpret complex datasets leads to the rationalization of business processes, increased customer satisfaction, and increased profitability of investments.

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# NATIONAL ECONOMY'S MARKET MECHANISMS OF ACCOUNTING, ANALYSIS AND AUDIT

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## CAR TRANSPORTATION IN UKRAINE: DOCUMENTATION AND FEATURES OF ACCOUNTING

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### Key words:

ATP expense accounting,  
goods and transport invoice,  
calculation of the cost of road  
transportation,  
international standards for  
accounting services by transport  
companies, tax legislation

The article examines approaches to documentation and accounting of road passenger transportation. The main problematic aspects regarding the regulatory and legal regulation of this direction of entrepreneurial activity are considered. One of the issues covered in this article is the lack of generalized regulations on the documentation of primary documents. Systematized seasonal features of providing transport services and maintenance of means of production in proper technical condition. The article examines the difficulty of keeping primary records of the provision of services to trucking companies, in the context of the provision of goods transportation services. The lack of a unified regulatory and legal approach to the requirements for filling out primary documents causes disputes in the accounting processes of the supplier and consumer of ATP services. The next aspect to which attention is drawn is the dispute between the technical necessity of updating the rolling stock and the lack of ways to accelerate the formation of sources of funding for renewal reserves.

## АВТОМОБІЛЬНІ ПЕРЕВЕЗЕННЯ В УКРАЇНІ: ДОКУМЕНТАЛЬНЕ ОФОРМЛЕННЯ ТА ОСОБЛИВОСТІ ОБЛІКУ

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### Ключові слова:

облік витрат АТП,  
товарно-транспортна накладна,  
калькулювання собівартості  
автомобільних перевезень,  
міжнародні стандарти обліку  
послуг транспортними  
компаніями,  
податкове законодавство

У статті досліджуються підходи до документального оформлення та бухгалтерського обліку автомобільних пасажирських перевезень. Розглянуті основні проблемні аспекти щодо нормативно-правового врегулювання даного напрямку підприємницької діяльності. Одним з питань, які висвітлені в цій статті є відсутність узагальнених регламентацій документального оформлення первинних документів. Систематизовані сезонні особливості надання послуг з перевезення та підтримання у належному технічному стані засобів виробництва. В статті розглянуті питання складності ведення первинного обліку надання послуг автотранспортними компаніями, у розрізі надання послуги транспортування товарів. Відсутність єдиного нормативно-правового підходу до вимог заповнення первинних документів, спричиняє суперечки в облікових процесах постачальника та споживача послуг АТП. Наступний аспект, на який привернута увага, це суперечка між технічною необхідністю оновлення рухомого складу та відсутністю шляхів прискореного формування джерел фінансування резервів оновлення.

### Formulation of the problem

The organization of accounting for transportation by road transport companies is quite relevant in Ukraine. However, the accounting of costs requires significant experience and changes in legislation. Problems of organization of documentation and unification of requirements for primary documents. Another urgent issue

regarding the renewal of the rolling stock of ATP, sources of their financing and reflection in accounting requires a clear implementation mechanism

### Analysis of latest research and publications

The existing approaches to the accounting display of economic transactions, which make up the main activity

of motor transport enterprises, have characteristic features of the Soviet accounting system. Today, despite the consideration of these issues by scientists (P.Y. Atamas, F.F. Butynets, Y.K. Dankiv, V.B. Zahojai, N.P. Levytska), accounting issues remain not fully resolved today, and control of business operations related to passenger road transportation, especially in conditions of increased fares for travel in public transport, as well as when it is impossible to establish the real volume of passenger traffic.

The vast majority of modern domestic scientists, who devote their work to specific issues of accounting processes by transport enterprises, choose as the subject of their research issues related to organization and methodology and insufficiently covered issues of requirements for the preparation of primary documents. Highly appreciating the scientific contribution of the named scientists, it should be noted that the outlined problematic issues require further intensification of research on the adaptation of existing accounting principles and goals to the needs of transport enterprises. Therefore, the primary task of research on this topic is to achieve a systematic approach to the preparation of primary documents of employees in compliance with the requirements of regulatory and legal acts, in accordance with the requirements of wartime.

#### **Formulation of the purposes of the article**

The purpose of the article is to study the organization of primary accounting for the provision of services to motor transport companies in wartime conditions. The article draws attention to the problems of primary accounting of ATP, gaps in the regulatory and legal regulation of certain aspects of the organization and accounting of transport enterprises.

#### **Outline of the main material of the research**

Road transport is an integral system of services in every state, since enterprises of all forms of ownership and types of activity and individuals cannot exist without the use of transport services, since in the process of business every firm needs to transport materials, raw materials, and finished products, while they use own motor vehicle or use the services of motor vehicle companies. Before the start of the full-scale invasion, there were more than 100.000 automobile carriers in Ukraine, which provided services for the transportation of 52% of passengers and 64% of cargo, but in modern conditions there has been a significant reduction in the number of carriers and a change in the structure of services. The automotive industry has experienced significant losses and damage to rolling stock, at the beginning of 2022, almost 70% of rolling stock is technically and/or morally obsolete, and 50% of buses are in operation for more than 10 years. It is possible to speed up the solution to the issue of renewal of rolling stock by transport companies through the regulation of the transportation of preferential categories of citizens and transportation at regulated tariffs, which significantly affect the volume of income of automobile carriers, however, in modern conditions, it is not possible to review these directions, due to the impossibility of additional burden on the population in the conditions reduction of population incomes.

The next problematic aspect is the documentation of transactions related to the provision of services for the transportation of goods and material values (TMC) and transportation of the population. The main primary document for the provision of transportation services for production and commodity values is the consignment note. On the basis of this document, a write-off is carried out, accounting for movement is carried out, in the warehouse, in operational and accounting, we record goods and services, as well as calculate for the transportation of cargo and account for the work performed" [1]. However, TTN, according to f. No. 1-TN is used by all enterprises when transporting goods and material values on a contractual basis and does not depend on the principles of payment for the work of road transport. Compliance with this form in practice is not mandatory, but it is necessary to fill in certain details that are included in the document. "At the moment, there is no valid procedure or instructions for filling out form No. 1-TN. Rules No. 363 contain only brief information about document execution. But anyway, in order to correctly fill out the TTN, we will be guided by the practice that has developed over the years. The Ministry of Infrastructure provided certain advice on filling in the details of this document" [2]. In the process of filling out the TTN, it is filled in for the movement of goods and material values in four copies.

In view of the practice, which was formed on the basis of Instruction No. 228, before the arrival of the car, the consignor enters the weekend in the TTN. The "Cargo information" section (columns 1–6) must also be filled out, in particular: unit of measurement (indicate the unit of measurement of the product (for example, kilogram (kg), liter (l), piece (UAH), box, bag, roll, etc.); the number of places (the number of places (boxes, bags, baskets, barrels, containers, tanks, etc.), which are determined by each name of the cargo and each type of packaging); the price without VAT per unit, UAH" (the price per unit of the product without VAT); the total amount from VAT, hryvnias" (the total value of each type of product for each individual line) of the number of items, under this condition, an additional document with this information is attached. In the consignment note itself, it is noted that an appendix is attached to it. number of items, under this condition, an additional document with this information is attached. In the waybill itself, it is noted that an appendix of the number of items is attached to it, under such a condition, an additional document is attached with this information. In the waybill itself, it is noted that an appendix is attached to it [2].

Immediately after the arrival of the car, the consignor fills in the following details in TTN: "Car" and "Trailer/semi-trailer" (information is taken from the registration documents for the corresponding vehicle); "Car carrier" (name of the company or individual); "Driver" (full name, driver's license number; "All released for the total amount" (in words, indicates the total value of shipped goods, including VAT), etc.).

On the way to deliver the cargo, the TTP is filled out by the carrier (its driver/forwarder). At this stage, before filling out the TTN, the parties may, by mutual agreement, involve a carrier. Namely, he fills in the line regarding the new destination address in two copies of the TTN. Tip: if

any data changes, and the TTN has already been drawn up on paper, you can make amendments to it: carefully cross out the old data and write new ones next to it. Each such correction must be certified by the responsible person's signature. If there is a need to reload, a corresponding act of arbitrary form is drawn up on paper or online, in which the following must be indicated: the full name of the owner of the transport that accepted the cargo, his address; driver's name; state vehicle numbers of carriers, which are made in duplicate, and are signed by the drivers of both carriers.

After delivery and unloading of the cargo, the TTN is filled out by the consignee. When the cargo is delivered, the driver provides two copies of the TTN to the consignee, who affixes a signature [3]. In turn, the consignee notes in the "Loading and unloading operations" section: weight, time of arrival, departure, idle time and signatures of the responsible parties. In the future, the consignee keeps the second copy of the TTN, hands the third to the driver, who, in turn, hands them over to the carrier.

Therefore, the absence or improper registration of the TTN is one of the popular "arguments" used by tax officials to justify the recognition of an economic transaction as unrealistic. Courts generally adhere to the position that improperly executed transport documentation cannot be the only indisputable basis for a conclusion. The next important document in the accounting of road transport is the waybill. The method of road transportation provides that the driver must have this document during the flight.

In particular, during the police check, the driver presents the following documents:

- general for drivers (driver's license; vehicle registration document; insurance policy);
- documents confirming cargo transportation. The main document that confirms transportation is the consignment note.

"However, there is a document that provides for the use of a travel document, namely: List of documents required for the carriage of goods by road transport in domestic traffic" [4]. In particular, drivers must have travel documents indicating: medical examination of the driver and inspection of the vehicle's technical condition. This document is important for tax authorities, because they claim that this document is necessary. In legal disputes, the presence of this document is an evidentiary basis in freight transportation. It should be noted that the travel document is not a primary document, as it does not contain sufficient information about the business transaction. The main feature of the primary document is the recording of the business transaction.

So, we can conclude that the travel document is not a primary document, but only confirms certain principles of purchasing or selling material assets and evaluating the performance of the car.

This document contains data:

- about the driver's working hours;
- about fuel consumption in natural terms.

The assessment of the specified expenses is carried out according to the following documents: fuel write-off certificate, salary calculation statement, etc.).

The information in this document may refer to several business transactions, so it once again confirms the difference from the original document. The standard form

of the document has lost its validity, therefore, if necessary, you can use a form convenient for the carrier. The use of tires plays an important role in the operation of cars. Account 207 "Spare parts" is used to display information about car tires. Provided that the tires are already installed on the car, they must be shown on account 105 "Vehicles".

For tires purchased at the enterprise, a pneumatic tire mileage record card is opened. This document states: the name of the enterprise, its location, its technical characteristics, the date of manufacture, the model of the car on which the tire is installed. In the process of car maintenance, tires are replaced, which is considered its maintenance, as it is necessary to maintain the car in a condition suitable for use. The cost of these funds is included in the expenses that are shown on accounts 23 "Production", as well as on cost accounting accounts (91 "General production costs", 92 "Administrative costs", 93 "Sales costs") [5].

For example, the cost of winter tires is debited to expense accounts. In the future, the enterprise keeps their quantitative records, using for this purpose accounting cards, which indicate the data on the mileage of the pneumatic tire. After replacing winter tires with summer tires, this set is not restored in the record, but only their quantitative record is kept. The total cost of tires can be written off in proportion to the mileage of the car using the norms of average tire life. The accounting of these operations is shown in Figure 1 and Figure 2.

The method of writing off car tires given in the table is not easy. We believe that it is more expedient to write off tires when they are put into operation. As mentioned above, the cost of winter tires refers to expenses, therefore it will affect the company's profit and, accordingly, its taxation system.

Battery replacement is required for effective maintenance. Such replacement is not seasonal, but is replaced under the condition of reaching the norm of the average resource. Accounting display of such automobile mechanisms from acquisition to write-off is carried out on account 207 Spare parts. To detail information about batteries that are in stock and those that are in use, it is advisable to use sub-accounts, for example: "Batteries in storage", "Batteries in circulation". The cost of batteries is deducted at the time of their installation on the car. As for analytical accounting, it must be kept in a special document – the Card for accounting for earnings and tracking the circulation of AB.

Thus, the damaged battery is removed from the car, at the same time drawing up the appropriate act, and exchanging it for a new one based on it. Accordingly, the cost of the installed battery is included in the expenses of the period. If a battery is in stock that can be used and sold in the future, it should be capitalized at net realizable value or valued at the amount of possible use.

Lubricant replacement is necessary for normal vehicle maintenance. The accounting reflection of such operations is the inclusion of such amounts in expenses, an example of which is shown in Figure 3.

Tires and batteries are written off after use. However, there are situations when car tires wear out faster than planned, then they are written off on the basis of the act of the same name (the Act of writing off car tires) [6].

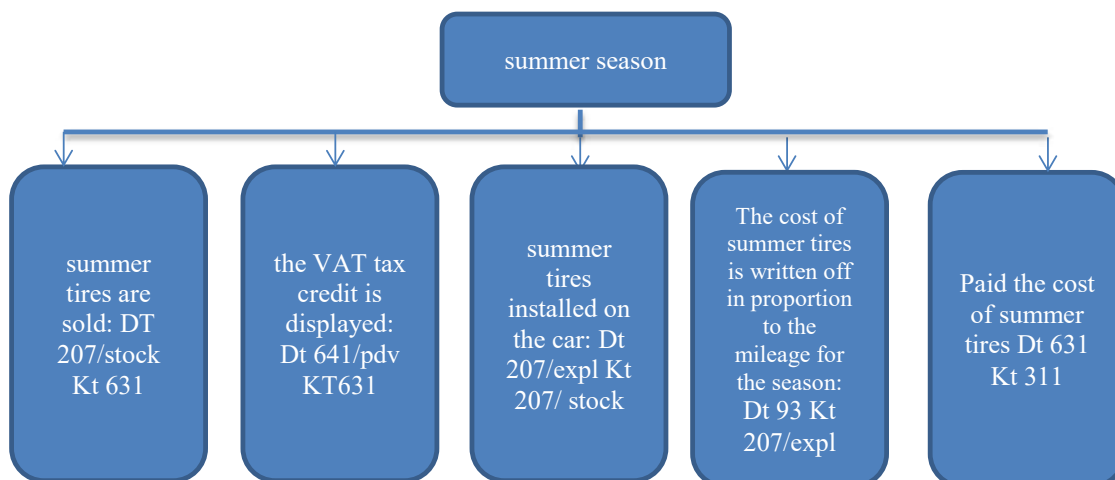


Fig. 1 – Accounting display of automobile summer tires

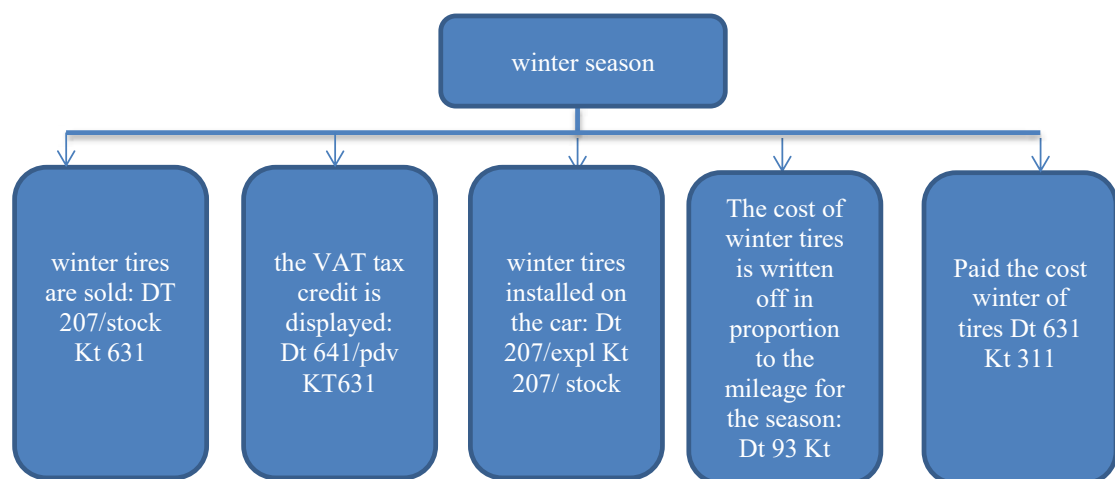


Fig. 2 – Accounting display of automobile winter tires

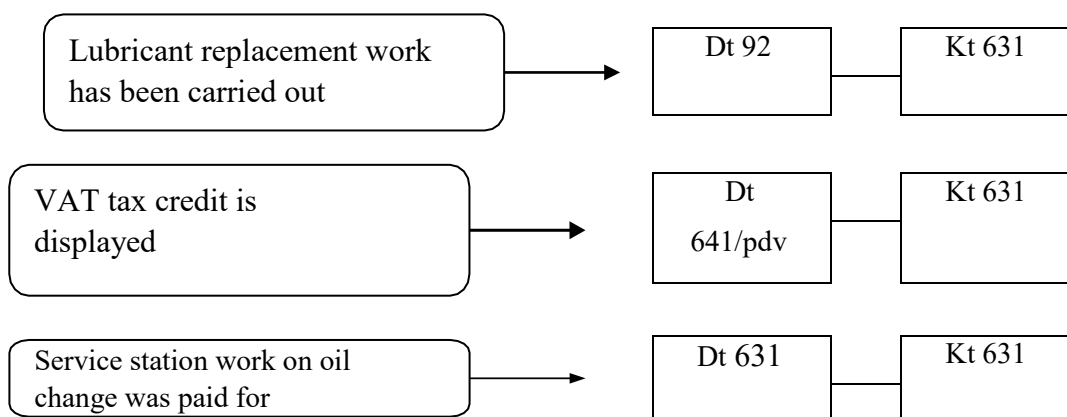


Fig. 3. Accounting of the company’s costs for replacing the lubricant

So, in practice, there are the following situations in the process of tire operation:

- tires are worn before the standard term of use of the resource;
- observance of production or mileage;

- overrun to the temporary norm is allowed;
  - wear to the limit (minimum tread height).
- At the end of this process, excess storage of already unnecessary tires is revealed, which can still be sold as secondary raw materials. For this purpose, posting is

carried out at the price of realization (planned) using the following entry:

Dt 209 “Other materials” Ct 719 “Other operating income”.

If it turns out that such tires have already been written off from the balance sheet, then they must first be restored in the accounting by accruing income. If the further use of tires is impossible or there is no expediency in such use, it is necessary to conclude a contract with a third-party organization for disposal (these are requirements of the legislation on environmental protection). At the same time, the direct transfer of tires is carried out on the basis of an act of acceptance and transfer. As a result, we will have an increase in costs associated with the planned disposal process[7].

– The same applies to the disposal of batteries. This procedure involves the following stages or rules:

– the head of the enterprise appoints the person responsible for disposal (order, order);

– the person in charge keeps a record of the circulation of spent batteries;

– disposal is carried out within the regulatory period (no later than three months after write-off).

In the case of disposal of lubricants, the company is obliged to keep primary records of their purchase and, most

importantly, to collect already used volumes in separate containers. Legislation has established the appropriate norm for the collection and disposal of lubricants, which is 40% of the total volume of use. When transferring to an enterprise engaged in the disposal of used lubricants, an act of acceptance is drawn up for the relevant batch (2 copies: one for the issuing enterprise, the other for the receiving enterprise). Thus, in the process of economic activity, it is necessary to comply with the requirements for waste management, as it provides for a fine of 50–100 non-taxable minimums.

### Conclusion

The peculiarity of the accounting of transport enterprises is that the results of the study have an applied nature and are aimed at improving the accounting of vehicles and road transport at motor enterprises. The developed methods and recommendations make it possible to obtain complete and reliable operational and analytical information about the expenses of the automobile company for road transportation, which is oriented towards making management decisions now and in the future, which is especially relevant in the conditions of the market economy.

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## PROBLEMS OF AUDIT PRACTICE IN THE CONDITIONS OF AUTOMATED DATA PROCESSING

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**Key words:**

enterprise, audit,  
automated information system,  
computerization process

The article examines the organization of the audit process and formulates a number of requirements for software for auditing. The main reasons that prevent the introduction of computer technologies in the audit process have been studied. A study of the Ukrainian computer technology market was conducted. The advantages and disadvantages of applied computer programs for auditing in the practice of domestic audit firms are summarized. It has been established that the effectiveness of audits increases significantly with the use of specialized software products by auditors. Peculiarities of information technology “IC: Audit-Control (+) for Ukraine” were studied. Mechanisms for ensuring automatic work in the program and methods that increase the quality and transparency of the audit firm’s work using the “IC: Audit-Control (+) for Ukraine” system are considered. It has been proven that the main areas of effective audit automation are the selection of optimal software.

## ПРОБЛЕМИ ПРАКТИКИ АУДИТУ В УМОВАХ АВТОМАТИЗОВАНОЇ ОБРОБКИ ДАНИХ

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**Ключові слова:**

підприємство, аудит,  
автоматизована  
інформаційна система,  
процес комп’ютеризації

У статті розглянуто організацію процесу аудиту та сформовано ряд вимог до програмного забезпечення для проведення аудиту. Досліджено основні причини, що перешкоджають впровадженню комп’ютерних технологій у процес проведення аудиту. Проведено дослідження українського ринку комп’ютерних технологій. Узагальнено переваги і недоліки прикладних комп’ютерних програм з аудиту в практиці вітчизняних аудиторських фірм. Встановлено, що ефективність аудиторських перевірок помітно зростає із застосуванням аудиторами спеціалізованих програмних продуктів. Досліджені особливості інформаційної технології «IC: Аудит-Контроль (+) для України». Розглянуто механізми забезпечення автоматичної роботи в програмі та методи, які підвищують якість та прозорість роботи аудиторської фірми за допомогою системи «IC: Аудит-Контроль (+) для України». Доведено, що основними напрямками ефективної автоматизації аудиту є вибір оптимального програмного забезпечення.

### Statement of the problem

In the last few years, crisis phenomena have been observed in the economy of Ukraine, which lead to changes in the financial system of the state and are accompanied by a significant deterioration in the economic condition of business entities. In this regard, the role and importance of improving the organization of the audit of enterprises in order to ensure a more rational use of their own financial resources is growing. That is, in general, the process of improvement concerns the computerization of the audit and the processing of economic information. The most modern are automated information technologies capable of

actively influencing the quality of the audit. In this regard, the study of the automation of accounting, control and analysis processes is particularly relevant.

### Analysis of recent studies and publications

The issue of development and implementation of information systems in auditing was dealt with by such scientists as E.A. Bogdanova, A.V. Kuznetsov, L.M. Makarova, B.V. Kudrytskyi, E.V. Leushyna, Yu.N. Skvortsova, L.O. Khodakivska and others. However, not all aspects of the problematic moments of the audit computerization process have been investigated.



### Objectives of the article

The purpose of this article is to study the problems that arise during an audit using automated data processing systems.

### The main material of the research

Various computer tools can be used in auditing activities, which allow to increase the efficiency of auditors' work. Automated programs and computer technologies give a greater probability of the correctness of the check, reduce the time for its implementation.

Until now, the control and audit methodology using modern computer programs has not been sufficiently developed, which negatively affects the quality of the procedures.

International Standards on Auditing (ISA) 240 "The Auditor's Responsibilities Relating to Fraud in the Audit of Financial Statements" and ISA 315 (Revised) "Identifying and Assessing the Risks of Material Misstatement Through Understanding the Entity and Its Environment" address the entity's use of a computer of any model or size for processing financial information relevant to the audit, regardless of whether the computer is used by the entity or a third party.

ISA 315 examines the specifics of conducting an audit by an audit firm or an auditor using computers. Attention is also paid to the need for the audit organization to work on the development of new information technologies for the automation of audit activities [1].

Automation of the audit is reduced to the use of specialized software "1C: Audit-Control (+) for Ukraine", which will allow to plan the work qualitatively, taking into account the specifics of the activity of the company subject to audit, even before leaving for the inspection of the entire composition of the audit group. In the "1C: Audit-Control (+) for Ukraine" program: the "Audit Planning" and "Journal of Business Transactions" modules will provide the auditor with a solution to this task.

The main attention should be paid to the creation of a certain computer information system, which provides a "man-machine" approach to the audit. This system involves a significant division of functions: a person performs the functions of logical analysis, and the computer performs the functions of organizing and conducting quantitative calculations, the logical structure of which is implemented by software tools created taking into account the algorithms developed by the person (procedural method of solving the task).

Practicing auditors and auditing firms currently do not use specialized programs for auditing. There are factors limiting the use of specialized automated audit programs. One important factor is the use of general purpose software products by audit firms: text editors, spreadsheets, database management systems. Another factor is insufficient awareness of auditing companies about automation systems intended for auditing activities. Actuality determines the need to research the market of audit programs, determine the need and opportunities for them in audit firms.

Currently, the following fully functional audit automation programs are presented on the Ukrainian

market: "1C: Audit-Control (+) for Ukraine", SAB AXIOMA", "KIT. Audit".

In our opinion, the "1C: Audit-Control (+) for Ukraine" program is a working audit system, the purpose of which is to solve audit tasks at all stages of its implementation.

Since the program belongs to the class of ERP systems (Enterprise Resource Planning), its main purpose is to speed up the business processes of the audit organization. In particular, with the help of the program, it is possible to reduce to an acceptably low level the negative impact of the human factor, which is manifested during the processing of working documentation for the performance of the audit task and the expression of professional judgments [2].

The ERP system is based on the principle of creating a single data repository, which:

- contains relevant corporate business information;
- provides the possibility of simultaneous access of the required number of users (employees of the audit organization or third parties, for example, external controllers of OSNAD), who are granted a certain set of rights;
- provides an opportunity to create, edit and process data using system functionality, in accordance with a set of user rights.

A special feature of ERP systems is their flexibility, which means, in particular, the possibility of effective adaptation to:

- individual needs of a separate audit organization;
- new conditions (for example, a change in the ISA);
- judgment of a certain auditor during the performance of the audit task.

There are two strategies in the creation of audit systems: minimizing costs when entering initial data; minimization of the risk of omission of erroneous actions in financial documentation. The authors of this software application are aware of the complexity of the task and the imperfection of its individual elements. However, given the acute need for such a program, it is offered for practical use.

The use of computer audit programs allows the auditor to perform the following procedures efficiently and quickly:

- testing operations and account balances in the computer database;
- analytical procedures for detecting deviations from commonly accepted parameters in the computer database;
- testing of the database of the economic entity under review;
- testing of the technical, mathematical, informational, software of the economic entity under review.

Procedures performed by the audit organization when using computers for control may include:

- control of the sequence of checked data that passes through several stages of processing;
- control of previous data;
- forecasting and planning of data verification results and comparing them with control data for individual operations and in general by types of activities;
- confirmation of operability and compliance with modern requirements of the software and hardware of the auditor's work during the audit using a computer;

- confirmation of the compliance of the computer support of the audited economic entity with the current legislation;
- confirmation of the use of computers during the audit period at the audited economic entity.

The presence of automated processing of computer data has a significant impact on the audit methodology, which is why audit firms and auditors, at the stage of audit preparation, are obliged to solve the task of technical and organizational control support and the need to involve special technical specialists [3].

In many cases, poor-quality information is due to the failure of computer facilities, inattention and inexperience of users.

Forms of audit risks that arise as a result of the use of computer data processing programs:

- technical risks – risks associated with technical factors, methods of processing accounting information, which are directly used in accounting and internal control during the implementation and use of automated information systems. Such risks are caused by poor-quality operation of technical means, use of unofficial software, differences in the characteristics of technical and software means, lack of proper general technical service and control;
- risks associated with the process of processing accounting data – may be associated with errors in the development of the system, its functionality is limited, and it is not used for its intended purpose. It is the auditor's responsibility to determine whether the client's system is being used effectively;
- risks related to accounting and control – caused by insufficient organization of the client's employees to use the information processing system of accounting data, lack of clear differentiation of obligations and responsibilities of the client's employees, unsatisfactory formation of the internal control organization, lack of established information security;
- risks associated with the auditor's professionalism – associated with incorrect evaluation of the accounting and analytical data system, lack of a clear system of tests, distortion of facts.

Under different conditions, risks may increase or decrease. These factors can be divided into the level of audit risk under the conditions of automated data processing:

1. The risk of errors in accounting increases with:
  - demarcation of computer automated network;
  - large-scale remoteness of computer stability;
  - low level of acquired knowledge of accounting personnel in the field of information technologies;
  - lack of a system of internal control over the functioning of the environment for computer processing of analytical and accounting data;
2. The risk of errors in accounting is reduced by:
  - introduction of license automation programs for accounting;
  - implementation and development of timely software;
  - use of special software for automated accounting data processing;
  - application of a possible modification of some forms of control due to the use of audit activity automation software specially developed for audit firms;

- coordination of the subject's information policy with the main use of the computer data processing system;
- development of a strategic plan and strategy for the development of the automated data processing system of the economic entity. The ability to avoid possible errors allows the auditor in his practice to expose the cause of their occurrence, to pay attention to some issues, to exclude the impact on the quality and reliability of information.

To implement the aforementioned tasks, the auditor must have additional knowledge and skills in the field of computer processing systems for audit data. The minimum requirements for auditors should be knowledge of computer terminology and the ability to understand the sequence of performed computer operations [4].

Some auditors believe that computer literacy is not necessary in many cases, especially when technical professionals and specialists are involved. The lack of such experience can lead to incorrect formation of requirements for technical specialists and incorrect interpretation of the obtained results.

The negative factors of the market of computer programs include the lack of the possibility of optimizing final operations. Automated programs that provide accounting must undergo independent examination and licensing. After that, the computer program can be used in practical activities. Such a procedure can contribute to the legalization of the Ukrainian market of accounting programs, determine the potential of using audit operations within the limits of a specific program, and reduce the likelihood of errors by program authors and programmers. In addition, this approach will create a real opportunity for the auditor to avoid distortions when forming an opinion in the conditions of automated processing of accounting data, since it will be possible to build a consistent verification methodology in advance.

We have considered the main methods of automating the audit process, however, despite their variety, this problem is quite relevant and not solved, software authors today face the task of automating and standardizing the activities of auditors at all stages of the audit: from the preparation and planning of the audit to the collection, systematization and registration of relevant final documents.

For the most high-quality, accurate audit of enterprises in modern conditions, we suggest using the "1C: Audit-Control (+) for Ukraine" program, which works under the management of the BAF or 1C technological platforms, which allows you to create a really working audit system aimed at solving tasks audit Using the software product "1C: Audit-Control (+) for Ukraine" from our point of view has a number of advantages compared to others:

- automation of audit activity not only of large, but also medium and small audit organizations, as well as individual auditors in accordance with current International Auditing Standards;
- increases the efficiency of quality control of working documentation;
- ensures compliance of activities with audit standards and internal company standards;
- application of the standards proposed by this program allows to increase the professional level and quality of work of auditors due to proper organization;

- the possibility of importing and exporting procedures at all stages of the audit has been introduced, which allows auditors to divide the responsibilities for conducting audits of different departments, to work remotely using laptop computers;

- contains more than 500 procedures, forms, reference tables, reports from all stages of the audit;

- suggests using the original audit methodology, which contains built-in algorithms for calculations, planning, sample formation and analysis, selection of types of detected violations, and automatic drawing of conclusions regarding the sections of the audit and the final conclusion;

- includes the methodology of quality control of audit verification, a block of analytical procedures and financial analysis;

- the built-in form editor makes it possible to create new, modified existing forms of audit procedures, as well as completely change the audit program according to the internal standards of the audit firm.

We assume the possibility of adding the following materials in the following versions of this program:

- a list of errors that often occur during an audit;
- reference information for the most difficult sections of the audit;
- section “Analytical part of the conclusion”.

### Conclusions

Based on the results of the conducted research, it can be concluded that the main areas of effective audit automation are the selection of the optimal software, taking into account the specifics of the methods and features of conducting the audit; economic analysis and evaluation of the effectiveness of the use of the information system; overcoming the risks associated with the problems of organizing the auditor’s automated workplace and overcoming the auditors’ psychological and professional barriers.

The introduction of automated systems into the activities of audit firms requires the use of specialized licensed software, which in turn will contribute to increasing the efficiency and quality of the services provided by the audit firm.

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## THE CURRENT STATE AND PROSPECTS FOR THE DEVELOPMENT OF E-COMMERCE IN UKRAINE

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### Key words:

e-commerce, trade, Internet trade, implementation, goods, services, works

At the current stage of the development of economic relations in Ukraine, there are a significant number of negative factors and conditions that inhibit the development of entrepreneurial activity in the country. But despite the huge number of obstacles caused by both external and internal factors, economic entities not only continue to function, but also constantly develop for the sake of supporting the Ukrainian economy. In today's conditions, e-commerce is one of the main types of business activities that are successfully implemented on the state market and ensure the development of the state's economy. The emergence and spread of the global information system Internet has led to certain revolutionary discoveries and covers almost all spheres of human activity. Under the influence of the frantic pace of the spread of information technologies, not only the existing directions of doing business are changing, but new ones are constantly emerging. The variability of business conditions at the current stage of the development of economic relations requires greater attention to research on the essence, problems, current state and vectors of improving e-commerce in Ukraine. That is why the article focuses on summarizing the essence of the concept of "electronic commerce"; the main regulatory and legal documents regulating the activity of e-commerce in Ukraine are highlighted; the largest trading platforms carrying out their activities through the Internet were investigated, and the prospects and methods of e-commerce transition to a qualitatively new level in the field of trade were determined.

## СУЧАСНИЙ СТАН ТА ПЕРСПЕКТИВИ РОЗВИТКУ ЕЛЕКТРОННОЇ КОМЕРЦІЇ В УКРАЇНІ

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### Ключові слова:

електронна комерція, торгівля, Інтернет-торгівля, реалізація, товари, послуги, роботи

На сучасному етапі розвитку економічних відносин в Україні існує значна кількість негативних факторів та умов, що гальмують розвиток підприємницької діяльності в країні. Але не дивлячись на величезну кількість перепон, які спричинені як зовнішніми так і внутрішніми чинниками, суб'єкти господарської діяльності не тільки стало функціонують, але й постійно розвиваються заради підтримки української економіки. В умовах сьогодення одним із основних видів підприємницької діяльності, що вдало реалізуються на державному ринку та забезпечують розвиток економіки держави є електронна комерція. Виникнення та розповсюдження глобальної інформаційної системи Інтернет призвело до певних революційних відкриттів та охоплюю майже усі сфери людської діяльності. Під впливом шаленого темпу розповсюдження інформаційних технологій змінюються не тільки існуючі напрями ведення бізнесу, але й постійно з'являються нові. Мінливість умов ведення підприємницької діяльності на сучасному етапі розвитку економічних відносин вимагає більшої уваги щодо досліджень сутності, проблем, сучасного стану та векторів удосконалення електронної комерції в Україні.

### Statement of the problem

In this difficult time for our country, one of the priority tasks of the state is to support and restore the economy. Electronic commerce is a new and very promising branch

of economic relations for Ukraine, which has caused the need to conduct new theoretical and practical studies taking into account the modern conditions of the economy. That is why it is worth paying special attention to the generalization of the essence of the concept of "electronic

commerce”; selection of the main regulatory and legal documents regulating the activity of electronic trade in Ukraine; to investigate the largest trading platforms that carry out their activities through the Internet, and the identified prospects and methods of e-commerce transition to a qualitatively new level in the field of trade.

### Analysis of recent research and publications

A large number of foreign and domestic scientists in their scientific activities highlight issues related to problematic aspects of the functioning of e-commerce in Ukraine. Thus, Sak T.V. [1] and Malyuta I.A. [2] are engaged in researching the current state of electronic commerce and determining its impact on the development of the Ukrainian economy; Kostova N.I. focused her attention on innovations and prospects for the development of Internet trade; Tovkun L.V. devote a lot of attention to researching the peculiarities of the legal regulation of electronic business, determining the market value and building a system of analytical and accounting display of business activity from the creation of an Internet site for sale to the sale of goods. Despite the large number of existing scientific publications on this topic, there is a need for more thorough and up-to-date research on the determination of development prospects and practical recommendations aimed at the recovery and development of the state economy.

### Objectives of the article

The purpose of this article is to determine the current state of e-commerce and to determine possible prospects for the development of e-commerce in Ukraine.

### The main material of the research

The development of information technologies and the spread of access to the Internet in the modern world are characterized by globalization and the continuity of their processes. These phenomena affect all spheres of human activity and provoke huge changes in international and national economies, transform the systems of all business processes and the conditions of economic activity. The increase in the number of Internet users and accessibility to this global network led to the emergence of a new form of trade is electronic trade. Currently, economic activity in the field of electronic commerce in Ukraine is primarily related to trade through the Internet [3].

The role of e-commerce in the formation of business processes increases every year and unites a huge number of business entities and consumers from all over the world with the help of the Internet. Despite the widespread use of the term “electronic commerce”, there is still no single interpretation of this concept. Therefore, we consider it expedient to investigate and generalize the interpretation of previously published definitions (table 1).

Based on the results of the research, we can see that the majority of scientists, such as O.M. Yudin and O.I. Shaleva, define “electronic commerce” only as a business activity related to the purchase and sale of goods with the help of information technologies. In our opinion, it is not correct to limit ourselves only to the specified function, which is undoubtedly performed by e-commerce. That is why, under electronic commerce, we see it as appropriate to understand relations that arise in connection with the purchase/sale of goods, services and works and for the purpose of obtaining income and are carried out outside stationary trading platforms with the help of the Internet. We believe that the proposed definition details the components of the e-commerce system in more detail and combines the specific features of the specified activity and does not contradict the regulatory legal acts.

There are millions of e-commerce sites in the world. The largest of them are [2]:

1. Amazon. This Internet portal is considered the oldest. His work began in 1995. Amazon deals in all kinds of new and used goods, including appliances, books, clothing, and even vehicles. Amazon is based in Washington, but its work is done all over the world. The value of the company is estimated at approximately 35 billion US dollars.

2. eBay is the next most important online store after Amazon. eBay is not only the largest website, but also an auction. Here you can buy new and used goods, as well as sell old things at auction. eBay is estimated to be worth approximately \$10 billion. USA. It is also one of the oldest online companies that started its work in 1995.

3. Alibaba is a Chinese e-commerce company that started its work relatively recently (2007). This company has millions of revenues and is among the top 100 websites in the world.

A huge number of scientific studies prove that the volumes of electronic trade are constantly growing both in the world and in Ukraine, but are characterized

Table 1 – Study of the essence of the concept of “electronic commerce”

#	Author	Interpretation
1	Yudin O. M.	“Electronic commerce is a business activity of buying and selling goods and services, which involves the interaction of parties based on information networks (without direct physical contact)” [4].
2.	Shaleva O.I.	“Electronic commerce is commercial interaction of business entities regarding the purchase and sale of goods/services using information networks” [5].
3	The Law of Ukraine “About electronic commerce” from 09/03/2015 No. 675-19	“Electronic commerce is relations aimed at obtaining profit, which arise during the execution of transactions related to the acquisition, change or termination of civil rights and obligations, carried out remotely using information and telecommunication systems, as a result of which the participants of such relations have rights and obligations ties of a property nature” [6].
4	Chaffey D.	“Electronic commerce is an activity covering all types of electronic transactions between organizations and interested persons” [7].
5	Novomlynskyi L.	“Electronic commerce is commercial activity in the field advertising and distribution of goods and services using the Internet” [8].

by a slowdown in annual growth rates. We propose to investigate the sales volumes of the leading e-commerce retail entities around the world in 2022 and compare with the forecast values of 2027 (Figure 1).

The graphically depicted results of the study clearly demonstrate to us how fast e-commerce is developing in the world and what great potential it has in the future. The world’s leading online sales platforms had an average revenue of USD 691–780 billion during 2022 and are projected to have the opportunity to increase their revenue by 68% by the end of 2027.

A significant impetus for the development of e-commerce is the fact that most successful sellers of goods, works and services do not implement their offers through only one type of trade. They try to grow using the general principle of customer orientation. That is, consumers can simultaneously use both offline and online advantages of each seller. The advantages of Internet sellers often include the following criteria: constant availability of goods, a convenient and safe payment method, fast delivery and the possibility of returning the order, high-quality service. Reviews, which consumers use when ordering a product or checking the integrity of a seller, also play an equally important role [1].

We emphasize the fact that the development of e-commerce depends on the comprehensiveness and accessibility of the Internet, which leads to an increase in the share of turnover from e-commerce in the GDP

of most countries. The development of e-commerce has a direct dependence on the indicator of the level of Internet penetration among people, that is, the share of the country’s population aged 14 to 74 who are regular Internet users. This indicator in the leading regions of Western Europe approaches 100%, while in Ukraine it is only approximately 63% [2].

The modern realities of the functioning and development of e-commerce in Ukraine are very complex. But, despite this, according to the results of the monthly survey of the Association of Retailers of Ukraine, we see that Ukrainian e-commerce is transforming and recovering (Figure 2). The infographic contains information on the number of Internet trade objects starting from March 21, 2022. Data collection is carried out by the method of online surveys and includes information on almost a hundred enterprises throughout Ukraine, which carry out their activities in eight branches of trade.

Based on the data of the July survey, 16.964 of the 17.040 e-commerce sites that were destroyed have already been restored and are operating. In March 2022, 29% of enterprises closed, but as of July 2023, this figure is only 1.7%, that is, only 76 Internet trade objects out of 4.481 that previously suspended their activities. Working in the extremely difficult conditions of the war, this area of trade was constantly improving and building up lost resources. Only in the first seven months of 2023, about 994 new online stores were opened, which is more than 7% compared to

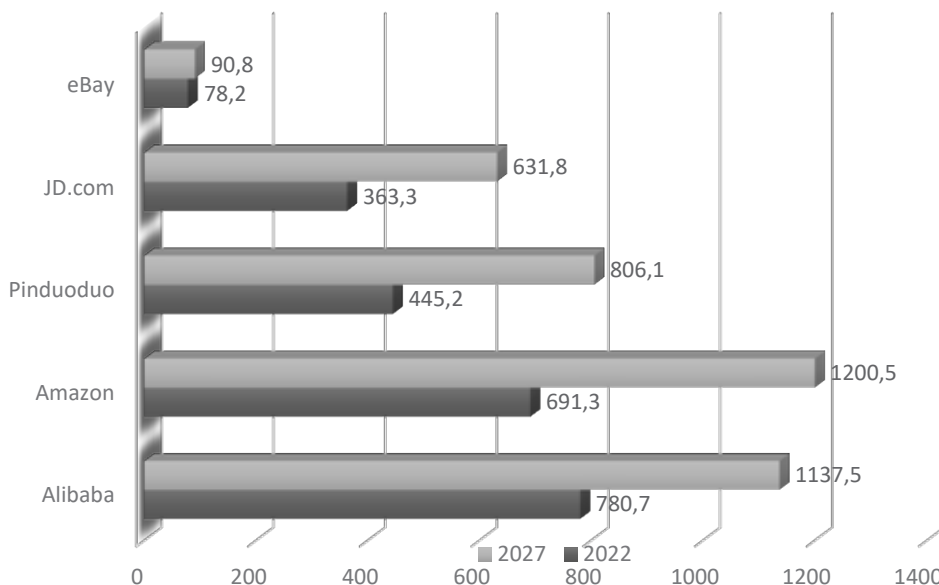


Fig. 1 – Top Global E-Commerce Retailers in 2022 and 2027, based on projected sales (USD Billion)

Source: compiled by the author based on [9]

Table 2 – Dynamics of active and closed e-commerce sites in Ukraine during the war

	The number of objects before the war	March 2022	December 2022	January 2023	February 2023	March 2023	April 2023	May 2023	June 2023	July 2023	Restored in the first 7 months of the war
Number of open objects	17 040	10 782	15 190	15 717	15 873	16 127	16 265	16 503	16 760	16 964	+ 7%
Number of closed objects		-4481	-1225	-1070	-914	-694	-556	-318	-254	-76	

Source: based on [10]

last year's figures of 2022. Therefore, the largest number of stores were opened in June, March and May, which is 257, 238 and 254 economic entities, respectively.

Based on the results of the research, we offer the following principles for the development of e-commerce in Ukraine [11]:

- most of the existing scientific studies predict a great growth of both global and local markets in the field of electronic commerce;

- the role of social networks as a way of conducting business activities is growing. The quantitative effect of trading through Facebook and Instagram is constantly increasing, as business pages for sales appear;

- the latest information technologies and Internet communication tools are used more actively, which ensure the speed and convenience of trading operations. And as a result, the growth of e-commerce both in the world and in Ukraine.

In our opinion, it is necessary to pay special attention to the latest technologies in the field of e-commerce, such as: voice commerce, augmented reality, visual commerce, online assistant tools, gamification. The above-mentioned technologies are a perspective for the development of Ukrainian e-commerce, because the development of the global Internet market is completely dependent on the diversification of new information technologies.

### Conclusions

The results of the study prove that the global and Ukrainian e-commerce market is constantly developing and, according to all forecasts, has only positive results for further functioning. The article defines the current state of global and domestic e-commerce; determination of possible prospects for the development of electronic commerce in Ukraine and a generalized definition of the concept of "electronic commerce".

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**ANALYSIS OF SYSTEM TAXATION TO LATVIA:  
BASIC LINES AND ESSENTIAL ASPECTS FOR MODERNISATION  
OF TAX SYSTEM OF UKRAINE**

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**Key words:**

taxation, tax system,  
direct and indirect taxes,  
economic development,  
financial and economic activities,  
tax rates, tax administration

The article considers the taxation system and its impact on the intensification of entrepreneurial activity, conducts a comparative analysis of the current taxation systems of Latvia and Ukraine, highlights their shortcomings, advantages, impact on the development of the country, activities of business entities and welfare of citizens, analyses the tax administration procedure and the mechanism of taxation by direct and indirect taxes. The issue of using foreign experience of tax reforms in the framework of harmonisation of the Ukrainian tax system with the global one is extremely relevant, especially in the current economic environment. As a result of the study, the author analyses the current tax legislation of Ukraine, which is embodied in the provisions of the Tax Code, in comparison with the tax legislation of Latvia. Using the model of the Latvian taxation system as an example, the author substantiates its effectiveness when using a sufficiently high level of tax deductions. To achieve this goal, the author analyses the state of the Latvian taxation system in 2017–2023, and studies the economic freedom index of Latvia in dynamics and its impact on the development of entrepreneurial activity. It is noted that the taxation process should contribute to the implementation of employment policy, influence the distribution of income in the direction of ensuring equity, and create a barrier to the use of shadow tax schemes. Prospects for further research in this area are the development of measures to improve the domestic taxation system.

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**АНАЛІЗ СИСТЕМИ ОПОДАТКУВАННЯ ЛАТВІЇ: ОСНОВНІ РИСИ  
ТА СУТНІСНІ АСПЕКТИ ДЛЯ МОДЕРНІЗАЦІЇ ПОДАТКОВОЇ СИСТЕМИ УКРАЇНИ**

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**Ключові слова:**

оподаткування,  
податкова система,  
прямі та непрямі податки,  
економічний розвиток,  
фінансово-економічна  
діяльність, ставки податку,  
адміністрування податків

У статті розглянуто систему оподаткування та її вплив на активізацію підприємницької діяльності, проведено порівняльний аналіз діючих систем оподаткування Латвії та України, висвітлено їх недоліки, переваги, вплив на розвиток країни, діяльність суб'єктів господарювання та добробут громадян, проведено аналіз порядку податкового адміністрування та механізму оподаткування прямими та непрямими податками. Проблема використання зарубіжного досвіду податкового реформування у рамках гармонізації української податкової системи зі світовою є надзвичайно актуальною, особливо за теперішніх економічних умов. В результаті проведеного дослідження проаналізовано чинне податкове законодавство України, що втілене в нормах Податкового кодексу, у порівнянні з податковим законодавством Латвії. На прикладі моделі системи оподаткування Латвії обґрунтовано її ефективність при використанні достатньо високого рівня податкових відрахувань. У рамках поставленої мети проаналізовано стан системи оподаткування Латвії за 2017–2023 рр., досліджено індекс економічної свободи Латвії в динаміці та його вплив на розвиток підприємницької діяльності. Зазначено, що процес оподаткування повинен сприяти реалізації політики зайнятості, впливати на розподіл доходів у напрямку забезпечення справедливості, а також створити бар'єр для використання тіншових схем сплати податків. Перспективами подальших досліджень у даному напрямі є розробка заходів щодо вдосконалення вітчизняної системи оподаткування.



### Formulation of the problem

In order to improve the efficiency of Ukraine's taxation system, due to the intensification of integration processes, there is a need to compare it with the taxation systems of different countries and study their experience in order to apply it in the process of reforming the domestic tax system.

It should be noted that the scientific literature pays insufficient attention to the coverage of the efficiency of the tax system in the structure of international indices and ratings.

### Analysis of the recent research and publications

The issues of disclosure of foreign experience in building taxation systems have received considerable attention from well-known scholars: A. Afonso, R. Varsano, R. Weber, D. Wilson, W. Gail Flat, D. Diamond, M. Devereux, S. Colignon, C. Naikel, V. Oates, R. Perroti, G. Tabellini, V. Tanzi, G. Tauber.

The following domestic scholars have studied the experience of economically developed countries: V. Andrushchenko, Z. Varnaliy, O. Vasylyk, V. Heets, V. Kozachenko, P. Melnyk, V. Nusinov, A. Sokolovska, N. Khoroshayev and others.

### Setting the objectives

The purpose of the article is to analyse the peculiarities of the Latvian taxation system, its advantages and disadvantages, to compare it with the current taxation system of Ukraine, and to identify the main areas for using foreign experience in Ukraine.

### The presentation of primary research material

The main law regulating the Latvian taxation system is the Law on Taxes and Fees. Its provisions are supplemented, insofar as they do not contradict the main documents, by the Customs Code of Latvia, local government acts, specialised laws of the Saeima, resolutions of the Cabinet of Ministers of Latvia and EU laws.

The Latvian tax system consists of 16 direct and indirect taxes and more than a hundred state duties. The mechanism of their collection and rates are constantly changing.

In 2015, it was recognised that the Latvian system is among the most optimal in the EU in terms of the number of fiscal payments and their rates.

Since 2018, the reinvested profits of companies and organisations have not been subject to income tax. Thus, if a decision is made to pay dividends, 20% of the accrued amount and 25% of the paid amount must be transferred to the budget, and if the profit remains fully at the disposal of the company, no tax is levied. In Ukraine, the corporate income tax has a basic rate of 18% and is levied on taxpayers whenever they make a profit, regardless of the purpose of the funds received.

The company may also have tax liabilities for the payment of fees for the ownership and use of real estate, transport, excise duties or customs duties. This depends on the company's property or the type of activity it chooses.

The simplified taxation system reduces the fiscal burden on small businesses, which helps to promote the development of

small businesses. If an organisation meets several mandatory criteria, it can count on significant tax relief: the tax rate is 15% of turnover, and employee salaries are not subject to insurance contributions. However, a candidate for the title of micro-enterprise must meet the following conditions: annual turnover does not exceed EUR 40 thousand, the number of participants and employees cannot exceed 5 people (all founders must be individuals), and salaries cannot exceed EUR 720 per month. The experience of applying the Latvian simplified taxation system is useful for Ukraine and makes it possible to take into account the needs of both taxpayers and the state budget [1].

The personal income tax in Latvia is quite interesting in relation to Ukraine. Personal income tax is paid by employees, entrepreneurs and persons receiving capital income. Since 2018, the Latvian personal income tax rate has become progressive and is set depending on the amount of annual income:

- up to EUR 20.000 – 20%;
- between EUR 20.000 and EUR 55.000 – 23%;
- over EUR 55.000 – 31.4%.

If the salary does not exceed EUR 440 per month, the income tax in Latvia is calculated taking into account the tax-free minimum of EUR 200.

Reduced rates are applied only after filing a tax return for the previous year. Therefore, individuals with low incomes often end up with an overpayment of personal income tax at the end of the year.

Starting from 2018, individuals who receive income from invested capital in the form of dividends are exempt from paying personal income tax if the company has paid income tax on them.

If an individual receives dividends from abroad or offshore, personal income tax is payable. The only exceptions are those foreign companies that are registered in countries with which Latvia has entered into double taxation treaties.

The basic rate of VAT is 21%, but reduced rates of 12%, 5% and 0% apply to baby food, Latvian speciality products (berries, vegetables and fruits) and exports and supplies of goods to the EU.

In Latvia, as in many other countries, the costs of the initial acquisition of real estate are not final, as the right to own the property in the future will have to be paid annually up to 3% of its cadastral value. The Sejm allowed the real estate tax to be approved at the level of local governments, at rates ranging from 0.2% to 3% of the value indicated in the cadastre as at 1 January of the reporting year.

Individuals who lease out real estate, but have not registered as a business entity, pay at least 10% of the amount of the contract with the tenant.

In 2017, the Latvian Saeima cancelled the transport tax for the initial registration of a vehicle, but increased the transport tax rates by 7.4%. For cars manufactured and registered after 31 December 2008, the operation tax depends on the level of carbon dioxide emissions, which, according to the legislators, will help reduce emissions[2].

Since the beginning of 2017, a fee has been approved for a car imported from abroad but not registered in the Republic of Latvia. The tax on cars with foreign licence

plates is about EUR 1000 per year. The tax is paid only by citizens of this country or those who have obtained a residence permit.

In terms of excise duties, everything is quite usual in Latvia: alcohol, tobacco, petroleum products, natural gas, coffee, soft drinks, e-cigarettes and e-liquids are subject to excise duty. Starting in 2017, a gradual increase in alcohol and cigarette rates was envisaged, and in 2023, an additional € 1.11 in excise duty will be paid for each litre of wine, and the cost of a pack of cigarettes will include at least € 2.29 in tax.

Specific taxes in Latvia, which not all taxpayers face, include taxes on gambling, lotteries, mining, and electricity.

Customs duties, inheritance tax in Latvia, as well as fees for donation, purchase and sale of property can rightly be considered one of the significant sources of revenue for the country's budget. Notaries are responsible for settling these transactions and collecting the fees, and they are also required to submit data to the Land Registry for registration of property rights.

In addition to collecting personal income tax, the employer must take care of the calculation and withholding of social security contributions. Since 2018, the contribution rate has increased to 35.09%, of which 24.09% is paid to the budget by the employer and the remaining 11% is withheld from the employee's earnings. Individual entrepreneurs had to pay 31.13% of the approved minimum, while the rate for voluntary contributions is 24.54%.

The State Revenue Service of the Republic of Latvia administers taxes, social contributions, duties, monitors the turnover of excisable goods and organises customs control.

The official website of the Latvian Tax Service provides up-to-date and detailed information on current rates, reporting procedures and deadlines. It is available in two languages: Latvian and English. For those who are unable or unwilling to communicate with state tax consultants in person, the website provides an electronic feedback option for taxpayers to submit questions, complaints or suggestions.

The website of the State Revenue Service contains information on the details for payment of fiscal obligations and explanations on how to pay customs duties to the Latvian state treasury, as well as the procedure for restructuring and voluntary repayment of tax arrears.

The Latvian Tax Service conducts at least 13,000 audits annually. Among the total number of control measures, there are both general and thematic ones. In the first case, the effectiveness of such events reaches 98%, while inspections devoted to specific issues allow to identify violations in 64 companies out of 100. This activity of the fiscal authorities makes it clear that any businessman is guaranteed to be audited within a three-year period.

In this context, to study the impact of the taxation system on the development of entrepreneurship, it is advisable to study the indicator of economic freedom of Latvia, which is calculated by the US strategic research institute The Heritage Foundation and is formed from 10 factors (Table 1).

This indicator was chosen for its impeccable reputation and comprehensive approach to determining the factors that influence the overall index. It is valuable that some of the factors assessed relate to the country's interaction with the rest of the world (for example, the degree of openness of the economy to global investment or trade).

This indicator was chosen for its impeccable reputation and comprehensive approach to determining the factors that influence the overall index. It is valuable that some of the factors assessed relate to the country's interaction with the rest of the world (for example, the degree of openness of the economy to global investment or trade) [3].

Until 2015, Latvia was in the group of countries with moderately free economies (with a score of 60–69.9), and since 2017 it has moved to the group of countries with mostly free economies (with a score of 70–79.9). As for Ukraine, in the period from 2009–2017, it was in the group of countries with unfree economies (with an index of 0–49.9). During this period, its indicators

Table 1 – Economic Freedom Index of Latvia for 2009–2022

Year	Overall score	Property rights	Government integrity	Judicial effectiveness	Tax burden	Government spending	Fiscal health	Business freedom	Labor freedom	Monetary freedom	Trade freedom	Investment freedom	Financial freedom
2022	74.8	88.5	61.1	75.1	76.4	53.2	91.4	81.9	62.4	83.8	79.2	85.0	60.0
2021	72.3	74.7	47.7	55.9	76.7	57.6	96.6	76.5	73.8	79.6	84.0	85.0	60.0
2020	71.9	72.3	46.4	51.1	76.9	58.3	96.5	77.0	72.4	80.2	86.4	85.0	60.0
2019	70.4	67.3	35.5	48.4	77.0	57.1	96.9	77.5	73.3	81.1	86.0	85.0	60.0
2018	73.6	68.3	45.4	58.9	84.0	59.0	95.3	80.1	72.5	87.3	86.9	85.0	60.0
2017	74.8	72.6	67.3	59.7	84.7	57.4	95.0	79.8	72.0	86.5	87.0	75.0	60.0
2016	70.4	50.0	55.0	–	84.8	58.4	–	78.6	59.5	84.8	88.0	85.0	60.0
2015	69.7	50.0	53.0	–	84.4	59.2	–	82.1	61.5	83.8	88.0	85.0	50.0
2014	68.7	50.0	43.6	–	84.6	54.9	–	82.5	68.5	79.7	87.8	85.0	50.0
2013	66.5	50.0	42.0	–	84.4	53.6	–	75.7	64.4	78.3	86.8	80.0	50.0
2012	65.2	50.0	43.0	–	84.3	43.8	–	75.9	59.1	79.1	87.1	80.0	50.0
2011	65.8	50.0	45.0	–	82.5	55.5	–	72.8	61.3	73.5	87.6	80.0	50.0
2010	66.2	55.0	50.0	–	82.7	57.4	–	72.9	59.1	67.0	87.5	80.0	50.0
2009	66.6	55.0	48.0	–	82.3	58.5	–	73.8	61.6	71.1	85.8	70.0	60.0

ranged from 48.8 in 2009 to 48.9 in 2017. Since 2018, Ukraine has moved to the group of countries with mostly unfree economies (with an indicator of 50–59.9), with its indicators ranging from 51.9 in 2018 to 54.1 in 2022.

The level of tax pressure has a significant impact on the development of the shadow economy, but historical, socio-economic, political, psychological and other reasons that contribute to tax evasion can also be considered as significant reasons for its existence. The main task of unshadowing Ukraine's economy is to create the necessary conditions for improving the investment climate, reducing tax and regulatory pressure on business, protecting property rights and labour relations [4].

#### Conclusions and prospects for further research

Taxation systems of different countries are formed under the influence of their own economic, political and social conditions, and therefore they cannot be perfect. Therefore, many countries are constantly searching for optimal options in the field of taxation.

One of the ways to optimise Ukraine's taxation system could be to apply the established principles of taxation in Latvia.

Today, the Latvian taxation system has a significant impact on stimulating economic growth, limiting inflation and unemployment.

Given that tax revenues remain the main source of revenue for Ukraine's budget (about 70% of all budget revenues), it is important to pay attention to the tools that help developed countries remain among the world's most competitive countries despite a significant tax burden. Every citizen of the country should be confident that the state will fully support them in any situation. Trust in the authorities is perhaps the most important factor in building an efficient economy. On this basis, a high tax burden can be justified by the following factors:

- High level of social protection (education, healthcare, pensions);
- high level of environmental protection (fiscal means should stimulate careful attitude to the environment);
- stability of general tax collection rules.

Thus, the example of Latvia suggests that a well-designed taxation system that fits organically into all social and governmental structures can ensure the efficiency of the economic model even despite a rather high level of tax deductions.

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## ASSESSMENT OF THE CURRENT LEGISLATION ON ACCOUNTING AND TAXATION OF FIXED ASSETS OF THE ENTERPRISE

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### Key words:

fixed assets, national standards,  
code, accounting, law,  
normative legal acts

The article examines and analyzes the views of domestic and foreign scientists regarding the essence of the concept of “fixed assets” as an accounting and analytical category. The main differences in the interpretation of the term “fixed assets” in the current legal acts have been identified. On the basis of the conducted analysis, the concept of “fixed assets” is generalized. The system of normative legal acts on the regulation of accounting of fixed assets in Ukraine, a number of laws and normative acts regulating the organization of accounting at enterprises were considered. The goal of state regulation of accounting and financial reporting has been studied. Features of accounting and tax accounting of fixed assets are defined. Order № 73 of the Ministry of Finance of Ukraine “On approval of the National Regulation (standard) of accounting 1” General requirements for financial reporting was analyzed in comparison with Regulations (standards) of accounting 1–5. Order № 73 dated February 7, 2013 introduced new forms of financial reporting that are as close as possible to IFRS. Also, the difference between Regulation (standard) of accounting 7 “Fixed Assets” and IAS16 “Fixed Assets” is clarified and shown. It is found that the difference lies in the scope of application, the objects of assessment and the details of the cost assessment taken into account in these two normative documents, depending on the scope of the organizations that use them. It was determined that Regulation (standard) of accounting 7 “Fixed Assets” defines the methodological principles of forming in accounting information about fixed assets and other non-current assets, their classification, as well as disclosure of information about them in financial reporting. According to the results of the identified discrepancies, which prevent companies that keep records according to national standards, it is easier to enter the international market. It is proposed to bring national standards closer to international ones, and especially Regulation (standard) of accounting 7 “Fixed Assets”, this will allow to harmonize domestic accounting with international standards and reduce inconsistencies and problematic issues of accounting for fixed assets.

## ОЦІНКА ДІЮЧОГО ЗАКОНОДАВСТВА З ПИТАНЬ БУХГАЛТЕРСЬКОГО ТА ПОДАТКОВОГО ОБЛІКУ ОСНОВНИХ ЗАСОБІВ ПІДПРИЄМСТВА

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### Ключові слова:

основні засоби,  
національні стандарти, кодекс,  
бухгалтерський облік, закон,  
нормативно-правові акти

У статті досліджено та проаналізовано погляди вітчизняних та зарубіжних науковців щодо сутності поняття «основні засоби», як обліково-аналітичної категорії. Визначено основні відмінності в трактуванні терміну «основні засоби» в діючих нормативно-правових актах. На основі проведеного аналізу узагальнено поняття «основні засоби». Розглянуто систему нормативно-правових актів щодо регулювання бухгалтерського обліку основних засобів в Україні, ряд законів та нормативних актів які регламентують організацію бухгалтерського обліку на підприємствах. Досліджено мету державного регулювання бухгалтерського обліку та фінансової звітності. Визначено особливості бухгалтерського та податкового обліку основних засобів. Проаналізовано Наказ № 73 міністерства фінансів України «Про затвердження Національного положення (стандарту) бухгалтерського обліку

1» Загальні вимоги до фінансової звітності» в порівнянні з Положеннями (стандартами) бухгалтерського обліку 1–5. Наказом № 73 від 07.02.2013 р. введені нові форми фінансової звітності, які максимально наближені до МСФЗ. Також, з'ясовано та показано різницю між НП(С)БО 7 «Основні засоби» та МСБО 16 «Основні засоби». Встановлено, що різниця полягає у сфері застосування, об'єктах оцінки та деталях оцінки вартості, що враховуються в цих двох нормативних документах в залежності від сфери застосування організацій, які їх використовують. Визначено, що Положення (стандарт) бухгалтерського обліку 7 «Основні засоби» визначає методологічні засади формування в бухгалтерському обліку інформації про основні засоби, та інші необоротні активи їх класифікацію, а також розкриття інформації про них у фінансовій звітності. За результатами виявлених розбіжностей, які заважають компаніям, що ведуть облік за національними стандартами, простіше вийти на міжнародний ринок. запропоновано національні стандарти наблизити до міжнародних, а особливо НП(С)БО 7, це дозволить гармонізувати вітчизняний облік з міжнародними стандартами та зменшити невідповідності й проблемні питання обліку основних засобів.

### Statement of the problem

In today's business environment, there is a constant need for companies to disclose information about their performance. Thus, a significant part of this information is information about the state of the company's assets, in particular fixed assets. The functioning of any business entity begins with the organization of the material and technical base, in which fixed assets are the main element. This requires constant monitoring of the efficiency of the use of fixed assets for the management of production activities. One of the main tasks of accounting for fixed assets is to provide complete, truthful and unbiased information about them. However, the information contained in the financial statements regarding property, plant and equipment is not always such due to imperfections in the domestic legislation and constant changes in it, assessment of the current legislation on accounting and taxation of property, plant and equipment.

### Analysis of recent studies and publications

Both domestic and foreign scholars are constantly researching issues related to improvement of accounting and tax accounting of fixed assets. In particular, these issues are covered in the works of S.F. Holovan, V.V. Sopka, F.F. Butynets, O. Bondar, I. Pavliuk, V. Babich, S. Chernenko and others. However, a number of issues, such as determining fair and revalued value, depreciation methods, approximation of national accounting to international standards, remain relevant and require further research.

### Objectives of the article

The purpose of the article is to assess the current legislation and identify the main aspects of accounting and taxation of fixed assets, to establish their differences and common features, and to provide recommendations on how to bring them closer together and overcome their differences.

### The main material of the research

The essence of the category of "fixed assets" has been repeatedly studied by scholars of Ukraine and foreign countries. Among the domestic ones, it should be noted

Butynets T.A., Baranik O., Babich V., Bondar M.I. and others. Among foreign authors, the issue of fixed assets was studied by V.F. Paliy and others. Comparisons are presented below (Table 1).

Based on the analysis of the scientific literature, it can be concluded that "fixed assets" means labor means that have a tangible form and are used to conduct business by an enterprise. The direction of use of fixed assets depends on industry specifics. It can be production, provision of services, sales, etc.

Accounting in Ukraine is based on internationally recognized accounting and reporting standards, the main requirements of which are established by law, and is maintained by the company from the date of its registration until the moment of liquidation.

The entire system of regulations governing the accounting of fixed assets in Ukraine can be represented by a 5-level structure:

- 1) the Constitution of Ukraine, laws and other bylaws;
- 2) Acts of the supreme body in the system of executive authorities;
- 3) accounting regulations and other regulatory acts (orders, instructions, etc.) adopted by central bodies of special competence (the Ministry of Finance of Ukraine, the State Statistics Committee of Ukraine and other agencies);
- 4) methodological recommendations on accounting, which are developed and approved taking into account the specifics and needs of certain types of activities;
- 5) working documents on the organization and maintenance of accounting and application of accounting policies adopted by the owner of the enterprise on the basis of regulatory documents developed and approved by the state authorities.

The organization of accounting at enterprises is regulated by a number of laws and regulations.

The Law of Ukraine "On Accounting and Financial Reporting in Ukraine" defines the legal framework for the regulation, organization, accounting and financial reporting in Ukraine. According to this document, accounting is a mandatory type of accounting maintained by companies. This law contains general provisions, state regulation

Table 1 – Definition of the term “fixed assets” by some scholars and legislation

Author	Definition
Regulation (standard) of accounting 7 “Fixed Assets”	“tangible assets held by an enterprise for the purpose of using them in the production or supply of goods, performance of works and services, leasing to other persons or for administrative, social and cultural functions, with an expected useful life of more than one year (or an operating cycle, if it is longer than one year)” [10].
IAS 16	“tangible assets that are: a) are held for use in the production or supply of goods or services, or for rental or administrative purposes; b) are expected to be used for more than one period” [6].
Bondar O.	“is a set of tangible assets in the form of labor means that repeatedly participate in the process of production and commercial activities and transfer their value to products in parts” [3].
Babich V.	“is a set of labor means that function in the sphere of material production in an unchanged natural form for a long time and transfer their value to a newly created product in parts as they wear out” [1].
Baranik O.	“means of labor for production and non-production purposes” [2].
Kovalev D.	“tangible assets that an enterprise forms for the purpose of using them in the process of production or supply of goods, provision of services, leasing to other persons or for administrative, social and cultural functions and whose expected useful life exceeds one year” [5].
Pirozhok E.	“tangible assets held by an enterprise for the purpose of using them in the production or supply of goods, provision of services, leasing to others, or for administrative, social and cultural functions, with an expected useful life of more than one year (or an operating cycle if it exceeds one year)” [11].
Chernenko S.	“these are means of labor for production and non-production purposes (buildings, structures, machines, transmission devices, inventory, etc.) that participate in the production process for many cycles, while maintaining their natural form, and gradually (as they wear out) transfer their value to the products they produce” [14].
Yalovega L.	“the amount of capital invested in a set of tangible objects and values used in the production process to influence the objects of labor and transform them into products suitable for consumption” [15].

Source: compiled by the author based on [1–3; 5; 6; 7; 11; 14; 15]

of accounting and financial reporting, a section on the organization and maintenance of accounting, information on financial reporting, and final provisions [13].

The Tax Code of Ukraine regulates the procedure for recognizing income and expenses for tax purposes, the possibility of granting and receiving benefits in the course of business activities, the procedure for taxation of services rendered, the composition of operating expenses (cost) and other expenses (general, administrative, sales, etc.), and other issues. As regards fixed assets, the law divides them into 16 groups, determining the minimum term of their operation, methods of depreciation, formation of the initial value of fixed assets, rules of indexation, etc. [12].

The Civil Code of Ukraine regulates the purchase and lease of vehicles and the rules for using vehicles as fixed assets.

The Commercial Code of Ukraine defines the concept of company property, including fixed assets, sources of its formation, etc.

State regulation of accounting and financial reporting in Ukraine is carried out with the aim of creating uniform rules for accounting and financial reporting that are mandatory for all companies and improving accounting and financial reporting.

In addition to these basic documents, legal regulation of accounting in Ukraine is carried out on the basis of:

- decrees and orders of the President of Ukraine;
- resolutions of the Cabinet of Ministers and other executive authorities;
- resolutions of the National Bank on the organization of settlement and credit and cash transactions, opening accounts in national and foreign currency, etc;
- resolutions of statistical authorities approving statistical reporting forms;

- regulations of the Ministry of Economy, sectoral ministries and other bodies to which companies report (State Tax Administration, State Treasury, State Commission on Securities and Stock Market, Pension Fund, etc.).

Methodological regulation of accounting in Ukraine is carried out by the Ministry of Finance, which develops

- charts of accounts;
- regulations on documentary support of accounting records;
- the scope, forms and procedure for preparing annual (quarterly) financial statements;
- the procedure for maintaining accounting registers by various enterprises;
- other regulatory documents that define the rules for accounting in general and for individual business transactions.

According to the Accounting Law, a national accounting regulation (standard) is a legal act approved by the Ministry of Finance of Ukraine that defines the principles and methods of accounting and financial reporting that do not contradict international standards.

The Ministry of Finance of Ukraine approved Order № 73 dated 07.02.2013 (as last amended on 20.06.2018 in sections) “On Approval of the National Regulation (Standard) on Accounting 1” General Requirements for Financial Reporting”.

Order № 73 dated February 07, 2013 introduced new forms of financial statements that are as close as possible to IFRS (Annex 1 to the Regulation (standard) of accounting):

- Balance sheet (Statement of financial position);
- Statement of financial results (Statement of comprehensive income);
- Statement of cash flows (using the direct method);
- Statement of cash flows (using the indirect method);
- Statement of Equity.

The new reporting forms now contain four-digit line codes, some lines have been shortened, and new ones have been added to bring the Regulation (standard) of accounting reporting forms as close as possible to IFRS requirements to make it easier to integrate into the European system and find investors abroad.

National Regulation (standard) of accounting 1 also establishes that companies that use international financial reporting standards in accordance with IFRS1 “First-time Adoption of International Financial Reporting Standards” and submit their first annual financial statements in accordance with international standards, provide information in the balance sheet as of the beginning and end of the reporting period, as well as as of the date of transition to international financial reporting standards [7].

In addition, it is determined that the International Financial Reporting Standard for Small and Medium-sized Enterprises may be used by enterprises that are required to apply IFRS in accordance with the law, as well as by those enterprises that have made such a decision on their own. The application of the International Financial Reporting Standard for Small and Medium-sized Entities is not allowed by entities that are not within the scope of its application. Enterprises that use the International Financial Reporting Standard for Small and Medium-sized Enterprises to prepare their financial statements shall use the reporting forms approved by National Regulation (standard) of accounting 1.

However, there are still inconsistencies between national and international standards that “prevent” companies from entering the international market and attracting foreign investors without any problems. Not everyone will be able to understand financial statements or fixed assets accounting under Regulation (standard) of accounting 7, because IAS16 understands it partially differently (Table 2).

To summarize, the difference is generally in the scope of application, valuation objects and details of the valuation, which are taken into account in these two regulations, depending on the scope of application of the organizations that use them.

According to National Regulation (standard) of accounting 1, the financial statements must contain the information required to be disclosed by national accounting regulations (standards) or international financial reporting

standards and/or other regulatory legal acts of the Ministry of Finance of Ukraine on accounting. The information to be disclosed should be provided directly in the financial statements or in the notes to the financial statements.

In addition, National Regulation (standard) of accounting 1 stipulates that legal entities (except for banks and budgetary institutions) that are required to submit financial statements in accordance with the law shall apply the new forms of financial statements starting from the reporting for the first quarter of 2013 and in subsequent reporting periods.

National Regulation (standard) of accounting 7 “Property, Plant and Equipment” defines the methodological principles of accounting for information on property, plant and equipment and other non-current assets, their classification, and disclosure of information about them in the financial statements [10]. This regulation defines all the key terms related to fixed assets.

National Regulation (standard) of accounting 15 “Revenues” defines the methodological principles of forming information on the company’s revenues in accounting and its disclosure in the financial statements, recognition and classification of revenues, and measurement of revenues [8].

National Regulation (standard) of accounting 16 “Expenses” [9] defines the methodological principles of forming information about the company’s expenses in accounting and its disclosure in financial statements, recognition of expenses, and composition of expenses.

Instruction № 291 as amended by № 148 of 26.05.2022 on the use of the chart of accounts for accounting for assets, capital, liabilities and business transactions of enterprises and institutions establishes the procedure for maintaining accounting accounts for summarizing information on the availability and movement of assets, capital, liabilities and facts of financial and economic activities of enterprises, institutions and other legal entities by the double entry method. The chart of accounts is a list of accounts and schemes for registering and grouping financial and economic activities (correspondence of accounts) [4].

### Conclusions

The accounting and control of fixed assets in Ukraine is at a high level, but it needs to be improved in the methodological and organizational aspects, as well as the

Table 2 – Comparison of Regulation (standard) of accounting 7 and IAS 16

	<b>Regulation (standard) of accounting 7</b>	<b>IAS 16</b>
Application	applies to the financial statements of public sector entities	applies to the financial statements of commercial entities
Object of valuation	intangible assets, tangible assets and intangible assets acquired for use in business operations	tangible assets, such as machinery, equipment, vehicles and real estate, are the main object of valuation
Submission of reports	public sector reporting is prepared in accordance with National Regulation (standard) of accounting standards and includes information on intangible assets and tangible assets	the financial statements of commercial enterprises are prepared in accordance with IAS standards and include information on tangible assets
Estimation of value	the value of intangible and tangible assets in the public sector may be measured based on market value or value in use	angible assets are measured at cost and may be subject to depreciation and amortization
Depreciation methods	5 depreciation methods have been established for fixed assets	3 methods: straight-line method, declining balance method, and unit-of-production method

Source: compiled by the author based on [6; 10]

consistency of legal and regulatory documents, namely national standards and international regulations. To give an example, there are discrepancies with international standards in National Regulation (standard) of accounting 7 that prevent companies that keep records according to national standards from entering the international market

more easily. Therefore, we propose to bring national standards closer to international standards, especially National Regulation (standard) of accounting 7, which will harmonize domestic accounting with international standards and reduce inconsistencies and problematic issues in the accounting of fixed assets.

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# THEORETICAL AND APPLIED ASPECTS OF ECONOMIC PROCESSES IN UKRAINE AND IN THE WORLD ECONOMY

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## VECTORS OF IMPROVING THE MANAGEMENT OF BUSINESS ENTITIES IN THE SYSTEM OF CONJUNCTURE CHANGES CAUSED BY UKRAINE'S ENTERING TO THE EU IN THE POST-WAR PERIOD (SPECIAL ASPECTS OF FUNCTIONING ADAPTATION OF THE UNITED TERRITORIAL COMMUNITIES (UTC) ENTERPRISES WITHIN THE FRAMEWORK OF THE PARADIGM SHIFT OF THE EUROPEAN MARKET DEVELOPMENT)

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### Key words:

market conjuncture,  
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national traditions, science,  
European Union,  
united community,  
administrative and territorial  
reform,  
enterprise, driver, paradigm,  
balance of interests

The article discloses the process of transformation of the national economy to European standards and traditions under conditions of the war and post-war periods of the development of Ukrainian society, periodic conjuncture changes. The role and place in various transformations of social activity management, including a scientific one in the framework of administrative and territorial reform, has been determined. The impact of market factors on the formation of post-war European standpoints of Ukraine, taking into account the current reforms under the conditions of united territorial communities has been studied. Processes and methods of management in the system of conjuncture changes, which are caused by extreme military circumstances, have been considered. An analysis of the drivers with the help of which economic entities (enterprises) are managed depending on the level of their possession of important resources, was carried out. The necessity of changing the framework of market development, national, marketing and scientific traditions formed in the Soviet and post-totalitarian periods and reorienting them to the conjuncture shifts of the European model has been established. The importance of defining long-term goals and stagewise improvement of the of business entities (enterprises) management, developing strategies for their achievement and transferring them to European development vectors has been updated. The formation of an organizational and economic mechanism for achieving the established goal with the most effective results is proposed. According to the chosen concept of improving the activities of economic entities (UTC enterprises), it is advisable to consider the expansion of adaptive capabilities and adaptive potential. This can be achieved by implementing a system for monitoring sales markets, material and technical supply, financial and credit and investment sectors, markets for technical and technological innovations, macroeconomic processes and the functioning of the foreign exchange market. It is also important to take into account social and political changes in foreign markets and the possibility of changes in monitoring areas in accordance with the response to market conjuncture.

## ВЕКТОРИ УДОСКОНАЛЕННЯ УПРАВЛІННЯ СУБ'ЄКТАМИ ГОСПОДАРЮВАННЯ В СИСТЕМІ КОН'ЮНКТУРНИХ ЗМІН ОБУМОВЛЕНИХ ВСТУПОМ УКРАЇНИ ДО ЄС, У ПОВОЄННИЙ ПЕРІОД (ОСОБЛИВОСТІ АДАПТАЦІЇ ФУНКЦІОНУВАННЯ ПІДПРИЄМСТВ ОБ'ЄДНАНИХ ТЕРИТОРІАЛЬНИХ ГРОМАД (ОТГ), В КОНТЕКСТІ ЗМІН ПАРАДИГМИ РОЗВИТКУ ЄВРОПЕЙСЬКОГО РИНКУ)

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### Ключові слова:

кон'юнктура ринку,  
кон'юнктурні зміни,  
національні традиції, наука,  
Європейський Союз,  
об'єднана громада,  
адміністративно-територіальна  
реформа, підприємство, мотив,  
парадигма, баланс інтересів

У статті розкрито процес трансформації національної економіки до Європейських стандартів і традицій, в умовах воєнного і повоєнного періодів розвитку українського суспільства, періодичних кон'юнктурних змін. Визначено роль і місце у цих перетвореннях різних форм управління суспільною діяльністю в т. ч. і науковою у контексті адміністративно-територіальної реформи. Вивчено вплив ринкових чинників на формування повоєнних Європейських позицій України з урахуванням діючих реформ, в умовах об'єднаних територіальних громад. Розглянуто процеси і методи управління в системі кон'юнктурних змін, які обумовлені екстремальними, воєнними обставинами. Здійснений аналіз мотивів, якими керуються суб'єкти господарювання (підприємства) залежно від рівня їх володіння важливими ресурсами. Встановлено необхідність зміни парадигми розвитку ринку, національних, маркетингових і наукових традицій сформованих ще у радянський та посттоталітарний періоди і переорієнтування їх на кон'юнктурні зміни Європейського взірця. Актуалізована важливість визначення перспективних цілей та поетапного удосконалення управління суб'єктами господарювання (підприємствами), розробки стратегій їх досягнення і переведення на європейські вектори розвитку. Запропоновано формування організаційно-економічного механізму досягнення встановленої мети при максимально ефективних результатах. Згідно з обраною концепцією удосконалення діяльності суб'єктів господарювання (підприємств ОТГ), доцільно розглядати розширення адаптивних можливостей та адаптивного потенціалу. Це можна досягти шляхом впровадження системи моніторингу ринків збуту, матеріально-технічного постачання, фінансово-кредитних та інвестиційних секторів, ринків технічних та технологічних інновацій, макроекономічних процесів та функціонування валютного ринку. Також важливим є врахування соціально-політичних змін на зарубіжних ринках і можливість змін напрямків моніторингу відповідно до реакції на ринкову кон'юнктуру.

### Target setting

In modern military environment, the management of target markets becomes one of its most important areas for domestic business entities (enterprises). Against the background of war and post-war arguments regarding the decisive role of target markets management as a key mechanism of policy formation of an adequate response to the development of the market conjuncture of the European model existing economic entities (enterprises) at the current stage of development determines the urgency of its problems step-by-step scientifically based improvement.

Experience of managing target markets has proven that the methodological apparatus as a tool for adequate response to the market conjuncture should include a number of key components of the step-by-step implementation of an effective economic policy in this area, including:

- identifying the impact of target market management tools on achieving the goals of Ukraine's entering the EU, their effectiveness, ability to change priorities and consumer behavior;

- formation of a perfect management mechanism, its main advantages, tools and levers of influence on its implementation. It is commonly known that any target market management tool performs at least one of three tasks: changes the customer's perception encouraging him or her to buy more; offers temporary monetary incentives encouraging him or her once again to buy more; or makes the brand more accessible, making people interested in buying more.

Inadequate management of target markets in the war-crisis period, as well as irrational changes in the management system, negatively affect the market position of not only

business entities in general but also a specific enterprise under conditions of united territorial communities. Basically, these and other circumstances determine the relevance and timeliness of the researched topic.

Along with the relevance of the effectiveness of target markets management in the war and post-war periods, the management of the rational use of resources is the dominant factor of success regardless of the market conjuncture. It is the available experience in this area that determines the need for literature route on the topic researched.

### **Analysis of recent research and publications**

Numerous scientific papers of both domestic and foreign economists are devoted to the study of the enterprise economic activity management, including: I. Ansoff, H. Armstrong, H. Asseliu, J.R. Berman, H.J. Bolt, V. Wong, D. Day, P. Drucker, R. Kerin, J. Lamben, T. Levitt, D. Newman, L. Roger, W. Rudelius, D. Sonders, A. Strickland, S. Hartley, A. Chandler, et al.

Significant results in the chosen field of research were also achieved by well-known Ukrainian scientists, among whom we should single out: B. Andrushkiv, I. Bagrova, N. Briukhovetska, M. Voinarenko, A. Voichak, V. Gerasymchuk, V. Gumeniuk, O. Denisyuk, Y. Zavadskyi, S. Iliashenko, E. Krykavskyi, L. Ligonenko, V. Minin, V. Nyzhnyka, O. Orlov, P. Pererva, T. Reshitilova, H. Savina, S. Saliha, A. Semenov, V. Stadnik, N. Khrushch, A. Chukhno who investigated the problems of the efficiency of economic activity, management, marketing, finance, accounting, and sales of products of industrial enterprises [10].

At the same time, despite the positive scientific results obtained so far, the issue of determining the vectors and stages of improving the management of economic entities in the system of economic changes caused by the entering of Ukraine to the EU in the post-war period, the disclosure of the peculiarities of the adaptation of the functioning of enterprises under the conditions of the united territorial communities, in the framework of administrative-territorial reform in accordance with the paradigm shift of European market development, fell out of the eyeshot of the scientists mentioned.

The above problems of economic activity are the basis for the transition of business entities and industrial enterprises of united territorial communities to management based on models and mechanisms of adaptation to conjuncture changes of the target markets of the European model. This justifies the definition of the goal and tasks of our research.

### **Purpose and objectives of research**

The purpose of the article is to develop theoretical foundations and practical recommendations for the step-by-step adaptation of the management of economic entities economic activities (enterprises of united territorial communities) to the conjuncture changes of the target markets of the European model.

To achieve the chosen purpose, it is necessary to solve the following tasks in stages:

- clarify the conceptual apparatus, analyze the features of the modern paradigm of management of enterprises production and economic activities, determine

the place of market-oriented policies in them, including European model;

- determine management approaches to the adaptation of business entities and enterprises to European market trends;

- track the key trends and features of the modern stage of development of strategic business zones of enterprises, their ability to adapt to economic changes;

- investigate the key factors, cause-and-effect relationships and consistency of ensuring the efficiency of enterprises in the target markets;

- propose a criterion-management basis for the implementation of the policy of adapting the economic activity of business entities, enterprises of united territorial communities to the conditions of the target markets of the European model and a model of the management mechanism in the system of conjuncture changes based on the provisions of adaptation and the application of interaction tools with the institutional system.

The preparation and organization of comprehensive step-by-step measures in this area will definitely allow them to be carried out effectively and facilitate their implementation in practical terms.

### **Statement of basic research materials**

Definitely, taking into consideration the contemplation of Ukraine's entering the EU and NATO, in the post-war period, the problem of improving the management of adaptation processes in the economic activity of the UTC enterprises in the system of conjuncture changes caused by these circumstances is particularly relevant and timely.

**For reference:** *Conjuncture* – comes from Latin «*conjunctura*», «*conjungo*», which mean «link, connect», defines the situation that developed at a certain moment in time in various spheres of social life.

It is commonly known that this term, most often used to characterize the development indicators of certain processes observed in the economy and in our modern (military) environment, can be used in political science, sociology, philosophy, psychology and other fields. Depending on the scale of the processes and areas covered, the conjuncture can be formed in relation to a specific market, a set of markets, an individual state or a group of countries (EU), as well as at the global level. In the last case (military), they talk about such a concept as the world conjuncture (world market conjuncture, etc.), which is not only relevant, but also very timely and actual in respect of the economy.

According to our ideas, the economic conjuncture is a set of conditions in which the process of industrial social reproduction takes place, especially during the periods of war and post-war events. This phenomenal state is determined by the unstable level and pace of economic development, as well as the distribution of resources, exchange and consumption, as well as the created proportions of production.

The main influence on the economic conjuncture is exerted by the market conjuncture, which reflects the conditions of activity of economic entities and characterizes the state of the market at a certain time,

in particular the European market. In other words, the economic conjuncture of the market reflects the state and movement of demand and supply, which affect factors of production, business activity of economic agents, price level, volume of sales, interest rates and exchange rate. For another thing, it reflects the impact of events in the spheres of social reproduction, such as manufacture, resource provision, exchange, distribution and consumption on enterprises, territorial communities, regions and the state as a whole, as well as other key indicators of socio-economic development.

Knowing the method of using this information will help to effectively implement the strategic task of adapting the functioning of enterprises in the changed conditions of united territorial communities, which takes place in the framework of administrative-territorial reform and corresponds to the new paradigm of the development of the European market.

In the example given, we can point to the labor market conjuncture, which has changed significantly due to the war. Currently, about 8 million Ukrainians have gone abroad, many of them are already working abroad. The rest of the population moved from the war zone to safer regions. In other words, the conjuncture is formed under the influence of supply and demand for labor.

Depending on changes in these factors, three types of labor market conjuncture can be distinguished: labor shortage, full employment (balance between demand and supply) and unemployment (labor surplus). The main indicators of the labor market conjuncture include data qualitatively and quantitatively describing the current ratio of supply and demand on the market. These indicators are formed under the influence of factors that determine the supply conjuncture (demographic, level of education, system of professional training, socio-economic, etc.) and factors that affect the dynamics and structure of labor demand (availability of natural resources, development of production, changes in ownership, financial and credit, and investment policy of the state, etc.).

The purpose of studying the conjuncture of such a market is to determine the degree of influence of the activities of economic agents on the state of the labor market and to develop a list of necessary measures to achieve a balance of demand and supply on it. With that said, the analysis of the market situation, in this case, is one of the key methods of workforce management, by the way, not only in the labor market. These circumstances determine the vector nature of the research arrangement and the stage-by-stage approach in sequence and time.

Under our conditions, the change in the conjuncture is determined primarily by the nature and level of general development. Meanwhile, under the conditions of the united territories, it is affected not only by such factors as the seasonal nature of production and consumption of a number of goods, but also by the degree of destruction of infrastructure by war, migration processes, etc. It is understood that it is necessary to distinguish favorable and unfavorable market conditions. The first one is observed under the conditions of intensive economic growth, price and financial stability and economic upswing; the second

one – under the conditions of development in the economy of crisis, war recession and extremely low business activity.

The conducted sociological researches (surveys) confirmed not only the relevance and timeliness of the subject of the scientific paper, but also served as a basis for formulating the goal and tasks of the research, created the basis for its scientific novelty and practical significance and the definition of vectors and stages of enterprises functioning adaptation under the conditions of united territorial communities, in the framework of administrative and territorial reform, in accordance with the paradigm shift of the European market development.

**The first stage** of the transformational trend of scientific research, should traditionally involve clarification of the conceptual framework to the best of our belief. The study of the theoretical foundations of the business entities (enterprises) management under the conditions of war and the determination of the peculiarities of the formation of organizational and economic mechanisms for their adaptation to the market conjuncture of the EU in the post-war period under the conditions of united territorial communities in the context of administrative and territorial reform in accordance with variability of the situation.

The process of adaptation should involve the disclosure of the theoretical foundations of the market conditions formation during the wartime. Consider the interpretations of the use of possible approaches to the management of production and economic activities of economic entities (enterprises of united territorial communities) during the post-war period.

Determination of scientific approaches to formation and their application in the process of adaptation of enterprise subsystems to European market trends using the appropriate methodical apparatus for analyzing the effectiveness of enterprise management in the system of conjuncture changes in target markets.

**The second stage** is an analytical one and it should traditionally involve the analysis of the features of the business entities (UTC enterprises) adaptation to the development of European model markets.

Based on the analysis of statistical data, it is advisable to study the dynamics and development trends and the structure of the target markets of business entities (enterprises of the OTG) under wartime conditions.

To carry out monitoring and instrumental provision of the economic activity management of a market-oriented enterprise in accordance with the European market conjuncture.

To ensure the identification of reserves of effective management of the enterprise economic activity in the system of conjuncture changes of the target markets for the long term.

**At the third stage** of the scientific study of the problem, it is advantageous to provide for the determination of trends (vectors) for improving the mechanisms of managing the economic activity of the enterprise in the system of conjuncture changes of the European markets.

Hereunder, it is advisable to provide for the definition of system-forming tasks, principles and approaches in ensuring the effective adaptation of the enterprise to the

conditions of the EU target markets, of business entities and enterprises of the OTG, respectively. To propose organizational and economic mechanisms of influence and key factors of ensuring effective work on the target markets of the European model and scientific principles of improving integrated management – management of enterprise subsystems under the conditions of the state, region and territorial associations.

#### **Scientific, methodological novelty and practical significance of the results obtained**

It consists in the powerful capabilities for using the available proposals in the development and construction of a situation-oriented organizational economic mechanism of an adaptive type on the basis of innovative methods of the interaction of industrial enterprises with the institutions of the European market and integration into the mechanisms of the functioning of strategic zones of economic entities including UTC enterprises.

It is appropriate to propose the development of mechanisms for managing the economic activity of the enterprise in the system of conjuncture changes of the target European markets, which solves the current managerial and economic problem of adaptation to the factors of the functioning of strategic economic zones with flexible adjustment of economic systems and diversification of provision sources.

In accordance with the conditions and circumstances, to improve the scientific approach regarding the influence of the functioning of the national economy after considering the results of applying the economic mechanism of enterprises within the framework of macroeconomic policy, currency regulation and increasing the openness of the country to international markets, which would ensure a clear understanding of the cyclical nature of the development of the market environment of the enterprise and key macroeconomic and political factors for the efficiency of an enterprise operation through the reserves of economic activity effective management in the system of conjuncture changes of the target European markets.

Interpretation of the place of business entities and industrial enterprises of the UTC in the system of economic coordinates, as well as approaches to the impact of the economic conjuncture on economic effects, financial condition, operational activity efficiency, production potential, and the ability to integrate into the European mechanisms of the strategic economic zones functioning;

The systematization of the criterion base for making managerial decisions regarding trends for improving the efficiency of the functioning of enterprises under wartime conditions of dynamic changes in the market conjuncture, as distinct from existing approaches, guarantees a reduction in the risks of uncertainty and losses from non-rational managerial decisions.

As described, the practical significance of the results obtained in the research process lies in the broad possibilities of using theoretical and applied recommendations for the stage-by-stage approach to the formation of mechanisms for managing the economic activity of economic entities and enterprises of the UTC adapted to the cyclical changes

of the target European markets. In particular, the defined list of recommended measures to improve the economic mechanism in terms of the application of tools will contribute to adaptation to the market conjuncture, as well as the formation of a resource base for the transformation of the economic mechanisms available at national enterprises into mechanisms of the European economic-oriented type.

#### **Conclusions**

Consequently, the evolution of business entities (UTC enterprises) management, marketing concepts, taking into account the development of markets, under the conditions of Ukraine entering the EU, acquire a new meaning. The socio-economic situation contributes to the implementation of their expansion forecasts from purely marketing ones, which interpret the behavior of consumers and establishing contact and interaction between them, to the concepts of integrating subsystems and the economic mechanism of the enterprise into the economic system of strategic economic zones and the European market as a whole.

It is commonly known that, the conjuncture influence of the market on economic results even under peaceful conditions goes beyond marketing and sales systems and through the sale of products, goods, works, services determines the volume and structure of financial flows, the threshold of profitability and profit, liquidity and paying capacity of the enterprise, payback investments and successful implementation of investment programs, operating efficiency and ability to reproduce fixed assets, etc. Conjuncture changes of the war and post-war periods provoke progression in: production and economic potential, profitability threshold, volumes of unrealized reserves, turnover of financial resources, investment attractiveness, profitability and production capacities, general structural changes in costs, financial resources, etc. The ability to adapt to the conjuncture of the European target markets is determined by the accuracy of the formalization of the problem of their management, where the relative comparative advantages of the existing economic systems are most evident. Inadequate management of target markets during the war period, as well as irrational changes in the management system in the post-war period negatively affect the market position of business entities and enterprises of the UTC.

The management system, the ability to respond to conjuncture changes, monitor them and adapt to them, are determined by the tendentious nature of the development under the conditions of a market economy with the preservation of many features that characterize the consequences of the influence of a directive economy in relation to managerial experience, low production efficiency, high material and energy dependence, energy intensity, lack of a resource base for reforming the economic mechanism, innovative restoration of the production base, formation of means and tools for interaction with European market institutions.

The surveyed business entities (enterprises of the UTC) demonstrated an increase in economic activity, which became possible due to favorable trends in the market conjuncture created by European partners. However,

the main reason is that enterprises lack a full-fledged mechanism of operation and adaptation to the target European markets.

The lack of an adequate response mechanism to changes in the market conjuncture was a consequence of the lack of sufficient experience to understand the problem, on the one hand, and insufficient resource base, on the other. Under negative scenarios, unfavorable conditions occur both in the sales market and in the financial sector, and enterprises are unable to attract resources for the implementation of economic measures. Under a positive scenario, dependence on external sources of financing increases and enterprises often go beyond the critical values of financial stability. That is, under both scenarios, the market conjuncture exerts pressure on the financial stability of economic entities.

On the basis of the chosen concept of improving the operation of economic entities (UTC enterprises), it is expedient to increase adaptive capabilities and adaptive potential based on the implementation of a system for monitoring sales markets, material and technical supply, financial and credit and investment sectors, markets for technical and technological innovations, macroeconomic processes and the functioning of the foreign exchange

market, as well as socio-political changes in foreign markets, with the possibility of changes in monitoring areas, as a respond to market conjuncture.

Pursuant to the circumstances mentioned, it makes sense to form a mechanism for their adaptation to the market conjuncture of the European model, which involves primary reorganization, adjustment of management measures, functions of divisions and services, instructions, duties of officials, creation of necessary divisions and services, and is based on the principles of reasonableness rationalization of the management system, comprehensiveness, added action, purposefulness, scientific character, systematicity, interdependence, centralization and decentralization of management, unity of leadership, motivation, rational selection and placement of personnel, consideration of economic laws, resource provision rationalization, innovation, transformation of economic and management systems, diversification, convergence.

The effectiveness of the implementation of such a mechanism is considered as a flexible, adaptive economic mechanism of the enterprise, which ensures high economic results under the current European market conjuncture and its changes.

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DOI <https://doi.org/10.26661/2414-0287-2023-4-60-12>**ECOLOGICAL-ECONOMIC MECHANISM OF ENTREPRENEURIAL DEVELOPMENT  
BASED ON ENVIRONMENTAL MANAGEMENT****Babmindra D.I., Slobodiannyk I.M., Smetanko A.A.***Zaporizhzhia National University**Ukraine, 69600, Zaporizhzhia, Zhukovsky str., 66**mizhnarodeconom@gmail.com, yarina.slobod@gmail.com, smetanko.aa@gmail.com*

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**Key words:**

eco-economic mechanism, environmental economics, entrepreneurial economics, land relations, land reform, land resources, land resource potential, rational land use, sustainable development, green economy, economic eco-systemization, state environmental expertise, environment, environmental management, eco-economic assessment, strategic planning, development strategies, mechanisms for supporting land relation development, stimuli mechanisms, institutions

The article is dedicated to examining scenarios and strategies for the development of land relations, designing an effective eco-economic mechanism for the functioning of environmental management and entrepreneurial development based on land market principles, taking into account the rating evaluation of the investment attractiveness of administrative-territorial peculiarities of land resources, environmental economics, and directions that stimulate the economy and entrepreneurial development in Ukraine. The article investigates the directions for the utilization of land resource economics, development trends, and mechanisms to support the functioning of environmental management with consideration of state incentives for the investment attractiveness of land resources. It also discusses strategies for the development of land relations aimed at improving the mechanisms for supporting the economy of entrepreneurship based on land market principles, as well as the socio-economic development formed through investment attractiveness, the character of their distribution, and the efficiency of utilization, all while considering eco-friendly technologies and institutional support. The article explores the goals and tasks of eco-economic environmental management by forming the investment attractiveness of land resource potential as a scientific prerequisite for entrepreneurial development based on environmental management in Ukraine. It outlines the challenges of transitioning the country to a sustainable development model, proposes ways to address them, and highlights the eco-economic direction of entrepreneurial development based on land market principles, which is a significant and powerful instrument for the revival of Ukraine's economy. The article suggests improvements to the strategy of socio-economic and eco-economic development of land relations in Ukraine and identifies the directions for regulating environmental nature utilization, which are powerful platforms for regional investment attractiveness.

**ЕКОЛОГО-ЕКОНОМІЧНИЙ МЕХАНІЗМ РОЗВИТКУ ПІДПРИЄМНИЦТВА  
НА ЗАСАДАХ ПРИРОДОКОРИСТУВАННЯ****Бабміндра Д.І., Слободяник І.М., Сметанко А.А.***Запорізький національний університет**Україна, 69600, м. Запоріжжя, вул. Жуковського, 66*

Стаття присвячена розгляду сценарію та стратегій розвитку земельних відносин, проектуванню ефективного еколого-економічного механізму функціонування природокористування та розвитку підприємництва на засадах ринку землі, з урахуванням рейтингової оцінки інвестиційної привабливості адміністративно-територіальних особливостей земельних ресурсів, економіки довкілля та напрямів, які стимулюють економіку, розвиток підприємництва в Україні. В статті проведено дослідження напрямів використання економіки земельних ресурсів, тенденцій розвитку та механізмів підтримки функціонування природокористування з урахуванням державного стимулювання інвестиційної привабливості земельних ресурсів. В процесі дослідження розглянуто стратегії розвитку земельних відносин, які направлені на удосконалення механізмів підтримки економіки підприємництва на засадах ринку землі, соціально-економічний

**Ключові слова:**

еколого-економічний механізм, економіка довкілля, економіка підприємництва, земельні відносини, земельна реформа, земельні ресурси, земельно-ресурсний потенціал, раціональне землекористування, сталий розвиток, зелена економіка, екологізація економіки, державна екологічна експертиза, довкілля, природокористування, еколого-економічна оцінка, стратегічне проектування, стратегії розвитку, механізми підтримки розвитку земельних відносин, механізми стимулювання, інституції

розвиток, які сформовані за рахунок інвестиційної привабливості, характеру їх розподілу та ефективності використання з урахуванням еколого-безпечних технологій та інституційного забезпечення. Досліджено цілі та завдання еколого-економічного природокористування за рахунок формування інвестиційної привабливості земельно-ресурсного потенціалу, як наукової передумови розвитку підприємництва на засадах природокористування в Україні. Окреслено проблеми переходу країни до моделі сталого розвитку, запропоновано шляхи їх вирішення, висвітлено еколого-економічний напрям розвитку підприємництва на засадах ринку землі, який є важливим та потужним інструментом відновлення розвитку економіки України. Запропоновано удосконалення стратегії соціально-економічного, еколого-економічного розвитку земельних відносин в Україні. Визначено напрями регулювання екологічного природокористування, які є одними з потужних платформ розвитку інвестиційної привабливості регіону.

**Statement of the problem**

The United Nations Conference on Environment and Development, held in Rio de Janeiro in 1992, adopted the concept of sustainable development. Sustainable development is understood as the creation of a socially-oriented economy based on the rational use of resource base and the protection of the natural environment, which does not endanger future generations. Two decades later, in 2012, the United Nations Conference on Sustainable Development (Rio+20) took place in Rio de Janeiro, where the results of humanity's 20-year efforts to change the traditional development model were reviewed. The conference emphasized the need to transition to the formation of a green economy for achieving sustainable development. According to the United Nations Environment Programme (UNEP), a "green" economy is one that ensures long-term prosperity for people while allowing future generations to avoid significant environmental risks [1]. A simpler understanding of a "green" economy involves reducing emissions of pollutants into the natural environment while using resources, materials, and energy comprehensively, an economy that serves the interests of society as a whole [2; 9]. The need for transitioning to a "green" economy is illustrated by the forecasts of the Organization for Economic Cooperation and Development (OECD), which, under current methods of production and consumption, predicts that by 2050, compared to the beginning of the 21st century, 61 to 72 percent of flora and fauna will disappear worldwide. Irreversible damage will be inflicted on areas that can be compared to the territory of Australia.

Ukraine, like other former Soviet states, lags significantly in the development and improvement of relations concerning environmental management, green economy, and sustainable development as a whole. This is due to the low rates of economic growth during the "reconstruction" period and the relegation of ecology to a secondary role in the creation of economic and industrial development strategies. All of this subsequently leads to the deterioration of natural conditions for labor force reproduction, worsening of the environment, reduced birth

rates, and decreased average life expectancy. Such policies have resulted in five significant negative consequences: firstly, there are increasing losses of societal labor due to the irrational use of fuel, materials, and raw materials in production; secondly, additional societal labor is required to eliminate the negative consequences of production's impact on the environment; thirdly, there is a growing deficit of natural production resources; fourthly, there is an increasing deficit of natural conditions for production; fifthly, total labor costs for extracting elements of the natural environment for production are increasing. Unfortunately, these problems remain unsolved in Ukraine. All of this necessitates the urgent improvement of the economic mechanism for environmental protection or the development of an eco-economic mechanism for entrepreneurship based on environmental management.

**Analysis of recent research and publications**

Land relations, land reform, the concept of an effective model of agricultural land use, and "green" agriculture in Ukraine, along with a wide range of issues related to land resources, sustainable development, and green reform in Ukraine, are significant subjects of scientific discussions, research, and improvement among scientists, land management experts, and land users. The establishment of an eco-economic mechanism for entrepreneurship based on environmental management is a strategic issue for Ukraine, sparking numerous debates among scientists and experts in the field of green entrepreneurship. Ukrainian scientists who dedicate substantial attention to this issue include D.S. Dobryak, T.O. Semenko, D.I. Babmindra, T.I. Honcharuk, N.S. Vengerska, O.P. Kanash, I.A. Rozumnyi, and A.M. Tretyak. Their works shed light on topics such as land resources and their utilization, green tourism, rural tourism, green economic development in Ukraine, green entrepreneurship, achieving sustainable development, and the classification of agricultural lands as a scientific prerequisite for their environmentally safe use. Significant emphasis is given to the ecological study and classification of land resources. This classification is



primarily aimed at implementing environmentally safe land use systems, which, in turn, form the basis for the rational, progressive, and comprehensive utilization of land resources, contributing to the establishment of an eco-economic mechanism for entrepreneurship based on environmental management.

### Objectives of the article

The main objectives of the article are as follows: to examine scenarios and strategies for the development of land relations; to design an effective eco-economic mechanism for the functioning of environmental management and entrepreneurial development based on land market principles; to investigate the goals and tasks of eco-economic environmental management through the formation of investment attractiveness of land resource potential as a scientific prerequisite for entrepreneurial development based on environmental management in Ukraine; to outline the issues of land relations and land use and propose ways to address them; to highlight the eco-economic direction of entrepreneurial development based on land market principles.

### Presentation of the main research material

If you open the Land Code of Ukraine, the first thing that catches the eye is the definition of “land”: “Land is the basic national wealth under the special protection of the state.” Firstly, land is the territory of the state, demarcated by borders from other states. All lands within the territory of Ukraine, including islands and lands occupied by water bodies, are subject to this definition, which categorizes them based on primary intended uses [17]. The common feature for all lands is that they constitute an object of social relations regulated by land law norms. The value of land lies in its status as a natural resource, and therefore, the protection of land creates favorable conditions for the preservation of natural objects, forests, bodies of water, flora and fauna, minerals, and atmospheric air. Land is a unique natural object since it provides a supportive environment for the existence of all living organisms, including humans. The unique properties of land demonstrate its extraordinary value for human existence, for the establishment of society, and for the development of the economy and economic relationships as a whole. As a means of production, a means of creating conditions for societal development, land is used for the placement and construction of objects of social and economic purpose, for the production of agricultural products, and for the development and support of the national economy. Given the importance and significance of land resources as a whole, the question of defining the rating evaluation of the investment attractiveness of administrative-territorial features of land resources and the question of determining the rating evaluation of the investment attractiveness of administrative-territorial features of land resources, environmental economics, and directions that stimulate the economy and entrepreneurial development in Ukraine become particularly relevant.

As society transitions to sustainable development, special attention is given to industrial production, which

is the primary source of anthropogenic impact on nature. According to the Concept of Transition to Sustainable Development, economic objectives of production activity can be achieved through a type of management that is organically embedded in the dynamics of biospheric processes. According to the proposed approach, an industrial enterprise is part of the socio-ecological-economic complex, which includes:

- An ecological subsystem that sets threshold limits determined by the conditions for preserving the natural environment within which economic activities can be conducted.
- A technological subsystem that supports the economic activities of the enterprise.
- An economic subsystem that manages the circulation of resources, goods, monetary income, and expenses.

In order to achieve sustainable development, there needs to be a balanced interaction among all subsystems. The stability of the entire socio-ecological-economic complex is determined by the stability of the ecological subsystem, which is fundamental in relation to the technological and economic subsystems.

According to Ashby’s law, if one subsystem within the system behaves without coordination with others, the stability of the entire system is disrupted. Inconsistencies between the goals of the economic subsystem and the capabilities of the surrounding natural environment, as well as the dominance of “economic benefit,” contribute to the loss of stability in all subsystems [6].

In modern conditions, a consistent greening of economic activities is necessary. This process involves managing the environmental protection measures of an enterprise based on contemporary scientific and technological achievements, with a focus on minimizing anthropogenic impact on the environment [4].

The main directions of production greening include:

- Environmental quality management.
- Comprehensive utilization of available resources at the enterprise: raw materials, materials, electricity, secondary resources.
- Raising the technical and organizational levels of production that allow the minimization of waste generation.
- Incorporating planning procedures and considering ecological aspects into the life cycle of the enterprise.
- Evaluating the ecological characteristics of production for compliance with the environmental strategy of the enterprise.
- Assessing the eco-efficiency of management through environmental audits.

All directions of industrial enterprise greening utilize eco-economic mechanisms for rational environmental management. These mechanisms form a system of economic measures based on regulatory acts that ensure environmental protection and rational environmental management.

The organization of activities related to production greening can be carried out according to the proposed organizational scheme (Fig. 1).

At the first stage of production greening works, an ecological and economic assessment of the anthropogenic impact of an industrial enterprise on the environment is

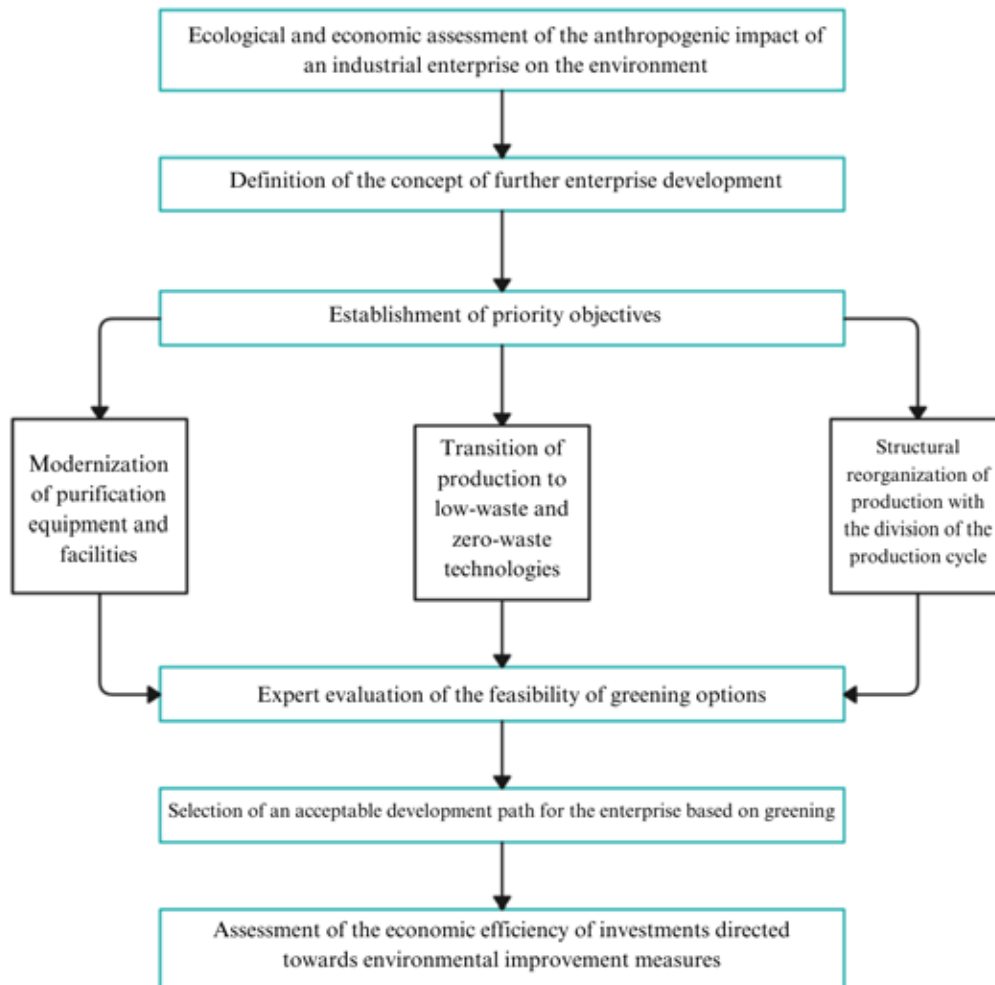


Fig. 1 – Organizational diagram of production greening

carried out. For this purpose, mechanisms of environmental regulation such as ecological expertise and environmental impact assessment (EIA) are used to determine the concept of further enterprise development [7].

The tasks of environmental expertise include determining the level of environmental hazard posed or carried out by economic activities that may directly or indirectly affect the state of the environment.

In modern literature devoted to the issues of greening the economy, emphasis is placed on the necessity of an ecological and economic project assessment. Most economists acknowledge that the ecological and economic assessment of the impact of an industrial enterprise on the environment is one of the key directions of the enterprise's environmental activities, as preventing negative consequences on the environment through the implementation of environmental measures is much cheaper than compensating for them [3; 9].

The ecological assessment is carried out by the investor who invests financial resources in the project's implementation (Fig. 2) [5]. Thus, the ecological and economic assessment method allows determining the degree of anthropogenic impact of an industrial enterprise on the environment.

After proposing options for greening production, a preliminary feasibility analysis of their implementation is carried out by the method of expert evaluations. Experts assess each greening option based on a range of factors:

- The availability of financial resources for implementing options.
- Adequacy of production and construction capacities.
- Reduction of anthropogenic impact on the environment.
- Improvement of the enterprise's economic indicators.
- Duration of implementing the greening option in production.
- Possibility of achieving economic benefits.

Based on expert evaluations, the most promising greening option is chosen. The last stage of production greening is determining the economic efficiency of investments necessary for the implementation of the selected greening option.

When improving legal methods, conditions for satisfying the reasonable personal interests of all participants in the production process, such as owners, enterprise managers, tenants, and other users, should be created with a focus on organizing types of activities beneficial to society that do not disrupt the ecological balance.

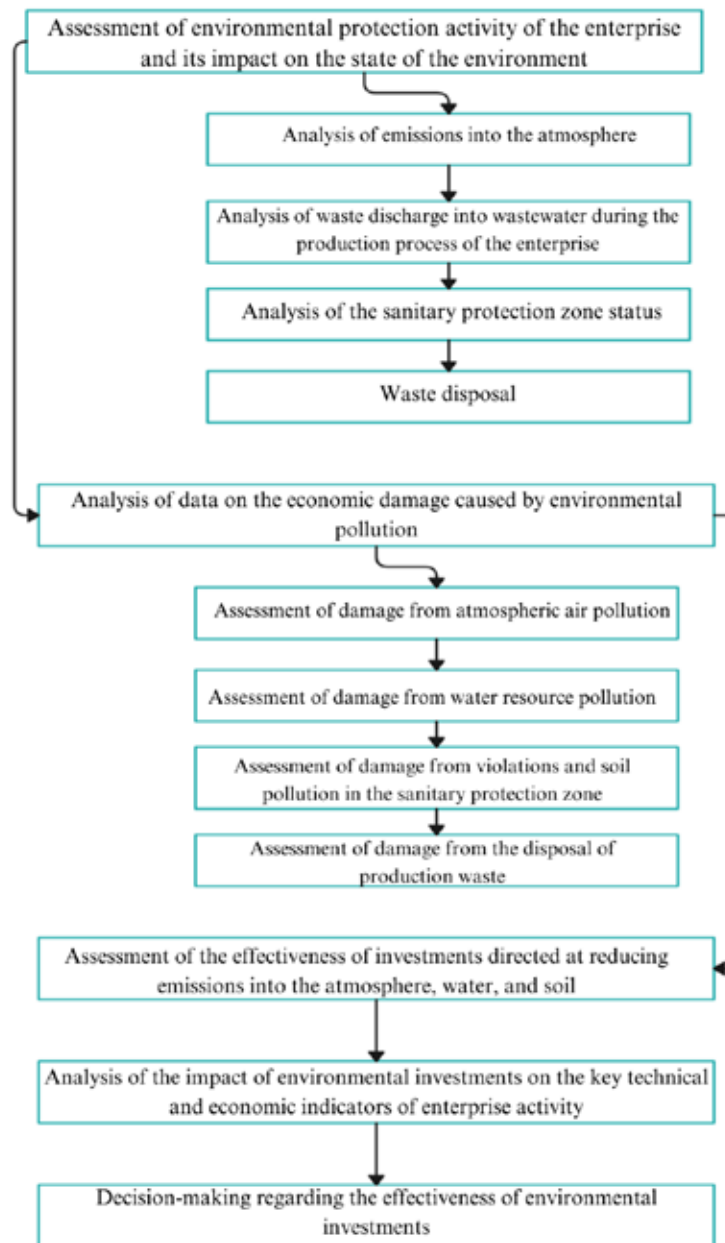


Fig. 2 – Procedure for conducting an eco-economic assessment of the anthropogenic impact of an industrial enterprise on the environment

### Conclusions

Thus, the transition of Ukrainian enterprises towards sustainable development compels entrepreneurs to fundamentally change their approach to environmental protection and rational environmental management. The actions of eco-economic management mechanisms become a driving force for industrial enterprises to meet the requirements of sustainable development. Administrative regulation of economic activities using the environmental

impact assessment procedure allows for decision-making that takes into account the environmental capabilities of the territory; payments for natural resources, including environmental pollution, incentivize entrepreneurs to make economic decisions that lead to the greening of production. Improving eco-economic management mechanisms for rational environmental management and environmental protection is the right path to achieving sustainable development for an industrial enterprise.

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## PREREQUISITES AND CONSEQUENCES OF THE USE OF OFFSHORE JURISDICTIONS BY UKRAINIAN BUSINESSES

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### Key words:

offshore jurisdictions,  
offshorization,  
business environment, finance,  
economy, risks

Offshore zones, as legal, financial and tax entities, attract the attention of both governments and the business environment. These zones are used for a variety of purposes, including reducing the tax burden, ensuring confidentiality, privacy and asset protection, as well as facilitating business. However, the use of offshore zones is also associated with risks, which include tax abuse, tax evasion, corruption and money laundering. One of the catalysts of the “offshorization” processes on a global scale was scientific and technical progress, the wide and rapid development of modern means of communication and communication. The emergence and development of the global Internet, satellite communications, etc. have reduced the time required for communication between fairly remote parts of the world to a minimum. The listed points together created qualitatively new opportunities for the comprehensive and rapid development of the offshore sector of the world economy, which allowed it to reach a qualitatively new level. Recent years have been characterized by growing attention to transparency and the fight against tax evasion at the international level. Ukraine is implementing measures to control transactions with offshore jurisdictions and ensure transparency in taxation. The study of this topic allows to reveal the peculiarities of the legal, financial and tax environment of offshore jurisdictions, to identify the advantages and risks of their use, as well as to understand the influence of offshores on the economy and international relations.

## ПЕРЕДУМОВИ ТА НАСЛІДКИ ВИКОРИСТАННЯ ОФШОРНИХ ЮРИСДИКЦІЙ УКРАЇНСЬКИМ БІЗНЕСОМ

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### Ключові слова:

офшорні юрисдикції,  
офшоризація,  
бізнес-середовище, фінанси,  
економіка, ризики

Офшорні зони, як правові, фінансові та податкові утворення, привертають увагу як держав, так і бізнес-середовища. Ці зони використовуються для різних цілей, включаючи зменшення податкового тягаря, забезпечення конфіденційності, приватності та захисту активів, а також спрощення ведення бізнесу. Проте, використання офшорних зон також пов'язане з ризиками, які включають податкові зловживання, ухилення від сплати податків, корупцію та легалізацію доходів злочинного походження. Одним з каталізаторів процесів «офшоризації» у світовому масштабі став науково-технічний прогрес, широкий і бурхливий розвиток сучасних засобів зв'язку і комунікації. Поява і розвиток глобальної мережі Інтернет, супутникового зв'язку і інше скоротили практично до мінімуму часові витрати процесу комунікації між досить віддаленими частинами світу. Перераховані моменти в сукупності створили якісно нові можливості для всебічного і стрімкого розвитку офшорного сектору світової економіки, що дозволило йому вийти на якісно новий рівень. Останні роки характеризуються зростаючою увагою до прозорості та боротьби з податковим ухиленням на міжнародному рівні. Україна впроваджує заходи з контролю операцій з офшорними юрисдикціями та забезпечення прозорості в оподаткуванні. Вивчення цієї теми дозволяє розкрити особливості юридичного, фінансового та податкового середовища офшорних юрисдикцій, виявити переваги та ризики їх використання, а також зрозуміти вплив офшорів на економіку та міжнародні відносини.

### Formulation of the problem

Despite the attractiveness of offshore zones for the business environment, due to the reduction of the tax burden, the provision of privacy and protection of company assets, as well as the simplification of doing business, their use is also associated with risks, which include tax evasion, corruption and the legalization of proceeds of crime. Therefore, an important task for Ukraine is the implementation of constant control in operations with offshore jurisdictions, as well as ensuring a balanced approach to taxation and avoiding tax abuses in order to create a fairer and more efficient taxation system, contributing to the increase of the tax base and ensuring financial stability.

### Analysis of recent research and publications

Considerable attention of national and foreign scientists has been devoted to the question of the essence and peculiarities of the activity of offshore jurisdictions, to the study of their impact on the country's economy and ways of countering them. The article examines the research of James Henry "The Price of Offshore Revisited" [1], N.O. Mudrak "National mechanisms for combating tax evasion through offshore jurisdictions in OECD countries" [3], N.P. Yuzhanina, T.O. Frolova, Z.O. Lutsyshina "Evolution of offshore business" [5].

### Formulation of the goals of the article

The main goal of the article is to consider the main prerequisites and consequences of the use of offshore jurisdictions by business in Ukraine in the pre-war period and to provide recommendations for solving the problems of de-offshorization in the future.

### Presenting main material

In the modern world, offshore zones have become one of the most popular and effective business and investment tools. Offshore zones provide opportunities to reduce tax payments, protect privacy and provide more favorable conditions for doing business. However, the terms "offshore" and "offshore zone" do not always have a clear and unambiguous definition.

Offshore is a country or part of it with special business conditions for foreign companies. Offshores allow you to reduce the tax burden, hide the real owners of the business and protect assets. Different scientists define the concept of "offshore" differently, but in general, the following characteristics of offshore zones can be

distinguished [2, p. 6]: low rate of income tax or its absence; simplified form of reporting or its absence; hiding the real owners of the business; preferential currency and customs regime; high level of privacy and protection against raiding.

Offshore jurisdictions can be classified by acceptable fields of activity for their residents as follows (Table 1):

It is important, that this classification is conditional, as the capabilities and limitations of various offshore jurisdictions may change depending on many factors, such as the political situation, legislation, economic development, and others.

The consequence of offshoring was the opening of new opportunities for peripheral countries: largely due to this, many of them had the opportunity to assert themselves, for many of them offshore business became the basis of economic development.

Prerequisites for the use of offshore jurisdictions may be, in particular, tax burdens and the complexity of the tax system in Ukraine, the unpredictability of tax policy and insufficient transparency of financial processes. Additional factors include high bureaucratic procedures, the complexity and length of processing permit documentation, as well as insufficient protection of property rights and business contracts.

If you pay attention to the business of Vinnytsia, Dnipropetrovsk, Lviv, Odesa, and Kharkiv regions, in total, almost 300.000 enterprises work in them. The share of "offshore" companies among them differs in different regions, but not significantly: 4.7% of "offshore" companies from the total number of enterprises in Odesa region; 2.4% in Dnipropetrovsk region; 2.3% in Vinnytsia region; 2% in Kharkiv region; 1.9% in Lviv region. However, in quantitative terms, the difference is more noticeable: if in Vinnytsia there are a little more than 400 "offshore" enterprises, then in Odesa there are more than 100 of them [3].

To date, there are no accurate statistics in Ukraine that would reflect the number of offshore jurisdictions and controlled foreign companies owned by Ukrainian citizens. This creates certain difficulties in assessing the real scale of the use of such structures by Ukrainian businessmen and individual entrepreneurs, as well as in the process of assessing the consequences of the use of offshore jurisdictions by businesses in Ukraine.

However, the available data from the pre-war period allow us to analyze the problem under study (Table 2).

Thus, from the data in the table. 2 we can see that the degree of offshorization of Ukraine in the pre-war period was at a fairly high level and amounted to an average of 61%. In 2020–2021 the degree of offshoring of the

Table 1 – Classification of offshore jurisdictions

Branch	Приклади офшорних юрисдикцій
Financial services	Bahamas, Bermuda, Cayman Islands, Switzerland, British Virgin Islands, Seychelles, St. Kitts and Nevis, Dubai
Technologies and innovations	Ireland, Singapore, Hong Kong, Costa Rica, Estonia, Gibraltar, Malta
Real estate and investments	Bahamas, British Virgin Islands, Cayman Islands, Dubai, Gibraltar, Malta, Panama, Seychelles
Tourism and guest business	Bahamas, Maldives, Mauritius, Seychelles, Barbados
Production and logistics	Hong Kong, Singapore, Cayman Islands, Malta, Dubai
Medicine and health care	Malta, British Virgin Islands, Cayman Islands, Bermuda, St. Kitts and Nevis

Source: [4]

Table 2 – Direct investments from Ukraine (2016–2021)

№	Country	2016	2017	2018	2019	2020	2021
1	Virgin Islands	51.3	57.6	61.0	59.9	33.7	41.2
2	Cyprus	1401.5	1249.7	1214.5	1229.8	1431.4	1093.3
3	Latvia	70	68.4	61	72.5	73.0	81.1
4	Netherlands	11.2	10.7	12.3	11.8	11.3	3.8
5	EU	1716.8	1562.3	1485.5	1510.2	2351.1	1923.5
Share of direct foreign investments in offshore states from Ukraine		0.61	0.58	0.56	0.58	0.67	0.68

Source: [7; 8]

economy of Ukraine reached a maximum – 67% – 68%, respectively.

Since 2017, the European Union, the fiscal authorities of whose countries also bear considerable losses from offshore operations, has been keeping a “List of tax jurisdictions that do not cooperate in the field of taxation.” According to the decision of the EU Council, the black list includes American Samoa, Anguilla, Dominica, Fiji, Guam, Palau, Panama, Samoa, Seychelles, Trinidad and Tobago, the US Virgin Islands and Vanuatu. It is worth noting that the 12 offshore companies included in the EU list have a rather weak influence on the Ukrainian economy.

This conclusion can be reached after conducting an analysis of direct foreign investments from these countries into the domestic economy, because often the money taken offshore is returned back in the form of investments and the volume of foreign trade turnover.

According to the State Statistics Service, as of October 1, 2020, Panama made the largest contribution to the Ukrainian economy – 342.3 million dollars, through the 12 countries featured in the “EU black list.” Of the total amount of foreign investments of 34.727 billion dollars, that is exactly 1%. The contributions of other offshore companies from the EU list are much more modest: the Dominican Republic with 23.5 million dollars, the USA and Anguilla with 0.7 million dollars.

The most profitable trade partner of the 12 offshore jurisdictions on the EU list for Ukraine is the Seychelles, having bought Ukrainian goods worth \$5,540 million in

2020. And they sold their own for only 389.6 thousand dollars. In second place is Panama with an indicator of 2.671 million dollars. and 1.809 million dollars. accordingly.

Statistics of foreign trade with offshore jurisdictions from the EU list look better for Ukraine (Fig. 1).

Countries that are not officially offshore continue to be the leaders in withdrawing funds from Ukraine. Cyprus is a leader in foreign direct investment in Ukraine. So, as of 2020, the amount of its investments amounted to 10.3 billion dollars, the second place in terms of direct foreign investments was taken by the Netherlands – 7.56 billion dollars. The largest volume of foreign trade turnover fell on Cyprus – 50.82 billion dollars. As for exports, Great Britain is the leader – Ukraine exported \$66.7 billion worth of goods to Great Britain. [5].

We systematize the consequences of using offshore jurisdictions by businesses in Ukraine:

- decrease in GDP – the use of offshore jurisdictions can lead to a decrease in the country’s GDP. This is possible due to the withdrawal of part of the profits and assets from the economy of Ukraine, which were transferred to offshore zones. This can lead to reduced investment, reduced tax revenues and job losses;

- loss of tax revenues – the use of offshore jurisdictions allows businesses to avoid taxation in Ukraine or pay significantly lower taxes. This leads to a decrease in tax revenues to the state budget. A decrease in tax revenues may limit the government’s ability to implement social and economic programs;

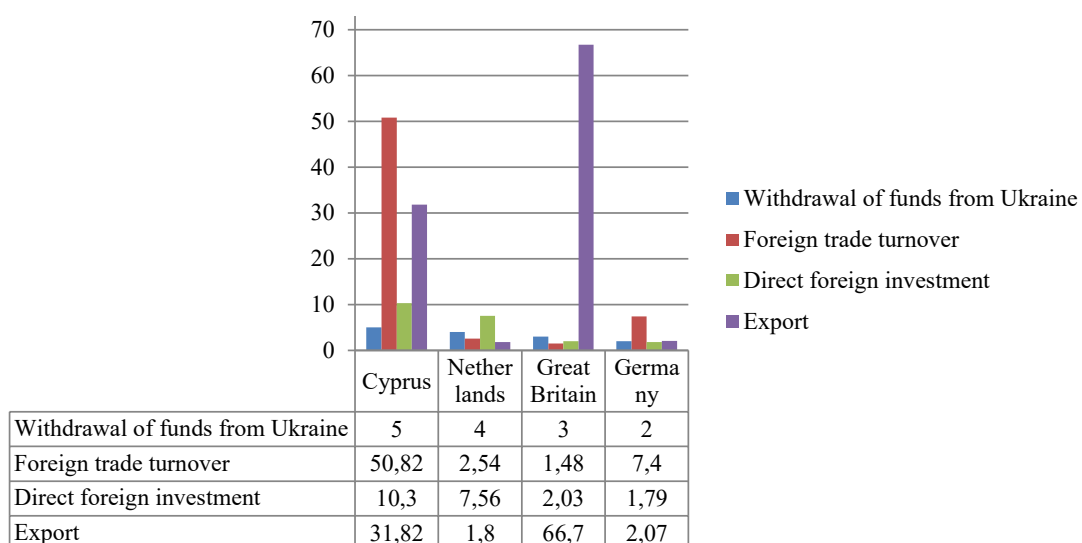


Fig. 1. External relations of Ukraine with offshore jurisdictions from the EU list for 2020 [4; 7; 8]

– a threat to financial stability – the use of offshore jurisdictions can create a threat to the country's financial stability. This can happen if businesses transfer assets to offshore zones in order to avoid risks associated with changes in the economic and political environment of Ukraine. This can undermine confidence in the national currency and banking system;

– impact on international trade – the use of offshore jurisdictions can have an impact on the volume of Ukraine's international trade. This is possible due to the creation of artificial schemes for the movement of goods between countries exclusively “on paper” without their physical transportation;

– negative image and loss of trust – the use of offshore jurisdictions can lead to a negative perception of Ukraine in the international community and a loss of trust on the part of foreign partners. This can make it difficult to do business and attract foreign investment;

– loss of control and increase in corruption – the use of offshore jurisdictions can lead to loss of control over financial flows and increase in corruption. This can create conditions for illegal operations, money laundering and terrorist financing;

– changes in legislation and international agreements – growing international pressure to combat tax evasion and money laundering leads to changes in legislation and the conclusion of international agreements limiting the use of offshore jurisdictions. This may lead to the loss of certain benefits that were provided by the use of offshore structures.

The use of offshore jurisdictions such as Belize, Panama, BVI, etc. in the field of business is often perceived with a negative connotation associated with illegal schemes or tax evasion. However, modern global and national initiatives, such as the BEPS plan and the exchange of tax information, are actively used both at the global level and in Ukraine to combat tax base erosion. This leads to significant transformations in the use of offshore businesses [1].

Ukraine is engaged in the implementation of international standards and initiatives aimed at ensuring ownership transparency and combating financial violations. These measures are aimed at increasing transparency and control in transactions with offshore jurisdictions, as well as ensuring a balanced approach to taxation and avoiding tax abuses. This makes it possible to create a fairer and more efficient taxation system in Ukraine, contributing to the increase of the tax base and ensuring financial stability [2, p. 10].

It is worth paying attention to the fact that in the modern period the Tax Code of Ukraine (TCU) already includes measures aimed at preventing tax abuse due to transactions with non-residents that are carried out from offshore jurisdictions. Provided certain value criteria are met, such transactions with related non-residents and jurisdictions with low tax rates are considered controlled and subject to transfer pricing rules (TPRs). Accordingly, Ukrainian companies are obliged to submit an annual report to the DPS on all controlled operations, to prepare documentation from the TCU, which substantiates the consistency of prices, and, if necessary, to adjust the financial result.

### Conclusion

Due to the lack of complete statistical information on the number of offshore companies owned by Ukrainian citizens, it is important to conduct research and analyze other available data sources, such as reports of international organizations, financial statements of entrepreneurs, information on the legal and tax base, as well as expert opinions and studies on this topic. In general, the implementation of measures aimed at controlling operations with offshore jurisdictions is an important stage in ensuring transparency and compliance with international standards in the field of taxation. This contributes to increasing confidence in the Ukrainian economy, attracts investments and contributes to the sustainable development of the country.

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## CYBER SECURITY OF UKRAINE IN THE CONTEXT OF INTERNATIONAL COOPERATION WITH GREAT BRITAIN AND GLOBALIZATION CHALLENGES

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### Key words:

cyber security, technologies,  
network, cyber incident,  
cyber attacks, strategies,  
international cooperation,  
financial assistance, experience

In the conditions of globalization and the rapid development of computer technologies, cyber security is becoming an extremely relevant and important aspect that affects the functioning of society, the economy and the security of countries. Every year, the volume of cyberattacks and cybercrime is increasing, which are aimed at a large number of objects – from government institutions to personal devices of citizens, which prompts countries to look for effective methods of protection. Today, Ukraine faces countless hostile attacks and military threats, cyber security is of utmost importance to ensure the functioning of critical infrastructure, protect national security and provide vital services. Creating a resilient and secure digital environment is critical to successfully countering cyber aggression and maintaining national security in the face of military threats. In the article considered the peculiarities of Ukraine's cyber security in the context of global challenges and international cooperation with Great Britain. Attention is drawn to the need for constant updating of technological means and strategies for effective protection of information and infrastructure. The article describes the main results and effectiveness of cyber security strategies of Ukraine from 2016 to 2021. The successful experience of cooperation between Great Britain and Ukraine in the field of cyber security is highlighted, in particular, the UCP program and financial support for ensuring cyber protection. Measures to strengthen cyber defense based on British experience are proposed. The need for cooperation between various sectors, government structures and private companies to effectively counter cyber threats is noted.

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## КІБЕРБЕЗПЕКА УКРАЇНИ В КОНТЕКСТІ МІЖНАРОДНОЇ СПІВПРАЦІ З ВЕЛИКОЮ БРИТАНІЄЮ ТА ГЛОБАЛІЗАЦІЙНИХ ВИКЛИКІВ

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### Ключові слова:

кібербезпека, технології,  
мережа, кіберінцидент,  
кібератаки, стратегії,  
міжнародна співпраця,  
фінансова допомога, досвід

В умовах глобалізації та стрімкого розвитку комп'ютерних технологій кібербезпека стає надзвичайно актуальним та важливим аспектом, що впливає на функціонування суспільства, економіку та безпеку країн. З кожним роком обсяг кібератак і кіберзлочинності зростає, які спрямовані на велику кількість об'єктів – від державних установ до особистих засобів громадян, що спонукає країни шукати ефективні методи захисту. На сьогоднішній день Україна стикається з незліченною кількістю ворожих атак та військових загроз, кібербезпека набуває надзвичайно важливого значення для забезпечення функціонування критичних інфраструктури, захисту національної безпеки та забезпечення життєво важливих послуг. Створення стійкого та безпечного цифрового середовища має вирішальне значення для успішного протидії кіберагресії та підтримки національної безпеки в умовах воєнних загроз. У статті розкрито особливості кібербезпеки України в контексті глобальних викликів і міжнародної співпраці з Великою Британією. Звертається увага на необхідність постійного оновлення технологічних засобів та стратегій для ефективного захисту інформації та інфраструктури. В статті описуються основні результати та ефективність стратегій кібербезпеки України з 2016 по 2021 рік. Висвітлено успішний досвід співпраці між Великою

Британією та Україною у сфері кібербезпеки, зокрема, програму УСР та фінансову підтримку для забезпечення кіберзахисту. Запропоновано заходи щодо посилення кіберзахисту на основі британського досвіду. Зазначено необхідність співпраці між різними секторами, державними структурами та приватними компаніями для ефективного протистояння кіберзагрозам.

### Formulation of the problem

With the expansion of digital technologies and the Internet, the problem of ensuring cyber security is increasing. The increasing diversity of cyber threats endangers information security, economic development and national security of the country. Hackers use various methods such as phishing, password cracking, and other techniques to break into systems and gain unauthorized access to hidden data, or to achieve personal goals. As a result, cyberattacks lead to large-scale economic and other losses, and cybercriminals continue to improve their technology. Companies lose customers, reputation and incur losses due to business process interruptions as a result of cyber-attacks. The same applies to government structures, military systems, and critical infrastructure, all of which lead to system destabilization and pose a potential threat to public safety. In the conditions of martial law, cyberattacks are used in information warfare, which are directed against individuals, organizations, and the state. Dissemination of disinformation, through media resources, influence on public opinion, becomes the cause of disruption of social stability. Therefore, it is necessary to pay attention to the development of scientific and practical tasks and the implementation of effective cyber security technologies and strategies, to conduct relevant research in the field of cyber threats, to identify vulnerabilities and analyze cyber incidents, to apply new methods of protection, using artificial intelligence and data analysis, as well as advanced systems for responding to cyberattacks, strengthen cooperation between government structures, the private sector and international partners in cyber security.

### Analysis of recent research and publications

Issues of cyber security are covered in scientific works by both Ukrainian and foreign scientists, in particular I.V. Kotsiuba, J. Williams, K.M. Kraus, N.M. Kraus, O.V. Shtepa [1], Y.S. Manuilov [2], Z. Sverdlyk [3].

In their work, K.M. Kraus, N.M. Kraus and O.V. Shtepa [1] consider the transformational processes of cyber security for business entities, especially focusing on modern digital enterprises under martial law. Define the main tasks of enterprises in the field of cyber security, in particular, identifying potential threats, preventing cyber incidents and minimizing threats to information security.

Scientific work Y.S. Manuilov [2] is devoted to the analysis of the Cyber Security Strategy of Ukraine, which was developed in 2016. The article examines the results of this strategy, the components of the national cyber security system, and evaluates the organizational and legal foundations of cyber security. An analysis of the practical aspects of Ukraine's cyber security strategy and the priority tasks of the security and defense sector is carried out.

Z. Sverdlyk [3] considers the issue of ensuring cyber protection and cyber security in Ukrainian society. Analyzes legislative and regulatory acts that have been adopted in Ukraine recently regarding cyber security. Highlights the need for deepening international cooperation in cyber defense and cyber security issues, as well as the creation of joint interstate platforms for information exchange.

### Objectives of the article

The purpose of the article is to reveal the peculiarities of cyber security of Ukraine in the context of global challenges and international cooperation with Great Britain and to develop measures to strengthen cyber protection based on the British experience.

### Presenting main material

Let's first consider the essence of cyber security. With the development of digital technologies and the Internet, cyber security has become one of the most important areas of security for the country. Digital transformation, modern technologies, artificial intelligence, cloud computing and the Internet of Things accelerate technological progress, but at the same time create new threats, such as cyber attacks. Cyber attacks can have devastating consequences for the economy and other spheres of activity, threaten national and public security. Ensuring security in cyberspace is a complex process that requires constant updating of technological means, conducting scientific research, developing new methods and strategies, and exchanging information about cyber threats at the international level.

Cyber security is the application of technologies and methods aimed at protecting systems, networks, programs, organizations or countries from crimes and digital attacks [5].

The entry of business into the Internet provided not only opportunities, but also threats. Today, theft of electronic information has become one of the most common frauds, surpassing physical theft. The cyber security of the financial sector and business is a particularly important component, as a huge volume of financial transactions and information can become the object of attacks. Attacks on the financial sector and businesses can have serious consequences for economies, markets and populations. Therefore, it is necessary to introduce modern technologies for processing and storing information, as well as regular training of personnel on cyber security. Cyber threats are constantly evolving and this requires updating security measures. Conducting regular audits and vulnerability testing helps identify weak points and improve security measures. The financial sector and business must also adhere to cybersecurity regulatory requirements and standards to ensure compliance and reduce the risk of a security breach.

The largest cyber security market in Europe is concentrated in Great Britain. It is home to the world's leading cyber companies that enjoy exceptional

opportunities to attract talent and investment. The UK provides access to cyber security excellence that helps businesses remain competitive in the global marketplace. The development of the cyber sector in the UK has become a priority task for the country’s national security and prosperity. The creation of a national cyber security strategy by the state ensures that the United Kingdom is independent, capable and confident in a world of digital change. The strategy helps the country quickly adapt, introduce new innovations and attract foreign investment to protect and support its interests in cyberspace.

Annually, the UK government conducts a cyber security breach survey as part of the national cyber strategy, which is used by businesses and government to tackle cyber risks and create a safer UK cyberspace. Includes key information from UK businesses, charities and educational institutions on their cyber security policies, processes and overall cyber resilience and cybercrime assessments.

Based on the obtained data presented in the report [9], the share of companies that have experienced cyberattacks remains relatively stable, ranging from 30% to 46%. During the COVID-19 pandemic in 2020, cyber attacks on companies increased again. This may be due to the fact that a large number of companies have actively moved their activities online, which has made them more vulnerable to external threats. In 2023, the share of companies that detected cyberattacks dropped to 30%. The results of the study show that the decrease in cyber attacks is related to the fact that companies implement measures to improve the cyber security system (Fig. 1).

In connection with the beginning of the full-scale invasion, the number and complexity of cyber attacks in Ukraine increased. During 2022, Ukraine faced 7.000 cyber attacks on information infrastructure. Last year, 2.8 times more cyber incidents were registered in Ukraine than in 2021 [11]. In turn, it increases the need to develop innovative methods and strategies to ensure effective protection against cyber threats. This requires constant improvement of cyber security and the introduction of advanced technologies that will guarantee

reliable protection of information and infrastructure in the face of growing cyber risks.

As evidenced by the British experience, a component of successful cyber security is cooperation between different sectors, government structures and private companies, joint exchange of information and experience between countries. The UK government actively engages with companies and non-governmental organizations on cyber security issues. The UK’s National Cyber Security Center (NCSC) is a key aspect of the UK’s national cyber defense strategy, developing collaborative projects with the private sector, academia and other non-governmental organisations. The main goal is to provide support in the field of cyber security, exchange information about threats and jointly solve technical issues.

An example of such cooperation is the partnership with the company Rolls-Royce, which is a well-known manufacturer of aircraft, marine and industrial engines, and also plays an important role in the field of aerospace technology. The main mission of cyber security is to create safe conditions and provide protection against cyber threats. NCSC works with Rolls-Royce to share information on emerging cyber threats, analyze potential cyber attacks and determine the best measures to ensure cyber security in their system. This collaboration allows Rolls-Royce to combat cyber threats and effectively protect its technology, which is essential to ensure the national security of Great Britain [6].

In Ukraine, the first cyber security strategy was approved in 2016 for five years and became the foundation for the development of the country’s national cyber security system. However, it had many shortcomings, such as the priorities of state policy in cyberspace were not clearly defined, it focused on the activities of security and defense agencies, and cooperation between the public and private sectors was not included. According to the results of the analysis, the effectiveness of the implementation of this strategy was only 40%. Over the following years, positive changes were observed. In 2017, the Law of Ukraine “On the Basic Principles of Ensuring Cyber Security of Ukraine” approved the powers of state bodies, enterprises and individuals

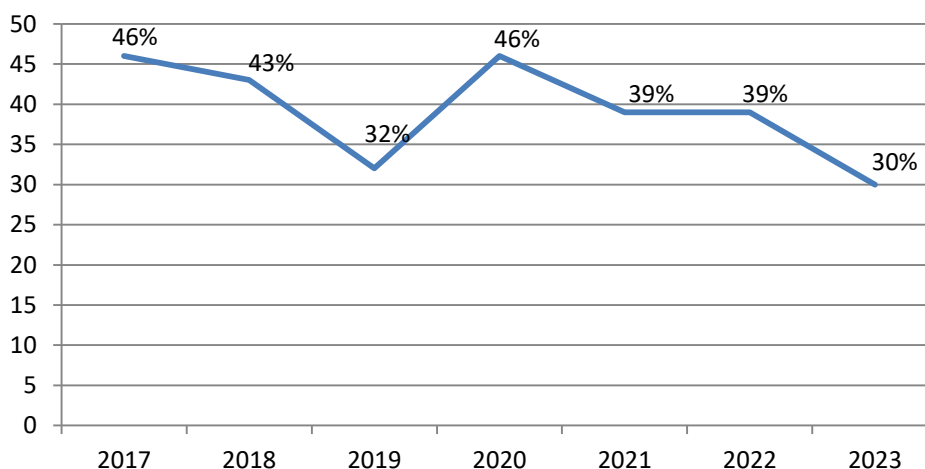


Fig. 1 – Proportion of UK businesses identifying cyber attacks each year

Source: compiled by the author based [9; 10]

in the sector. In 2020, cooperation was established at the international level, in state structures, and specialized cyber security units were created. The cyber security strategy of 2021 was approved until 2025, the main goal was to create conditions for the safe functioning of cyberspace, its use in the interests of the individual, society, state, and global integration. When adopting the new Cyber Security Strategy of Ukraine, previous experience and problems were taken into account, based on this, a perspective plan for the development of the cyber environment at the national and international level was developed [4].

According to the results of a study conducted by the Cohesity company [12], most enterprises lack the necessary strategies aimed at data protection, which are necessary to counter modern cyber threats and support uninterrupted business operations. From the survey conducted, 93% of business owners confirmed that the number of threats to attack applications in 2023 has increased significantly compared to last year. The problem is that the provision of cyber protection is complicated by the rapid development of cyber threats, the lack of technology and constant data recovery, and the lack of cyber insurance. As a result of the company facing a system-wide cyberattack, the survey participants are confident that the company will not be able to restore data and business processes.

Today, Ukrainian cyber security represents a set of measures and initiatives aimed at protecting cyberspace, information resources, technologies and data in Ukraine, namely transferring data to the cloud, partnering with foreign companies and using the Internet via satellite using Starlink terminals. Ukrainian cyber security includes various organizations and structures, which in turn perform analysis, monitoring, development and implementation of cyber protection measures.

For example, a system for detecting vulnerabilities and responding to cyber incidents and cyber attacks is a set of software tools that provide constant monitoring, analysis

and transmission of telemetric information about cyber incidents and cyber attacks that occur or have occurred at informationally protected objects and may negatively affect their functioning [12].

According to the report of the System of Vulnerability Detection and Response to Cyber Incidents and Cyber Attacks [9], during 2022, 2.8 times more cyber incidents were registered in Ukraine than in 2021 (Fig. 2).

The UCP Ukrainian Cyber Security Project, funded by Great Britain, uses advanced international knowledge from both the private and public sectors to protect Ukraine’s vital national infrastructure and provide critical public services. This program is aimed at increasing the level of cyber security by using advanced approaches and global experience in this field.

In 2022, the British government allocated 6.35 million pounds to support Ukraine’s cyber defense. The program was aimed at protecting critical infrastructures, financial institutions, companies, and government structures from malicious cyber attacks. This partnership provides for limiting the access of Russian hackers to critical networks and provides enhanced forensic analysis capabilities to ensure national security and effective investigation [7].

In June 2023, the UK decided to strengthen cyber defense with a financial aid package of up to £25 million, of which £16 million in UK funding and £9 million from international allies [8].

Great Britain continues to support Ukraine in strengthening its cyber security, and this partnership is positive for our country in the field of cyber security. The introduction of advanced approaches and the use of global experience will contribute to ensuring security and collective long-term stability in this area for the citizens of Ukraine.

Also, one of the examples of Great Britain’s support is the cooperation between Durham University and Zaporizhzhia National University. In 2022, the universities signed a partnership agreement aimed at promoting

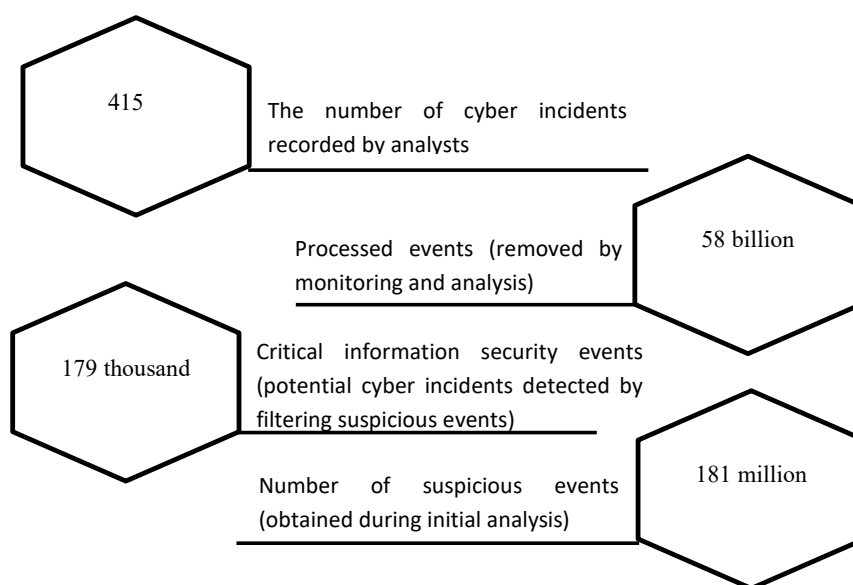


Fig. 2 – Statistics of cyber incidents and cyber attacks during 2022

Source: compiled by the author based [12]

academic mobility, joint research and cultural exchange between the universities. The agreement is carried out within the framework of the “Education and technologies for sustainable development” project. This project is aimed at the development of new educational and technological solutions for solving the problems of sustainable development, restoration and strengthening of Ukraine, as well as for projects in the field of energy, finance, cyber security and other industries. This cooperation is important because it helps Ukrainian students and teachers to conduct joint scientific research and expand educational opportunities, helping to raise the quality of the academic process.

### Conclusions

Therefore, in the modern world of technology, cyber security is an integral component for the stable and successful functioning of companies, government and other institutions. With the increase in the scale of cyberspace and the use of the latest technologies, new opportunities appear, but at the same time, risks that can pose a threat to both the country and citizens.

For Ukraine, it is important to create and constantly improve the overall national cyber security strategy, which will capture all spheres of activity and infrastructure. This strategy should include the creation of national cyber

security centers, in which efforts will be directed to the detection, analysis and response to cyber threats. To ensure the effectiveness of measures, it is especially necessary to develop a personnel policy and increase the number of qualified cyber security specialists.

Great Britain’s experience in this area demonstrates that for the successful implementation of a cyber security strategy, active cooperation with public administration structures and with private companies should be carried out to exchange information about cyber threats and implement advanced technologies. The UK is channeling its resources into educating its citizens, organizations and government officials about cyber security and good behavior in cyberspace, which in turn helps prevent social engineering and phishing.

Considering, based on the experience of the United Kingdom, Ukraine should focus its efforts on creating innovative solutions in the field of cyber security, such as the development and implementation of artificial intelligence, machine learning and automated systems for effective detection and countermeasures against cyber threats.

In summary, cyber security strategies must be flexible and adaptive to ensure an adequate level of protection against persistent threats. Cooperation and innovation are key factors for an effective response to cyber threats, guaranteeing the stability and security of the country’s information resources.

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UDC 332.7

DOI <https://doi.org/10.26661/2414-0287-2023-4-60-15>**LAND MARKET: PROSPECTS OF DEVELOPMENT AND FEATURES OF PRICING****Hamova O.V., Dukov A.V., Pavlenko A.I.***Zaporizhzhia National University*  
*Ukraine, 69600, Zaporizhzhia, Zhukovsky str., 66*  
gamova5oxana@gmail.com  
ORCID: 0000-0002-9752-6900**Key words:**land market, pricing, rent,  
rational land use, land resources,  
land relations, private property,  
experience of EU countries

The article examines the prospects for the development of the land market and its features. It is substantiated that the need to solve the issue of rational use of agricultural lands is the basis for developing a strategy for the development of territories and united territorial communities. It has been proven that the basis of reforming in the field of land relations and the formation of an effective land market are two fundamental provisions: ensuring the proper level and quality of life of the population; support for social justice. Attention is focused on the fact that the potential of the national land fund determines opportunities and creates significant prospects, gives competitive advantages at the international level. These potential opportunities can be realized only if an effective model of property relations is developed and implemented, which provides for the balancing of the interests of land market participants and determines the place of Ukraine as a state with a stable competitive position on the world market based on rational nature management and effective use of resources in general. It is substantiated that there are little opportunities for buying and selling land resources, which can be determined by the following factors: lack of financial opportunities in the vast majority of the population, that is, a small level of ability to pay for the purchase of land; a number of issues in the field of land relations remain unsettled and unclear; insignificant level of market infrastructure development; opacity of the pricing mechanism for land resources; unwillingness of the rural population to join the processes of buying and selling land; the presence of risks related to the process of buying and selling land, etc. It was determined that the basis of reforming in the field of land relations and the formation of an effective land market are two fundamental provisions: ensuring the proper level and quality of life of the population; support for social justice. Attention is focused on the fact that the vast majority of economic sectors are related to rational land use, which determines the importance of proper coordination and regulation of the land market.

**РИНОК ЗЕМЛІ: ПЕРСПЕКТИВИ РОЗВИТКУ ТА ОСОБЛИВОСТІ ЦІНОУТВОРЕННЯ****Гамова О.В., Дуков А.В., Павленко А.І.***Запорізький національний університет*  
*Україна, 69600, м. Запоріжжя, вул. Жуковського, 66***Ключові слова:**ринку землі, ціноутворення,  
орендна плата,  
раціональне землекористування,  
земельні ресурси,  
земельні відносини,  
приватна власність,  
досвід країн ЄС.

У статті досліджуються перспективи розвитку ринку землі та його особливості. Обґрунтовано, що необхідність вирішення питання щодо раціонального використання земель сільськогосподарського призначення є основою для розробки стратегії розвитку територій та об'єднаних територіальних громад. Доведено, що основою реформування в галузі земельних відносин та формування ефективного ринку землі є два принципових положення: забезпечення належного рівня та якості життя населення; підтримка соціальної справедливості. Акцентовано увагу на тому, що потенціал національного земельного фонду визначає можливості та створює значні перспективи, дає конкурентні переваги на міжнародному рівні. Зазначені потенційні можливості можуть бути реалізовані лише за умови розробки та реалізації ефективного моделі відносин власності, яка передбачає збалансування інтересів учасників ринку землі та визначила місце України як держави з стійкою конкурентною позицією на світовому ринку на основі

раціонального природокористування та ефективного використання ресурсів загалом. Обґрунтовано, що незначні можливості щодо купівлі-продажу земельних ресурсів, що можна визначити такими чинниками: відсутність фінансових можливостей у переважній більшості населення, тобто незначний рівень платоспроможності для придбання землі; низка питань у сфері земельних відносин залишаються неврегульованими і незрозумілими; незначний рівень розвитку ринкової інфраструктури; непрозорість механізму ціноутворення на земельні ресурси; неготовність сільського населення долучатися до процесів купівлі-продажу землі; наявність ризиків щодо процесу купівлі-продажу землі тощо. Визначено, що основою реформування в галузі земельних відносин та формування ефективного ринку землі є два принципових положення: забезпечення належного рівня та якості життя населення; підтримка соціальної справедливості. Акцентовано увагу на тому, що переважна більшість галузей економіки пов'язана з раціональним землекористуванням, що обумовлює важливість правильної координації та регулювання ринку землі.

### **Problem statement**

Regardless of the country's level of development, land resources are a source of economic growth and national wealth. Note that the sustainable development of the country, the level and quality of life of the population depends on the efficiency of the use of land resources. In addition, the state and use of land resources determines the prospects for the development of the agricultural sector of the economy, which forms the country's competitive advantages.

The modern stage of development of the market economy, according to leading land use experts, especially regarding agricultural land, should be accompanied by a transformation of approaches to the use of natural resource potential, namely land resources.

Note that the need to solve the issue of rational use of agricultural land is the basis for developing a strategy for the development of territories and united territorial communities.

Let us emphasize that Ukraine has significant potential and competitive advantages, it owns about 70% of agricultural land, which is characterized by a high level of fertility. If we talk about the land fund of the EU countries, the share of Ukraine is more than 5.5% [1]. It is the potential of the national land fund that determines opportunities and creates significant prospects, gives competitive advantages at the international level. These potential opportunities can be realized only if an effective model of property relations is developed and implemented, which provides for the balancing of the interests of land market participants and determines the place of Ukraine as a state with a stable competitive position on the world market based on rational nature management and effective use of resources in general.

In the conditions of European integration, there is an urgent need to build effective property relations at the national level, that is, the formation of a new model of land use, which is a symbiosis of the interests of all market participants. At the same time, the capabilities of the national economy are objective conditions that determine the need to create a land market.

### **Analysis of recent studies and publications**

The question of the formation of the land market, its features and influencing factors is a subject of discussion for scientists and practitioners in the field of land use. The identified problems were investigated by Ukrainian scientists, such as: Gadzalo and Y. Luzan [2], I. Kolesnyk [3], Y. Lupenko, O. Khodakivska [4], M. Martyniuk [5], B. Paskhaver [6] and others. The key aspects of the analysis are the important issues and risks that arise in the process of introducing land reform, its possible prospects, the formation of the land market under the influence of the peculiarities of the management system at the national level, the circulation of land, etc. In addition, experts emphasize the need to study positive world experience that can be used in developing a strategy for the development of the land market in Ukraine.

The above-mentioned scientific works have created a solid basis both from the point of view of theory and practical implementation, which must be used when building and implementing a model of relations in the land market.

### **Highlighting previously unsolved parts of the overall problem**

In our opinion, there is a need for deeper research and substantiation of the possible prospects for the development of the land market in the conditions of aggravation of global conflicts and challenges today, as well as to analyze approaches to pricing, which allows us to determine the factors that affect and rationality of land use, as well as to substantiate the effectiveness of pricing models for land market.

### **Objectives of the article**

The purpose of the article is to study the prospects for the development of the land market and to determine effective models of pricing in order to determine the national model of land relations, which is based on the principles of sustainability and justice.

### **The main material of the research**

Today's realities indicate that the point of view regarding the need for prompt formation and ensuring the

functioning of the land market is quite widespread. There is also a diametrically opposite opinion, the supporters of which oppose the immediate creation of a land market and the purchase and sale of land plots.

Based on the above, two directions can be distinguished:

- supporters of creating a land market;
- opponents of the formation of the land market.

Note that the creation of an effective land market requires, first of all, appropriate legal support and improvement of the existing legislative framework for the regulation of land relations.

The basis of reforms in the field of land relations and the formation of an effective land market are two fundamental provisions:

- ensuring the proper level and quality of life of the population;
- support of social justice.

However, these issues remain unresolved at the level of legislation and regulatory regulation. If we talk about united territorial communities and the distribution of power as a result of the decentralization process, then ensuring a high level of development is possible only if the owner changes, the state lands become the property of the state, which will allow solving a number of social, economic, and environmental issues. If the above-mentioned principles are observed, appropriate development of territories and effective land market is possible. The specified issue is strategic and its solution will take time.

Note that the vast majority of economic sectors are related to rational land use, which determines the importance of proper coordination and regulation of the land market [7].

An important issue for the land market is the pricing mechanism for this strategic resource. According to experts, at the current stage there are low opportunities for the purchase and sale of land resources, which can be justified by the following factors [8]:

- lack of financial opportunities in the vast majority of the population, i. e. a small level of solvency for the purchase of land;
- a number of issues in the field of land relations remain unsettled and unclear;
- insignificant level of market infrastructure development;
- opacity of the pricing mechanism for land resources;
- unwillingness of the rural population to join the processes of land purchase and sale;
- presence of risks related to the process of buying and selling land, etc.

An important issue of the effective functioning of the land market is the determination of value, that is, the methods of pricing. Note that at the current stage this issue is unresolved, because the methods approved in the national economy do not correspond to reality and do not reflect the real value of the land. The use of pricing methods based on the interaction of market elements, that is, through the market mechanism, leads to a surplus, because only owners of significant financial resources will act on the demand side, and their number is insignificant. At the same time, the offer will be redundant. That is,

a situation will arise on the market when the supply of land exceeds the demand for it, that is, a surplus. The result of the above is the establishment of an unfair price for the land, which does not correspond to the conditions of today.

As a rule, to determine a fair price, land is differentiated by quality, the so-called credit rating. This technique has disadvantages, which are determined by the subjectivity of the land value assessment, which leads to the fact that, for example, two plots located not far from each other have a significant difference in value – about ten times. This becomes possible due to the use of various coefficients that make it possible to adjust the value of the land plot in the direction of increase or decrease.

An important issue regarding land pricing, which is constantly the subject of discussions at both the national and international levels, is the amount of rent. Note that in the EU countries, the rent for the use of agricultural land is on average 20–25% of the value of the crop, or 2.5% of the value of the land, in Sweden – 7–9% of the value of the sold products, Denmark – 16–20% of the value harvest. At the same time, every three years, the amount of the rent increases by 1.5 times, which is justified by the increase in the price level for means of production and agricultural products. Moreover, every three years it grows approximately 1.5 times, which is due to the increase in prices for the means of production and agricultural products.

In order to solve the urgent problems related to the land market and the formation of fair and adequate pricing, it is advisable to turn to the positive experience of the leading EU countries.

Let's consider the peculiarities of the use of the land fund in some EU countries and the assessment of the cost of renting agricultural land (Fig. 1).

Figure 1 clearly demonstrates that countries such as Ireland and Denmark have the largest share of land in private ownership – 81.8–96%. This indicator for the Netherlands, Great Britain and Spain varies between 62.6–69.8%, and in other countries, privately owned land accounts for about 50%. The amount of rent is the largest in the Netherlands and amounts to 791 euros/ha, despite the fact that the share of leased land is 35.5%, in Denmark it is 538 euros/ha (leased land – 18.3%).

We emphasize that the uniqueness of each country in terms of land resources determines the model of the land market, which must take into account quantitative and qualitative indicators, on the one hand, and the peculiarities of the national economic system, on the other.

Studying the experience of European countries allows us to form the main prospects for the development of the national land market, among which the most important are [11, p. 37]:

- activation of foreign investment processes, which will contribute to the growth of the competitiveness of the national economy and increase the level of socio-economic development;
- the possibility of independent decision-making regarding the use of land resources by owners, which makes it possible to form a “portrait” of an effective owner



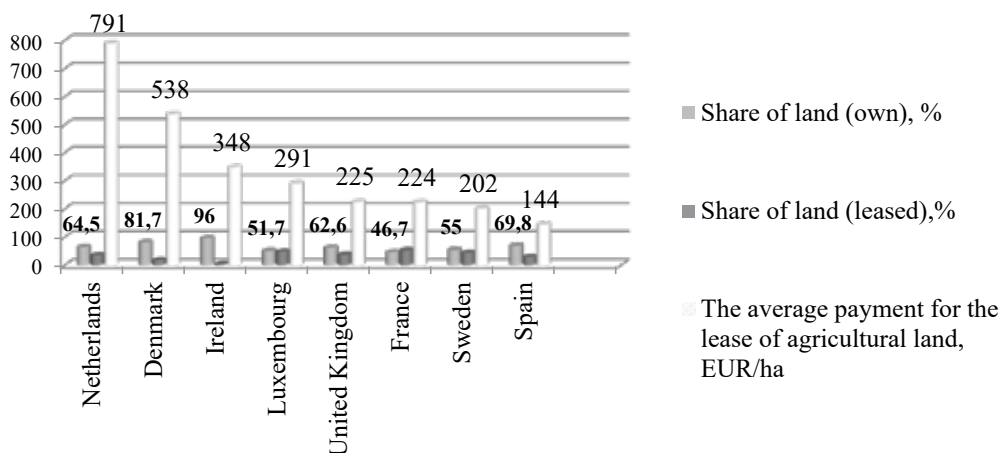


Fig. 1 – Use of agricultural land in EU countries

Source: compiled by the author: [9; 10, p. 113]

and to spread positive experience among other land market participants;

- attracting additional resources and expanding the resource base at the local level, which will contribute to solving unemployment problems at the community level through the creation of new jobs and will stimulate the development of private initiative based on incentives and motives to increase the level of efficiency of entrepreneurial activity;

- general stimulation of the development of the agrarian sector on the basis of reducing the level of shadowing of the economy and the formation of market relations in the relations of ownership of land resources;

- increase in the level of efficiency of the production process on land, which will be revealed due to the improvement of activity results, increase in the level of profitability and efficiency of market operations with land resources.

We emphasize that an effective mechanism for improving the functioning of the sphere of land relations, which affects the development possibilities of territories and districts, which depends on revenues to the budget, is the creation of favorable conditions for all participants. This provides for the use of measures of a motivational nature, and not of a coercive nature. For example, the establishment of certain tax benefits or special conditions of land use determined by the lease agreement serve as incentives for the participants of land relations to consciously comply with norms and rules. Among them, it is possible to single out: a reduction of the rent for a certain period, subject to the timely extension of the lease agreement, but at the same time, the introduction of a system of fines for late fulfillment of conditions. At the same time, there should be a direct relationship between the term of untimely extension of the lease agreement

and the amount of the fine. Let us emphasize that fines and incentives are an effective mechanism, provided that their size corresponds to the realities of today, that is, they should not be small, because their action will lead to the opposite consequences.

Thus, solving the issue of detinization in the field of land relations depends on the degree of orderliness of norms and rules, the effectiveness of the existing regulatory mechanisms and the consciousness of the participants. Of course, it takes time, but it is objectively necessary under the conditions of intensification of decentralization processes, the result of which should be an increase in revenues to the budgets, and accordingly, an expansion of territorial development opportunities.

### Conclusions and suggestions

Based on the analysis, it can be concluded that the priority task of the state is to ensure rational land use, protect the rights of land owners and fair pricing. For this, it is necessary to take certain measures to create favorable conditions for the sustainable and effective development of the land market, the formation of land relations and the protection of the rights of landowners. This will allow to achieve the necessary level of concentration and integration of agricultural production, rational use of land resources and solving social and economic problems.

That is, it is necessary to create an own model of the land market, which would synthesize positive foreign experience, national features and interests, as well as take into account the needs of stakeholders. Only under such conditions is it possible to ensure effective land use, the basis of which is management, support of the territory where the land plot is located, development of infrastructure and replenishment of the budget.

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## ECONOMIC ISSUES OF LAND USE IMPROVEMENT AND ACTIVATION OF THE LAND MARKET IN UKRAINE

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### Key words:

land relations, world experience,  
activation of the land market,  
private property,  
innovative principles of land use  
efficiency

Land resources, together with other means of production, are actively used in the process of social and economic activity in Ukraine. Under such conditions, the system of land relations, the main forms of land ownership, as well as the peculiarities of owning and using it, which correspond to world experience, were formed. On the basis of the study of scientific works, the land legislation of Ukraine and conducting research, the problematic issues of land relations in the conditions of the development of the market economy in Ukraine and the improvement of the efficiency of land as a resource and means of labor are presented. Ukraine's desire to rebuild land relations and develop them in accordance with world standards objectively led to the formation of a new system of land management and land use, which is focused on achieving sustainable development, on the formation of an effective landowner and subject of activity on land. In Ukraine, the basic principles of effective development of land management have been created, which provide for equal rights for all forms and subjects of land ownership. In order to ensure a strong economy of the state, special attention should be paid to the activation of the land market, the increase in the amount of rental income of farms and subjects. This should significantly increase the socio-economic development of Ukraine's economy. Land rent acts as an economic form of realizing the right to own land through rent, occupies a prominent place in pricing, directly shapes the price of land, which is extremely important for the potential of agriculture in market conditions. Economic prerequisites and mechanisms for the effective functioning of land ownership entities are expected to be provided through state regulation of the domestic land market using mainly monetary and commodity interventions. Considerable attention should be paid to the mechanisms of ensuring the solvency of land owners and users and the activation of the processes of further privatization of land resources with the help of preferential lending. The problem of activation and stabilization of the land market began to be solved thanks to the state policy in Ukraine, which is oriented towards European integration.

## ЕКОНОМІЧНІ ПИТАННЯ ПОЛІПШЕННЯ ЗЕМЛЕКОРИСТУВАННЯ ТА АКТИВІЗАЦІЇ ЗЕМЕЛЬНОГО РИНКУ В УКРАЇНІ

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### Ключові слова:

земельні відносини,  
світовий досвід,  
активізація ринку землі,  
приватна власність,  
інноваційні засади ефективності  
землекористування

Земельні ресурси разом з іншими засобами виробництва активно використовуються у процесі здійснення суспільно-господарської діяльності в Україні. За таких умов сформувалася система земельних відносин, основні форми власності на землю, а також особливості володіння і користування нею, що відповідають світовому досвіду. На підставі вивчення наукових праць, земельного законодавства України та проведення досліджень представлені проблемні питання земельних відносин в умовах розвитку ринкової економіки в Україні та підвищення ефективності землі як ресурсу і засобу праці. Прагнення України перебудувати земельні відносини і розвивати їх у відповідності зі світовими стандартами об'єктивно спонукало до формування нової системи землеустрою і землекористування, що орієнтована на досягнення сталого розвитку, на формування ефективного землевласника

та суб'єкта діяльності на землі. В Україні створені основні засади ефективного розвитку господарювання на землі, які передбачають рівні права всім формам і суб'єктам земельної власності. Для забезпечення міцної економіки держави особливу увагу слід приділити активізації ринку землі, збільшенню обсягів рентних доходів господарств і суб'єктів. Це має суттєво підвищити соціально-економічний розвиток економіки України. Земельна рента виступає економічною формою реалізації права власності на землю через орендну плату, посідає чільне місце при ціноутворенні, безпосередньо формує ціну землі, що є надзвичайно важливим для потенціалу сільського господарства в ринкових умовах. Економічні передумови і механізми ефективного функціонування суб'єктів земельної власності передбачається забезпечити шляхом державного регулювання внутрішнього земельного ринку з використанням переважно грошових і товарних інтервенцій. Значна увага має приділятися механізмам забезпечення платоспроможності власників та користувачів землі та активізації процесів подальшої приватизації земельних ресурсів за допомогою пільгового кредитування. Проблема активізації та стабілізації земельного ринку почала вирішуватися завдяки державній політиці в Україні, що зорієнтована на європейську інтеграцію.

### Formulation of the problem

Land did not play an adequate role as a source of income in rural areas or as a source of income for the budgets of rural communities to support their sustainable development. The introduction of a full-fledged agricultural land market will make it possible to improve the situation to some extent, but it is necessary to take additional measures aimed at expanding the toolkit and resource sources for ensuring their sustainable development. The decentralization reform paves the way for such shifts in the management of land resources and relations.

The return of state lands to the ownership and disposal of local communities should improve the efficiency of the use of state lands for the benefit of local communities. The requirement and provision of comprehensive planning of territories by local communities is considered as a tool for effective planning of economic and territorial development of communities.

### Analysis of recent research and publications

Land resources are too important a component of national wealth to be redistributed only under the influence of the market mechanism. Thanks to the state policy and its implementation, appropriate institutions are formed that achieve results by using both direct and indirect levers of influence on land owners and users.

Among the published works in which the solution to the problems of using modern European experience in the effective use of land resources and the activation of the land market, which the author relies on, are first of all the works of N. Strachuk [1], B. Danylyshyn [7], D. Dobryak [12], V. Bogolyubov [6], Yu. Bilyk [18], L. Melnyk [6], M. Stupenia [11]. Some aspects of the problems of the formation of the system of state management of land relations were reflected in them.

### Formulation of the goals of the article

The need to improve land relations at the local, regional and general state levels is exacerbated in view of the task of land use in the conditions of market reforms, an important component of which is the creation of ecologically safe and economically efficient land use mechanisms.

The purpose of the article is to substantiate the theoretical foundations and develop practical recommendations for the implementation of new directions, mechanisms for the development of land relations in the conditions of long-term transformation of forms of ownership in Ukraine, activation of the land market under the influence of European integration.

To achieve the set goal, the following main tasks are to be solved:

- to deepen the theoretical provisions regarding the essence of land relations in order to ensure the formation of a conceptual basis for their sustainable development and the implementation of a full-fledged transition to an economically efficient land market;
- determine the features of the modern development of land relations under the influence of the experience of countries, new requirements for ecology and economy in the world;
- to improve the approaches to determining the rent for the use of land plots of the owners of land shares (shares) in order to establish an economically expedient and economically justified level of rent;
- justify new approaches to land privatization and lease, property relations and territorial management;
- develop recommendations for the further development of the economic and legal regulation of the system of land relations in society with the aim of more fully realizing all land ownership rights;
- develop proposals to take into account the peculiarities of the formation and activation of the agricultural land market in Ukraine in the context of its effective functioning and the requirements of European integration.

### Objectives of the article

The object of the study is land relations and their improvement in the conditions of land reform in Ukraine, taking into account and implementing world experience.

The subject of the study is the organizational and economic foundations of the development and activation of the land market, further privatization and the achievement of economic efficiency of land relations in the context of

the implementation of the experience of other countries, the transformation of forms of ownership and management.

### Research methods

To implement research tasks, general scientific and special research methods were used: dialectical, historical, observational (to study the theoretical foundations and features of the development and reform of land relations); abstraction (to track the results of the implementation of foreign experience and the development of the land market); analogies (to study the positive consequences of reforming land relations, the functioning of the agricultural land lease mechanism, the creation of opportunities for the application of innovative experience in Ukraine).

### Presentation of the main research material

Land as an economic category participates in the reproductive process and in the spheres of distribution, exchange and consumption. The social functions of redistribution of land rent are implemented through the mechanism of land use taxation. One or another way of using land has an impact on the movement of manufactured goods and the turnover of capital.

Acting as an object of general interests and a factor in the social reproduction process, land resources serve as the basis for the formation of a full-fledged market. Land relations arise in connection with the distribution, use and restoration of useful properties of land and territorial resources. They are an important part of the economic relations of the state, a condition for the creation of a material product and the satisfaction of public needs.

An external economic determinant in the form of an excessive orientation of agricultural production to foreign raw material markets and the presence of foreign products in the domestic market causes the degradation of the production structure and leads to the unfavorable integration of the Ukrainian economy into the world economy.

Ukraine focuses on the goals of sustainable development [2]. Revival based on new principles of land use, development of the land market and market mechanisms in Ukraine are connected with the satisfaction of needs and economic growth. This is facilitated by the use of trends of world experience, namely the further privatization of land, the development of deep processing production, and the achievement of the efficiency of all processes regulated by the developed market.

At the same time, activation of renewal or innovation in the activities of subjects of land relations should be achieved by means of state policy. An important feature of the domestic change in the policy of ownership and use of land is the emphasis on the creation and use by the state of institutes for the development of priority sectors, a new technological structure of industry. It is necessary to proceed from a specialization beneficial for the country in the global, European and domestic dimensions, taking into account both the significant available land resources and the ability of society to achieve the goals of sustainable development. The fundamental difference between the concept of sustainable development and the traditional views and practices of management is an integral

approach to development as a holistic process, ensuring comprehensive territorial development.

As in European countries, state lands are transferred to the ownership and management of local communities, which improves the efficiency of use. The requirement and provision of comprehensive planning of territories by local communities is considered as a tool for effective planning of economic and territorial development of communities [3]. This became possible after the Verkhovna Rada of Ukraine adopted the Law "On Amendments to Certain Legislative Acts of Ukraine Regarding Land Use Planning" (No. 711-IX) and Decree of the President of Ukraine No. 449/2020 "On Some Measures to Accelerate Reforms"

Entry into force of the Law of Ukraine "On Amendments to the Land Code of Ukraine and other legislative acts on improving the system of management and deregulation in the field of land relations" (No. 2194) "On Amendments to the Land Code of Ukraine and other legislative acts on improving the system of management and deregulation in the field of land relations" and the adoption of draft law No. 4664 "On the procedure for solving issues of the administrative and territorial system of Ukraine" with secondary legal acts form a legislative base in accordance with European requirements.

Land relations, and, accordingly, land management, stand out in a special socio-economic category not only because of the specificity of land as a unique object of general multi-purpose interests. There is one more feature that determines the uniqueness of the content of public interests that are formed in connection with the distribution, redistribution, use and restoration of land resources. the system of commodity-monetary relations. Accordingly, land interests that arise in society can be divided into two groups: interests regarding the effective development of the natural properties of the land resource (technical and economic interests), and interests regarding the commodity and monetary parameters of land ownership (social and economic interests) [1].

Until now, it has practically not been possible to form real competition between entities that would claim high efficiency in the use of land resources for agricultural production. Special hope rests on efficiently managed private landowners and farms that rent land shares (shares) and have a desire to increase the area and results of land use (Table 1).

It has been established that by renting land plots from the owners of land shares (units) it is possible to achieve rational dimensions of land use, which creates conditions for the normal functioning of not only large agricultural enterprises, but also relatively small farms. With this in mind, we consider the lease mechanism as one that is able to optimize the average size of land use in agricultural enterprises. After all, only optimal dimensions of land use will allow efficient management and obtaining high results of financial and economic activity. Taking into account the fact that on average in Ukraine 10% of land lease contracts are concluded for a short term (up to three years), this creates conditions for a more effective redistribution of land use rights between agricultural enterprises.

In the process of research, it was found that relatively small farms are not attractive objects for investors [5]. After

Table 1 – Key indicators of the agricultural land market in Ukraine [4]

Indicator	The value of the indicator
A total of 43.6 million hectares (72.3%) of land is registered in the State Land Cadastre	43.6 million hectares (72.3%)
32.7 million ha (72.3%) of agricultural land registered in the State Land Cadastre	32.7 million ha (72.3%)
The average regulatory monetary value of land is UAH 27.520/ha	UAH 27.520/ha
The weighted average amount of rent for agricultural plots of communal property (at land auctions)*	UAH 10.630/ha
2526 hectares of agricultural land were loaned	2526 hectares
Average weighted price of purchase and sale of an agricultural plot**	UAH 30.320/ha
The average number of purchase and sale transactions per day in May 2023 is 249	249
The average size of the land plot of the sale agreement is 2.23 hectares	2.23 hectares
The number of concluded purchase and sale agreements is 145.091 in total	145.091
The area of registered sales agreements is only 324.354 hectares	324.354 hectares

Note: \*according to the State Geocadastre data as of June 1, 2023; \*\*average price weighted by area from 2021 to 2023.

all, investing capital in agricultural enterprises with the availability of a thousand or more hectares of agricultural land will ultimately bring the investor much more profit. That is why today it is difficult to find an investor for small farms. The final economic indicators of their activity depend on the amount of investments made in agricultural enterprises. In turn, the presence and use of agricultural machinery plays a special role in ensuring effective management. It is worth noting that the effectiveness of the use of technical means largely depends on the level of production concentration.

The successful completion of the processes of reforming land relations requires the immediate introduction and effective functioning of the agricultural land market. After all, in market economic conditions, land should be a commodity equivalent to other means of production. However, an important prerequisite for the process of formation and functioning of the land market in Ukraine is an understanding of the essence of the market in general, its properties and place in the economy of our country.

It should be noted that there are processes taking place in Ukraine that inhibit the development of the land market. On the other hand, it contributes to the functioning of the shadow market of agricultural land, where land prices are much lower than market prices. Therefore, the principles of maximum protection of the interests of the peasants-owners of the land must be laid down as the basis of the economic policy for the formation of the agricultural land market, as well as to ensure the following tasks are fulfilled:

1. Create a system of guaranteeing the seller and the buyer in the land market. In particular, this is facilitated by the implementation of the electronic system of the unified land cadastre, which allows establishing real and reliable data on the owners and other, no less important for the buyer, characteristics of a specific land plot, which helps to avoid speculation related to the purchase-sale-resale agricultural land.

To ensure the guarantees of the seller and the buyer on the land market, it is advisable to make all financial payments exclusively through a financial institution – a bank, which will guarantee the sellers of agricultural land timely receipt of funds [6].

2. Create a system of mortgage crediting of agricultural production secured by agricultural lands. This will allow peasants who own agricultural land to manage the land

more effectively by obtaining a loan for the purpose of purchasing the necessary equipment, elite seeds, fertilizers, plant protection preparations, etc.

3. Set the lower limit for the term of land lease. Based on the experience of European states, the minimum lease term for agricultural land is established by law for 7 years, which will contribute to the implementation of a system of measures aimed at ensuring the rational use and protection of agricultural land.

4. Gradually increase the amount of rent and cash payments. In the studies, methods are proposed that make it possible, depending on the yield level of a particular agricultural crop, to determine the real market amount of rent for the use of land plots of the owners of land shares (shares) as a percentage of the monetary value of the land. It is also advisable to gradually increase the share of monetary payments with landlords, as its share in Ukraine is still insufficient.

5. Create a mechanism for rational concentration of land. We believe that land should first of all be leased to those persons who have proper education and experience in land management. Particular attention should be paid to these issues when introducing the agricultural land market. In our society, there is an opinion that with the introduction of the agricultural land market, there will be a high probability of buying land shares from peasants, especially pensioners, for nothing. In our opinion, such comments are valid and must be taken into account when forming the conditions and rules of the functioning of the land market in Ukraine, since there is still no “fair” market pricing mechanism and mechanism for the implementation of basic rights to land by subjects of land relations. After all, establishing a real market price for agricultural land will to a certain extent ensure the balance of supply and demand.

In foreign countries, there is experience in the use of Laws that establish a ban on the implementation of certain operations of the purchase and sale of agricultural land. Having analyzed some of them, it is possible to find an answer to the question of the feasibility and effectiveness of the introduction of the agricultural land market in Ukraine. In particular, Italian laws prohibit the sale of land plots obtained during the reform for 30 years. In Germany, for the purchase and sale of land, it is first necessary to obtain the permission of the state authorities, and the

implementation of this transaction with the land should not be contrary to the interests of society. The tenant who purchased the land does not have the right to resell it for 20 years. However, in case of an urgent need to resell the land, the difference between the purchase and sale is received by the state [11].

The introduction of a rational system of taxation of agricultural land will contribute to the formation and functioning of an effective agricultural land market. It is also necessary to clearly define the rights and obligations of all subjects of the agricultural land market. In highly developed countries, there is no problem of artificially underestimating the price of agricultural land. After all, such processes are regulated by state bodies, as the state treasury receives customs duties from land transactions. For example, in France, the price of 1 hectare can be 3,200 euros, while in Germany and Holland, the price of 1 hectare of agricultural land is five times more expensive [12]. Also, it is common knowledge that no more than 1–3% of agricultural land is sold annually in the civilized world. With the introduction of the agricultural land market in Ukraine, supply and demand will have a significant impact on the formation of land prices. However, the starting price will be an expert monetary assessment conducted in accordance with the methodology approved by the Cabinet of Ministers of Ukraine in 2002 No. 1531. In the absence of an expert assessment, it is possible to use the current monetary valuation of the land, carried out in accordance with the Resolution of the Cabinet of Ministers of Ukraine No. 213 “Methods of monetary valuation of agricultural lands and settlements” [9; 14].

As world experience shows, with the systematic development of private property, including land, markets for the exchange of property rights develop. At the same time, the cost of using resources and goods increases, which determines their rational distribution. The free sale of property rights contributes to the increase of national income. However, private ownership of resources, particularly land, means that the owner can improve it in the long term, confident that he, and not someone else, will

benefit in the future as a result of the capital investment made. Thus, the basis of a competent solution to the problem of reforming land relations on a market basis and creating an appropriate market environment in the country’s economy is the development of private land ownership, the introduction of a market for the exchange of land rights, and its use as a means of securing mortgage lending. We believe that the market circulation of land will contribute to the growth of their value, as well as stimulate the rational use of agricultural land. Only with the introduction of a full-fledged agricultural land market, peasants – owners of land shares (shares) will have the opportunity to fully realize all types of private property rights to land: the right to own, the right to use, and the right to dispose of. In modern economic conditions in Ukraine, the functioning of the land market is a guarantee of the realization of the basic constitutional right of all subjects of land relations – the right to own land and dispose of it according to their needs. In turn, in the land market, land plots must be redistributed between citizens and legal entities without interference in the exchange processes of the state or local self-government bodies, if the law is not violated (Fig. 1).

In our opinion, the formation of a free agricultural land market in Ukraine should have happened gradually. It was in such conditions that the state at the initial stage was able to monitor the functioning of the agricultural land market, as well as full-fledged formation and improvement of regulatory and legal support. It is expedient for the state to leave the right to expropriate agricultural lands under the conditions of their inefficient and irrational use. The central place on the land market will belong to agricultural lands, the priority status of which is determined by the fact that they are the main resource in the production of agricultural products.

**Conclusions**

In the modern structure of agrarian production, the problem of efficient use of agricultural land, which is used by households, remains relevant. A characteristic feature of these lands is a high level of parceling, which in turn

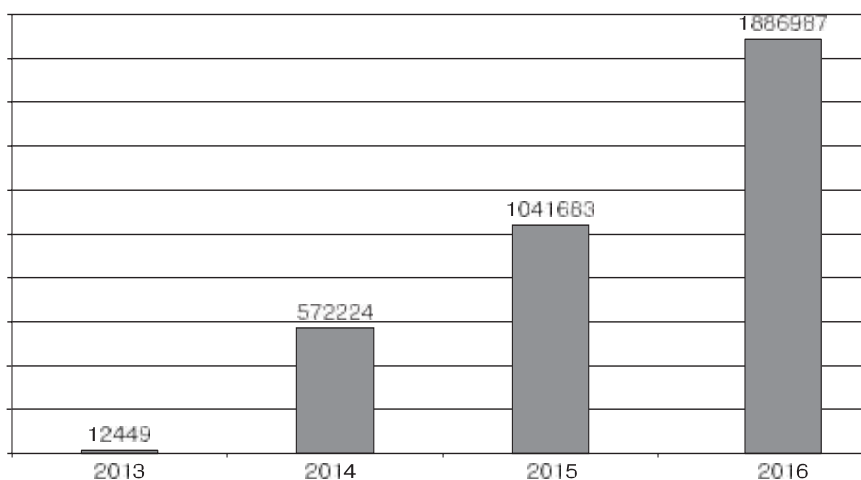


Fig. 1 – Dynamics of the number of transactions with a change of owner/user of an agricultural plot of land in Ukraine  
Source: based on data from the Ministry of Justice of Ukraine [15]

complicates the possibility of their effective use. In order to combine land plots into larger massifs, it is proposed to expand the reserve land fund of village councils at the expense of land plots that are in use by the population, but for certain reasons are not used for their intended purpose.

In our opinion, under the conditions of the functioning of the agricultural land market, it is advisable to review the availability of agricultural land in the reserve fund on the territory of a separate community, which will contribute to the effective development of rural areas. The introduction of the agricultural land market, as we have already noted, requires the existence of appropriate infrastructure: land banks, land exchanges, insurance companies, etc. At the regional level, the agricultural land market should include lease, mortgage, purchase and sale, exchange, donation and inheritance of agricultural land. We believe that in the future the functioning of the agricultural land market should be based on the following tasks:

- introduction of a system of rational use and protection of agricultural land, as well as creation of appropriate state control bodies for compliance with these requirements;
- creation of an effective system of economic turnover of agricultural land with the help of appropriate mechanisms, in particular, purchase, sale, lease, exchange, etc.;
- identification of the most effective forms of land use and land management;
- the introduction of mandatory measures to increase the level of natural fertility of agricultural land, as well as the creation of a state control body for compliance with these requirements;
- application of mechanisms for economic stimulation of agricultural producers;
- development of theoretical and methodological approaches to determine the level of attractiveness of individual plots of land on the agricultural land market. Also, in the functioning of the agricultural land market, preference should be given to those buyers who will buy land plots of the optimal area from an economic and ecological point of view, which will allow to avoid the parceling of agricultural land and manage the land more efficiently.

At the current stage, the main directions of scientific and technical progress, innovative development in world agriculture have become:

- a) creation of new, more productive means of production, complex mechanization, automation and electrification in all branches of plant and animal husbandry;
- b) development of intensive and resource-saving technologies for the production of agricultural products;
- c) creation of effective means of plant and animal protection, herbicides, mineral fertilizers, comprehensive chemicalization of agriculture. The importance of creating a strategy for the activities of agribusiness entities in the innovation system is determined by the features of the innovation process:
  - high risk and uncertainty of ways to achieve goals;
  - impossibility of detailed planning and orientation to forecast estimates;
  - the need to overcome resistance both in the field of economic relations and the interests of the participants in the innovation process;
  - dependence on the socio-economic environment in which it functions and develops.

Let us highlight the main goals of the innovation policy for land market entities:

- 1) determination of state priorities for the innovative development of entities;
- 2) formation of the regulatory and legal framework in the field of innovative activity;
- 3) direct state financing of the development of modern innovative infrastructure;
- 4) regulation of innovative activity in the regions (rational placement of innovative potential, equalization of socio-economic disparities in the development of regions);
- 5) encouraging foreign investors to create joint ventures producing agricultural products;
- 6) promotion of technology transfer from promising innovative directions, implementation of international standards for production.

Over the past few years, there has been a trend in the development of national subprojects.

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## REGULATORY FRAMEWORK FOR THE REGULATION OF FOREIGN ECONOMIC ACTIVITY AT UKRAINIAN ENTERPRISES

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**Key words:**

legal framework, regulation,  
foreign economic activity,  
enterprises

The article analyzes the main aspects of the legal framework for regulating foreign economic activity at Ukrainian enterprises. It was found that global geopolitical risks have increased dramatically after Russia's invasion of Ukraine. Investors, market participants and policy makers expect that the war will have a dampening impact on the global economy, raising inflation, leading to a sharp increase in uncertainty and risks of serious negative consequences. Despite the significant disruption to trade logistics, the Ukrainian legislature responded promptly and amended the Customs Code of Ukraine and other regulations. Among the important changes are the exemption of certain goods from import duties and VAT, and simplification of the goods declaration procedure.

## НОРМАТИВНО-ПРАВОВИЙ БАЗИС РЕГУЛЮВАННЯ ЗОВНІШНЬОЕКОНОМІЧНОЇ ДІЯЛЬНОСТІ НА ПІДПРИЄМСТВАХ УКРАЇНИ

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**Ключові слова:**

нормативно-правовий  
базис, регулювання,  
зовнішньоекономічна  
діяльність, підприємства

В статті проаналізовано основні аспекти нормативно-правового базису регулювання зовнішньоекономічної діяльності на підприємствах України. З'ясовано, що глобальні геополітичні ризики різко зросли після вторгнення Росії в Україну. Інвестори, учасники ринку та політики очікують, що війна спричинить гальмівний вплив на світову економіку, підвищуючи інфляцію, що призведе до різкого зростання невизначеності та ризиків серйозних негативних наслідків. Незважаючи на суттєві порушення торговельної логістики, законодавчі органи України відреагували оперативно та внесли зміни до Митного кодексу України та інших нормативно-правових актів. Серед важливих змін: звільнення окремих товарів від ввізного мита та ПДВ, спрощення процедури декларування товарів.

**Statement of the problem** in general and its connection with important scientific or practical tasks. Russia's invasion of Ukraine has had a huge impact on the economic and financial landscape of Ukraine. In addition to the terrible humanitarian crisis and geopolitical instability that the war has caused, economic activity has been severely curtailed. While the situation is rapidly evolving and short- and long-term impact projections are subject to revision, the crisis has undoubtedly changed the market environment in Ukraine

The signing of the EU-Ukraine Association Agreement in June 2014 was a key political event in Ukraine's recent history. The Association Agreement and Ukraine's commitments to the IMF and other international donors require new legislation in many different areas, among other reforms. As a result, many changes have taken place over the past few years, and further reforms are expected. The scheme of normative and legal regulation of foreign economic activity at Ukrainian enterprises was presented.

In particular, the banking market has been significantly revamped and the judicial system has been reformed, as well as changes in the legal and regulatory framework for foreign economic activity of Ukrainian enterprises.

**Analysis of recent research and publications** which initiated the solution to this problem and on which the author relies, and identification of previously unresolved parts of the general problem to which this article is devoted.

The issues of regulation of foreign economic activity at Ukrainian enterprises have been studied by such scholars as: O.Y. Akimenko [1], Y.G. Kozak, N.S. Logvinova, V.V. Kovalevskyi, M.A. Levytskyi, M.I. Baranovska, E.V. Kravchenko, M.A. Zaiets, H.M. Zapsha, O.M. Kovalenko, L.A. Parkhomenko, O.L. Beliaeva, N.S. Mamontenko, V.V. Baltiukevych, O.P. Solianikova, V.V. Baeva, O.O. Selezneva [2], D.A. Mishchenko, L.O. Mishchenko [2], I.O. Platonova [4], S. Skrypyuk, O. Protseviat, and O. Voronova [5], and S.O. Ishchuk, Y.V. Poliakova, O.S. Protseviat [6]. Nevertheless, the

theoretical and methodological substantiation of scholars in practice needs to be improved, since foreign economic activity in Ukraine becomes more complicated for Ukraine due to the current military action.

**Formulation of the article’s objectives (statement of the problem)**

To analyze the main aspects of the legal framework for regulating foreign economic activity at Ukrainian enterprises.

**Presentation of the main research material**

In response to Russia’s invasion, President Volodymyr Zelenskyi declared martial law in February 2022. New currency, tax, and customs regulations have been introduced and further changes to regulations are ongoing. In particular, these changes may affect the customs clearance of goods and the work of customs authorities. Despite the significant disruption to trade logistics, the Ukrainian legislature responded promptly and amended the Customs Code of Ukraine and other regulations.

Important changes include the exemption of certain goods from import duties and VAT, and simplification of the goods declaration procedure. Import exemptions do not apply to goods originating in or exported from Russia and other “aggressor states”. The legal and regulatory framework for foreign economic activity at Ukrainian enterprises is presented in Figure 1.

According to Article VII of the Law of Ukraine “On Foreign Economic Activity”, Ukraine’s import tariff includes three rates of import duty:

- Full rate – the full rate of import duty may be from two to ten times higher than the most favored nation rate.
- Most Favored Nation (MFN) – Upon becoming a WTO member in 2008, Ukraine applied new, lower MFN rates to all goods originating in WTO member countries in accordance with Article I of the GATT 1994.
- Preferential – Preferential rates (lower than MFN rates) are applied to imports from countries with which Ukraine has a Free Trade Agreement (FTA) or other preferential trade agreement, i. e. imports mainly from CIS countries.

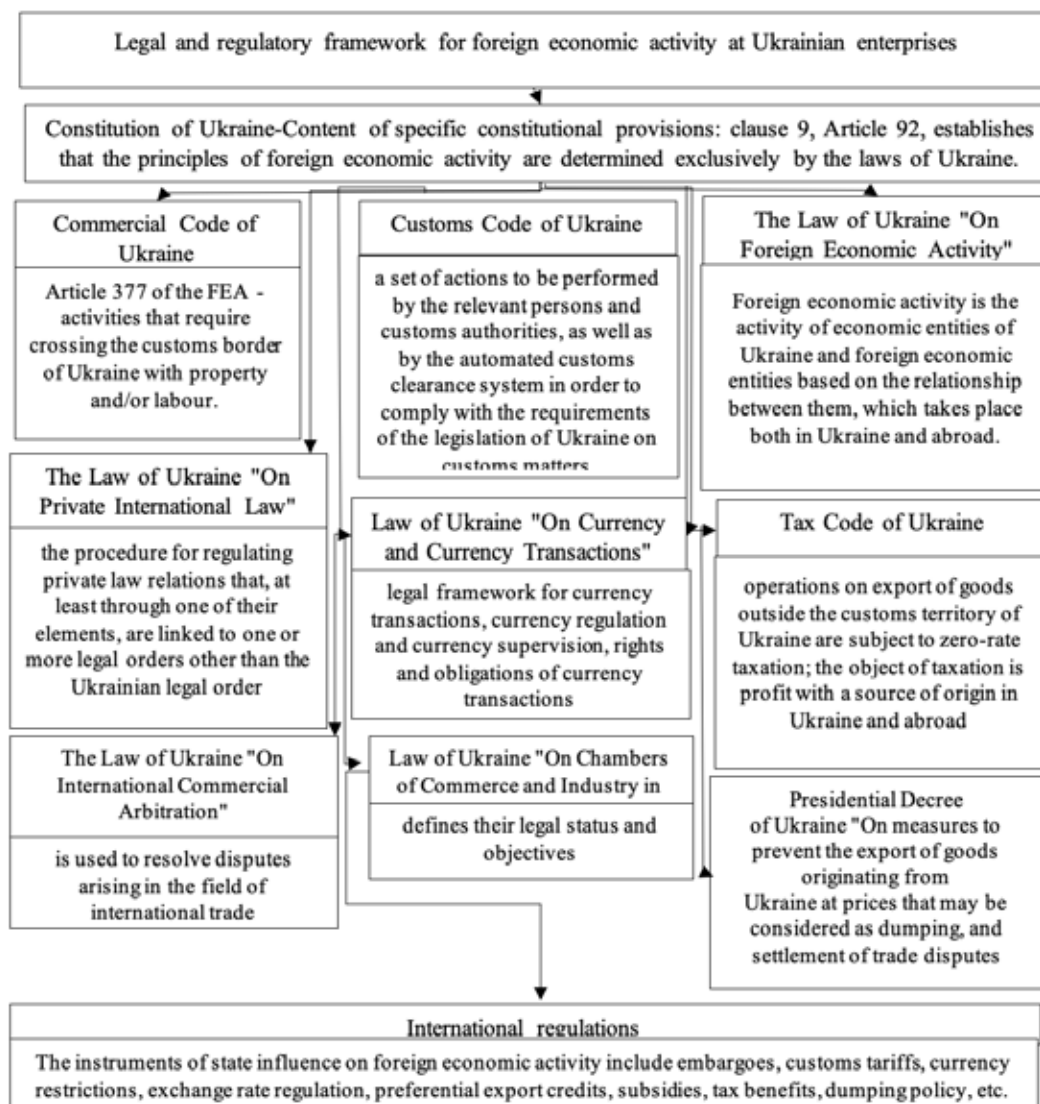


Fig. 1 – Regulatory and legal regulation of foreign economic activity at Ukrainian enterprises

Source: generalized by the author

Although Ukraine has the three import duty rates mentioned above, Ukraine has not set full duty rates, although it has equalized the preferential and MFN rates. Thus, there is only one import duty rate that applies to all trading partners. The majority of customs tariffs are levied at ad valorem rates, and only 1.5% of tariff lines are subject to special or combined rates. The average applied tariff rate dropped to 4.95% after the WTO accession and further decreased to 4.8% in 2011. The current rates of customs duties are set by two amendments to the Law of Ukraine “On Customs Tariff on Imports of Ukraine” No. 584-VII. Concerned exporters can find out the current rates of Ukrainian customs duties. To decipher the 10-digit codes, please contact the FCS Kyiv office. In addition to customs duties, according to Article 215 of the Tax Code of Ukraine, the following goods are also subject to excise tax:

- Ethyl alcohol and other distillates, alcoholic beverages, beer.
- Tobacco products, tobacco and industrial tobacco substitutes.
- Liquids used in electronic cigarettes.
- Fuel.
- Passenger cars, their car bodies, trailers, motorcycles, vehicles designed to transport 10 people or more, and freight vehicles.
- Electricity.

Excise duties are set as a percentage of the sum of the declared customs value, customs duties and fees paid upon importation of products. Excise rates are set out in Article 215 of the Tax Code of Ukraine No. 2755-VI. Payment of tariffs and excise duties is made in Ukrainian currency at the NBU exchange rate on the date of payment. The VAT rate is 20% for most goods. As VAT refunds used to be a controversial issue, with many foreign companies owing millions of dollars in VAT refunds in 2015 and 2016, the Ukrainian government has made significant changes to the VAT refund procedure. Now, refunds are made on the basis of the Register of VAT refund claims. Also, VAT refunds are made automatically in the chronological order of receipt of VAT refund applications. However, there are currently indications that VAT refunds have slowed down again as a result of the ongoing conflict. Ukraine has introduced a number of import relaxations to ensure the efficient execution of customs formalities during martial law. The key changes are set out in Law No. 2142-IX. In particular, the following exemptions apply:

- No import duty on goods imported by legal entities for free circulation (except for certain excisable goods, such as ethyl alcohol and other alcohol distillates, alcoholic beverages, and tobacco products).
- Excludes VAT, import duty and excise tax on cars and other vehicles imported by individuals.
- No VAT on goods imported by single tax payers of groups I to III, such taxpayers can declare goods under a preliminary customs declaration and customs formalities will take no more than one hour.

The Law also provides for exemption from import duties and suspension of non-tariff regulation for the listed goods during martial law, such as:

- Special personal protective equipment (helmets, tactical vests, etc.) supplied for the needs of the internal

affairs bodies, the Armed Forces and other military formations, including territorial defense units.

- Listed medicines and medical devices, including those without registration in Ukraine.

The Customs Code of Ukraine regulates imports and exports. This Code was adopted in March 2012 and last amended in August 2022. The Customs Code defines the procedure for import, export, re-export, temporary import and transit of goods for customs clearance, payment of customs duties, excise and other customs tariffs, activities of customs brokers and customs warehouses, etc. The Code, the current legislation of Ukraine on customs regulations, contains two supplements to the Law – “On the Rates of Customs Duties of Ukraine” No. 674-IX, the last update of which took place in July 2021, which defines the rates of duties. The main law governing VAT on imports and exports and VAT refunds on exports is the Tax Code of Ukraine, Chapter V.

Under Ukrainian law, both individuals and legal entities may act as official importers in connection with customs clearance of goods imported into Ukraine, but the entity must be accredited by the local customs. The procedure and the list of required documents are set out in the Procedure for Registration of Business Entities Engaged in Operations with Goods. The Ukrainian government is actively analyzing and removing unnecessary trade barriers that burden trade, working to make the business environment simpler and more transparent for local and foreign companies. While the environment is improving, many trade barriers in Ukraine remain, including unpredictable discriminatory fees and product certification procedures. Non-tariff barriers include volatile customs prices for imports, non-transparent certification requirements, cumbersome phytosanitary certification procedures, import licenses, and labeling requirements.

Although Ukraine has abolished its mandatory certification lists, its certification system remains in place. The certification system is based on the Law on Standards, Technical Requirements and Conformity Assessment Procedures, the Law on Standardization, the Law on Conformity Certification, and the Presidential Decree “Regulations on the State Inspection for Consumer Protection”. These rules provide for the following conformity documents:

- Technical regulations are public legal acts that establish mandatory requirements for products, services or production processes in order to eliminate threats to national security, protect life, health and property rights of consumers, and protect animals, plants and the environment. It may also contain requirements for terminology, labels, packaging, labeling or labeling requirements relating to a product, process or method of production. In recent years, Ukraine has adopted more than 30 technical regulations, most of which are verbatim replicas of EU safety directives.

– National (State) Standards (DSTU) – documents approved by an authorized body that contain guidelines or specifications relating to products, production processes or services, compliance with which is not mandatory. A standard may also include requirements for terminology, labels, packaging, labeling, or labeling requirements related to a product, process, or service. From the point of view of the legislator, the Standard is an auxiliary document, compliance with which will help to achieve the mandatory

safety requirements set out in the Technical Regulation. However, manufacturers are free to choose other production methods that can provide the same safety results.

In November 2010, the Ministry of Healthcare of Ukraine signed Order No. 971 approving the list of food products subject to monitoring for the content of genetically modified or genetically modified organisms (GMOs). Among the product groups subject to inspection and monitoring are soybeans, corn, tomatoes, zucchini, melons, papaya, chicory, sugar beets, rapeseed, linseed and cottonseed oils, wheat, rice, infant formula and special food products containing the above plants and their derivatives, yeast and sourdoughs, including products containing these ingredients. Currently, there are targeted customs control procedures for the import of goods into Ukraine in wartime:

For humanitarian aid (Resolution of the Cabinet of Ministers of Ukraine No. 174 dated 01.03.2022), the import of goods is carried out on a declarative basis and/or on the basis of a letter of guarantee from the end user of the goods submitted to the customs authorities in the prescribed form under the simplified customs clearance procedure;

- For the specified goods imported to Ukraine during the period of martial law, in accordance with the Resolution of the Cabinet of Ministers of Ukraine No. 236 dated 09.03.2022, which establishes the possibility of obtaining a deferred payment of customs duties for the period of martial law. Such goods include medicines, medical devices and medical supplies, foodstuffs for the established groups of goods, military goods according to the list defined by the Resolution of the Cabinet of Ministers of Ukraine No. 1807 dated November 20, 2003, critical import goods according to the list of the Resolution of the Cabinet of Ministers of Ukraine No. 153 dated February 24, 2022; Other goods are subject to customs control and clearance within the limits defined by the Customs Code of Ukraine [8].

The latest Resolution of the Cabinet of Ministers of October 10, 2020 introduced a new procedure for interaction between declarants and customs authorities regarding the movement of goods and vehicles across the customs border of Ukraine under the “single window” mechanism. According to these procedures, the interaction between declarants and customs authorities is recorded electronically during official control measures and preliminary documentary customs control. The record contains information from companies, regulatory authorities, customs authorities and the automated customs clearance system. It also includes documents and information used to carry out official control and preliminary documentary control measures,

In 2016, a new agency was established – the State Service of Ukraine on Food Safety and Consumer Protection (SSUFSCP). The State Veterinary and Phytosanitary Service of Ukraine and the State Inspection of Ukraine for Consumer Protection are responsible for state control over compliance with legislation in the following areas: state supervision in the field of tourism and resorts; consumer protection of products made of precious metals and precious stones; control over compliance by legal entities with the rights to plant varieties in seed and plant production. The SSUPS is an authorized body of Ukraine and is subordinated to the Cabinet of Ministers.

Every year, the Ukrainian government compiles a list of goods subject to import and export licensing. The current list of such goods can be found in the Resolution of the Cabinet of Ministers of Ukraine No. 1329 “On Approval of the List of Goods Subject to Import and Export Licensing and the Relevant Quotas for 2022” dated 29.12.2021. In 2022, the list includes: medicines, paints and varnishes, dyes, hygiene products, cosmetics, pedicure and manicure products, shaving sprays and deodorants; lubricants, waxes, shoe polish, insecticides, solvents, silicone, fire extinguishers and chemicals used to fill fire extinguishers; refrigerators and freezers, air conditioners, humidifiers and other selected industrial chemical products; fungicides, herbicides, plant growth regulators and other products. Most import licenses are issued through the Ministry of Economy, regional and Kyiv city administrations. Other import licenses or approvals are issued by other agencies, including:

- The Ministry of Internal Affairs – sporting weapons and self-defense items.

- National Commission for the State Regulation of Communications and Informatization (NCCIR) – radio electronic equipment and radiators.

- State Service of Ukraine on Medicines and Drugs Control – medicines and drugs.

- Ministry of Agriculture and Food Industry – agrochemicals, seeds, veterinary products.

- Ministry of Health – pharmaceuticals, cosmetics and hygiene products.

- Ministry of Ecology and Natural Resources of Ukraine – ozone-depleting chemicals, including propellants, paint solvents, fire extinguishers and refills, oil sprays, air conditioners and refrigeration equipment, refrigerated vending machines; agricultural chemicals contained in sprays; and pharmaceutical products, cosmetics and hygiene products contained in sprays [4].

In August 2022, the Verkhovna Rada of Ukraine adopted a law on customs “visa-free travel” with the EU. This law provides for Ukraine’s accession to the Convention on a Common Transit Procedure and the new NCTS computerized transit system. The amendments provide for the introduction of a European complaint mechanism and further digitalization of customs, which will speed up customs clearance and reduce corruption risks. A certificate of origin is required when applying preferential rates of customs duties, when applying certain quantitative restrictions on the movement of goods across the customs border of Ukraine, and if it is provided for by Ukrainian legislation or international agreements. Pursuant to Article 49 of the Customs Code, the customs value of goods is defined as the value of goods used for customs purposes based on the price actually paid or payable for the goods, which generally includes the cost of goods, the cost of insurance and the cost of transportation. Under certain conditions, it may be necessary to include other costs, such as royalties or license fees, in the customs value of goods. The Customs Code establishes one main and several additional methods for determining the customs value of imported goods. The main method for determining the customs value of goods imported into Ukraine under Article 57 is the contract price (transaction value of the

imported goods). The Customs Code requires an exhaustive list of documents to be submitted to determine the customs value of goods. Because the list of documents required to be submitted to the customs authorities changes frequently and because the Customs Code may require the official importer to submit additional documents as defined by applicable law, U.S. exporters are advised to conduct customs clearance in Ukraine as a contractual obligation of the Ukrainian trading partner or end user. The Ukrainian government strictly controls and restricts the transit, import and export of arms, drugs, chemicals and hazardous substances, as well as certain pharmaceutical and communications products. The licensing of prohibited and restricted imports is governed by the Law of Ukraine “On State Control over International Transfers of Military and Dual-Use Goods” No. 549-IV, last amended on 5 April 2022, which sets out the terms and conditions of licensing; names the transit control authorities; and establishes criteria for the transit, import and export of military or dual-use goods. Approval of the transit, import or export of military or dual-use goods may take up to 90 days from the date of application and receipt of the required supporting documentation. These documents must be submitted to the State Export Control Service of Ukraine. Companies or relevant Ukrainian trading partners of end-user goods wishing to import these goods should contact the State Export Control Service of Ukraine in advance before any prohibited or restricted goods are shipped to Ukraine. Recent amendments to this law provide that the Cabinet of Ministers of Ukraine may establish a list of goods that are not subject to this law during the period of martial law in Ukraine.

In addition, Resolution of the Cabinet of Ministers of Ukraine No. 960 dated 24 October 2018, as last amended on 26 June 2020, established restrictions on the cross-border movement of certain groups of goods, including experimental plant varieties and products subject to certification. These include food products, military and dual-use products, goods subject to conformity assessment with technical regulations, seeds and planting material, electronic equipment and special-purpose radiators. The State Inspectorate for Food Safety and Consumer Protection controls the quality of products and their compliance with national standards. In Ukraine, certification is a paid service. This certification service is provided by about 100 accredited certification agencies listed with the National Accreditation Agency of Ukraine.

An importer or its Ukrainian trading partner has the right to choose one of the accredited certification agencies and order product certification necessary for the sale or manufacture of products in Ukraine. Depending on the type of product, tests and applicable certification scheme, the certification process can take up to 30 days. Conformity assessment – In September 2017, the Cabinet of Ministers of Ukraine amended the Law of Ukraine on Standardisation, cancelling the mandatory application of national standards. The voluntary application of standards is in line with the requirements of the World Trade Organisation’s Agreement on Technical Barriers to Trade and European standardisation principles. Certification is also no longer mandatory following the cancellation of the procedure in force in March 2018.

Under Article 15 of the Commercial Code of Ukraine, as amended on 17 August 2022, standardisation is mandatory for the development, manufacture or supply of products referring to certain standards if the manufacturer or supplier of the product has made a declaration of conformity with certain standards or has indicated the standard on its label, as well as in certain other cases where the application of standards or codes of practice is regulated by law. Importers may request certification of a foreign enterprise for compliance with Ukrainian technical regulations. This option usually involves a costly inspection visit by Ukrainian government officials to the facility. If approved, the supplier receives a certificate of conformity valid for 2 to 5 years and avoids the need to certify each batch and mandatory laboratory testing of the goods upon arrival in Ukraine.

According to the CMU Resolution No. 1067 “Technical Regulations for Low-Voltage Electrical Equipment” and No. 139 “On Approval of the Technical Regulations on Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment”, a declaration of conformity is required for certain goods during customs clearance and for release to the Ukrainian market. A Ukrainian official certification centre can issue a Declaration of Conformity. Contact details of official certification centres can be found on the official website of the National Accreditation Agency of Ukraine (NAAU). Importers can choose which type of technical standard certificates they wish to apply for [6]:

- certificate for one consignment of goods
- a certificate valid for up to one year, which is valid for all imported goods during that year with one or two additional sample tests
- a certificate valid for up to two years, which requires an inspection of production facilities.

The certification and approval processes are lengthy, duplicative and expensive, and politics and corruption are still often behind the arbitrary application of rules. Depending on its market strategy and market prospects, a US exporter may consider applying for certification of its products in Ukraine. Since all documents to be submitted to the Ukrainian certification agency must be in Ukrainian and in person, a U.S. exporter is advised to hire an attorney from a local or international law firm to handle product certification in Ukraine.

As the list of documents issued outside of Ukraine confirming the conformity of products is frequently changing, companies should contact one of the accredited certification centres. Ukraine has concluded trade agreements with Armenia, Azerbaijan, Belarus, Canada, Georgia, Iceland, Kazakhstan, Kyrgyzstan, Liechtenstein, Macedonia, Moldova, Montenegro, Norway, Russia, Switzerland, Turkmenistan, Tajikistan, and Uzbekistan. These agreements provide for reciprocal most favoured nation (MFN) status in trade with the signatory countries. As in the case of the PCA, under these agreements Ukraine benefits from tariff concessions made by its WTO partner countries without binding its own tariffs. The FTA with Israel, ratified by the Ukrainian parliament in July 2019, entered into force on 1 January 2021. In 2020, Ukraine also signed an FTA with the UK, which entered into force on January 1, 2021. The FTA with Turkey was signed on January 1, 2021. February 3, 2022.

Other important agreements between the United States and Ukraine include the signing of an intergovernmental agreement on February 7, 2017, on the implementation of the Foreign Account Tax Compliance Act (FATCA), under which Ukraine agrees to centrally exchange information on US accounts with the IRS on a non-reciprocal basis. On October 29, 2019, the Verkhovna Rada of Ukraine ratified the FATCA Agreement, which entered into force on November 18, 2019. On March 23, 2017, Ukraine became the 47th country to accede to the OECD Declaration on International Investment and Multinational Enterprises. The Declaration obliges Ukraine to provide an open and transparent environment for international investment and to encourage the positive contribution of foreign investment to economic and social progress [7].

There are currently a number of restrictions on doing business with Russia. They were imposed after the economic sanctions imposed by the US and EU in response to Russia's illegal annexation of Crimea and military aggression in eastern Ukraine. The 2014 Sanctions Law provides for a list of such restrictions, including asset freezes and restrictions on trade or transit. Initially, these restrictions were introduced for one year at the end of 2015, but were later extended and prolonged. The lists of sanctioned persons, both individuals and legal entities, are approved by the President based on decisions of the National Security and Defense Council of Ukraine (the last update of these lists was made on June 21, 2018).

Ukraine may also impose sanctions against foreign states or sectoral sanctions (e. g., sanctions against an unspecified number of persons engaged in certain activities), which are, however, subject to a more complex approval procedure. Although the currency control regime in Ukraine is restrictive (as a result of temporary measures introduced by the National Bank of Ukraine in mid-2014), most restrictions have been either eased or abolished. The most notable restrictions that remain include [9]:

- Ukrainian companies, except for commercial banks, must sell 50% of their foreign currency revenue.

Dividends for 2017 or previous periods repatriated abroad cannot exceed USD7 million per month.

- Early repayment of a cross-border loan by a Ukrainian borrower is generally prohibited, although the number of possible exceptions has been significantly expanded.

- In addition, in 2018, the Verkhovna Rada adopted the Law on Currency and Currency Transactions, which will enter into force in February 2019. The Law “On Currency and Currency Transactions” creates a new legislative framework for currency control and is aimed at liberalizing state policy in this area. respect (in particular, with respect to cross-border transactions).

Imports and exports of goods and services are subject to VAT in Ukraine. The standard VAT rate of 20% applies to domestic supplies and imported goods. A reduced rate of 7% applies to pharmaceuticals and healthcare products. A 0% rate applies to exported goods and goods sold in duty-free shops. In addition, Ukraine imposes customs duties on imports and exports of a wide range of goods. Specific rates are set as percentages or fixed amounts depending on the types of goods crossing the Ukrainian border.

**Conclusions and prospects** for further research in this area. Despite some procedural improvements made by Ukraine, companies exporting goods to Ukraine should continue to face a slow bureaucracy and a lot of paperwork with the State Customs Service of Ukraine. Because of this, many firms choose to use customs brokers to navigate the frequently changing and seemingly inconsistent customs clearance procedures.

Ukraine has amended and supplemented many of its foreign trade regulations in an effort to facilitate and support businesses engaged in foreign trade. However, in the future, a national strategy to support foreign trade under martial law should be developed. This strategy should be adaptive and changeable to the conditions of war. Further research will include the development of such a strategy at the level of foreign trade enterprises and the state level.

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DOI <https://doi.org/10.26661/2414-0287-2023-4-60-18>**SOCIAL ENTREPRENEURSHIP AS A WAY OF HUMAN CAPITAL DEVELOPMENT:  
EUROPEAN EXPERIENCE AND NATIONAL CHARACTERISTICS****Pereverzeva A.V., Zgursky S.A., Petrenko D.L.***Zaporizhzhia National University*  
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**Key words:**social entrepreneurship,  
social entrepreneur,  
human capital,  
European experience,  
changes, human potential,  
innovative methods,  
creative approaches

The social enterprise as a way of human capital development was studied. It is substantiated that the main value of the modern management system is human resources, the quality of which affects the level of success of the enterprise's functioning and determines the prospects for its further development. It has been proven that the management of the human capital of the enterprise is an important area of activity of the business entity, because it is people who create new products, are able to effectively use resources, and control the quality of products. In addition, continuous improvement and the desire to develop one's skills on the basis of constant activity and initiative, despite the limitation of such a resource as time, are important. Attention is focused on the fact that there are two types of organization of the human capital management process: rigid, which is based on quantitative indicators determined within the business strategy regarding management aspects; soft involves determining the features of the formation of mutual relations in the team, singles out effective methods of communication, identifies successful methods of motivation and determines the qualities of a leader. Attention is focused on the fact that there are two types of organization of the human capital management process: rigid, which is based on quantitative indicators determined within the business strategy regarding management aspects; soft involves determining the features of the formation of mutual relations in the team, singles out effective methods of communication, identifies successful methods of motivation and determines the qualities of a leader. It was determined that social enterprises usually measure success based on three dimensions: human capital – the impact of business on people and the ability to influence social change, improve life and develop the community on a sustainable basis; planet – impact on the environment – what is the contribution to the development of the planet or to the reduction of the carbon footprint (CO<sub>2</sub> emissions) of business and customers; profit – like traditional businesses, social enterprises must create added value in order to function successfully and grow. The analysis of the experience of the EU countries made it possible to single out the obstacles to the development of social enterprises: the reluctance of public sector subjects to innovate and/or partner with social enterprises; weak management skills and high cost of consulting services in the field of business for JV startups; problems in the formation and maintenance of a sustainable business model, as well as with the multiplication of one's activities; relatively small scale financing of projects with social consequences.

**СОЦІАЛЬНЕ ПІДПРИЄМНИЦТВО ЯК СПОСІБ РОЗВИТКУ ЛЮДСЬКОГО КАПІТАЛУ:  
ЄВРОПЕЙСЬКИЙ ДОСВІД ТА НАЦІОНАЛЬНІ ОСОБЛИВОСТІ****Переверзева А.В., Згурський С.А., Петренко Д.Л.***Запорізький національний університет*  
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Досліджено соціальне підприємство як спосіб розвитку людського капіталу. Обґрунтовано, що головною цінністю сучасної системи управління є людські ресурси, якість яких впливає на рівень успішності функціонування підприємства та визначає перспективи його подальшого розвитку. Доведено, що управління людським капіталом підприємства є важливим напрямом



**Ключові слова:**

соціальне підприємництво,  
соціальний підприємець,  
людський капітал,  
європейський досвід,  
зміни, людський потенціал,  
інноваційні методи,  
креативні підходи

діяльності суб'єкта господарювання, адже саме люди створюють нові продукти, здатні ефективно використовувати ресурси, контролювати якість продукції. Крім того важливим є безперервне вдосконалення та прагнення розвивати свої навички на основі постійної активності та ініціативності, незважаючи на обмеженість такого ресурсу як час. Акцентовано увагу на тому, що існує два типи організації процесу управління людським капіталом: жорсткий, який базується на кількісних показниках, котрі визначаються в межах бізнес-стратегії щодо управлінських аспектів; м'який передбачає визначення особливостей формування взаємовідносин у колективі, виокремлює ефективні методи комунікації, ідентифікує успішні способи мотивації та визначає якості лідера. Визначено, що соціальні підприємства зазвичай вимірюють успіх на основі тримірності: людський капітал – вплив бізнесу на людину та здатність впливати на соціальні зміни, покращувати життя та розвивати спільноту на стійкій основі; планета – вплив на навколишнє середовище – яким є внесок у розвиток планети або у зменшення вуглецевого сліду (викиди CO<sub>2</sub>) бізнесу та клієнтів; прибуток – як і традиційний бізнес, соціальні підприємства повинні створювати додану вартість, щоб успішно функціонувати та розвиватися. Аналіз досвіду країн ЄС дозволив виокремити перешкоди для розвитку соціальних підприємств: небажання суб'єктів державного сектора до інновацій та/або партнерства з соціальними підприємствами; слабкі управлінські навички та висока вартість консультаційних послуг у сфері бізнесу для стартапів СП; проблеми у формуванні та підтримці стійкої бізнес-моделі, а також з мультиплікацією своєї діяльності; відносно невеликі масштаби фінансування проєктів з соціальними наслідками.

**Problem statement**

Modern economic development is characterized by significant changes in relations between countries, the aggravation of the struggle for resources, the aggravation of military conflicts. This affects the development of countries that are direct participants in the conflict, and may also apply to countries whose participation is indirect. This is due to the process of globalization, which is characterized by the interconnectedness and interweaving of national economies. As a result of the significant level of interdependence of countries, socio-economic problems may worsen and new ones may arise on their basis, which require the search for new approaches to solving urgent issues, because the state cannot fully assume these obligations.

**Analysis of recent studies and publications**

A significant number of works devoted to theoretical and practical aspects of social entrepreneurship are presented in the scientific literature. Among Ukrainian scientists, significant attention was paid to the study of various aspects of the functioning and development of social enterprises: I.I. Bereznyak [1], Z.I. Halushka [2], O.B. Kireeva [3], V.I. Udodova and V.I. Shapoval [4] and others. Scientists, as a rule, research and supplement the concept of “social entrepreneurship”, substantiate the expediency of its functioning and development in conditions of increasing influence of global trends. Human capital was studied by O. Borodina [5], L. Golovko [6], O. Grishnova [7], V.I. Kutsenko, and G.I. Yevtushenko [8] and others.

**Highlighting previously unsolved parts of the overall problem**

Under the influence of modern challenges, the issue of the development of social entrepreneurship is being updated, as evidenced by a significant number of theoretical

and practical research by scientists. However, the analysis of social entrepreneurship as a way of developing human capital requires a more in-depth study.

**Objectives of the article**

The main goal of this work is the analysis of social entrepreneurship as a way of developing human capital based on the use of the positive experience of the EU for its implementation in the national economy.

**The main material of the research**

At the current stage of economic development, there is a need for social enterprises, which are defined as agents of change, taking on the functions of solving urgent social problems, using the most effective methods and approaches [9].

Thus, social enterprises are a form of business that is characterized by an effective combination of market mechanisms with levers of state policy, using innovative methods and creative approaches to solve problems.

A social enterprise is a type of business where performance and success metrics are measured in more than just profit. After all, social enterprises usually measure success based on three dimensions:

- human capital. The impact of business on people and the ability to influence social change, improve lives and develop communities on a sustainable basis;
- a planet Impact on the environment – what is the contribution to the development of the planet or to the reduction of the carbon footprint (CO<sub>2</sub> emissions) of business and customers;
- profit Like traditional businesses, social enterprises must create added value in order to function successfully and grow.

The experience of European countries shows that “social enterprise” is an innovative and commercial approach

to solving social problems, which is followed by an organization in the process of business development, which is implemented mainly through non-profit organizations, with the possibility of use in a commercial direction [10].

Let’s consider the peculiarities of the functioning and development of social entrepreneurship on the example of some European countries. The significant development of social entrepreneurship in Germany and Great Britain is primarily associated with active support from the state, perception in society and a significant level of citizen activity. However, German social enterprises have a number of obstacles in their activities, among which it is necessary to highlight: reluctance of public sector entities to innovate and/or partner with social enterprises; weak management skills and high cost of consulting services in the field of business for JV startups; problems in the formation and maintenance of a sustainable business model, as well as with the multiplication of one’s activities; relatively small scale of financing projects with social consequences [11].

An example of the development of social entrepreneurship in Great Britain is the British program “Santander’s Social Enterprise Development Awards” (SEDA), which is supported by the British financial company “Santander”. The purpose of the program is to support social entrepreneurship and enterprises that are actively engaged in charity for the benefit of their communities. A cash prize of £5,000-£10,000 is awarded to businesses that maximize social engagement and enhance social relevance. A particularly important function of these business entities is: comprehensive support of vulnerable groups of the population at the expense of qualification improvement, professional training and employment; improvement of the environment, provision of socially

significant services and production of socially significant products, etc. Note that in addition to the monetary reward, the winners also receive consultations from social entrepreneurship specialists and access to the business support program, along with the possibility of a three-month internship.

Foreign experience proves that the human potential of a social entrepreneur significantly affects future prospects and development. Let’s consider different approaches to defining the specified economic category (Table 1).

The authors of the book “Understanding Entrepreneurship. The Relentless Pursuit of Mission in an Ever Changing World” [12] presented some research on various aspects of social entrepreneurs, namely: social entrepreneurs are more democratic, and are also more inclined to collegiality in the decision-making process in their environment than ordinary entrepreneurs; social entrepreneurs are more dissatisfied with the unfair state of affairs in the surrounding world; social entrepreneurs can count on a lot of support in society more than traditional ones.

In order to organize positive long-term changes, you need people who have the ability to understand the problem in all its aspects and have a global vision of its solution.

The main value of the modern management system is human resources, the quality of which affects the level of success of the company’s operation and determines the prospects for its further development.

The development of civilization and the formation of the knowledge economy have led to a change in views on the employee, whose activity is significant for achieving a high level of personal well-being, for the economic entity from the point of view of the results of the activity and society in general.

Table 1 – Separate definitions of the concept of “social entrepreneur”

Source	Definition
The California Commonwealth Club series on social entrepreneurship (The Commonwealth Club series)	A social entrepreneur is an innovator who directs all his passion and perseverance to solving social problems.
Ashoka Foundation	Social entrepreneurs are individuals who seek innovative solutions to the most pressing social problems. They are ambitious and persistent in their work and offer new ideas for large-scale changes.
Bornstein D.	A social entrepreneur is a trailblazer with a powerful idea and high ethical standards who combines theoretical and practical problem-solving skills and is “obsessed” with their vision for change.
Light P.	A social entrepreneur is an individual, a group of individuals, an organization, or a group of organizations that seeks non-standard ways to make lasting and large-scale changes in the activities of governmental, non-profit, and for-profit organizations to solve social problems.
Institute of Public Broadcasting “New Heroes” (PBS “The New Heroes”)	A social entrepreneur finds and solves large-scale social problems. Just as entrepreneurs create and transform entire industries, social entrepreneurs change society by finding opportunities that others don’t see.
Schwab Foundation	Who is a social entrepreneur? A pragmatic visionary who achieves large-scale, systematic and sustainable social change through innovation, non-standard approaches and a deeper examination of current technologies and strategies.
Skoll Foundation	Social entrepreneurs change society; they are innovators who benefit humanity. Social entrepreneurs are ambitious, motivated, strategic, resourceful and results-oriented.
Thomson J.	People who have the skills and qualities inherent in private entrepreneurs, but who work for society and are concerned with achieving social goals, not making money.
Boschee J.	Social entrepreneurs are able to create a balance between moral imperatives and the pursuit of profit. They pay more and more attention to market mechanisms, without losing sight of their main mission. And this process is the heart and soul of the entire social movement.

Source: grouped by the authors themselves

Note that from the point of view of the enterprise, human capital is a prerequisite for obtaining profit, and the employee is a source of obtaining added value due to the use of one's own potential and its realization in the process of work.

The importance of human resources is confirmed by their importance for activities in both domestic and foreign markets. This indicates the transition of the economy from an industrial type of economy to an economy based on knowledge, information and technology.

Therefore, taking into account the role of human resources from the point of view of various levels of economic functioning, the question arises of improving the motivation system in order to increase productivity and work efficiency in the conditions of increasing challenges of the global environment.

Human resources at the enterprise are connected by a management system. A special role in the management system is played by leaders, whose decisions depend on goal setting, the formation of a motivational system, and the creation of favorable conditions for productive work and the formation of a corporate culture based on collective interaction [13].

The main idea, which is the basis for the management of human capital, is a philosophical concept that forms the main principles of attitude to human resources within the scope of realizing the interests of the business entity. As a rule, this philosophy is used in different aspects, so it is impossible to clearly define a single model of human resources management.

In the scientific literature, two types of organization of the human capital management process are presented: hard and soft. A rigorous approach to human capital management is based on quantitative indicators that are defined within the business strategy regarding managerial aspects. The specified approach is considered rational, as it corresponds to the general philosophy, focuses on the interests of the business entity, emphasizes the need to manage human capital in order to achieve competitive advantages [14].

The soft model of human capital management involves determining the peculiarities of the formation of relationships in the team, singles out effective methods of communication, identifies successful methods of motivation and determines the qualities of a leader. The implementation of the defined model depends on the attitude towards the employee, his identification with

the most valuable asset, which is a source of competitive advantages due to the formed skills and the desire to learn through life and continuous development. The model focuses on the need for full involvement of employees in the activities of the business entity, establishment of effective communication, formation of a sense of dedication and commitment to the organization, a high level of trust as elements of organizational culture. Important in this model is the principle of reciprocity, i. e. compliance with the principle of common interests of employees and managers, i. e. the activity of the organization is characterized by harmonious development and integrity, and people work as a single mechanism, system, collective, sharing common goals.

A soft model of personnel management, similar to a hard model of human capital management, emphasizes communication and the formation of effective relationships in the team.

Human capital management of the enterprise is an important activity of the business entity, because it is people who create new products, able to use resources effectively, control product quality. In addition, continuous improvement and the desire to develop one's skills on the basis of constant activity and initiative, despite the limitation of such a resource as time, are important. Therefore, it is extremely necessary to focus attention on the preservation of highly qualified human capital, which is able to bring benefits not only to its owner, but also to those who use it.

### Conclusions and suggestions

On the basis of the conducted research, it is necessary to summarize that the modern management system of social entrepreneurship determines the main value – human resources, which are a prerequisite for successful activity. The role of the material component is important, but without human capital it is impossible to get positive results. It is the social enterprise that makes it possible to realize human potential from the point of view of the social component as the main one and the material component as a supplement. Thus, the movement in the direction of the formation of a knowledge economy leads to a change in the forms of management, traditional forms are changed for social enterprises, views on the employee as a person whose activity is important for his own well-being, for the business entity, for society, and for the state are transformed.

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# FINANCE AND MONEY TURNOVER

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## OPEN BANKING: ADVANTAGES, POSSIBILITIES AND FEASIBILITY OF IMPLEMENTATION

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**Key words:**Open Banking, API, openness,  
banking, banking system

Global digitalization encourages all spheres to introduce new, sometimes even previously unseen, technologies. Thus, the banking sector was faced with the possibility of transition to a new stage with the introduction of unprecedented openness of financial data of all users – the so-called open banking system. World banking in terms of modernity may need to expand its capabilities and improve the very concept of conducting any financial transactions. In the world of technology, sooner or later it will be necessary to revise the existing views on how this or that field should function. The concept of open banking offers its version of simplifying the use of operations related to money and improving communication between the client and the provider of financial services. The article examines the concept of open banking and its influence, the advantages of this concept, analyzes research on the topic of its popularization and real experience of exploitation around the world. Many countries have already begun to implement the principle of openness of financial data, and some are already actively using the privileges of this concept, despite the shortcomings, which will also be discussed in this article. The expediency of the transition to open banking is the main question facing the governments of countries thinking about updating their banking systems. The article also provides statistical data from various sources to support some points of view and to understand the overall picture. Attention is also paid to the objective opportunities that open banking can potentially open, and to the biggest concerns of consumers related to the openness of financial data.

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## OPEN BANKING: ПЕРЕВАГИ, МОЖЛИВОСТІ ТА ДОЦІЛЬНІСТЬ ВПРОВАДЖЕННЯ

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банкінг, відкритий банкінг,  
банківська система

Світова діджиталізація спонукає всі сфери до впровадження нових, іноді навіть досі небачених технологій. Так і банківська сфера зіткнулась із можливістю переходу на новий етап із запровадженням нечуваної відкритості фінансових даних всіх користувачів – так званої системи open banking. Світовий банкінг у розрізі сучасності може потребувати розширення своїх можливостей і вдосконалення самої концепції проведення будь-яких фінансових операцій. У світі технологій рано чи пізно потрібно буде переглядати існуючі погляди на те, як має функціонувати та чи інша сфера. Концепція open banking пропонує свій варіант спрощення у користуванні операцій, пов'язаних із грошима, та вдосконалення комунікації між клієнтом і надавачем фінансових послуг. У статті розглянуто поняття відкритого банкінгу і його вплив, переваги цієї концепції, проаналізовано дослідження на тему її популяризації і реального досвіду експлуатації по всьому світу. Багато країн вже підступилися до впровадження принципу відкритості фінансових даних, а деякі вже активно використовують привілеї такої концепції, незважаючи на недоліки, про які також буде йти мова у даній статті. Саме доцільність переходу на open banking є головним питанням, яке постає перед урядами країн, що замислюються про оновлення своїх банківських систем. У статті також наведено статистичні дані різних джерел для підґрунтя деяких точок зору і для усвідомлення загальної картини. Звернено також увагу на об'єктивні можливості, які потенційно зможе відкрити open banking, і на найбільші занепокоєння споживачів, пов'язані із відкритістю фінансових даних.

### Statement of the problem

Rapid changes caused by the constant growth of consumer demand for financial services, digitalization and intense competition reflect the current level of business development around the world. The global banking system was affected by the coronavirus pandemic, and the Ukrainian banking system was also affected by the Russian attack, reducing, in particular, the number of banks and branches, their hours of operation, the list of operations, and also forcing them to close during air raids for security reasons. Thus, the issue of digital transformation of banking arises – and there is already a solution to this issue in the world, which takes online banking to a new level – open banking.

### Analysis of recent studies and publications

Scientists such as I.Yu. Tarasov, G.V. Markiv, and O.V. Tkachenko made an unequivocal great contribution in their works to the issue of the introduction of the open banking system in Ukraine. K.I. Bunechko and N.G. Omelchuk also studied the advantages and disadvantages of open banking.

In light of recent events, global banking is facing some difficulties that can be overcome with the help of the new open banking system, which claims to be the first in the banking sector. Therefore, the study of the meaning of implementation, possibilities, advantages and prospects of using the system requires further analysis.

### Objectives of the article

The main goal of the article is to determine the expediency of orienting the banking sector as a whole to the new concept of open banking services.

### The main material of the research

Financial market players are pushing traditional banks to give customers ownership of data instead of keeping it in-house. These pressures vary by country or region and may come from authorities (e. g. EU and UK) and in other cases from customers (US). Whatever the reason, the end result is almost always open data. It helps banks and financial companies find new markets for their products and services.

In open banking, banks make their application programming interfaces (APIs) available to different companies, giving them access to the financial data they need to create new products and services. This approach

provides bank account holders with more financial alternatives. The advantage of the innovative method for the client is that it avoids organizational and bureaucratic red tape. Customers must give their bank and other financial service providers permission to share their account information with open banking platforms.

According to the results of an insider business study by the company “Penser” – a specialized consulting firm specializing in the payment industry and financial technologies, the planned expectations by 2026 are approximately 39 million open banking customers worldwide and a market value of 395 billion USD (fig. 1) [1].

Open banking contributes to the growth of competition in the banking industry, namely:

- the development of digital banking around the world and forces banks to change their operational strategies;
- cooperation with fintech companies and third parties, not competition with them;
- creation by fintech companies of better tools for managing personal money;
- improving the services of conventional operators and their cooperation with external groups.

For example, the famous Spanish international bank “BBVA” created its open platform in 2018. It uses APIs to allow third parties to provide financial products to customers without offering a full range of banking services.

An API is a set of codes and protocols that define how different software components should communicate with each other; in other words, they provide communication between different programs. Through open banking, commands are sent to third-party providers via an API.

APIs are also required for Banking-as-a-Service (BaaS), an important aspect of open banking. BaaS is a complete procedure that uses APIs to connect fintech companies and other companies directly to banking systems.

As a result of the UK’s new open banking rules, HSBC, an international commercial bank, introduced the Connected Money app in May 2018, which allows customers to view multiple bank accounts, loans, mortgages and credit cards in one place.

It is important to remember that open banking can help banks reach more customers, develop revenue-sharing ecosystems where designated operators provide their customers with access to services provided by third parties in exchange for a subscription fee or referral fee. Moreover, by using BaaS and offering core services to fintech

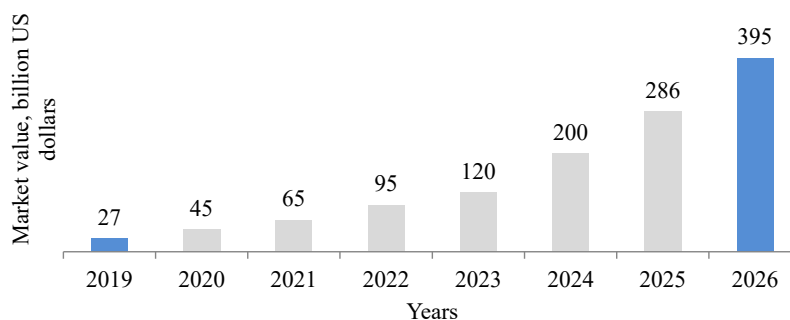


Fig. 1 – Open banking market size and its projected level

companies and other third parties, banks can commercialize their infrastructure through open banking [2].

The use of open banking is growing worldwide (table 1), although many countries are developing their own approaches that take into account regional markets and policy objectives. However, they often fall into one of two categories: market driven and government driven; mixed regulation is less common. In markets where open data legislation is new, the experience of early adopters is used.

We will analyze the strengths and weaknesses of open banking.

1. Centralized services: open banking allows banks to fully control the financial services that consumers need (such as advice, loans, transfers and financing) from a single dashboard. Customers with multiple bank accounts can access all their accounts and make payments using a single TPP, eliminating the need to log in with different security protocols or screen scans.

2. High level of security: open banking requires that these open APIs that expose sensitive data meet a number of security criteria established by law or industry regulations. “OAuth 2.0” and “OpenID Connect” (OIDC), which are already in use in the security area, are two examples of steps taken to improve the security of APIs and customer data in the context of PSD2.

3. Improved customer experience: Virtually every element of banking and finance can be changed with open banking. One of the key benefits of these developments is the Customer Experience, as open banking allows consumers to interact with their bank seamlessly, regardless of their chosen TPP program.

4. Stakeholders can learn more about financial data through open banking and open APIs, ultimately empowering banking consumers.

5. A simplified procedure for obtaining a loan with open banking: you can provide your data and lenders will find the most favorable offers themselves. Also, the loan procedure itself will become much simpler: paperwork will be minimized because data collection will take minutes, as they are publicly available. New payment methods may also appear.

6. Access to a variety of financial products will become much easier.

These arguments are closely related to the possibilities they can open up. We will analyze information from the research of the company “Celent” – a leading research and consulting company specializing in technologies for financial institutions around the world, and formulate possible steps and strategies (table 2) [4].

Let’s analyze the weaknesses of open banking.

1. Accessibility: A recent study by “Chase” bank, a digital bank owned by American banking giant J.P. Morgan, showed that only young people use mobile banking applications most often. You can trace the dependence of consumers on banking innovations by looking at the generational table called “Digital Banking Attitudes Study”, compiled by the independent company “Select”, which surveyed customers of the bank “Chase” and people who are not its customers, but the data are very similar and averaged two answers (table 3).

We see that Millennials and Gen Z use mobile banking apps most frequently for various transactions (for budgeting, checking credit scores, and creating savings goals), meaning that using open banking will be more difficult for older generations. In addition, some customers do not have access to the Internet and are unable to connect to it.

Polish researchers Michal Polasik and Radoslaw Kotkowski in their work “Acceptance of open banking

Table 1 – Distribution of the integration of the open banking system among the countries of the world

Regulation				
Regulatory driven		Market driven		Hybrid driven
In working condition	In development	In working condition	In development	In working condition
Australia	Argentina	South Africa		Colombia
Azerbaijan	Georgia	South Korea		
Angola	Egypt	Singapore		
Bahrain	Indonesia	USA		
Brazil	Йордания	Switzerland		
UK	Kazakhstan			
Hong Kong	Canada			
EU	Kenya			
Israel	Kuwait			
India	Oman			
Qatar	Russia			
Malaysia	Ukraine			
Mexico	Philippines			
Nigeria	Chile			
New Zealand				
United Arab Emirates				
Saudi Arabia				
Taiwan				
Turkey				
Japan				

Source: created by the author based on [3]

Table 2 – Overview of the possibilities of implementing the open banking system today and in the future

	Now		In the future	
For customers	Income Verification: credit applications	release of credit card applications that support open banking.	Automated account management*	enabling billing visibility and automation, including variable totals.
	Account Aggregation	account balance, account information, transaction history.	Bank change service	transfer of products for new bank customers, debiting, etc.
	External credit card management	the ability to enable balance-based payments and payment automation.	Tax deferral	tagging expenses as they occur and “packaging” them at tax time.
	Combined list	a single list of future expenses in consolidated accounts.	Personalized recommendations	product and service recommendations based on customer data.
	Single account and payment details	a unified list of recipients, a consolidated list of transactions with the possibility of searching.	Unified “financial health” coaching	conversational financial information based on artificial intelligence.
	Open banking enabled application: credit applications	release of credit card applications that support open banking.	View-only account sharing*	ability to share view-only accounts.
	Faster and easier connection	exchange of data to verify the required personal data and requirements.		
	Unification of public finance management (PFM) and budgeting	with PFM and budgeting enabled, you can view all customers' spends.		
For business	Access permission for an accounting specialist	controlled access to financial data (for example, for an accountant).	Bank change service	transferring data (for example, transaction history) from another bank.
	Simple integration of the accounting package	easy integration of financial data with accounting packages.	Basic tax packaging of private entrepreneurs	Marking business expenses from personal accounts and “packaging” them for tax time.
	Anticipation of business needs	responding with individual offers of services and products.	Unified financial management of business	review of all expenses in banks.
	Faster and easier adaptation*	helping business customers to use open banking (e. g. for KYC).		

Note: \* – depends on external data that will become available in the future.

Table 3 – Consumer activity in the mobile banking program by generation

Generation	Total	Generation Z (1995–2012)	Millennials (1980–1994)	Generation X (1965–1979)	Boomers (1946–1964)
View account balances	86,5%	86%	89,5%	86,5%	78%
View account statements	68%	62%	73,5%	67%	61,5%
Money transfer between bank accounts	64%	65,5%	71,5%	60,5%	50%
Deposit checks	59,5%	58%	66%	54%	53,5%
Payment of bills (e. g. in institutions)	49%	45,5%	53%	50%	40,5%
Credit rating check	32%	28,5%	56,5%	30%	20%
Use peer-to-peer payments	24%	20%	31%	21,5%	14,5%
Use the online chat to ask a question	16,5%	18%	27,5%	13%	12,5%
Budget creation and tracking	13,5%	25%	17,5%	9%	4%
View a forecast of monthly expenses	13%	17%	18%	9,5%	4,5%
Create a savings goal and track progress	12%	21,5%	18%	5,5%	2%
Open a new bank account	9,5%	11,5%	12%	7%	5,5%

Source: created by the author based on [3]

services among consumers in Europe: the role of privacy, trust and accessibility of digital finance” also investigated that it is young people who have a more positive attitude towards open banking [5].

2. Weakening of the bank-customer bond: There are fewer face-to-face meetings between the consumer and the bank as everything is handled online, which can lead to relationship termination.

3. Low customer trust: security, confidentiality and use of personal information, hacker attacks, system failures, problems with the Internet (fig. 2).

According to a “Deloitte” study [6], the possibility of personal data theft and data misuse are the two features of open banking that most worry respondents (69% and 60%, respectively). At the same time, financial problems, such as losing money, are considered quite low (41%).



Based on the arguments regarding the strong popularity of open banking around the world, the possibilities and future more customer-oriented implementation, as well as the conscious understanding of the reliability and security of the concept of open banking, the implementation of the open banking system is promising, despite the existence of obstacles and negative moments. We consider it expedient to focus attention on the following points:

- increased attention to the development of data security, which is the main obstacle to the popularization of open banking;
- the age category of consumers (initially, these are people who have been using online banking for a long time, and then pay attention to the expansion of other groups of consumers);
- popularizing the idea of ownership (or joint ownership) by customers of their financial data, for example, by giving customers a sense of “control”, a clear function of consent to data sharing combined with a simple method of canceling consent;
- concentration on open banking services, including tools for improving the financial condition, as well as complex financial indicators (fig. 3);

– working with regulators to promote API industry standards and ensure regulatory compliance that protects customer privacy or data security without hindering the advancement of open banking’s market strategy.

### Conclusions

So, the possibility of introducing the open banking method, which is new for the modern banking system, has quite significant advantages and ways of transitioning to a new, more open and competitive situation on the market. However, consumers have some doubts about the feasibility of implementing the concept of open banking, considering a number of risks.

But the open banking system is innovative, and its implementation in the modern market will provide an opportunity to create a new competitive environment, bring new functionality and convenience to the list of banking sector services. The scientific validity and objective positive assessment of innovations, supported by the experience of dozens of countries around the world, make them part of the undeniable progress of human development.

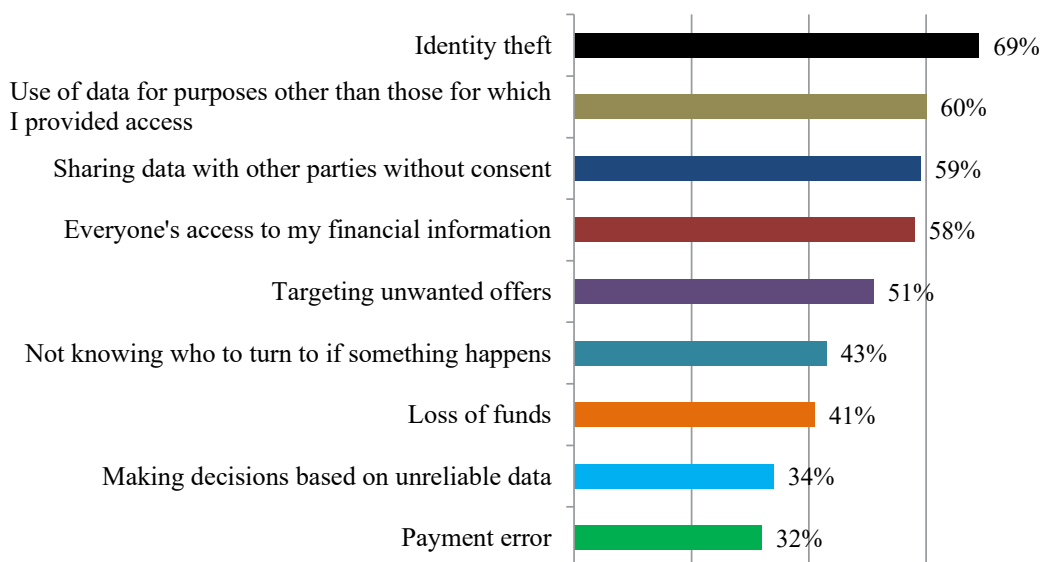


Fig. 2 – The biggest concerns of consumers interviewed in different countries regarding the concept of open banking



Fig. 3 – Methods of improving the financial life of open banking clients

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# PROJECT MANAGEMENT AND FINANCIAL AND ECONOMIC SECURITY IN THE CONDITIONS OF GLOBALIZATION

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## DIGITALIZATION OF RISK-ORIENTED MANAGEMENT OF FINANCIAL AND ECONOMIC SECURITY OF THE BANK

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### Key words:

banking risks,  
economic recovery,  
digitalization,  
risk-oriented management  
of the bank,  
financial and economic security  
of the bank

The scientific results of the study are to determine the current trends of digitalization of risk-oriented management of banking activities to justify the directions of increasing the level of financial and economic security of Ukrainian banks in the context of the Russian-Ukrainian war and considering the needs of economic recovery. The expediency of using indicators of financial stability, which are published by the National Bank of Ukraine under martial law, has been proven, namely: the capital of the first level to the assets weighted by risk; the ratio of the capital of the first level to assets; non-performing loans excluding provisions for capital; non-performing loans to aggregate gross loans; rate of return on assets; net open position in foreign currency to capital. It is determined that modern banks introduce innovative digital solutions aimed at risk-oriented management of financial and economic security in a continuous real-time mode. Some procedures are performed automatically, and it is possible to use artificial intelligence programs, but these innovations must be managed carefully because we are talking about the financial security of millions of bank customers and the financial and economic security of banks, as well as the financial stability of the banking system of Ukraine. It has been substantiated that prospects for further research should be developed in the areas of economic recovery in Ukraine, by strengthening the banking system and developing digitalization of risk-based management of financial and economic security of banks using best practices and international experience. For a more objective assessment of the level of financial and economic security of Ukrainian banks, it is advisable to apply economic standards, regarding banking risks, indicators of financial stability, and the financial stress index, which together reflect the bank's propensity for force majeure in the financial system, the ability to resist and adapt to adverse changes, and various economic challenges.

## ДІДЖИТАЛІЗАЦІЯ РИЗИК-ОРІЄНТОВАНОГО УПРАВЛІННЯ ФІНАНСОВО-ЕКОНОМІЧНОЮ БЕЗПЕКОЮ БАНКУ

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### Ключові слова:

банківські ризики,  
відновлення економіки,  
діджиталізація,  
ризик-орієнтоване  
управління банком,  
фінансово-економічна  
безпека банку

Науковими результатами дослідження є визначення сучасних тенденцій діджиталізації ризик-орієнтованого управління банківською діяльністю для обґрунтування напрямів підвищення рівня фінансово-економічної безпеки банків України в умовах російсько-української війни та з урахуванням потреб економічного відновлення. Доведена доцільність використання для цього індикаторів фінансової стійкості, що за умов воєнного стану оприлюднюються Національним банком України, а саме: капітал першого рівня до зважених за ризиком активів; співвідношення капіталу першого рівня до активів; непрацюючі кредити без урахування резервів до капіталу; непрацюючі кредити до сукупних валових кредитів; норма прибутку на

активи; чиста відкрита позиція в іноземній валюті до капіталу. Визначено, що сучасні банки запроваджують інноваційні діджитал-рішення, спрямовані на ризик-орієнтоване управління фінансово-економічної безпекою в безперервному режимі реального часу, деякі процедури виконуються автоматично, можливе застосування програм штучного інтелекту, проте з цими новаціями треба поводитися обережно, адже йдеться про фінансове убезпечення мільйонів банківських клієнтів і фінансово-економічну безпеку банків, а також фінансову стабільність банківської системи України. Обґрунтовано, що перспективи подальших досліджень мають розгортатися за напрямками відновлення економіки України, зокрема шляхом зміцнення банківської системи, розвитку діджиталізації ризик-орієнтованого управління фінансово-економічною безпекою банків із використанням передової практики та міжнародного досвіду. Для більш об'єктивного оцінювання рівня фінансово-економічної безпеки банків України доцільно застосовувати економічні нормативи, зокрема щодо банківських ризиків, індикатори фінансової стійкості, а також індекс фінансового стресу, що в сукупності відображають схильність банку до форс-мажорних проявів у фінансовій системі, здатність чинити опір, адаптуватися до несприятливих змін, різноманітних економічних викликів.

### Statement of the problem

First, the coronavirus crisis and then a full-scale Russian-Ukrainian war inflicted powerful blows, on the banking system of Ukraine. Each bank passed the strength test much more seriously than any stress test, while some banks failed and were recognized by the regulator as insolvent and subsequently liquidated. However, most Ukrainian banks have demonstrated extraordinary endurance potential, which indicates an elevated level of financial and economic security.

However, this is not a reason to be satisfied with the results achieved; the war continues because of the Russian insidious invasion, and the influence of banking risks on the financial and economic security systems of banks, as well as on the financial stability of the banking system of Ukraine as a whole, is aggravated. The solution to these problems should also take place systematically, based on modern opportunities that are caused by the digitalization of the economy.

### Analysis of recent studies and publications

The study of the results of the most interesting scientific research on the digitalization of risk-oriented management of the financial and economic security of the bank makes it possible to substantiate several practical proposals that are aimed at developing this area of banking and ensuring a high level of financial and economic security of Ukrainian banks in the conditions of war, with a focus on post-war economic recovery.

Among the analyzed scientific papers, it is worth highlighting the publication of Guley A. and Guley S. on the digital transformation of the domestic banking environment in the context of the development of the fintech ecosystem [1]. Miroschnik R. and Kukhta I. thoroughly studied the main trends towards digitalization of the banking system of Ukraine in modern conditions [2]. Alternatively, Tishchenko D. has his own position on digital transformation as a driver of the development of Ukraine's economy [3].

A separate important direction, which is developed by the National Bank of Ukraine and improved by individual

banks, is focused on managing banking activities while considering risks. For example, Tomarovich T. describes the features of a risk-oriented approach to the management of financial flows by banks in world practice and from the experience of Ukraine [4].

Researcher Ryazanova N. carefully studied the possibilities of ensuring financial and economic security in the conditions of shadow banking [5], although the efforts of the national regulator almost nullified the scheme of abuse in the banking system of Ukraine. Scientist Shpylovyi B. substantiated the structure and components of the system of financial and economic security of banking institutions [6]. These and other scientific developments became the basis for this study of the digitalization of risk-oriented management of the financial and economic security of Ukrainian banks.

### Objectives of the article

The purpose of the scientific research is to determine the current trends of digitalization in risk-oriented banking management to substantiate the directions for increasing the level of financial and economic security of Ukrainian banks in the conditions of the Russian-Ukrainian war and considering the needs of economic recovery.

### The main material of the research

Modern digital technologies play a crucial role in the development of the banking system in Ukraine. Through their application, banks can provide customers with new modern banking products and financial services [2].

The digitalization of banks has a significant correlation with existing scientific developments and research in the field of information technology. A significant impact on the development of digitalization in banks is the presence of qualified personnel, banking professionals who have mastered information technology and artificial intelligence programs [1].

Currently, the most actively implemented digitalization in Ukraine are systemically important banks. Prospects for researching the topic of digitalization of banking activities

are to develop theoretical and practical recommendations aimed at using digital technologies to introduce modern approaches to managing banking risks to increase the competitiveness of banks and ensure their financial and economic security even despite the challenges of the Russian-Ukrainian war [3].

The banking system of Ukraine continues to function quite stably, as evidenced, for example, by the profitability of most banks. Consequently, the aggregate financial result of banks is also positive in 2022, even despite the Russian-Ukrainian war. Although profitability is not limited to the financial stability of the banking system or the financial stability of individual banks, it is important to assess their financial and economic security [6]. Justifying the relevance of the problems of analyzing the financial and economic security of the bank, it is necessary to determine its economic essence as well as current trends in the development of the banking system that affect the security of Ukrainian banks.

It is known that the financial condition of the bank characterizes its financial and economic results of work for a certain period, but always on a certain date when the analysis is carried out, and determines the financial potential of the bank for further development, ensuring its competitive advantages in accordance with the strategy, mission, goals, and objectives. Of course, the topic is not new, but today banks must introduce financial innovations, repurpose business processes considering digital transformations of the economy, develop risk-oriented approaches to management, including financial management, and build relationships with customers based on corporate social responsibility in accordance with the requirements of compliance and financial monitoring. This complicates the analytical work on assessing the financial and economic security of banks; however, at the same time, it opens new opportunities for more objective and comprehensive assessments that take into account stress tests and the adaptability of banks in the financial aspect.

Now the analysis of the financial and economic security of the bank must necessarily cover economic standards, regarding banking risks, established by the regulator. They were introduced to ensure the stable activities of banks and timely fulfillment of their obligations to their depositors, as well as to prevent improper allocation of resources and loss of capital due to the risks inherent in banking [5].

It is also important to consider the indicators of the financial stability of banks introduced by the NBU,

considering the international requirements for regulating banking activities. They cover 40 main and recommended indicators, among which 12 are the main ones:

- 1) the ratio of regulatory capital to risk-weighted assets;
- 2) the ratio of regulatory capital level 1 to risk-weighted assets;
- 3) the ratio of non-performing loans, excluding reserves, to capital;
- 4) the ratio of non-performing loans to total gross loans;
- 5) the ratio of loans by sectors of the economy to total gross loans;
- 6) rate of return on assets;
- 7) rate of return on capital;
- 8) the ratio of interest margin to gross income;
- 9) the ratio of non-interest expenses to gross income;
- 10) the ratio of liquid assets to total assets;
- 11) the ratio of liquid assets to short-term liabilities;
- 12) the ratio of the net open position in foreign currency to capital [7].

The dynamics of the main indicators of financial stability, which, considering banking risks, determine the financial and economic security of banks and are published by the National Bank of Ukraine in the conditions of war in the banking system, reflect contradictory trends (table 1).

The capital base is strengthened, the level of capitalization of the banking system increases, which positively affects risk management and financial and economic security, and profitability increases. But the share of non-performing loans is also increasing, which increases credit risks (figure 1).

Also in Ukraine, the national regulator introduced a financial stress index for banks, which allows:

- measure the stress level of the financial system;
- assess the depth and duration of the period of instability in financial markets, as well as compare it with the level of stress in past crises;
- to assess (together with other indicators) the effectiveness of anti-crisis measures;
- to determine the nature of the shocks to the financial system and its individual components, systemic or episodic [8].

A full-scale invasion of Russia in 2022 caused a sharp increase in the value of the index. All its components grew, which indicates the systemic nature of stress for the financial sector. At first, the high values of the financial stress index were determined by the growth of profitability in the securities market, the volatility of the exchange rate in the cash foreign exchange market, the elevated level of foreign

Table 1 – The main indicators, which in the conditions of war are published by the National Bank of Ukraine, characterize the impact of banking risks on the financial and economic security of banks, %

Indicators	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2	2023Q3	Absolute deviation
Tier 1 capital to risk weighted assets	11.65	11.40	12.75	13.12	13.41	14.51	14.76	3.11
Ratio of Tier 1 capital to asset	6.30	5.75	5.58	5.18	5.07	5.13	5.11	-1.19
Non-performing loans excluding provisions for capital	11.78	18.91	24.45	34.42	32.00	27.38	26.25	14.47
Non-performing loans to aggregate gross loans	27.06	29.70	33.63	38.12	37.92	38.94	37.87	10.81
Rate of return on assets	-0.02	-0.40	0.70	1.48	1.32	1.28	1.25	1.27
Net open position in foreign currency to capital	34.21	34.36	43.70	45.60	49.78	49.98	45.10	10.89

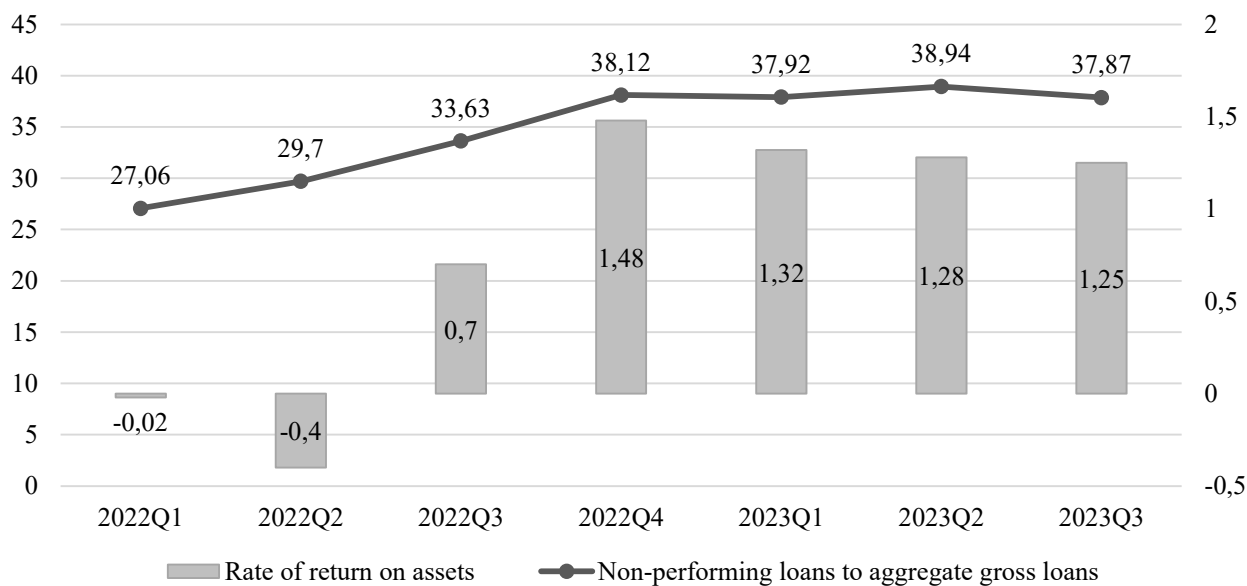


Fig. 1 – Contradictory changes in financial indicators regarding banking risks and the financial and economic security of Ukrainian banks,%

exchange interventions, and the refinancing of banks by the National Bank of Ukraine to maintain their liquidity. These changes are represented by the graph (figure 2).

Of the latest trends that contribute to the risk-oriented management of financial and economic security of banks based on digitalization, it should be noted that from now on, the National Bank of Ukraine acts as a subscriber and provider of services in the BankID NBU System, introducing a new online service that provides information from the Credit Register of the National Bank of Ukraine for individuals. This allows users of the system to receive information in electronic form about their loans at banks in the amount of 100 minimum wages (today it is 617 thousand UAH). To use this service, you must have an account with a bank that is a member of the NBU BankID System and log in on the NBU Credit Register page [9].

The BankID system of the National Bank of Ukraine is a state system of remote identification that provides

the transfer of personal data of users from the bank in which the account is opened to the entities that provide the service to the user. Today, 99.9% of cardholders can access a wide range of remote services using this system. Such an example demonstrates how the introduction of digital solutions contributes to improving the security of banking customers, on the one hand, and, on the other hand, contributes to improving the financial and economic security of Ukrainian banks.

**Conclusions**

Modern banks introduce innovative digital solutions aimed at risk-oriented management of financial and economic security in a continuous real-time mode. Some procedures are performed automatically, and it is possible to use artificial intelligence programs, but these innovations must be managed carefully because we are talking about the financial security of millions of bank



Fig. 2 – Dynamics of the Financial Stress Index, which determines the level of financial and economic security of Ukrainian banks, taking into account risks

customers and the financial and economic security of banks, as well as the financial stability of the banking system in Ukraine.

For an objective assessment of the level of financial and economic security of Ukrainian banks, it is advisable to apply economic standards, regarding banking risks, indicators of financial stability, and the financial stress index, which together reflect the bank's propensity for

force majeure in the financial system, the ability to resist and adapt to adverse changes, and various economic challenges.

Prospects for further research should be developed in the areas of economic recovery in Ukraine, by strengthening the banking system and developing digitalization of risk-based management of financial and economic security of banks using best practices and international experience.

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## **ВИМОГИ ДО ОФОРМЛЕННЯ СТАТЕЙ У ФАХОВОМУ НАУКОВО-ПРАКТИЧНОМУ ЖУРНАЛІ «ФІНАНСОВІ СТРАТЕГІЇ ІННОВАЦІЙНОГО РОЗВИТКУ ЕКОНОМІКИ»**

З № 2(42) 2019 року фаховий науково-практичний журнал «Фінансові стратегії інноваційного розвитку економіки» виходить лише англійською мовою. **Стаття подається до розгляду в редакцію українською мовою. Після проходження внутрішнього рецензування – обов'язкове надання перекладу статті англійською мовою.** Переклад має бути професійним, у жодному разі не використовуючи інтернет-перекладач.

До друку приймаються наукові статті обсягом від 10 сторінок, що відповідають тематиці серії видання й містять нові наукові результати, не опубліковані раніше. Виклад матеріалу статті має бути послідовним, логічно завершеним, із чіткими формулюваннями, що виключають подвійне тлумачення або неправильне розуміння інформації; мова тексту має відповідати літературним нормам, бути професійною і лаконічною. Автор зобов'язаний забезпечити високий науковий рівень викладеного матеріалу, повноту і системність висвітлення питання, достовірність результатів і даних, що наводяться, правильність цитування та посилань на літературні джерела. Редакційна колегія приймає до друку статті, які характеризуються оригінальністю, високою мірою наукової новизни і практичною значущістю.

### **1. МАКЕТ СТОРІНКИ**

**Для оформлення статті автор використовує формат А4 з полями з усіх боків – 2 см. Порядок абзацу виділяється відступом 1,25.**

☞ *До уваги авторів:* У разі необхідності для шрифтових виділень у таблицях і рисунках дозволяється застосовувати шрифт Courier New (наприклад, для ілюстрації текстів програм для ЕОМ). Для стилістичного виділення фрагментів тексту слід вживати начертання *курсив*, **напівжирний**, *напівжирний курсив* зі збереженням гарнітури, розміру шрифту та інтервалу абзацу.

### **2. ТИПОГРАФСЬКІ ПОГОДЖЕННЯ ТА СТИЛІ**

Текст статті, яка подається до розгляду та рецензування українською, має бути побудований за такою схемою:

- індекс УДК у верхньому лівому кутку аркуша (Times New Roman, 14 пт., звичайний);
- назва статті великими літерами (по центру, Times New Roman, 14 пт., напівжирний);
- ПІБ авторів (по центру, Times New Roman, 14 пт., звичайний);
- назва ЗВО (по центру, Times New Roman, 14 пт., курсив);
- повна адреса ЗВО або місця роботи автора (по центру, Times New Roman, 14 пт., курсив);
- адреса електронної пошти;
- ORCID (обов'язково);
- анотація (200–250 слів), яка містить стисле формулювання змісту статті (вирівнювання – по ширині сторінки, Times New Roman, 14 пт., звичайний);
- ключові слова (до 10 слів) (вирівнювання – по ширині сторінки, Times New Roman, 14 пт., курсив).

Після цього з абзацу викладається основний текст статті (вирівнювання – по ширині сторінки, Times New Roman, 14 пт., міжрядковий інтервал 1,5).

#### Структура основної частини рукопису українською мовою:

**I. Постановка проблеми** в загальному вигляді та її зв'язок з важливими науковими чи практичними завданнями.

**II. Аналіз останніх досліджень і публікацій**, у яких започатковано розв'язання даної проблеми і на які спирається автор (з обов'язковими посиланнями в тексті на використану наукову літературу!!!), виділення не вирішених раніше частин загальної проблеми, котрим присвячується стаття.

**III. Формулювання цілей статті** (постановка завдання).

**IV. Виклад основного матеріалу дослідження** з повним обґрунтуванням отриманих наукових результатів.

**V. Висновки і перспективи подальших досліджень** у даному напрямку.

**VI. Література.** Оформлюється відповідно до вимог Національного стандарту України ДСТУ 8302:2015.

**ЛИШЕ ПІСЛЯ ПРОХОДЖЕННЯ ВНУТРІШНЬОГО РЕЦЕНЗУВАННЯ  
АВТОР НАДАЄ ПЕРЕКЛАД СТАТТІ АНГЛІЙСЬКОЮ МОВОЮ.**



Схема побудови англійської статті аналогічна українському варіанту:

- UDC у верхньому лівому кутку аркуша (Times New Roman, 14 пт., звичайний);
- назва статті великими літерами по центру (Times New Roman, 14 пт., напівжирний);
- ПІБ авторів (по центру, Times New Roman, 14 пт., звичайний);
- назва ЗВО (по центру, Times New Roman, 14 пт., курсив);
- повна адреса ЗВО або місця роботи автора (по центру, Times New Roman, 14 пт., курсив);
- адреса електронної пошти (по центру, Times New Roman, 14 пт., звичайний);
- анотація англійською мовою розширена (1800 знаків) (вирівнювання – по ширині сторінки, Times New Roman, 14 пт., звичайний);
- ключові слова (key words) – до 10 слів – (вирівнювання – по ширині сторінки, Times New Roman, 14 пт., курсив).

☞ *До уваги авторів:* після ключових слів англійською мовою необхідно надати цей блок інформації (крім УДК) також українською, вимоги до оформлення зберігаються.

Структура основної частини статті англійською мовою

(вирівнювання – по ширині сторінки, Times New Roman, 14 пт., міжрядковий інтервал 1,5)

**I. Statement of the problem** (Постановка проблеми).

**II. Analysis of recent studies and publications** (Аналіз останніх досліджень і публікацій).

**III. Objectives of the article** (Формулювання цілей статті).

**IV. The main material of the research** (Виклад основного матеріалу дослідження).

**V. Conclusions** (Висновки).

**VI. References** (Література), оформлюється за міжнародним бібліографічним стандартом. Приклади оформлення: <http://journalsofznu.zp.ua/References.pdf>

**ВАЖЛИВО!** Кожен рисунок включається до тексту у вигляді одного графічного об'єкта (положення об'єкта «В тексті»).

**ДЛЯ ОПУБЛІКУВАННЯ СТАТТІ АВТОРУ НЕОБХІДНО:**

*надіслати на електронну пошту редакції збірника [konf.econom.znu@gmail.com](mailto:konf.econom.znu@gmail.com)*

1. Текст статті, оформлений відповідно до встановлених вимог.
2. Витяг із протоколу засідання кафедри з рекомендацією статті до друку (скан. копію).
3. Рецензію доктора або кандидата наук із відповідної галузі науки, завірену відповідним підписом та печаткою установи, яка є зовнішньою по відношенню до ЗНУ та установи, де працює автор (автори) статті (скан. копію).
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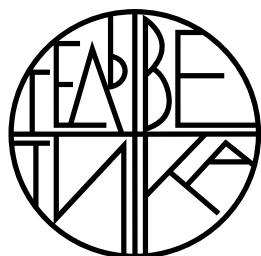
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