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Managing the efficiency and competitiveness of hotel, restaurant and tourism enterprises in Ukraine during the war

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Abstract. In each case, the tactics and strategy of management are complemented by other tools and mechanisms, depending on the conditions of accommodation, specialisation, and life cycle of a particular enterprise. However, the war has also led to the emergence of new circumstances for the functioning of hotel, restaurant and tourism enterprises. The purpose of the article is to substantiate and develop new and improve the existing directions, mechanisms and tools for managing the efficiency and competitiveness of hotel, restaurant and tourism enterprises in the context of war, taking into account military challenges and threats, possible reserves for relocation and spatial displacement of the tourism services market. In the process of writing the article, the following methods were used: historical and systemic approach; systemic and structural analysis and synthesis; statistical and economic, economic and mathematical, and ranking. As a result, new factors have been identified and the set of existing factors influencing the competitiveness of hotel, restaurant and tourism enterprises has been supplemented. It is found that these factors are both common and different. Thus, the growth of competitive advantages, efficiency and competitiveness is facilitated to a greater extent by: integration processes; quality of products and services; qualification of staff and management; use of digitalisation and marketing measures in the organisation and management of activities. Therefore, focusing on their support constitutes the strategic objectives and directions of efficiency and competitiveness management. At the same time, it is necessary to take into account the differences relating to the factors of location of hotels and restaurants (restaurants are preferable in very busy places, hotels – in quiet and peaceful places); hotel, restaurant and tourism enterprises – inclusive or exclusive services, authentic offers; seasonal demand, specially allocated time for rest, etc. The article emphasises that the continuation of Russia's missile and bomb attacks on peaceful cities of Ukraine requires a corresponding intensification of security measures for the hotel,

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restaurant and tourism business. The results of the study can be used in managing the efficiency and competitiveness of hotel, restaurant and tourism enterprises, local governments, in the educational process of universities and colleges

Keywords: consumers; services; quality; military threats; risks; security; strategic directions

INTRODUCTION

In the last decades of the twentieth and early twenty-first centuries, the functioning of the hotel and restaurant business and its business entities in Ukraine and other countries of the world has taken an increasingly significant place in the structure of national economic complexes in terms of their share in gross and national domestic product (GDP, NDP). However, due to the coverage of large masses of the population with services, their activities require certain compliance and are accompanied by significant risks and restrictions. Therefore, the issues of availability and preservation of certain competitive advantages, efficiency and competitiveness of hotel, restaurant and tourism enterprises, structural factors and management strategies as a condition for their successful functioning and development in a market economy are constantly relevant and even increasingly so.

There are many valuable and informative scientific publications on this issue, but there are practically no comprehensive studies of hotel, restaurant and tourism enterprises as integration entities or jointly operating enterprises that combine the functions of accommodation, catering and tourism. Nevertheless, the problems of functioning and development of hotel, restaurant and tourism enterprises in Ukraine are in the focus of constant attention of scientists and practitioners. For example, in the publication by L. Marmul *et al.* (2020), the research and its results are focused on establishing regional features of accommodation and management of the development of hotel and restaurant business and tourism as activities. An important role is given to assessing the natural potential for tourism business development and the location of its enterprises; assessing the innovativeness of the tourism product and justifying the introduction of innovations to improve tourism efficiency and the quality of tourism services. Less studied are the risks of tourism and, especially, hotel and restaurant activities. In the work of V. Yarovyv & V. Yurchenko (2021), the subject of research is tourist destinations, their identification, specialisation and use in peacetime.

Article by V. Danylenko-Kulchytska (2022) is devoted to assessing the state of the hotel and restaurant business in Ukraine during the war. The article identifies a list of reasons that led to its significant reduction and destruction; defines the principles of possible recovery and substantiates measures to restore activities, taking into account the experience of European countries that experienced military operations, although without total destruction of infrastructure. U. Huzar & A. Levchuk (2023) analysed the activities of restaurant enterprises in Ukraine during the war. The authors focus on the enormous losses of the restaurant business and examples of its recovery in the format of small

restaurants and cafes, as well as an analysis of the activities of relocated enterprises.

I. Levytska & A. Klymchuk (2022) identify the main challenges and propose possible strategies for the survival of hotel and restaurant business enterprises. To increase the practical orientation of the proposals, the authors rank and group challenges and threats into general, specific and individual ones. The article by V. Tsaruk (2023) identifies the losses of tourism as a result of the war and the processes of diversification of tourist flows. The main focus of the recommendations for the future recovery of the industry is on marketing measures and public-private partnerships in Ukraine.

Hotel and restaurant enterprises largely determine the activities of other enterprises and types of activities, including furniture, textile, interior production, and tourism. Therefore, a comprehensive study of the competitiveness of hotel and restaurant and tourism enterprises in their interconnection, as well as their management, is of great importance not only for them as individual business entities, but also for the entire hotel and restaurant and tourism sector through synergistic effects for ensuring employment, holding various events, providing quality services to consumers, and filling local budgets. The purpose of the article was to identify new factors and problems of efficiency and competitiveness of hotel, restaurant and tourism enterprises and to substantiate the corresponding management mechanisms and instruments based on the identified circumstances, including military threats, and to establish trends in structural changes and clarify strategic development priorities.

MATERIALS AND METHODS

The study used the following methods: scientific abstraction, historical, systematic approach, systematic and structural analysis and synthesis – to generalise and systematise views on the content, structure and features of tourism and hotel and restaurant enterprises in modern economic conditions; statistical, economic and economic-mathematical, extrapolation – to determine the economic efficiency and competitiveness of operation and to substantiate the strategic priorities for the development of these enterprises. The materials for the article were reviews of the functioning of hotel, restaurant and tourism enterprises and chains in Ukraine and in the world in recent years (2019–2023), including during the Russian war against Ukraine; monographic materials, personal observations of the authors.

Thus, based on the systematic approach and the historical method, general data on the functioning and development of hotel, restaurant and tourism enterprises in Ukraine and in the world were obtained. The system-structural analysis and synthesis made it possible to determine

the structure and activities of hotel and restaurant enterprises, the content of tourism products and services; to summarise and group competitive advantages and risks and threats, including those brought by the war, by certain characteristics. Statistical, economic, and economic-mathematical methods made it possible to establish the main indicators of the hotel, restaurant, and tourism enterprises, to rank them, and to identify problems and development trends. The use of the extrapolation method along with them contributed to the development of proposals for the preservation and further functioning of hotel, restaurant and tourism enterprises in the context of war, especially taking into account its risks and threats.

RESULTS AND DISCUSSION

Enterprises of the hotel, restaurant and tourism business are represented by business entities of various forms of ownership, size, organisation of business processes and specialisation. Thus, according to their property status, they can be state-owned, municipal, or private enterprises; companies (full, limited, closed, and open joint-stock companies; family and joint ventures). They are divided into small, medium and large enterprises by their size or dimensions. In terms of the form of business process organisation, they can be enterprises, holdings, hotel and tourism alliances, clusters organised under a franchise, etc.

According to the specifics of service provision, hotel and restaurant enterprises are divided into hostels, guesthouses, hotels, motels, apart-hotels, spa or resort hotels, boutique hotels, etc. By specialisation, these are tourist hotels for holidaymakers only and hotels for general use. At present, these can be one-, two-, three-, four- and five-star hotels by category. The “restaurant” part of the hotel and restaurant business can also be classified according to the relevant criteria. According to the quality of services provided, they also have their own gradation and Michelin stars (Michelin stars..., 2019). As a rule, hotels have restaurants and bars, buffets, and takeaway services. Depending on the size of the hotel, there may be several of them.

According to E. Maslennikov (2021), the competitiveness of hotel, restaurant and tourism enterprises is considered as a result of the ratio of quality and price of their services, the use of competitive advantages, as well as the image, depending on these components. Its increase or decrease is influenced by both existing competitive advantages and their absence, as well as changes in their content. Thus, while before the full-scale Russian attack on Ukraine, the internal environment of the hotel, restaurant and tourism services industry was most influenced by the quality and cost of services and products that should be better than those offered by competitors in a particular market segment and enterprises, in 2022-2023, it was the security of their provision.

N. Vecepura & Yu. Zemlina (2021) include the following in this traditional list: interior of the premises; picturesque environment and landscape design of the accommodation area (if any); quality and range of services; loyalty

policy and customer bonuses; professionalism, friendliness and education of the staff; prices, promotions and discounts; use of marketing strategies to promote products and services; introduction of innovations, especially digital technologies in sales, organisation and management; management efficiency. New security competitive advantages, which were previously considered impossible, have been added to the list. These include the availability of own well-equipped bomb shelters or proximity to them; and the equipment of locations with air defence systems.

The next group of factors that influence the competitiveness of hotel and restaurant business enterprises is formed by external components. These include, first of all, institutional factors, especially regulatory and legislative regulation; government and local decisions on compliance, restrictions, procedures and support for work during a pandemic, martial law, and normal operation; the structure and dynamics of the relevant market; competitors' activities, etc. Internal and, mostly, external factors are also identified in terms of influence – direct or indirect.

The latter include factors of income and effective demand of the population; traditional structure of income and expenses and the share of leisure funds in them; monetary, including currency policy; customs and tax regulation; socio-economic and military stability; inflation rate in the country; crime situation, bureaucracy, corruption and personal security guarantees. Knowledge, assessment and diagnostics of these and other factors and competitive advantages make it possible to make informed management decisions on the efficiency of functioning and increase competitiveness (Fonarova & Bushuiev, 2021).

In general, the above-mentioned internal and external factors and processes of functioning and development of hotel, restaurant and tourism enterprises are accumulated in the motivation of owners and staff to provide their services and consumers to accept them. At the same time, the motivation is complemented by moral and psychological or behavioural factors, which, unlike the previous ones, are difficult to quantify. These include fear for one's life, which does not contribute to the motivation to do business; fear of responsibility for someone else's life; consumer guilt towards those who cannot afford a holiday; business risks that cause uncertainty in work; indecision or inability to re-profile one's activities.

In business practice, the competitive advantages of the components of hotel and restaurant complexes may not coincide. For example, a restaurant needs high traffic to operate, while a hotel needs to be secluded and comfortable. In addition, meals in hotel restaurants can often be more expensive than in freestanding restaurants. This encourages hotel and restaurant enterprises to provide uniqueness, exclusivity, and other features to increase their attractiveness to consumers (Krukovska, 2022).

For restaurants, this means special menus or dishes; national cuisine days or masterclasses in the restaurant; author's cuisine; the work of famous chefs, etc. Ukraine is famous for its gastronomic culture and high-quality

restaurant services. The national dish, Ukrainian borshch, has been recognised by UNESCO as an intangible cultural heritage of world significance. According to the famous Ukrainian chef Yevhen Klopotenko, syrnyki, dumplings with cherries, pancakes and many other dishes are next in line (Yeskova, 2022). However, there is not a single Michelin-rated catering establishment in Ukraine. Therefore, the potential for growth in this area is quite significant.

Hotels should also attract customers with special types of services. These include spa and beauty treatments, gym services, swimming pools in addition to the main ones; organisation of various cultural and artistic events and conferences; introduction of various loyalty programmes, incentives, attention and respect for holidaymakers; use or attraction of interesting tourist destinations in accommodation and in the course of operation – organisation of hikes, excursions, visits to unusual attractions. In synergy with restaurant services, this should provide a significant impetus to increase demand for their services, as well as for hotel and restaurant enterprises in general.

Ye. Kozlovsky *et al.* (2021) believe that tourism enterprises are essentially represented by three different categories: those that provide travel, accommodation and cater-

ing services in various variations; those that provide purely tourism services; those that do not provide tourism services directly but are engaged in their development and organisation. The first group includes sanatoriums, boarding houses, recreation centres, motels, campsites, and equipped places for unorganised tourists. The second group is made up of tour bureaus, tourist clubs, local history clubs, naturalist stations, etc. The third group includes travel agents, agencies and tour operators. The latter are the most significant participants in the tourism services market.

Travel agencies have their own public organisation, the Ukrainian Association of Travel Agencies (UATA). As of 2021, 38 organisations were its members. The association's activities are aimed at improving travel services, sharing experiences, exhibitions, presentations abroad, and developing new travel products. The most well-known agencies are: Come with Us, Hot Tours Network, Mandarin, Mandruy, Merkaba, Pilgrim. There were 50 tour operators in the same year. The most significant of them are shown in Figure 1. Most of them had foreign participants, including Russian capital, such as Aneh Tour. In 2022, the most significant of them were Join Up, Coral Travel, ALF, TEZ Tour, and Eurotrips.

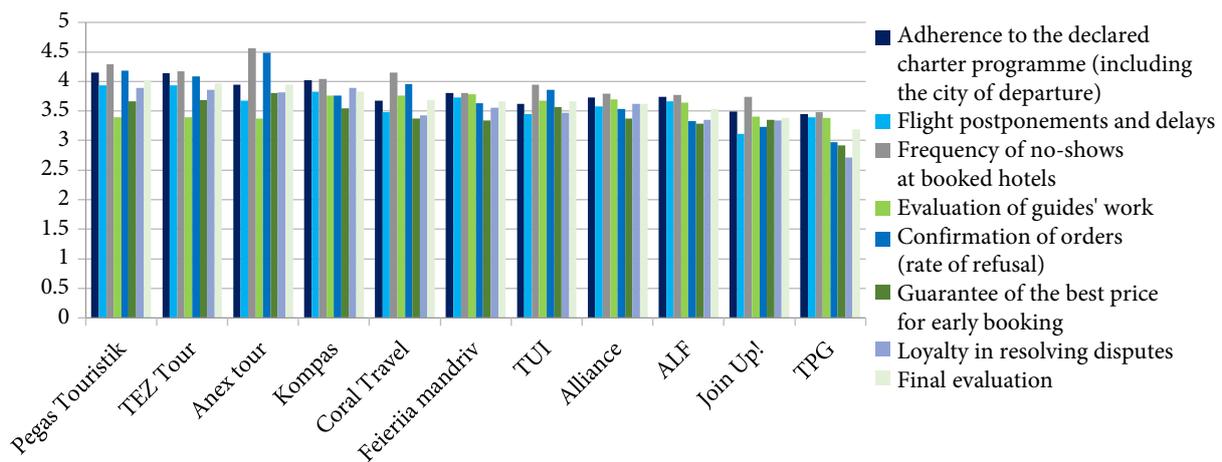


Figure 1. Economic performance of Ukrainian tourism market operators in 2021

Source: compiled by the authors based on Ukrainian Association of Travel Agencies (2021)

The pandemic has had a detrimental impact on their operations, causing enormous losses due to the practical cessation of their activities. But the Russian invasion caused much more damage. It is about destroyed airports, damaged hotels and restaurants, offices and other property, roads, tourist attractions, mined forests and coasts, loss of personnel, etc. Suffice it to say that the global economy lost USD 14 billion due to the war in Ukraine. The number of flights has fallen even in neighbouring countries due to the war. For example, in Moldova, it dropped by 69%, in Slovenia – by 42%, in Latvia – by 38%, in Finland – by 36%, and in the Czech Republic – by 35%. In Ukraine, budget revenues from tourism decreased by 30% in 2022. The decline in campsites, campsites, and children's holiday camps was 60%; tour operators – 35%; and travel agencies – 27%.

In 2023, the situation worsened by another third compared to 2022. The number of companies in the industry also decreased by 34%. In 2022 alone, the number of foreign tourists decreased from 14-15 million to 2 million. Of these, 1 million are public activists, volunteers, and journalists. However, domestic tourism has partially resumed. Relatively safe western regions, especially Zakarpattia, Lviv, and Chernivtsi regions, have become popular among Ukrainians. They increased their tax revenues from tourism by 30-50%. Kyiv, on the other hand, reduced its tourism business activity in terms of taxes by 50%. The southern regions have almost lost it. In Kherson region, it is 0.3% of the pre-war level, in Mykolaiv region – 30%, in Odesa region – 7.9%. However, in monetary terms, the decline in tourism in Kyiv and Odesa region alone amounted to UAH 244.3 million,

which could not cover the increase in the western regions of UAH 12.1 million (Smakota *et al.*, 2023).

However, tourism has to revive one way or another. And by the time the war is over, revival strategies must be in place. The complex impact of all factors, regardless of the classification approaches to their assessment and consideration in competitiveness management, is evidenced by the certification of hotels by category, service (number of stars) and quality, as well as ranking within a particular category. Based on the number of stars, consumers and other stakeholders can judge the level of comfort and compliance with their expectations and plan their holiday budget. For example, a one-star hotel provides minimal amenities for a modest fee. It is booked by students, singles and other holidaymakers with a minimum budget. A two-star hotel is characterised by more amenities and may even have a dining room or breakfast buffet and slightly more expensive services (Fedyshyn & Boiko, 2023).

As a rule, hotels in Europe operate in the 3-5* certification range. A three-star hotel implies the availability of sanitary facilities in each room and other amenities at a fairly reasonable price. A four-star hotel means an even higher level of comfort in the rooms (from 16.0 sq m) and the availability of public facilities such as a gym, swimming pool, parking for guests' vehicles, and daily housekeeping. A five-star hotel has the same level of comfort as the previous category level, but it has the following advantages: more spacious rooms (from 18.0 m²), beautiful views from the windows; additional facilities and services in the form of conference rooms, small shops or boutiques, exhibitions, several bars and restaurants, a swimming pool and a sauna; round-the-clock concierge service and room service; beauty salons; excellent menus; a nightclub (Yakushev, 2020).

When forming and managing competitiveness at the level of hotel and restaurant enterprises, it is important to substantiate tactical and strategic management decisions and their optimal combination. Thus, the relevant institutions of Ukraine received a significant impetus to upgrade and improve the quality of work in the form of a major international event – the European Football Championship in 2012. This was especially true for the cities hosting the main football matches (Kyiv, Donetsk, Lviv and Kharkiv), as well as the routes of the main tourist flows of fans. At the same time, Ukraine invested EUR 12 billion in infrastructure, compared to EUR 20 billion in the second host country, Poland. Revenues from tourism increased by 40.0% to almost UAH 7 billion. The number of people staying in hotels has increased significantly. In Kyiv alone, it grew from 1.1 to 1.5 million people. At the then exchange rate (UAH 7.99 per dollar), this amounted to approximately EUR 700 million or USD 475 million. UEFA's (Union of European Football Associations) revenue from the 2012 Championship was in line with the target of EUR 1.4 billion, of which the hospitality industry accounted for the smallest share of EUR 100 million or 14.0%. Media and commercial rights and tickets made up the rest. Other large-scale events of international importance in Ukraine that contributed to the development

of the hotel and restaurant industry were the Eurovision Song Contests in 2005 and 2017. Thus, the costs of the latter contest amounted to UAH 603 million or EUR 20.4 million, while the revenues were UAH 72.5 million or EUR 2.5 million, i.e. 8.3 times less (UEFA revenues from..., 2012).

It should be noted that even with a well-developed network of competitive hotel and restaurant enterprises, including leading global brands and national chains (Radisson SAS, Hilton, Intercontinental, Fairmont, Hyatt, Rixos, Ibis, Premier, Reikartz, etc.); modern airports and other transport hubs and centres; comprehensive implementation of advanced digital technologies in their work; rich history and culture; excellent gastronomic traditions, the tourism and recreation business, especially international, has significant potential for development (Maslihan *et al.*, 2022). It is constrained not only by the limitations of the war years (2022-2023), but also by insufficient marketing and information drives and actions at the state, regional and local levels of organisation; military operations in Donbas; insufficient level of service and insufficient size of the middle-class hotel segment; and extremely uneven distribution of hotels in the country. Thus, the vast majority of international class hotels are concentrated in the capital of Ukraine – Kyiv. A few of them are represented in cities that are resort and recreational centres and in major regional centres such as Dnipro, Lviv, Odesa and Kharkiv. The situation is much worse in regional and, especially, district centres. In general, there are 1.1 hotel rooms per 1,000 inhabitants in Ukraine, while in Poland it is 2.2 and in France – 10.8 (Dyakonova *et al.*, 2021). This encourages the comprehensive development of hotels and hotel chains, and raising their class. According to the data of the well-known Internet platform Booking.com (n.d.), there are enough hotels of a high level of star rating in the country, a significant number of uncertified accommodation and not enough three-star hotels. According to G. Myskiv & S. Nycz-Wojtan (2022), convenient and modern booking systems have the potential to become a tool for marketing tourism services, and therefore it is necessary to improve this process.

Compared to the previous ten-year period (2010-2020), in 2008 there were 1,218 hotel companies in Ukraine, and 3,200 hotels together with sanatoriums and boarding houses. Thus, there has been an increase of more than 3.0 times, and 930 hotels have been certified. The certification resulted in 30 one-star hotels, 43 two-star hotels, 66 three-star hotels, 22 four-star hotels and only 2 five-star hotels. Thus, the number of low-star hotels decreased by 1.4-3.5 times and the number of multi-star hotels increased by 4.2-21.5 times. However, a significant drawback is the presence of a significant number of hotels that do not have a category, and therefore cannot confirm the high quality of services, although they may be provided at a high level. Therefore, progress in this area is important for their competitiveness. However, the war has changed this reality. As of 2023, the hotel, restaurant, and tourism network in Donbas and Kherson was completely destroyed; the cities of Mykolaiv, Odesa, and Kharkiv were significantly damaged.

The industry was completely destroyed in the occupied territories. The hotels and restaurants, stadiums, transport routes, sports and other infrastructure that were built for EURO 2012 were destroyed or completely destroyed in 2022. However, the reconstruction of the industry needs to be planned now, taking into account the achievements of the past and avoiding previous miscalculations and the consequences of the war (Zhuravka *et al.*, 2023).

Quite often, both in Ukraine and in other countries of the world (the European Union, Turkey, Egypt), one can observe that hotels of the same category located in the same place and even on the same street have different occupancy, profitability and profit (Yakushev, 2020). This can be explained by differences in their construction, development history, famous guests, themed rooms dedicated to certain people, events, eras, and styles. There are also factors that are difficult to measure, such as the atmosphere, the friendliness of the staff, and the loyalty of the management and owners. In managing competitiveness, aspects of behavioural economics that relate to consumers should also be taken into account: the fashion for a particular hotel, service, city; the sense of prestige of a holiday, etc.

Tactical and strategic management decisions in managing the competitiveness of hotel and restaurant enterprises should address at least the following areas: ensuring that the administration of functioning is in line with institutional factors; comprehensive development of integration forms of activity to create greater efficiency, investment, profitability and quality of services, as demonstrated by large hotel alliances, networks and other integration associations; introduction of innovative, especially digital technologies in operational and organisational; training and improvement of staff and management; continuous monitoring, evaluation, diagnostics and forecasting of the hotel and restaurant services market, competitors, consumer demands and behaviour; application of the latest marketing techniques, technologies and strategies to promote products and services, including branding and rebranding; forms of investment, accommodation and lodging, such as apart-hotels, purchase of rooms for permanent use and subleases, etc.

Thus, in order to manage the competitiveness of hotel and restaurant and tourism enterprises, not only tactical but also strategic management decisions are important. At the same time, there are many strategies for achieving and developing certain competitive positions of hotel and restaurant business enterprises. But strategic decisions are especially important for increasing the competitive potential of enterprises. After all, its formation and increase are the basis for increasing the competitiveness of the hotel, restaurant and tourism business. However, in the practice of competitiveness management, business entities in the hotel, restaurant and tourism business are rarely limited to one or another of the above strategies. As a rule, several of them are used simultaneously in combination, depending on their competitive position, reproduction cycle, resource provision, specialisation, and location (Maria *et al.*, 2023). Thus, according to the chairman of the board of VisitUkraine.

Today, certain trends are already noticeable in the restoration of tourism in Ukraine (2023): people most often need to rest in sanatoriums, where they can restore their nervous system as far away from explosions and air raids as possible; demand for tours for one person or family has increased and group tours have fallen; priority requirements for hotels and other accommodation facilities are availability of light, heat, water, communication and shelter. Given these and other trends, the market will continue to focus on domestic consumers. Travel agencies will offer holidays in rural areas in cooperation with rural green tourism enterprises; various bus tours abroad. The problem is attracting solvent customers (Hotel business in Ukraine..., 2023).

It can be solved by relying on marketing tools based on big data analytics. Some of them, for example, are offered by Kyivstar (Tourism during the war..., 2023). 1. The Client Portrait tool helps to clearly understand the travel agency's customer base according to selected criteria – age, gender, location, interests, income, profession, etc. This allows to develop and adapt the offer to a specific target audience, thereby increasing the number of consumers. 2. Geo-analytics. With this tool, hotel, restaurant and tourism businesses can develop special offers for potential visitors, taking into account geographical features; increase their advertising in those regions where customers come from the least; open their outlets, branches, representative offices where demand and customer flow are highest. 3. The third tool is targeted mailings. They allow to send personalised offers to individual customers or groups of customers, which can be distributed according to more than 100 criteria, such as geolocation, age, gender, children, pets, interests, travel, lifestyle, etc. The use of these marketing tools can be seen as new competitive opportunities for hotel, restaurant and tourism companies that will allow them to operate despite the difficulties of wartime.

CONCLUSIONS

Hotel, restaurant and tourism businesses were widespread and dynamically developed in Ukraine in the pre-war period. However, as a result of the full-scale invasion, they suffered perhaps the greatest losses and destruction. This applies to property complexes, personnel, and tourist flows. Therefore, the article attempts to conduct a comprehensive study of both hotel and restaurant and tourism enterprises. They are significantly dependent on each other in the process of forming efficiency and competitiveness, have common threats, but certain differences in location, priorities of consumer demand, and marketing strategies. The identified pattern should be taken into account in managing the efficiency and competitiveness of hotel, restaurant and tourism enterprises during the war, especially in terms of security measures.

The competitiveness of hotel, restaurant and tourism enterprises is influenced by external and internal, direct and indirect factors. These include integration processes; quality of products and services; innovation and digitalisation and online technologies; staff qualifications and

traditional hospitality. Operational and marketing activities and the chosen management strategies largely determine the competitive advantages, competitive potential and competitiveness of business entities in this dynamic and profitable sector of the economy, and therefore must be comprehensively implemented during the war.

In prospective studies, in the implementation of management decisions proposed in the study, it is necessary to take into account the hierarchical levels of formation of efficiency and competitiveness – enterprises, products and services, industry and market; stages of development, reproduction cycles. Depending on the competitive position of the hotel, restaurant and tourism business enterprises, a strategy and tactics for managing efficiency and competitiveness should be developed. Despite the specificity of their practice, taking into account the specifics and

identified differences in activities, the following remain common to all enterprises: support for integration processes; focus on products and services, their properties and qualities; improvement of personnel and management; introduction of digitalisation and innovative technologies and marketing measures.

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CONFLICT OF INTEREST

None.

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Управління ефективністю та конкурентоспроможністю готельно-ресторанних і туристичних підприємств України під час війни

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Анотація. У кожному конкретному випадку тактика і стратегія управління доповнюються іншими інструментами та механізмами в залежності від умов розміщення, спеціалізації, життєвого циклу того або іншого підприємства. Однак війна призвела й до виникнення нових обставин функціонування готельно-ресторанних і туристичних підприємств. Мета статті полягає в обґрунтуванні та розробці нових й удосконаленні існуючих напрямів, механізмів та інструментів управління ефективністю й конкурентоспроможністю готельно-ресторанних і туристичних підприємств в умовах війни з урахуванням воєнних викликів і загроз, можливих резервів релокації та просторового зміщення ринку туристичних послуг. У процесі її написання було використано методи: історичний та системного підходу; системно-структурного аналізу і синтезу; статистико-економічні, економіко-математичні, ранжування. В результаті було встановлено нові та доповнено сукупність існуючих чинників, які впливають на конкурентоспроможність підприємств готельно-ресторанного і туристичного бізнесу. Виявлено, що ці чинники є, одночасно, спільними та відмінними. Так, зростанню конкурентних переваг, ефективності і конкурентоспроможності сприяють більшою мірою: інтеграційні процеси; якість продуктів і послуг; кваліфікація персоналу і менеджменту; використання цифровізації та маркетингових заходів в організації та управлінні діяльності. Тому зосередження на їх підтримці складає стратегічні завдання та напрями управління ефективності й конкурентоспроможності. При цьому треба враховувати відмінності, які стосуються чинників розміщення готелів і ресторанів (ресторани – краще у дуже пожвавлених місцях, готелі – у тихих і спокійних); готельно-ресторанних і туристичних підприємств – інклюзивні або ексклюзивні послуги, автентичні пропозиції; сезонний попит, спеціально виділений час для відпочинку тощо. У статті наголошено, що продовження ракетних і бомбових атак росії по мирних містах України вимагає відповідної інтенсифікації заходів безпеки готельно-ресторанного і туристичного бізнесу. Результати дослідження можуть бути використані в управлінні ефективністю й конкурентоспроможністю підприємств готельно-ресторанного й туристичного бізнесу, місцевими органами самоврядування, у навчально-освітньому процесі університетів і коледжів

Ключові слова: споживачі; послуги; якість; воєнні загрози; ризики; безпека; стратегічні напрями



Cryptocurrencies from a behavioural finance perspective

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Abstract. In today's world, cryptocurrencies are no longer a technological miracle for a small group of programmers. They have become a very common investment instrument that attracts the attention of both traditional investors (funds and traders) and those who are not interested in classical markets and investing in general. This is especially true for bitcoin. The purpose of the study was to investigate the influence of behavioural psychology in making investment decisions in cryptocurrency markets. The research methods included analysing historical data on cryptocurrency prices, as well as observing investors' reactions to important events and news related to cryptocurrencies. In addition, behavioural analysis methods were used to understand and predict investors' reactions to various incentives and situations in the cryptocurrency markets. The results of the article describe the main provisions of behavioural finance, which are necessary for an overview of the cryptocurrency market. The impact of the main topics of behavioural finance research is also considered. It should be noted that in the absence of a large amount of data, the study of the cryptocurrency market and the behaviour of participants is mainly a hypothetical assessment, and the empirical aspects of the study are copied from the behavioural finance of the classical market. Considering the cryptocurrency market from the point of view of behavioural finance, the main points of view of different parties were considered: both supporters of cryptocurrency and those who consider this phenomenon to be an economic bubble in a technological wrapper. The information reflecting the main biases of behavioural finance, which relate to both classical markets and cryptocurrency markets, is systematised. The study of cryptocurrencies from the point of view of behavioural finance reflects the practical value in understanding the impact of behavioural factors on price dynamics and investment decisions in cryptocurrency markets

Keywords: bitcoin; virtual currency; payment system; information economy; behavioural factors

INTRODUCTION

Cryptocurrencies are a cheap, convenient and technologically advanced way of conducting settlement transactions on a global scale and are a promising form of investment. Given the current development of cryptocurrencies in the world (2023), the focus is on blockchain technology and the bitcoin cryptocurrency, which is also the most

expensive cryptocurrency available. In addition, the interest of the economically active population in financial innovations in the information economy is growing.

After the global financial crisis of 2008, it directly affected the stability of the financial system, especially the banking industry, and people's trust in the country's traditional

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financial institutions was shaken (Lyvdar, 2022). The rapid development of IT technologies and the information economy has intensified research into new information-based financial instruments. Cryptocurrency has become one of these financial innovations. Unlike traditional currencies, cryptocurrencies do not require a central bank or any other centralised authority to ensure security or maintain control over the money supply. The same opinion is shared by most researchers (Honcharova & Vereshchaka, 2018; Ustenko & Zagorovsky, 2019).

Cryptocurrencies are breaking new ground in the modern financial world, but their market dynamics are inextricably linked to human behaviour. By looking at this topic from the perspective of behavioural finance, it is possible to better understand the deviations from classical financial models and take into account the emotional component in financial decisions. The author D. Kahneman (2019), one of the pioneers of behavioural economics, highlights the concepts of system one (quick and intuitive thinking) and system two (more deliberate and rational). The cryptocurrency market is often influenced by system one, where investors react to market events intuitively and emotionally, not always following strategies or rational analysis. Another important aspect is the consideration of cryptocurrencies as an “emotional commodity”, as highlighted in the research of R. Thaler (2021). The author argues that the degree of excitement or panic in the cryptocurrency market can be a strong emotional reaction to news or events. This can lead to significant price fluctuations and determine the mood of the market. Behavioural finance also identifies cognitive errors in financial decision-making. The author B.Y. Al-Mansour (2020) explores the impact of heuristic simplifications and systematic errors that can lead to incorrect analysis and risk assessment in the cryptocurrency market.

The cryptocurrency phenomenon is a unique area of research for behavioural finance, as it is essentially a typical combination of finance and psychology (except for programming). Most researchers believe that behavioural finance is the key to building a pricing model for the cryptocurrency market in the future, and it will be based on the psychological characteristics of the behaviour of individuals and social groups, rather than the usual fundamental analysis of traditional financial markets. The research aimed to study how various aspects of behavioural finance, such as psychological biases, emotional response to risk, and buy-in, influence investors’ decisions about cryptocurrency assets.

MATERIALS AND METHODS

The theoretical and methodological basis for the study of cryptocurrency markets is the scientific work of Ukrainian and European scientists on cryptocurrency behavioural finance, materials from Internet sources, periodicals, educational materials and scientific works of authors who have studied the influence of behavioural psychology in

making investment decisions in cryptocurrency markets. The study was based on the analysis of cryptocurrency exchange rate statistics for 2013-2023 (CoinMarketCap, 2023). In order to solve the tasks set, the study uses general scientific and specific research methods. In particular, a literature review was applied: analysis of scientific articles, books, dissertations and other sources covering the theories and concepts of behavioural finance in the context of cryptocurrencies. The descriptive-analytical method was used to summarise and systematise the results obtained on the impact of behavioural factors on price dynamics and investment decisions in cryptocurrency markets. The method of statistical analysis was used to interpret the behaviour of players in the cryptocurrency markets. SWOT-analysis is used to reveal the economic nature of cryptocurrency and the peculiarities of its circulation as an innovative means of payment. Systematic methods, such as classification and categorisation, were used to identify the main behavioural partners in the cryptocurrency market. Logical generalisation was applied to ensure the logical sequence of the material. Dialectical methods, such as induction and deduction, were used to draw general conclusions from specific facts and vice versa. The method of analysis and synthesis was used to present an adequate picture of the movement of processes in the context of general events. The graphical method was used to present the results of the study in a visual way.

RESULTS AND DISCUSSION

Behavioural finance should not be contrasted with modern corporate and public finance, let alone personal or household finance. This concept of finance is only a complement to the general theory of finance, although it is extremely important. Psychological phenomena have a significant impact on financial activities, as financial decision-making is often accompanied by risk and uncertainty. Therefore, the creation of a theoretical framework for the influence of human psychology and other social factors on financial decision-making is one of the most pressing tasks of modern economic science, especially financial research. There are many scientifically formalised effects of behavioural finance, paradoxes and other patterns, but, according to many scholars, the main task of building the theory of behavioural finance into a single and systematic doctrine remains unresolved (Nikiforov & Marich, 2022).

Behavioural finance is the study of the influence of psychology on the behaviour of investors or financial analysts. It studies various psychological influences on decision-making and the impact of these effects on markets. Behavioural finance, in particular, is based on the fact that investors are not always rational, have limits to their self-control, and are influenced by their own biases (Ilyashenko, 2017). A comparison of behavioural finance with traditional financial theory is presented in Table 1.

Table 1. Comparison of behavioural finance with traditional financial theory

Traditional financial theory	Theoretical hypotheses of behavioural finance
<ol style="list-style-type: none"> 1. The market as a whole, especially investors, is rational. That is, they act in their own interests and make the best decisions. 2. Investors are most interested in maximising utility. That is, all their decisions depend on the ultimate, most profitable outcome for them. This factor determines that the market itself, as a set of all participants, is always regulated to maximise utility. 3. Investors' self-control is absolute. Their decisions are not influenced by emotions, moods and personal attitudes to risk. 4. Investors' decisions are not influenced by bias. Investors are not subject to cognitive errors. 	<ol style="list-style-type: none"> 1. Investors are perceived as "normal" rather than "rational". It is the irrationality of human behaviour that is taken into account. 2. Their self-control is effectively limited. Their decisions are influenced by emotions, moods and personal attitudes to risk. 3. Investors are influenced by their own biases. 4. Investors' cognitive errors can lead to poor decisions.

Source: developed by the authors on the basis of M. Baker & J. Wurgler (2015); D. Kahneman (2019)

Thus, the main achievement in behavioural finance is the realisation that in finance, as in all other areas of activity, people make decisions and act under the influence of stereotypes, preconceived ideas, illusions of perception, errors in information analysis, and ordinary emotions. In 2023, humanity is at the centre of an economic phenomenon. Thousands of dollars are paid by people for what is essentially a reward for actions in computer games. Cryptocurrencies have no physical embodiment, are sometimes used in very dubious ways, are hardly regulated, and basically only exist if enough computers can confirm their existence. At this point, it can be assumed that this is the largest economic bubble in history, and it may have just begun to spread. Concerned about the hysteria of mass greed and corruption among young people, governments have been forced to deny the value of cryptocurrencies or restrict trading in them (Ballis & Verousis, 2022).

They exist in software environments that are maintained and developed mostly by volunteer programmers, and no one seems to know the true identity of their creators. Cryptocurrencies are a historically significant financial, political and social phenomenon that could turn into an outright farce or perhaps the beginning of a completely new global payment system. Since 2010, the Internet and the media have been abuzz with various opinions and assumptions about cryptocurrencies. However, most of them are based on classical financial analysis and historical considerations, combined with personal emotions and bias. Representative bias is prevalent in most cryptocurrency reviews and valuations. When trying to evaluate the concept of cryptocurrency in the context of such things, it is as irrelevant as comparing smartphones and telephones. In order to reveal the economic nature of cryptocurrencies and the peculiarities of their circulation as an innovative means of payment, it is advisable to summarise the results of the analysis (Table 2).

Table 2. SWOT-analysis of cryptocurrency circulation

Strengths	Weaknesses
<ul style="list-style-type: none"> ◆ anonymity and protection of users' personal data; ◆ decentralised issuance; ◆ making payments without intermediaries; ◆ high transaction speed (compared to fiat money); ◆ low maintenance costs; ◆ lack of centralised management; ◆ resistance to inflation; ◆ high level of security. 	<ul style="list-style-type: none"> ◆ used as a means of payment in the illicit goods market; ◆ technical complexity of use; ◆ lack of material form; ◆ inability to cancel transactions; ◆ narrow scale of distribution in the consumer sphere; ◆ high dependence on the information environment and consumer trust.
Features	Threats
<ul style="list-style-type: none"> ◆ a convenient means of payment for international online trade; ◆ creating competition for the traditional payment system; ◆ high investment potential; ◆ growing number of consumers in the world. 	<ul style="list-style-type: none"> ◆ high risks of volatility; ◆ unstable income; ◆ legal and regulatory framework of national governments; ◆ changes in consumer tastes; ◆ competition from new types of cryptocurrencies; ◆ computer system failures and hacker attacks; ◆ difficulty in forecasting the exchange rate using traditional methods.

Source: developed by the authors on the basis of O. Perchuk et al. (2020)

Elements of traditional finance and economics are partially present in the cryptocurrency phenomenon, but only the set of elements present in it makes cryptocurrency a unique phenomenon. Thus, it is more correct to consider this phenomenon from the perspective of

behavioural finance. One of the aims of this paper is to add a behavioural dimension to the current discussion on cryptocurrencies and to raise awareness of the impact of behaviour on financial markets. This should be seen in the context of the fact that behavioural science is a

relatively new approach to the study of financial markets, and there is little empirical evidence to accurately measure

the impact of specific behavioural factors on cryptocurrency markets (Fig. 1).

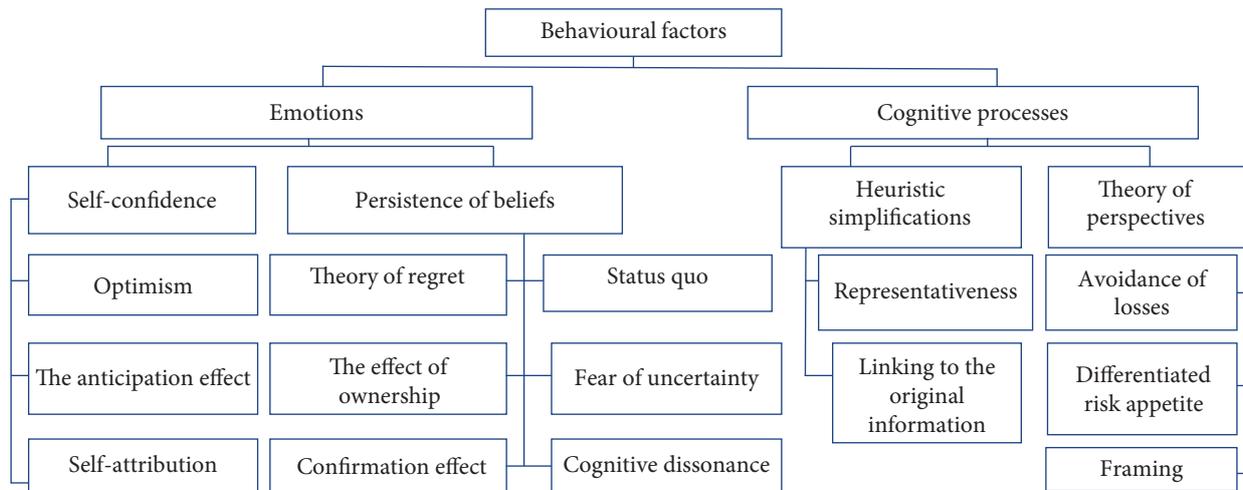


Figure 1. Classification of behavioural factors

Source: developed by the authors on the basis of M. Lipyh (2014); B. Liu *et al.* (2016)

According to those involved in the study of behavioural sciences, it is difficult to avoid being fascinated by the phenomenon of cryptocurrencies, which is marked by their high attractiveness for analysis and research. After all, it is one of the major developments that has taken place since behavioural research began to be studied in the context of financial analysis. For those studying behavioural finance, this is comparable to what happened after physicists at the Large Hadron Collider discovered new atomic particles. The cryptocurrency market is the most behaviourally driven of all markets (Hirshleifer *et al.*, 2016). Characteristic features of the cryptocurrency market in behavioural finance:

- ♦ Fear of loss;
- ♦ Fear of herd mentality;
- ♦ Envy;
- ♦ Speculation (Liivamägi, 2016).

In addition, investors are basically putting their faith in a completely new concept. Regardless of the final outcome, the cryptocurrency market phenomenon will provide the most interesting information and data on the emotional and psychological mechanisms that drive people’s financial decision-making (Adil *et al.*, 2022). It is widely believed that the cryptocurrency market is completely irrational. From the perspective of classical finance, this is true, but irrationality is an inherent part of financial decision-making, and this view has led to the classical market crises of 1987, 2000 and 2008 being seen as inexplicable, when they are not. Human behaviour violates the principle of rational utility in many cases, and trying to empirically argue against it is counterproductive. From the perspective of classical finance, people do not behave as they should, and anyone who contradicts this is trying to impose reality on an abstract model.

Cryptocurrency reached its highest value in 2021, valued at almost USD 3 trillion. As talk of an economic

downturn began, cryptocurrency values began to fall (Parveen *et al.*, 2023). During the biggest drop, the two largest digital currencies lost almost three quarters of their value. As of January 2023, the cryptocurrency market was valued at almost USD 993 billion (Abdeldayem & Aldulaimi, 2023). When evaluating a cryptocurrency from the perspective of traditional finance, its price is zero, and the market value appears abnormal. From the viewpoint of behavioural finance, one can analyse potential pricing as a global currency, the hypothetical value of a gold substitute, cryptography as a value security, and blockchain as a tool for internationalising the economy (Bernheim *et al.*, 2019).

Talks of a looming recession make the public anxious and abandon riskier assets such as stocks and cryptocurrencies. Consumer confidence starts to drop with thoughts of a recession. Cryptocurrencies are based on consumer demand, and due to the higher cost, people may not have the money to invest in cryptocurrencies. It is unclear whether the value of cryptocurrencies can fall during a recession because digital assets have not survived it for a long period. However, researchers C.-H. Chang & S.-J. Lin (2015) believe that cryptocurrencies will fight the fear of recession like other riskier investments.

In general, it can be said that to fully assess any market, it is also necessary to look at the behaviour of participants and their influence on each other. In today’s markets, let alone historical markets, even professional analysts are rarely able to do this effectively. Market analysis, whether fundamental, economic or technical, is often too limited for a number of reasons. Contextual limitations, vested interests, and various biases prevent analysis from being fully adequate. And last but not least, insufficient attention to behavioural finance, the emotional and psychological sphere of human activity, makes this analysis incomplete (Nikiforov & Marich, 2022).

The founders of Bitcoin are not taking this lightly or looking at it in isolation. They have clearly defined goals aimed at addressing the problem of overpriced fiat currencies, distrust of financial institutions, high transaction costs, and the impracticality of using gold as a store of value. I. Makarchuk & O. Perchuk (2020) note that all of this concerns different target audiences and adds an important social component to the cryptocurrency market. Nevertheless, there have been many populist statements about the future of cryptocurrencies around the world. They have expressed high levels of distrust and frustration with the actions and policies of governments and mainstream financial institutions (Grosshans & Zeisberger, 2018).

For many who buy bitcoin and other cryptocurrencies, it is not so much an investment as a political donation. From their point of view, these investments show that they support the basic terms of the plan. By design (and as a direct nod to central banks), bitcoin is also positioned as a possible alternative to gold. Due to the inherent advantages of this argument from a practical point of view (ease of storage, limited supply, etc.) and good technical appeal to younger generations, bitcoin is experiencing a speculative boom (Kaustia *et al.*, 2016). This introduces a group of people looking for easy and quick money into the market. Since 2009, bitcoin has been a rather interesting experiment, which even in 2023 is not taken seriously by many, except for the benefits of the underlying blockchain technology. However, the tipping point was reached in June 2017, when prices broke out of a long, slow, multi-year uptrend and became parabolic. After the sharp drop in the bitcoin price in 2017 and the great hype, the cryptocurrency market has become more stable and is gradually developing (CoinMarketCap, 2023). The absence of uncontrolled behaviour of participants makes the cryptocurrency market more interesting from the point of view of behavioural finance.

According to T. Zheliuk & O. Brechko (2016), cryptocurrency is a stable and universal instrument of global financial payments, and at the same time a financial instrument with high capitalisation and a competitive form of international capital flows. However, such a statement does not fully reflect the essence of the concept under study and does not take into account its main features, which were revealed in the above study. V. Soslovskiy & I. Kosovskiy (2016), on the other hand, consider cryptocurrency as a means of payment that does not have a material form, but exists in the form of software code using cryptographic security methods, the issue and accounting of which is often decentralised and known to the participants in the settlement. Although this opinion of the authors is supported by the above, the essence of this issue should be interpreted through the prism of the concept of "digital currency".

When looking at crypto markets through the lens of behavioural finance, they will appear not only as a new concept with unique characteristics, but also with different appeal to different people. There are also cognitive errors that affect investment decisions, especially heuristic

simplifications that usually reduce decisions to one or more reasons. It is possible to isolate these underlying factors and define market segments around them. Although this is an oversimplification of the market, it is very useful for establishing at a high level the key psychological variables, as discussed in N. Shamanska & O. Shamanska (2015). People buy cryptocurrencies not only because of the properties of fiat currencies. For example, some people buy smartphones because they are the latest generation of phones, while others are interested in using a smartphone as an audio player or a camera. The third group is interested in quick access to data storage, and the fourth group is interested in constant and fast access to the Internet. Although there are some simplifications in these examples, smartphones have become incredibly popular precisely because they meet the different needs of different groups, and cryptocurrencies have similar properties.

Thus, behavioural finance is a more realistic assessment of how financial decisions are made than classical financial theory, as it is impossible, or rather wrong, to consider human activity while dismissing behavioural psychology.

CONCLUSIONS

The study found that cryptocurrencies are a historically significant phenomenon in the areas of finance, politics and society that may evolve before the start of a new global payment system. The cryptocurrency market is distinguished by the fact that its dynamics are largely determined by human behaviour, making it the most manageable of all markets. Regardless of the final outcome, the cryptocurrency market phenomenon provides information and data on the emotional and psychological mechanisms that influence people's financial decision-making. From the point of view of classical finance, people do not always act in accordance with theoretical models, and those who deny this will try to impose reality on abstract models.

The article analysed the cryptocurrency market from the perspective of behavioural finance, which allowed to consider the possible price of a global currency, the hypothetical value of a gold substitute, cryptography as a means of ensuring value security, and blockchain as a tool for internationalising the economy. It also analysed cognitive errors that affect investment decisions, identifying the main factors and market segments around them. In summary, behavioural finance is a more realistic assessment of how financial decisions are made than classical financial theory, as it is difficult, or rather wrong, to consider human activity while ignoring behavioural psychology.

This study has shown that the cryptocurrency market opens up wide opportunities for studying the impact of social media and mass media on investment decisions. This can serve as a prospect for further research, as observing market dynamics and investors' reactions to news and events reflects important aspects of group psychology and collective behaviour. The integration of social media analysis, emotional and psychological factors into cryptocurrency market research allows to better understand and

predict price movements and investment trends. This approach opens up new opportunities for the development of not only financial but also social and psychological science, creating innovative risk management strategies in financial markets.

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CONFLICT OF INTEREST

None.

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Криптовалюти з точки зору поведінкових фінансів

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Анотація. В сучасному світі криптовалюти перестали бути технологічним дивом для невеликої групи програмістів. Вони стали дуже поширеним інвестиційним інструментом, який привертає увагу як традиційних інвесторів (фонди та трейдери), так і тих, хто не цікавиться класичними ринками та інвестуванням загалом. Особливо це стосується біткоїна. Метою роботи було дослідження впливу поведінкової психології при прийнятті інвестиційних рішень на ринках криптовалют. Методи дослідження включали аналіз історичних даних цін криптовалют, а також спостереження за реакцією інвесторів на важливі події та новини, пов'язані з криптовалютами. Крім того, були використані методи аналізу поведінки для розуміння та прогнозування реакцій інвесторів на різноманітні стимули та ситуації на ринках криптовалют. У результатах статті описано основні положення поведінкових фінансів, які є потрібними для огляду ринку криптовалют. Також розглянуто вплив основних тем досліджень поведінкових фінансів. Слід зазначити, що за відсутності великої кількості даних, дослідження ринку криптовалют і поведінки учасників є переважно гіпотетичною оцінкою, а емпіричні моменти дослідження скопійовані з поведінкових фінансів класичного ринку. Розглядаючи криптовалютний ринок з точки зору поведінкових фінансів, було розглянуто основні точки зору різних сторін: як прихильників криптовалюти, так і тих, хто вважає це явище економічною бульбашкою у технологічній обгортці. Систематизовано інформацію, що відображає основні упередження поведінкових фінансів, які стосуються як класичних ринків, так і ринків криптовалют. Дослідження криптовалют з точки зору поведінкових фінансів відображає практичну цінність у розумінні впливу поведінкових чинників на цінову динаміку та інвестиційні рішення на ринках криптовалют

Ключові слова: біткоїн; віртуальна валюта; платіжна система; інформаційна економіка; поведінкові чинники



Organisation of accounting of financial results of agricultural enterprises of Ukraine and its improvement

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Abstract. The relevance of organising the accounting of financial results of agricultural enterprises in Ukraine lies in the need to provide a high-quality information base for management and strategic decision-making in the context of constant changes in agriculture and international standards. Improvement of this system contributes to increasing the competitiveness of agricultural enterprises, their efficiency and transparency in assessing performance. The purpose of the article is to substantiate promising directions for improving the organisation of accounting for financial results of agricultural enterprises on the basis of identifying its peculiarities in agricultural production and using modern technologies of programming and automation of accounting processes and workplaces of accounting staff. The research methodology used was a systematic approach, hermeneutical, historical and logical analyses, the method of expert assessments and functional and logical analysis. It is established that accounting of financial results and its organisation have significant features at the level of agricultural enterprises. They relate to seasonality and unevenness of production during the calendar year; use of elements of living nature – land, agricultural plants and the main herd of animals – as the main means of production. There is also a certain inconsistency between accounting standards and international financial reporting standards. There is also a lack of a unified methodology for determining and evaluating financial results for small and large enterprises. Identification of shortcomings allowed to develop priority areas for its improvement: harmonisation of national provisions on financial results accounting as the basis for its systematic organisation; harmonisation of national and international standards; unification of quantitative indicators and their list for assessing and diagnosing financial results; improvement of analytical accounting by cost centres and responsibility centres; software and automation. The tasks for accounting for financial results and methods of analysing accounting data for the future were clarified. The obtained results can be used in the work of agricultural enterprises, educational and scientific process of higher education institutions

Keywords: income and expenses; unification; indicators; standards; automation; management

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INTRODUCTION

An important component of the work of accounting departments or services in agricultural enterprises is the reflection in accounting, evaluation and interpretation of the financial results of their business for management purposes. Financial results in the form of profits or losses are the most convincing indicator of the efficiency of their functioning and development; sustainability potential and prospects for improvement; and the basis for forecasts. Profits are a source of innovation, acquisition of resources and organisation of production processes. Losses, on the contrary, signify threats, risks and even liquidation.

Throughout the history of accounting, many different ideas and statements have arisen regarding the organisation of profit and loss accounting. However, virtually all scholars have come to the conclusion that the main purpose of accounting for financial results is to provide information not just about profits or losses, but also to identify and analyse the reasons for their creation. As for identifying the features of the financial results of agricultural enterprises, according to Yu. Haibura (2021), these issues remain controversial. In the work of V. Zhuk *et al.* (2023) the financial results of agricultural enterprises are identified as an important subject of accounting and management. However, the peculiarities and, at the same time, the problems of their establishment lie in the differences in the methodology of tax and financial accounting. These peculiarities are also typical for accounting for the financial results of enterprises in other industries.

Identification of the factors that determine the financial results of agricultural enterprises is important for identifying the peculiarities of accounting for their financial results. However, if in the past the traditional causes of influence on financial results were two large groups of factors: production factors on the one hand and taxation institutions on the other, at the present stage of development of agricultural enterprises they are undergoing significant changes and additions due to the development, significant complication and modernisation of the accounting systems and its instruments. This is also pointed out by O. Nazarenko & R. Lukash (2018).

The subject of the article by N. Pasenko (2017) is the organisation of accounting and analytical support for managing the financial results of an enterprise. T. Kosova *et al.* (2019) also consider analysis methods and tools for making effective management decisions. Considering the chosen area of research important, the authors consider it necessary to focus on the organisation of financial results accounting, but do not separate agricultural enterprises to identify their specifics, which, in turn, was done by N. Potryvaieva *et al.* (2022).

O. Leha *et al.* (2021) study the organisation of accounting for travel agents. The authors consider specific aspects of accounting and financial reporting in this industry. The authors' views are supported by the conclusions that there is industry specificity in the organisation of financial results

accounting and the need to find its features that allow for further unification and standardisation both under national regulations and international standards. This conclusion is also confirmed in the article by L. Sas *et al.* (2023), which is devoted to identifying the impact of international standards on the accounting system of Ukraine, in particular, in the field of financial reporting. Against the background of these works, it is possible to extend the already described conclusions and proposals to the organisation of accounting for the financial results of agricultural enterprises.

H. Filatova *et al.* (2022) consider the theoretical aspects of accounting support for sustainable development reporting and conduct a bibliometric analysis on this topic. The concept of sustainable development reflects the functioning of macroeconomic systems and regions. Therefore, they are valuable for comparing methodological approaches and practical solutions to accounting for the financial results of agricultural enterprises as their possible organisational and structural elements.

In accounting theory and practice, there is no clear definition of the concept of profit, there are only a few alternative ways of interpreting it, so there is a need to clarify the economic essence of this term. The next problem is that national accounting regulations (standards) and tax legislation define different indicators of profit. Therefore, it is necessary to investigate and solve the problems of practical organisation and implementation of the methodology of reconciliation of accounting and tax profits as the quintessence of financial results, to determine their features at the level of agricultural enterprises, which formed the purpose of this study.

MATERIALS AND METHODS

The methodological basis of the study was a systematic approach used to analyse the general theoretical foundations of the organisation of financial results accounting and to substantiate practical ways to improve it. The systematic approach was fundamental in determining the set of factors of formation of financial results and their structure; composition of financial results; problems of their accounting and directions of their solution. Hermeneutic and historical methods were used for a comprehensive analysis of scientific publications on accounting for financial results of agricultural enterprises in order to identify the specifics at the level of agricultural enterprises that require in-depth research and solution.

Logical analysis allowed to systematise and establish cause and effect relationships between various factors affecting financial results. Induction and deduction are used to clarify specific financial parameters and analyse them in terms of their impact on the overall performance of the enterprise. Accounting methods such as documentation, valuation, inventory, calculation, double entry and balance sheet preparation are important for determining the financial position of an enterprise, correctly reflecting financial results and making informed management decisions.

The method of expert assessments was used to collect qualified assessments and recommendations from experts on the state of accounting for financial results in the field of agricultural enterprises, which allowed to obtain valuable conclusions and guidance on improving the accounting system to increase the efficiency and accuracy of financial reporting. The method of functional logical analysis allowed to systemise and establish relationships between different elements of the accounting information model of financial results of agricultural enterprises. This approach contributed to a more accurate understanding of the accounting processes and ensured more convenient use of the data obtained for analysis and management decision-making. The study was based on legislative and regulatory documents governing the accounting of financial results of agricultural enterprises at the national and international levels (National Accounting Regulations (Standards), n.d.). The work was carried out on the basis of an analysis of modern scientific approaches to the development of methodological and practical accounting principles.

RESULTS AND DISCUSSION

The formation of financial results of agricultural enterprises covers three interrelated processes in the activities of agricultural enterprises: supply, production and sales. These processes require fixed and variable capital of the owners. In the production process, the necessary and additional products are created, which is reflected in the value added. However, profits do not always coincide with added value due to the relationship between supply and demand and the impact of market prices. Depending on this, capital owners may receive a loss, zero financial result or profit. Profit (loss) is an increase (decrease) in the company's advanced capital and is defined as the arithmetic difference between income and expenses during the reporting period. This result is intended to meet the needs of the company's owners, employees, investors and the state. It is defined as an economic form of surplus product or added value (Solomatina, 2019).

Financial results are a universal category that takes into account both sides of the main task or mission of the functioning and development of agricultural enterprises in the market: how much is received and at what cost it is achieved. The general economic essence of financial results is a comparison of income and expenses during the reporting period. Expenses, in turn, represent the cost of resources that are put into circulation to achieve economic benefits, namely income. If the company's operations are efficient, this is reflected in the financial results in the form of profit. In case of failure, it can lead to losses and jeopardise the further existence of the business entity in the field of agricultural production. That is why the organisation of effective accounting and analysis of the financial results of an enterprise is important for their optimisation (Likhonosova & Lazebnaya, 2019). This is one of the most pressing problems of accounting methodology and practice, in particular, in relation to accounting for income and the formation of financial results of enterprises, including agricultural enterprises.

Due to differences in methodological approaches to accounting, there are differences in the methods of reflecting business transactions that form financial results. These differences lead to different values of these indicators even in the same agricultural enterprise for different users of financial statements. Since agricultural production has its own technological and economic characteristics, this affects the process of determining financial results. For example, calculating the cost of production only once a year, as of 31 December, allows for an accurate determination of the financial result only at the end of the year. Since the agricultural sector is subject to a fixed agricultural tax, as well as various privileges and subsidies, it is important to distinguish between financial results from agricultural and other activities. Ukraine, as a major agricultural country, has initiated improvements to International Accounting Standard No. 41 (2023) and developed a national standard for accounting and reporting in agricultural activities (National Accounting Standard No. 30 "Biological Assets") (National Accounting Regulations (Standards), n.d.). This standard introduced changes to the methodology of accounting for agricultural assets, their valuation and recognition, expanding the methodology for determining financial results in this sector, which requires further verification and implementation in practice.

One of the oldest stages in the formation of profit accounting information was the establishment of the cost and income accounting system (Biriuk *et al.*, 2023). This process included the establishment of the facts of economic life through inventory and direct registration of property, as well as the development of the capital account. The stages of the evolution of profit accounting in the accounting system were formulated on the basis of a study of scientific economic thought and accounting practice. The financial results of agricultural enterprises are defined as the difference between income and expenses, or the increase or decrease in equity during the reporting period (excluding changes resulting from contributions or withdrawals by owners). The main components are revenues, expenses, losses and gains, as well as additional items such as equity and depreciation. Profit is considered to be the key financial result and is defined as the difference between the total amount of income and expenses for the production and sale of agricultural products. All of these categories are reflected in the accounts, according to the Chart of accounts for accounting (n.d.), and in the balance sheet and income statement, using the recommendations of National Accounting Regulations (Standards) No. 1; 15; 16; 25; 27; 29; 30; 31 (National Accounting Regulations (Standards), n.d.).

Accounting for the formation of financial results is based on three interrelated processes in the activities of agricultural enterprises: supply, production and sales. Each of these processes, at the level of its own subsystems, has an important task of determining the quantity and value of the results obtained. The financial results are also disaggregated by type of activity, such as crop production, livestock production, and others. Taken together, this means a

systematic approach to accounting and evaluation of financial results. It provides a high level of accuracy and visibility, facilitates management decision-making and increases the competitiveness of agricultural enterprises. Enterprises have the opportunity to choose the directions and volumes of profit (income) use, but the state can influence these decisions by setting standards, taxes, tax benefits and economic sanctions in accordance with the

current legislation. Therefore, in order to effectively determine the financial results of agricultural enterprises and correctly account for the use of profits, it is necessary to constantly take into account the current requirements of regulations and their changes. The organisation and implementation of accounting for the financial results of agricultural enterprises, including profit, is regulated by laws and regulations of Ukraine (Table 1).

Table 1. Key documents and laws regulating financial and accounting activities in Ukraine

Name of the document or code	Description
Law of Ukraine No. 996-XIV (2022)	Establishes the basic principles and standards of accounting and financial reporting for all enterprises in Ukraine.
Commercial Code of Ukraine (2023)	Regulates relations in the field of economic activity, including the rules for concluding contracts, property, bankruptcy, competition, etc.
Labour Code of Ukraine (2023)	Contains rules governing labour relations between employees and employers, including working conditions, remuneration, holidays and other aspects of the labour process.
Land Code of Ukraine (2023)	It defines the procedure for ownership, use and disposal of land plots, the rights and obligations of land relations subjects.
Tax Code of Ukraine (2023)	Establishes the rules for taxation of various types of activities and incomes, including income taxes, personal income tax, value added tax, etc.
National Accounting Regulations (Standards) (n.d.) No. 1; 15; 25; 27; 29; 30	Determines the methodology and rules of accounting for various transactions and financial operations, including standards for the recognition of income and expenses, valuation of assets and liabilities, preparation of financial statements, etc.
Charter of an Agricultural Enterprise	Define the legal status and basic provisions for the organisation and operation of an agricultural enterprise.
Important Departmental Instructions and Guidelines and Clarifications	Contains guidelines and recommendations on the application of regulations in accounting and financial reporting practice.

Source: authors' development

In the context of regulatory regulation of accounting, formation and use of profit in agricultural enterprises, its classification plays an important role, as it facilitates analytical accounting of profit. Profit is also the object of distribution: at the first stage, it is distributed between the enterprise and the state through taxation; at the second stage, intra-enterprise distribution of profit is carried out to

increase equity, ensure economic activity, pay dividends, etc. Law of Ukraine No. 996-XIV (2022) also establishes a list of financial reporting documents (Table 2). Small enterprises prepare financial statements in a simplified form. The forms of financial statements are approved by the Ministry of Finance of Ukraine and agreed with the State Statistics Service of Ukraine.

Table 2. Financial reporting documents and their functions

Title of the financial reporting document	Description
Balance sheet	Reflects the financial position of an entity as at a particular date, including assets, liabilities and the balance between them.
Statement of financial results	Displays the income and expenses of an entity for the reporting period, including profit (or loss) for the period, operating profit, financial income and expenses.
Statement of cash flows	Displays cash flows in the company for the reporting period, disclosing their origin and use.
Statement of equity	Displays changes in the company's equity for the reporting period, including profit (or loss), additional contribution to the charter capital, dividends, etc.
Notes to the statements	Contains additional information and explanations on key indicators, accounting methods and other circumstances that affect the preparation of financial statements.

Source: authors' development

In the methodology of researching the financial results of agricultural enterprises, an important place is occupied by determining absolute and relative indicators of liquidity; solvency; and profitability. Different methods are used to determine profitability indicators, which have their advantages and disadvantages. The same applies to determining and evaluating financial results. One of them is based on cost-based accounting in large agricultural

enterprises. The other involves determining the financial results of activities in general – in small enterprises. According to the rules of National Accounting Regulations (Standards) No. 30 “Biological Assets” (National Accounting Regulations (Standards), n.d.), the concept of “fair value” is used to measure financial results for the valuation of products. However, the name itself is not quite correct, because the assessment is carried out by people,

so it is subjective, i.e. it can be emotional, biased, and unfair. This creates significant problems and doubts about the reliability of financial results.

The values of financial results obtained as a result of different methodological approaches may have certain discrepancies and may be of interest to different stakeholders. Based on National Accounting Standards No. 1; 25, these are investors and the state; based on National Accounting Standard No. 30 – various users (National Accounting Regulations (Standards), n.d.); based on Tax Code of Ukraine (2023) – tax authorities and the state. However, in all cases, it is necessary to achieve reliability and timeliness for high-quality management, efficient operation and competitive development of agricultural enterprises as the basis of the country’s food security.

In the future, the task of rationally organising analytical accounting of financial results in agricultural enterprises is to accumulate data on the income and expenses of the enterprise in the context of reporting items from the beginning of the year with an increasing total on analytical accounts of financial results during the year. This will allow for control, comprehensive analysis and use of these data in the processes of management, planning and forecasting of activities (Shevchuk & Bondar, 2019).

Management of financial results should be organised so that at the end of each reporting period the data can be easily entered into the relevant sections of the income state-

ment. Accounting for the financial results of an agricultural enterprise should ensure timely reconciliation of income and expenses by type of activity to assess the prospects for their development and ways to improve financial stability, productivity, management efficiency, competitiveness and positioning in the agricultural sector markets (Rzaiev & Drahochynska, 2019).

Much attention is focused on the development of methodological approaches and practical solutions to improve the organisation of accounting, profit generation and distribution. Improving the organisation is based primarily on clarifying the tasks of accounting for retained earnings. Among these tasks, the following are important: systematic and complete documentation of the facts of income and expenses from various activities; detailed recording of information on income and expenses in the forms of synthetic accounting and reporting; accurate, complete and timely determination of financial results for further formation of information support for management; creation of a database of accounting indicators for the efficient formation, distribution and use of profit; timely replenishment of reserve capital and settlements with participants who have a right to receive profit. The next stage in improving the organisation of accounting is analysis. The collected data is subjected to detailed analysis in order to develop a strategy for management decisions on the formation and distribution of financial results (Fig. 1).

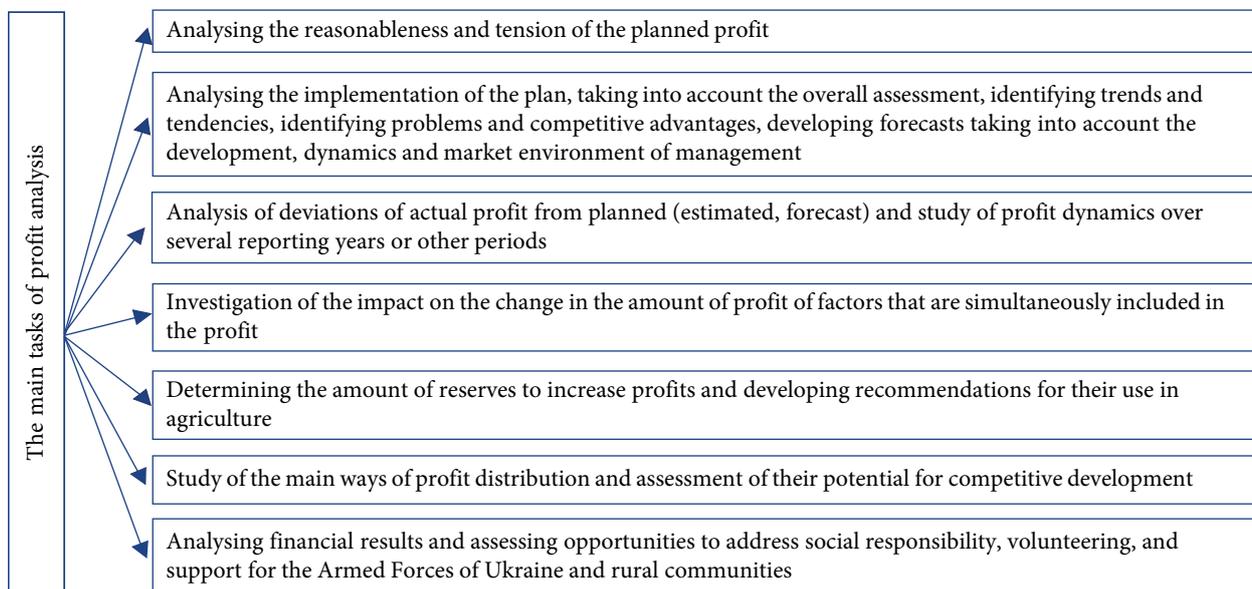


Figure 1. The main tasks of profit analysis

Source: authors’ development based on L. Kostyrko *et al.* (2021)

When analysing profit, it is important to examine other key aspects related to the profitability and competitiveness of an agricultural enterprise. For example, the financial result from operating activities takes into account the financial results arising from: the initial recognition of agricultural products and additional biological assets; sales of agricultural products and biological assets at fair value with

expected costs at the point of sale; changes in the fair value of biological assets at the balance sheet date, which are measured at fair value with expected costs at the point of sale. These aspects contribute to a deeper understanding of the financial position and the implementation of strategic decisions to improve the efficiency and competitiveness of the enterprise.

National Accounting Standard No. 30 “Biological Assets” (National Accounting Regulations (Standards), n.d.) establishes the basic principles for determining financial performance in agriculture. However, there is no unified methodology for determining financial results for agriculture. Existing practices do not always correspond to the real model of the country’s market economy, as the financial result is often determined not after the sale of agricultural products, but immediately after they are received from production (Peniak & Horokhovatska, 2020). In all other sectors of the national economy, the financial result is determined at the stage of sales, not production.

To summarise the main material of the study, it should be noted that a large number of authors have made a significant contribution to the development of methodological and applied issues of organising and accounting for the financial results of agricultural enterprises, understanding their specific features. This made it possible to generalise and deepen their conclusions. Thus, F. Butinets & A. Drabanich (2016) studied the importance of integrated accounting as an effective tool for enterprise management. They examined methods and approaches to the organisation of integrated accounting, its role in making management decisions and ensuring a stable financial condition of enterprises. In other words, this demonstrates the possibility and necessity of harmonising financial and tax accounting of financial results, as noted in this article. M. Ihnatenko & L. Marmul (2017) study the processes, methods and tools that help in the evaluation and analysis of financial and economic indicators. The authors of this study share scientific views on accounting, evaluation and diagnostics of financial and economic results in the context of strategic management of enterprises and organisations.

T. Kosova *et al.* (2019), considering the aspects of financial regulation of accounting, management, and core business activities of enterprises, consider it to be aimed at preserving and increasing the capital of business entities in agribusiness. The authors of this article believe that an effective organisation of financial results accounting will contribute not only to the improvement and increase of the efficiency of accounting and management itself, but also to the growth of profits and, on its basis, the capital of agricultural enterprises. In this sense, the author’s study of the mechanisms and instruments of financial regulation for achieving sustainable development of agricultural enterprises is particularly valuable. Fully supporting the proposed direction of research, the above study pays more attention to the organisation of accounting for financial results and their features. After all, it is the results of accounting and its reliability that are the basis for justifying the methods and instruments of financial regulation.

H. Nazarova *et al.* (2020) analyse the procedures for the formation of financial results accounting and indicate areas for their further improvement. The authors consider modern approaches to accounting and analysis of financial results of enterprises. The article also draws valuable conclusions for theory and practice regarding the principles

and mechanisms of accounting for financial results for enterprises in general. They can also be used to organise accounting for the financial results of agricultural enterprises, but their activities are significantly different from those in other industries and have their own specifics. Therefore, by focusing in this article on the accounting of financial results at the stage of agricultural production and sales of products; specifics of cost items of production cost; differences in the methodology for determining the financial results of small agricultural enterprises and the financial results of medium and large agricultural enterprises, it was possible to develop recommendations on priority areas for improving the accounting of financial results and focus on their deepening in the future.

It should be noted that the last five years (2019-2023) in Ukraine are characterised by significant scientific results in the field of substantiating the organisation of accounting for the financial results of enterprises in general. They relate to various aspects of this issue, namely: accounting methods; accounting and analytical procedures; national regulations and international standards; use of results in management; development of tools and methods to improve accounting and management, financial regulation in order to increase the capitalisation of enterprises. Much fewer publications relate to research on the organisation of accounting for financial results of sectoral enterprises (agricultural, tourism, energy, etc.) and the identification of its specifics.

CONCLUSIONS

As a result of the analysis of monographic sources and practical experience, it was found that many scholars and practitioners address the problems of organising, implementing and improving the accounting of financial results of agricultural enterprises. The main problem is usually the differences between financial accounting and tax legislation; lack of clarity of rules and methods in national accounting regulations (standards) and international financial reporting standards. Accordingly, the recommendations for its solution relate to unification and harmonisation. Agreeing with this assessment of the situation and supporting the proposed recommendations to some extent and supplementing them, it is important to clarify the specifics of determining financial results in agricultural enterprises. They are related to the specifics of agricultural activities, namely: seasonality of production; mismatch of periods of expenses and income; long production cycle; use of wildlife resources as fixed assets; significant diversity of activities and significant differences between them. The latter led to the opinion that in order to improve the accounting of financial results and profit, including them, in agricultural enterprises, it is important to clarify the functions and tasks of analytical and synthetic accounting, analytical accounts in each particular enterprise. Analytical accounts of financial results should systematically reflect data on income and expenses from the beginning and throughout the year. This will help ensure their logical comparison and use for management purposes. In addition, it is important

that the objectives of financial performance accounting and the purposes of accounting data analysis are appropriately matched to the specifics of agricultural enterprises, including their specialisation, cost centres and distribution of responsibilities. This will help to bring accounting closer to the needs of management, increase the importance of profit accounting as the quintessence of financial results. Prospective research in this area is to continue developing an effective mechanism for their management. To this end, it is advisable to develop a strategic programme for the development of accounting activities and present proposals

for its improvement in terms of accounting for financial results on the basis of automation.

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CONFLICT OF INTEREST

None.

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Організація обліку фінансових результатів аграрних підприємств України та її удосконалення

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Анотація. Актуальність організації обліку фінансових результатів аграрних підприємств України полягає у необхідності забезпечення якісного інформаційного базису для управління та прийняття стратегічних рішень в умовах постійних змін у сільському господарстві та міжнародних стандартів. Удосконалення цієї системи сприяє підвищенню конкурентоспроможності аграрних підприємств, їхній ефективності та прозорості в оцінці результатів діяльності. Метою статті є обґрунтування перспективних напрямів удосконалення організації обліку фінансових результатів аграрних підприємств на засадах виявлення його особливостей у сільськогосподарському виробництві та з використанням сучасних технологій програмування й автоматизації облікових процесів і робочих місць працівників бухгалтерських служб. Методологія дослідження використовувала системний підхід, герменевтичний, історичний та логічний аналізи, метод експертних оцінок та функціонально-логічний аналіз. Встановлено, що облік фінансових результатів та його організація мають суттєві особливості на рівні аграрних підприємств. Вони стосуються сезонності і нерівномірності виробництва протягом календарного року; використання в якості основних засобів виробництва елементів живої природи – землі, сільськогосподарських рослин та основного стада тварин. Також це певна неузгодженість облікових стандартів і міжнародних стандартів фінансової звітності. Це і відсутність єдиної методики визначення та оцінки фінансових результатів для малих і великих підприємств. Виявлення недоліків дозволило розробити пріоритетні напрями її удосконалення: узгодження національних положень обліку фінансових результатів як основи його системної організації; узгодження національних і міжнародних стандартів; уніфікація кількісних показників та їх переліку для оцінки і діагностики фінансових результатів; удосконалення аналітичного обліку за центрами виникнення витрат та центрами відповідальності; програмного забезпечення та автоматизації. Було уточнено завдання з обліку фінансових результатів та методи аналізу облікових даних на майбутнє. Отримані результати можуть бути використані у роботі аграрних підприємств, навчально-науковому процесі закладів вищої освіти

Ключові слова: доходи і витрати; уніфікація; показники; стандарти; автоматизація; управління



Crowdfunding as a socio-economic opportunity for state support

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Abstract. In the current economic environment, most enterprises have been affected by the political, economic, social situation in the country and the quarantine restrictions of 2019-2021. In the context of the development of computerization and informatization, the role of crowdfunding as an alternative way of financing creative ideas, startups, innovations, new technologies, and socially significant projects is growing. The purpose of the study is to reveal the essence of the concept of crowdfunding, its formation and development in Ukraine. The study is based on theoretical generalization, comparative analysis, methods of analysis and synthesis, which made it possible to argue the prerequisites for the successful development of crowdfunding in Ukraine and the directions of its state legislative management. It is found that crowdfunding is a tool for financing small or medium-sized business projects through an open call on the basis of social networks or the Internet, having a material or moral basis for the interest of potential investors. The principles that are characteristic of crowdfunding in terms of targeting, investor interest in the project, publicity, and the benefits of the future investor are outlined. Thanks to the SWOT analysis conducted in the study, the types of crowdfunding business models were revealed. The criteria for assessing the level of development of crowdfunding are proposed: the degree and timeliness of information support, the level of activity, diversification of platform types, interaction of the resource with the banking sector, the level of public awareness, the level of government influence. The state regulatory policy on crowdfunding in different countries is analyzed and its financial management in Ukraine is proposed. It is established that in the conditions of insufficient financial resources, crowdfunding is a qualitative alternative to standard investment methods, and its main environment of subjects in Ukraine is medium-sized enterprises. The practical value of the study is to identify the factors that impede the development of an alternative method of financing in Ukraine, as well as to provide recommendations for the further functioning of crowdfunding in the country

Keywords: principles; criteria; types of business models; state regulation; Internet platforms; social networks

INTRODUCTION

The financial crisis has become typical for most businesses, which have faced the problem of finding and selecting sources of investment. In the context of the full-scale war

in Ukraine, it has become more difficult for enterprises to exist and develop, and it is difficult to access loans. There was a need for significant financial support and the desire

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of enterprises to develop and use additional ways of financing to develop their activities, to develop their business and innovation activities more.

The study by L. Yaremenko *et al.* (2021) shows how small and medium-sized enterprises found themselves in a situation of limited access to credit and additional financing for a specific area of activity. In developed countries, the solution to this problem can be found in many ways through online platforms, the impact of which is felt around the world (Versal & Dudnyk, 2021). At the same time, Yu. Krylova (2020) pointed out that in developing countries, crowdfunding is one of the ways of financing that can change traditional business management and support the financial situation in scientific institutions. In the context of the development of Ukraine's market economy, the search for various sources of funding is becoming increasingly important for both scientists and entrepreneurs (Gierczak *et al.*, 2023).

During 2019-2023, there is a radical change in the methods and attraction of funding for innovation and investment projects. Technological advances have contributed to the emergence of new innovative business solutions, in which digital consumption of information plays a large subjective role. Crowdfunding plays a significant role, authorizing a wide range of people to finance some innovative and investment projects of a socio-economic nature through online platforms at the expense of shared funds (Homotiuk, 2022). Scientist C. Medina-Molina *et al.* (2019) noted that crowdfunding platforms allow the development of social investment areas that are not institutional investors, such as the state, investment funds, business representatives, venture capital units, and others. In this form, crowdfunding can be implemented in various areas, such as economic start-ups, support for small and medium-sized businesses, investment in cultural events, public and political organizations, etc. T. Baumgardner *et al.* (2017) also noted that crowdfunding allows to receive additional funding in the form of various investments due to financial benefits, social and environmental aspects of impact and personal needs and interests, and M.K. Poetz & M. Schreier (2019) concluded that crowdfunding is an innovative source that allows to attract funding for new innovative entrepreneurial projects from a large number of people involved through Internet platforms.

The purpose of the article was to deepen the theoretical and methodological foundations and opportunities for the formation and spread of crowdfunding in the context of official stock market transformations. Despite the rapid popularization of crowdfunding in the world, research on this issue in Ukraine is just beginning. The characteristics and prospects of using crowdfunding in general, as well as crowdfunding platforms, remain unexplored by scholars. Research into the above issues will allow crowdfunding to become a more effective, innovative and alternative method and tool for financing projects and entrepreneurial activities, and to expand the range of awareness of this concept and its use.

MATERIALS AND METHODS

The theoretical and methodological basis of the study was the scientific works of Ukrainian and European scholars on the activities and formation of crowdfunding, materials from periodicals, online sources, educational materials and scientific works of the authors on this topic. The study used various general and specific research methods. In particular, using abstraction, a theoretical framework was developed to assess the impact of crowdfunding on government support and socio-economic development, including theories of social capital, financial inclusion, and entrepreneurship. In the context of the study of crowdfunding as a socio-economic opportunity for state support, the inductive approach was applied at different stages of the analysis: data collection, case analysis, and conclusion. The deductive method provided a rigorous and systematic approach to testing theories and hypotheses, allowing for the establishment of cause and effect relationships.

The article also uses the methods of a systematic approach, logical generalization and comparison, synthesis, structural and logical analysis, graphical method and grouping method. The methods of analysis, synthesis, grouping, comparison and generalization were used to reveal the essence of crowdfunding, clarify the conceptual and categorical apparatus and improve the typology of crowdfunding. Structural and logical analysis helped to create models of crowdfunding project implementation, and the graphic method was used to visualize the results of the study. Additionally, a systematic approach and methods of classification and SWOT analysis were used to reveal the business models of crowdfunding. The criteria for assessing the level of crowdfunding development were determined by the methods of cognition, classification, synthesis and analysis. The study of the state regulatory policy used the methods of analysis, synthesis, logical generalization and comparison. The method of example was used to study the impact of crowdfunding platforms on social entrepreneurship, and the case study method was used for real-life analysis of phenomena directly related to crowdfunding.

RESULTS AND DISCUSSION

The main goal of improving Ukraine's public financial structure should be to generate modern financial structures, among which crowdfunding plays an important role (Mazaraki & Volosovych, 2016). Crowdfunding connects lenders and borrowers through online platforms. Crowdfunding is aimed at financing innovative and investment projects that are not profitable for ordinary stock market participants (Sharma *et al.*, 2017). The analysis of the studied sources made it possible to establish the existence of three main approaches to the concept of crowdfunding as a business solution that calls for affordable, effective fundraising in general and for a specific pilot project. Crowdfunding is based on principles, namely:

- ◆ Targeted direction. The basis is the definition of the goal, the task of applying the future attracted investments in cash. Also, investors are expected to be selected for a future pilot project, which is determined at the first stage of project development, precisely when developing a strategy for attracting and raising additional funding.
- ◆ Investors' interest in the project, which is manifested through the approval of the amount of remuneration, donations in the form of cash.
- ◆ Publicity, including information transparency through incentives and additional funding.
- ◆ Benefit of the future investor when he makes investments in the form of allocations.

The assessment of the development of crowdfunding as one of the elements of alternative additional financing of the state can be carried out according to the following criteria: the degree of development of communication support, the degree of activity, diversification of platforms, cooperation of platforms with the banking system, the degree of awareness of communities or communities, the degree of public administration (Table 1). In the scientific literature, the concept of "5Ps" is used to classify crowdfunding, similar to the marketing mix, which is formed from the "4Ps" (sales, communication, price, product) (Moeller, 2008; Bakhur, 2021). Thus, the concept of "5Ps" is the five main components of the crowdfunding system (Fig. 1).

Table 1. Criteria for assessing the development of crowdfunding

Criterion	Description
Degree of communication support	Systematic collection, processing, and summarization of statistics on the state and development of industry.
Degree of activity	Increased activity and interconnection with regular activities of the developing country. The absence of language barriers only helps to expand the geography of platforms.
Diversification of platforms	The operation of multi-sectoral platforms without any obstacles or restrictions on their activities.
Cooperation of platforms with the banking system	Strengthening the cooperation of platforms with the banking system through the cooperation of existing platforms and banks.
Degree of awareness of communities or communities	Increasing the degree of socio-economic erudition of the population, especially regarding the prospects and methods of obtaining funds: social, scientific, innovative startups in the context of high cost of traditional financial resources.
Degree of government regulation	Existence of various socio-economic requirements that regulate the functioning of certain types of crowdfunding.

Source: developed by the authors on the basis of J. Alwidian & R. Al-Omouh (2019)

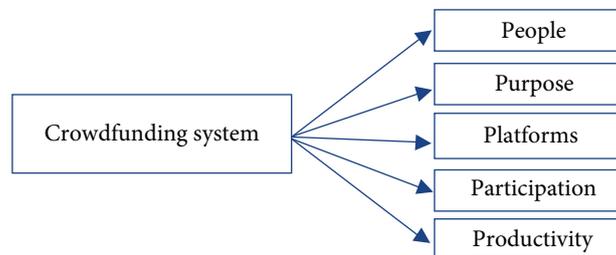


Figure 1. Components of the crowdfunding system

Source: developed by the authors based on T. Torris (2017)

Crowdfunding as a way of raising funds appeared around the 2000s. Initially, it was the music industry, and this process was used as a driving force to promote music compositions through the global Internet. The main idea behind crowdfunding was to attract investment by reaching a wider audience. Therefore, all the links or actors in the process are important. Over the years, certain trends have emerged in the process. These are mainly ideas of humanitarianism, and in practice, opportunities to solve global problems of modernity: ways to integrate artificial intelligence into society, create jobs that will not be affected by such integration (re-training of existing specialists). After all, crowdfunding is a platform that promotes the development of shared

values and social responsibility, and it is an example of how it compares favorably with conventional approaches to raising investment capital. Project creators are often highly motivated, engaged, and collaborate with all stakeholders to represent their interests. The platform in this system is a means of communication between creators and investors to resolve various issues related to the project's implementation. The boundary between investor and creator can be easily eliminated, as crowdfunding involves maximum participation in the process, and if desired, the investor can become a creator, and vice versa – the creator can be an investor. Crowdfunding aims to become more socially oriented in order to attract more actors and users (potential actors).

However, crowdfunding is dependent on a large number of external factors, which makes it unstable, but the general acceptance of this process will lead to greater security, which the subjects themselves will be able to guarantee. As of 2023, the proliferation of Internet platforms and cyberspace introduces new opportunities, stereotypes, and ideas that directly affect business practices and change user behavior. However, the efficient execution of various concepts of commercial transactions through online platforms, including the use of electronic payment systems, is crucial. The reliability of the banking system and electronic payment system is important when choosing a project, as it is one of the aspects of security. The operational reliability of e-commerce is of paramount importance to investors, as any problems related to fund transfers can detract from crowdfunding projects.

Investing in an innovative project usually involves active human participation, unlike traditional methods of

investment. In crowdfunding, investor participation goes beyond financial contributions to include creative contributions, service-related support, and even critical feedback aimed at improving project outcomes. Collaboration is central to the crowdfunding system. For example, the Coolest Cooler project, which aimed to develop a new mobile refrigerator with additional features such as USB ports, a flashlight, wheels, a comfortable handle, and a phone charger, initially sought funding of USD 50,000, but received significant investor support and active participation, leading to its success. In the end, he received USD 13.5 million from over 62,000 investors along with the final iteration of the product (Petrenko, 2023). Crowdfunding makes it easier to initiate the realization of an idea at the initial stage of a project with fewer human and financial resources. This is primarily achieved by accelerating the accumulation of funds. Different elements of the 5Ps are formed for each project (Fig. 2).

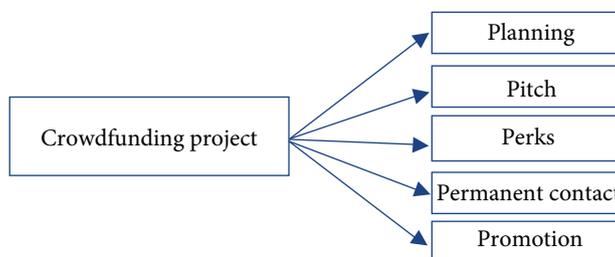


Figure 2. Elements of the functioning of a project to attract investment through the Crowdfunding scheme

Source: developed by the authors

The first step is to place the project on crowdfunding platforms, plan and formulate clear goals, objectives, and goals of the project, specify specific project deadlines, estimate borrowed and personal funds, and describe the uniqueness and significance of the project for future investors.

The successful completion of the project depends on an apt title, well-written and clearly defined characteristics, issues, relevance, future expected results, information about the executors, and a report on the use of the allocations received. The content of the project is also important, as it should be interesting, clear, convincing, effective in attracting investor funding, and attractive and informative for the potential consumer.

When presenting a project on a crowdfunding platform, you need to describe ways to reward investors, which may vary depending on the amount of the contribution. In addition to material and financial rewards, social rewards for investors are often used, such as a letter of appreciation or a review of approval on social media pages or verbally in a personal conversation.

Crowdfunding projects are successful if the specified amount of funds is fully raised (i.e. 100%), and sometimes even more than the specified amount. Such projects definitely have a clear and interesting presentation, video, clear reporting on the proceeds received on social media pages, i.e. open reporting to consumers, continuous contact with the target audience through social media pages, blogs, surveys and polls among subscribers, etc. Daily, continuous content and coverage of the project implementation.

Without well-prepared information (content), it is impossible to win and have a successful project. Therefore, most project authors use and engage social networks, YouTube channels, popular bloggers, media, and provide free social and entertainment content (charity concerts, exhibitions, flash mobs, etc.) to increase interest and promote the project. Crowdfunding has some pros and cons. At the same time, crowdfunding can have both advantages and disadvantages in terms of business development, the state, and entrepreneurial activity (Table 2).

Table 2. SWOT analysis of crowdfunding

Advantages	Disadvantages
<ul style="list-style-type: none"> ◆ creation of new business models; ◆ attracting additional allocations for small and medium-sized enterprises through projects; 	<ul style="list-style-type: none"> ◆ inability to act in opposition to official actions; ◆ inability to apply for additional funding for large projects; ◆ significant disproportionality of data in the implementation of procedures;

Table 2. Continued

Advantages	Disadvantages
<ul style="list-style-type: none"> ◆ opportunities for participation and development of innovative projects; ◆ investment by small and medium-sized businesses; ◆ a fairly easy process of formalizing an investment portfolio; ◆ the possibility of financing municipal projects in the face of the economic crisis. 	<ul style="list-style-type: none"> ◆ a significant level of bankruptcy risk, lack of investor awareness; ◆ information support is asymmetrical; ◆ dependence on external socio-economic factors; ◆ asymmetric awareness, dependence on external factors, low level of demand from investors.
Opportunities	Threats
<ul style="list-style-type: none"> ◆ project implementation requires only a promising idea that can be presented on the website, which allows for evaluation and investment from interested users; ◆ studying the needs of the audience and identifying relevant and important projects; ◆ unique projects that appeal to users have a high potential for popularity; ◆ no restrictions on receiving funding on an equal basis of opportunity. 	<ul style="list-style-type: none"> ◆ high competition between projects of similar topics; ◆ the risk that the idea may become irrelevant even if the developer implements it with high quality; ◆ failure to receive the required amount of funds for the project implementation; ◆ after implementation, the project may not gain wide popularity in the market and may not bring the expected profit to the developers.

Source: developed by the authors on the basis of N. Petrenko (2023)

In Ukraine, the practice of developing and implementing investment platforms such as crowdfunding is rather slow and fragile. The trend is toward a decrease in interest in this type of investment inflow. First of all, crowdfunding requires more work and effort from the developer than the standard financing model. The author has to do everything himself, i.e. develop a project, formalize it, launch it on the market, and then monetize it. The site provides consulting and information support for the entire period of fundraising. Secondly, developers should set a fair price depending on the costs, as anyone can follow this. That is, the possibility of making a markup on the product is minimized, and if there are no analogous products on the market, it is difficult to set the price. Third, the success of crowdfunding depends on the connection between the developer and the user. For the developer, this means coming up with a project idea that will attract people and keep them interested. For investors, it is necessary to find projects that interest them. In addition, crowdfunding projects often do not have the opportunity to take out loans or receive grants, unlike the conventional model (Shevchenko & Kazak, 2019).

The main advantages of crowdfunding platforms are that they greatly simplify the process of starting a business. The costs of popularization can be very low and insignificant, which is very important in today's business environment. Crowdfunding sites have a regular user base that may be interested in new projects and attract people from outside. Second, crowdfunding allows project creators to better control their work. Thanks to a clear plan of action published on the site in advance and available to investors, the creators have a clear schedule. Sponsors, in turn, benefit from crowdfunding as an opportunity to influence the future of the project. The money spent on the project gives them the opportunity to share their ideas with the developers. This leads to another advantage – the ability to establish a connection between the user and the developer, meaning that they can exchange ideas, and the developer has an idea of what the user wants to get from

the project. Thus, the crowdfunding model is more flexible and allows the project to become ideal for developers and future users.

The general process of crowdfunding is based on four models of entrepreneurial activity:

1. The “all-or-nothing model”, which specifies the targeted investment area and a clear deadline for fundraising. If the specified amount of funds is not raised within the specified period, the entire amount is returned to investors. This model is used on all crowdfunding platforms.

2. The “all or more of the above” model is very similar in nature to the previous one, except for the specified period of fundraising, it means that the receipt of funds does not stop after the specified amount is raised (previously prescribed and set by the project goal).

3. The “holding” model, in which a trustee (manager or manager) of a crowdfunding platform organizes a company for a specific project that needs financial support. In this model, the sale of shares and bonds is encouraged.

4. The “club mode” model, where project followers are an important part of the “club of money investors”, their role is to show interest and commitment to the development of a particular project.

To date (2023), the problem of the formation and spread of crowdfunding has been reflected in the research of scientists from mainly European countries. P. Belleflamme *et al.* (2023) noted that the issue of crowdfunding should be disclosed as one of the successful business solutions for financing through online platforms at the expense of shared funds. However, donations, rewards, gifts, and additional contributions in the form of money should also be taken into account. This study agrees with the opinions of the above-mentioned authors and confirms that crowdfunding is an additional and at the same time a new way of obtaining funds that are lacking for enterprises, educational institutions, institutes, etc. The authors of this study believe that this is a new and effective method that has some risks at the initial stages, but ultimately brings its “fruits”.

Scientists A. Ordanini *et al.* (2023) noted that crowdfunding is the first step to attracting additional funding for innovation and investment projects through co-investment from other people. Crowdfunding should be explored as an additional means of financing certain projects through a publicized appeal or co-financing based on the moral and material attention of potential investors. In this article, this issue has been considered in more detail: the authors are closer to revealing the very essence, structure, and principles of crowdfunding in Ukraine, its application, risks, and opportunities. The researchers T. Tovt & N. Drozd (2019) also noted that crowdfunding is a manifestation of different sponsorship markets and trends in the popularization of social investment. In addition, they noted the conditions for using crowdfunding in the prism of the investment process of commercial projects in Ukraine.

A. Bondar (2019) noted that crowdfunding is a system of encouraging investment at the micro level through network platforms for the implementation of various innovative projects without limits. In the opinion of the authors of this article, it is necessary to add that crowdfunding platforms provide innovative investment opportunities, and the definition of crowdfunding can be defined using the term “crowdinvesting”, which will narrow down the cases of economic effect for investors’ investments. S. Tulchynska *et al.* (2017) noted that crowdfunding should be primarily divided into certain types, namely: socially and culturally oriented, crowdfunding ideas, crowdfunding in the business environment and political crowdfunding. There is logic in this division, however, it would be possible to supplement this division with innovative, socio-economic and financial types to increase efficiency, attractiveness, and diversity for investors for future investments. T. Mayorova *et al.* (2019) noted that crowdfunding accelerates the processes of globalization and integration; the emergence of new types of production; mass cooperation; opening up new opportunities for joint, open ownership and access to materials, goods, services (sharing), etc. The authors agree with this opinion, but it would be more correct to note that with the development of Internet technologies, new trends in the investment arena are emerging due to crowdfunding and crowdfunding platforms, which are increasingly strengthening, becoming unshakable, supported by the facts of implemented innovative projects. It should be noted that crowdfunding is developing rapidly from year to year, especially in the socio-economic sector (environment). This leads to additional formation of investment resources and the need to implement innovative projects.

To summarize, it should be noted that in the context of increased competition in the market environment and limited financing of enterprises, crowdfunding is indeed one of the most promising and productive tools for attracting additional allocations, which is confirmed in the scientific

literature. However, the authors who considered this issue did not take into account the influence of factors on the implementation and operation of Internet platforms and crowdfunding platforms. Paying tribute to the scientific achievements of the above-mentioned scholars, it should be noted that many issues require a new vision. The continuous development of crowdfunding in the world indicates its great potential prospects. Therefore, it is necessary to pay attention to the problems of analyzing external and internal factors of the operating environment and the possibility of solving the negative effects of the intensification of crowdfunding development on the market and economic system of the state.

CONCLUSIONS

Given the lack of financial revenues and despite the risk of failure of project authors, crowdfunding is a far-reaching, effective way to attract additional funding in the business, scientific, and educational sectors. At the same time, with the emergence of decentralization in the existing banking system, crowdfunding can become effective for the public and public authorities as an alternative source of financing for innovation and investment projects. Crowdfunding is gaining momentum and becoming an alternative source of funding, which in turn makes it possible to accumulate the necessary funds for the implementation of certain projects at the initial stage. Crowdfunding platforms internationalize projects, increasing their chances of successful implementation. In Ukraine, crowdfunding is gaining momentum, but Ukrainians are using the direction of registering scientists’ projects on European platforms. For crowdfunding to flourish in Ukraine, the challenges discussed in the study need to be overcome, which will create more favorable competition against the traditional methods of financing that exist in the country’s financial market.

Internet platforms give crowdfunding an innovative meaning that is unlike traditional forms of financing, including collective financing. Not only private entrepreneurs, but also the public and communities can address the development of their goals through crowdfunding. Many organizations and communities are already starting to make their pilot projects and steps by using Internet platforms, network technologies, and crowdfunding in general to attract additional funding for the socio-economic development of their activities. Therefore, the prospects for further research are to increase the productivity of using crowdfunding as an alternative financing and marketing of crowdfunding.

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CONFLICT OF INTEREST

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Краудфандинг як соціально-економічна можливість підтримки держави

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Анотація. У сучасних умовах господарювання на більшість підприємств вплинула політична, економічна, соціальна ситуація в країні та карантинні обмеження 2019-2021 років. В умовах розвитку комп'ютеризації та інформатизації зростає роль краудфандингу як альтернативного способу фінансування креативних ідей, стартапів, інновацій, новітніх технологій, соціально значущих проектів. Мета дослідження полягає у розкритті сутності концепції краудфандингу, його становлення та розвиток в Україні. Дослідження ґрунтується на теоретичному узагальненні, порівняльному аналізі, методів аналізу та синтезу, котрі надали можливість аргументувати передумови для успішного розвитку краудфандингу в Україні та напрямки його державного законодавчого управління. З'ясовано, що краудфандинг є інструментом фінансування проектів малого чи середнього бізнесу шляхом відкритого заклику на базі соціальних мереж чи Інтернету, маючи матеріальне чи моральне підґрунтя для зацікавленості потенційних інвесторів. Окреслено принципи, які є характерними для краудфандингу в розрізі цільового спрямування, інтересу інвесторів до проекту, гласності, вигоди майбутнього інвестора. Завдяки проведеному у дослідженні SWOT-аналізу, було розкрито типи бізнес-моделей краудфандингу. Запропоновано критерії оцінки рівня розвитку краудфандингу: ступінь та своєчасність інформаційного забезпечення, рівень активності, диверсифікованість типів платформ, взаємодія ресурсу з банківським сектором, рівень обізнаності суспільства, рівень впливу держави. Проаналізовано державну регуляторну політику щодо краудфандингу в різних державах та запропоновано його фінансове управління в Україні. Встановлено, що за умов недостатньої кількості фінансових ресурсів, краудфандинг є якісною альтернативою стандартним методам інвестування, а його основне середовище суб'єктів в Україні – це підприємства середнього сегменту. Практична цінність дослідження полягає у виділенні факторів, що перешкоджають розвитку альтернативного методу фінансування в Україні, а також наданні рекомендацій щодо подальшого функціонування краудфандингу на території даної держави

Ключові слова: принципи; критерії; типи бізнес-моделей; державне регулювання; Інтернет-платформи; соціальні мережі



Innovative development of Ukraine in the context of European integration processes

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Abstract. The article emphasises the importance of European integration for Ukraine, which is positioned as a key step towards approximation to European standards, gaining access to new markets and stimulating economic development. The relevance of the topic is substantiated by the transformational potential of innovations in combination with European integration for the future of Ukraine. The purpose of this study is to analyse the current state of cooperation between Ukraine and the European Union in the innovation sphere and, on this basis, to propose strategies for creating favourable organisational and institutional conditions that would accelerate Ukraine's integration into the European innovation space. The study uses general scientific methods, including systematic analysis, structural analysis, historical and logical method, scientific abstraction, analysis and synthesis, and systematic generalisation. The article analyses the innovation sector in Ukraine and identifies the challenges that hinder its development: insufficient funding and investment in innovation, lack of effective mechanisms to support start-ups, and an education system that does not give due priority to innovation. The positive impact of European integration on innovation development in Ukraine is highlighted. The authors propose directions for the development of the innovation sector in Ukraine, which focus on strengthening cooperation between business, science and government, developing infrastructure to support innovation and creating incentives for investment in innovation projects. The results of this study are of practical importance for the formation and implementation of a set of organisational and institutional measures that will accelerate the pace of Ukraine's integration into the European Innovation Area

Keywords: innovation cooperation; innovation space; international integration; European Union standards

INTRODUCTION

In the context of globalisation and increasing competition between countries, it is important to constantly improve economic and technological processes. Innovative development is becoming a key factor in ensuring the country's sustainability and competitiveness on the global stage. Ukraine is striving to integrate into the European Economic Area, which provides unique opportunities for the exchange of knowledge, technology and innovation. The topic is relevant because integration into the European Union (EU) encourages the country to adopt new standards and technological development. Innovative technologies can increase the economic diversity of a country, contributing to economic diversification. The development of innovative sectors can reduce dependence on traditional industries,

which is an important issue for stable and sustainable development. Innovative changes not only contribute to economic growth, but can also significantly improve the quality of life of the population. The development of new technologies in healthcare, education and social services can lead to significant positive changes in society. Innovative approaches allow for more efficient resource management. In the context of limited resources, innovations become a tool for improving their use, which is especially important for countries undergoing structural change.

The importance of innovations is growing due to their increasing impact on global socio-economic development. This is reflected in the studies of well-known international and intergovernmental organisations, including the

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Organisation for Economic Co-operation and Development (Machado *et al.*, 2019); the Joint Research Centre (JRC), which provides an overview of technology transfer in Ukraine, including relevant stakeholders, ecosystem strengths and weaknesses, and recommendations for the country to inform technology transfer policy (Cowey *et al.*, 2021).

Since 2022, the number of publications has been increasing, with the main topic being the impact of the full-scale Russian invasion of Ukraine on the country's innovation environment and the thesis that the key direction of economic policy and a tool for rebuilding Ukraine's economy in the post-war period is the country's innovative development. I. Bila *et al.* (2023) analyse the state of the innovation ecosystem in Ukraine and compare the current development of innovations in Ukraine with their development in other countries and recommend that when developing innovation policy, special attention should be paid to structural reforms, effective and transparent use of external assistance and strengthening cooperation between producers and research institutions. V. Omelianenko & O. Omelianenko (2022) conducted a study of innovation as a factor in the recovery and development of countries after military conflicts, and I. Yatskevych (2022) proved the necessity and provided conditions for the creation of innovation clusters in the post-war period of economic development in Ukraine. Publication by O. Mykytyn (2022) is devoted to the study of modern features of the development of innovation activity in the context of intensification of European integration processes, in particular their information aspect and substantiation of the sequence of information support for innovative development in the context of such intensification. Ye. Turchenko (2022) analyses the regulation and development of innovation in the EU and Ukraine, outlines the principles and directions of cooperation between Ukraine and the European Union in the innovation sphere, in particular, in promoting the development of innovation through the creation of appropriate innovation infrastructure.

A wide range of issues related to international cooperation in the field of innovation is considered in the work of H. Dzwigol *et al.* (2020), who presented the concepts of global production networks, the evolution of which is reflected in theories that focus on the local and global dimensions of institutionalisation, corporatisation, as well as technologicalisation and digitisation. Innovation ecosystems are considered in four different research streams: management literature, economic and sociological literature, and policy studies. H. Hollanders (2023) made a comparative assessment of the research and innovation activities of EU member states, the strengths and weaknesses of their research and innovation systems, which helps member states to assess the areas where they need to focus their efforts to improve the efficiency of innovation activities.

However, despite the large number of substantive scientific papers and analytical materials on the issue under study, it should be noted that the issue of innovation

cooperation between Ukraine and the EU remains relevant due to new global challenges and threats, including the full-scale aggression of the Russian Federation against Ukraine, and requires further research. In particular, it is of scientific interest to analyse the state of Ukraine's innovative development and identify priority areas of cooperation with the EU in the innovation sphere in order to accelerate the processes of technological transformation of the economy and society for the successful post-war recovery of the country. The article aimed to contribute to a deeper understanding of the relationship between innovation development and European integration processes in Ukraine, offering ideas that can guide the country's future strategy in these areas.

MATERIALS AND METHODS

The research methodology includes a comprehensive set of analytical tools and theories designed to thoroughly investigate and interpret the complex phenomena of innovation development in the context of Ukraine's European integration choice. This methodological approach is based on general systems theory, which provides an opportunity to comprehensively study the multidimensional and interconnected nature of innovation ecosystems and conceptualise the innovation sector as a dynamic and complex system characterised by nonlinear interactions and continuous evolution under the influence of internal and external factors.

The use of logical-structural and dialectical methods based on the fundamental principles of economic theory allowed for a detailed study of the innovation sector. These methods contributed to a structured analysis of the complex interrelationships and processes underlying innovation ecosystems, allowing to identify systemic patterns, contradictions and synergies. The application of these methods was important for understanding the internal dynamics of the innovation system and uncovering the complex relationship between technological progress, economic factors and social impacts.

To provide a comprehensive analysis of Ukraine's innovation development, the study also includes a combination of general scientific and specialised research methods. Systemic and structural analyses are key to assessing the current state of the country's innovation environment, offering a detailed study of its components, functions and the challenges it faces. The use of historical and logical methods provides insight into the evolution of Ukraine's innovation space and the directions of its further development in the context of European integration processes.

The use of the method of scientific abstraction in combination with the method of analysis and synthesis allowed to deepen the understanding of innovation as a key factor in economic development and European integration, identify promising areas for strengthening Ukraine's innovation potential and offer practical recommendations aimed at accelerating Ukraine's integration into the European Innovation Area by addressing existing gaps and using opportunities for development and cooperation.

A variety of materials and sources were used to write the article, which helped to provide a comprehensive analysis and support for the arguments. In particular, these are scientific articles by scholars from the UK, the Netherlands, Poland, the USA, Ukraine, publications and reports by international organisations (the European Union, the World Bank Group, the OECD), data from the State Statistics Service of Ukraine, and materials from research institutes. It should be noted, however, that the data published in these sources and analysed are limited to 2021.

RESULTS

Innovation is a key driver of economic growth, as new technologies and processes increase productivity, leading to higher gross domestic product (GDP). Countries that actively invest in innovation become more competitive on the global stage by creating unique products and services. Innovations lead to the creation of new industries, companies, and jobs, and help reduce unemployment; improve the quality of life of citizens through the development of new medical technologies, environmentally friendly solutions, and the improvement of education and culture; promote the development of the entrepreneurial environment by stimulating the emergence of start-ups, research centres, and innovation clusters; and allow countries to better adapt to global challenges such as climate change, demographic changes, and economic trends. Thus, innovation plays a crucial role in a country's sustainable and balanced development, contributing to its prosperity and successful integration into the global community.

The importance of European integration for Ukraine's innovation development is significant, as this process can significantly enhance Ukraine's innovation capacity in various sectors. Figure 1 shows several key aspects of how European integration can contribute to Ukraine's innovation development.



Figure 1. The importance of European integration for Ukraine's innovative development

Source: authors' development

Integration with the European Union gives Ukraine access to one of the largest markets in the world. This encourages Ukrainian businesses to innovate and adapt their products and services to EU standards, which are often high and require sophisticated technological solutions. The introduction of European technical standards in Ukraine is envisaged by Law of Ukraine No. 1678-VII (2014). In addition, European integration may attract more foreign investment, including from EU member states, which is crucial for innovative projects. Moreover, Ukraine may be eligible to participate in various EU funding programmes aimed at supporting research and innovation, such as "Horizon Europe" (The Ministry of Education and Science of Ukraine, 2021). Closer ties with the EU facilitate the exchange of technology and know-how. Ukrainian companies and research institutions can participate in joint projects with European partners, benefiting from shared experience and advanced technologies. Integration also facilitates cooperation in education and research. Ukrainian students and researchers have better access to European universities and research centres, leading to knowledge exchange and the development of a skilled workforce that can drive innovation at home.

European integration often requires the harmonisation of regulations with EU standards. This process can lead to a more favourable legal environment for innovation, including better protection of intellectual property, which is crucial for stimulating creativity and technological progress. Being part of the European community allows Ukraine to access an extensive network of innovators, entrepreneurs and experts. This network facilitates the exchange of information, best practices, and opportunities for cooperation that are vital for innovation. Exposure to European cultural and social norms can also influence innovative thinking. This contributes to a more open, diverse and creative environment that fosters innovation.

While European integration offers many opportunities for innovation, it also poses certain challenges for Ukrainian businesses (Glushchenko & Tulenina, 2016). Ukrainian enterprises and institutions will have to significantly adapt their operations and strategies to compete in the European market. This process itself can stimulate innovation, as it requires new solutions and approaches. Thus, European integration is important for Ukraine's innovative development, as it provides access to new markets, investments, technologies and knowledge. It also encourages the improvement of the regulatory framework and promotes a culture of innovation through various exchanges and cooperation. However, in order to take full advantage of these benefits, it is necessary to adapt and overcome certain challenges. A significant problem affecting Ukraine's ability to develop technologically and economically is the lack of funding and investment in innovation in the country. This problem is caused by several factors, which are summarised in Table 1.

Table 1. Factors behind the lack of funding and investment in Ukraine

Name of the factor	Description of the factor
Economic constraints	Ukraine's economy is facing numerous challenges, including Russian aggression, political instability and corruption. These issues can deter both Ukrainian and global investors, resulting in insufficient funding for innovative projects.
Limited government support	Public funding for research and development in Ukraine is relatively low compared to other European countries. This limited support may hinder the development of new technologies and the growth of start-ups and innovative enterprises.
Investors' risk appetite	Investors may be cautious about investing in Ukrainian innovation due to certain risks. These risks may include political instability, uncertainty in the regulatory environment and concerns about the protection of intellectual property rights.
Lack of research infrastructure	Ukraine may lack modern research infrastructure and equipment. Without the necessary infrastructure, it becomes difficult to conduct high-level research and develop cutting-edge innovations.
"Brain drain"	It is typical for Ukraine to see skilled professionals, including scientists, engineers and IT specialists, emigrate in search of better opportunities abroad, which significantly weakens the country's innovation potential. This trend has significantly intensified since the full-scale invasion of Ukraine by the Russian Federation.
Difficulties in accessing capital	Start-ups and innovative enterprises often face difficulties in accessing capital through traditional banking systems. The absence of developed venture capital and angel investor networks in Ukraine also limits the ability to finance innovative projects at early stages.
Underdeveloped innovation ecosystem	The overall innovation ecosystem in Ukraine may lack some key components, such as incubators, accelerators and mentoring networks, which are essential for developing start-ups and encouraging innovation.

Source: authors' development

The data confirming the fact of insufficient funding for innovation in Ukraine is shown in Figure 2. As can be seen, research and development (R&D) expenditures in Ukraine in 2021 amounted to 0.29% of GDP, which is significantly lower

than in the other countries listed, among which Israel is the leader with 5.56%. A significant decrease in this indicator is also observed in Ukraine compared to the previous 2020 – 0.41% of GDP (State Statistics Service of Ukraine, 2020).

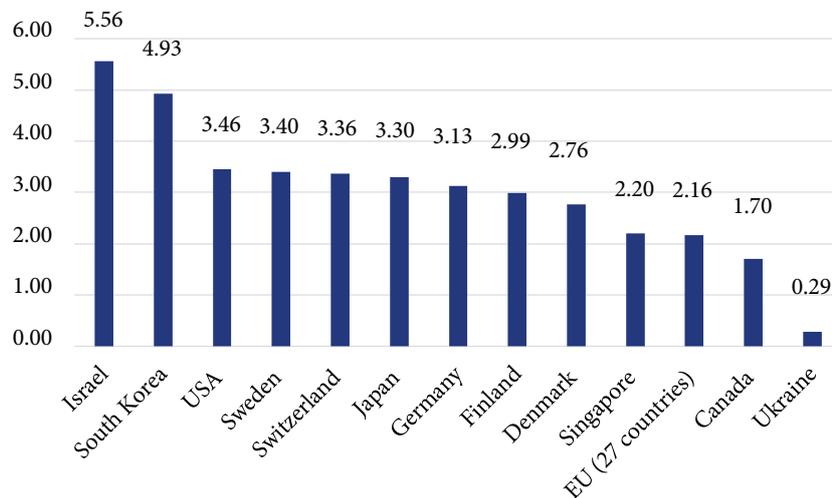


Figure 2. Expenditures on research and development (R&D) in 2021, as a % of GDP

Source: compiled by the authors based on OECD Data (2021)

To address these challenges, efforts should be made in various areas:

- ♦ improvement of the regulatory and business environment, as creating a more stable and transparent business environment can attract more investors;

- ♦ increased public investment, as the government can allocate more resources to research and innovation;

- ♦ infrastructure development, as investments in modern research facilities and technology parks can provide the necessary basis for innovation;

- ♦ promoting public-private partnerships, as cooperation between government, academia and the private sector can lead to more effective innovation strategies.

- ♦ encouraging venture capital and angel investment, as the development of the venture capital sector and angel investor networks to provide the necessary funding for start-ups;

- ♦ preservation of the country's intellectual capital (Radzikhovskiy, 2022).

Overall, addressing the lack of funding and investment in innovation is crucial for Ukraine's economic growth and technological development. This requires concerted efforts by the government, the private sector and the international community. The lack of effective mechanisms to support start-ups in Ukraine needs to be addressed, which is linked to several key factors that impede the development of innovative businesses in the country.

One of the biggest challenges for startups in Ukraine is the lack of access to finance. This includes the limited availability of venture capital, angel investors, and other forms of startup financing. A strong entrepreneurial ecosystem includes not only funding, but also mentoring, incubators, accelerators, networking opportunities and a supportive community. In Ukraine, these elements are not as developed and widespread as in some other countries, which limits the growth opportunities for startups. Although Ukraine has a significant domestic market, start-ups often face difficulties in expanding domestically and internationally. Barriers may include a lack of market knowledge, limited business connections, and problems with compliance with international standards or certifications. Protecting intellectual property is important for start-ups, especially those working with innovative technologies or creative products. In Ukraine, intellectual property rights protection is inadequate and inconsistent, which hinders innovation and leads to hesitancy to invest in research and development. In 2020, Ukraine ranked 29th in the ranking of 100 countries, and in 2021 – 34th (Sak *et al.*, 2022).

Addressing these challenges requires: developing a stronger network of venture capital and angel investors, as well as introducing alternative financing options such as crowdfunding; creating more incubators, accelerators and mentoring programmes to support startups; simplifying bureaucratic processes and creating a more favourable business environment for startups; supporting startups in entering new markets domestically and internationally; improving the legal framework and mechanisms for protecting intellectual property rights in Ukraine. Addressing these challenges requires concerted efforts by both the public and private sectors, as well as a commitment to creating a more favourable environment for start-ups and innovation in Ukraine.

Insufficient attention of the educational system to innovation in Ukraine also hinders the country's entry into the European innovation space. Addressing this problem requires a comprehensive approach, including: updating and modernising curricula to reflect current technological and innovation trends; incorporating more practical train-

ing, internships and real-world problem-solving into the curriculum; encouraging teaching methods that promote creativity, critical thinking and independent learning; investing in STEM education and providing the necessary resources and facilities; and facilitating partnerships between educational institutions and industry to provide students with relevant work experience. By addressing these challenges, Ukraine's education system can better prepare students for the demands of the innovation economy and contribute to the country's overall growth and competitiveness.

Thus, it can be argued that over the five years of the Association Agreement with the EU (2015-2020), the share of innovation in the country's economy has declined. Ukraine has worsened its position in the European Innovation Scoreboard and has not come close to solving the traditional problems that have been inherent in the country's innovation sector for most of the period of independence, namely: low quality of the institutional environment, outdated technologies, weak links between producers and users of innovations, and underdeveloped venture capital market (Pidorycheva, 2022). Ukraine's integration into the European innovation space is the basis that creates conditions for stable and efficient development of the country's economy, as well as strengthening its innovation potential.

The development of innovation in Ukraine should be comprehensive, covering not only economic and technological aspects, but also education, science, culture and the legal framework. The strategy should be flexible to adapt to changing market conditions and needs. The key to the successful development of the innovation ecosystem is the strengthening of cooperation between business, science and government in the field of innovation. This tripartite alliance creates favourable conditions for the transfer of technologies from research to industry, promotes the creation of innovative products and services, and strengthens the country's competitiveness. Strengthening cooperation between business, academia and government requires a comprehensive approach where all parties interact to achieve common goals and stimulate innovation in the country.

An important element of a successful innovation ecosystem is the development of infrastructure to support innovation. This infrastructure includes material and organisational resources that facilitate the development and implementation of new technologies, stimulate research and support innovative enterprises. This includes the creation and development of innovation centres and technology parks, incubators and accelerators, research centres, laboratories and innovation platforms, innovation education centres, technology transfer centres, innovation clusters, improvement of digital infrastructure, and strengthening of international cooperation with innovative organisations, companies and research centres to share experience and resources.

The development of innovations in Ukraine in the context of European integration can be focused on several

key areas. These include structural changes in the economy, support for innovative start-ups, development of scientific research, adaptation to European standards,

and active participation in international research programmes. Figure 3 shows the main areas of innovation development in Ukraine.

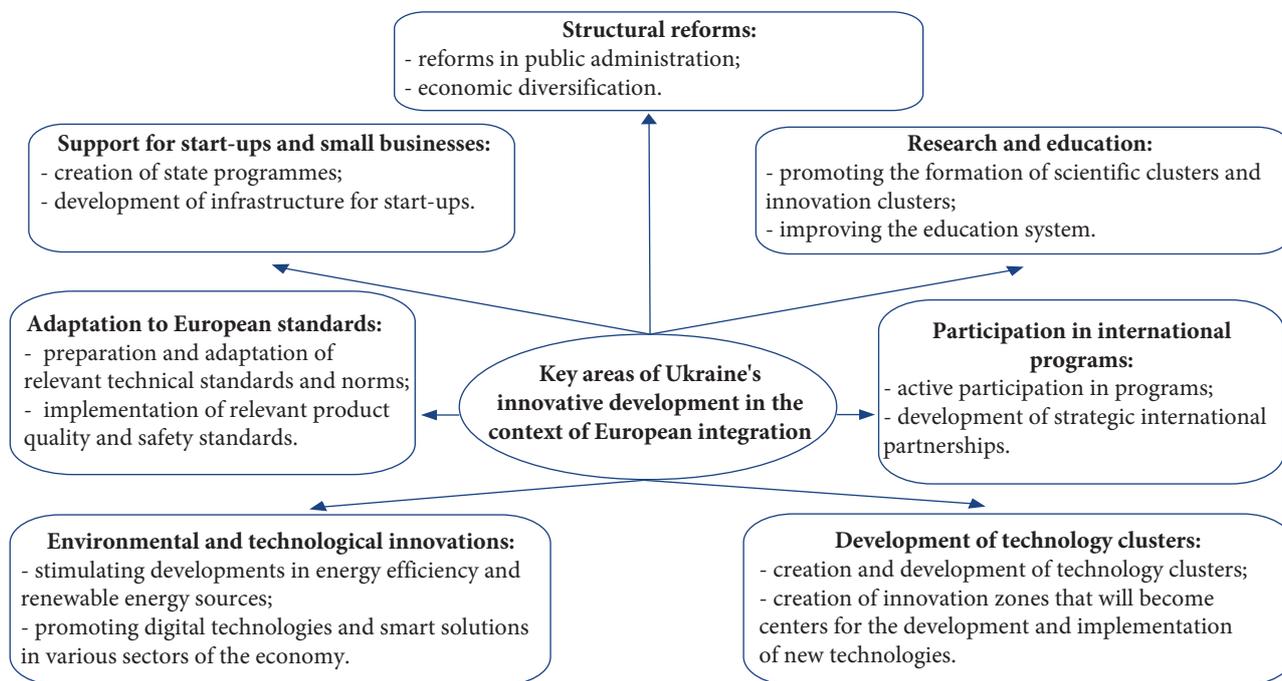


Figure 3. Key areas of Ukraine’s innovative development in the context of European integration

Source: authors’ development

To successfully attract investment in innovative projects in Ukraine, it is necessary to create incentives that will make such investments attractive to potential investors. These include providing investors with tax breaks on profits, investments in research and development, depreciation of technological equipment and other innovation costs; providing financial support from the state in the form of subsidies and grants for innovative projects and start-ups; creating and supporting venture capital funds that can provide investments in the early stages of innovative companies; developing special investment programmes aimed at supporting innovative industries and technology start-ups; and forming innovation clusters in which companies; allocating certain territories or zones with special rules and benefits for innovative enterprises and investors; organising regular investment forums, exhibitions and events where innovative projects can present their potential to investors; providing guaranteed loans for investors investing in innovative projects; actively attracting international investors and forming strategic partnerships to improve access to global investment; creating a transparent and predictable legal environment, as well as mechanisms for the protection of the rights of investors. These incentives should be implemented systematically, creating a comprehensive and attractive environment for investment in innovative projects in Ukraine. It is also important to ensure effective interaction between the state, business, and scientific communities to maximise the positive effect.

DISCUSSION

Numerous scientific studies of innovation processes in the context of Ukraine’s integration into the European space cover many aspects. In Ukraine, research institutions, universities and think tanks focus on the challenges and opportunities in relations with the European Union and its member states. For example, a wide range of issues and areas of cooperation between Ukraine and the European Union in the innovation sphere are studied by researchers at the Institute of Industrial Economics of the National Academy of Sciences of Ukraine. V. Liashenko *et al.* (2018) analyse the prerequisites and directions of Ukraine’s integration into European scientific, educational and innovation networks in the context of the Association Agreement with the EU, focusing on the growing role of regions in innovation-based economic development. The importance of creating an institutional environment favourable to the development of regional innovation systems is emphasised. The authors propose the concept of the “Innovation Elevator: From School to Europe”, which is based on a “linear” methodology and provides for the creation of integrated support for start-ups from their inception in educational institutions to their introduction to the market through a wide network of business studios, incubators, science parks and industrial zones in Ukraine and Europe. This system was created as a means of developing start-ups and innovative projects, providing them with comprehensive support at all stages of development, from the idea to the launch of a product.

The study by O. Vyshnevskiy (2020) formulates the concept of creating an international digital platform that will serve as a means for developing cross-border research, education and innovation. The author notes that, in the context of Ukraine's realities, significant potential for economic growth lies in the areas of innovation and institutional development. At the same time, large-scale innovations require strong scientific and educational bases, which necessitates the intensification and acceleration of innovation, research and education activities in the country and, in turn, emphasises the importance of developing international cooperation. One of the main challenges for the Ukrainian innovation and scientific space is their limited integration into the European innovation ecosystem, which indicates untapped potential in this area. The creation of an international digital platform that would bring together representatives of government, business, research and educational institutions from Ukraine and the EU is proposed as an effective way to tap into this potential.

The strategic directions of European integration of innovation ecosystems in Ukraine and Poland are studied by Y. Kharazishvili *et al.* (2021). The article conducts a comprehensive study to determine the current state and substantiate strategic scenarios for Ukraine's integration into the EU educational, research and innovation space as a source of proactive sustainable innovation development. The authors have analysed the use of foresight technology to determine a possible future and formulated strategies for achieving it using methods developed in various research areas. The scientific substantiation of the strategic scenarios of European integration of the Ukrainian and Polish research, education and innovation spaces in the article is based on the concept of sustainable development, which is based on applied systems theory, management theory and economic cybernetics, which allowed the authors to determine the integrated indices of education and innovation and to substantiate the values of indicators that ensure the desired growth trajectory and achievement of the defined goals of the research, education and innovation spaces of Ukraine and Poland.

The aim of the article by N. Ivanenko *et al.* (2023) is to study the peculiarities of the application of digitalisation of education in Ukraine under the influence of European integration. The study identifies the elements of digitalisation of education, which together can ensure the full and high-quality training of future specialists in a university setting. The authors outline significant positive and negative features of the introduction of digitalisation of the educational process, which is an important step towards bringing the Ukrainian educational space closer to the standards of the European Union and an important component of the state policy of European integration.

In the article by I. Pidorycheva (2022) examined the impact of European integration on the economy and innovation ecosystem of Ukraine. The author establishes that the innovation component of the national economy is becoming increasingly primitive and deindustrialised, and

this necessitates a revision of the Association Agreement with the EU to enhance its favourable impact on the country's innovative development. The researcher's attention is focused on a comparative analysis of Ukraine's involvement in the "Horizon 2020" Framework Programme, which remains low compared to that of EU member states and other associated members. This situation is explained, among other things, by the weak national innovation ecosystem and the lack of close contacts and professional ties between Ukrainian institutions and their European counterparts. The article proposes a set of organisational and institutional measures that will allow Ukraine to expand its access to EU funding and accelerate its integration into the European Research Area.

The article by D. Krylov (2020) analyses the development of innovation activity in Ukraine based on a rating assessment. The author identified key international rankings that assess the level of innovation in the country. It is worth agreeing with the researcher's conclusion that Ukraine's place in these rankings indicates a number of challenges, including limited state support and funding for innovation projects, weak mechanisms for the implementation and commercialisation of innovations in the business sector, and insufficient interaction between innovative enterprises and research institutions.

The European integration development as a platform for innovative entrepreneurship in Ukraine is studied in Ya. Stoliarchuk *et al.* (2022). It is noted that the systemic development of innovative entrepreneurship implies the need not only to maximise the use of domestic scientific and technological resources, but also to effectively integrate them into European innovation systems. The authors examine the impact of innovative entrepreneurship on Ukraine's economic development, in particular on GDP growth, and identify the main vectors of its promotion, based on the opportunities offered by the EU-Ukraine Association Agreement.

Thus, the analysis of the presented studies by contemporary scholars leads to the conclusion that their attention is mainly focused on certain areas of research on Ukraine's innovative development in the context of European integration. These include an analysis of the current state of the national innovation ecosystem, the impact of European integration processes on Ukraine's innovative development, problems and challenges on the path of Ukraine's integration into the European innovation space, prospects for Ukraine's cooperation with the European Union in the field of innovation and research, creation and development of innovation infrastructure, integration of innovations with sustainable development goals to address social and environmental challenges, digital transformation and cybersecurity, and development of innovative education. At the same time, solving the problems that impede the development of Ukraine's national innovation system and its successful integration into the European Innovation Area requires a comprehensive systemic approach, which this study attempts to implement.

CONCLUSIONS

Ukraine's path to innovative development in the context of European integration is a path of balancing opportunities and challenges. The country has faced significant political and economic challenges due to the full-scale invasion of Ukraine by the Russian Federation. The process of bringing Ukraine's legal and regulatory framework in line with EU standards is rather slow. Access to European funds is competitive and difficult, and the "brain drain" and emigration of skilled professionals, corruption and bureaucracy, and the technological gap with more developed EU countries are significant problems.

The study identifies the prospects for Ukraine's innovative development in the context of European integration: European integration opens up wide opportunities for Ukrainian businesses to access markets, partner and expand; Ukraine has the potential to increase investment in research and development, which is crucial for innovation; cooperation with European institutions can provide both funding and expertise; cooperation with European organisations can facilitate technology transfer, helping Ukraine to modernise its industry and increase competitiveness; partnerships with European educational institutions can improve the skills and knowledge of Ukrainian professionals, contributing to a more innovative workforce; European integration offers opportunities for sustainable development, particularly in the field of green

technologies, which is a growing sector in Ukraine; the process of approximation to EU standards will contribute to policy reform and improved governance in Ukraine, creating a more favourable environment for innovation; the growing start-up ecosystem in Ukraine, combined with European integration, may lead to increased opportunities for innovation and entrepreneurship; and increased cultural and academic exchanges with Europe may stimulate innovation through diverse perspectives and joint projects.

To overcome these challenges and take advantage of the prospects, Ukraine should strengthen political and economic stability, continue reforming its legal and regulatory framework in line with EU standards, invest in infrastructure development, especially in technology and digitalisation, improve mechanisms for accessing European funding and support, develop strategies for retaining and attracting talent, fight corruption and reduce bureaucratic barriers, focus on bridging the technology gap through partnerships and investments, and prepare for the future. Each of these areas also outlines prospects for further research.

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CONFLICT OF INTEREST

None.

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Інноваційний розвиток України в контексті євроінтеграційних процесів

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Анотація. У статті підкреслюється важливість європейської інтеграції для України, яка позиціонується як ключовий крок на шляху наближення до європейських стандартів, отримання доступу до нових ринків та стимулювання економічного розвитку. Актуальність теми обґрунтовується трансформаційним потенціалом інновацій у поєднанні з європейською інтеграцією для майбутнього України. Метою цього дослідження є аналіз поточного стану співпраці України та Європейського Союзу в інноваційній сфері, і на цій основі запропонувати стратегії формування сприятливих організаційних та інституційних умов, які б прискорили інтеграцію України до європейського інноваційного простору. У дослідженні використані загальнонаукові наукові методи, включаючи системний аналіз, структурний аналіз, історичний та логічний метод, наукова абстракція, аналіз і синтез, системне узагальнення. Здійснено аналіз інноваційного сектору в Україні та визначено виклики, які перешкоджають його розвитку: недостатнє фінансування та інвестиції в інновації, відсутність ефективних механізмів підтримки стартапів, а також система освіти, яка не надає належного пріоритету інноваціям. Висвітлено позитивний вплив європейської інтеграції на інноваційний розвиток в Україні. Запропоновано напрями розвитку інноваційного сектору в Україні, які зосереджуються на посиленні співпраці між бізнесом, наукою та владою, розвитку інфраструктури для підтримки інновацій та створенні стимулів для інвестицій в інноваційні проекти. Результати цього дослідження мають практичне значення для формування та реалізації комплексу організаційно-інституційних заходів, які надають можливість прискорити темпи інтеграції України в Європейський інноваційний простір

Ключові слова: інноваційна співпраця; інноваційний простір; міжнародна інтеграція; стандарти Європейського Союзу



Budgetary security of Ukraine in the context of a large-scale war

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Abstract. The large-scale war taking place on the territory of Ukraine as of 2023 has a significant impact on budgetary processes and the financial system. In the face of new challenges, the budget system is becoming a key tool for ensuring financial stability and fulfilling the strategic objectives of the state. Military expenditures, reconstruction of the affected territories, social support for citizens and other unforeseen expenditures require effective management of the state and local budgets and improvement of the financial security mechanism. The purpose of this article is to define the theoretical and practical foundations of Ukraine's budget security, to develop proposals for a strategy and measures to ensure the sustainability of the budget system in times of war. In studying the issues of formation and functioning of Ukraine's budget security, the author used a combination of empirical, comprehensive, systemic and analytical methods and approaches that helped to achieve this goal. The study analysed statistical data reflecting the state of budget security, including indicators reflecting the specifics of the state budget system management. Nevertheless, the events that took place in the period from 2014 to 2022 led to political and economic instability in the country, which resulted in an imbalance in the functioning of Ukraine's budget security. Given the difficulties associated with ensuring budgetary security in a time of war, the author offers recommendations for achieving future stability of the state's financial system, which involves adherence to the national strategy and development of new financial security mechanisms. At the same time, a sustainable budget policy promotes efficient resource management and stimulates economic development. Investments in key industries, support for enterprises and innovations help to strengthen the country's economy. The scientific results obtained in the course of this study solve the urgent problem of developing and substantiating theoretical and methodological approaches to the functioning of budget security, and can also be used to determine ways to improve it and apply it by the country's state authorities

Keywords: budget system; budget process; indicators of budget security; threats; national interests; directions of improvement

INTRODUCTION

Budget security is a critical component of the economic and financial security of the state. It is defined as the ability of a country to effectively manage financial resources and ensure the stability of the financial system in the face of external and internal challenges. The budget system is the main instrument for accumulating and distributing the state's financial resources. Therefore, its state, problems,

ways to overcome them, and development prospects should be subject to constant analysis.

As of 2023, there is no single generally accepted definition of budget security; it is multifaceted and combines political and economic components, and the essence of this concept has changed depending on the tasks, internal and external threats. In economics, this term is considered

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both as a system of legal and organisational relations and as an indicator of the effectiveness of the state budget policy (Lysiak & Zhuravel, 2018). Due to the dual nature of the essence of budget security, scholars interpret this term differently. Scientist Z. Varnalii (2020) understands budget security as the state of ensuring the financial solvency of the state, taking into account the balance of revenues and expenditures of the state and local budgets and the efficiency of the use of budget funds, which allows the relevant institutions to perform their functions as efficiently as possible.

O. Bogma (2016) believes that budget security is an important element of the state budget policy, which is aimed at ensuring solvency and guaranteeing the financial stability of public finances, supporting the welfare of society, and effective management carried out by state authorities within their powers. The main goal in the field of budget security should be to ensure the sustainable development of the state budget system in the direction of accumulating financial resources for economic development and counteracting the potential negative effects of external and internal risks and threats. Ukraine's economy is highly sensitive to destabilising factors – threats to budgetary security – due to limited financial resources and the inability to ensure a stable reproduction process. In turn, threats to budget security are conditions and factors that can lead to deformation of the budget system, disrupting its financial stability and solvency.

T. Bondaruk *et al.* (2020) carried out a systematic analysis of the key threats to the state's budget security, including a significant redistribution of gross domestic product (GDP) through the budget system, an increase in the total amount of public and publicly guaranteed debt of Ukraine, an increase in payments for its servicing and repayment, a high permanent deficit in the state budget, and a high level of centralisation of budget funds. The authors believe that Ukraine's budget system was formed under the influence of destructive external and internal risks, which exacerbated the issue of budget security.

Scientists N. Fatiukha & V. Manukovska (2021) believe that the country's financial security has internal and external aspects. The external aspects of financial security include the independence of the national financial system from the influence of international financial institutions and transnational capital, as well as the preservation of the country's financial sovereignty. However, in today's environment, absolute financial independence of the country is becoming impossible due to the processes of financial globalisation, which are gaining in importance and impact on the financial security of Ukraine every year. These trends make it necessary to consider financial security issues in the context of international relations, as they go beyond national borders. Ensuring the optimal level of budgetary security of the state remains a subject of scientific interest. In particular, O. Dakhnova & T. Gorodetska (2018) assessed the state of budget security indicators of Ukraine in the context of hybrid warfare, identified threats to budget security and provided proposals for stabilising the public finance system in the current environment.

T. Koliada & M. Guz (2019) assessed the impact of the budget deficit on the financial security of the state by monitoring the indicators of budget security of Ukraine and developed proposals for stabilising the public finance system. Based on the analysis of budget security indicators, the authors concluded that the main measures in this direction should be aimed at stabilising the economic situation by optimising the structure of budget expenditures, reducing the amount of public debt and its servicing costs. On the other hand, an increase in the budget deficit contributes to the growth of public debt by attracting loans to cover the deficit and repay previous debts, which creates a debt spiral. Minimising budgetary risks will depend on the mechanisms for responding to internal and external challenges and threats that are present not only in the fiscal sphere, but also in the area of socio-political transformations in the country.

N. Shykina & G. Kotsiurubenko (2020) believe that the state budget deficit is a key indicator of Ukraine's budget security and the basis for the formation of the protection of Ukraine's national interests and the sustainable development of the national economy. The authors believe that the total set of all threats to Ukraine's national security, regardless of their nature (hidden, overt, potential, direct and indirect), is clearly reflected in the analysis of the state of public finances in general and the dynamics of changes in the state budget deficit as a percentage of GDP.

The purpose of this study was to highlight the theoretical and practical features of Ukraine's budget security, based on the principles of functioning of the budget system in the context of a large-scale war. To achieve this goal, the following tasks have been identified in this paper: to highlight the theoretical foundations of the functioning of Ukraine's budget security, to analyse budget security indicators and to identify threats, peculiarities of ensuring Ukraine's budget security in the context of war, and to formulate ways to improve the system of ensuring budget security.

MATERIALS AND METHODS

To achieve the goal of considering the process of formation and functioning of the budget security of Ukraine, various empirical, complex and theoretical methods and approaches were used, in particular: historical, analytical – to analyse budget security indicators; systemic and structural methods – to study trends in the budget system; the method of statistical comparisons – to study post-war reconstruction strategies in different countries. The information base of the research work consists of legislative and regulatory acts, as well as statistical and analytical materials related to the budget security of Ukraine (Law of Ukraine No. 2469-VIII, 2018; National Ministry of Finance of Ukraine, n.d.; Bank of Ukraine, n.d.). According to the Order of the Ministry... (2013), the state of budget security is assessed by four main indicators:

1. The ratio of the state budget deficit/surplus to the gross domestic product is an indicator of type A. This indicator allows assessing budgetary and macroeconomic risks in general, and also makes it possible to analyse the impact

of the state’s fiscal policy on the state of the financial system, the balance of payments, and domestic demand.

2. The next indicator is the share of the deficit of budgetary and extra-budgetary funds of the general government sector in GDP, which is calculated according to the International Monetary Fund (IMF) methodology. This key indicator is a generally accepted criterion for countries considering a loan from this international financial organisation, and for Ukraine – a lender of last resort in times of war.

3. The level of redistribution of GDP through the consolidated budget, which reflects the amount of financial resources of the state that are redistributed through the system of public finance, indicates the level of centralisation of the state’s financial system.

4. The ratio of total public debt service and repayment payments to state budget revenues is an indicator that determines the greatest budgetary threat. This indicator is calculated as the ratio of total public debt service and repayment payments to state budget revenues, according to the IMF methodology.

RESULTS

The state is the main regulator of political, economic and social development of the population. To ensure this, it is important to have a system of economic security that is the foundation for national security. One of the main mechanisms affecting the functioning of economic security is its financial component, and in turn, one of the most important

levers in its structure is the country’s budgetary security.

The financial security of the state is based on budgetary security, which is a key factor in the formation and functioning of the budgetary system of Ukraine, and is a criterion for the effectiveness of its fiscal policy and the organisation of the budget process. Budgetary security is a condition that ensures the solvency of the state through balanced revenues and expenditures of the state and local budgets, as well as efficient use of budget funds.

In order to better understand the state of budget security of Ukraine as of 2023, it is proposed to analyse the dynamics of all key indicators and compare them. The level of the budget deficit is considered to be one of the key indicators of the state’s budgetary sustainability. In a situation where the actual budget deficit exceeds the planned one, there is a serious threat to the country’s budget security. This indicator assesses the financial state of the state and determines the impact of fiscal policy on the balance of payments, the level of domestic demand and the overall state of the monetary system.

Analysing the ratio of the state budget deficit/surplus to GDP, it should be noted that until 2020, this indicator remained within the normal range, namely less than 3% (Ministry of Finance of Ukraine, n.d.). However, in 2020 and 2022, this ratio increased significantly to 5.18 and 17.62%, respectively, which is significantly higher than the established norm. The reason for this increase was a significant budget deficit (Table 1).

Table 1. State budget deficit/surplus to GDP ratio, %

Year	State budget deficit, UAH million	GDP, UAH million	Indicator, % of GDP	Threshold value	Indicator status
2019	-78,049.5	3,974,564	-1.96	-3%	Optimal
2020	-217,096.1	4,194,102	-5.18		Unsatisfactory
2021	-197,937.4	5,459,574	-3.63		Unsatisfactory
2022	-914,701.7	5,191,028	-17.62		Unsatisfactory
2023 (plan)	-1,333,110.7	5,459,623	-24.42		Unsatisfactory

Source: compiled by the authors based on State Statistics Service of Ukraine (n.d.) and Ministry of Finance of Ukraine (n.d.)

The change in the ratio of the state budget deficit/surplus to GDP indicates the successful results of managing the budget deficit through fiscal consolidation measures in 2021. These measures were a response to the escalation of problems in 2020, during the COVID-19 crisis, when the deficit imbalance grew to dangerous levels. This required measures to overcome this situation, including the creation of an optimal structure of budget expenditures and the development of an effective system of control over the rational use of budget funds (Law of Ukraine No. 2469-VIII, 2018).

However, in 2022-2023, the situation deteriorated again due to the large-scale war in Ukraine, high risks of an increase in the volume of external public debt, an inconsistent strategy for refinancing previous debts in budget periods, and significant pressure from debt obligations on the financial stability of the state. The value of

the indicator that reflects the ratio of the deficit/surplus of budgetary and extra-budgetary funds of the general government sector to GDP has long remained in the danger zone, and the main reason was the need for financial support for extra-budgetary funds (Ministry of Finance of Ukraine, n.d.). In particular, it is important to note that the chronic deficit of the Pension Fund of Ukraine was covered by the State Budget, and this indicator tends to grow annually (Table 2). The financial burden of pension payments on the state budget is quite significant. Subsidies to the budget of the Pension Fund of Ukraine at the expense of the State Budget lead to the necessary reduction of expenditures on other programmes, such as economic, social, cultural, innovative development, etc. Thus, the national pension system is one of the key factors leading to the fiscal vulnerability of the economy.

Table 2. Deficit/surplus of budgetary and extra-budgetary funds of the general government sector, % of GDP

Year	General government deficit, UAH million	Consolidated budget deficit, UAH million	GDP, UAH million	Indicator, % of GDP	Threshold value
2018	-75,118.8	-67,788.5	3,558,706.0	-0.21	from -2 to 0%
2019	-84,515.9	-84,316.4	3,974,564.0	-0.005	
2020	-23,706.2	-223,944.3	4,194,102.0	-0.31	
2021	-138,837.2	-186,908.3	5,459,574.0	0.88	
2022	-802,408.7	-844,827.9	5,191,028.0	0.82	
2023 (plan)					

Source: compiled by the authors based on Ministry of Finance of Ukraine (n.d.) and National Bank of Ukraine (n.d.)

The level of GDP redistribution through the budget indicates the level of centralisation of the country's financial system and reflects the amount of financial resources that the state redistributes through the public finance

system. At the same time, the amount of GDP redistribution through the consolidated budget is an important factor that affects the pace of economic development of the country (Table 3).

Table 3. The level of GDP redistribution through the consolidated budget, %

Year	Budget revenues, UAH million	GDP, UAH million	Indicator, %	Threshold value
2019	1,289,779.8	3,974,564.0	32.45	25-28%
2020	1,376,661.6	4,194,102.0	32.82	
2021	1,662,242.7	5,459,574.0	30.45	
2022	2,196,273.3	5,191,028.0	42.31	
2023 (plan)	3,104,306.6	5,459,623.0	56.86	

Source: compiled by the authors based on State Statistics Service of Ukraine (n.d.) and Ministry of Finance of Ukraine (n.d.)

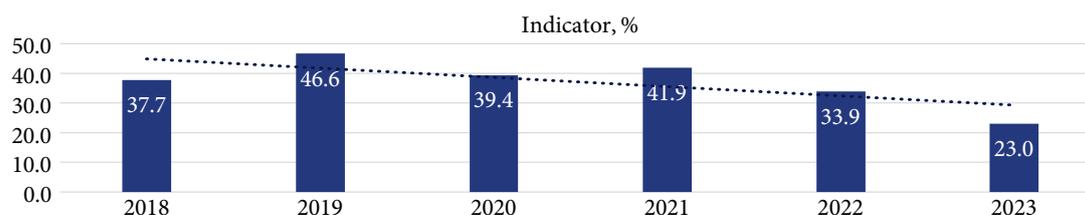
In 2019-2021, this indicator was on the verge of entering the danger zone, but in 2022 and 2023, it saw a sharp increase due to the large-scale war, which also indicates the existence of serious problems in the fiscal sphere that have accumulated over many years and are systemic. All of this leads to a decrease in the effectiveness of the tax system's incentive and social role, and exacerbates problems in customs and tax administration. The ratio of total public debt service and repayment payments to state budget revenues is an indicator that identifies the most

significant budgetary threat (Table 4). A sharp increase in the budget deficit, inflationary trends, the loss of the hryvnia's value, and limited access to low-cost financial resources on the financial markets have led to an increase in public debt service costs. Analysing this indicator in comparison with the previous indicators of the state of budget security, it can be determined that it poses the greatest threat to the state's budget security. This, in turn, has a negative impact on the overall state of the country's financial security (Fig. 1).

Table 4. Ratio of total payments on public debt servicing and repayment to state budget revenues, %

Year	Public debt service, UAH million	Public debt repayment, UAH million	State budget revenues, UAH million	Indicator, %	Threshold value
2018	115,431.2	234,467.8	928,108.3	37.7	6-20%
2019	120,392.3	345,212.6	998,278.9	46.6	
2020	141,473.1	282,136.9	1,076,016.7	39.4	
2021	149,065.7	394,038.8	1,296,852.9	41.9	
2022	156,845.3	449,726.4	1,787,395.6	33.9	
2023 (plan)	220,573.2	393,945.6	2,671,998.0	23.0	

Source: compiled by the authors based on Ministry of Finance of Ukraine (n.d.) and National Bank of Ukraine (n.d.)

**Figure 1.** Dynamics of the indicator of the ratio of total public debt service and repayment payments to state budget revenues

Source: compiled by the authors based on Ministry of Finance of Ukraine (n.d.) and National Bank of Ukraine (n.d.)

It should be noted that the issue of repayment of the country's public debt, which is growing rapidly, especially in view of the current situation in 2023 caused by the coronavirus pandemic and the large-scale war, which has a negative impact on all sectors of the economy and exacerbates the crisis, requires special attention. In 2021-2023, the gap between public borrowing and public debt repayments is growing steadily. Thus, in the future, the debt burden on the state budget of Ukraine will increase further and will have a negative impact on the debt, budgetary and, accordingly, financial security of the country as a whole. At the same time, it is impossible to completely get rid of all threats and risks in the context of economic instability, so it can be said that budget security is a state that is almost impossible to achieve in the face of new challenges. However, it is necessary to try to avoid the presence of factors and threats in the budget system that may lead to the danger of the budgetary situation (Tsyhanenko *et al.*, 2023).

According to budget security assessments, the main difficulties in 2024 will be concentrated primarily in the areas of public debt management, the operation of off-budget funds of the public administration sector, and budget deficit management. This will require improving both the tools for generating budget revenues and the mechanisms for managing budget funds (Pidubnyi, 2022).

The events of 2000-2023 in politics and the economy were destructive factors that undermined the stability of Ukraine's economy in general and the country's financial system in particular. Since the budget system reflects the socio-economic processes in the country in peacetime, its indicators are highly volatile and unpredictable. This requires new approaches to analysing the state and development of the budget system, taking into account qualitatively different levers of influence on the state of budget security. Therefore, in order to ensure the effective functioning of the budgetary sphere and to take into account the urgent needs of residents of territorial communities during martial law, the Office of the President of Ukraine, the Government, the Verkhovna Rada of Ukraine, the National Security Council and other central executive authorities make a number of prompt, quick and effective decisions (Overview of instruments..., 2023).

Since the beginning of the full-scale war, the Government of Ukraine has been investing huge resources in military operations against the aggressor and financing the country's socio-economic needs. Since February 2022, state budget expenditures and the budget deficit have reflected an increase in the share of funds allocated to military needs and a reorientation of funding primarily towards military purposes.

Since 2022, the following trends have emerged in Ukraine's public finances:

- ♦ a significant increase in total state budget expenditures (41.5% real growth) and the share of funding from the security and defence sector budget;
- ♦ a nominal decrease in budget revenues due to the narrowing of economic activity and the provision of tax benefits to Ukrainian businesses;

- ♦ active attraction of government loans and growth of public debt to compensate for the loss of tax revenues due to increased public spending;

- ♦ providing grants and loans from external official creditors as a form of solidarity with Ukraine by the world's leading countries;

- ♦ termination of access to external private sources of government funding for an indefinite period;

- ♦ issuance of domestic military bonds and attraction of resources of the National Bank of Ukraine to financially support the desired volume of bonds, while participation of private investors is weak.

Due to certain objective circumstances, tax revenues to the state and local budgets, on the one hand, have significantly decreased as a result of the cessation of economic activity of business entities in Ukraine due to military operations and destruction, and on the other hand, the costs of the war, including expenditures from the state budget, have increased significantly (Ministry of Finance of Ukraine, n.d.). Issuance of government securities (GS) is an important element of the state's financial activity, which allows timely coverage of the state budget deficit and fulfilment of the main goals and objectives of the state military or socio-economic policy.

One of the most efficient and effective ways to raise funds to ensure the implementation of priority expenditures of the state budget of Ukraine under martial law is to purchase military bonds. The decision to issue these bonds was made by the Cabinet of Ministers of Ukraine on 25 February 2022. In March 2022, auctions for the sale of military bonds began. They are a type of domestic government loan bonds (OVDPs), which are targeted debt securities issued by the state represented by the Ministry of Finance of Ukraine, an investment instrument to support the state budget available to citizens, businesses and foreign investors, aimed at servicing the needs of the Armed Forces of Ukraine and the state during wartime. Military bonds are available for purchase in UAH, USD and EUR. One of their advantages is that the interest income is tax-free, i.e. not subject to income tax and military duty. Every Tuesday, the Ministry of Finance holds auctions for the sale of military bonds. Thus, amidst the war and Ukraine's credit rating downgrade, the activation of the domestic debt securities market remains a priority. As a result, the National Bank of Ukraine purchased UAH 225 billion worth of military bonds from the government in 2022, including UAH 20 billion in March, UAH 20 billion in April, and 4 purchases of UAH 50 billion in each month. In June, the volume of emission financing of the budget deficit increased to UAH 105 billion (Zanuda, 2022). The increase was driven by irregular and slow international aid inflows in May and early June, as well as weak government engagement. Domestic debt markets were affected by the reluctance to raise hryvnia government bond yields to market levels. In particular, on 23 June 2022, at regular meetings of the Financial Stability Council, which are dedicated to analysing the current situation with state budget financing and

identifying systemic risks to financial stability caused by financing the state budget deficit, the National Bank of Ukraine applied key areas of action aimed at narrowing the state budget deficit and reducing the volume of its monetary financing (National Bank of Ukraine, 2022).

The Verkhovna Rada of Ukraine also adopted Law of Ukraine No. 2390-IX (2022). It allows local governments, regional state authorities, and military-civilian authorities to make expenditures that are not included in the respective local budgets during martial law to ensure national security and territorial defence measures, support local infrastructure, and social protection of citizens under martial law. These expenditures are made through interbudgetary transfers from the respective local budget. As for the reforms outlined in the Ministry of Finance of Ukraine (2023), the main variable aspects will be measures to reform tax policy and tax administration. Among them, there are two key reforms that focus on data security and access to information on the volume and turnover of taxpayers' funds in their bank accounts and tax risk management. In addition, in 2023-2030, it is planned to ensure the prevention and elimination of corruption risks in the activities of the State Tax Service.

To ensure Ukraine's rapid recovery after the end or termination of martial law, as well as to ensure economic growth in the medium term and the implementation of its European course, the country should take a number of measures. Among them, a prudent fiscal and budgetary policy, increased cost efficiency, optimisation of tax and customs administration, and improvement of the tax and benefit structure are important. According to the Ministry of Finance of Ukraine (2023), the key areas are the development of partnerships between business and the state, and the improvement of the investment climate, taking into ac-

count the social and environmental dimensions. Restoring taxpayers' trust in the regulatory authorities is crucial. This will require the introduction of transparent and fair control mechanisms, as well as a constructive dialogue between the public sector and the business community.

It has been established that during the period of martial law, namely since 2022, the Ukrainian government has approved more than 160 amendments to the Budget and Tax Codes (Dzhyhora, 2022). These changes simplify budgetary procedures at the state and local levels to ensure the functioning of the budgetary component, to ensure that budget security and the vital needs of the population are met at the proper level during the martial law period. In terms of financial market development, regulation, supervision, and financial planning are possible, including strengthening the regulation and supervision of the financial market to ensure its stability and reliability, and introducing effective financial planning and risk management tools (Ovsianikov, 2017). Following the example of the Korean reconstruction, international cooperation, attracting financial support, and participation in international programmes in general are important. This component involves seeking opportunities to attract international financial support and technical assistance. Active participation in international programmes and initiatives to ensure financial stability.

Importantly, considerable attention should be paid to effective public debt management. A debt strategy can be developed, which provides for a clear strategy for managing public debt to reduce risks and optimise costs. At the same time, another area worth highlighting is rational refinancing, i.e. optimising the structure of debt obligations and rational refinancing to reduce the volume of payments (Varnalii, 2020). Proposed areas for strengthening the budget system are shown in Table 5.

Table 5. Areas of strengthening the budget system and ways to apply them

Fiscal discipline	Expenditure control, i.e. the introduction of strict monitoring and analysis of all budget expenditures to identify effective and ineffective ones. Effective financial planning: developing mechanisms for planning and optimising budget expenditures.
Reform of the tax system	Tax reform, including the introduction of new policies to increase tax revenues and reduce tax exemptions. Fighting tax evasion – improving mechanisms to prevent and stop tax fraud.
Stimulating economic growth	Investment projects, including the implementation of large projects to boost economic development and create new jobs. Innovation policy: support for innovation and the development of technological industries to ensure sustainable economic growth.
Fighting corruption	Anti-corruption measures, i.e. the implementation and strengthening of these measures in the area of financial management and public procurement. Openness and transparency: ensuring these components in financial processes to avoid corrupt practices.

Source: compiled by the authors based on Order of the Ministry... (2013) and Ministry of Finance of Ukraine (2023)

In the context of improving public finances, including the budget system, it is important to pay attention to the development of digitalisation. This approach is based on the idea that the introduction of transparent digital solutions can reduce the risks of corruption in the long run, and the use of innovative technologies becomes a powerful tool for maximising benefits in the face of limited resources. Digitalisation should cover several key areas simultaneously.

The use of digitalisation in the government and public sectors contributes to Ukraine's reputation on the global stage and improves its position in international rankings. This process also improves the quality of public services, simplifies and increases the efficiency of processes, creates a favourable infrastructure, and contributes to macroeconomic stability (Bui & Kovalchuk, 2020). The development of the IT sector affects export capacity in the service sector,

creates additional employment opportunities, and is one of the key strategic competitive advantages of the economy (Bril & Pyvavar, 2022).

The entire Ukrainian economy, including the budgetary system, has been severely affected by the military events and has undergone significant disruptive changes. It will be possible to overcome the negative consequences only after the end of hostilities. However, it is already important to develop a strategy for further development after the war. This strategy should define goals and measures, calculate resources and sources of their financing, and create pre-conditions for Ukraine's rapid recovery, namely, the development of a transparent, modern and sustainable budget system supported by qualified professionals.

Thus, state and local budget expenditures in wartime should be primarily aimed at financing defence and ensuring the security of the state. During the wartime period, the emphasis is on reimbursement of expenses related to the conduct of hostilities. However, after the end of the war, budget expenditures will be redistributed to other areas, such as infrastructure, energy, the military-industrial complex, information technology and other competitive and innovative industries. Financing to support small and medium-sized businesses is also important.

DISCUSSION

Public finances characterise the financial activities of the state, and in order to perform its functions, the state must have sufficient financial resources obtained through the formation and use of a centralised fund of funds – the state budget. The state budget is a key element of public finance, a complex and multifaceted phenomenon in society. At the same time, in order to overcome any threats and strengthen Ukraine's budget security, it is necessary to focus on ensuring the socio-economic and financial development of the state (Borynets *et al.*, 2018).

The use of the indicator approach to assessing the level of budget security in peacetime is not new in the scientific literature and this approach is actively used by scholars (Dakhnova & Gorodetska, 2018). The Methodological Recommendations for Assessing the Level of Economic Security of Ukraine define and define the components of financial security – budgetary, debt, monetary, currency, banking and non-banking financial sector security. However, the most important component is budgetary security, which is defined as a state of affairs that ensures the solvency and financial stability of public finances and allows public authorities to perform their tasks as efficiently as possible (Zakhozhai *et al.*, 2023). The analysis of the indicators shows a complex downward trend caused by a number of macroeconomic factors with their cumulative effect due to the financial crisis, the coronavirus crisis, and the hybrid and large-scale war in Ukraine.

In the context of a large-scale war, the problems of public finance management are particularly acute due to the identification of new real and potential threats to the budget system of Ukraine. Budgetary security depends on

the availability of financial resources to ensure priority financing of the defence industry, and the ability of regions and enterprises to receive and allocate financial resources to defend the country. Therefore, military spending has broad security implications and long-term developmental consequences (Nate *et al.*, 2023).

With the outbreak of a full-scale war and the introduction of martial law, budget policy changed, almost all financial security indicators went far beyond acceptable limits, key macroeconomic indicators declined, and the state's ability to fill the state budget significantly decreased. At the same time, there was a need to sharply increase funding for national security and defence – more than 50% of state budget expenditures in 2023. The political imbalance in the financial sector forced the continued use of debt capital, which eventually led to a number of threats and risks (Stetsenko *et al.*, 2023). The large-scale war has fundamentally changed the financial system, caused a critical deterioration in Ukraine's budget security, reduced the tax base for filling budgets at all levels, and increased dependence on external financing of growing military spending. Therefore, the search for sources of funding and determination of their use is the basis for ensuring sovereignty, territorial integrity and defence capability in wartime and for the development of production and sustainable development of the country in peacetime.

The study of budgetary security, which is related to vulnerability to political and economic risks, should be continued in the direction of not only reviewing the specifics of its provision in the context of war and post-war recovery, but also the existing indicators of financial security, which have gone far beyond financial policy and relate to all areas of national security. The government is actively attracting new loans from the IMF as a lender of last resort, both resident and non-resident. However, the constant attraction of large-scale loans threatens the country's debt security and increases the burden on the economy for future external debt servicing and repayment. Therefore, government securities and their new type (military bonds) are the only means at the disposal of the authorities to ensure Ukraine's debt security in the context of a large-scale war. A full-fledged and liquid domestic market for government securities will reduce the cost of government borrowing and reduce the risk of default, as the war has reversed the positive trend of reducing the share of public debt in GDP and forced a shift away from the strategy of strengthening debt security, and the growth of public debt during martial law is a forced phenomenon. Ensuring the financial security of the state in wartime requires a more thorough definition of the legal framework for the stable functioning of the budget system, although it is difficult to predict the future state of budget security in such circumstances. Further steps to strengthen the budget security of Ukraine should be based on the European principles of public administration – transparency, accountability, efficiency, continuous monitoring and control.

CONCLUSIONS

As a result of the study of theoretical and practical issues of ensuring the budget security of Ukraine and improving its functioning, the following conclusions have been drawn. Having analysed the main indicators of budget security, it is observed that the budget system is in a crisis state. Given that budgetary security is a fundamental element of the overall state security system, the inability to overcome crisis situations negatively affects the functioning of the system of ensuring the national security of the state. The crisis phenomena of 2022 had a significant impact on key macroeconomic indicators, and the deficit of the general government sector is of particular concern. This calls for immediate measures to stabilise the financial system and develop an effective concept of budget security in order to eliminate the state budget deficit.

The government should focus on several key tasks, including the importance of regulating the volume of public spending, establishing new clear, flexible and transparent fiscal rules at the legislative level, and modernising the methodology for assessing the level of budget security. Implementation of these measures will lead to a reduction in public debt and an increase in the efficiency of budget policy. This, in turn, will have a positive impact on both the level of budget security and the economy of Ukraine as a whole. Ensuring the country's budgetary security implies ensuring its financial stability, the welfare of society and the development of an efficient economy that can function

effectively in the globalised world. In order to overcome possible threats and increase the level of budgetary stability of Ukraine, it is important that the state budget strategy is aimed at promoting the socio-economic and financial development of the country.

Thus, due to the ongoing large-scale war with significant destruction and tangible losses in the economy and budget system, Ukraine is in a difficult financial situation. Overcoming the negative consequences of the war will be possible only after the end of hostilities. However, the government needs to develop a post-war development strategy that will define goals and measures, calculate resources and sources of their receipt. A sustainable budget policy promotes efficient resource management and stimulates economic development. Investments in key industries, support for small and medium-sized businesses and innovation will help strengthen the country's economy. Budgetary security is important for resisting external challenges, such as economic sanctions, trade conflicts and other economic pressures. At the same time, it is important to create the preconditions for a quick recovery, including a transparent, modern and sustainable budget system supported by qualified professionals.

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None.

CONFLICT OF INTEREST

None.

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Бюджетна безпека України в умовах широкомасштабної війни

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Анотація. Широкомасштабна війна, що відбувається на території України станом на 2023 рік, має значний вплив на бюджетні процеси та фінансову систему. В умовах нових викликів, бюджетна система стає ключовим інструментом для забезпечення фінансової стійкості та виконання стратегічних завдань держави. Військові видатки, реконструкція постраждалих територій, соціальна підтримка громадян та інші непередбачені видатки вимагають ефективного управління державним та місцевими бюджетами і вдосконалення механізму фінансової безпеки. Метою даної статті є визначення теоретичних та практичних засад бюджетної безпеки України, розробка пропозицій щодо стратегії та заходів для забезпечення стійкості функціонування бюджетної системи в умовах війни. Досліджуючи питання становлення та функціонування бюджетної безпеки України, було застосовано сукупність емпіричних, комплексних, системних та аналітичних методів і підходів, що допомогли реалізувати поставлену мету. У процесі дослідження було здійснено аналіз статистичних даних, які відображають стан бюджетної безпеки, серед яких індикатори, що відображають специфіку управління бюджетною системою держави. Незважаючи на це, події, що відбувалися у період з 2014 по 2022 роки, призвели до політичної та економічної нестабільності в країні, що стало наслідком розбалансування функціонування бюджетної безпеки України. Зважаючи на складнощі, які пов'язані із забезпеченням бюджетної безпеки в умовах війни, було запропоновано рекомендації для досягнення майбутньої стабільності фінансової системи держави, що передбачає дотримання національної стратегії та розробки нових механізмів фінансової безпеки. При цьому, стійка бюджетна політика сприяє ефективному управлінню ресурсами та стимулює економічний розвиток. Інвестиції в ключові галузі, підтримка підприємств та інновацій допомагають зміцнити економіку країни. Отримані в процесі даного дослідження наукові результати вирішують актуальну проблему розроблення й обґрунтування теоретичних і методичних підходів до функціонування бюджетної безпеки, а також можуть бути використані при визначенні шляхів її удосконалення та застосування державними органами країни

Ключові слова: бюджетна система; бюджетний процес; індикатори бюджетної безпеки; загрози; національні інтереси; напрямки покращення

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