

Міністерство освіти та науки України
Миколаївський національний аграрний університет
Факультет культури й виховання
Кафедра іноземних мов

**МАТЕРІАЛИ СТУДЕНТСЬКОЇ КОНФЕРЕНЦІЇ
МИКОЛАЇВСЬКОГО НАЦІОНАЛЬНОГО АГРАРНОГО
УНІВЕРСИТЕТУ**

м. Миколаїв, 21 березня 2024 р.

Миколаїв
2024

УДК 811
М-34

Редакційна колегія:

В.С. Шебанін – д-р. тех. наук, професор;
К. В. Тішечкіна – канд. філол. наук, доцент.

Матеріали студентської конференції Миколаївського
М-34 національного аграрного університету, 21 березня 2024р.,
м. Миколаїв. – Миколаїв : МНАУ, 2024. – 99 с.

У матеріалах студентської конференції МНАУ, секція іноземних мов, розглянуто різноманітні актуальні питання, пов'язані з професійною діяльністю майбутніх фахівців, проаналізовано досвід інших країн.

УДК 811

© Миколаївський національний
аграрний університет, 2024

<i>Андрієвська Є. В.</i> The use of grain and fruit and berry raw materials as a basis for the production of soft drinks (Використання зернової та плодово-ягідної сировини як основи для виробництва безалкогольних напоїв).....	5
<i>Балицька Д. О.</i> The impact of artificial intelligence on economic development. (Вплив штучного інтелекту на економічний розвиток).....	7
<i>Бардовська Д.С.</i> Accounting under martial law conditions. (Бухгалтерський облік в умовах воєнного стану).....	9
<i>Битко Д.К.</i> The importance of supporting and promoting small business during marital status. (Важливість підтримки і просування малого бізнесу під час воєнного стану).	10
<i>Бойчук Р.В.</i> Organic production. (Органічне виробництво).....	12
<i>Воробйова С.С.</i> Development of digital management in european companies. (Розвиток цифрового менеджменту в європейських компаніях).....	18
<i>Гончар А.А.</i> Innovations in the food and cosmetics industry: new opportunities for using biotechnology. (Інновації в харчовій і косметичній промисловості: нові можливості використання біотехнологій).....	19
<i>Горька Л.</i> Peculiarities of taxation in Ukraine under martial law. (Особливості оподаткування в Україні в умовах воєнного стану).....	21
<i>Дзюба С.І.</i> Challenges in biological drinking water treatment. (Проблеми біологічного очищення питної води).....	23
<i>Задорожна О.В.</i> Cybersecurity in the financial sector: challenges and protection strategies for banks. (Кібербезпека у фінансовому секторі: виклики та стратегії захисту для банків).....	25
<i>Землянухіна В.І.</i> Winter barley chewed by Mykolaiv region. (Вирощування ячменя озимого в Миколаївській області).....	27
<i>Зерницька К.О.</i> Electronic document management: advantages and disadvantages of implementation (Електронний документообіг: переваги та недоліки впровадження).	29
<i>Кирило Ю.І.</i> Management of sustainable business development. (Управління сталим розвитком бізнесу).....	31
<i>Коваль Д.О.</i> Leptospirose ist eine bedrohung für tiere und menschen. (Лептоспіроз - загроза для тварин і людей).....	33
<i>Коваль Є.І.</i> Leadership and its influence on the team. (Лідерство та його вплив на команду).....	34
<i>Комісарова Д.Д.</i> Sanitary and hygienic assessment of pig keeping. (Санітарно-гігієнічна оцінка утримання свиней).....	36
<i>Котляр Д.В.</i> Organic agriculture. (Органічне землеробство).....	37
<i>Краснокутська Л.О.</i> Development of intellectual capital in Ukraine. (Розвиток інтелектуального капіталу в Україні).....	39
<i>Красноноженко В. О.</i> Development of electronic money in ukraine: advantages and disadvantages. (розвиток електронних грошей в Україні: переваги та недоліки).....	41
<i>Кучеренко А.А.</i> Effect of war. (Ефект війни).....	43
<i>Лазюта С.С.</i> Optimization of growing conditions for tomatoes in hydroponic greenhouses. (Оптимізація умов вирощування помідорів в умовах гідропонних теплиць).....	44
<i>Левих Д.С.</i> Benefits and harms of mouldy cheese for the body. (Користь та шкода сиру з цвілью для організму).....	47
<i>Лінива Т.А.</i> Registration of incomes from realization of agricultural productions, goods, jobs and services on enterprises. (Облік доходів від реалізації сільськогосподарської продукції, товарів, робіт і послуг на підприємстві).....	49
<i>Лісков О.С.</i> The impact of the use of technology on the process of learning english in universities. (Вплив використання технологій на процес вивчення англійської мови у ВНЗ).....	51

<i>Магар Д.Є.</i> Gender policy in the public administration system of Ukraine . (Гендерна політика в системі публічного управління України).....	54
<i>Мартиненко С.</i> Celery is a promising culture. (Селера - перспективна культура).....	56
<i>Нестерчук Т.В.</i> Introduction of a tax on "surplus profits" of banks in Ukraine. (Запровадження податку на "надприбутки" банків в Україні).....	58
<i>Нехайчик Є.Є.</i> Principles of ensuring an effective system of public management in the context of decentralisation. (Принципи забезпечення ефективної системи публічного управління в контексті децентралізації).....	60
<i>Орешко А.</i> Financial audit: features of conducting. (Фінансовий аудит: особливості проведення).....	62
<i>Помазнюк Т.А.</i> Banking system of ukraine during war: risks and security assessment. (Банківська система україни в умовах війни: ризики та оцінка безпеки).....	64
<i>Рагуліна А.О.</i> Environmental taxation as a component of sustainable development. (Екологічне оподаткування як складова сталого розвитку).....	67
<i>Рудь Н.В.</i> Conditions for conducting banking activities during the war period. (Умови проведення банківської діяльності у воєнний період).....	69
<i>Саркова А.М.</i> Conflict management and conflict resolution in organizations. (Управління та вирішення конфліктів в організаціях).....	71
<i>Светенко К.В.</i> The importance of nutritious eating for human health and well-being. (Важливість здорового харчування для людського здоров'я та благополуччя).....	73
<i>Сенчина Є. А.</i> Financial statements as a source of information for making management decisions.....	74
<i>Серветник Д.В.</i> HACCP System. (Система HACCP).....	76
<i>Слободян Т.А.</i> Accounting in cloud technologies: advantages and disadvantages.....	77
<i>Таранець Є.О.</i> Social programs as a tool for attracting youth to the country's economy. (Соціальні програми як інструмент залучення молоді до економіки країни).....	79
<i>Титаренко А.В.</i> Features of accounting for settlements on employee payme. (Особливості обліку розрахунків за виплатами працівникам).....	81
<i>Толокевич В.А.</i> Differentielles globales Satellitennavigationssystem (DGNSS). Диференціальна глобальна супутникова навігаційна система (DGNSS).....	83
<i>Хлань К.</i> The effect of additives on the body of animals. (Вплив добавок на організм тварин).....	84
<i>Чистякова Д.Д.</i> Corporate governance and shareholder value in the financial sector. (Корпоративне управління та акціонерна вартість у фінансовому секторі).....	86
<i>Чоботарь Д.</i> The production of hypoallergenic milk. (Виробництво гіпоалергенного молока).....	87
<i>Шатирко Р.</i> Methodological principles of conduct of normative monetary valuation of land plots of population. (Методологічні засади проведення нормативної грошової оцінки земельних ділянок населеного пункту).....	89
<i>Шешунова А.В.</i> Agriculture in the countries of latin America. (Сільське господарство в країнах латинської Америки).....	91
<i>Яблуновська Г.С.</i> Peculiarities of taxation in Ukraine during martial law. (Особливості оподаткування в Україні під час воєнного стану).....	93
<i>Яценко А.Д.</i> Progress in genomic research with BWA: efficiency, applications in biotechnology (Розвиток геномних досліджень з BWA: ефективність, застосування в біотехнології).....	96

**THE USE OF GRAIN AND FRUIT AND BERRY RAW MATERIALS AS A BASIS FOR
THE PRODUCTION OF SOFT DRINKS
(ВИКОРИСТАННЯ ЗЕРНОВОЇ ТА ПЛОДОВО-ЯГІДНОЇ СИРОВИНИ ЯК ОСНОВИ
ДЛЯ ВИРОБНИЦТВА БЕЗАЛКОГОЛЬНИХ НАПОЇВ)**

Андрієвська Є. В. – здобувач вищої освіти групи БТ 3/1

Науковий керівник: Саламатіна О.О., доцент кафедри іноземних мов МНАУ

В публікації було порушено питання щодо необхідного використання зернової та плодово-ягідної сировини, для підтримки здоров'я людини та уникнення онкологічних захворювань. Були проаналізовані інгредієнти та їх найпоширеніші види для приготування безалкогольного напою, вплив вітамінів на організм.

Ключові слова: *натуральна їжа, безалкогольні напої, плодово-ягідна сировина, онкологічні захворювання, дикорослі ягоди, здоров'я.*

The publication raised the issue of the necessary use of grain and fruit and berry raw materials to maintain human health and prevent cancer. The ingredients and their most common types for the preparation of a soft drink, the effect of vitamins on the body were analyzed.

Key words: *natural food, non-alcoholic beverages, fruit and berry raw materials, oncological diseases, wild berries, health.*

Non-alcoholic drinks are traditional for our country, our ancestors knew how to prepare them since ancient times. Currently, the market for soft drinks is still in demand and tends to expand from year to year. For many hundreds of years, the quality of the produced beverages has been improved, the search for new tastes, technologies and production methods has been going on [1, 2]. As a result, in the modern world we have a fairly extensive range of natural soft drinks [3].

More and more people tend to eat one hundred percent natural foods or foods with a minimum amount of artificial food additives. This is due to the fact that in recent years there has been an increase in diseases of the endocrine system, oncological diseases associated with unhealthy diet, eating nonnatural foods or with E-supplements. In the context of all of the above, it is relevant to expand the range of natural food products, in particular soft drinks.

Soft drinks can be produced from fruits, berries, leaf extracts and other plant materials. The most promising is the production of non-alcoholic beverages from cereal raw materials. This direction of production is promising, the market of soft drinks from such raw materials is still little studied and filled.

Oats is a cereal crop that belongs to the genus *Avena*, is not a whimsical crop, does not require special conditions for farming, it can be grown on almost all types of soil, in various climatic conditions. The most widely cultivated varieties in the Nonblack Soil Zone are Krechet, Argamak, Berber and others. These varieties are distinguished by increased productivity, relatively short growing season, and are resistant to drought, lodging and diseases of cereal crops [4].

According to a number of studies, the fiber contained in oat grain helps to lower cholesterol levels, reduce the risk of cardiovascular diseases, and normalize blood pressure. Silicon contained in oat grain contributes to maintaining the strength of the bone apparatus, raising immunity, strengthening the vascular system [5].

Oat grains can also be used for the production of alcoholic beverages, because it contains carbohydrates, with the proper functioning of enzymes, it is quite well-digested sugars [6, 7].

The usefulness of wild berries was already known to ancient people. At a time when medicine was not yet so developed, it was the main source of medicines for humans. Wild berries are rich in vitamin C, fructose, glucose, organic acids, flavonoids, etc. Berries have a general

strengthening, antimicrobial effect, restore the functioning of the gastrointestinal tract. Strawberries contain easily digestible sugars, vitamin C, B vitamins, nicotinic, salicylic and other organic acids.

Wild berries contain pectin, which helps to lower cholesterol, improve metabolism and the functioning of the circulatory system [9, 10].

With a high sugar content (up to eleven percent), raspberries are low in calories, since their composition mostly contains the simplest sugars – fructose and glucose. Also, raspberries contain a significant amount of organic acids – malic, citric, tartaric, etc. Raspberries also contain coumarin, which normalizes blood clotting, contains anthocyanins, whose effect strengthens blood vessels, capillaries, and has an anti-sclerotic effect.

The Northwest region is characterized by widespread growth of plum trees. The most frequently grown varieties are Alyonushka, Alleynaya, Anna Shpet, Vengerka. Plum trees belong to the genus *Rosaceae*, which includes over 250 species. Plum fruits are very tasty and healthy, they are a source of multivitamins. They contain vitamins of group B, C, A, E, K, trace elements, fiber. Due to its high fiber content, plums are beneficial for improving the functioning of the intestinal tract. Pectin and organic acids help cleanse excess cholesterol from the body.

Apple trees are the most common type of fruit trees that are harvested for the food industry. Apple trees belong to the same genus *Rosaceae*, the Apple tribe (*Maleae*) of the Plum subfamily. The most widespread apple tree is *Malus domestica*, which includes the majority of cultivated varieties.

Apples have less fiber than other fruits. It stimulates bowel movements and helps reduce the risk of cancer. The pectin contained in apples improves the functioning of the intestines, cleanses it of toxins.

In the greatest amount than in other fruits and berries, apples contain iron, which is necessary to maintain a high-quality blood composition, and calcium to maintain the cardiovascular system and the musculoskeletal system. Apples also contain vitamins E, B, A, ascorbic acid, trace elements. The benefits of apple fruits also lie in their antioxidant properties, which prevent the processes of cell oxidation and, as a result, not only the aging of the body, but also prevent the penetration of ultraviolet radiation into the body, and reduce the risk of cancer [8].

Currently, there is a wide variety of non-alcoholic beverages, a significant number of industries are engaged in the production of these products all over the world. The modernization of the equipment available at the enterprises continues everywhere, new sites are being built and launched. Technological features of the new product “Non-alcoholic drink made from oats and berryfruit ingredients” will not necessitate a significant changeover of the equipment existing at the enterprises. The resulting drink becomes not only tasty, but also healthy.

Summing up, it can be noted that the raw materials for the production of soft drinks from cereals and berry-fruit components are mainly seasonal. Fresh berries and fruits can be harvested and used in production only in the summer and a little in the autumn. However, the drink itself can be attributed to all-season, because oats have good keeping quality and, if stored properly, retain their quality and useful properties for a long time, and berries and fruits in the off-season can be used frozen or pre-processed from fresh to juice.

Consumption of the product due to its useful, dietary and therapeutic and prophylactic properties can also be attributed to all-season. It does not depend on the time of year, like a non-alcoholic drink like kvass, the highest consumption of which is observed in May and June during the hot period, before the appearance of seasonal berries and fruits. Any person who monitors their health will be interested in including this high-quality and healthy product in their diet.

The technology for the production of a new soft drink from grain raw materials will not require a significant changeover of the equipment operating at the enterprise for the production of drinks from plant ingredients.

The drink can be sold in retail outlets all year round. With a competent marketing strategy, this direction can be successfully developed.

All of the above can lead to an increase in demand, an increase in capacities for the production of non-alcoholic products, the emergence of new enterprises, an increase in the capacity

of existing enterprises for the production of non-alcoholic products, the reorientation of some enterprises to the production of this promising product in all respects. The resulting product, in comparison with the existing analogues, has a more pronounced pleasant taste and richness.

Thus, the possibility of expanding the range of drinks based on herbal ingredients exists and can be technically implemented in the production of the Northwest region of our country. Consumers are looking for healthier products, and their choice would be obvious.

Literature:

1. Nsongning D S 2017 Key volatile aroma compounds of lactic acid fermented malt based beverages – impact of lactic acid bacteria strains *Food Chemistry* 229 565–573 DOI: 10.1016/j.foodchem.2017.02.091
2. Lorenzo C P, Zannini E and Arendt E K 2016 Lactic acid bacteria as sensory biomodulators for fermented cereal-based beverages *Trends in Food Science & Technology* 54 17–25 DOI: 10.1016/j.tifs.2016.05.009
3. Romanenko V O, Pomozova V A and Isypova K A 2014 Evaluation of the nutritional value of drinks based on starch-containing raw materials *Modern Problems of Science and Education* 5 191
4. Loskutov I 2016 Oats: functional properties and features of use *Bakery. Confectionery Industry* 3 (65) 17
5. Batalova G A, Shevchenko S N, Tulyakova M V, Rusakova I I, Zheleznikova V A and Lisitsyn E M 2016 Breeding of Naked Oats Having High-Quality Grain *Russian Agricultural Sciences* 42 (6) 407–410
6. Chekina M S, Meledina T V and Khlynovsky M D 2015 Development of technology for mashing malt from oats *Beer and Drinks* 6 44–48
7. Chereda A S, Kostyleva E V, Velikoretskaya I A et al. 2018 Application of a multienzyme preparation based on the *Trichoderma reesei* strain in the production of oat wort *Beer and Drinks* 4 72–74
8. Rybitsky N A 2015 *Wild fruits and berries and their processing* (Moscow: Lenizdat) 256 p
9. Nilova L A 2019 Study of the chemical composition and antioxidant properties of products of wild berries processing *IOP Conference Series: Earth and Environmental Science: Proceedings of the Conference the international scientific conference “Efficient waste treatment – 2018” (EWT-2018), Saint-Petersburg* (Saint-Petersburg: IOP Publishing Ltd) 012025
10. Isrigova T A, Salmanov M M and Mukailov M D 2016 Chemical-technological assessment of wild berries for healthy food production *Research Journal of Pharmaceutical, Biological and Chemical Sciences* 7 (2) 2036–2043

УДК 330.46

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON ECONOMIC DEVELOPMENT (ВПЛИВ ШТУЧНОГО ІНТЕЛЕКТУ НА ЕКОНОМІЧНИЙ РОЗВИТОК)

Балицька Д. О. – здобувач вищої освіти групи ЕК 4/1

Науковий керівник: Матвеева А. Л., викладач кафедри іноземних мов МНАУ

У статті досліджується рівень впливу штучного інтелекту на розвиток економіки. Проаналізовано переваги та виклики, пов'язані з використанням штучного інтелекту в сучасних економічних умовах, а також можливості для створення нових ринків, підвищення продуктивності та стимулювання інновацій.

Ключові слова: штучний інтелект, економіка, цифровізація, розвиток.

The article examines the level of influence of artificial intelligence on the development of the economy. The advantages and challenges associated with the use of artificial intelligence in modern

economic conditions, as well as opportunities for creating new markets, increasing productivity and stimulating innovation, are analyzed.

Key words: *artificial intelligence, economy, digitalization, development.*

In the modern period, one of the popular areas of scientific research, the main technological trend of the world and an important topic for discussion in society is artificial intelligence. This is explained by rapid technological development, globalization processes and acceleration of scientific and technological progress. Thus, it is artificial intelligence that becomes a significant contribution to the economic growth of any country and contributes to the effective development of society. Artificial intelligence represents the functions of computer technologies that try to reproduce the level of human thinking and skills, which includes the analysis of complex systems, the formulation of reasonable conclusions, the conduct of meaningful and logical dialogue and other aspects [1].

The main characteristics of artificial intelligence include the understanding of natural language, the ability to learn, as well as the ability to act. These aspects attract the attention of researchers in the field of artificial intelligence in various directions, such as judgment modeling, knowledge augmentation, machine learning and automatic hypothesis generation, intelligent data analysis and information processing, decision support, process and system management, dynamic intelligent systems, planning and others. The prospects for the use of artificial intelligence are extremely broad: algorithms that can process huge amounts of information every hour are able to detect cause-and-effect relationships that may be unattainable for humans, which makes it possible to make forecasts more accurate and decisions more effective [2].

Artificial intelligence is able to process much more information than a person, which leads to more efficient and accurate performance of tasks and acceleration of the development of society. It is expected to have a significant impact on annual GDP growth over the next decade. It is predicted that by 2030, AI could create an additional \$13 trillion in economic activity, increasing its impact on all industries compared to other technological innovations.

Analysts also predict that by 2030, about 70% of companies worldwide will implement at least one form of artificial intelligence to expand their operations, and many large enterprises will use the full range of existing innovations to improve the efficiency of their business processes [3].

The European Union has launched an ambitious initiative called AI4EU aimed at the development of artificial intelligence within the EU. This program brings together 79 leading research institutions, small and medium-sized enterprises, large corporations from 21 countries to create a coordination center for the development of artificial intelligence resources. These resources include databases, computing power, tools and algorithms. The main goal is to provide services and support to potential users of this technology, as well as to help them conduct appropriate tests and integrate artificial intelligence into production processes, services and products [4].

Therefore, the creation of artificial intelligence is aimed at optimizing business processes, creating competitive advantages and providing opportunities for members of society to be creative.

References:

1. Kaplana A., Haenleinb M. Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. URL: <https://www.sciencedirect.com/science/article/pii/S0007681318301393>.
2. Pizhuk O. I. Artificial intelligence as one of the key drivers of the digital transformation of the economy. Economy, management and administration. No. 3(89). 2019. P. 41–46.
3. McKinsey Quarterly. The economics of artificial intelligence. April 2018. Commentary. URL: <https://www.mckinsey.com/business-functions/mckinseyanalytics/our-insights/the-economics-of-artificial-intelligence>.
4. Artificial Intelligence: The AI4EU project launches on 1 January 2019. URL: <https://ec.europa.eu/digital-single-market/en/news/artificial-intelligenceai4eu-project-launches-1-january-2019>.

ACCOUNTING UNDER MARTIAL LAW CONDITIONS (БУХГАЛТЕРСЬКИЙ ОБЛІК В УМОВАХ ВОЄННОГО СТАНУ)

Бардовська Д.С. – здобувач вищої освіти групи Б3/1

Науковий керівник: Ракова А.Ю., викладач кафедри іноземних мов

У статті проаналізовано вплив правового режиму воєнного стану на облікові процедури підприємств. Систематизовано ключові напрямки нововведень, пов'язаних з бухгалтерською діяльністю. Досліджено ключові зміни та нововведення, пов'язаних з бухгалтерським обліком, включаючи зміни до порядку реєстрації податкових накладних в Єдиному реєстрі та порядку складання розрахунків коригування до податкових накладних.

Ключові слова: бухгалтерський облік, податкові пільги, воєнний стан, фінансова звітність.

The article analyses the impact of the legal regime of martial law on the accounting procedures of enterprises. The key areas of innovations related to accounting activities are systematised. The key changes and innovations related to accounting, including changes to the procedure for registering tax invoices in the Unified Register and the procedure for making adjustments to tax invoices, are investigated.

Key words: accounting, tax benefits, martial law, financial statements.

One of the main problems that arise under martial law is the instability of the economic environment. Changes in production, increased defence spending and resource allocation can lead to significant changes in accounting. Accountants should be prepared to adapt quickly to new conditions and change accounting methods as needed. One of the most important aspects of martial law accounting is ensuring compliance with legal regulations and requirements. In such extraordinary circumstances, special rules and regulations may be introduced to govern accounting, taxation and other financial aspects. Accountants should be focused on continuous improvement of their knowledge and skills to perform their duties in accordance with changing requirements [1].

The introduction of martial law may significantly affect the financial statements of companies and organisations due to a number of accounting changes. For example, there will be an exemption from filing income tax returns for 2022, from accrual and payment of a single social contribution for March-April 2022, and an extension of the deadline for filing VAT returns. It also introduces the possibility of electronic accounting, the option to disclose financial statements and exemption from penalties for late submission of reports [2].

Since the introduction of martial law in Ukraine, a number of regulations have been adopted to facilitate taxation and improve tax accounting. Some of these regulations include the Resolution of the Cabinet of Ministers of Ukraine "Certain Issues of Zero Rate Value Added Tax during the Period of Martial Law" No. 178 dated 2 March 2022, as well as clarifications of the State Tax Service of Ukraine regarding the payment of taxes during martial law and the consideration of Russian military aggression. Additionally, other clarifications of the State Tax Service of Ukraine relate to taxation during martial law in various aspects, such as value added tax, land tax, environmental tax, as well as procedures for state control and monitoring in the field of pricing [3]. In addition, there are explanations aimed at taxpayers who intend to choose the simplified taxation system during the period of martial law and the state of emergency.

In terms of additional innovations, significant changes were made to the system of calculating salaries and related payments during martial law. In particular, the penalty for late payment of the unified social tax was cancelled and all penalties during this period were cancelled. Changes have also been made to the procedure for granting leave, where the employer must grant unpaid leave at the initiative of the employee, and other types of leave are subject to the agreement of the parties. The accounting of humanitarian and charitable aid is an important aspect, and the Ministry of Finance of Ukraine reminded in a letter dated 27 April 2022 of the current Procedure for Accounting for Humanitarian Aid. According to this procedure, the received humanitarian aid is

accounted for by debiting the accounts of cash, goods, inventories and other property in correspondence with account 48 "Targeted financing and targeted receipts" [4].

In general, martial law accounting is a complex task that requires high qualifications, flexibility and the ability to adapt to changing conditions. It plays an important role in ensuring financial stability and control over resources

Thus, having analysed all of the above, it can be argued that martial law accounting presents complex challenges, but also opens up opportunities for the development and implementation of new methods and approaches. Accountants must have in-depth knowledge of accounting, finance and legal regulation, and be prepared to continuously learn and adapt to changing conditions.

Література:

1. Горулько Л. І., Мокієнко Т. В. Особливості бухгалтерського обліку в умовах воєнного стану в Україні. *Стратегічні пріоритети розвитку бухгалтерського обліку, аудиту та оподаткування в умовах глобалізації*. С. 29. URL: Збірник_МНПК_СНАУ 16.11.2023a.pdf (snaeu.edu.ua)
2. Свистун Л. А., Кошляк Д. І., Лісна А. І. Особливості ведення бухгалтерського обліку в умовах воєнного стану в Україні : дис. – Національний університет" Полтавська політехніка імені Юрія Кондратюка", 2023. URL: zbirnik-2023 17 трав-79-82.pdf (nupr.edu.ua)
3. Ловінська Л. Г. Бухгалтерський облік та фінансова звітність в умовах воєнного стану в Україні. 2022.URL: _-libre.pdf (d1wqtxts1xzle7.cloudfront.net)
4. Прокопова О. М., Кудлаєва Н. В. Бухгалтерський облік в умовах воєнного стану: ключові характеристики та проблемні аспекти. *Інвестиції: практика та досвід*. 2022. №. 9-10. С. 38-43. URL: http://www.investplan.com.ua/pdf/9-10_2022/8.pdf

УДК 811.111

THE IMPORTANCE OF SUPPORTING AND PROMOTING SMALL BUSINESS DURING MARITAL STATUS

ВАЖЛИВІСТЬ ПІДТРИМКИ І ПРОСУВАННЯ МАЛОГО БІЗНЕСУ ПІД ЧАС ВОЄННОГО СТАНУ

Битко Д. К. – здобувач вищої освіти групи Б4/І

Науковий керівник: Ракова А. Ю., викладач кафедри іноземних мов МНАУ

У статті було розглянуто роль малого бізнесу в Україні та акцентовано увагу на важливості його підтримки в особливо складних умовах воєнного стану. З'ясовано, що у процесі просування малого бізнесу важлива співпраця уряду, органів місцевого самоврядування, а також великих компаній.

Ключові слова: *повномасштабне вторгнення, економіка країни, малий бізнес, розвиток, заходи підтримки.*

The article considered the role of small business in Ukraine and emphasized the importance of its support in particularly difficult conditions of martial law. It was found that the cooperation of the government, local self-government bodies, as well as large companies is important in the process of promoting small business.

Key words: *full-scale invasion, country's economy, small business, development, support measures.*

The development of small business is a necessity for the country, since it is the main component of the economy. Small business contributes to the creation of new jobs, the growth of gross domestic product, and also stimulates the development of competitiveness and innovative potential of the country's economy. Small businesses are flexible and responsive, responding to needs and changes in market conditions. It is distinguished by its innovation and the offer of unique

goods and services, which often constitute an alternative to wage labor. The main importance of small business is that its development forms the basis for the formation of the middle class in society. In addition, the payment of taxes and replenishment of the state budget help to reduce financial pressure on the state, and this, in turn, reduces spending on social protection and support for vulnerable groups of the population [1].

In the context of a full-scale invasion of Ukraine, this sector of the economy is going through difficult times, so it is important to take certain measures and analyze development to support enterprises.

The government has introduced a number of programs to support business, including tax incentives, the abolition of tax audits and exemption from paying UST in case of lack of income from entrepreneurs. However, these measures are insufficient to successfully promote this type of business. An important step towards success is the development and implementation of effective training programs for entrepreneurs. In particular, in war, when access to training may be limited, such programs become especially important. They should provide not only financial support, but also provide entrepreneurs with important skills in business management, marketing, financial planning and taking into account the social component in the process of entrepreneurial activity.

The development of small business is considered an important priority for the government of Ukraine and the country as a whole, as it is a key component of economic growth and the main source of jobs. This sector of the economy generates 60% of GDP, creates 7 million jobs and provides 40% of tax revenues [2].

The problems and challenges faced by business entities indicate the need for simultaneous development of both the state system of business support and the initiatives of entrepreneurs, especially small enterprises, in efforts to unite in the field of public financial activities. At this point, the key is the issue of improving the system of information and advisory state support for business to stimulate its development. Information support of business entities can be carried out through:

- creation of state, regional and local information systems;
- promoting entrepreneurship through the Internet;
- providing various information that is necessary to provide small businesses (the state of implementation of state or regional programs, infrastructure, etc.) [3, p. 9].

Thus, the support and promotion of small businesses plays a significant role in driving change and is a key factor in Ukraine's economic recovery. The activities of small businesses meet the needs of the local consumer, which in turn contributes to the turnover of funds and contributes to the socio-economic development of local communities.

Література:

1. Бортнік С. Функціонування малого і середнього підприємництва в Україні: сучасний стан та перспективи розвитку. *Економіка та суспільство*. 2022. № 36. DOI: <https://doi.org/10.32782/2524-0072/2022-36-46>
2. Ливдар М., Валігура Н. Розвиток малого і середнього бізнесу в Україні. *Наука і техніка сьогодні*. 2022. № 13(13). С. 168-176. [https://doi.org/10.52058/2786-6025-2022-13\(13\)-168-176](https://doi.org/10.52058/2786-6025-2022-13(13)-168-176)
3. Мельник Т. Ю. Державна підтримка та стимулювання розвитку бізнесу в Україні під час дії воєнного стану. *Економіка, управління та адміністрування*. 2022. № 2 (100). С. 3-11. DOI: [https://doi.org/10.26642/jen-2022-2\(100\)-3-11](https://doi.org/10.26642/jen-2022-2(100)-3-11)

ORGANIC PRODUCTION (ОРГАНІЧНЕ ВИРОБНИЦТВО)

Бойчук Р.В. – здобувач вищої освіти групи А3/2

Науковий керівник: Ракова А.Ю., викладач кафедри іноземних мов МНАУ

У статті розглядаються питання основ органічного виробництва та його впливу на навколишнє середовище при вирощуванні сільськогосподарських культур.

Ключові слова: *Органічне виробництво, сільське господарство, агрономія, культури, врожай, органічні речовини.*

The article deals with the basics of organic production and its impact on the environment when growing crops.

Key words: *Organic production, agriculture, agronomy, crops, harvest, organic substances.*

MAIN ASPECTS OF ORGANIC AGRICULTURAL PRODUCTION

ORGANIC PRODUCTION is a certified activity related to the production of agricultural products (including all stages of the technological process, namely: primary production (including harvesting), preparation, processing, mixing and related procedures, filling, packaging, processing, recovery and other changes in the state of the product), which is carried out in compliance with the requirements of the legislation in the field of organic production, circulation and labeling of organic products. [1]

ORGANIC VEGETATION - organic production related to the cultivation of cultivated plants, as well as the harvesting of flora in compliance with the requirements of the legislation in the field of organic production, circulation and labeling of organic products. Growing grain, industrial and fodder crops using such technologies has significantly increased the yield and gross harvest of grain, sunflower, sugar beet, corn, etc. However, in order to realize the biological potential of the crops grown, high agro backgrounds and reliable protection of plants from harmful organisms such as weeds, pests and diseases are required. As a result, the consumption of resources and energy has increased, and a number of environmental problems have arisen related to maintaining and expanding soil fertility, and pollution of the industry's products and the environment. The unbalanced use of mineral fertilizers has resulted in agrophysical soil degradation, which is a decrease in their potential and effective fertility. The interaction of mineral fertilizers with the soil, if the optimal ratio between the amount of organic and mineral fertilizers applied is not maintained, leads to the displacement of calcium ions and other divalent cations from the soil absorption complex. [1]

Under these conditions, humus dispersion, increased mineralization, and soil dehumidification occur. In order to avoid these negative phenomena, the search for alternative farming systems has begun. The objective direction of this search was the greening of the industry, which includes environmentally sound elements of the farming system (organic). The global community's awareness of the growing environmental threat posed by intensive farming has stimulated the development of alternative management models that better meet the vital interests of society. Organic farming has become such a model, which has recently been providing the growing global market with certified, healthy, safe food. The term "organic farming" refers to agricultural practices without the use of synthetic pesticides and fertilizers. However, this is a characteristic rather than a definition of this system of agricultural production. This system is based on crop rotation, the use of crop residues, manure and compost, legumes and plant fertilizers, organic waste, minerals, mechanical tillage and biological pest control to increase fertility and improve soil structure, provide adequate plant nutrition and control weeds and various pests. Therefore, organic production is a holistic system of farming and food production that combines the best practices in terms of environmental protection, biodiversity, conservation of natural resources, high standards of

animal welfare and a production method that meets certain requirements for products made using substances and processes of natural origin. Thus, the organic production method plays a dual social role: on the one hand, it provides a specific market that meets the needs of consumers for organic products, and on the other hand, it provides a common good by contributing to environmental protection, proper animal welfare, and rural development. The share of the organic agricultural sector is growing globally due to the increasing demand for these products. In Ukraine, which is a global supplier of agricultural products and plays an important role in ensuring a sustainable food system and food security in the world, organic production began to develop actively in the early 2000s. Since then, Ukraine has been considered one of the most important suppliers of organic products to the EU market. For many years, Ukraine has remained a reliable supplier of organic products and maintained its position during the COVID-19 pandemic, when supply chains were disrupted. The pandemic has also shown that demand for organic products will continue to grow globally, as more and more consumers choose a healthy lifestyle and quality food. In recent years, Ukraine has been confidently ranked among the top 5 largest suppliers of organic products to the EU. [1]

In 2020, Ukraine ranked 4th in the world out of 123 countries in terms of imports of organic products to the EU with a share of 7.8%. In 2020, Ukraine exported 217210 tons of organic products to the EU. The key groups are corn, wheat, soybeans, sunflower oil, rapeseed, oilcake, sunflower seeds, blueberries (frozen), berries, and millet. In 2020, Ukraine's total exports of organic products amounted to 332 thousand tons worth about USD 204 million. Due to the introduction of the European Green Deal, organic production is one of the flagship initiatives in the transition to sustainable agriculture in Ukraine. Growing organic crops has certain peculiarities that require a more detailed study. The basis of the organic farming management system is proper soil fertility management, selection of species and varieties, long-term crop rotation, reuse of materials and appropriate tillage technologies, and prohibition of the use of genetically modified organisms and their derivatives. The use of additional fertilizers, soil improvers and plant protection products is only allowed if they are compatible with the goals and principles of organic production. Organic agricultural production should be based primarily on renewable resources within individual agricultural units. Organic crop production should help to preserve and improve soil fertility and prevent soil erosion. Plants should receive nutrients primarily through soil ecosystems, rather than through soluble fertilizers applied to the soil. For this reason, considerable attention should be paid to the training of highly specialized specialists in the field of organic crop production. This publication contains materials for mastering theoretical skills and practical techniques for developing modern elements of field crops cultivation technologies in organic production based on in-depth knowledge of the biological characteristics of crops, taking into account the peculiarities of plant growth and development, and familiarization with the most widely used technologies in the crop industry in the world and in Ukraine. Against the backdrop of the war in Ukraine, the EU is introducing new measures to strengthen food security. In particular, on March 23, the European Commission presented a number of short- and medium-term measures to improve global food security and support farmers and consumers in the EU due to the rise in food prices and costs of raw materials such as energy and fertilizers caused by Russia's military aggression in Ukraine. The proposed measures are aimed at increasing the resilience of supply chains in the EU agriculture and food sector in line with the Farm to Fork strategy. According to the Resolution of the Cabinet of Ministers of Ukraine dated 3.03.2021 No. 179 "On Approval of the National Economic Strategy for the period up to 2030", Ukraine's goal of 3% of land under organic production for growing crops whose products will be used directly for human consumption - cereals, legumes, vegetables, fruits, grapes, berries, medicinal plants, nut-bearing plants, etc. The use of industrial inputs is not allowed. Organic farming systems are aimed at producing high-quality products that are safe for humans. They will be introduced in specialized farms for growing the relevant crops. They will be based on natural biological means of reproducing soil fertility and protecting agricultural plants from pests. They should be environmentally safe, adapted to the relevant soil and climatic conditions of Ukraine, highly productive and soil-protective. Supporting organic production in Ukraine and implementing the measures envisaged in the Farm to Fork and Biodiversity strategies can ensure the

sustainability of overall agricultural productivity. Ukraine has significant potential to produce organic agricultural products and sell them through exports, and in the medium term, to supply the domestic market. At the same time, organic agriculture will contribute to solving a number of urgent problems that exist in agricultural production in Ukraine and its rural areas. [1]

BASIC PRINCIPLES AND CONCEPT OF ORGANIC AGRICULTURE

The concepts of "organic agriculture", "organic farming", "organic production", and "organic farming" are defined as related. Given that agriculture already includes production and farming, it is worth considering these categories as a whole. As a rule, the definition of the essence of "organic" concepts appeared during the adoption of laws, standards, regulations, etc., with the United States and Europe being the most active in the development of organic agriculture at the legislative level. In 1988, the U.S. Department of Agriculture launched an education and research program on low-input agriculture. [1]

Since 1999, the program has had a different focus and has been called the Sustainable Agriculture Research and Education Program (SARE). [1]

Alternative farming methods are an important component of sustainable agriculture. Scientific research on this issue is conducted, in particular, by the International Federation of the Organic Agriculture Movement (IFOAM), founded in 1972. It was this organization that coined the term "organic farming" and defined the principles of organic agriculture. In 1980, a group of organic farming researchers in the United States proposed a definition: "Organic agriculture is a system of agricultural production that prohibits or greatly limits the use of synthetic compound fertilizers, pesticides, growth regulators, and food additives to feed for feeding animals. This system is based on crop rotations, the use of crop residues, manure and compost, legumes and plant fertilizers, organic waste, minerals, and mechanical tillage and biological pest control to increase fertility and improve soil structure, provide adequate plant nutrition, and control weeds and various pests." The global organic market is developing rapidly. The introduction of organic agriculture, which is based on maintaining and improving the health of soil, plants, animals and humans as a single and indivisible whole, based on the principles of natural ecological systems and is preventive in nature to protect the health and well-being of current and future generations and the environment, is becoming increasingly important. This is evidenced by the growth of the global organic agricultural market (almost 106 billion euros in 2019), the increase in the area under organic production, and the interest and growing demand among the population. [1]

In 1980, France became the first country in Europe to adopt national legislation on organic agriculture. The first legislative standard regulating organic production was also adopted in Austria in 1985, and later they were approved in other countries, which led to the adoption of the EU Council Regulation No. 2092/1991 in 1991 (the first organic law in the EU), i.e. the introduction of common European legislation. Since then, we can talk about the emergence of a unified and regulated definition of organic production at the international level. The second law, Commission Regulation (EC) No. 889/2008, came into force in 2009. According to this regulation, "organic agricultural production (using only organic fertilizers) means a system of management where agricultural products are grown without the use of synthetic fertilizers, pesticides, and growth stimulants." As of January 1, 2022, the new Regulation of the European Parliament and of the Council (EU) No. 2018/848 (the third law is the original in English or an overview of the main points in Ukrainian) on organic production and labeling of organic products came into force in the EU. In addition, the EU Commission has defined the equivalents of organic agriculture to harmonize terminological differences in the regulations of the next Regulation. Thus, in England and Malta, it is called organic, in Bulgaria, the Netherlands, Greece, Italy, Latvia, Portugal, France - biological, in Denmark, Estonia, Spain, Lithuania, Germany, Poland, Romania, Slovakia, Slovenia, Hungary, the Czech Republic, Sweden - ecological. [1]

The terms that are quoted and used in different EU countries (organic/ecological/biological), given the definition in Ukraine, actually mean "organic" and are fully protected in the EU. In accordance with the decision of the General Assembly of IFOAM (International Foundation for Organic Agriculture Movements), in June 2008, an official definition of organic agriculture was adopted, according to which "organic agriculture is a production system that supports the health of

soils, ecosystems and people. It depends on ecological processes, biodiversity and natural cycles specific to local conditions, while avoiding the use of harmful resources that cause adverse effects. Organic agriculture combines tradition, innovation and science to improve the environment and promote equitable relationships and an adequate standard of living for all of the above." Organic production in Ukraine is also developing rapidly. There are 635 registered operators on the Ukrainian organic market, 501 of which are agricultural producers. Organic agricultural land covers 309,100 hectares, which is 0.7% of agricultural land, almost doubling since 2002. Ukraine also has its own organic legislation, which is based on the EU organic regulation, but is not completely identical to it. According to the Law of Ukraine No. 2496-VIII of 10.07.2018 "On the Basic Principles and Requirements for Organic Production, Circulation and Labeling of Organic Products"[1]

Thus, the purpose of organic farming is: Organic farming methods involve a complete rejection of the use of synthetic mineral fertilizers and synthetic plant protection products, emphasize the preservation, conservation and activation of natural regulatory organisms (birds, beneficial insects, ticks and microorganisms). It is also important to use methods alternative to chemical ones, such as mechanical, agrotechnical, biological, genetic, biotechnical, immunological, and other methods in plant protection. In modern organic agriculture, various methods of management are used, which are generalized in the historical perspective. It is worth noting that all over the world today, the organic sector is the only formally regulated type of agriculture based on integrated sustainability. [1]

ADVANTAGES OF ORGANIC AGRICULTURE

Environmental benefits:

- Reducing the level of anthropogenic impact on the environment as a result of agricultural activities;
- preservation and restoration of agricultural soil fertility;
- prevention of land degradation, soil acidity and salinity;
- preservation of biodiversity and the genetic bank of plants and animals, rejection of monocultures, and natural conditions for keeping animals;
- active use of agricultural genetic resources, including insects and microorganisms;
- increasing the diversity of wild flora and fauna;
- promoting a better combination of habitats adjacent to agricultural land;
- Reducing the risk of erosion by increasing the amount of humus, physical stability, and ability to use water;
- Increasing the level of biological activity, increasing the amount of biomass, organizing nutrient recycling, improving soil structure;
- utilization of the potential of symbiotic processes;
- reducing the alkalization of ground and surface water by eliminating the use of synthetic plant protection products;
- purification of drinking water sources from toxic chemicals;
- Reducing the level of nitrogen leaching;
- reduction of greenhouse gas and reactive substances emissions;
- Increasing the rate of carbon dioxide sequestration in the soil;
- Reduced use of direct energy (flammable substances, lubricants) and indirect energy (fertilizers and pesticides) for organic areas;
- Increasing the efficiency of energy use in accordance with the amount of extracted or produced product;
- prevention of climate change;
- combining the conservation of wildlife biodiversity, agricultural biodiversity, and soil conservation. [1]

Economic benefits:

- introduction of resource-saving technologies and technical means, reduction of energy intensity of agricultural production;
- development of local markets for organic products through the creation of small farms;
- additional development of the processing sector for organic products;
- promotion of rural green tourism in environmentally safe areas;
- independence from industrial chemicals;
- harmonious combination of crop and livestock production;
- significant reduction of production costs and dependence on external financing (in the medium and long term);
- increase in yields (in case of long-term use);
- increase in the use of renewable resources;
- improving the quality and competitiveness of Ukrainian agricultural products on domestic and global markets. [1]

Social benefits:

- Increased life expectancy and improved health of the population;
- Increasing the level of education of the rural population;
- Improving the welfare of the population through diversification of activities, increased employment and development of rural areas;
- protection of consumer rights;
- Ensuring innovation in the development of organic agricultural production;
- shaping the environmental image and rating of Ukraine;
- ensuring food security of Ukraine.
- preservation and support of small farms;
- improving the scientific and technological level of the agricultural sector;
- providing the population with high quality, environmentally friendly and safe certified organic food and other goods. [1]

The basis of the organic crop management system in the world is:

- Due management of soil fertility;
- selection of species and varieties;
- long-term crop rotation;
- recycling of materials;
- appropriate soil cultivation technologies. [1]

Organic (ecological, biological) agriculture is a form of farming that deliberately minimizes the use of synthetic fertilizers, pesticides, plant growth regulators, and feed additives. On the contrary, the effect of crop rotations, organic fertilizers (manure, composts, crop residues, green manure, etc.), various methods of soil cultivation, etc. is more actively used to increase yields, provide cultivated plants with mineral nutrients, control pests and weeds. [1]

In accordance with part two of Article 13 of the Law of Ukraine "On Basic Principles and Requirements for Organic Production, Circulation and Labeling of Organic Products", the Cabinet of Ministers of Ukraine approved the Procedure (detailed rules) for organic production and circulation of organic products. The governmental resolution provides for the establishment of detailed rules for organic crop production, livestock, mushroom farming, aquaculture, production of organic seaweed, organic food and feed, harvesting of organic plant objects, as well as the specifics and application of exceptions, parallel and simultaneous production, storage, transportation and labeling of certain types of organic products. The Resolution aims to ensure the proper and efficient functioning of the organic market, as well as to create transparent conditions for conducting business activities in the field of production and circulation of organic products. The new rules for conducting business activities in the field of organic crop production will reduce the level of air, water and land pollution by synthetic substances, including agrochemicals and pesticides. Organic

farming must meet the requirements of the selected production standards. The Law of Ukraine "On the Basic Principles and Requirements for Organic Production, Circulation and Labeling of Organic Products" sets out detailed rules for organic crop production. [1]

WHY IS ORGANIC PRODUCTION IMPORTANT FOR HUMANS AND NATURE, AND WHAT ARE THE BENEFITS OF INTRODUCING ORGANIC PRODUCTION?

- For humans

Organic products do not contain GMOs, trans fats and other toxic compounds. Farmers in organic farms do not use traditional pesticides and fertilizers, and animals grow without the constant use of antibiotics and growth hormones. As you know, if these substances constantly enter our bodies, they cause many diseases. [2]

In addition, when animals and plants grow naturally, the amount of vitamins and antioxidants in products increases significantly. Therefore, organic production creates not only safe products, but also healthy ones. We can even taste the special rich flavor of such food. [2]

- For nature

Organic production is constantly improving, and producers are trying to reduce the harmful impact of their farms on nature. To do this, farmers maintain and restore soil fertility, take care of the welfare and free growth of animals, and do not use chemicals that could pollute water bodies. Thanks to these efforts, people, animals, and plants near farms live in safety.

Conventional agriculture causes huge emissions of greenhouse gases such as nitrogen oxide, methane, and carbon dioxide, which exacerbates climate change on the planet. Organic farms produce significantly less greenhouse gases. According to IFOAM (International Federation of Organic Agriculture Movement), if we fully switch to organic farming by 2030, it is possible to offset 20% of greenhouse gas emissions caused by agriculture. And this is a huge contribution to the fight for climate preservation. [2]

- For producers

In the Western world, profits from organic farms are steadily increasing. Prices for organic products are higher than for conventional ones, and consumers are willing to pay more for quality and naturalness. And this is just the beginning. Currently, not all Ukrainians are aware of the benefits of organic products, but as awareness grows, demand will increase.

Creating economic benefits for farmers is an important part of organic farming development programs in Europe and Ukraine. European programs plan to realize the idea of "organic on everyone's table" by 2030 and are funded accordingly. [2]

- With thoughts of the future

Each of us has a powerful weapon in our hands - our choice. Corporations are competing for it, and marketing agencies around the world are creating state-of-the-art advertising to win the favor of consumers. By choosing organic, we not only protect our health, but also call on the whole world to take care of the planet. [2]

Література:

1. "Fundamentals of organic crop production" - V. Pindus O. Hutsalenko, S. Omelchuk, L. Vasylenko, S. Horban

OrganicInfo information portal URL: <https://organicinfo.ua/> [1]

International Federation of Organic Agriculture. URL: <http://www.ifoam.org/> [1]

Modern trends in the formation of the principles of organic agriculture / O.G. Minkova // Bulletin of the Uman National University of Horticulture. 2015 - No. 1 - P. 16-21. [1]

Research Institute of Organic Agriculture URL: <https://www.fibl.org/de/> [1]

Official website of the magazine "Organic ua". URL : <http://organic.ua/uk/organicworld/how-to-choose> [1]

Official website of the BTU-Center company. URL: <https://btu-center.com/integr/organic/> [1]

Official website of the International Federation of Organic Agriculture Movement URL: <http://www.ifoam.> [1]

Council Regulation (EC) No. 834/2007 of June 28, 2007 on organic production and labeling of organic products and repealing Regulation (EC) No. 2092/91 URL: https://organicstandard.ua/files/standards/ua/ec/EU%20Reg_834_2007%20Organic%20Production_UA.pdf [1]

On the basic principles and requirements for organic production, circulation and labeling of organic products: Law of Ukraine of 10.07.2018 No. 2496-VIII URL: <http://zakon.rada.gov.ua/laws/show/2496-19> (accessed on November 5, 2019). [1]

How to switch to organic farming? Agribusiness today. URL : <http://agro-business.com.ua/agro/ideitrendy/item/8378-iaak-pereity-na-orhanichne-zemlerobstvo.html> (accessed on April 21, 2016). [1]

https://organicstandard.ua/files/inputs/ua/OS_TABL_2017.pdf [1]

https://www.poettinger.at/img/landtechnik/newsletter/bodendruck_gross.gif [1]

https://www.poettinger.at/uk_ua/Newsroom/Artikel/11213/ [1]

2. <https://organicinfo.ua/why-organic/>

УДК 811.111

DEVELOPMENT OF DIGITAL MANAGEMENT IN EUROPEAN COMPANIES (РОЗВИТОК ЦИФРОВОГО МЕНЕДЖМЕНТУ В ЄВРОПЕЙСЬКИХ КОМПАНІЯХ)

Воробйова С. С. – здобувач вищої освіти групи МЕН 3/2

Науковий керівник: Ганніченко Т.А., кандидат педагогічних наук, доцент кафедри іноземних мов МНАУ

Було описано характеристики цифрової економіки в управлінні та розкрито сутність цифровізації. Виділено особливості розвитку цифрового менеджменту в країнах Європейського Союзу та сформульовано перспективні підходи до її розвитку. Запропоновано стратегії впровадження цифрових технологій.

Ключові слова: *цифровізація, менеджмент, Європейський Союз, цифровий ринок, управлінські рішення.*

The characteristics of the digital economy in management were described, and the essence of digitization was revealed. The features of digital management development in the European Union countries were highlighted, and promising approaches to its development were formulated. The strategies for the implementation of digital technologies have been proposed.

Key words: *digitization, management, European Union, digital market, management decisions.*

The theme of the digital economy, based on digitization, is becoming increasingly important worldwide. It is often seen as a driving force capable of ensuring prosperity in the future at various levels, from global to personal. It is important to emphasize that thanks to digitization, humanity has entered an era of global changes that are transforming all spheres of life.

The rapid development of the Internet and digital innovations is one of the key factors driving progress for humanity, states, and their economies. This necessitates the development and implementation of programs for digitizing public life at the country level.

The European Union actively uses a structured and strategic approach to digitizing the state. This experience can be a valuable lesson for Ukraine, which is striving for European integration. Despite the successful operation of the progressive web service "Diya" in Ukraine, which in many respects surpasses European counterparts, the European system of state digitization still has several advantages [1].

Firstly, it covers not only the sphere of public services but also education, e-commerce, crypto-assets, and other aspects of life. Secondly, it has a high level of dissemination and accessibility for citizens.

Thus, studying and adapting the European experience of digitization can be a powerful stimulus for the development of Ukraine and its successful integration into the European space.

The Tallinn Declaration, adopted in October 2017, defined the main standards for developing the concept of e-government in EU countries. These standards have become the basis for national legislation in the field of digitizing public services.

In addition to the Tallinn Declaration [2], important documents regulating digitization in the EU, including the development of e-government, include the European Interoperability Framework (EIF) [2], which provides a common set of standards and guidelines for ensuring easy access to and shared use of public services across the EU, and the eIDAS regulation, which defines the rules for electronic identification and trusted services throughout the EU [3]. These documents create favorable conditions for the development of e-government in the EU, ensure the compatibility of electronic identification systems, and protect the personal data of citizens.

One of the key strategies is the implementation of integrated digital platforms that combine various tools for data analysis, business process automation, interaction with customers, and partners. Such platforms allow companies to quickly access the necessary information, make informed management decisions, and achieve strategic goals.

Furthermore, change management in the context of digital management is becoming increasingly relevant. Companies are implementing new technologies and management methods to adapt to changes in the business environment and meet market requirements. An important component of digital management is also the development of a digital culture within the company, which promotes the competence of personnel in the field of digital technologies and increases their efficiency.

Thus, the development of digital management in European companies is a complex and dynamic process that requires constant improvement and adaptation to new conditions.

Література:

1. Belova I., Yaroschuk O. Development of digitization processes in the European Union: promising experience for Ukraine. Economic analysis. 2023. Volume 33. No. 1. P. 180-191.
2. Tallinn Declaration on eGovernment at the ministerial meeting during the Estonian Presidency of the Council of the EU on 6 October 2017. (2017). <https://digitalstrategy.ec.europa.eu/en/news/ministerial-declarationegovernment-tallinn-declaration>.
3. The European Interoperability Framework in detail. *Joinup*. URL: <https://joinup.ec.europa.eu/collection/nifo-national-interoperability-framework-observatory/european-interoperability-framework-detail> (date of access: 06.03.2024).
4. eIDAS Regulation. *Shaping Europe's digital future*. URL: <https://digitalstrategy.ec.europa.eu/en/policies/eidas-regulation> (date of access: 06.03.2024).

УДК 811.111

Секція іноземних мов

INNOVATIONS IN THE FOOD AND COSMETICS INDUSTRY: NEW OPPORTUNITIES FOR USING BIOTECHNOLOGY (ІННОВАЦІЇ В ХАРЧОВІЙ І КОСМЕТИЧНІЙ ПРОМИСЛОВОСТІ: НОВІ МОЖЛИВОСТІ ВИКОРИСТАННЯ БІОТЕХНОЛОГІЙ)

Гончар А. А. – здобувач вищої освіти групи БТ 3/1

Науковий керівник: Саламатіна О.О., доцент кафедри іноземних мов МНАУ

У публікації проведено огляд сучасних тенденцій у створенні здорових та екологічно безпечних продуктів харчування та косметики за допомогою біотехнологій. Було

проаналізовано дослідження вчених про вплив біотехнологій на виробництво їжі та косметичних засобів.

Ключові слова: здоровий спосіб життя, біотехнології, харчова промисловість, косметична промисловість, здоров'я, тенденції, генетично модифіковані організми, ГМО, університет Кембриджа, біологічно активні речовини.

The publication provides an overview of current trends in creating healthy and environmentally safe food and cosmetic products using biotechnologies. Research on the impact of biotechnologies on the production of food and cosmetic products, has been analyzed.

Key words: healthy lifestyle, biotechnology, food industry, cosmetics industry, health, trends, genetically modified organisms, GMOs, University of Cambridge, biologically active substances.

In the modern world, with increasing attention to healthy living and environmental safety, biotechnologies are becoming an increasingly important tool in the food and cosmetic industries. They open up new opportunities for creating products that not only meet consumer needs but also contribute to the preservation of health and the environment. In this article, we will explore the latest trends in using biotechnologies to create healthy and environmentally safe food and cosmetic products.

One of the key directions in the use of biotechnologies in the food industry is genetically modified organisms (GMOs) [1]. Research conducted by the University of Cambridge has shown that genetically modified crops can be more resilient to stressful conditions such as drought or disease, allowing for increased yields and reduced pesticide usage [2]. GMOs are also used to study the development of certain diseases, aging processes, and regeneration.

As of today, agricultural crops that were genetically modified according to official portals' data for 2019 include 29 crops: alfalfa, apple, Argentine and Polish canola (rapeseed), carnation, chicory, cotton, creeping thistle, eggplant, eucalyptus, flax, maize, melon, papaya, petunia, plum, poplar, potato, rice, rose, soybean, squash, sugar beet, sugarcane, sweet pepper, tobacco, tomato, and wheat [4].

In the cosmetic industry, biotechnologies also play a significant role. One of the most promising directions is the use of biotechnologies to obtain bioactive substances for cosmetic products. Research conducted by Stanford University has shown that extracts from marine algae, obtained using biotechnologies, have powerful antioxidant and soothing properties for the skin [3].

Vegetable oils are a rich source of fatty acids and are used successfully in cosmetic products. They are a combination of triglycerides, comprised of both saturated and unsaturated fatty acids. Used in components of cosmetic formulations that are marketed for the daily care of the face and body [5].

Proteins in the form of enzymes are used in skin care products to prevent acne, and acne-like conditions such as pimples, and blackheads. These include lactoperoxidase and glucose oxidase.

In addition, polysaccharides derived from gram-negative bacteria such as *Klebsiella pneumonia* are used to enhance cell renewal and improve skin hydration [5].

In conclusion, biotechnologies open up numerous new opportunities for the food and cosmetic industries. They enable the creation of products that not only meet consumer needs but also contribute to the preservation of health and the environment.

Literature:

1. United States Department of Agriculture (USDA) - <https://www.usda.gov/>
2. "Genetically modified crops: the fastest adopted crop technology in the history of modern agriculture", Qaim M, Kouser S. – <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4153789/>
3. "Microalgal-derived natural UV-absorbing products: a new approach in sun protection", Machado SR, et al. – <https://www.sciencedirect.com/science/article/pii/S2352847818300621>
4. <http://naas.gov.ua/slide/gmo-korisn-chi-shk-dliv-povna-zaborona-chi-zakonodavche-regulyuvannya/>.

УДК 811.111

PECULIARITIES OF TAXATION IN UKRAINE UNDER MARTIAL LAW (ОСОБЛИВОСТІ ОПОДАТКУВАННЯ В УКРАЇНІ В УМОВАХ ВОЄННОГО СТАНУ)

Горька Л. – здобувачка вищої освіти групи Б 2/1

Науковий керівник: Тішечкіна К.В., кандидат філологічних наук, доцент кафедри іноземних мов МНАУ

У роботі розглянуто податкову систему України та зміни, які відбулися в умовах воєнного стану. Проаналізовано ключові аспекти, такі як податок на прибуток підприємств, податок на додану вартість, єдиний податок, акцизний податок, мито та податок на доходи фізичних осіб (ПДФО). Розглянуто різні ставки та особливості застосування кожного виду податку з урахуванням їх впливу на бізнес та економіку України. Аналітичний погляд на цю тему дозволяє визначити тенденції та основні реформи у сфері оподаткування, які формуватимуть економічний ландшафт країни в майбутньому.

Ключові слова: оподаткування, світові тенденції, внутрішні реформи, інвестиції, бізнес, міжнародні стандарти, регіональні фактори, податкові стимули, фінансова ефективність.

The research paper examines the tax system of Ukraine and the changes that took place under martial law. Key aspects such as corporate income tax, value added tax, single tax, excise tax, customs duty and personal income tax (PIT) are analyzed. Various rates and features of the application of each type of tax are considered, taking into account their impact on the business and economy of Ukraine. An analytical view of this topic allows you to identify trends and major reforms in the field of taxation that will shape the country's economic landscape in the future.

Key words: taxation, world trends, internal reforms, investments, business, international standards, regional factors, tax incentives, fiscal efficiency.

In Ukraine, as in other countries, the taxation system is a key instrument of fiscal policy aimed at ensuring economic stability and implementing social programmes. Significant changes and challenges in the global economy and domestic politics require constant adaptation of the tax system.

Taxation in Ukraine is influenced by global trends and changes aimed at supporting business and investment. Important domestic reforms aimed at improving tax efficiency and promoting entrepreneurship are also under consideration.

Since Ukraine's independence, significant changes in the taxation system have taken place. In particular, the main components of the tax system, such as the corporate income tax and the value added tax, were established during this period. These steps were aimed at creating a stable fiscal framework for the newly created state and shaping budgetary policy.

In the following period, the taxation system was adapted to market conditions and reforms. New incentives were introduced to support business and investment, and real estate and land taxation reforms were carried out to improve fiscal fairness.

The current context is one of crisis and active reform. Strengthening the fight against tax evasion, introducing innovations in the tax system and responding to global trends have become key tasks. The current period is also characterised by the revision of rates and new approaches to taxation of large corporations to stimulate technological development [1].

Changes in the global economy can affect attitudes towards taxation, stimulating or hindering economic development. Political shake-ups and international commitments can also determine the direction of tax strategy development.

In the context of Ukraine, taking into account global trends, there is a need to adapt tax policy to international standards and requirements. Changes in global economic relations may also affect the volume of international trade and the redistribution of the tax burden between sectors of the economy.

In addition, taking into account regional factors is important to ensure the effectiveness of the tax system. Adaptation to the specific conditions and needs of the regions contributes to more efficient use of resources and stimulates regional development [2].

One of the key strategies is to use tax incentives to attract investors and support entrepreneurial activity. For example, reducing tax rates for a short period of time or providing tax credits can create more favourable conditions for investors.

Adapting tax policy to market specifics can help to attract investment and support businesses more effectively. Ensuring a balance between reducing the tax burden and the financial stability of the state is a key aspect of successful tax regulation in the context of stimulating investment and business development in Ukraine.

Taxation in Ukraine comprises a number of taxes and mandatory contributions aimed at financing various areas of the state. Below is a general overview of the main taxes and their characteristics:

1. Corporate income tax (PIT):
 - The standard CPT rate for most companies was 18% on a generalised basis.
 - For companies operating in special economic zones, a reduced rate of 9% applies.
2. Value added tax (VAT):
 - The general VAT rate was 20%.
 - There is a reduced rate of 7% for certain goods and services.
3. Personal income tax (PIT):
 - The general personal income tax rate was 18%.
 - There are various exemptions and privileges for certain categories of income.
4. Excise taxes:
 - Applied to certain goods such as alcohol and tobacco products, fuel, etc.
5. Unified social contribution (USC):
 - The rates of the USC are subject to change, but are generally set at 22% for employers and 22% for employees.

These taxes and contributions are the main source of funding for the budget and various government programmes in Ukraine. Changes in tax legislation may occur as a result of economic reforms and updates. To obtain accurate and up-to-date information, it is recommended to refer to official sources and consult with tax specialists [3].

The Ukrainian tax system faces a number of challenges and opportunities in the context of global and domestic changes. One of the most important aspects is adapting to changes in the global economy, such as changes in international taxation standards and global trends in tax policy. Ukraine needs to respond proactively to these trends to ensure the competitiveness of its business and attract investment.

Domestic reforms play a key role in modernising the tax system. In particular, simplifying tax procedures, rationalising tax rates, and supporting innovation can contribute to a better business environment and increase fiscal efficiency. However, it is important to avoid excessive taxation, which can be a hindrance to economic development [4].

In addition, it is important to ensure transparency and fight corruption in taxation, which will increase confidence in the fiscal system and stimulate business activity. The ability to adapt to global challenges and improve domestic taxation mechanisms will determine the success of Ukraine's tax policy in the context of constant changes in the world and domestic reforms.

The income tax rate in Ukraine varies based on individual and corporate incomes. Additionally, there are social security contributions, excise taxes, and property taxes. The tax code

is subject to periodic revisions aimed at enhancing transparency and efficiency. Tax compliance is crucial for businesses and individuals to contribute to the country's financial stability.

Література:

1. Danilov, O. (2020). "Tax reform in Ukraine: transformation or temporary effect?" Economic Sciences.
2. Koval, N. (2019). "Tax policy and its impact on the economy of Ukraine". Finance and Banking.
3. Lytvyn, V. (2021). "Taxation and economic development: the experience of Ukraine". Economic Policy.
4. Institute of Finance and Economics (2022). "Analysis of the taxation system in Ukraine: state and prospects." Kyiv.

УДК 811.111

CHALLENGES IN BIOLOGICAL DRINKING WATER TREATMENT (ПРОБЛЕМИ БІОЛОГІЧНОГО ОЧИЩЕННЯ ПИТНОЇ ВОДИ)

Дзюба С. І. – здобувачка вищої освіти групи БТ 2/1

Науковий керівник: Саламатіна О.О., доцент кафедри іноземних мов МНАУ

У публікації порушено питання проблеми біологічного очищення питної води. Проблеми природного та антропогенного забруднення води. Обговорення систем і методів очищення питної води.

Ключові слова: *питна вода, очистка води, вода, здоров'я.*

The publication raises the issue of biological treatment of drinking water. Problems of natural and anthropogenic water pollution. Discussion of systems and methods of drinking water treatment.

Key words: *drinking water, water treatment, water, health.*

Drinking water remains inaccessible to 1.1 million people globally. Safe and readily available drinking water is important for public health. Drinking water can be used for many purposes including cooking, drinking, washing, personal hygiene, irrigation, recreational and industrial use. Improved water supply, sanitation and better management of water resources can boost countries' economic growth and can contribute greatly to poverty reduction. The sources of drinking water in developing countries can range from surface water, groundwater, spring water, saline water, bottled water and harvested rainwater.

Water quality issues due to anthropogenic and natural pollution can affect the amount of water available for use. Both surface and groundwater can be contaminated by both anthropogenic and natural contaminations. Microbiology and chemical contaminants in drinking water can cause acute and chronic health effects. Contamination can also affect the aesthetic properties of water systems.

The contaminants include:

- Pathogens disease-causing organisms that include bacteria, amoebas, viruses and eggs and larvae of parasitic worms.
- Harmful chemicals from human activities and industrial wastes such as pesticides and fertilisers.
- Chemicals and minerals from the natural environment, such as arsenic, common salts and fluorides.

- Some non-harmful contaminants may influence the taste, smell, colour and turbidity of water and make it unacceptable to the consumer; its examples include zinc, iron, particulate matter and humic material.

The physiochemical properties of contaminants of water that can impact its toxicology in water include size, density compared to water, charge, solubility, volatility, polarity, hydrophobic, hydrophilic, boiling point, chemical reactivity and biodegradability.

Challenges to the drinking water supply in developing countries include the natural scarcity of water source in certain areas. Floods can create more siltation problems in river systems as well as the contamination of rivers and large dams giving rise to source receptor issues. Climate change and water scarcity are also some of the concerns.

To maintain clean drinking water, an integrated approach is needed in developing countries. Proper management of solid waste and waste water can enhance the quality of our drinking waters.

At different times of the year, the water source availability varies for examples rivers are used during the wet season and bore well water sources are used during the dry season.

Human health largely depends on the quality of the water we consume. According to the WHO, Ukraine ranks 95th among 122 countries in terms of drinking water quality and, according to UNESCO, 146th in terms of life expectancy in the world. It is no surprise that in Ukraine, unlike in developed countries, life expectancy is to some extent related to the quality of water consumed by the population and is a significant factor affecting the health of the entire population.

Due to the deterioration of the environmental situation, it is becoming increasingly difficult for municipal wastewater treatment plants to ensure high quality drinking water in accordance with the indicators stipulated by sanitary rules and regulations, including pathogenic microorganisms, viruses, heavy metals and other toxic compounds.

To ensure the quality of drinking water, it is necessary to continuously improve drinking water treatment methods and ensure periodic measurement and assessment of its quality.

Disinfection as a method of water treatment. Water disinfection is carried out to destroy pathogenic bacteria and viruses. Such disinfection is carried out by adding chlorine, ozone or potassium permanganate to the water. Chlorination is one of the most common methods of water disinfection both in Ukraine and abroad. It is carried out by adding gaseous chlorine or substances containing active chlorine to water, such as bleach, chlorine dioxides, etc.

Chlorination of drinking water is a process in which water is exposed to chlorine. This process purifies the water, but also produces a number of by-products that are very harmful to humans.

In addition to the main function of disinfection, chlorine serves other purposes due to its unique oxidizing properties: controlling taste and odor, preventing algae growth, keeping filters clean, removing iron and manganese, destroying hydrogen sulfide, discoloration, etc. In this sense, none of the alternative means to chlorine can be compared with it in terms of versatility and ease of use.

Chlorination has a wide range of antimicrobial effects, is quite economical, and is simple in technological design.

One of the most effective and efficient measures is the method of water disinfection using ultraviolet irradiation. Scientists from different countries have recently been paying attention to such water disinfection, improving the technology and process equipment.

This treatment ensures the complete destruction of bacteria in the treated water.

Thus, the main goal of modern drinking water treatment technologies is to produce biologically stable water with very low levels of organic compounds and ammonia to prevent problems associated with an increase in the number of microorganisms in the water supply network.

Literature:

1. https://books.google.com.ua/books?hl=uk&lr=&id=d37DwAAQBAJ&oi=fnd&pg=PA55&dq=challenges+in+biological+drinking+water+treatment&ots=-6g7cnibnI&sig=Q-3I-IwVsTmeQIeD3JXN4KgZPM&redir_esc=y#v=onepage&q=challenges%20in%20biological%20drinking%20water%20treatment&f=true

2. https://ela.kpi.ua/bitstream/123456789/38575/1/Povarova_magistr.docx
3. <https://www.sciencedirect.com/science/article/abs/pii/S2214714419304453>
4. <https://esu.com.ua/article-35311>
УДК 811.111

CYBERSECURITY IN THE FINANCIAL SECTOR: CHALLENGES AND PROTECTION STRATEGIES FOR BANKS (КІБЕРБЕЗПЕКА У ФІНАНСОВОМУ СЕКТОРІ: ВИКЛИКИ ТА СТРАТЕГІЇ ЗАХИСТУ ДЛЯ БАНКІВ)

Задорожна О.В. – здобувачка вищої освіти групи Ф4/1

Науковий керівник: Матвєєва А.Л., викладач кафедри іноземних мов МНАУ

У статті розглядаються проблеми кібербезпеки у фінансовому секторі з огляду на сучасні реалії. Проаналізовано Інтернет-банкінг, як різновид банківських послуг. Були рекомендації та стратегії запобігання цим проблемам.

Ключові слова: кібербезпека, фінансовий сектор, банк, дані.

The article presents the problems of cybersecurity in the financial sector due to the modern reality. Internet banking, like a kind of banking services, was analyzed. There were recommendations and strategies to prevent these problems.

Key words: cybersecurity, financial sector, bank, data.

Cybersecurity is an important issue in today's world as such as our daily lives take place online. From online shopping and banking to social media and email, we rely on the Internet for a wide variety of activities. Unfortunately, this dependence also means that we are vulnerable to a growing range of cyber threats, including hacking, malware, phishing and other types of cyber-attacks.

Internet banking is one of the greatest assets of mankind in the banking sphere. However, along with the advantages, this direction also has disadvantages, risks and challenges. In general, banking, like other software applications that can provide access to money, is an attractive target for criminals. Also, today bank clients have to worry not only about how to protect their physical bank card and personal data, but also how to protect themselves, who have at their disposal a "significant" arsenal of various criminal schemes and methods of attacks for obtaining access to their money [3]. Mobile banking means using a special software application developed by the bank. This is different from online banking, which involves logging into the bank's website on your phone and/or computer. Surprisingly, this has some significance when considering security issues. Banks have more control over account security when using an app than when using a website [5].

Privat24 became the first internet banking in Ukraine. Privat24, as a mobile application, was first introduced in 2011 by PrivatBank, which had already been the leader of the domestic banking sector at that time. This mobile application has become an important tool for the bank's customers, which allows them to perform various banking operations precisely through mobile devices.

Table 1.

Security aspects						
Bank	Changing the PIN in the application	3D-secure option to disable enhanced authentication	Management of verification of geolocation of the client and payee	Choosing your own CVV in the app	Management of tokenized applications	Management of application resource subscriptions
Monobank	+	+	+	+	+	+
Sense bank	+		+		+	+
Privat-	+					+

Bank						
Otpbank	+					
Raiffeisen	+					

Since the creation of Privat24, many banking applications have appeared in Ukraine, such as Monobank, Raiffeisen Online, Oshchad24, Alfa-Mobile and others. Each of these applications provides customers with convenient access to banking services using a mobile device and has certain security and user interface features. The EMA Association conducted a study in which these aspects were considered [4].

The only bank that contains all aspects is Monobank, which does not have a physical bank establishment.

Among the main problems faced by Internet banking, those shown in Chart. 1.

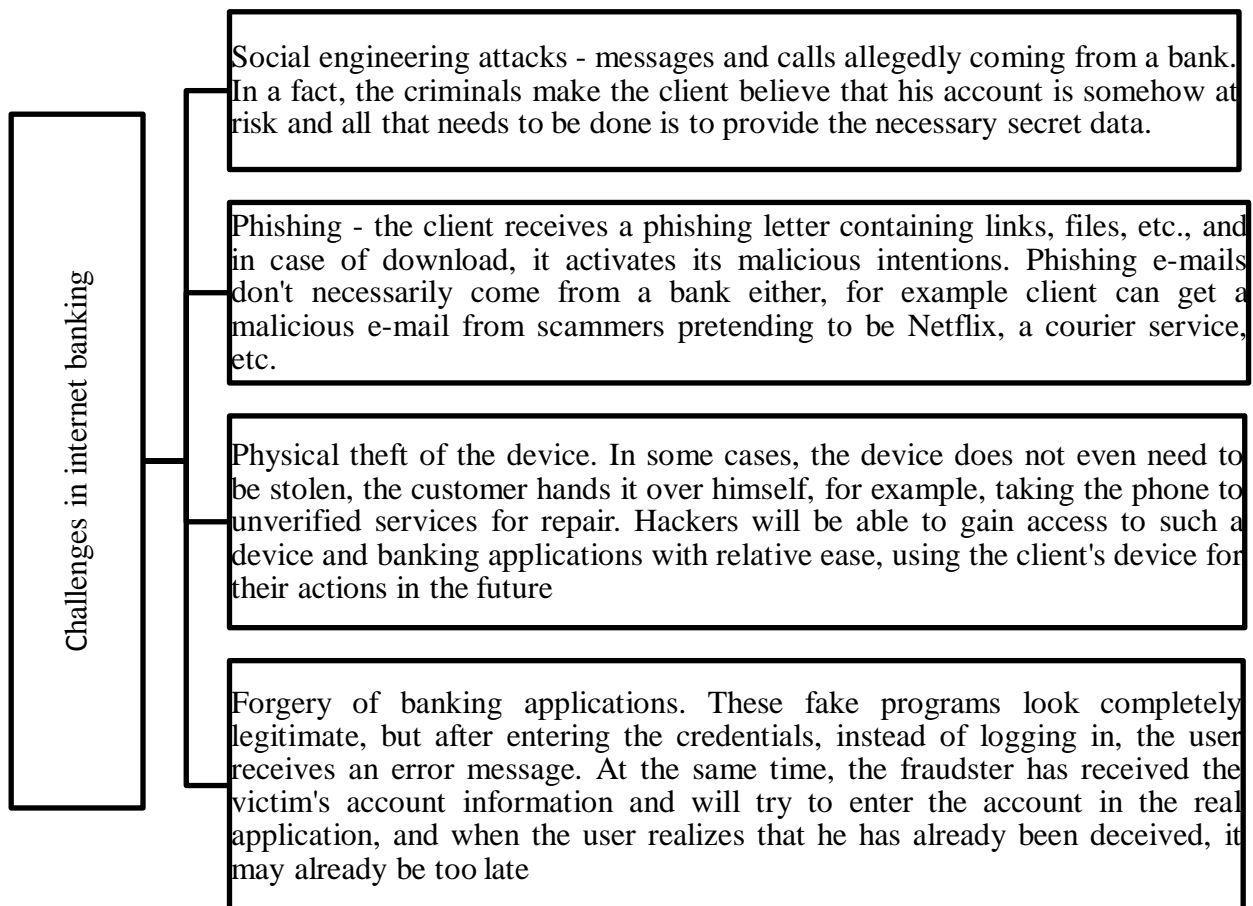


Chart 1. Challenges in internet banking

The diversity of threats in 2024 continues to evolve, shaping the future of banking. Employing effective security tactics is paramount for banks hoping to protect customer data and business assets. There are some of the best banking cybersecurity solutions and strategies, we can name them.

First of all, banks should invest in software to track all digital banking services. These services conduct monitoring and patching activities, which are crucial for maintaining a secure environment. Additionally, monitoring tools aid in mitigating third-party risks and can provide timely alerts to manage and minimize damages in case of a security breach.

Implement risk assessment as a cyber-security audit mechanism. Consistent evaluations of the existing defense framework enable institutions to adjust to emerging threats. By having a thorough understanding of possible security gaps, teams can fortify vulnerabilities or devise efficient incident response strategies, akin to those employed in red team versus blue team simulations. This enhanced resource allocation and decision-making process even empowers security professionals to proactively implement cybersecurity measures [1].

Encryption remains a priority in cyber security for banks. Data retention regulations have tightened, and fraudsters are launching more sophisticated attacks. All security of customer information in banks must be encrypted, whether it is at rest or in transit [2].

Access control is also important. Establish suitable access levels for all systems, applications, and data. For consumers, this entails implementing two-factor authentication or biometrics to enhance account security. For employees, it may require the limitation of privileged users using role-based access control (RBAC). For cybersecurity teams, this can mean tracking logins and logouts based on pre-defined rule sets.

Banks ought to allocate resources towards proactive network security solutions aimed at thwarting potential attacks on their extended banking networks. Firewalls and intrusion detection software serve to safeguard the perimeter, while segmentation and access control measures restrict lateral movements from compromised network areas. Denial of Service (DDoS) protection mechanisms can detect and mitigate malicious traffic, and Wi-Fi security protocols ensure the confidentiality of information during bank transfers.

Banks need to employ various innovative strategies aimed at safeguarding devices on the periphery. Among the potential options are Endpoint Detection and Response (EDR) and Mobile Device Management (MDM) solutions. These tools restrict unauthorized access and can assist in data deletion if a device becomes compromised. Additionally, educating employees about the risks associated with insecure devices and monitoring analytics can serve as proactive security measures.

The last important thing is Data loss prevention (DLP) systems refer to a set of tools designed to prevent data loss or misuse. Examples include intrusion detection systems or anti-virus software. Some solutions even offer special protection against known malware or ransomware. DLP tools are indispensable for preventing data leakage and offer a comprehensive way to strengthen information security in banks.

In summary, along with the improvement of the banking system, new methods appear to harm its security. We analyzed different peculiarities of this sphere and made recommendations how to pretend it and solve.

Література:

1. Adel Ismail AL-ALAWI* The Significance of Cybersecurity System in Helping Managing Risk in Banking and Financial Sector. Journal of Xidian University. 2020. No:1001-2400. P. 1523 – 1537.
2. Koteshev D. The State of Cybersecurity in Banking 2024. URL: <https://anywhere.epam.com/business/cyber-security-in-banking>
3. The Top 10 Cybersecurity Threats to Digital Banking and How to Guard Against Them. URL: <https://www.guardrails.io/blog/the-top-ten-cyber-security-threats-to-digital-banking-and-how-to-guard-against-them/>
4. ЄМА. URL: <https://www.ema.com.ua/>
5. Логачова Є.В. Аналіз особливостей забезпечення кібербезпеки у банківських мобільних додатка. CS&CS. 2023. №1 (23). С. 63 – 74.

УДК 811 111

WINTER BARLEY CHEWED BY MYKOLAIV REGION (ВИРОЩУВАННЯ ЯЧМЕНЯ ОЗИМОГО В МКОЛАЇВСЬКІЙ ОБЛАСТІ)

Землянухіна В.І. – здобувачка вищої освіти групи АМН1/1

Науковий керівник: Тішечкіна К.В., кандидат філологічних наук, доцент кафедри іноземних мов МНАУ

У роботі наведено особливості вирощування ячменю озимого в Миколаївській області. Продуктивність культури в даній області та які сорти краще вирощувати для

сталих урожаїв. Надано рекомендації стосовно використання гербіцидів та норми їх використання. Вказано на які хвороби потрібно звернути увагу під час вегетації рослини, оскільки вони можуть завдати шкоди майбутньому урожаю.

Ключові слова: ячмінь озимий, Миколаївська область, сорт, урожай.

The article describes the peculiarities of growing winter barley in the Mykolaiv region. Productivity of crops in this region and which varieties are better to grow for sustainable crops. Recommendations regarding the use of herbicides and the rate of their use are provided. It is indicated which diseases you need to pay attention to during the growing season of the plant, as they can harm the future harvest.

Key words: winter barley, Mykolaiv region, variety, harvest.

Winter barley can be brought to the speed of grain crops, some of the time reaches 7-14 days earlier than winter wheat, as well as a culture, it is possible to grow crops and mothers in a wide range of crops. In the Mykolaiv region with a trivial warm autumn, winter barley is a valuable alternator for winter wheat.

Winter barley has a high yield potential. In the Mykolaiv region there is a good harvest of 60-80 centners / ha and more grain. So, according to the data of Polish slings to the Institute of Grown Farming of the UAAN, the yield of this crop when grown up is 81-85 kg / ha. The genetic potential of growing barley varieties, as well as new varieties of intensive type barley in the minds of growing growth is up to 80-120 c / ha [1].

For the gain of the highest and steels of the harvest, a lot of factors are infused, and the very sorts of grades, the best for the protection of grain, for any weather minds. When growing winter barley, it is especially important to respect the beast of a variety, so for the analysis of the skin government it is possible to choose 2-3 varieties for growing and picking varieties with short signs, and those who are very good for the dear ones. For the rest of the rocky bulo vivedno to finish with a lot of new high-yielding varieties of the culture.

The following varieties are recommended for growing for intensive technology in the Mykolaiv region: Worthy, Siluet, Jason, Barvinok, Yarna, Aivengo, Mirage, Delikatesse, Rosava, Snegova Queen, Bureviy. Sorts Rosava and Snigova queen to lay down to the little hand, so it is possible to carry out a visit to a spring, as well as a canopy. The most common areas in the Mykolaiv region according to the growth of the loan are the Snigova queen variety.

The most frequent winter barley in the Mykolaiv region is growing for intensive technology, like winter wheat. Shifting alternatives for winter barley, they are used to take bets, beans, corn, dormouse, beet grass, bavovnik, winter wheat, and many herbs.

For sowing, it is necessary to vicoristovuvati in the form of a great variety of the first class of the appropriate standard. 14 days before sowbi, or before sowing, we should clean the root rot and root shkidnikiv to change the risk of growing roslin during the period of the vegetation period. Sivba in the Mykolaiv region is being repaired to spend from the 2nd decade of the week to the ear of the 1st decade of leaf fall, some of the rest of the rock is spared the warmth and autumn. Winter barley syut in high-row and extra-row methods. The norm is hanging from the middle, type of processing, variety, of the same quality of the seed material.

In the phase of winter barley bush, it is necessary to fix the fight, in case of obviousness, with dvodol buryans for additional herbicides: agent - 0.4-0.6 l / ha; dialenom, 40% c. R. - 0.7-1.2; granik (granstar) rangoli 0.5 kg / ha - 0.020-0.0250 kg / ha and inshi. Also, it means that winter barley during the period of its vegetation grows with small ailments such as root rot, brown dew, fusariosis of the ear, helminthosporosis, and the results are low

It is accepted to vzhaty, we cut by the method of picking winter barley € razdilny, with the offensive threshing of rolls, ale tsei way € more energy-consuming. The picking is to be repaired, if 80-85% of the grains are within reach of the wax and more stigliness. The early lines of harvesting are brought up to the "dropping" of the grain near the rolls, as a result, we will feel more palpable, more of the piled-up old-fashioned chanters come near the straw. On the current day, it is still more vicarious to combine directly, the grain content is not guilty of changing 14% [2].

Література:

1. Буковська бібліотека. [Електронний ресурс] – Веб-сайт. Режим доступу: <https://buklib.net/books/34353>. Мова укр.
2. Сільське господарство садівництво. [Електронний ресурс] – Веб-сайт. Режим доступу: <https://www.xpert.com.ua/ozumu-yachmin.html>. Мова укр.

УДК 657.24

ELECTRONIC DOCUMENT MANAGEMENT: ADVANTAGES AND DISADVANTAGES OF IMPLEMENTATION (ЕЛЕКТРОННИЙ ДОКУМЕНТООБІГ: ПЕРЕВАГИ ТА НЕДОЛІКИ ВПРОВАДЖЕННЯ)

Зерницька К.О. – здобувач вищої освіти групи Б 3/1

Науковий керівник: Ракова А.Ю., старший лаборант кафедри іноземних мов МНАУ.

В даній роботі розглядається важливість електронного документообігу для ефективного управління документами на підприємстві. Висвітлено переваги та недоліки впровадження електронного документообігу.

Ключові слова: *електронний документообіг, підприємство, ефективність, програмне забезпечення, документ, інформація.*

This work examines the importance of electronic document management for effective document management at enterprises. The advantages and disadvantages of the introduction of electronic document circulation are highlighted.

Key words: *electronic document management, enterprise, efficiency, software, document, information.*

In the modern business environment, the speed and efficiency of information exchange become key factors for achieving success and maintaining the competitiveness of enterprises. In this regard, there is a need to improve document management systems. One of the main directions is the introduction of electronic document management. This technology allows you to keep an electronic archive, control the flow of documents, carry out assignments, and more. Electronic document management simplifies the joint work of employees with documents and files, increases the efficiency of the team and the enterprise as a whole [1].

Electronic document management is a set of processes that include the creation, processing, coordination, sending, receiving and storage of electronic documents in digital form. The main components of electronic document flow are: electronic document; qualified electronic signature; time stamp.

In our country, electronic document flow is regulated by three laws: "On electronic trust services", "On electronic documents and electronic document flow" and "Law on accounting and financial reporting". The latter refers directly to primary documents. According to these laws, electronic documents have the same legal force as similar paper ones. That is, in the case of tax audits, court hearings, etc., it is enough to submit documents in electronic form [2].

To implement an electronic document management system at the enterprise, it is necessary to have appropriate software. On the Ukrainian market there is a significant number of software products designed for this purpose, among which the most common are:

- M.E.Doc. Business. Software for submitting reports to regulatory bodies and exchanging legally significant primary documents between counterparties in electronic form. In addition, the program includes various modules such as payroll, reporting, etc.
- MASTER: Document management. The software product is designed for the exchange of electronic documents via e-mail and keeping records of all incoming, internal, and outgoing documents and ensures the creation of a unified document storage environment.
- BAS Document Management. A multifunctional software product that allows you to configure business processes and promotes the joint work of employees at the enterprise. The variety of tools and methods included in it allow you to organize electronic document flow, establish control over the performance of tasks, improve work processes and company management, which contributes to increasing the efficiency of the enterprise as a whole. BAS Document Management solves a wide range of tasks related to the automation of document processing and meets all the requirements and norms of working with documents [3].

Specialized programs that help organize electronic document flow are used both in the private and public sectors. In the private sector, they help reduce labor costs and speed up the paperwork process. In the public sector, the flow of information is optimized, and work with the population is accelerated and simplified [4].

Electronic document management has numerous advantages compared to paper management: - organization of paperwork, the system automatically assigns unique numbers to documents in the order of their receipt, which makes it impossible to duplicate numbers; – thanks to the indication of the date of creation and the deadline, it is possible to plan the execution of documents that arrive according to the queue; – at any time, you can check who exactly works with the document, which ensures its reliable storage and avoidance of losses. Even in case of accidental or intentional deletion, the document can be easily restored; – acceleration of document processing; - round-the-clock remote access, that is, if necessary, you can access the electronic document management system via the Internet from any computer. The employee can work with documents even while on a business trip, on vacation or on sick leave; – it is possible to search in the general database of documents by keywords and expressions; - convenient to work with versions - during editing, the system saves each version. If necessary, you can trace who made changes to the document and when [1].

Despite the obvious advantages, in the implementation of the electronic document management system there are also disadvantages that may prevent the company from implementing it: - you need to spend money on the purchase of the system, which, depending on the number of users, can amount to a significant amount of money; – installation, implementation and debugging take a long time after purchase; – it is necessary to have an administrator in the company's staff who will be responsible for the functioning of the system, perform service actions and solve user issues; - to save information, you need to create a backup copy of the database with documents; - ensuring system security - delimiting access between users, issuing the necessary electronic signatures, protection against intrusion from the outside; - in the absence of an electronic document management system at the partners of the enterprise, it is necessary to ensure the availability of both an electronic and a paper system [1].

In conclusion, we can say that electronic document management is an extremely important tool for optimizing document management at enterprises. It allows you to significantly increase the efficiency, speed and accuracy of document processing, facilitating the collaboration of personnel and ensuring a high level of data security. The implementation of electronic document management can be a key step in modernizing work processes, but requires careful planning and analysis to maximize its benefits and reduce potential drawbacks.

Література:

1. Harkusha Serhii Electronic document management: advantages and disadvantages of implementation // Sumy National Agrarian University. URL: http://www.market-infr.od.ua/journals/2020/50_2020_ukr/45.pdf (application date: 5.03.2024).
2. Medoc: Electronic document circulation in Ukraine. URL: <https://medoc.ua/blog/elektronnij-dokumentooobig-v-ukrani> (application date: 5.03.2024).
3. Pylypenko Liubomyr, Voskalo Volodymyr, Yatsuk Taras Advantages and disadvantages of introducing digital document management in the accounting system of Ukrainian enterprises // Lviv Polytechnic National University. URL: <http://dees.iei.od.ua/index.php/journal/article/view/247/233> (application date: 5.03.2024).
4. It Artel: Electronic document management: general overview, programs and services. URL: <https://it-artel.ua/blog/elektronnuj-dokumentoorobot-obshhyj-obzor-programmu-y-servysu/> (application date: 5.03.2024).

УДК 811.111

MANAGEMENT OF SUSTAINABLE BUSINESS DEVELOPMENT (УПРАВЛІННЯ СТАЛИМ РОЗВИТКОМ БІЗНЕСУ)

Кирило Ю.І. – здобувач вищої освіти групи МЕН м 1/1

Науковий керівник: Ганніченко Т.А., доцент, кандидат педагогічних наук, викладач кафедри іноземних мов МНАУ

Розглянуто ключові аспекти концепції управління сталим розвитком в контексті економіки та бізнесу. Сталий розвиток визначається як задоволення потреб сучасного суспільства, не ставлячи під загрозу здатність майбутніх поколінь задовольняти свої потреби. Проаналізовано механізми забезпечення сталого розвитку, включаючи соціальні, економічні та екологічні аспекти, а також роль менеджменту та використання інформаційних технологій.

Ключові слова: *сталий розвиток, управління, економіка, менеджмент, екологія.*

The key aspects of the concept of sustainable development management in the context of economics and business are considered. Sustainable development is defined as meeting the needs of modern society without jeopardizing the ability of future generations to meet their needs. The mechanisms for ensuring sustainable development, including social, economic and environmental aspects, as well as the role of management and the use of information technology, are analyzed.

Key words: *sustainable development, management, economy, management, ecology.*

The integration of sustainable development principles into management practices is crucial for ensuring long-term success in business. By considering the social, economic, and environmental impacts of business decisions, companies can contribute to a more sustainable future for all. The use of information technology plays a key role in tracking and managing these impacts, allowing for more informed and responsible decision-making. As the global economy continues to grow, it is essential that businesses prioritize sustainable development in order to create a more equitable and prosperous world for generations to come.

Managing sustainability means considering the environmental, social and economic impacts of decision-making. This includes balancing short-term financial goals with long-term sustainability goals, ethical labor practices, efficient use of resources, and community engagement.

Each of these three components has its own importance:

— Environmental sustainability focuses on minimizing negative impacts on the natural world and preserving resources for future generations;

— Social responsibility emphasizes the well-being of employees, communities, and stakeholders. Companies prioritizing social aspects contribute positively to society and foster ethical business practices;

— Economic prosperity in sustainable management is about creating long-term value while fostering equitable growth[1].

These three components work together to create a holistic approach to sustainability that considers the environmental, social, and economic impacts of business practices. By incorporating all three aspects into their operations, companies can create a more sustainable and resilient business model that benefits both the organization and the broader community. In doing so, they can also build trust with consumers, investors, and other stakeholders who increasingly value sustainability in their decision-making processes. Ultimately, sustainable management is not just about minimizing negative impacts, but about actively creating positive change for a more prosperous and equitable future.

One way companies demonstrate their commitment to sustainability is by setting specific goals and targets to measure their progress. By holding themselves accountable to their goals, companies can track their impact and take meaningful steps toward a more sustainable future. In addition, transparent reporting on their progress can build credibility and trust with stakeholders by demonstrating their commitment to making a positive difference in the world. A continuous commitment to sustainability not only benefits the environment and society, but can also lead to the long-term success and sustainability of an organization. Effective sustainability management can help attain the following objectives:

- Management of the global economy;
- Securing a sustainable future;
- Ensuring long-term growth[2].

Management of the global economy involves implementing strategies that minimize negative impacts on the environment while supporting economic growth. By implementing sustainable practices, companies can contribute to a more stable and sustainable global economy. This can lead to increased resilience in the face of economic challenges and help create a more equitable distribution of resources for all.

Securing a sustainable future involves a collective effort from businesses, governments, and individuals to prioritize environmental stewardship and responsible resource management. By focusing on sustainable practices, companies can not only reduce their carbon footprint and minimize waste but also foster innovation and drive economic development. Ultimately, securing a sustainable future is essential for creating a world where future generations can thrive and prosper. It requires a commitment to long-term thinking and responsible decision-making to ensure a healthy and vibrant planet for years to come.

Ensuring long-term growth and prosperity for all requires a shift in mindset towards sustainable practices, where the well-being of the planet is prioritized alongside economic goals. Collaboration between stakeholders is crucial in driving systemic change and promoting a culture of sustainability in all aspects of society. By taking collective action now, we can pave the way for a flourishing future that benefits both people and the planet.

By setting specific goals and targets, companies are able to track their progress towards these objectives and hold themselves accountable for their impact on the environment and society. This proactive approach not only benefits the company itself, but also sets a positive example for others in the industry to follow. Through effective sustainability management, businesses can play a key role in shaping a more sustainable and equitable future for all.

Sustainable management is not merely a buzzword but a fundamental approach to doing business responsibly in a rapidly changing world. By integrating environmental stewardship, social responsibility, and economic viability, organizations can achieve long-term success while contributing to a sustainable future[3].

By prioritizing sustainability, businesses can reduce their environmental impact, improve their reputation, and attract environmentally conscious consumers. This can also lead to cost savings through more efficient resource use and waste reduction. Ultimately, businesses that embrace sustainable management practices are better positioned to thrive in a world where consumers, investors, and regulators increasingly demand corporate responsibility. By leading by

example, companies can inspire others to follow suit and create a more sustainable and equitable world for future generations.

Література

1. Dr. Elizabeth Green. Sustainable Management: A Complete Guide. Dec 2, 2023
URL: <https://sigmaearth.com/sustainable-management-a-complete-guide/>
2. Schneider Electric Blog. An introduction to sustainability management: Objective, principles, advantages. URL: <https://blog.se.com/sustainability/2022/06/27/an-introduction-to-sustainability-management-objective-principles-advantages/>
3. Sustainable Management in Organization. URL: <https://www.tutorialspoint.com/sustainable-management-in-organization#:~:text=Continuous%20Improvement%20E2%88%92%20Sustainable%20management%20is,report%20transparently%20on%20their%20progress.>

УДК 811.111

LEPTOSPIROSE IST EINE BEDROHUNG FÜR TIERE UND MENSCHEN (ЛЕПТОСПІРОЗ - ЗАГРОЗА ДЛЯ ТВАРИН І ЛЮДЕЙ)

Коваль Д.О. - здобувач вищої освіти групи ВМ 5/1

Науковий керівник: Пономаренко Н.Г., старший викладач кафедри іноземних мов МНАУ

В статті описана загроза лептоспірозу тваринам і людям, також представлено профілактику по цьому захворюванню. Останніми роками стали відмічати зростання захворювання на лептоспіроз, як серед тварин, так і серед людей (особливо серед міських жителів), тому ця тема є актуальною на сьогодні.

Ключові слова: лептоспіроз, інфекція, захворювання, профілактика

Der Artikel beschreibt die Bedrohung von Leptospirose für Tiere und Menschen und stellt auch die Prävention dieser Krankheit vor. In den letzten Jahren wurde ein Anstieg der Leptospirose sowohl bei Tieren als auch bei Menschen (insbesondere bei Stadtbewohnern) festgestellt, sodass dieses Thema heute relevant ist.

Schlüsselwörter: Leptospirose, Infektion, Krankheit, Prophylaxe

Leptospirose ist eine akute Infektionskrankheit, die bei Menschen und Tieren häufig vorkommt und deren Erreger Bakterien der Gattung *Leptospira* sind.

Heute gibt es weltweit etwa 250 *Leptospira*-Serovaren, die in 26 krankheitserregende Serogruppen eingeteilt sind. In der Ukraine sind Leptospirose-Erreger von 17 Serogruppen weit verbreitet. Die häufigsten Serogruppen sind *Icterohaemorrhagiae*, *Grippotyphosa*, *Hebdomadis*, *Mini*, *Canicola*, *Pomona*, *Tarassovi*, *Bratislava*.

In der Natur sind verschiedene Arten von Kleinsäugern (Ratten, Mäuse) die Hauptüberträger der Leptospirose. Sie belasten die Umwelt mit Leptospiren über den Urin. Auch erkrankte Tiere (Rinder, Pferde, Schafe, Ziegen, Hunde, Pelztiere) sind eine Infektionsquelle.

In der Ukraine ist Leptospirose eine saisonale Krankheit. Die Zahl der Patienten steigt im Frühjahr und Sommer, wenn die Menschen mehr Zeit in der Nähe von Gewässern verbringen.

Tiere bleiben Infektionsträger, da die Leptospirose ohne klinische Symptome und in einer sehr milden Form verläuft und die Tiere nicht sterben. Diese Tiere erzeugen Infektionsherde.

Sehr häufig ist die einzige Infektionserscheinung ein Abort und eine verringerte Produktivität (bei Schweinen und Rindern) [1].

In den letzten Jahren ist die Zahl der im Hof oder in Häusern lebenden Haushunde mit Leptospirose gestiegen. Die Ursache ist der Kontakt mit verseuchtem Wasser, Nagetierfresser oder Nagetierbisse. Außerdem werden Hunde untereinander und durch Füchse infiziert. Leptospirose tritt bei Hunden in Form von infektiösem Ikterus und Typhus auf. Die Inkubationszeit der Krankheit

бeträgt 5 bis 20 Tage. Dann treten folgende Symptome auf: erhöhte Körpertemperatur, Schwäche, Appetitlosigkeit, Erbrechen. Nach einer Woche Krankheit tritt Gelbsucht der Schleimhäute und der Haut auf. Urin ist dunkelbraun. Die Krankheit endet meist mit dem Tod des Tieres. Im akuten Krankheitsverlauf treten folgende Symptome auf: Fieber, Nahrungsverweigerung, Durst, Blutdurchfall oder Verstopfung.

Bei Verdacht auf diese Krankheit sollten Sie einen Tierarzt aufsuchen und die Regeln der persönlichen Hygiene beachten. Bei der Pflege kranker Tiere sollten Wunden und Kratzer an den Händen mit Kollodium geschmiert werden, die Räumlichkeiten, in denen das kranke Tier gehalten wird, sollten mit 2-3 % Formalin oder Chloramin desinfiziert werden[2].

Zur Prophylaxe ist es notwendig, systematisch Rattenbekämpfungsmaßnahmen durchzuführen; verhindern, dass Nagetiere in die Wasserversorgung und Nahrungsquellen gelangen; kein Wasser aus offenen Gewässern verwenden; einen Komplex veterinärmedizinischer und sanitärer Arbeiten durchzuführen [3].

Література:

1. Leptospirose ist eine gefährliche Infektionskrankheit für Menschen und Tiere: Website. URL:<https://kremenets.te.gov.ua/prescentr/povidomliaie-kremenetske-raionne-upravlinnia-holovnoho-upravlinnia-derzhprodspozhyvsluzhby-v-ternopilskii-oblasti/leptospiroz-nebezpechne-infektsiine-zakhvoriuvannia-dlia-liudei-i-tvaryn>

2. Leptospirose ist eine gefährliche Infektionskrankheit für Menschen und Tiere: Website. URL: <https://sudrada.gov.ua/leptospiroz-nebezpechna-hvoroba-dlya-lyudyny-i-tvaryn/>

3. Leptospirose: Was Sie wissen müssen: Website. URL: <https://kosivra.gov.ua/news/1643811986/>

УДК 811.111

LEADERSHIP AND ITS INFLUENCE ON THE TEAM (ЛІДЕРСТВО ТА ЙОГО ВПЛИВ НА КОМАНДУ)

Коваль Є. І. – здобувач вищої освіти групи МЕН 2/2

Науковий керівник: Ракова А. Ю., викладач кафедри іноземних мов, МНАУ

Стаття досліджує поняття лідерства, висвітлюючи його роль у досягненні спільних цілей та управлінні командою. Вона розглядає різні типи лідерства та їх вплив на ефективність організаційних процесів, а також розкриває важливість навичок управління конфліктами та розвитку учасників команди.

Ключові слова: лідерство, конфлікт, команда, комунікація.

The article deals with the concept of leadership, highlighting its role in achieving common goals and managing a team. It examines different types of leadership and their impact on the effectiveness of organizational processes, and reveals the importance of conflict management skills and team member development.

Key words: leadership, conflict, team, communication.

In modern world, where competition and complex challenges are becoming increasingly acute, leadership turns out to be one of the most important components of success in both business and other spheres of activity. Leadership is not limited to the ability to lead others, but involves the ability to inspire, motivate and guide a team to achieve a common goal.

Leadership is usually understood as one of the processes of organizing a small social group and managing it, which contributes to the achievement of a group goal in the optimal time and with the optimal effect, determined by the prevailing social relations in society. A leader is a member of a group who spontaneously puts forward the role of an unofficial leader under the conditions of a

specific and significant situation in order to ensure the organization of joint activities of people for the fastest and most successful achievement of a common goal [1, p. 117].

Leadership is the process of influencing other people, aimed at achieving common goals and stimulating the effectiveness of a team or organization. In the context of management, leadership can take many forms and types:

- Autocratic leadership: in this type, the leader determines all decisions independently, without the involvement of employees.
- Democratic leadership: here the leader takes into account the opinions and ideas of other team members.
- Transformational leadership: this kind of leader motivates his team to achieve great things through inspiration and creating a shared vision.
- Leadership without a leader (horizontal leadership): in this context, leadership can be distributed among different team members, depending on their skills and experience.
- Servant leadership: in this type, the leader serves others, focusing on meeting their needs and helping them achieve personal goals [2, p. 56].

A leader's role in stimulating the personal and professional development of team members through the provision of feedback, training and skill development is critical to the team's success and achievement of common goals. First of all, the most important are:

- Providing feedback: the leader must regularly provide objective and constructive feedback to team members about their work, achievements and opportunities for improvement. This helps team members understand their strengths and weaknesses and provides an incentive for further development.
- Training: the leader can organize trainings, seminars and other forms of training for team members in order to expand their knowledge and skills. This can include both the technical aspects of the job and the development of interpersonal and leadership skills.
- Skill development: the leader should facilitate the development of team members' skills by delegating tasks that require new skills or responsibilities. This may include project management skills, communication, decision-making, etc. [4, p. 65].

One more important thing is the role of the leader in resolving conflicts in the team and its impact on the overall climate and productivity.

First, the leader must actively identify conflict situations, respond in time to signs of tension among team members and analyze their causes. An important part of this process is the creation of a favorable environment for free discussion of problems and the search for compromise solutions.

The leader acts as a mediator who helps the parties to the conflict find a common language and make mutually beneficial decisions. He creates rules and procedures for effective conflict resolution, which promotes consistency and fairness in the dispute resolution process. After resolving the conflict, the leader actively works to support positive cooperation and build mutual understanding among team members.

Effective conflict resolution by a leader helps maintain a healthy work environment, improve communication and team relationships, and improve the overall climate and productivity. Such a leader turns out to be not only a manager, but also a mediator, a mentor and a manager, who helps the team to overcome challenges and achieve common goals [3, p. 127].

Therefore, leadership is key to achieving common goals and improving team performance. Different types of leadership influence leadership style. An effective leader provides feedback, coaches and develops team skills, and resolves conflict to support a positive work environment and increase productivity.

Література:

1. Hryshchenko I. M. Leadership as a group management phenomenon. *Investments: practice and experience*. 2015. № 10. P. 116–119.
2. Nestulia O. O., Nestulia S. I., Kononets N. V. Fundamentals of leadership: an electronic manual for independent work of students. Poltava: PUET, 2018. 241 p.
3. Shvets H. O. Leadership as an integral component of effective management. *Bulletin of the Pryazovskyi State Technical University*. SHEI “PSTU”. Mariupol, 2017. Iss. 33. P. 124–129.
4. Shutko L. H., Shatko D. B. Leadership in the quality management system and its role in increasing the competitiveness of the organization. *Economics and innovation management*. 2018. № 2 (5). P. 61–70.

УДК 811.111

SANITARY AND HYGIENIC ASSESSMENT OF PIG KEEPING (САНИТАРНО-ГІГІЄНІЧНА ОЦІНКА УТРИМАННЯ СВИНЕЙ)

Комісарова Д.Д. – здобувач вищої освіти групи ВМ 4\1

Науковий керівник: Сепанова В.Є., кандидат сільськогосподарських наук, доцент.

У статті розглядаються питання санітарно-гігієнічної оцінки ділянки свиноферми. Вивчено вплив інфрачервоного опромінення з доповненням ультрафіолетового на продуктивність і збереженість свиней.

Ключові слова: гігієна, ферма, свиноматки, поросята, поросята-сисуні, інфрачервоні лампи, інфрачервоне опромінення.

The article deals with issues of sanitary and hygienic assessment of the pig farm site. The influence of infrared irradiation with supplementation was studied ultraviolet radiation on the productivity and survival of pigs.

Key words: hygiene, farm, sows, piglets, suckling piglets, infrared lamps, infrared irradiation.

Providing the population with food products is one of the important directions of human activity. In solving the meat problem, pork occupies one of the first places in the world. Any modern enterprise engaged in breeding pigs sets itself the goal of obtaining the highest productivity indicators from the animals in the shortest possible time. At the same time, often neglecting the generally accepted rules of breeding and raising pigs, which play an extremely important role in the full growth, development and functioning of the young, fast-growing organism of pigs. Without providing comfortable conditions for keeping pigs, it is impossible to preserve the health of animals and achieve high results in the production of livestock products. One of the prerequisites for the successful management of intensive pork production technology is the careful selection of highly productive breeds of animals. In order to obtain high growth from animals, it is necessary to provide them with optimal housing conditions, balanced and complete feeding and strictly observe the veterinary and sanitary norms of pork production technology [1].

Premises for animals and the plot of land on which they are located must be closely related to each other. When choosing a site for the construction of a livestock enterprise, such requirements are expected that would be effective in economic and construction terms, and would also provide the opportunity to create the most optimal hygienic conditions for animals.

During the engineering and technical assessment of the territory, it is taken into account that the size of the site should be sufficient to accommodate the entire complex of buildings of the enterprise and assume the possibility of its development and expansion. The correct solution to this issue will determine the sanitary and hygienic conditions for keeping animals in the farm for a long time [2].

The microclimate is understood as the climate of the premises, which is defined as the totality of the physical state of the environment (temperature humidity, speed of air movement, industrial noise, lighting), its gas, microbial and dust pollution, taking into account the condition, technological equipment and the degree of population of animals.

The vital activity, behavior and productivity of farm animals are constantly influenced by a wide variety of environmental factors. Research has established that the productivity of animals depends on feeding by 60%, care conditions by 20%, and parameters of the air environment by 20% [3].

Of all microclimate factors, air temperature has the greatest impact on the health and productivity of farm animals. A decrease in air temperature in combination with high humidity and its increased mobility, even with completely satisfactory feeding, contributes to a decrease in milk productivity of cows by 30-40%, an increase in live weight of fattening animals - by 40-50% and young animals - by 25-35%.

Ultraviolet radiation causes a number of physiological and biochemical changes that lead to the normalization of metabolism and improve natural resistance. With the use of ultraviolet radiation, there is an increase in the productivity of animals, the preservation of young animals. Infrared lamps ICHZ-200-500, ICHUF-1, OKB-1376 are used for local heating of suckling piglets [2].

Література

1. Білай Д. В. Загальне тваринництво та технології виробництва продукції тваринництва з основами стандартизації. Київ : Кондор, 2008. 344 с.
2. Демчук М. В., Чорний М. В., Високос М. П., Павлюк Я. С. Гігієна тварин. Київ : Урожай, 1996. 384 с.
3. Кремпа Н. Ю. Мікроклімат та ефективність роботи системи вентиляції в реконструйованому приміщенні для свиней у перехідний та зимовий періоди. Науковий вісник ЛНУВМБТ імені С. З. Гжицького, 2012. № 2(52); Т. 14, ч. 3. С. 83-86.

УДК 811.111

ORGANIC AGRICULTURE (ОРГАНІЧНЕ ЗЕМЛЕРОБСТВО)

Котляр Д.В. – здобувач вищої освіти групи А 3/4.

Науковий керівник: Ракова А.Ю., викладач кафедри іноземних мов МНАУ

У статті розглядаються питання впровадження органічного землеробства у технологію вирощування сільськогосподарських культур. Проведення порівняльної діагностики класичного і органічного землеробства. Аналіз перспектив органічного землеробства.

Ключові слова: органічне землеробство, чиста продукція, добрива, пестициди, сівозміна.

The article deals with the introduction of organic farming into the technology of growing crops. The comparative diagnostics of classical and organic farming is carried out. Analysis of the prospects of organic farming.

Key words: organic farming, clean products, fertilizers, pesticides, crop rotation.

The global community's awareness of the growing environmental threat posed by intensive farming has stimulated the development of alternative management models that better meet the vital interests of society. Organic farming has become such a model, which has recently been providing the growing global market with certified, healthy, safe food.

Every year, Ukraine is getting closer to developed countries in terms of production and consumption of organic products. The presence of 19% of agricultural land suitable for organic farming, fertile black soil and strong agricultural production traditions create favorable conditions for the development of the organic sector in the country. Significant foreign and domestic experience in organic production, the presence of centers of scientific and practical activity, and institutional support from other countries simplify the conversion of traditional enterprises to ecological or environmentally oriented ones. In addition, the favorable geographical location and low land lease prices are favorable for both investment and export of organic products to consumer countries, and the price premium increases the income of rural residents.

Organic agriculture is a system of agricultural production that prohibits or significantly limits the use of synthetic combined fertilizers, pesticides, growth regulators, and food additives in animal feed. This system is based on crop rotation, the use of crop residues, manure and compost, legumes and plant fertilizers, organic waste, minerals, and mechanical tillage and biological pest control to increase fertility and improve soil structure, provide adequate plant nutrition, and control weeds and various pests.[1]

The global organic market is developing rapidly. The introduction of organic agriculture, which is based on maintaining and improving the health of soil, plants, animals and humans as a single and indivisible whole, based on the principles of natural ecological systems and is preventive in nature to protect the health and well-being of current and future generations and the environment, is becoming increasingly important. This is evidenced by the growth of the global organic agricultural market (almost 106 billion euros in 2019), the increase in the area under organic production, and the interest and growing demand among the population.

Organic production is a holistic system of farming and food production that combines the best practices in terms of environmental protection, biodiversity, conservation of natural resources, high standards of animal welfare, and a production method that meets certain requirements for products made with substances and processes of natural origin. Thus, the organic production method plays a dual social role: on the one hand, it provides a specific market that meets the needs of consumers for organic products, and on the other hand, it provides for the common good by contributing to environmental protection, proper animal welfare, and rural development.[2]

An equally important issue in stimulating the spread of organic agricultural practices in our country and increasing their productivity is the involvement of more public and private educational and consulting institutions in the domestic organic sector. Ukraine's organic sector is in dire need of highly qualified young organic specialists who can bring organic agriculture to a qualitatively high international level. The peculiarities of organic production require much better theoretical and practical training, which often lies in the interdisciplinary and transdisciplinary plane.

Thus, it can be concluded that organic farming is a priority for modern agricultural production. It balances the socio-economic needs of society and business and the natural resource potential of land use, providing the population with high-quality and environmentally friendly food in an ecologically safe environment.

The shortage of organic products on the global and European markets opens up great opportunities for Ukrainian organic producers. Innovative technologies for growing organic products reduce the cost of production, and high prices and demand ensure high income even with lower crop productivity as opposed to conventional farming, which creates higher financial and economic performance of certified organic farms and provides additional profit.

Stimulation of organic production should be provided through financial and preferential support from the state, which is interested in the health of the nation and an environmentally friendly environment. Further research is needed to develop a certification program at the expense of the state, popularize organic products among the population on the basis of better taste, train qualified personnel in the production of organic products, provide subsidies, apply innovative technologies for growing organic products, and develop producers' own production of organic products.

The main conditions for the effective cultivation of organic crops are: cooperation with a certification body, market orientation, strict adherence to the technology and principles of organic production. [3]

Having analyzed the process of transformation of farms' environmental friendliness, we can state that a good choice of the way to transition from conventional to organic farming is one of the key factors that will determine the efficiency of its operation in the future. Other key factors include local conditions and traditions, crop response to organic production methods, type of production processes, selected agricultural technologies to comply with the requirements of the organic principles, the possibility of introducing a stabilization period to eliminate the negative effects of previous land use, the soil and climate zone in which the agricultural enterprise is located, and its size. Despite all the obstacles and risks, reorientation of agricultural production of most traditional farms in an environmentally friendly direction is possible, and changing the mindset of agricultural producers is essential for future generations.

Література:

1. Garazha O. P. // Prospects for the development of organic farming in Ukraine
2. OrganicInfo information portal URL: <https://organicinfo.ua/>
3. International Federation of Organic Agriculture. URL: <http://www.ifoam.org/>
4. Minkova O.G. Modern trends in the formation of the principles of organic agriculture / O.G. Minkova // Bulletin of the Uman National University of Horticulture. 2015 - No. 1 - P. 16-21.
5. Research Institute of Organic Agriculture URL: <https://www.fibl.org/de/>
6. Pindus V., Hutsalenko O., Omelchuk S., Vasylenko L., Horban S. // Fundamentals of organic crop production.
7. Official website of the magazine "Organic ua". URL: <http://organic.ua/uk/organicworld/how-to-choose>
8. Official website of BTU-Center. URL: <https://btu-center.com/integr/organic/>

УДК 811.111

DEVELOPMENT OF INTELLECTUAL CAPITAL IN UKRAINE (РОЗВИТОК ІНТЕЛЕКТУАЛЬНОГО КАПІТАЛУ В УКРАЇНІ)

Краснокутська Л.О. – здобувачка вищої освіти група БЗ/І

Науковий керівник: Ракова А.Ю., викладач кафедри іноземних мов МНАУ

Під впливом інтеграції та глобалізації економічних процесів у національній економіці інтелектуальні ресурси набувають все більшого значення. На основі використання інтелектуальних ресурсів в економічній діяльності підприємства та організації можуть реалізувати інтелектуальний капітал. Визначено проблеми розвитку інтелектуального капіталу в Україні. Проаналізовано причини повільного переходу до інноваційного розвитку в Україні.

Ключові слова: *інноваційний розвиток, науковотехнічний прогрес, інтелектуальний капітал, наука.*

Under the influence of integration and globalization of economic processes in the national economy, intellectual resources are becoming increasingly important. Based on the use of intellectual resources in economic activities, enterprises and organizations can realize intellectual capital. The problems of intellectual capital development in Ukraine are identified. The reasons for the slow transition to innovative development in Ukraine are analyzed.

Key words: *innovative development, scientific and technological progress, intellectual capital, science.*

The development of the modern economy is mainly based on the intellectualization of economic processes. The interest of modern society in this topic is driven by both external factors (globalization of economic processes, integration of the national economy into the European community) and internal factors (the need to increase the competitiveness of enterprises and organizations operating in a market economy).

Ukraine's transition to innovative development is rather slow. In the current conditions, the study of the transformational features of the process of capitalization of intellectual labor and the factors that stimulate and limit its development is gaining a qualitatively new meaning.

It is worth noting that the National Strategy of Ukraine in the Field of Intellectual Property for the period of 2020-2025 states that «...Ukraine is losing its potential for creating intellectual property objects in the absence of a consistent state policy and strategy in the field of protection and enforcement of intellectual property. Therefore, the state policy in the field of intellectual capital should be an integral part of the innovation policy, the core of economic development, and will allow for a comprehensive and global approach to stimulating and promoting innovation at the national level, as well as become a catalyst for the creation and use of industrial property rights in the processes of structural transformation» [1].

Intellectual capital largely determines the possibilities and directions of using financial capital and material capital and is the primary basis and driving force behind the formation of the «new economy». The growth of intellectual capital and the efficiency of its use determine the prospects for the country's economic development. The experience of the United States, Japan, France, and the United Kingdom convincingly proves that investments in intellectual capital are highly profitable.

The absence of an effective development strategy demonstrates the low level of intellectual capital in Ukraine's economy. In addition, the aggravation of the economic crisis in the national economy and the growing dependence on the intellectual capital of developed countries makes it necessary to give these areas a high priority [2].

Today, intellectual capital is facing new challenges. The war and the transformation crisis in Ukraine have led to the destruction of the scientific and technological and undermined the spiritual and moral component of the national intellectual capital. Currently, we face the following problems:

- migration of highly qualified personnel and outflow of scientific personnel from science to other spheres of public life;
- the intellectual potential of Ukraine is practically not transformed into production due to the lack of demand for intellectual labor products and innovative products;
- limited incentives for individual and collective promotion of innovations and the mechanism of co-financing of scientific, scientific and technical works at the expense of the State Budget of Ukraine;
- education costs in Ukraine are steadily increasing, while in terms of financial losses per capita, Ukraine is inferior to most countries in the world, occupying one of the last places in Europe in particular;
- lack of close cooperation between research institutions, higher education institutions, and business organizations.

While in more developed countries science has become a direct productive force, in Ukraine a significant part of the existing production potential is not used or is not ready to accept scientific and technological innovations. The existence of this problem reflects the inadequacy and insufficiency of economic and social incentives for the development of science, which not only destroys the existing intellectual potential but also seriously weakens the economic potential. There is a crisis in science in Ukraine, as low remuneration of researchers, lack of funds for the purchase of modern equipment, lack of receptivity to the implementation of research results and other negative phenomena cause significant losses of highly qualified human resources. Ukraine needs to adopt a rather important and comprehensive policy to manage the nation's intellectual capital. First, it is necessary to take specific measures regarding investment, expert cooperation, legal protection,

and diversification of business solutions. Therefore, it is advisable to borrow the experience of the UK, France, the USA, Japan and other foreign countries in the functioning of intellectual capital.

Література:

1. Національна Стратегія розвитку сфери інтелектуальної власності в Україні на період 2020-2025 роки. URL: https://drive.google.com/file/d/1oqjabxZiTempwJjaZsO1NoLt7fvP_qxj/view (дата звернення: 08.03.2024).
2. Клименко І. С.; Тарануха О. М.; Журавель О. В. Інтелектуальний капітал і ринок інтелектуальної власності в умовах інформаційної економіки: проблеми ідентифікації та оцінки. Економіка та держава. 2021. №5: с. 38-43.

УДК 336.741.242:004.738.5(477)

DEVELOPMENT OF ELECTRONIC MONEY IN UKRAINE: ADVANTAGES AND DISADVANTAGES (РОЗВИТОК ЕЛЕКТРОННИХ ГРОШЕЙ В УКРАЇНІ: ПЕРЕВАГИ ТА НЕДОЛІКИ)

Красноноженко В. О. - здобувач вищої освіти групи Ф4/1

Науковий керівник: Матвєєва А.Л., викладач кафедри іноземних мов МНАУ.

Розглянуто сутність електронних грошей. Зазначено види електронних грошей, які існують в Україні. Проведено аналіз переваг та недоліків використання електронних грошей. Визначено основні аспекти проєкту цифрової валюти в Україні – е-гривні.

Ключові слова: електронні гроші, Україна, криптовалюта, переваги, недоліки, е-гривня.

The essence of electronic money is considered. The types of electronic money that exist in Ukraine are indicated. An analysis of the advantages and disadvantages of using electronic money was carried out. The main aspects of the digital currency project in Ukraine - e-hryvnias - have been determined.

Key words: electronic money, Ukraine, cryptocurrency, advantages, disadvantages e-hryvnia.

In recent years, information technologies and the Internet have been developing rapidly. New technologies are emerging for carrying out and paying for business transactions. These include so-called electronic money. The popularity of this type of currency (digital payment system) has grown significantly. This is due to various factors that affect consumers, businesses and the financial system as a whole. This applies not only to large European countries, but also to Ukraine.

Electronic money is a means of payment that is circulated electronically and guarantees complete anonymity. All payment systems are based on the use of credit cards or so-called electronic wallets [1]. In other words, electronic money is a digital form of money that can be used for electronic transactions and online payments. However, there are differences and features when compared to other financial instruments. The following objects are not considered e-money [2]:

- gift certificates [2];
- gas station maps (fuel maps) [2];
- travel tickets for city transport [2];
- phone credit cards and other such that are accepted as a means of payment only by their graduates [2].

Electronic funds can be divided into [2]:

- National money (presented in official currency and included in the public payment system) [2].

– Private currency units (electronic money includes financial units that belong to non-state segments and have internal regulation) [2].

It should be noted that the state does not guarantee the reliability or liquidity of private money [2].

In Ukraine, there are the following types of electronic money [2]:

– E-Wallets are electronic wallets, which are considered the most common form of e-money. They allow owners to make online payments and store funds in electronic accounts. Electronic wallets that exist in Ukraine are Payeer, AdvCash, Perfect Money [2].

– Mobile payments allow users to make transactions using mobile phones. Popular mobile electronic money systems include Apple Pay, Google Pay, Samsung Pay, and others [2].

– Cryptocurrencies such as Bitcoin, Ethereum, Litecoin are examples of electronic money based on blockchain technology. You can make anonymous and secure transactions with them [2].

Despite the large-scale distribution of such technologies, which are gaining momentum every day, they still have their advantages and disadvantages. Let's consider them in table 1:

Table 1 - Advantages and disadvantages of using electronic money

Advantages of electronic money	Disadvantages of electronic money
Convenience and speed of payments	Risk of cybercrime and fraud
Ease of conducting financial transactions	Dependence on internet connection
Effective use for online shopping	There is a possibility of technical failures
Ability to track and analyze costs	Lack of anonymity in some cases
Saving time on money transactions	Inaccessibility for those who do not use technology
Reduction of costs for printing money and working capital	The possibility of losing access to funds in case of technical problems
Reducing the risk of losing money due to theft	Restrictions on use in some geographic areas

Source: built by the author based on [2].

Also, for a long time, Ukraine has been working on the introduction of the e-hryvnia, which is a promising electronic currency. such projects have long been tested in other countries, and the National Bank of Ukraine is not far behind. The e-hryvnia pilot project has been running since 2016, and the first testing took place in 2018. At the same time, the NBU informs that the use of e-hryvnia is convenient and accessible to all segments of the population, legal entities, state bodies, banks and non-bank financial institutions. And in the second half of 2024, the second digital hryvnia testing is planned and will last for about half a year. For this purpose, banking institutions of Ukraine have already received invitations to participate in the pilot project, where those banks that confirm their participation will invite their clients to the experiment. Everyone who wants to can take part in the experiment and test the e-hryvnia by exchanging their cash and non-cash money for it. It is also planned to test the possibility of paying with digital currency offline [3].

The purpose of this experiment is to identify the demand for this form of money among the population and whether there is a need for its introduction at all. The electronic form of the monetary unit of Ukraine, the e-hryvnia, will be a direct obligation of the central bank. According to the definition of the NBU, the digital Ukrainian currency will complement cash and non-cash forms of money and perform all their functions [3].

Anonymity is the main difference of digital money. After all, blockchain technology is used, with the help of which any transaction takes place anonymously, and other people act as intermediaries and banks become unnecessary. This is a key aspect of the popularity of cryptocurrencies, but digital government currencies can both maintain such anonymity and be tracked by the government. That is, e-hryvnia will be issued by the National Bank, and each such

hryvnia will have a unique code. The National Bank will act as an intermediary in the execution of every transaction with the digital hryvnia, and will be able to see who spent it and on what [3].

So, electronic money is a very convenient way to make instant payments, including small payments of just a few hryvnias. Electronic money makes life easier because it allows you to instantly transfer money to any account and easily track your financial status and the amount of savings left in your personal account. Also, it should be noted that Ukraine is not inferior to other countries and is testing the project of a digital monetary unit - the e-hryvnia, which has been in pilot mode since 2016. The main task is to determine the need for its implementation in Ukraine and how convenient it will be for the population to use such technologies. It should be understood that the use of electronic money in Ukraine has both advantages and disadvantages in its use and development. Therefore, a high level of security and privacy for users should be ensured and cyber threat protection systems should be regularly updated.

Література:

1. Головна. URL: https://economyandsociety.in.ua/journals/7_ukr/118.pdf (дата звернення: 08.03.2024).
2. Цимбалюк І. Електронні гроші: сутність, види, переваги та недоліки інтернет грошей. rates.fm. URL: <https://rates.fm/ua-uk/payment-systems/elektronni-groshe-sutnist-vidi-perevagi-ta-nedoliki-internet-groshej/> (дата звернення: 08.03.2024).
3. Нацбанк готується провести тестування е-гривні: навіщо це рішення. Рубрика. URL: <https://rubryka.com/2024/02/17/testuvannya-e-gryvni/> (дата звернення: 08.03.2024).

УДК 336.741.242:004.738.5(477)

EFFECT OF WAR (ЕФЕКТ ВІЙНИ)

Кучеренко А. А. – здобувач вищої освіти групи МЕН 1/1

Науковий керівник: Матвєєва А.Л., викладач кафедри іноземних мов МНАУ.

У статті розглядаються чинники війни, які несуть безпосередній або непрямий вплив на цивільних людей, а точніше, пенсіонерів, дорослих та дітей. Аналіз може бути суб'єктивним, не тим, що дає характеристику всім людям.

Ключові слова: мирні особи, конфлікт, війна, жертви, демографічна криза, окупація, економіка.

The article discusses the factors of war that directly or indirectly affect civilians, specifically pensioners, adults, and children. The analysis can be subjective, not providing a characterization of all people

Key words: civilians, conflict, war, victims, demographic crisis, occupation, economy.

The conflict in Ukraine has had devastating consequences. Since the beginning of the war, over 10,000 Ukrainian civilians have lost their lives. Nearly 5 million Ukrainians are currently displaced within the country, and close to 6 million are refugees across Europe. This means that more than one in three Ukrainians has been forced from their homes. Upon returning, many struggle to rebuild their lives.

In addition to the physical destruction, the war has also had a profound impact on the mental health of Ukrainians. Living under the constant threat of missiles and artillery has led to high levels of stress and anxiety, with 30% of the population experiencing mental health disorders.

Anna, a single mother of 3 children, experiences anxiety every time an air raid siren goes off. She fears for her children while they are in school because she doesn't know where a missile could hit. "All I want is quietness," she says. Anna is unemployed but is able to provide for her children thanks to cash assistance from the U.N. World Food Programme[1].

Even though there is considerable female involvement in the Ukrainian Armed Forces and reports of female combatants' deaths, our survey found no evidence of such fatalities. This indicates that direct combat roles are predominantly held by men, while women in the armed forces tend to be assigned to less dangerous positions.

Although several sources speculate that Russian combat deaths may outnumber Ukrainian losses, combining the conservative CSIS estimate of Russian fatalities with the survey-based estimate of Ukrainian civilian and military losses puts the total deaths in the first year of the full-scale war above 150,000. This rate dwarfs most modern conflicts and ranks the first year of the war among the five deadliest ever, even when applying the lowest survey-based estimate of Ukrainian fatalities[2].

Demographic aging in Ukraine is currently associated with an extremely low birth rate. The Institute of Demography and Social Studies states that the birth rate in Ukraine has dropped to the lowest levels in European countries. The fertility rate currently stands at 0.7, while a rate of over 2 is needed for population growth.

Drawing conclusions, several points can be made: the mental health of the population is significantly suffering; the country is facing a demographic crisis; the Ukrainian nation is under threat of extermination and extinction.

Література:

1. Ukraine After 2 Years of War: How the Conflict Has Affected Civilians - World Food Program USA. World Food Program USA. URL: <https://www.wfpusa.org/articles/ukraine-after-2-years-war-how-conflict-has-affected-civilians/#:~:text=The%20war%20in%20Ukraine%20has,in%20three%20Ukrainians%20is%20displaced>. (date of access: 12.03.2024).
2. Small arms survey. Russia's War: Weighing the Human Cost in Ukraine / Російська війна: оцінка людських втрат в Україні. Medium. URL: <https://smallarmssurvey.medium.com/russias-war-weighing-the-human-cost-in-ukraine-9ecc73a41987> (дата звернення: 12.03.2024).

УДК 811.111

OPTIMIZATION OF GROWING CONDITIONS FOR TOMATOES IN HYDROPONIC GREENHOUSES (ОПТИМІЗАЦІЯ УМОВ ВИРОЩУВАННЯ ПОМІДОРІВ В УМОВАХ ГІДРОПОННИХ ТЕПЛИЦЬ)

Лазюта С. С. – здобувач вищої освіти групи А3/5

Науковий керівник: Ракова А.Ю., викладач кафедри іноземних мов МНАУ

Анотація: У цій статті ми розглянемо різні аспекти оптимізації умов вирощування помідорів в гідропонних теплицях, а також визначимо ключові фактори, які впливають на врожайність та якість продукції.

Ключові слова: помідори, гідропоніка, теплиці, вирощування, оптимізація, умови, постачання поживних речовин, рН, температура, вологість, технології, врожайність, якість продукції.

Abstract: In this article, we will consider various aspects of optimizing conditions for growing tomatoes in hydroponic greenhouses, as well as identify key factors that affect yield and product quality.

Key words: tomatoes, hydroponics, greenhouses, cultivation, optimization, conditions, nutrient supply, pH, temperature, humidity, technology, yield, product quality.

The optimization of nutrient delivery and pH levels in hydroponic systems significantly influences the growth and yield of tomatoes in greenhouse environments. [1]

Optimizing the supply of nutrients and pH levels in hydroponic systems has a significant impact on the growth and yield of tomatoes in greenhouse conditions. In hydroponic systems, plants receive nutrients directly from water, rather than from soil, so precise control of the nutrient solution composition is key to ensuring optimal plant growth and development. Inadequate or excessive supply of nutrients can lead to various issues, such as poor growth, fruit underdevelopment, or even plant death. It is also important to note that pH level affects the availability of nutrients for plants. For example, at high pH levels, certain elements like iron or manganese may become less available to plants, leading to a deficiency of these elements. Therefore, optimizing the supply of nutrients and pH levels in hydroponic systems is a crucial strategy for maximizing yield and improving the quality of tomatoes in greenhouse conditions.

Efficient management of temperature and humidity levels is essential for maximizing tomato production in hydroponic greenhouses, with careful consideration of both plant growth and disease prevention. [2]

Efficient management of temperature and humidity levels is essential for maximizing tomato production in hydroponic greenhouses, with careful consideration of both plant growth and disease prevention. This involves:

- *Optimal Temperature Control:*

- Maintaining the ideal temperature range promotes optimal growth and development of tomato plants.

- Temperature fluctuations can negatively impact plant metabolism, flowering, and fruit set.

- High temperatures can lead to stress, reduced pollination, and increased susceptibility to diseases, while low temperatures can slow down growth and decrease yields.

- *Humidity Regulation:*

- Proper humidity levels are crucial for preventing moisture-related issues such as fungal diseases and physiological disorders.

- High humidity can create a favorable environment for pathogens like Botrytis (gray mold) and powdery mildew, leading to reduced yields and quality.

- Low humidity can cause water stress in plants, affecting nutrient uptake and overall growth.

- *Ventilation and Air Circulation:*

- Adequate ventilation and air circulation help maintain uniform temperature and humidity levels throughout the greenhouse.

- Proper air movement reduces the risk of heat buildup and allows for the removal of excess moisture, preventing the development of fungal diseases.

- Fans, vents, and airflow patterns should be strategically positioned to ensure efficient distribution of air within the greenhouse.

- *Monitoring and Control Systems:*

- Implementing automated monitoring and control systems enables real-time adjustments to temperature and humidity levels based on environmental conditions.

- Sensors placed strategically throughout the greenhouse provide data on temperature, humidity, and airflow, allowing growers to make informed decisions to optimize growing conditions.

- Integration of climate control systems with weather forecasts and predictive analytics enhances precision and efficiency in managing greenhouse environments.

- *Integrated Pest and Disease Management:*

- Maintaining optimal temperature and humidity levels is integral to an integrated pest and disease management strategy.

- By creating less favorable conditions for pests and pathogens, such as maintaining lower humidity to discourage fungal growth, growers can reduce the need for chemical interventions and promote healthier plant growth.

In conclusion, efficient management of temperature and humidity levels in hydroponic greenhouses is essential for maximizing tomato production, ensuring both optimal plant growth and disease prevention. By implementing strategies to regulate these environmental factors, growers can create ideal growing conditions that contribute to higher yields and better quality tomatoes.

The selection of appropriate tomato cultivars tailored to hydroponic growing conditions plays a crucial role in achieving optimal yields and quality, highlighting the importance of variety trials and genetic research. [3]

The selection of appropriate tomato cultivars tailored to hydroponic growing conditions plays a crucial role in achieving optimal yields and quality, highlighting the importance of variety trials and genetic research. This is important due to the following aspects:

- *Adaptation to Hydroponic Conditions.* Some tomato varieties may better adapt to hydroponic systems, where they receive nutrients directly from the solution without competing with other plants for nutrition. Such varieties may be more productive and provide better fruit quality compared to others.
- *Tolerance to Stressful Conditions.* Choosing varieties that exhibit high tolerance to stressful conditions, such as temperature or humidity fluctuations, can help ensure a stable harvest even in unpredictable conditions.
- *Yield and Fruit Quality.* Some tomato varieties may have higher yields or provide fruits with better taste, shape, or longer shelf life. Selecting such varieties can lead to greater productivity and consumer satisfaction.
- *Genetic Research.* Conducting research to study the genetic material of different tomato varieties allows identifying beneficial genetic traits, such as disease resistance or adaptation to specific growing conditions. This helps in improving varieties and creating new hybrids that meet the requirements of hydroponic cultivation.

Fine-tuning light intensity, spectrum, and duration using artificial lighting systems can enhance photosynthetic activity and fruit development in hydroponically grown tomatoes, contributing to improved overall productivity. [4]

Fine-tuning light intensity, spectrum, and duration using artificial lighting systems can enhance photosynthetic activity and fruit development in hydroponically grown tomatoes, contributing to improved overall productivity. This process involves carefully adjusting the intensity of light to ensure that it meets the specific needs of the plants at different growth stages. By providing the optimal light spectrum, growers can maximize the efficiency of photosynthesis, which is crucial for the production of carbohydrates and ultimately, fruit development.

Additionally, controlling the duration of light exposure is essential for mimicking natural daylight cycles and maintaining plant health. Proper timing of light exposure helps regulate physiological processes such as flowering and fruiting, leading to more consistent and predictable yields. Moreover, advancements in LED technology allow growers to customize the light spectrum to match the specific requirements of tomato plants, promoting better growth and development.

Overall, the strategic use of artificial lighting systems in hydroponic greenhouse environments offers growers the ability to create ideal growing conditions year-round. By optimizing light intensity, spectrum, and duration, growers can significantly enhance photosynthetic efficiency and fruit development, ultimately leading to improved overall productivity and profitability.

References

1. Hochmuth, George, et al. Nutrient Solution Formulation for Hydroponic (Perlite, Rockwool, NFT) Tomatoes in Florida. University of Florida, Institute of Food and Agricultural Sciences, 2004.
2. Pardossi, Alberto, et al. "Lighting and fertilization in hydroponics." *Acta Horticulturae*, vol. 548, no. 548, 2001, pp. 573-578.

3. Li, Tao, et al. "Effects of light intensity and spectral quality on growth and yield of cherry tomato in hydroponic system." *Journal of Integrative Agriculture*, vol. 17, no. 9, 2018, pp. 1969-1977.
4. Massa, Gioia D., and Cary A. Mitchell. "Plant productivity in response to LED lighting." *HortScience*, vol. 51, no. 4, 2016, pp. 422-428.

УДК 811.111

BENEFITS AND HARMS OF MOULDY CHEESE FOR THE BODY (КОРИСТЬ ТА ШКОДА СИРУ З ЦВІЛЛЮ ДЛЯ ОРГАНІЗМУ)

Левих Д. С. – здобувач вищої освіти групи БТ 2/1

Науковий керівник: Саламатіна О.О., доцент кафедри іноземних мов МНАУ

У цій роботі порушено питання різновидів сирів із пліснявою, їх вплив на здоров'я та організм людини, мінуси та плюси вживання сирів у щоденному раціоні.

Ключові слова: *здоров'я, людина, організм, сир, цвіль, поживна цінність, норма вживання.*

The publication raises the issue of varieties of cheeses with mould, their impact on human health and the human body, the pros and cons of eating cheeses in the daily diet.

Key words: *health, human, organism, cheese, mould, nutritional value, consumption rate.*

The present is an unusual thing. Everything is changing every day. This applies not only to people themselves. The food we eat, the drinks we get, even the clothes we wear are subject to change because it is impossible to keep up with fashion.

Eating cheese with mould has recently become a new delicacy. Not everyone has tried it, and only a few know its composition. Some people are still afraid to eat it, while others eat it only. But is this product healthy? And how to eat it correctly?

This publication raises the question of whether this type of cheese is healthy or dangerous to consume.

First, let's talk about what mouldy cheese is. Mouldy cheese is not spoilt cheese. In fact, it is prepared in a special way, namely by adding fungi of the genus *Penicillium*, which trigger the fermentation process and form the very mould for which this cheese is valued. However, it should be understood that this fungus is edible, specially bred and contains a natural antibiotic that kills pathogenic bacteria. This is not the kind of mould we encounter in damp rooms, basements and on spoiled food. No, this is a special fungus [5].

If you think about how people came up with the idea of eating cheese with a hint that it was spoiled, you should look at history [2].

We enjoy eating this product thanks to a forgetful shepherd. A young man was tending a flock of sheep near the village of Roquefort, and after getting too hot in the sun, he went to eat bread, cheese and water in a cool limestone cave. Here he was distracted by a beautiful maiden walking nearby, and the boy, forgetting about his lunch, started to follow the beauty. A month later, he returned there, being terribly hungry, and found his abandoned lunch and... ate it! He was so impressed by the taste that he immediately told his fellow villagers about his discovery [6].

There are many types of cheese. All of them are divided according to the types of mould used for these cheeses.

White mould is *Penicillium camamberti* or *candidum* [1]. Its specificity is that it grows on the outer surface of the cheese head without penetrating inside. According to the official legend,

Marie Arel was the first to introduce the “white fluff” cheese to the world. During the French Revolution, the peasant woman rescued a monk, who revealed the secret of the amazing cheese to her in gratitude. According to other sources, an unknown doctor treated seriously ill people with this cheese. Whatever the case, today we can taste a wide variety of flavours of this delicacy. The main representatives of this cheese are: Brie, which has a spicy and tangy taste and is very popular with the French; Camembert, made from cow’s milk, has a creamy mushroom flavour; and Neschatel, which has a spicy mushroom flavour and a dense, dry cheese rind [4].

Next is greenish-blue mould – *Penicillium roqueforti* [1]. This mould does not cover the cheese on the surface, but is found in the middle of the product. The production technology for this cheese is quite special. The mould is added to the curd mass using special tubes, where it safely brings the cheese to the desired condition. Typical examples of this type of cheese are: Roquefort – made from sheep’s milk, then sent for maturation in special conditions for three months. Needles are used to pierce holes in the cheese to prevent mould from penetrating it; gorgonzola is an Italian cheese made from cow’s milk; and Dorblu is a German cheese whose recipe is kept secret [4].

Also there is red mould. These varieties, including Livaro and Munster, are covered with red mould, which appears on the product during the ripening process when it is treated with special bacteria [1]. “Red” cheeses have a rather pungent specific aroma and sharp taste. Red mould is the same as white mould of the *Penicillium camemberti* or *Penicillium candidum* species. It gets its reddish-orange colour from exposure to salt water or alcohol, which is used to wash the edges of the cheese to produce a specific flavour. They are called “washed rind cheeses” [3].

The amazing variety of flavour combinations and the desire to “try another slice” makes us wonder about cheese with white mould: is it good or bad?

First, let’s look at the health benefits of cheeses with mould:

- Cheese with blue mould has a beneficial effect on metabolic processes and intestinal microflora, and improves stomach function.
- Blue mould stimulates the production of melanin, which protects us from the harmful effects of ultraviolet rays.
- Even a small piece of mouldy cheese will allow your body to get the necessary protein, which helps to strengthen and grow muscles.
- Cheese with mould contains a large amount of calcium, which also allows it to be well absorbed.
- These cheeses also contain the amino acids histidine and valine, which allow damaged tissues and organs to recover faster. They are not produced by the body itself, so I recommend adding mould cheese to your diet.
- White mould cheese prevents the aging process, strengthens the skeleton and reduces the risk of cancer [5].

Despite its invaluable benefits, mouldy cheese can be dangerous. Everything is good in moderation, which in this case is 50 grams per day. But don’t forget that mould is good for you in small doses, but in large quantities it can be harmful, because it will be difficult for your stomach to process it. This means that if abused, even the healthiest person may experience problems associated with a violation of the normal intestinal microflora.

If consider in which cases cheese with mould can cause harm, it is this:

- Such cheeses should not be consumed by those who are allergic to penicillin. There is a possibility of a severe allergic reaction [4].
- Cheeses with mould contain a fairly large amount of allergens, so pregnant women and small children, even those who have not been allergic before, should not eat these types of cheeses.
- For a healthy person, the permissible rate of mouldy cheese is no more than 50 grams per day. This cheese is quite high in calories. But if we take into account the cost and exclusivity of noble cheeses, then 50 grams per day is quite expensive. But on a festive table, as a delicacy, cheese with noble mould can be very appropriate [6].

In conclusion, I would like to say that mouldy cheese is a unique product containing the most valuable amino acids, trace elements and vitamins. However, we should not forget about the “golden mean” rule. In other words, mouldy cheese, whose benefits and harms go hand in hand, should be consumed in moderation. Find and choose your favourite delicacy.

Literature:

1. Учасники проектів Вікімедіа. Вікіпедія. *Wikimedia*. URL: <https://uk.wikipedia.org/wiki/> (дата звернення: 06.03.2024).
2. The effect of weight-bearing exercise and non-weight-bearing exercise on gait in rats with sciatic nerve crush injury. *PubMed Central (PMC)*. URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4434004/> (date of access: 06.03.2024).
3. Калорійності Т. Сир з пліснявою: користь та шкода для організму – TablycjaKalorijnosti - Блог Таблиця Калорійності. Блог Таблиця Калорійності. URL: <https://blog.tablycjakalorijnosti.com.ua/chy-korysnyj-syr-z-plisnyavoyu-oglyad-korysnyh-vlastyvostej-syriv-z-plisnyavoyu/> (дата звернення: 07.03.2024).
4. Сир з пліснявою: користь і шкода для організму, чим небезпечний і корисний такий сир. *Ukr.Media*. URL: <https://ukr.media/food/398345/> (дата звернення: 07.03.2024).
5. Michael H. Tunick. The Science of Cheese // Michael H. Tunick. - Oxford University Press 2014. – 302 pages.
6. Dalby, Andrew, 1947– Cheese : a global history. – (Edible) 1. Cheese – History. 2. Cheesemaking – History. 3. Cookery (Cheese) I. Title II. Series 641.3`73`09-DC22. – 154 pages.

УДК 811.111

REGISTRATION OF INCOMES FROM REALIZATION OF AGRICULTURAL PRODUCTIONS, GOODS, JOBS AND SERVICES ON ENTERPRISES (ОБЛІК ДОХОДІВ ВІД РЕАЛІЗАЦІЇ СІЛЬСЬКОГОСПОДАРСЬКОЇ ПРОДУКЦІЇ, ТОВАРІВ, РОБІТ І ПОСЛУГ НА ПІДПРИЄМСТВІ)

Лінива Т. А. – здобувач вищої освіти групи Б4/І

Науковий керівник: Ракова А.Ю., викладач кафедри іноземних мов МНАУ

У статті розглядається облік доходів від реалізації сільськогосподарської продукції, робіт і послуг на підприємстві. Розглянуто про процес первинного обліку доходу від реалізації сільськогосподарської продукції за різними напрямками її використання.

Ключові слова: доходи від реалізації, підприємство, фінансові витрати, первинні документи, сільськогосподарська продукція.

The article considers the accounting of income from the sale of agricultural products, works and services at the enterprise. The process of primary accounting of income from the sale of agricultural products in various directions of its use is considered.

Key words: sales revenue, enterprise, financial expenses, primary documents, agricultural products.

The incomes from realization of productions of a company is the one of basic sources of own financial resources that are necessary for providing of financial and farming activity. The less of such resources can reach to increasing of debts and that can cause financial crisis and bankruptcy. Increasing of financial resources defines the speed of economical development of enterprises and affects on raising populations vital level. The factors that affect on financial

indicators of farming (including agricultural companies) can be the order of forming and using, changes in productions in agricultural-farming, the efficiency of financial management[1].

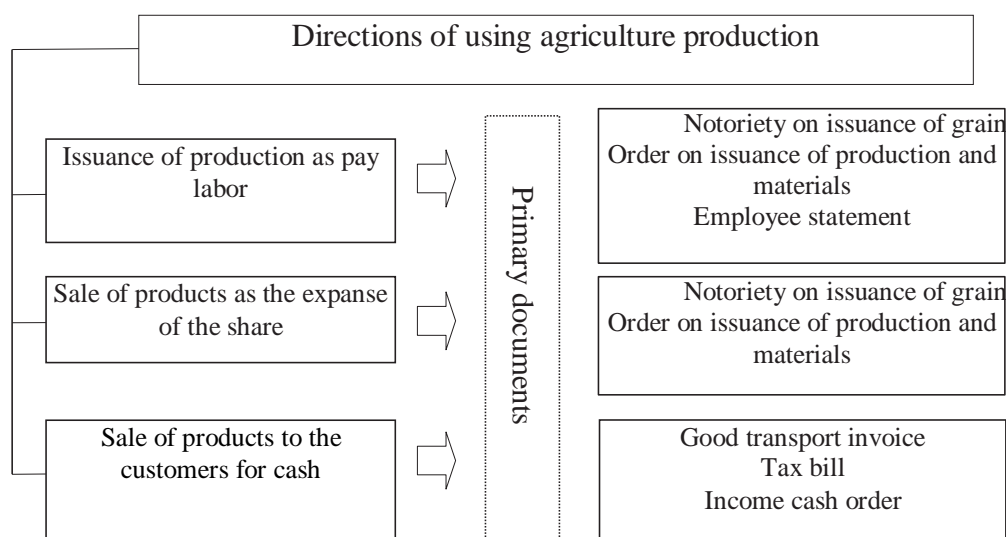
The main source of financial flows to the enterprise is the income of usual activity which determines by the branch, amount of production, application science and technological innovations and increasing of productivity, decreasing cost and improving of quality of production. The conditions of development of entrepreneurship make possibilities for realization of these factors. The main source of profit in agricultural companies is the gain from realization of its production, and especially this part which stays after subtracting material, labor and financial cost on production and realization[2].

Accounting to article 5 of Accounting Standard, 15 «Income», the income in Ukraine determines during increasing of assets or reduction of obligation that cause increasing of the equity (except equity that forms on contributions of founders of enterprises), in condition that estimate can be certainly defined[3].

Accounting to article 5 of Accounting Standard, 15 «Income», the income in Ukraine determines during increasing of assets or reduction of obligation that cause increasing of the equity (except equity account of contributions of the founders of the enterprises), provided that:

- risks and profits that are connected with the ownership on production (goods, other assets) transmitted to the customer;
- the enterprise doesn't management and control on production (goods, assets) after transmission;
- the amount can be certainly determined;
- in the result of operation will be increasing of economical profits and outlays that are connected with this operation, can be certain determined[1].

As agricultural producers have their unique features in moving of produced goods, it's important to consider the primary design of studied income connected with it. Let's consider the process of primary income from sale of agricultural production in various directions of it's using (picture 1)



Picture 1. Features of primary design incomes from sales of agricultural production due to directions of it's using

Using the example of accounting transactions that arose as a result of the sale of winter wheat, we will follow the reflection of income from the realization and it's reflection on accountant bills (tab 1)

Tab 1

Reflexion on accountant bills of farming operations according incomes from realization of production

Content of farming operation	The correspondence of bills
------------------------------	-----------------------------

	debit	credit
1. Realization of production to outside organizations		
Wheat ventured for realization	361	701
Reflected tax liability which VAT	701	641
Written off the sum of incomes on financial result	701	791
Reflected all cost price of realized production	901	271
Got money from customer	311	361
2. Realization of production in paying labor bills		
Counted income from realization of production	661	701
Counted tax liability with VAT	701	64
Reflected all cost price of realized production	901	27
Written the sum of incomes on financial result from realization of production	701	791
Written off all cost price of realized production	791	901

Sources were constructed of using[2]

Incomes from realization are reflected in accountants office and financial report at the moment of it's occurring nevertheless date of it's coming or paying costs. It is important to compare incomes and expenses for determination financial results of account term. Registration of income activity is more important aim for enterprises. Modern researches and practice consider that getting incomes is the top aim for practically all enterprises.

Income from realization of agricultural production is one of main sources of incomes for agricultural producers. It's accounting reflexion needs further normative and methodical control. The direction of account politics is the inside normative orders that determine organization of accounting process of enterprise, personally accounting incomes from realization of agricultural production. Among the popular methods of using agricultural production in agricultural enterprises can mark paying wages by production, realization of production through paying shares and realization through moneys. During making incomes we should remember about size of agricultural enterprise, it's from of owing and legal and organizing from of farming and other factors.

Література:

1. I. V. Baryshevska. The management of incomes of agricultural enterprises and directions of it's improving\I.V. Baryshevska, N.V. Zaychenko, I. V. Hrishchenko\Economical forum 2021№1 p113-117
2. N. I. Bondar. Modern problems of incomes from realization of ready production in agricultural enterprises K. I. Bondar, N. I. Zagrebel'na Collection of students'science work of National agricultural university of Uman` Economical and humanitarial
3. L. S. Kravchuk. Accountance of income of agricultural enterprises in modern conditions\L. S. Kravchuk, V. M. Muzychuk, V. H. Firmach. Agroworld, 2022,1 p 42-45
4. M. K. Parkhomets Organizational and economic mechanism of ensuring profitability of agricultural enterprises of the region: theory, methodology, practice, monograph.//.M. K. Parkhomets, V. V. Gudak/ Ternopil, economic opinion 2023, 256p

УДК 811.111

THE IMPACT OF THE USE OF TECHNOLOGY ON THE PROCESS OF LEARNING ENGLISH IN UNIVERSITIES

(ВПЛИВ ВИКОРИСТАННЯ ТЕХНОЛОГІЙ НА ПРОЦЕС ВИВЧЕННЯ АНГЛІЙСЬКОЇ МОВИ У ВНЗ)

Лісков О. С. - здобувач вищої освіти групи ПУА 2/1

Науковий керівник: Ракова А.Ю., викладач кафедри іноземних мов МНАУ

Анотація: У сучасному світі використання технологій стає все більш значущим аспектом навчання та освіти. Ця стаття аналізує вплив використання технологій на процес вивчення англійської мови у вищих навчальних закладах. Вона досліджує різноманітні інноваційні методи, програми та інструменти, які використовуються викладачами для покращення навчального процесу та підвищення мотивації студентів. Аналізуються переваги та недоліки використання технологій в навчанні англійської мови, а також наводяться приклади успішного впровадження технологій у практику навчання. Дослідження показує, що використання технологій може значно покращити якість навчання англійської мови, забезпечити більш інтерактивний та цікавий процес навчання, а також сприяти підвищенню рівня володіння мовою серед студентів.

Ключові слова: технології, вивчення англійської мови, вищі навчальні заклади, навчання, інновації, викладання, мотивація, інтерактивність, ефективність, цифрові інструменти, навчальні програми.

Abstract: In today's world, the use of technology is becoming an increasingly significant aspect of learning and education. This article analyzes the impact of the use of technology on the process of learning English in higher education institutions. She explores a variety of innovative methods, programs, and tools used by educators to improve the learning process and increase student motivation. The advantages and disadvantages of using technology in teaching English are analyzed, as well as examples of successful implementation of technology in teaching practice are given. The study shows that the use of technology can significantly improve the quality of English language learning, provide a more interactive and interesting learning process, and contribute to increasing the level of language proficiency among students.

Key words: technology, learning English, higher education institutions, learning, innovation, teaching, motivation, interactivity, efficiency, digital tools, curricula.

The influence of the use of technology on the process of learning English in higher educational institutions (HEIs) is a relevant research in the modern educational field. With the increasing availability of digital tools and innovative approaches to learning, it is becoming increasingly important to understand how these technologies affect the process of learning English. The introduction to the study will consider the relevance of using technology in the educational process, indicate the importance of learning English for a modern student, and highlight the main problems and prospects of using digital tools in language learning[1].

The purpose of this study is to study the impact of the use of technology on the process of learning English in higher educational institutions (HEIs). The research is aimed at determining the effectiveness of technological innovations in the educational process, their impact on the academic achievements of students, as well as on their motivation and interest in language learning. Taking into account the rapid changes in the field of information technologies, the study is aimed at analyzing modern approaches to the use of digital tools, software and interactive methods in the educational process of the English language in higher education institutions.

Despite the significant potential and opportunities provided by modern technologies, there are still some problems and challenges in the process of learning English in higher education institutions (HEIs) in Ukraine. One of these problems is the unequal level of availability and quality of technological tools in different universities. Some institutions have limited access to modern computer and Internet resources, which makes it difficult to implement innovative teaching methods.

In addition, the necessary qualifications and training of teachers for the effective use of technology in language learning are not always available. Many teachers may not be sufficiently prepared to use modern educational platforms, programs and interactive tools.[2].

An additional problem may be insufficient motivation of students to learn English with the help of technology. Although the use of digital tools can make learning more interesting and exciting, insufficient attention to the adaptation of curricula to the needs of the modern student environment can lead to low student engagement in the language learning process.

The use of modern technologies in the educational process of the English language in higher educational institutions (HEIs) opens up new opportunities for students and teachers. These technologies include the use of computer programs, multimedia tools, web resources, online courses, mobile applications and other innovative tools.

First of all, the use of digital technology allows students to access a large number of additional materials for learning English, such as video lessons, audio files, interactive exercises, etc. This makes the learning process more exciting and diverse.

Second, the interactivity of digital media allows students to actively interact with the material and receive immediate feedback. This contributes to better learning of the material and development of English language skills such as reading, writing, listening and speaking.

Third, the use of technology can create opportunities to personalize learning by adapting materials and tasks to the needs of each student. This allows each student to work at their own pace and at a level that suits their abilities and needs.

In general, the use of technologies in the educational process of the English language in universities contributes to the improvement of the quality of education, increasing the motivation of students and expanding their opportunities to acquire knowledge and skills.

When learning English in higher education institutions (HEIs) in Ukraine, the use of modern technologies can open many opportunities for improving the quality and effectiveness of education. One of the key benefits of using technology is increasing the availability of a variety of learning resources for students. Interactive online platforms, mobile apps, and web resources can provide students with the ability to learn a language anytime, anywhere, helping them stay engaged and motivated.

In addition, the use of technology can help improve students' communication skills. Virtual classrooms, video conferencing and specialized language learning programs can facilitate active communication in an English-speaking environment and practice speaking skills in real-life situations.

Another important advantage is the possibility of individualizing learning with the help of technology. Adaptive learning platforms can adapt materials to each student's needs, providing personalized assignments and guidance for each.

In general, the introduction of technologies into the educational process can improve the effectiveness of English language learning in universities, providing students with access to the latest educational resources, promoting active communication and individualization of learning.

In conclusion, it can be noted that the use of modern technologies in the process of learning English languages in higher education institutions (HEIs) has great potential for improving the quality of education and the effectiveness of learning. It promotes the development of students' language skills, creates opportunities for interactive and interesting learning, and also increases access to educational resources.

However, in order to achieve the maximum positive effect, it is necessary to solve some problems, in particular, uneven access to technologies and insufficient preparation of teachers for their use. It is also important to take into account the needs and interests of students, creating adaptive curricula and ensuring their motivation to learn the language.

Therefore, for the successful use of technologies in the educational process, a comprehensive strategy is needed, which takes into account the needs of all participants of the study and ensures their interaction and cooperation.

Література:

1. Електронний репозитарій ДВНЗ "УжНУ": Home. URL: <https://dspace.uzhnu.edu.ua/jspui/> (дата звернення: 12.03.2024).

2. Хаджи А., Балагурак В. Електронний архів (репозитарій) ДДУВС: Головна сторінка. URL: <https://er.dduvs.in.ua/bitstream/123456789/6134/1/20.pdf> (дата звернення: 11.03.2024).

GENDER POLICY IN THE PUBLIC ADMINISTRATION SYSTEM OF UKRAINE (ГЕНДЕРНА ПОЛІТИКА В СИСТЕМІ ПУБЛІЧНОГО УПРАВЛІННЯ УКРАЇНИ)

Магар Д. Є. – здобувач вищої освіти групи ПУА 4/1

Науковий керівник: Матвєєва А. Л., викладач кафедри іноземних мов МНАУ

У даній науковій тезі розглядається поточна державна політика України з метою забезпечення рівності жінок і чоловіків у суспільстві, включаючи подолання дискримінації на ґрунті статі та створення умов для реалізації прав і можливостей обох статей у всіх сферах життя. Зазначається важливість ефективного управління гендерними процесами та створення відповідного правового та інституційного механізму для забезпечення гендерної рівності. Підкреслюється активна роль парламентських структур у розробці законодавчих ініціатив та механізмів підтримки гендерної рівності та недискримінації.

Ключові слова: гендерна рівність, дискримінація, законодавчі ініціативи, інституційний механізм, парламентські структури.

This thesis examines the current state policy of Ukraine with the aim of ensuring the equality of women and men in society, including overcoming discrimination on the basis of gender and creating conditions for the realization of the rights and opportunities of both sexes in all spheres of life. The importance of effective management of gender processes and the creation of an appropriate legal and institutional mechanism to ensure gender equality is noted. The active role of parliamentary structures in the development of legislative initiatives and mechanisms to support gender equality and non-discrimination is emphasized.

Key words: gender equality, discrimination, legislative initiatives, institutional mechanism, parliamentary structures.

The current state policy of Ukraine is aimed at achieving equality of women and men in society, overcoming all forms of discrimination on the basis of gender as well as creating the necessary social and political preconditions for the realization of the rights and opportunities of women and men in all spheres of labor, social and personal life.

Therefore, the effective management of gender processes by the state and, first of all, the creation of effective mechanisms of gender equality, plays a significant role in the formation and implementation of gender policy.

Gender equality means equal opportunities for self-realization of women and men, guarantees of rights and freedoms taking into account the characteristics of the sexes, mutual responsibilities and joint responsibility in the life process [1].

The implementation of the state policy aimed at ensuring equal rights and opportunities for women and men depends on the effectiveness of the institutional mechanism – a key element of the gender equality.

At the national level, the institutional mechanism includes an extensive network of government authorities, organizations and institutions that implement a policy of equal rights and opportunities for women and men. At present, Ukraine has formed the main components of such institutional mechanism of public administration.

The creation of a legal framework on gender equality is an important step in promoting gender equality and empowering women and men, in particular, the adoption of the Law of Ukraine “On Ensuring Equal Rights and Opportunities for Women and Men” as of 08 September 2005, which defines the institutional mechanism of ensuring gender equality.

In particular, the Article 7 of this Law stipulates that authorities, institutions and organizations with powers in the area of equal rights and opportunities for women and men are:

- Verkhovna Rada of Ukraine;

- Commissioner of the Verkhovna Rada of Ukraine for Human Rights;
- Cabinet of Ministers of Ukraine;
- specially authorized central executive authority on equal rights and opportunities for women and men;
- executive authorities and local self-government authorities, identified in their composition authorized persons (coordinators) on issues of equal rights and opportunities for women and men; associations of citizens [2].

The Verkhovna Rada of Ukraine has broad powers in the area of regulating gender relations and, in accordance with the Law, defines the basic principles of the state gender policy, applies in the legislative activity the principle of equal rights and opportunities for women and men, as well as exercises parliamentary control over execution of legislative acts in this area within the limits provided by the Constitution of Ukraine.

In addition, the subcommittee on Gender Equality and Non-Discrimination of the Committee of the Verkhovna Rada of Ukraine on Human Rights, National Minorities and International Relations operates in the Verkhovna Rada of Ukraine. The Subcommittee was created by the Decision of the mentioned Committee as of 10 December 2014.

The activities of the Subcommittee are aimed at developing and improving legislative mechanisms for ensuring gender equality and non-discrimination as well as adaptation of the national gender legislation to European and international standards.

The Subcommittee initiates the inclusion of a gender component in the activities of all parliamentary committees into all areas of current legislation. This can ensure real equality of rights and opportunities for equal participation of women and men in all areas of society's life as well as equal access to the management, distribution and use of national resources.

Legislative activity of the Subcommittee is aimed at integrating gender equality issues into the political agenda as well as ensures the strengthening of social and gender sensitivity of political processes, which will become a pledge of changing the paradigm of the country's development and accelerate Ukraine's integration into the community of civilized democratic states.

In order to effectively implement equal rights and opportunities for women and men, the department has created a specific list of measures covering all aspects of implementation within the competence of the tasks of the National Action Plan for the Implementation of UN Security Council Resolution No. 1325 "Women, Peace, Security", as well as the National Program under the auspices of Ukraine-NATO. In particular, this is the creation and provision of conditions for women to complete military service, their training, advanced training, as well as informing society about gender processes taking place in the department. Also, the position of assistant to the Head of the State Border Service of Ukraine for gender issues has been introduced in the staff of the Administration of the State Border Service, and the position of assistant rector (for gender issues) has been introduced in the National Academy of the State Border Service of Ukraine named after B. Khmelnytskyi. In the bodies of the State Border Service of Ukraine, part-time assistants to the heads of bodies for gender issues have been determined. Transparent conditions have been created for the professional development and career growth of personnel [3].

Therefore, Ukraine has an active policy aimed at ensuring gender equality, which includes the creation of an appropriate legal and institutional mechanism. This policy involves overcoming gender discrimination, developing and implementing legislative initiatives aimed at ensuring equal rights and opportunities for women and men in all spheres of life. Parliamentary structures are also actively engaged in the development of legislative initiatives and mechanisms to support gender equality and non-discrimination. The implementation of these measures will contribute not only to the harmonization of society, but also to accelerate the integration of Ukraine into a number of civilized democratic states.

Література:

1. Bondar G. L., Mykhaylyonok D. V. Gender policy in the system of public administration of Ukraine. Public administration and customs administration. – 2019. – No. 4 (23). – p. 34-41 [in Ukrainian].

2. On Ensuring Equal Rights and Opportunities for Women and Men: Law of Ukraine as of 08 September 2005 No 2866-IV [Electronic resource]. – Access mode: <http://zakon.rada.gov.ua/laws/show/2866-15>

3. Makhnachova N. M., Semeniuk I. U., Ivanchenko H. V. Prospects for development of gender policy in the public governance system. Public administration: improvement and development. – 2021. – No. 9 [in Ukrainian].

УДК 811 111

CELERY IS A PROMISING CULTURE (СЕЛЕРА - ПЕРСПЕКТИВНА КУЛЬТУРА)

Мартиненко С. – здобувач вищої освіти групи АМН І/І

Науковий керівник: Тішечкіна К.В., кандидат філологічних наук, доцент кафедри іноземних мов МНАУ

У роботі наведено особливості вирощування та використання селери, включаючи її корисні властивості та технології культивування. Зазначено, що селера є цінною городньою культурою, маючи великий вміст вітамінів та мінералів, і позитивно впливає на здоров'я. Текст надає інформацію про історію походження селери, технології вирощування, оптимальні умови для вегетації, а також процес збирання та зберігання. Окрім того, висвітлено сучасні тенденції у вирощуванні селери та попит на неї на ринку. Текст слугує цінним джерелом інформації для фахівців у галузі сільського господарства та усіх, хто цікавиться садівництвом та здоровим способом життя.

Ключові слова: *селера, вирощування, коренеплідні культури, вітаміни, мінерали, технології вирощування, збирання, попит на селеру.*

The article describes the peculiarities of growing and using celery, including its useful properties and cultivation technologies. It is noted that celery is a valuable garden crop, having a high content of vitamins and minerals, and has a positive effect on health. The text provides information on the history of the origin of celery, cultivation techniques, optimal growing conditions, as well as the process of harvesting and storage. In addition, current trends in the cultivation of celery and the demand for it in the market are highlighted. The text serves as a valuable source of information for agricultural professionals and anyone interested in gardening and a healthy lifestyle.

Key words: *celery, cultivation, root crops, vitamins, minerals, cultivation technologies, harvesting, demand for celery.*

Celery (*Apium graveolens* L.) is a biennial plant of the umbrella family. In the first year, it forms the root and rosette of dark green shiny leaves, and in the second year of life it gives a flower arrow and seeds. There are several varieties of celery: root, which forms large root crops weighing 400-800 g of dirty-white color with loose pulp; petiole (lettuce) - it has large leaves of light green or dark green color, with delicate petioles that are used for food; puff, which forms welldeveloped leaf plates that go to cook a variety of dishes [1].

Celery is one of the most valuable root crops. This spicy vegetable has a pleasant taste and a specific spicy aroma. The culture of growing celery has at least 3-4 millennia. The homeland of celery is the Mediterranean, in Ancient Egypt, Greece and Rome it was grown as an ornamental and medicinal plant. On the territory of Ukraine, this culture is relatively young.

The world's sowing areas are about 0.7 million hectares, of which 0.2 leaf form and 0.5 root. In Ukraine, this figure is much lower due to the long growing season is about 80 hectares,

mainly these crops are concentrated in the south of the country, due to the efficiency of irrigation in this region [2, 3].

The predecessors of celery are plants under which a large amount of rotten manure, compost was made, namely: cucumbers, tomatoes, peppers, cabbage. Good neighbors: early cabbage (classic combination), lettuce, onions, tomatoes, beans, leeks, as well as a good precursor for celery is winter wheat.

Celery is best sown in well-rested soil after cabbage or potatoes or other crops. First, seedlings are prepared, root celery is sown on seedlings in February. Sow in boxes or pots with a nutrient mixture of 1 part of sod land and 1 part of humus with a little sand. Before sowing, the seeds are springed: soaked in warm water for 3 days, then dried to looseness. 1- 1.5 g of seeds are spent on 1 m², burying it to a depth of 0.2 cm. Before the emergence of shoots, the temperature of celery cultivation should be +20 - +25 °C. Then it is gradually reduced to +14 - +16 °C. After the appearance of 1-2 real leaves, you should check the density of the seedlings and, if necessary, thin out so that the plants are strong and do not stretch. Then the seedlings dive at a distance of 4-5 cm from one plant from another so that 1/2 of the stem is immersed in the soil. 2 weeks after diving, fertilizing with a solution of mineral fertilizers is carried out (1 teaspoon of nitrophoska per 1 liter of water) at the rate of 2 tablespoons per 1 seedling. By the time of planting in open ground, the age of seedlings should be 8-10 weeks. Before planting, the seedlings are hardened at a temperature not higher than 15 °C, leaving it overnight in the fresh air [2, 3].

In open ground, celery root seedlings are planted to the same depth at which it grew so that additional roots do not form on the root crops. The distance between plants in a row is 20-25 cm, between rows is 35 cm, so the feeding area of root celery should be 40x40 cm or 50x50 cm. 1-2 days before planting, seedlings are watered with a small rate of 100-150 m/ha. Immediately before planting, cultivation should be carried out to a depth of 8-10 cm with harrowing and rolling to level and easily compact the soil. To increase productivity on machine operations, before planting seedlings, furrows are cut. combined APO unit - 5.4 [1, 3].

Celery is not afraid of abundant watering, but does not apply to crops that need to be watered a lot – rather, moderately and often. The best option is drip irrigation. Celery after transplanting grows quite quickly, and expels a large vegetative mass of leaves, which should be torn off on the sides, leaving only the central leaves. At the root of celery, the soil is raked, but there is a simpler technology - you just need to mulch it with straw during the period of active growth. This will allow you to do without cutting the side thin roots – they simply will not develop so actively in straw mulch. It reacts quite well to feeding with plant extracts and biohumus.

During the growing season, the soil is regularly loosened, watered and 2 weeks after planting, the first fertilizing with mineral fertilizers is carried out. Subsequent top dressings are repeated in 2 weeks, so there should be 2-3 top dressings for the growing season. Constant watering, loosening, mulching between rows are mandatory all summer [1, 3].

For use in autumn and winter, celery is harvested to severe frosts, in areas with a warm climate - in November, in conditions of colder autumn - in early October. Frozen celery root crops lose the ability to persist for a long time. Root celery is dug up in dry weather, cut cuttings up to 1 cm, cut the roots and store at a temperature of 1-2 °C, sprinkled with sand. To do this, the root is cut into it and the temperature is maintained 0 - +1 °C. In such conditions, plants are stored for 3-4 months [3].

Celery is a promising crop, as it is not difficult to grow and is very useful for humans. Every year, cultivation areas are growing, which is confirmed by information from seed companies that enjoy the constant growth in demand for celery seeds. The growth of production is caused by an increase in demand from canneries, because the growth rate of demand for celery in the fresh market is much lower due to the lack of Ukrainians' culture of cooking this product.

Література:

1. Вид дворічних городніх прямих рослин із родини селерових (Електронний ресурс) <https://zemliak.com/kultury/1863-selera> zemliak. Мова укр.
2. Культура СЕЛЕРА особливості вирощування та зберігання (Електронний ресурс) <https://agrarii-razom.com.ua/culture/selera> agrarii-razom. Мова укр.
3. Селера і вирощування з насіння: посів селери на розсаду (Електронний ресурс) <https://fazenda.net.ua/ua/stat-catalog/selderej-i-vyracshivanieizsemyan-posev-seldereya-na-rassadu--fazenda/> fazenda.net.ua. Мова укр.

УДК 336.711:330.43

INTRODUCTION OF A TAX ON "SURPLUS PROFITS" OF BANKS IN UKRAINE (ЗАПРОВАДЖЕННЯ ПОДАТКУ НА "НАДПРИБУТКИ" БАНКІВ В УКРАЇНІ)

Нестерчук Т. В. – здобувач вищої освіти групи Ф4/1

Науковий керівник: Матвєєва А.Л., викладач кафедри іноземних мов МНАУ.

У статті розглянуто впровадження податку на "надприбуток" у банківському секторі Європи та України. Проаналізовано обґрунтування, причини та наслідки цього податку, зокрема зростання процентних доходів банків та використання фінансових інструментів, таких як депозитні сертифікати та облігації. Досліджено дії уряду у зв'язку з впровадженням цього податку та його вплив на фінансову стабільність і діяльність банківського сектору.

Ключові слова: надприбуток, процентні доходи, податок, банк.

The article examines the introduction of the "surplus profit" tax in the banking sector of Europe and Ukraine. The rationale causes and consequences of this tax are analyzed, in particular the growth of banks' interest income and the use of financial instruments such as certificates of deposit and bonds. The actions of the government in connection with the introduction of this tax and its impact on the financial stability and activity of the banking sector are studied.

Key words: excess profit, interest income, tax, bank.

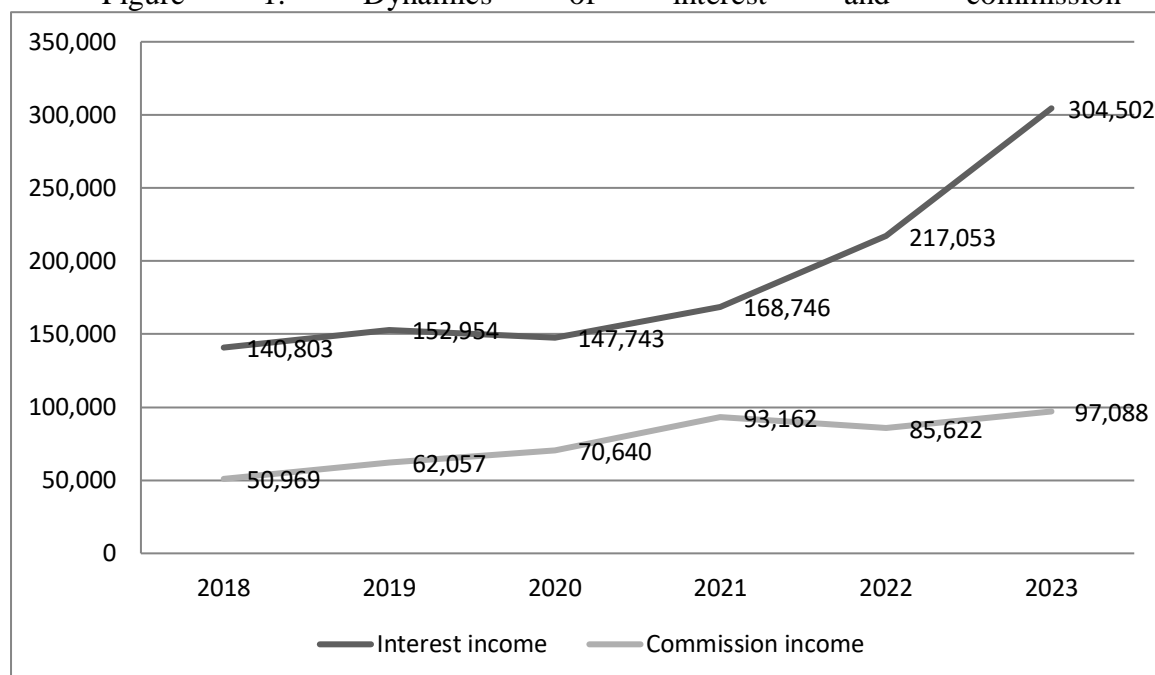
The introduction of a tax on "surplus profit" is not so common, but an existing phenomenon. This tax provides a temporary increase in the tax burden on industries that have earned significant profits as a result of favorable market conditions, rather than due to their efficient operations under normal conditions. There are examples of the application of such a tax in the world in various industries, in particular in financial, energy, mining and others.

From 2022, discussions about the introduction of a tax on the "surplus profits" of banks have increased in Europe. This is due to high interest rates set by central banks to curb inflation, which has led to significant interest income and profits in the banking sector. Among the countries of the European Union, in the last two years, Italy, Spain, Lithuania, the Czech Republic and Hungary have already introduced a tax on the "surplus profit" of banks [1].

Ukraine is also introducing a tax on bank "surplus profits" to finance military spending. At the end of 2023, the Verkhovna Rada of Ukraine adopted draft law No. 9656-d (now Law No. 3474-IX), which provides for an increase in bank income tax rates. The norms of the new law oblige banks to pay income tax for 2023 at the rate of 50%. And since January 2024, the rate has been set at the level of 25%, which is almost 1.5 times higher than the standard rate, which was 18% [2].

The "surplus profits" of the banks became the reason for the authorities to take such measures.

Figure 1. Dynamics of interest and commission income



Source: developed by the author based on the information source [3].

The structure of banks' income in 2023 showed a significant increase in interest income, which exceeded UAH 304 billion, and commission income at the level of UAH 97 billion. This indicates that the banks made significant profits, mainly through interest transactions. Under normal conditions, the growth of interest income is not unusual, banks are constantly making money by lending to businesses and private clients. However, in 2023, there is a decrease in lending activity, although the loan portfolio increased and reached UAH 1.13 trillion at the beginning of 2024, but it is still less than in previous years. In addition, banks mainly form loans under the "5-7-9" program, which has preferential terms and rates. Standard commercial loans, the rates of which are on average 18–20%, occupy a small level among the issued loans [4].

The main reason for the growth of banks' interest income in 2023 was instruments such as NBU certificates of deposit and military bonds (OVDP). Banks actively used these tools as early as 2022, but in 2023 this trend intensified. The yield of deposit certificates was tied to the NBU discount rate: when the discount rate was 25%, the yield of deposit certificates was 23%, but after the rate was reduced to 15%, the yield of the certificates also decreased [4].

The yield of domestic government bonds (OVDP) depended on the terms of circulation and ranged from 16.8% to 18.5%. This allowed banks to count on passive income in the range of 15–19%, without risking the issuance of loans that may end up in the category of non-performing loans (NPL) due to unforeseen circumstances [4].

Even after the reduction of the NBU discount rate from the summer of 2023 (from 25% to 15%), certificates of deposit continue to be in demand among financial institutions. Banks hold significant amounts in this instrument, and the volume of investments in OVDP is also growing. For example, as of February 14, 2023, the bond portfolio of banks amounted to UAH 519 million, and as of February 14, 2024 – UAH 665 million [4].

According to the NBU, for the entire year 2023, the banking sector received UAH 87 million in net profit. At the same time, the amount of income tax paid for the year reached UAH 74 billion. This already takes into account the increase in the rate to 50%.

According to the calculations of the Ministry of Finance, as a result of the increase in the income tax rate in 2023, banks will pay an additional 24-25 billion UAH.

At the end of 2023, presenting the next report on financial stability, the NBU warned that the indefinite increase in the bank profit tax rate to 25% from 2024 will lead to a decrease in the profitability of the banking business and will affect the speed of capital replenishment by banks [1].

At the same time, the NBU reminds that 70% of the profit of the banking system is generated by state banks. They will pay the lion's share of the tax to the state budget.

Летература:

1. Звіт про фінансову стабільність. Національний банк України. URL: https://bank.gov.ua/admin_uploads/article/FSR_2023-H2.pdf?v=7 (дата звернення: 13.03.2024).
2. Про внесення змін до Податкового кодексу України щодо особливостей оподаткування банків та інших платників податків. Офіційний вебпортал парламенту України. URL: <https://zakon.rada.gov.ua/laws/show/3474-IX#Text> (дата звернення: 13.03.2024).
3. Національний банк України. URL: https://bank.gov.ua/files/stat/Inc_Exp_Banks_2024-01-01.xlsx (дата звернення: 13.03.2024).
4. Банки заплатять сповна: як збільшення податкового навантаження вплине на банківський сектор. Mind.ua. URL: <https://mind.ua/publications/20269908-banki-zaplatyat-spovna-yak-zbilshennya-podatkovogo-navantazhennya-vpline-na-bankivskij-sektor> (дата звернення: 14.03.2024).

УДК 811.111

PRINCIPLES OF ENSURING AN EFFECTIVE SYSTEM OF PUBLIC MANAGEMENT IN THE CONTEXT OF DECENTRALISATION (ПРИНЦИПИ ЗАБЕЗПЕЧЕННЯ ЕФЕКТИВНОЇ СИСТЕМИ ПУБЛІЧНОГО УПРАВЛІННЯ В КОНТЕКСТІ ДЕЦЕНТРАЛІЗАЦІЇ)

Нехайчик Є. Є. – здобувач вищої освіти групи ПУА 4/1

Науковий керівник: Матвєєва А.Л., викладач кафедри іноземних мов МНАУ.

У статті досліджено принципи, необхідні для успішної реалізації ефективної системи публічного управління в умовах децентралізації. Враховуючи сучасні тенденції у сфері адміністративної реформи, автори аналізують ключові аспекти системи публічного управління в умовах децентралізації.

Ключові слова: публічне управління, орган влади, децентралізація, місцеве самоврядування, громадянське суспільство.

The article examines the principles necessary for the successful implementation of an effective public administration system in the context of decentralisation. Given the current trends in administrative reform, the authors analyse the key aspects of the public administration system in the context of decentralisation.

Key words: public administration, public authority, decentralisation, local self-government, civil society.

Decentralisation in governance is becoming an increasingly relevant strategy for many countries in the modern world. This process involves the transfer of power, finances and resources from the central government to local governments. However, along with the growth of autonomy at the local level, there is a need for effective governance to ensure the efficient functioning of the public administration system.

The purpose of this study is to identify the principles that underpin an effective public administration system in the context of decentralisation. In this context, we will look at the key aspects that help to ensure the effectiveness of governance at all levels - both central and local.

In the changing landscape of modern public administration, where decentralisation is proving to be a key aspect, it is crucial to establish principles that promote the effectiveness of the

governance system at all levels. Having a clear algorithm for transforming the activities and structure of public administration bodies plays a key role in ensuring the implementation of a unified, but better governance system that adheres to a hierarchical top-down structure.

Establishing the functional affiliation of public administration bodies in accordance with their executive functions allows for optimising their work and ensuring the effective performance of their tasks. The accountability of local governments becomes a guarantee of transparency and openness to the public, ensuring control over their activities and responsibility for decisions.

An essential component is a smooth transition from the system of internal rules to the assessment of reporting based on socially significant performance. This approach paves the way for a balanced and adaptive system capable of responding effectively to the challenges of today. Enshrining in the Constitution guarantees of the independence of local self-government bodies, along with reforming the public service system to ensure its depoliticisation and personalisation, play a key role in creating conditions for a professional and efficient management process. Another important component is the dissemination of new moral rules and responsibilities in public administration that correspond to their new role at the local level. This helps to increase the level of public trust in the authorities and strengthen democratic values in society.

Decentralisation of state power requires a comprehensive approach aimed at developing local communities and improving the quality of services provided. One of the key principles is to increase the powers of local communities for their independent development and strengthen the principle of democracy in governance. The amalgamation of administrative-territorial units should take place with a common administrative centre, which will facilitate effective coordination of activities and optimisation of resources. The organisation of public administration based on the division of administrative-territorial units in accordance with the standards of the Nomenclature of Territorial Units for Statistics will ensure consistency and standardisation of management processes at different levels of government. Only through joint efforts and the implementation of these principles can an effective and transparent public administration system that meets the modern needs of society be achieved.

To ensure the effective functioning of the public administration system in the context of decentralisation, it is also necessary to develop mechanisms for informing territorial communities about the cost of services, the availability of alternatives and sources of funding.

Thus, an effective public administration system in a decentralised environment is a key element of the successful functioning of a modern society. Our analysis indicates that such a system should be based on the principles of transparency, accountability, reasonable allocation of resources and effective interaction between central and local governments. Only by implementing these principles can we ensure the stable development of society and meet the needs of citizens at all levels of government.

Література:

1. Бурик З., Дзевелюк М., Рабенчук О. Публічне управління в умовах децентралізації влади. *Наукові перспективи (Naukovì perspektivi)*. 2023. № 7(37). URL: [https://doi.org/10.52058/2708-7530-2023-7\(37\)-61-75](https://doi.org/10.52058/2708-7530-2023-7(37)-61-75) (дата звернення: 10.03.2024).
2. Ніколюк О. В., МIRONENKO Б. В., Кирилова В. П. Реформування системи публічного управління в умовах децентралізації влади. *Food Industry Economics*. 2022. Т. 14, № 2. URL: <https://doi.org/10.15673/fie.v14i2.2327> (дата звернення: 10.03.2024).

**FINANCIAL AUDIT: FEATURES OF CONDUCTING
(ФІНАНСОВИЙ АУДИТ: ОСОБЛИВОСТІ ПРОВЕДЕННЯ)**

Орешко А. – здобувачка вищої освіти групи Б 2/1

Науковий керівник: Тішечкіна К.В., кандидат філологічних наук, доцент кафедри іноземних мов МНАУ

У науковій роботі розглядено особливості проведення фінансових аудитів, які передбачають перевірку та аналіз діяльності суб'єктів господарювання щодо забезпечення законного та ефективного використання державних або комунальних коштів і майна, а також правильності ведення бухгалтерського обліку та фінансової звітності.

Ключові слова: *фінансовий аудит, аудиторські докази, внутрішній аудит, управління фінансово-господарською діяльністю, бухгалтерський облік, ефективність, внутрішній контроль, фінансова звітність, законність, аудиторський звіт, оцінка ризиків.*

The scientific work examines the peculiarities of conducting financial audits, which involve checking and analyzing the activities of business entities to ensure the legal and effective use of state or communal funds and property, as well as the correctness of accounting and financial reporting.

Key words: *financial audit, audit evidence, internal audit, financial and economic activity management, accounting, efficiency, internal control, financial reporting, legality, audit report, risk assessment.*

Financial audit is a key instrument in assessing the financial activities of enterprises and organizations. It aims to ensure the accuracy of financial reporting, identify potential risks and violations, as well as enhance management effectiveness and internal control.

The mechanism of conducting state financial audits by state control and revision bodies involves the verification and analysis of activities, the actual state of affairs regarding the lawful and efficient use of state or municipal funds and property, other state assets, the correctness of accounting, and the reliability of financial reporting. It also involves the functioning of the internal control system of economic entities in the public sector of the economy, as well as other economic entities that receive (or received during the period under review) funds from budgets of all levels and state funds or use (used during the period under review) state or municipal property (hereinafter referred to as audit). This procedure does not apply to budgetary institutions [1].

During the audit, an assessment of the level of financial and economic activity management of the economic entity is mandatory. This assessment is based on criteria such as compliance with legislation and internal regulations, accuracy of accounting, asset preservation, and achievement of set goals. The audit is conducted according to the plan of control and revision work, which is approved by designated government bodies. Before the audit begins, the head of the economic entity is notified of the timing and responsible persons for conducting the audit no later than 10 days before its start. A state control and revision service official must present a direction for the audit, which is confirmed by the seal of the respective authority. The duration of the audit is limited to 90 days. Auditing activities of legal entities that are part of an association are typically conducted simultaneously.

Sources and Methods of Collecting Audit Evidence / Information.

Audit evidence is defined as reliable information collected and documented by the auditor to support conclusions based on the results of internal audit. The collection of audit evidence is a necessary element of audit research, which helps the auditor substantiate opinions and provide appropriate audit conclusions. Therefore, auditors are obliged to determine accurate, proper, and necessary information to achieve the objectives. In turn, the responsibility for the accuracy of

information and documentation provided to auditors lies with the officials of the institution that compiled, approved, signed, or certified it [2].

Auditors are obligated to gather, analyze, evaluate, and document information in appropriate volumes sufficient to achieve the purpose of the audit investigation. They must also obtain a sufficient amount of audit evidence necessary for formulating relevant conclusions, which are subsequently used in preparing the audit report. The selected audit methods and the procedures for their application should ensure the validity of the obtained results of the audit investigation. Typically, all these aspects are determined by the audit team during the preliminary investigation stage and included in the audit program. However, during the audit process, there may be a need to supplement or adjust the specified methods and procedures to ensure the quality and objectivity of the audit. Such an approach ensures the adequacy and accuracy of audit conclusions and contributes to identifying the true state of the internal audit object.

Internal audit examines accounting information and its reliability. It controls the rational use of material, labor, and financial resources, ensures compliance with the legality of economic transactions, and detects any abuses or violations. The objective of internal audit is to assist the relevant personnel of the firm or company in performing their duties as qualitatively and effectively as possible. Internal auditors are accountable to the company's management. The goal of internal audit is to improve the organization and management of production, identify and mobilize reserves for its growth [3].

Typically, internal audit includes a review of accounting and internal control systems, which are the responsibility of management personnel. This function involves checking these systems, monitoring their operation, and providing recommendations for their improvement. Internal audit may also involve the examination of financial and economic information, including methods of measurement, classification, and reporting. Additionally, the audit may include a review of the economy and efficiency of activities, as well as compliance with legislation and other external and internal requirements.

During financial audits, transactions are analyzed to determine their compliance with legal norms, completeness of inclusion in financial statements, truthfulness, and accuracy of calculations. In the process of this investigation, internal auditors use two main types of testing: compliance tests, aimed at verifying the reflection of operations in the reports according to established norms, and substantive tests, aimed at verifying the reality of operations and assets, as well as the accuracy of calculations.

Conclusions: In the context of conducting financial audits, it is important to consider not only the process of collecting audit evidence and analyzing financial statements but also financial and economic activity management, the effectiveness of internal control, and compliance with legislation. Internal audit plays a key role in identifying potential violations and optimizing management processes. Proper conduct of audits ensures the reliability of financial reporting, asset preservation, and enhances the trust of stakeholders in the activities of economic entities. Additionally, internal audit identifies reserves for improving efficiency and refining management practices within the enterprise. Such an approach contributes to ensuring stability and development in financial and economic activities at various levels.

Література:

1. By the Resolution of the Cabinet of Ministers of Ukraine dated March 25, 2006, No. 361 <https://www.kmu.gov.ua/npas/32508704> (accessed on March 09, 2024),
2. Internal Financial Audit: Methodological Guide. 74 pages. URL: [https://mof.gov.ua/storage/files/дод_%2016%20Внутрішній%20фінансовий%20аудит.pdf](https://mof.gov.ua/storage/files/дод_%2016%20Внутрішній%20фінансовий%20аудит.pdf) (accessed on March 09, 2024).
3. Audit: Methodology and Organization: Educational Manual / N. I. Gordienko, O. V. Kharlamova, Yu. I. Mizik, O. O. Konoplina; Kharkiv National University of Municipal Economy named after O. M. Beketov. – 2nd ed., revised and expanded. – Kharkiv: Kharkiv National

УДК 811 111

**BANKING SYSTEM OF UKRAINE DURING WAR: RISKS AND SECURITY
ASSESSMENT
(БАНКІВСЬКА СИСТЕМА УКРАЇНИ В УМОВАХ ВІЙНИ:РИЗИКИ ТА
ОЦІНКА БЕЗПЕКИ)**

Помазнюк Т. А. – здобувачка вищої освіти групи Ф 2/1.

Науковий керівник: Тишечкіна К. В., кандидат філологічних наук, доцент кафедри іноземних мов МНАУ.

В статті розглянуто стан банківської системи України в умовах війни. Проаналізовано зміну кількості діючих банків в Україні за 2018–2022 роки. Досліджено динаміку активів комерційних банків України у 2018–2022 роках. Проаналізовано динаміку індикаторів рівня фінансової безпеки банківської системи України у 2018 – 3 кв. 2022 рр. Виокремлено основні загрози для фінансової безпеки банківського сектору. Наведено ключові ризики з якими стикнулася банківська система України під час війни.

Ключові слова: банківська система, НБУ, загрози, банківська установа, криза.

The article examines the state of the banking system of Ukraine in wartime conditions. The change in the number of operating banks in Ukraine for 2018–2022 was analyzed. The dynamics of the assets of commercial banks of Ukraine in 2018–2022 were studied. The dynamics of indicators of the level of financial security of the banking system of Ukraine in 2018 - 3rd quarter were analyzed. 2022. The main threats to the financial security of the banking sector are highlighted. The key risks faced by the banking system of Ukraine during the war are presented.

Key words: banking system, NBU, threats, banking institution, crisis.

With the onset of the armed conflict, Ukraine's banking system experienced significant upheaval, leading to the transformation of its infrastructure and impacting bank security. However, banks managed to adapt to the new stressful working conditions. Despite the challenges, banking institutions continue their operations, striving to fulfill all obligations and adhere to the economic norms set by the National Bank of Ukraine. Therefore, assessing the Ukrainian banking system and identifying its key risks for functioning during wartime remains a relevant research topic.

In times of war, Ukraine's banking system has become more vulnerable, yet the National Bank of Ukraine (NBU) itself maintains the economy and population in a balanced state, preventing panic. The NBU's primary task is to ensure the stability of the national currency—the hryvnia—and despite all challenges, the central bank strives to uphold it through every available means.

At the beginning of January, about 63% of commercial banks operated in Ukraine. In 2022, this figure was 67%, indicating a decrease in the number of active banks. This is due to the liquidation of Russian banking institutions: the International Reserve Bank and Prominvestbank.

The monetary policy of the National Bank during peaceful times aimed at gradually reducing inflation rates to the level of the medium-term inflation target—5% with an acceptable deviation range of ± 1 percentage point. As of the end of 2023, the annual inflation rate in Ukraine stands at 5,1%, which is the lowest level since December 2020. This indicates that the increase in prices for goods and services in the country is slowing down [1].

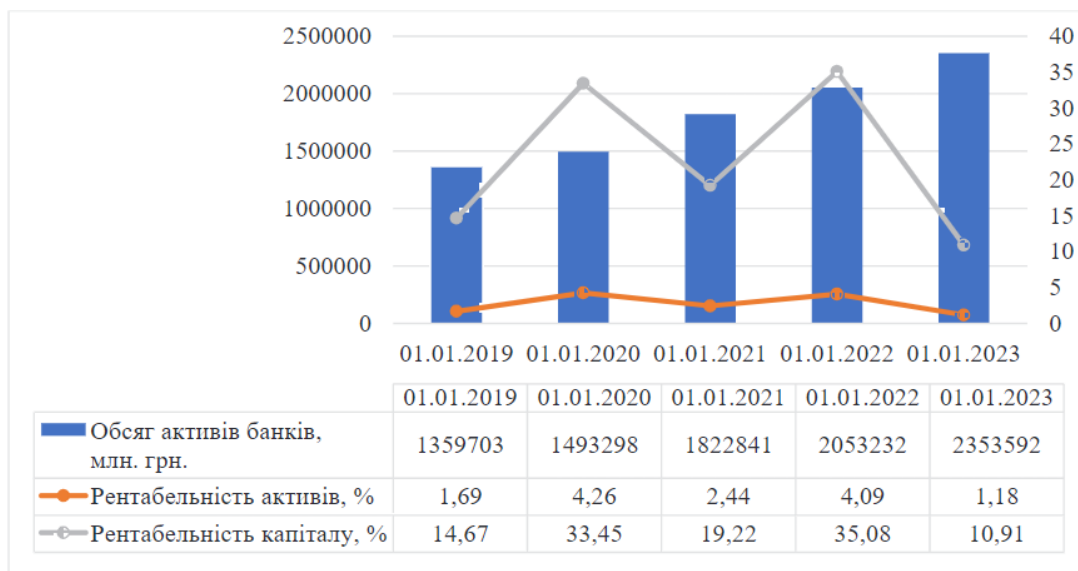


Fig 1 Dynamics of assets of commercial banks of Ukraine in 2018-2022

Source: compiled from [2]

According to the data from Figure 1, the volume of assets is increasing, but their profitability shows fluctuations. As of January 1, 2019, their volume grew from UAH 1,359,703 million to UAH 2,353,592 million as of January 1, 2023, which corresponds to a growth rate of 1,7 times. This growth can be attributed to the increased activity of banking institutions in lending to clients, investments in NBU deposit certificates, and government bonds. We can observe that asset profitability was low in 2020 and 2022, likely due to the impact of the COVID-19 pandemic and the onset of military actions in Ukraine. As for capital profitability, the highest indicator was in 2021, reaching 35,08% [2].

Let's assess the security of the banking system of Ukraine. Analyzing the data from Table 1, we observe that the share of overdue debt for loans in the total volume of loans provided by resident banks is decreasing over time.

However, this indicator still remains at a high level, and its value is critical for the safety of the banking system. The large volume of non-performing loans poses a significant threat to the banking system and requires immediate resolution. A high value of this indicator indicates a correspondingly high risk of banks participating in illegal schemes and money laundering.

The ratio of foreign currency-denominated bank loans to deposits falls into the mixed type «A» category. Up to a certain threshold, this ratio acts as a stimulator, but beyond that, it becomes a deterrent. Specifically, the optimal value for this indicator should be within the 100% range. Deviations in either direction are considered somewhat negative trends.

The safety level based on this indicator varied over the years and in 2022, it acted as a deterrent. The optimal value for the long-term (over 1 year) credit-to-deposit ratio is 3 times. However, in the third quarter of 2022, this indicator reached 16,74 times, indicating a low level of safety.

Overall, the safety level of Ukraine's banking system fluctuates during the analyzed period and remains at low values [3].

Table 1

The dynamics of indicators related to the level of financial security in the Ukrainian banking system from 2018 Q3 to 2022

Показник	Оптимальне значення	2018	2019	2020	2021	3 кв. 2022
Частка простроченої заборгованості за кредитами в загальному обсязі кредитів, наданих банками резидентам України, %	3	53,10	46,36	41,00	30,02	33,63
Співвідношення банківських кредитів та депозитів в іноземній валюті, %	100	117,04	83,50	167,18	151,28	118,28
Частка іноземного капіталу у статутному капіталі банків, %	20-25	41,45	37,02	37,41	36,37	35,12
Співвідношення довгострокових (понад 1 рік) кредитів та депозитів, разів	3	3,90	1,80	2,15	2,78	16,74
Рентабельність активів, %	1-1,15	1,69	4,25	2,44	4,09	1,02
Співвідношення ліквідних активів до короткострокових зобов'язань, %	90	93,52	94,35	89,13	89,36	88,80
Частка активів п'яти найбільших банків у сукупних активах банківської системи, %	50	64,08	61,45	61,01	55,41	59,85

Source: compiled from [3]

Research on Ukraine's banking system from 2018 to 2022 has identified key threats to the financial security of the banking sector. These include:

1. Prolonged military actions within Ukraine's territory;
2. economic downturn in the country;
3. fluctuations in the national exchange rate;
4. decreased liquidity levels of banking institutions' assets;
5. inflation;
6. capital outflow from the country;
7. cyberattacks and terrorism from state-sponsored actors.

The war in Ukraine has a profound impact on all aspects of life, including the banking system. Despite these enormous challenges, the National Bank of Ukraine (NBU) has effectively adapted to the current situation and continues to function stably despite the war, terrorism, and cyberattacks.

In the post-war period, restoring Ukraine's banking system is crucial. This involves implementing efficient operational and investment activities. The NBU's role is pivotal in creating optimal conditions for banks to serve the population while mitigating the adverse effects of military aggression. Throughout the Russian military conflict, the Ukrainian banking system faces numerous risks, emphasizing the need for strategic measures and resilience.

Література:

1. Дорошенко Н. О., Бакланова А.О. The banking system of Ukraine during the period of marital status: challenges and achievements. *Economics Bulletin*: electronic journal 2022. №103. С. 50-51. URL: <http://surl.li/rkskq> (дата звернення: 10.03.2024).
2. Ситник Н.С., Прицак Я.М. BANKING SYSTEM OF UKRAINE IN WAR CONDITIONS: RISKS AND SECURITY ASSESSMENT. «*Young Scientist*»: electronic journal 2023. №6 (118) . С. 95. URL: <http://surl.li/rkshp> (дата звернення: 10.03.2024).
3. Zhavoronok A., Kholiavko N. BANKING SYSTEM OF UKRAINE: TRENDS AND PROSPECTS OF DEVELOPMENT. *Modern Science*: electronic journal 2022. №10. С. 133. URL: <http://surl.li/rksln> (дата звернення: 10.03.2024).

**ENVIRONMENTAL TAXATION AS A COMPONENT OF SUSTAINABLE
DEVELOPMENT
(ЕКОЛОГІЧНЕ ОПОДАТКУВАННЯ ЯК СКЛАДОВА СТАЛОГО РОЗВИТКУ)**

Рагуліна А. О. – здобувач вищої освіти групи БЗ/І

Науковий керівник: Ракова А.Ю., викладач кафедри іноземних мов МНАУ

У дослідженні розглянуто важливий інструмент у сучасному управлінні – екологічне оподаткування, яке покращує сталий розвиток і зменшує вплив людської діяльності на навколишнє середовище. Досліджуються переваги екологічного оподаткування, включаючи зниження викидів, підтримку чистих технологій, підвищення прибутковості відновлювальних джерел енергії та фінансування охорони довкілля. Також наголошується на важливості обережного впровадження цього інструменту з урахуванням соціальних аспектів.

Ключові слова: *оподаткування, екологія, біорізноманіття, тенденції, збереження, розвиток.*

The study examines an important tool in modern management - environmental taxation, which improves sustainable development and reduces the impact of human activity on the environment. The benefits of environmental taxation are explored, including reducing emissions, supporting clean technologies, increasing the profitability of renewable energy sources, and financing environmental protection. It also emphasizes the importance of careful implementation of this tool, taking into account social aspects.

Key words: *taxation, ecology, biodiversity, trends, conservation, development.*

The modern world faces numerous environmental challenges, including air, water and soil pollution, resource depletion and climate change. These problems threaten human health, natural ecosystems, and the overall viability of our planet. To combat these problems and promote sustainable development, environmental taxation is of great importance.

In the report of the Intergovernmental Panel on Climate Change, compiled by 234 scientists from 66 countries, it is noted that the human influence on the increase in climate temperature is unprecedented in the last 2 thousand years [1, p.6]. In 2019, CO₂ concentrations in the atmosphere were higher than at any time in the last 2 million years, and methane and nitrous oxide concentrations exceeded levels recorded over the past 800,000 years [2].

Environmental taxation, also known as "green taxation" or "eco-taxes", is an effective tool for promoting sustainable development and reducing emissions of harmful substances into the environment. The main idea is to impose a tax on environmentally harmful activities, production and consumption, thereby increasing the cost of these activities and contributing to the reduction of their volumes. Environmental taxation has several key advantages that contribute to sustainable development [3, p. 22]:

- Reduction of emissions: Taxation applies to large enterprises and especially reduces emissions of harmful substances into the atmosphere and water sources, as it brings losses to enterprises.
- Support for clean technologies: Green taxes stimulate the development and implementation of clean innovative technologies that reduce the negative impact on the environment and promote sustainable development.
- Increasing the profitability of renewable energy sources by: Polluting energy sources are taxed, while renewable energy sources such as solar and wind can receive tax incentives to encourage their development and use.
- Funding for environmental protection measures: Increased revenues from environmental taxes can be used to fund environmental protection measures, including ecosystem restoration, water conservation measures and biodiversity conservation.

Environmental taxation should be implemented carefully, considering social aspects, to avoid causing damage to various groups of the population. However, with the correct implementation of environmental taxation, it is possible to achieve a balance between economic and environmental goals, stimulate sustainable development and reduce the negative impact on the environment.

In recent years, many countries have already successfully introduced various types of environmental taxation and received positive results. This allowed them to reduce emissions, promote innovation and preserve natural resources. It is also important to emphasize that environmental taxation can be a tool to promote the fulfillment of international obligations to combat climate change and preserve biodiversity.

During a full-scale war, it is problematic to keep track of current information on eco-taxes. Therefore, let's consider the statistics for 2019-2021 in the format of a concise infographic [4]. First of all, let's pay attention to the classification of budget revenues according to the data for the period from January 1 to December 31, 2021, UAH million (Fig. 2):

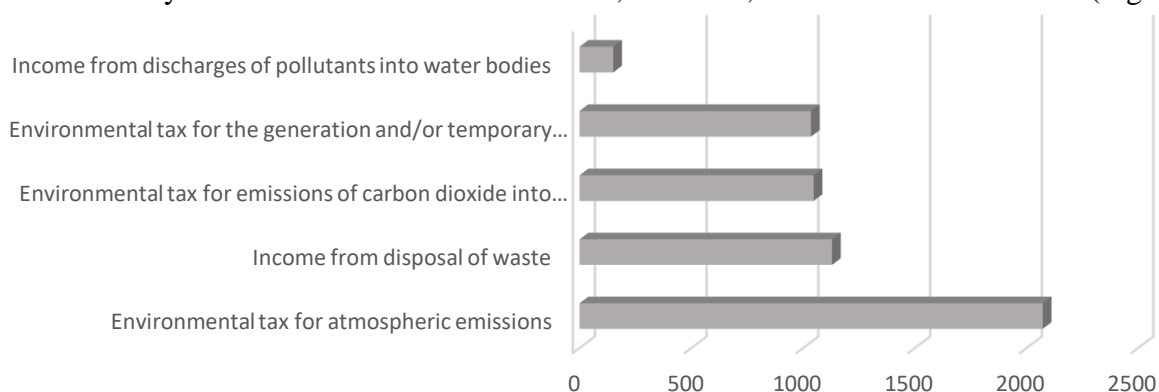


Figure 1. Classification of budget revenues, million hryvnias

The largest payer of this tax is Energoatom, although radiation contamination is only a potential threat. As you know, coal-fired thermal power plants are the biggest air polluters in the country.

In 2019, receipts to the state budget in the amount of 6.1 billion hryvnias from the payment of environmental taxes were registered, in particular: 2.7 billion hryvnias for air emissions, 0.2 billion hryvnias for pollution of water bodies, 1.3 billion hryvnias for the disposal of waste, 1.1 billion for the creation and storage of radioactive waste, and 1 billion for the emission of carbon dioxide into the air. In 2020, the income from environmental taxes decreased and amounted to 5.4 billion hryvnias. During January-November, the state budget received 5.9 billion hryvnias, of which 2.2 billion were received for air emissions, 0.2 billion hryvnias for water pollution, 1.4 billion hryvnias for waste disposal, 1 billion hryvnias for creation and storage of radioactive waste, and 1.2 billion hryvnias for CO₂ emissions [5].

Therefore, environmental taxation is one of the key components in the implementation of the concept of sustainable development. It contributes to economic growth, reducing environmental risks and improving the quality of life of the population. It is important that the country continues to develop and improve its environmental data, taking into account the specific conditions and tasks of each region and enterprise. It is important to note that the successful implementation of environmental taxation requires a careful approach, taking into account social and economic aspects, as well as the cooperation of all subjects of society. With the help of properly designed taxes and incentives, we can reduce the contribution of environmental risks and ensure the sustainable coexistence of man and nature.

Список використаних джерел:

1. Іванюта С. П., Якушенко Л. М. Європейський зелений курс і кліматична політика України. Нац. ін-т стратег. дослідж., 2022. URL: <https://doi.org/10.53679/niss-analytrep.2022.12>

2. Global CO₂ emissions by country 2021 | Statista. Statista. URL: <https://www.statista.com/statistics/270499/co2-emissions-in-selected-countries/>
3. Environmental taxation: world experience and challenges for ukraine / I. Svytnous et al. Investytsiyi: praktyka ta dosvid. 2021. No. 15. P. 19. URL: <https://doi.org/10.32702/2306-6814.2021.15.19>
4. Екологічні податки України Інформація щодо сплати до Зведеного бюджету України по платниках - суб'єктах природних монополій та платників рентної плати за користування надрами. SaveEcoBot. URL: <https://www.saveecobot.com/analytics/ecotaxes>
5. Скільки надходить коштів від сплати екологічних податків. Слово і Діло. URL: <https://www.slovoidilo.ua/2022/01/19/infografika/finansy/skilky-nadxodyt-koshtiv-splaty-ekolohichnyx-podatktiv>

УДК 336.711:330.43

CONDITIONS FOR CONDUCTING BANKING ACTIVITIES DURING THE WAR PERIOD **(УМОВИ ПРОВЕДЕННЯ БАНКІВСЬКОЇ ДІЯЛЬНОСТІ У ВОЄННИЙ ПЕРІОД)**

Рудь Н.В. – здобувач вищої освіти групи Ф4/1

Науковий керівник: Матвеева А.Л., викладач кафедри іноземних мов МНАУ.

Розглянуто особливості проведення банківської діяльності у воєнний період, досліджено аспекти, що впливають на роботу банків, проаналізовано низку факторів впливу.

***Ключові слова:** НБУ, фінансова система, економіка, валютні операції, валютний ринок, безготівкові платежі.*

The peculiarities of conducting banking activities during the war period were considered, the aspects affecting the work of banks were investigated, and a number of influencing factors were analyzed.

***Key words:** NBU, financial system, economy, currency operations, currency market, non-cash payments.*

Since the full-scale invasion, the financial ecosystem of Ukraine has undergone certain adjustments and changes. Economic activity faced rather difficult times. During the war period, the National Bank quickly adopted a resolution in connection with the declaration of martial law throughout the territory of Ukraine, which, in particular, stipulates that:

- banks ensure the uninterrupted operation of branches in conditions of no threat to the life and health of the population;
- banks continue their work taking into account the restrictions defined by this resolution;
- access to safe deposit boxes is provided in uninterrupted mode;
- non-cash payments are made without restrictions;
- ATMs are replenished with cash without restrictions;
- The NBU provides unlimited cash reinforcement;
- The NBU carries out blank refinancing of banks to support liquidity without restrictions on the amount for a period of up to one year with the possibility of extension for another year [1];

Certain temporary restrictions were also introduced, namely:

- cash withdrawal is limited to no more than 100,000 hryvnias per day;
- moratorium on cross-border currency payments;
- the official exchange rate for February 24, 2022 is fixed;
- suspended operation of the currency market of Ukraine, except for operations on the sale of foreign currency by customers [1];

Appropriate actions are necessary to ensure the reliable and stable functioning of the country's financial system and the maximum support of the Armed Forces of Ukraine, as well as the uninterrupted operation of critical infrastructure facilities.

The Council of the National Bank of Ukraine adopted the main principles of monetary policy under martial law. According to this document, the National Bank of Ukraine abandoned inflation targeting for the duration of the war, and temporarily abandoned the use of the key rate as the main monetary policy tool to reduce inflation and publish its own macroeconomic forecasts. At the same time, the regulator undertook to return to these measures as the financial and economic situation in the country normalizes [2].

In addition, banks have significantly reduced fees for their services. Residents and businesses can pay for goods and services without any obstacles. Most shops and gas stations accept non-cash payments. The banking system remains liquid despite initial fears. The start of hostilities, related disruptions in banking infrastructure and forced migration could provoke a mass outflow of clients' funds and worsen banks' liquidity [3].

In the conditions of a full-scale war, the economy of Ukraine, and accordingly the government and the National Bank, faced unprecedented difficulties. The physical destruction of some enterprises and disruptions in supply chains, as well as the suspension of sea exports, increased unemployment and reduced tax and foreign exchange revenues. It is clear that in the situation of a decrease in foreign currency receipts and an increase in expenses, it is possible to maintain a fixed exchange rate of the hryvnia only at the expense of the loss of foreign exchange reserves. Therefore, in order to preserve reserves, it is necessary to introduce strict currency restrictions, including restrictions on the purchase of non-critical imported goods. Such restrictions were introduced by the NBU (as described above) and the government.

Література:

1. Національний банк України. Про роботу банківської системи та валютного ринку з 24 лютого 2022 року в умовах воєнного стану по всій території України. *Національний банк України*. URL: <https://bank.gov.ua/ua/news/all/pro-robotu-bankivskoyi-sistemi-ta-valyutnogo-rinku-z-24-lyutogo-2022-roku-za-umovi-voyennogo-stanu-po-vsiy-teritoriyi-ukrayini> (дата звернення: 09.03.2024).
2. Державне регулювання під час війни: як НБУ адаптував фінансову систему України до нових умов впродовж ста днів воєнного стану. *VoxUkraine | «Вокс Україна» – більше ніж найкраща аналітика про Україну*. URL: <https://voxukraine.org/derzhavne-regulyuvannya-pid-chas-vijny-yak-nbu-adaptuvav-finansovu-systemu-ukrayiny-do-novyh-umov-vprodovzh-sta-dniv-voyennogo-stanu> (дата звернення: 09.03.2024).
3. Економічна правда. Фінансова оборона країни. Як працює банківська система під час війни. *Економічна правда*. URL: <https://www.epravda.com.ua/columns/2022/03/16/684104/> (дата звернення: 09.03.2024).

**CONFLICT MANAGEMENT AND CONFLICT RESOLUTION IN
ORGANIZATIONS
(УПРАВЛІННЯ ТА ВИРІШЕННЯ КОНФЛІКТІВ В ОРГАНІЗАЦІЯХ)**

Саркова А.М. – здобувачка вищої освіти групи МЕН 3/1

Науковий керівник: Ганніченко Т.А., кандидат педагогічних наук, доцент кафедри іноземних мов МНАУ.

У роботі було досліджено питання управління конфліктами та методи вирішення конфліктних ситуацій в організаціях. Проаналізовано основні причини конфліктів в колективі, включаючи різні цінності та цілі працівників, недоліки у комунікації та конкуренцію за ресурси. А також, вистіглено різноманітні стратегії управління конфліктами, такі як колективне обговорення, пошук компромісів, використання посередника або арбітражу та інші.

Ключові слова: *конфлікт, організація, організаційний конфлікт, причини конфліктів, стратегії вирішення конфліктів.*

The study explored issues of conflict management and methods of resolving conflict situations within organizations. It analyzed the main causes of conflicts within a team, including different values and goals of employees, communication deficiencies, and competition for resources. Various conflict management strategies were also outlined, such as collective discussion, seeking compromises, using a mediator or arbitration, and others.

Key words: *conflict, organization, organizational conflict, causes of conflicts, conflict resolution strategies.*

Conflicts are an inevitable component of the reality of any organization's operations. Their emergence can be triggered by various factors such as divergent values and goals among employees, communication shortcomings, or competition for resources. However, competent conflict management can become a key factor in ensuring organizational stability and productivity.

To begin with, let's consider the concept of conflict. Organizational conflict is an internal misunderstanding or divergence that may arise among colleagues or managers. Such divergences can lead to a lack of cooperation and cohesion in the workplace. When employees do not agree or get along with each other, it can complicate the achievement of the company's common goals. [1]

First and foremost, to overcome conflicts, it is necessary to understand their causes. Let's consider some of them:

1. Divergent values and goals of employees: Each employee has their own values, beliefs, and professional goals. When these values and goals differ among team members, it can create conflict situations. For example, one employee may emphasize creativity and innovation, while another may be more focused on stability and efficiency.
2. Communication shortcomings: Incorrect or ineffective communication can lead to misunderstandings and conflicts within the team. For example, unclear task formulations or insufficient information transmission can lead to discrepancies in performing duties and cause conflicts among employees.
3. Competition for resources: When resources such as budget, time, equipment, etc., are limited, it can provoke conflicts within the team. The scarcer the resources in the organization, the higher the likelihood of a conflict situation. Resource scarcity leads to conflict because each person needing the same resources inevitably undermines the interests of others pursuing their own goals. [2]

These factors can be interrelated and reinforce each other, complicating the situation within the team.

In fact, conflicts are inevitable. And when they occur, the idea is not to try to prevent them, but rather to address and manage them effectively. Using appropriate tools to solve problems helps prevent differences from turning into serious issues. Establishing conflict management processes within the company is important as it reduces the number of conflict situations among employees. [3] Applying the right strategies can help reduce tension, improve understanding, and ensure a constructive resolution to the conflict. Now, let's consider several conflict resolution strategies:

1. Communication and openness: It is important to openly discuss problems and one's own feelings. Effective communication can help identify the root of the conflict and find common ground.
2. Active listening: When resolving conflicts, it's essential not only to express one's own thoughts but also to attentively listen to the views of others.
3. Seeking compromises: Sometimes it's necessary to find a solution that satisfies the needs of all parties to some extent. Compromise can be achieved through mutual concessions and agreement.
4. Collective discussion: Holding a meeting or gathering to address the conflict can allow all parties to express their thoughts and feelings and collectively find a solution.
5. Mediation or arbitration: In some cases, involving a neutral third party can be beneficial in resolving the conflict. In arbitration, a neutral third party acts as a judge responsible for resolving the dispute. The arbitrator listens to each side's arguments and provides relevant evidence, then issues a binding decision. [4]
6. Analyzing the causes of the conflict: Understanding the underlying reasons for the conflict can help avoid similar situations in the future.
7. Collaboration and teamwork: Building trust and collaboration among conflict participants can help find common solutions and work together to implement them.

Utilizing these conflict management strategies allows parties to find constructive resolutions to any situation, fostering improved relationships and increased collaboration efficiency.

It is also important to note that conflict management is not only about resolving conflicts but also about avoiding them in the future. To achieve this, it is necessary to foster an open and supportive environment for collaboration and communication, identify issues at early stages, and seek common ways to address them.

Conclusion: Therefore, effective conflict management allows parties to find constructive resolutions to any situation, fostering improved relationships and increased collaboration efficiency within the organization. Understanding the causes of conflicts, using various resolution strategies, and creating a supportive environment for collaboration are important elements of successful conflict management that contribute to the stability and success of the organization.

Література:

1. Herrity, Jennifer. "What Is Organizational Conflict? Causes and Steps To Manage." Updated February 4, 2023. Indeed Career Advice. URL: <https://www.indeed.com/career-advice/career-development/organizational-conflict>
2. International Journal of Academic Research in Economics and Management Sciences. "Organizational Conflicts: Causes, Effects and Remedies." November 2014, Volume 3, Issue 6, pp. 126.
3. Words of Hansen Casper, expert in resume writing from Resumethatworks. 7 Tips on How to Manage and Resolve Conflict in the Workplace. URL: <https://www.hrcloud.com/blog/7-tips-on-how-to-manage-and-resolve-conflict-in-the-workplace>
4. Program on Negotiation at Harvard Law School. "Negotiate Strong Relationships at Work and at Home." URL: <https://www.pon.harvard.edu/free-reports/get-report/?topic=7694>

THE IMPORTANCE OF NUTRITIOUS EATING FOR HUMAN HEALTH AND WELL-BEING
(ВАЖЛИВІСТЬ ЗДОРОВОГО ХАРЧУВАННЯ ДЛЯ ЛЮДСЬКОГО ЗДОРОВ'Я ТА БЛАГОПОЛУЧЧЯ)

Светенко К. В. – здобувач вищої освіти групи ХТ 3/1

Науковий керівник: Саламатіна О.О., доцент кафедри іноземних мов МНАУ

У публікації порушено питання про необхідність правильного харчування. Актуалізована проблема здоров'я через вживання неякісних продуктів. Були проаналізовані дослідження вчених щодо впливу шкідливого харчування на організм людини.

Ключові слова: харчування, здоров'я, самопочуття, поживні речовини, дієта, хронічні захворювання, здорові харчові звички, суспільство, економічні наслідки, стратегії, профілактика, громада.

The publication raised the issue of the need for proper nutrition. An updated health problem was due to the use of low-quality products. Research by scientists on the impact of unhealthy food on the human body was analyzed.

Keywords: nutrition, health, well-being, nutrients, diet, chronic diseases, healthy eating habits, society, economic implications, strategies, prevention, community.

Nutritious eating refers to the consumption of a balanced diet that provides the essential nutrients our bodies need to function optimally. It involves making informed food choices that prioritize nutrient-dense foods while minimizing the intake of processed and unhealthy options. A nutritious diet is fundamental for maintaining overall health, supporting growth and development, and reducing the risk of chronic diseases.

Healthy eating is a cornerstone of overall health and well-being, impacting every aspect of our lives from physical vitality to mental clarity. This comprehensive report delves into the significance of healthy eating, drawing upon extensive research to highlight its profound effects on human health and longevity [1].

The human body requires a variety of nutrients to sustain life and perform essential functions. These include macronutrients such as carbohydrates, proteins, and fats, as well as micronutrients such as vitamins and minerals. Each nutrient plays a unique role in promoting health and well-being, from providing energy to supporting immune function and cellular repair [2].

Research consistently demonstrates that a balanced diet rich in fruits, vegetables, whole grains, lean proteins, and healthy fats is associated with numerous physical health benefits. Studies have shown that individuals who adhere to healthy eating patterns have lower rates of obesity, type 2 diabetes, cardiovascular disease, hypertension, and certain types of cancer. Furthermore, a diet abundant in nutrients and antioxidants supports optimal immune function, reducing susceptibility to infections and promoting faster recovery from illness [7].

Emerging evidence suggests a strong link between diet and mental health outcomes. Research indicates that diets high in processed foods, refined sugars, and unhealthy fats are associated with an increased risk of depression, anxiety, and cognitive decline. Conversely, nutrient-dense diets rich in omega-3 fatty acids, vitamins, and minerals have been shown to support mood stability, enhance cognitive function, and reduce the risk of neurodegenerative disorders such as Alzheimer's disease [3].

Studies examining dietary patterns across diverse populations consistently point to the role of healthy eating in promoting longevity and enhancing quality of life. Adopting a Mediterranean-style diet, for example, characterized by high consumption of fruits, vegetables, whole grains, olive oil, and fish, has been linked to a lower risk of mortality and age-related diseases. Similarly,

adherence to the Dietary Approaches to Stop Hypertension (DASH) diet has been associated with improved cardiovascular health and increased life expectancy [5].

Beyond individual health outcomes, the importance of healthy eating extends to broader environmental and societal concerns. Unsustainable food production practices, such as intensive agriculture and excessive meat consumption, contribute to environmental degradation, deforestation, and greenhouse gas emissions. Promoting plant-based diets and sustainable food systems not only reduces the environmental footprint but also addresses issues of food security, equity, and social justice.

Literature:

1. Healthy diet. World Health Organization (WHO). URL: <https://www.who.int/news-room/fact-sheets/detail/healthy-diet#:~:text=A%20healthy%20diet%20includes%20the,cassava%20and%20other%20starchy%20ro>ots. (date of access: 07.03.2024).
2. CDC Nutrition. Centers for Disease Control and Prevention. URL: <https://www.cdc.gov/nutrition/index.html> (date of access: 08.03.2024).
3. Dietary Guidelines for Americans, 2020–2025: Understanding the Scientific Process, Guidelines, and Key Recommendations. PubMed Central (PMC). URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8713704> (date of access: 08.03.2024).
4. Food and Agriculture Organization of the United Nations (FAO) – Sustainable Diets // Bulletin of the Lviv Commercial Academy / [ed. by B.D. Semak, N.I. Domanetsevysh, A.I. Piliavsky and others]\Commercial Academy Publishing House, 2006.-Vol. 10. – 12-19 p.
5. Vitamins and Minerals. The Nutrition Source. URL: <https://www.hsph.harvard.edu/nutritionsource/vitamins/> (date of access: 08.03.2024).
6. Academy of Nutrition and Dietetics – Evidence-based Nutrition Guidelines
7. Health benefits of eating well. NHS inform. URL: <https://www.nhsinform.scot/healthy-living/food-and-nutrition/eating-well/health-benefits-of-eating-well/> (date of access: 09.03.2024).

УДК 811.111

FINANCIAL STATEMENTS AS A SOURCE OF INFORMATION FOR MAKING MANAGEMENT DECISIONS

Сенчина Є. А. – здобувач вищої освіти групи МЕН 4/3

Науковий керівник: Ганніченко Т.А., кандидат педагогічних наук, доцент кафедри іноземних мов МНАУ.

У статті розглянуто важливість фінансової звітності, як сукупності форм звітності, складених на підставі даних фінансового обліку з метою надання користувачам узагальненої інформації про фінансовий стан і діяльність підприємства. Розкрито роль фінансової звітності в управлінні підприємством.

Ключові слова: підприємство, бухгалтерський облік, фінансова звітність.

The article examines the importance of financial reporting, as a set of reporting forms compiled on the basis of financial accounting data with the aim of providing users with generalized information about the financial status and activities of the enterprise. The role of financial reporting in enterprise management is disclosed.

Key words: enterprise, accounting, financial reporting.

Today, the process of making management decisions is based on a thorough assessment and qualified analysis of indicators of the economic activity of agricultural enterprises, which directly depends on the quality of financial reporting.

According to the legislation of Ukraine, financial reporting must provide users with complete, reliable and impartial information about the financial condition and results of the enterprise. On the basis of these data, appropriate management decisions are made regarding the operation of the enterprise and the resolution of organizational issues.

The Law of Ukraine "On Accounting and Financial Reporting in Ukraine" provides the following explanation about financial reporting: "Financial reporting - accounting reporting that contains information on the financial status, results of operations and cash flow of the enterprise for the reporting period"[1].

Enterprises, regardless of the form of ownership, are required to prepare accounting reports based on synthetic and analytical accounting data, which is the final stage of the accounting process[2].

Analysis of the company's financial statements makes it possible to: find out its real financial and economic condition on the capital, goods and financial markets; will help to improve the formation and use of the company's financial resources; to outline the directions of prospective financial development of the enterprise; determine directions for adjusting the company's financial policy.

We note that management is operational decision-making, and it is impossible to make them without knowledge about the participants in economic processes. This knowledge is called information, and the main information about business processes is contained in accounting data. All necessary accounting information is reflected in documents called financial statements [3].

Accounting reports are the main source of information for making management decisions in the field of planning. According to the reporting data, the manager reports to the labor team, the founder (owner), relevant management structures (financial authorities, banks) and other interested organizations. Accounting is a tool for collecting, processing and transmitting information about the activities of a business entity.

Accounting has been used in the business world to describe transactions between different businesses. In addition, not only accountants use accounting terms and concepts, but also managers, financiers, analysts and other persons who make up the management apparatus of any enterprise, owners, investors, bankers, lawyers, accountants - everyone who in one way or another enters in business life [4].

So, in the process of making high-quality management decisions by enterprise managers, the role and meaning of financial reporting of these enterprises is qualitatively transformed at the same time. Financial reporting becomes a key factor in the infrastructure of the market economy, a transparent lever of communication. Thanks to this, managers at any level are able to implement the strategy and tactics of the development of the enterprise they lead.

It is only possible to assess the property status, the results of production and economic activity and the financial and economic capabilities of the business entity based on the data of the financial statements. Financial reporting allows you to calculate cash flows for the future and to indicate the vectors of its development, to make effective management decisions. Thus, financial reporting is considered a complex model of reproduction of the optimized union of interests of market subjects, which functions in dynamics and changes due to the current influence of the economic environment. Financial reporting also becomes the object of misunderstandings between its compilers and consumers, and at the same time a mechanism for their reconciliation.

Література:

1. Закон України «Про бухгалтерський облік і фінансову звітність в Україні», прийнятий Верховною Радою України від 16.07.1999 р. № 996-XIV (Редакція від 03.01.2017). URL: <http://zakon4.rada.gov.ua/laws/show/996-14>.
2. Adamyk O.V. "Cloud computing" tools as a factor in improving accounting in budget institutions // Economic analysis: coll. of science works – 2019. – P. 179-184.
3. Kucherenko T.E. Cash flow from operating activities [Text]/ T.E. Kucherenko, O.G. Shayko // Economics of APC. – 2019. – No. 6. – P. 64-69.

4. Goltsova S.M. Enterprise reporting: study guide [Text]/ S.M. Goltsova, I.Y. Plikus - K.: Center of Educational Literature, 2020. - 292p.

УДК 811.111

HACCP System (Система HACCP)

Серветник Д.В. – здобувач вищої освіти групи ХТ 2/1

Науковий керівник: Пономаренко Н.Г., старший викладач кафедри іноземних мов МНАУ

У сучасному світі тенденція здорового харчування набирає великих обертів. Харчування відіграє одну з найважливіших ролей у нашому житті. Також неабияких обертів набирає світова тенденція доставки їжі, їжі на виніс та заклади громадського харчування. У цьому контексті розглянемо, як варто дотримуватися системи HACCP у закладах громадського харчування, системи, яка гарантує безпечність продукції шляхом контролю небезпечних чинників.

Ключові слова: HACCP, контрольні точки, гігієна харчових продуктів.

In der modernen Welt gewinnt der Trend zur gesunden Ernährung immer mehr an Bedeutung. Essen spielt eine der wichtigsten Rollen in unserem Leben. Auch der weltweite Trend zu Essenslieferungen, Essen zum Mitnehmen und öffentlichen Catering-Einrichtungen gewinnt an Dynamik. In diesem Zusammenhang werden wir darüber nachdenken, wie das HACCP-System in öffentlichen Gastronomiebetrieben eingehalten werden kann, ein System, das die Sicherheit von Produkten durch die Kontrolle gefährlicher Faktoren gewährleistet.

Die Schlüsselwörter: HACCP, Kontrollpunkte, Lebensmittelhygiene.

HACCP ist die Abkürzung für das englische „Hazard Analysis Critical Control Points“. Es handelt sich übersetzt um eine Gefahrenanalyse, mit der „Kritische Kontrollpunkte“ ermittelt und beherrscht werden sollen. Dabei ist wichtig zu verstehen, dass es sich hierbei nicht um Kontrollen allein handelt, was das Wort „control“ möglicherweise erwarten lässt. Dieses Wort heißt übersetzt so viel wie „lenken“ oder „beherrschen“. Die von Ihnen als kritisch eingestuften Punkte sollen also durch geeignete Maßnahmen beherrscht werden. Ein Risiko für den Verbraucher soll dabei weitestgehend ausgeschlossen werden. Das HACCP Konzept richtet sich nach den Grundsätzen des Codex Alimentarius. Dabei geht es in erster Linie immer um die Lebensmittelsicherheit und den Schutz der Verbraucher vor Gefahren durch ein gezieltes Hygienemanagement.

Das derzeit geltende Lebensmittelrecht und das darin verankerte HACCP-Konzept gelten für alle Betriebe, die gewerbsmäßig Lebensmittel herstellen, behandeln und in Verkehr bringen.

- Bäcker-, Konditoren- und Fleischerhandwerk
- Gastronomiebetriebe (vom Imbiss bis zur Gemeinschaftsverpflegung)
- Lebensmittelindustrie
- Handel und Transport (vom Kiosk bis zum Großhandel)

Das Gewinnen von Lebensmitteln im landwirtschaftlichen Betrieb, also die Primärproduktion pflanzlicher und tierischer Erzeugnisse ohne weitere Verarbeitung oder Zubereitung, ist von der Verordnung ausgenommen.

Auf dieser Seite erfahren Sie, was HACCP genau ist und wie es funktioniert. Wir beschreiben Ihnen zudem detailliert die Vorteile und die Grundsätze dieses Lebensmittelsicherheits-Systems. Nach dem Lesen dieser Seite verfügen Sie schließlich über das wichtigste Grundwissen zu diesem Standard der Lebensmittelsicherheit und der Lebensmittelhygiene.

Sobald der Businessplan und ein Eröffnungstermin für Dein Unternehmen stehen, wird es Zeit für die Entwicklung eines HACCP-Konzepts. Du musst also schon mit Betriebsaufnahme oder Gründung ein Verfahren zur Kontrolle und Überwachung in Sachen Lebensmittelhygiene bzw. -sicherheit einführen. Die gesetzlichen Anforderungen zwingen Dich dazu!

Wie es im Leben jedoch so läuft, schiebt man die Beschäftigung mit dieser Frage vor sich her. Und greift sie erst wieder auf, wenn Kontrollen wie etwa die amtliche Lebensmittelüberwachung darauf hinweisen, ein HACCP-Konzept im eigenen Betrieb zu entwickeln und in Umsetzung zu bringen.

Література:

1. HACCP. Що таке система HACCP. URL: <https://haccp-hygienemanagement.de/was-ist-haccp/>
2. Підприємства, які зобов'язані діяти згідно системи HACCP. URL: <https://www.ihk.de/meo/produktmarken/branchen/dienstleistungen/gaststaetengewerbe/gut-zu-wissen-haccp-in-der-praxis-der-richtige-umgang-mit-lebe-2102870>
3. Як впровадити систему HACCP на власному виробництві. URL: <https://www.protabo.de/lebensmittelhygiene/eigenkontrolle/was-ist-ein-haccp-konzept/>

УДК 657.1

ACCOUNTING IN CLOUD TECHNOLOGIES: ADVANTAGES AND DISADVANTAGES

Слободян Т. А. - здобувач вищої освіти групи БЗ/І

Науковий керівник: Ракова А.Ю. викладач кафедри іноземних мов МНАУ

Анотація: у дослідженні розглянуто переваги та недоліки хмарних технологій у сфері обліку, зазначаючи їхній значний внесок у покращення ефективності фінансового управління підприємств. Зокрема, зазначено, що разом із вигодами хмарних технологій існують ризики, такі як залежність від Інтернет-з'єднання, питання конфіденційності та безпеки даних, втрата контролю над інфраструктурою, і можливість збільшення вартості послуг з часом.

Ключові слова: хмарні технології, облік, безпека даних, доступність, інтернет-з'єднання, приватність.

Abstract: the study examines the advantages and disadvantages of cloud technologies in the field of accounting, noting their significant contribution to improving the efficiency of financial management of enterprises. In particular, it is noted that along with the benefits of cloud technologies, there are risks such as dependence on an Internet connection, data privacy and security issues, loss of control over the infrastructure, and the possibility of increasing the cost of services over time..

Key words: cloud technologies, accounting, data security, availability, internet connection, privacy.

In recent years, cloud technologies have become a key tool for many enterprises in the field of accounting. They offer new opportunities for efficient accounting and provide flexibility in working with financial information. However, along with its benefits, cloud technologies also carry certain risks that are important to consider.

In today's digital-oriented pace of life, businesses are increasingly using technology to optimize their work and increase efficiency. One such technological advancement is cloud-based accounting software, which is significantly transforming the way companies handle financial transactions [1].

Accounting in the cloud becomes a more convenient way to manage finances. It can be accessed remotely from anywhere with an Internet connection. This means that there is no need to use expensive and complex computer systems like those used in traditional accounting. This

approach makes accounting services in the cloud accessible even to people who do not have technical skills [2].

Accounting programs, like other digital systems, can be used in the form of cloud services, often implemented as SaaS technologies. This means using cloud-based accounting software tools that provide a full turnkey service for a monthly or yearly subscription fee. The user gets full access to the solution and can use all its functionalities, while the hosting, maintenance, administration and support of the functionality remain the responsibility of the cloud service provider. The use of such cloud services allows you to automate accounting, as well as management, warehouse and operational accounting at enterprises of various industry formats [3].

Advantages of using cloud services for business [3]:

1. Savings on acquisition and operating costs: the transition to cloud technologies in business allows you to avoid significant costs for physical servers. Payment for cloud services can be more cost-effective and adapted to the real needs of the enterprise.

2. Business information security: placing and storing data in the cloud environment guarantees a high level of protection against machine viruses and unauthorized access. Access to services is controlled by the cloud service provider and the business owner.

3. Scalability: cloud solutions for business are easily scalable depending on the needs of the enterprise. A business can scale down or scale up its IT infrastructure based on current tasks.

4. Access: thanks to cloud technologies, the user can access the working database from any device with an Internet connection, which ensures 24/7 availability.

5. Speed: working in the cloud environment is free from the limitations associated with the speed of physical servers. The speed of cloud solutions depends on the speed of the Internet connection.

6. Administration: administration and technical support of cloud services is carried out by system administrators of the service provider, freeing the end user from worrying about technical aspects.

7. Backup: integrated backup systems in cloud technologies provide protection against data loss in case of unforeseen situations.

8. Renewal: automatic updates of software products in cloud services allow you to avoid overdue tasks and always use the latest versions.

Despite a number of advantages, the use of cloud services is also accompanied by certain limitations and risks, which can be noted in various aspects of business and users [4].

1. Dependence on Internet connection: the use of cloud services requires a stable Internet connection, and if it is not available, there may be problems accessing data and services.

2. Privacy and data security: the use of cloud services can raise issues of privacy and data security, which can cause indignation among users, since their data is stored on the servers of other companies.

3. Refusal of control over the infrastructure: users of cloud services partially lose control over the infrastructure, as computing resources and security aspects are managed by the cloud service provider.

4. Possibility of security problems: despite the significant security efforts of vendors, there are risks of security incidents such as data leaks or system attacks.

5. Cost: while cloud services may seem cost-effective at first, in some cases costs may increase over time or due to unexpected circumstances such as increased resource usage.

6. Limited customization options: some cloud services may limit users' ability to customize the infrastructure and software to their needs.

7. Lack of control over data location: users may not have complete control over where their data physically resides, as cloud services may use servers in different countries.

8. The possibility of changing the cost of services: the cost of cloud services can vary, sometimes resulting in unexpected costs for users.

Many of these issues can be resolved or mitigated with proper planning and cloud provider selection, but they remain a challenge when implementing cloud computing.

Today, cloud accounting technologies have become an integral part of the activities of many companies in the field of accounting. These technologies create new opportunities for efficient accounting and allow flexible work with financial information. Using cloud accounting software becomes a convenient way to manage your finances, as financial information can be accessed remotely from any device connected to the Internet.

The advantages of using cloud services for business include low acquisition and operation costs, information security, ease of scaling, access from any device, and faster and more automated accounting processes. These advantages significantly contribute to the improvement of efficiency and optimization of business processes.

However, it is also important to consider the disadvantages of using cloud services. Dependence on Internet connectivity, data privacy and security issues, loss of control over infrastructure, potential security issues, and increased costs are all factors to consider when using cloud technologies.

Regardless, with the right planning and choice of cloud service provider, these problems can be solved, and cloud computing can have a positive impact on business processes and accounting. There are some limitations and risks, but these can be managed with proper attention to detail and the right cloud strategy.

Список використаних джерел:

1. The Pros And Cons OF Cloud-Based Accounting Software - Especia. Especia Associates LLP. URL: <https://especia.co.in/post/the-pros-and-cons-of-cloud-based-accounting-software/> (date of access: 04.03.2024).
2. Advantages, Disadvantages, Risks Of Cloud Accounting. Innovature BPO. URL: <https://innovatureinc.com/advantages-disadvantages-risks-of-cloud-accounting/> (date of access: 04.03.2024).
3. Переваги застосування хмарних технологій для обліку бізнесу. Ukrainian Intelligent Technology. URL: <https://uit.kiev.ua/perevagi-zastosuvannja-hmarnih-tehnologij-dlja-obliku-biznesu/> (date of access: 04.03.2024).
4. Що таке хмарні технології? Переваги та недоліки хмарних сервісів | EDIN. EDIN. URL: <https://edin.ua/shho-take-xmarni-tehnologii-i-navishho-voni-potribni/> (date of access: 04.03.2024).

УДК 811.111

SOCIAL PROGRAMS AS A TOOL FOR ATTRACTING YOUTH TO THE COUNTRY'S ECONOMY (СОЦІАЛЬНІ ПРОГРАМИ ЯК ІНСТРУМЕНТ ЗАЛУЧЕННЯ МОЛОДІ ДО ЕКОНОМІКИ КРАЇНИ)

Таранець Є. О. – здобувач вищої освіти групи МЕН 3/2

Науковий керівник: Ганніченко Т.А., кандидат педагогічних наук, доцент кафедри іноземних мов МНАУ.

Дана стаття розглядає роль соціальних програм у залученні молоді до економіки країни. Обговорено важливість міжсекторального партнерства, гендерної рівності та розвитку м'яких навичок. Зазначено, що підтримка стартапів та інновацій, а також надання доступу до ресурсів та менторства, є ключовими елементами стимулювання підприємництва серед молоді.

Ключові слова: залучення молоді, соціальні програми, економічна інклюзія, міжсекторальні партнерства, підприємництво, розвиток навичок
Annotation: This information explores the role of social programs in engaging youth in the country's economy.

It discusses the importance of cross-sectoral partnerships, gender equality, and the development of soft skills. It highlights that supporting startups and innovation, as well as providing access to resources and mentorship, are crucial elements in stimulating entrepreneurship among young people.

Key words: youth engagement, social programs, economic inclusion, cross-sectoral partnerships, entrepreneurship, soft skills development

Social programs play a crucial role in engaging youth in the country's economy, ensuring not only social protection but also creating favorable conditions for their active participation in economic life. Based on various principles and goals, these programs aim to develop competencies, support education, create opportunities for self-realization, and promote youth entrepreneurial activities.

Primarily, education-focused social programs are critical in shaping a competitive generation. By facilitating access to quality education, these programs help youth acquire the necessary skills and knowledge for effective integration into the economic sector. Specifically, support for scientific research and innovation can identify youth as key drivers of economic development. Currently, in Ukraine, there is a state-targeted social program called "Youth of Ukraine," but several factors render the program ineffective, partially undermining the potential of the country's youth [1].

A significant aspect of social programs involves initiatives to ensure youth employment. Support for startups, entrepreneurial education, and creating conditions for independent business activities contribute to the activation of youth in the economy. Such programs may include financial support, consultations, and access to markets and resources, creating a favorable ecosystem for their successful business implementation.

Furthermore, social programs aimed at improving living conditions and social protection act as additional motivation for active youth participation in economic development. Access to affordable housing, healthcare, and other social services creates a stable foundation for youth to focus on personal and professional growth. In economically developed European countries, the goal of youth policy is to promote the conflict-free integration of youth as fully conscious individuals in society, namely by acquiring education, mastering professional skills, understanding their rights and duties, and receiving social and ethical education [2].

Therefore, social programs effectively serve as a mechanism to include youth in the country's economy by providing necessary resources, support, and opportunities for active involvement in social and economic development.

Social programs aimed at engaging youth in the country's economy can also focus on the development of cross-sectoral partnerships. Collaboration between the government, civil sector, and business sector can create more opportunities for youth in various economic sectors. Encouraging such partnerships can lead to the creation of programs and initiatives focused on education, internships, and job opportunities in key sectors.

Moreover, it is essential to consider the gender aspect in social programs. Equal access to education and employment for youth regardless of gender is a crucial step in creating a fair and equal society. Specialized initiatives aimed at promoting entrepreneurship among young women can also contribute to more effective gender inclusion in the economy.

The importance of soft skills, such as communication, creativity, and teamwork, should also be emphasized in social programs. These skills are increasingly valuable in the modern economic environment and can significantly facilitate youth entry into the job market. A effective form of supporting youth employment is the development of entrepreneurial activities. From the perspective of international experience, where a young entrepreneur receives support from the state and has the opportunity to start their own business, Ukraine lacks this support. Overall, entrepreneurial activities play a significant socio-economic role in society, creating new jobs without excessive burden on social resources, transferring economic risk to subjects of entrepreneurial activity [3].

Coordinated support for startups and innovative projects through social programs can stimulate entrepreneurship among youth. This may include providing financial grants, access to mentorship, and resources, fostering the development of innovative ideas and technologies.

In conclusion, expanding social programs to engage youth in the country's economy involves not only material support but also fostering the development of various aspects of their personal and professional growth, contributing to the creation of a more resilient and dynamic economic environment.

Література:

1. Гринчишин С. С. Молодіжні цільові програми як дієвий інструмент реалізації молодіжної політики в Україні [Електронний ресурс] / С. С. Гринчишин // Інвестиції: практика та досвід No 7. – 2019. – Режим доступу до ресурсу: http://www.investplan.com.ua/pdf/7_2019/26.pdf.
2. Станіславчук Н. О. Державна підтримка соціально-економічного становища молоді як однієї з категорій економічно активного населення [Електронний ресурс] / Н. О. Станіславчук // ЕКОНОМІКА І СУСПІЛЬСТВО. – 2017. – Режим доступу до ресурсу: https://economyandsociety.in.ua/journals/10_ukr/23.pdf.
3. Мацюк Т. І. Молодіжна політика в Україні: сучасний стан та шляхи розвитку [Електронний ресурс] / Т. І. Мацюк // Ефективна економіка № 10. – 2013. – Режим доступу до ресурсу: <http://www.economy.nayka.com.ua/?op=1&z=2392>.

УДК 811.111

FEATURES OF ACCOUNTING FOR SETTLEMENTS ON EMPLOYEE PAYMENTS (ОСОБЛИВОСТІ ОБЛІКУ РОЗРАХУНКІВ ЗА ВИПЛАТАМИ ПРАЦІВНИКАМ)

Титаренко А.В. – здобувачки вищої освіти групи Б4/1

Науковий керівник: Ракова А.Ю., викладач кафедри іноземних мов МНАУ

Дана тема розглядає особливості та важливість обліку розрахунків за виплатами працівникам у контексті фінансового управління організації. Розглядаються аспекти точного врахування заробітної плати, дотримання податкових та законодавчих вимог, а також використання програмних засобів для оптимізації процесу.

Ключові слова: *розрахунки; оплата праці; фінансове управління; облік; податкові вимоги; автоматизація.*

This topic considers the features and importance of accounting for payments to employees in the context of financial management of the organization. Aspects of accurate payroll accounting, compliance with tax and legal requirements, as well as the use of software tools to optimize the process are considered.

Key words: *calculations; pay; financial management; accounting; tax requirements; automation.*

In recent years, there has been significant dynamics in the field of human resource management and financial accounting. One of the key components of this process is the calculations for employee payments. Not only enterprises but also government institutions and non-profit organizations actively study and implement new approaches to accounting for these expenses. This becomes extremely relevant since the impact on the financial indicators of a company or organization can be significant, considering the scale of such expenses.

Therefore, researching the peculiarities of accounting for employee payment calculations is an important step in enhancing management efficiency and optimizing financial processes. In this context, it is important to consider various aspects that influence payroll accounting, including tax nuances, regulatory requirements, and the use of modern software tools for automating this process. Considering this, studying this topic has great practical significance for enterprises and organizations of any type of activity.

The accounting of calculations for employee payments is regulated by a series of normative acts of Ukrainian legislation. In particular, important documents include the Code of Labor Laws of Ukraine, which defines the general principles of work organization and employee salary payments, including the conditions of payment, the order of setting wage sizes, and other aspects that affect the accounting of labor payment expenses. Additionally, the Tax Code of Ukraine contains provisions regarding the accounting of taxes on employee incomes and the calculation of tax deductions from their salaries [1].

Additionally, the legislation on accounting and financial reporting, in particular the Law of Ukraine "On Accounting and Financial Reporting in Ukraine," establishes requirements for the accounting of payroll expenses in accounting and the preparation of financial statements. Such normative acts define the basic principles and requirements that enterprises and organizations must adhere to in accounting and settlements with employees. [2].

Payroll accounting in the accounting system is defined as the determination of compensation, which is typically expressed in monetary terms and paid to employees according to their work. This payment is recorded in the corresponding accounting accounts according to the quantity and quality of work.

General information about calculations for employee payments is stored in account 66 "Calculations for Employee Payments," which covers both the accounted and non-accounted components of the enterprise. This account includes payments related to labor remuneration (salaries, bonuses, benefits, etc.), as well as other current payments. Account 66 "Calculations for Employee Payments" is divided into the following sub-accounts:

- 661 "Calculations for wages";
- 662 "Calculations with depositors";
- 663 "Calculations for other payments."

The summarizing document that reflects the detailed analytical accounting of wage calculations for each employee is the Employee Payroll and Payment Statement (form N P-6), which was approved by the order of the State Committee of Statistics on 05.12.2008 N 489, or the Book of Payroll Accounting. In the Employee Payroll and Payment Statements, data are presented for individual structural units, including the surname, personnel number, profession, position, days (hours) worked, as well as accrued basic and additional wages, assistance due to temporary disability, pregnancy and childbirth, bonuses, and other accruals in accordance with PSBO (Accounting Standards) 26 "Employee Benefits." [3].

The features of accounting include meticulous consideration of tax requirements, compliance with legislative norms regarding wage payments, and the use of specialized software for process automation. Effective payroll accounting helps avoid mistakes and ensures the accuracy of financial data. Moreover, it is important to consider the individual needs and rights of employees, ensuring their satisfaction and alignment with the chosen human resource management strategy. Such an approach to payroll accounting becomes a key factor in achieving financial stability and successful organization operation.

Thus, "Features of Payroll Accounting" has made it clear that this is a complex and crucial aspect of human resource management and financial accounting for any organization. The main conclusions are that effective payroll accounting requires accurate documentation, consideration of all accruals and obligations, and compliance with legal requirements. An important part of the process is using specialized software for accounting automation, which helps reduce the risk of errors and increase operational efficiency.

Additionally, it is necessary to consider the individual needs of employees and ensure that their calculations comply with legislative norms regarding wage payments. Meticulous accounting of employee payment calculations plays a key role in ensuring financial stability and staff satisfaction, making it an integral part of effective organizational management.

Література:

1. Кодекс законів про працю України: Закон України №322-VII від 10.12.1971 р. Офіційний вебпортал парламенту України URL: <https://zakon.rada.gov.ua/laws/show/322-08#Text>. (дата звернення: 10.03.2024).
2. Закон України «Про бухгалтерський облік та фінансову звітність в Україні». Офіційний вебпортал парламенту України. URL: <https://zakon.rada.gov.ua/laws/show/996-14#Text> (дата звернення: 10.03.2024).
3. П(С)БО 26 «Виплати працівникам»: наказ Міністерства фінансів України від 28.10.2003 р. № 601. Офіційний вебпортал парламенту України URL: <https://zakon.rada.gov.ua/laws/show/z1025-03#Text>. (дата звернення: 10.03.2024).

УДК 811.111

DIFFERENTIELLES GLOBALES SATELLITENNAVIGATIONSSYSTEM (DGNSS) ДИФЕРЕНЦІАЛЬНА ГЛОБАЛЬНА СУПУТНИКОВА НАВІГАЦІЙНА СИСТЕМА (DGNSS)

Толокевич В.А. – здобувач вищої освіти групи ГМ 2/1

Науковий керівник: Пономаренко Н.Г., старший викладач кафедри іноземних мов МНАУ

У сучасному світі геодезія розвивається в руслі передових технологій, що відкриває нові перспективи для підвищення точності та ефективності геодезичних вимірювань. Навігаційні технології відіграють ключову роль у цьому процесі розвитку, вносячи значний внесок в оптимізацію процесів геодезичних робіт. У цьому контексті розглянемо, як сучасні навігаційні системи впливають на геодезію та як їх застосування сприяє підвищенню якості та ефективності геодезичних вимірювань.

Ключові слова: навігаційні технології, переваги, система, DGNSS, GPS.

In der heutigen Welt entwickelt sich die Geodäsie im Einklang mit fortschrittlichen Technologien und eröffnet damit neue Perspektiven für die Verbesserung der Genauigkeit und Effizienz geodätischer Messungen. Eine Schlüsselrolle in diesem Entwicklungsprozess spielen Navigations-technologien, die maßgeblich dazu beitragen, die Prozesse geodätischer Arbeiten zu optimieren. In diesem Kontext werfen wir einen Blick darauf, wie moderne Navigationssysteme die Geodäsie beeinflussen und wie ihre Anwendung zur Steigerung der Qualität und Effizienz geodätischer Messungen beiträgt.

Die Schlüsselwörter: Die Navigationstechnologien, die Vorteile, das System, DGNSS, GPS.

Das Global Positioning System ist ein globales Navigationssatellitensystem zur Positionsbestimmung.

Differential Global Navigation Satellite System (DGNSS) ist ein neues und verbessertes Navigationssystem, das eine Reihe von Vorteilen gegenüber herkömmlichen Navigationssystemen bietet. DGNSS ist ein satellitengestütztes System, das ein Netzwerk von bodengestützten Referenzstationen verwendet, um die Genauigkeit des Global Positioning System (GPS) zu verbessern. Durch die Bereitstellung differentieller Korrekturen an den GPS-Signalen kann DGNSS den Benutzern eine höhere Genauigkeit und Zuverlässigkeit bieten als GPS allein.

Der Hauptvorteil von DGNSS ist seine verbesserte Genauigkeit. Durch die Verwendung eines Netzwerks von Referenzstationen kann DGNSS eine Genauigkeit von bis zu einem Meter bieten, verglichen mit der Genauigkeit von fünf bis zehn Metern von GPS allein. Diese verbesserte Genauigkeit kann für eine Vielzahl von Anwendungen genutzt werden, wie z. B. Vermessung, Kartierung und Navigation.

Neben der verbesserten Genauigkeit bietet DGNSS auch eine verbesserte Zuverlässigkeit. Durch die Verwendung eines Netzwerks von Referenzstationen kann DGNSS zuverlässigere Positionsinformationen liefern als GPS allein. Dies ist besonders wichtig in Bereichen, in denen GPS-Signale durch Gebäude oder andere Hindernisse blockiert oder verzerrt werden können.

Schließlich kann DGNSS eine verbesserte Verfügbarkeit bereitstellen. Durch die Verwendung eines Netzwerks von Referenzstationen kann DGNSS zuverlässigere Positionsinformationen in Gebieten bereitstellen, in denen GPS-Signale möglicherweise blockiert oder verzerrt sind. Dies kann besonders in Gebieten mit schlechter GPS-Abdeckung nützlich sein, wie z. B. in abgelegenen oder bergigen Regionen.

Insgesamt bietet DGNSS eine Reihe von Vorteilen gegenüber herkömmlichen Navigationssystemen. Seine verbesserte Genauigkeit, Zuverlässigkeit und Verfügbarkeit machen es zu einer attraktiven Option für eine Vielzahl von Anwendungen. Da sich die Technologie weiter verbessert, ist es wahrscheinlich, dass DGNSS eine immer beliebtere Wahl für die Navigation und Positionsbestimmung wird.

Schließlich kann DGNSS schnellere Aktualisierungen bereitstellen. Da das Signal von einer lokalen Referenzstation gesendet wird, können Benutzer Aktualisierungen schneller erhalten als mit GNSS. Diese verbesserte Aktualisierungsrate ist besonders vorteilhaft für Anwendungen wie autonome Fahrzeuge und unbemannte Luftfahrzeuge.

Insgesamt ist DGNSS ein leistungsstarkes Werkzeug zur Verbesserung der Navigationsleistung. Durch die Bereitstellung genauerer Positions- und Navigationsdaten, zuverlässigerer Signale und schnellerer Aktualisierungen kann DGNSS den Benutzern helfen, eine größere Genauigkeit und Zuverlässigkeit bei ihren Navigationsvorgängen zu erreichen.

Література:

1. GPS. Система глобального позиціонування. URL: <https://uk.wikipedia.org/wiki/GPS>
2. Шумаков Ф. «Геоінформаційні системи та технології»: Х., ХНАМГ, 2019. 88 с.
3. Диференціальний режим супутникових систем. URL: <https://studfile.net/preview/2496389/page:6/>

УДК 811.111

THE EFFECT OF ADDITIVES ON THE BODY OF ANIMALS (ВПЛИВ ДОБАВОК НА ОРГАНІЗМ ТВАРИН)

Хлань К. - здобувачка вищої освіти групи ВМ2/1

Науковий керівник: Степанова В.Є., викладач кафедри іноземних мов МНАУ

У статті розглянуто як впливають добавки на організм тварин, їх переваги та недоліки, а також чи взагалі доцільно використовувати добавки.

Ключові слова: *добавки, тваринництво, здоров'я тварин, дослідження.*

The article deals with the effect of additives on the body of the farm animals, their advantages and disadvantages. It is also discussed there whether it is necessary to use the additives.

Key words: *supplements, animal husbandry, animal health, research*

Formulation of the problem. In recent years, we can observe how the use of various additives in animal feed, such as antibiotics, feed enzymes, probiotics, is growing in popularity. But there is considerable unease about their potential impact on animal health. This problem focuses on the fact that some additives can have a negative effect on the physiological processes of animals, causing the risk of developing diseases, reducing productivity or even threatening life. Therefore, it is necessary to investigate and clarify the effect of different types of additives on the animal body to ensure their optimal health and welfare in production and domestic conditions.

Analysis of recent research and publications. Many scientists are studying the influence of feed additives. We can name a few Levytskyi T.R. [1], Bigun P. [2], Boyko N.V., Karagnyan A.K [3].

Setting objectives. The purpose of our research was to determine the impact of the use of additives on the animal body.

Research materials and methods. Feed additives are feed products that are used to improve the nutritional value of the main feed. The list of additives is quite large: protein, energy, mineral, vitamin supplements, antibiotics, enzyme preparations, probiotics, prebiotics [4], but the research work is aimed specifically at evaluating the impact of the vitamin complex. Vitamins are considered biologically active substances capable of influencing various processes. A lack of vitamins in feed can cause various diseases, digestive disorders, deterioration of wool, teeth, or even death of animals. Vitamins can be divided into two groups: fat-soluble (A, D, E, K) and water-soluble (groups B, C). Most often, vitamins enter the body of animals together with food.

Research results. Research work was aimed at the effect of vitamins on the animal body. We have written about the advantages and disadvantages of each vitamin.

1. Vitamin A (retinol)

This vitamin is needed for normal growth and prevention of infectious diseases. Without this vitamin, chicken blindness can occur. If a pregnant animal is deficient, there is a high risk of abortion. Hypervitaminosis can lead to vomiting, problems with fur.

2. Vitamin D (calciferol)

If the feed does not have enough calciferol at the beginning of the animal's life, there is a high risk of rickets. If this happens in adult animals, then osteomalacia or osteoporosis develops.

3. Vitamin E (tocopherol)

It actively participates in tissue respiration, has a good effect on the process of ascorbic acid synthesis, and is also required for various metabolic reactions. If the body feels its lack, then there is a decrease in sexual ability

4. Vitamin K

Thanks to it, the synthesis of prothrombin and fibrinogen occurs as the main components in the formation of a blood clot. If there is a shortage in the body, then the liver is injured.

5. Vitamins of group B

□ Vitamin B2 is a growth stimulator of the animal body. Thanks to riboflavin, it is possible. If there is not enough B2 in the body, the rate of protein synthesis decreases.

□ Vitamin B1, a sufficient amount helps to regulate metabolism in animals. During thiamine deficiency, all systems will gradually decrease in efficiency. Thiamine enters the body with cake, yeast, bran, grain or green fodder.

Vitamin B3 (pantothenic acid) supports the necessary level of carbohydrate and fat metabolism, helps the process of protein absorption. Leguminous plants, grain fodder and their waste, grass flour, vegetables, and yeast provide vitamin entry into the body. [5,6].

The results of the information analysis indicate that vitamins have a significant impact on the physiological parameters of animals.

Conclusions and prospects for further research. As a result of the literary sources analyzed by us, we can say that supplements such as vitamins are very important for the animal body. Without vitamins, vital metabolic processes in the animal body cannot take place. Vitamins affect the functions of growth, fertility, support the health of the skin and teeth. But there can also be an excess of vitamins (hypervitaminosis), which leads to various diseases or death. Therefore, it is necessary to observe the norms of feeding for all types of animals.

Список використаних джерел:

1. Levitsky T. R. General approaches to the assessment of the safety of feed additives. 3rd edition. Scientific and technical Bull. Institute of Animal Biology and DNDKI of Veterinary Medicines and Feed. supplements., 2013. 301 p.

2. Bigun P. Bigun Y. Feed additive "Avistim" in the rations of young poultry. 4th type Animal Husbandry of Ukraine, 2007. 26 p.

3. Bigun P. Bigun Y. Feed supplement "Avistim" in the rations of young poultry. 4th type Animal Husbandry of Ukraine, 2007. 26 p
4. Ibatulin I.I., Melnychuk D.O. Bogdanov G.O. Feeding of farm animals: a textbook. Vinnytsia: Nova kn., 2007. 616 p.
5. Вітамінний склад кормів для тварин • Вітаміни в кормах – АЛТ Україна ЛТД, АЛТ Україна ЛТД. URL: <https://alt.ua/blog/vitaminnij-sklad-kormiv-dlya-tvarin> (дата звернення: 04.03.2024).
6. I. Ibatullin, Yu. O. Panasenko, I. P. Chumachenko, M. Ya. Kryvenok. Feeding of agricultural animals Text of lectures for students of the Faculty of Veterinary Medicine. Kyiv, 2003. 249 p.

УДК 336.71

CORPORATE GOVERNANCE AND SHAREHOLDER VALUE IN THE FINANCIAL SECTOR **(КОРПОРАТИВНЕ УПРАВЛІННЯ ТА АКЦІОНЕРНА ВАРТІСТЬ У ФІНАНСОВОМУ СЕКТОРІ)**

Чистякова Д. Д. – здобувач вищої освіти групи Ф3/1

Науковий керівник: Ракова А. Ю., викладач кафедри іноземних мов МНАУ

Дана стаття присвячена вивченню корпоративного управління та акціонерної вартості у фінансовому секторі.

Ключові слова: *корпоративне управління, акціонерна вартість, фінансові установи, фінансовий сектор.*

This article is devoted to the study of corporate governance and shareholder value in the financial sector.

Key words: *corporate governance, shareholder value, financial institutions, financial sector.*

Corporate governance plays an important role in determining shareholder value, especially in the financial sector. Effective corporate governance can lead to better decision-making, greater transparency and accountability, which in turn can lead to increased shareholder value.

In general, corporate governance is a set of relations established between the bank's governing bodies (the bank's shareholders meeting, the bank's supervisory board and the bank's board of directors), the bank's control bodies (the bank's audit committee and the bank's internal audit service), external auditors and all stakeholders in the bank's management to achieve specific goals and objectives and to supervise the bank's activities in order to ensure confidence in the bank, increase its value and create an appropriate and effective legal, regulatory and institutional framework [1].

There are several ways in which corporate governance can affect shareholder value:

1. Decision-making. An effective board of directors can make better decisions regarding strategy, risk and investment, which can lead to better financial performance.
2. Transparency. A high level of transparency can help investors better understand the company and its prospects, which can lead to a higher share price.
3. Accountability. The board of directors and management should be accountable to shareholders, which can help them better focus on the long-term interests of the company.

4. Attracting investors: the company should have an effective system of attracting and retaining investors, in particular by paying dividends and ensuring the growth of the market price of shares [2].

Together, these elements contribute to enhancing shareholder value in the financial sector. Importantly, corporate governance and shareholder value maximisation must be balanced against the interests of other stakeholders, such as employees, customers and the public, to achieve sustainable and long-lasting success. The financial sector has high risks associated with credit, market and operational factors. An effective corporate governance system should aim to minimise these risks and protect shareholders' capital. In addition, financial institutions are subject to strict government regulation, and the governance system must meet regulatory requirements to ensure compliance and avoid fines. The frequent occurrence of asymmetric information in the financial sector can lead to agency problems, where management acts in its own interests without considering the interests of shareholders. Thus, an effective corporate governance system should also minimise agency problems [3].

In summary, it can be argued that effective corporate governance can significantly increase shareholder value, especially in the financial sector. Corporate governance leads to greater transparency, accountability and better decision-making, which in turn makes a company more attractive to investors. Companies that have a clear corporate governance structure, a clear corporate governance code and a board of independent directors are more likely to succeed.

Література:

1. Турський Є. О. Корпоративне управління підприємством. 2024. URL: Кваліфікаційна_робота_Турський_Є.pdf (mu.edu.ua)
2. Іоргачова М. І., Ковальова О. М., Коцюрубенко Г. М. Вартісно-орієнтоване управління в системі корпоративного управління компанією. *Економіка та держава*. 2020. №. 5. С. 111-115. URL: http://www.economy.in.ua/pdf/5_2020/22.pdf
3. Атаманчук З. А., Макогін З. Я. Моделі корпоративного управління: світовий досвід та проблеми формування в Україні в умовах сучасних викликів та загроз. 2022. URL: <https://r.donnu.edu.ua/bitstream/123456789/2491/1/3.pdf>

УДК 811.111

THE PRODUCTION OF HYPOALLERGENIC MILK (ВИРОБНИЦТВО ГІПОАЛЕРГЕННОГО МОЛОКА)

Чоботарь Д. – здобувачка вищої освіти групи БТ 3/1

Науковий керівник: Саламатіна О.О., доцент кафедри іноземних мов МНАУ

У публікації порушено питання виникнення алергії на коров'яче молоко та актуалізовано проблему виробництва гіпоалергенного молока. Були проаналізовані дослідження вчених щодо вирішення проблеми.

Ключові слова: *корова, молоко, β -лактоглобулін (BLG), ген, геном, діти.*

The publication raised the issue of cow's milk allergy and updated the issue of hypoallergenic milk production. The research of scientists on solving the problem was analyzed.

Key words: *cow, milk, β -lactoglobulin (BLG), gene, genome, children.*

Cow's milk is a food ingredient that is consumed globally because of its rich nutrients such as protein, fat, carbohydrate, and mineral contents. However, cow's milk is also one of the most common foods which usually cause allergic reactions. Cow's milk allergy (CMA) is a common disease in infancy and childhood, and its prevalence approximates 0.3%~3.5% along with rising trend, which severely affect absorption and utilization of nutrients in dairy products.

Although breeding strategies, nutritional management, and quantitative genetics have improved milk yield, these approaches have not led to significant changes in milk composition. With the development of biotechnology, especially in livestock, there will be great opportunities to generate new value-added products for designing milk for human health benefits. Various transgenic cows have been reported for different applications, such as the expression of pharmaceutical proteins, increased milk casein protein, improved resistance to disease, and improved animal welfare.

However, an effective method to reduce the allergic reaction induced by milk has not been developed. Bovine milk contains a variety of allergen proteins such as casein, β -lactoglobulin (BLG) and α -lactalbumin, with the milk whey protein BLG as a major milk allergen. Cow's milk protein allergy affects up to 2-3% of newborns, and the trend is increasing. Different methods have been used to diminish the allergenicity of the BLG, including heating, high pressure, enzymatic hydrolysis and glycation. Although these methods can reduce the BLG allergenicity to a certain extent, the structure and function of other proteins in cow's milk has been damaged which greatly influence the nutritional functions of milk, and the sensitization of BLG is not completely eliminated. By contrast, knocking out the *BLG* gene by gene-editing technology is a more direct approach to completely solve the problem, which is of great significance to the research of hypoallergenic dairy product.

As a result, researchers have attempted to use genetic methods to disrupt BLG production in animals. Knocking out the genes for BLG production could result in animals that produce hypoallergenic milk that doesn't contain BLG.

Genetic approaches are already being attempted for other food allergies. While researchers have had the ability to knock out genes for decades, newer genome editing technologies such as CRISPR-Cas9 and TALENS have made the process more efficient, precise, and easier to use, including in livestock [1].

In a new study, researchers combined cloning techniques with genome editing to create a cow cell line that lacks the genes for producing BLG [2]. They used the same cloning technology used to clone Dolly the sheep, called somatic cell nuclear transfer (SCNT), along with CRISPR genome editing to knockout the genes responsible for BLG production. The researchers thus obtained an embryonic fibroblast cell line lacking the genes responsible for BLG production. Transplanting these cells to recipient animals is expected to create cows without the ability to synthesize BLG, which would thus produce BLG-free hypoallergenic milk [2].

Researchers have previously used a different approach to create cattle producing BLG-free milk. In an earlier study, researchers injected TALENS genome editors into zygotes instead of combining SCNT and CRISPR [3]. They used this approach to generate BLG-knockout calves and showed that they did not produce BLG in their milk. They also characterized the BLG-free milk and showed that there was a slight increase in protein and lower lactose content, although fat and lactose levels remained within the normal range.

These studies indicate that regardless of the specific approach used, genome editing could be a viable technique for producing BLG-free hypoallergenic milk.

As a result, it's unclear when genome-edited hypoallergenic milk will be approved for food use. But certainly for those suffering from milk allergies, it can't come soon enough.

Literature:

1. Bishop TF, Van Eenennaam AL. Genome editing approaches to augment livestock breeding programs // Encyclopedia of Sustainability Science and Technology Series Animal Breeding and Genetics / Springer US, 2022 - p. 369-384.
2. Singina GN, Sergiev PV, Lopukhov AV, Rubtsova MP, Taradajnic NP, Ravin NV, Shedova EN, Taradajnic TE, Polejaeva IA, Dozev AV, Brem G, Dontsova OA, Zinovieva NA. Production of a cloned offspring and CRISPR/Cas9 genome editing of embryonic fibroblasts in cattle// National Library of Medicine/ Rockville Pike: Commercial National Library of Medicine, 2022.-vol.496.- p. 48-51.
3. Yu S, Luo J, Song Z, Ding F, Dai Y, Li N. Highly efficient modification of beta-lactoglobulin (BLG) gene via zinc-finger nucleases in cattle// Springer Nature Limited / Call research, 2011.-vol.21, p.1638-1640.

**METHODOLOGICAL PRINCIPLES OF CONDUCT OF NORMATIVE MONETARY
VALUATION OF LAND PLOTS OF POPULATION
(МЕТОДОЛОГІЧНІ ЗАСАДИ ПРОВЕДЕННЯ НОРМАТИВНОЇ ГРОШОВОЇ ОЦІНКИ
ЗЕМЕЛЬНИХ ДІЛЯНОК НАСЕЛЕНОГО ПУНКТУ)**

Шатирко Р. – здобувач вищої освіти групи ГМ 1/1

*Науковий керівник: Тішечкіна К.В., кандидат філологічних наук, доцент кафедри
іноземних мов МНАУ.*

*У статті розглянуто питання принципів методологічних засад при проведенні
нормативної грошової оцінки ділянок чи ділянки населеного пункту; механізм і аналіз
проведення нормативної грошової оцінки.*

Ключові слова: *Земля, грошова, оцінка, коефіцієнт, розмір податку, земельна ділянка.*

*The article examines the issue of the principles of methodological principles in conducting a
normative monetary assessment of plots or a plot of a settlement; mechanism and analysis of
regulatory monetary assessment.*

Key words: *Land, monetary, assessment, coefficient, amount of tax, land plot.*

Land is one of the main elements of production, with the help of which the country creates material values. At the same time, the earth is a natural object that already exists and is not created by mankind.

The monetary assessment of land is an economic mechanism of land relations, privatization of land plots, land mortgage lending, taxation and formation of the land market. Therefore, the relevance of land valuation has recently been increasing, and the scope of application is expanding [1].

Normative monetary valuation of land plots is used to determine the amount of land tax, state customs duty for mines, inheritance and donation of land plots in accordance with the law, rent for land plots of state and communal property, losses of agricultural and forestry production, as well as in the development of indicators and mechanisms of economic stimulation of rational use and protection of land. Land plots of all categories and forms of ownership within the territory of a territorial community (or part thereof) are subject to normative monetary assessment.

Land valuation is based on the following principles:

- legality, compliance with the laws of Ukraine and other legal regulations
- acts in the field of land valuation;
- unity of the methodological and informational space in the field of assessment
- lands;
- continuity of the process of land assessment;
- availability of land valuation data;
- equality before the law of subjects of assessment activity in the field of assessment lands [2].

Subjects of valuation activities in the field of land valuation, in particular, are legal entities - business entities, regardless of their organizational and legal form and form of ownership, which include appraisers for expert monetary valuation of land plots and which are registered in the State Register of Certified land management engineers.

Normative monetary valuation of land plots is carried out in the case of:

- determining the amount of land tax;
- determining the amount of rent for land plots of state and communal property;
- determination of the amount of state duty in the case of inheritance, inheritance (except for cases of inheritance by heirs of the first and second rank by law (both cases of inheritance by them by law and cases of inheritance by them by will) and by right of representation,

as well as cases of inheritance of property, the value of which is taxed at zero rate) and donation of land plots in accordance with the law [3].

In the case of determining the normative monetary valuation of a separate land plot outside the population centers, the technical documentation on the normative monetary valuation of the land plot includes:

- tasks for the performance of work;
- an explanatory note containing information on the location and population of the territorial community, its administrative center and other settlements;
- information on the value of the norm of capitalized rental income;
- information about the land plot belonging to the natural-agricultural district (for agricultural land plots);
- a cartogram of agro-production groups of soils within the land plot (for land plots of agricultural purpose if there is information on agro-production groups of soils);
- calculation of the normative monetary assessment of the land plot.

The information base for the normative monetary valuation of the lands of settlements is approved general plans of settlements, zoning plans of territories and detailed plans of territories, information of the State Land Cadastre (The State Land Cadastre is the only state geo-information system of information about lands located within the state border of Ukraine, their intended purpose and restrictions on use. The cadastre contains data on the quantitative and qualitative characteristics of lands, their assessment, distribution between owners and users), land inventory data and state statistical reporting [4].

The same normative monetary valuation of the land plot (T_{sn}) is determined by the following formula:

$$T_{sn} = P_d \times N_{rd} \times K_{m1} \times K_{m2} \times K_{m3} \times K_{m4} \times K_{cp} \times K_{mc} \times K_{ni},$$

- where P_d is the area of the land plot, square meters;
- N_{rd} - standard of capitalized rental income per unit of area according to Appendix 1 (Norms of capitalized rental income for land for residential and public development, land for recreational purposes, land for industry, transport, communications, energy, defense and other purposes (N_{rd}), as well as for land plots that are not classified as land for the main purpose on January 1, 2020);
- K_{m1} - coefficient that takes into account the location of the territory of the territorial community within the zone of influence of large cities;
- K_{m2} - coefficient that takes into account the resort and recreational value of settlements;
- K_{m3} - coefficient that takes into account the location of the territory of the territorial community within the radiation pollution zones;
- K_{m4} - a coefficient that characterizes the zonal factors of the location of the land plot;
- K_{cp} - coefficient that takes into account the purpose of the land plot according to the information of the State Land Cadastre;
- K_{mc} - a coefficient that takes into account the peculiarities of the use of a land plot within the category of land according to the main purpose;
- K_{ni} - the product of indexation coefficients of the normative monetary valuation of land for the period from the approval of the norm of capitalized rental income to the date of the valuation [5].

Література:

1. <https://zakon.rada.gov.ua/laws/show/1147-2021-%D0%BF#Text>
2. <https://terram.com.ua/normatyvna-hroshova-otsinka-zemli/>
3. https://protocol.ua/ua/pro_otsinku_zemel_statya_13/
4. <https://land.gov.ua/category/napriamy-diialnosti/kadastr-i-reiestratsiia/>

УДК 811.111

AGRICULTURE IN THE COUNTRIES OF LATIN AMERICA (СІЛЬСЬКЕ ГОСПОДАРСТВО В КРАЇНАХ ЛАТИНСЬКОЇ АМЕРИКИ)

Шешунова А. В. – здобувачка вищої освіти групи БТ 2/1

Науковий керівник: Саламатіна О.О., доцент кафедри іноземних мов МНАУ

Тема, висвітлена у публікації, актуальна, оскільки країни Латинської Америки мають перспективи швидкого розвитку та є одними з найкрупніших експортерів сільськогосподарських товарів у всьому світі. Майже 50% сільськогосподарської продукції йде на експорт, таким чином країни Латинської Америки роблять свій внесок у вирішення світової продовольчої проблеми. Україна також має економічні відносини з латиноамериканськими країнами, закупаючи продукцію, котру неможливо отримувати вітчизняним способом через ряд таких аспектів, як географічне розташування та кліматичні умови.

Ключові слова: сільське господарство, Латинська Америка, імпорт, експорт, Україна, економічні відносини, рослинництво, тваринництво.

The topic presented in the publication is relevant, as the countries of Latin America have prospects for rapid development and are among the largest exporters of agricultural goods in the world. Almost 50% of agricultural products are exported, thus the countries of Latin America contribute to solving the world food problem. Ukraine also has economic relations with Latin American countries, purchasing products that cannot be obtained domestically due to a number of aspects such as geographical location and climatic conditions.

Key words: agriculture, Latin America, import, export, Ukraine, economic relations, plant breeding, livestock breeding.

The Andes Mountains, which frame all of South America from the north and west and the proximity of the Pacific Ocean, contribute to the formation of a peculiar climate. The climate of the countries of Latin America is subequatorial and tropical with droughts and periods of rain [1], are also found subtropical, equatorial and temperate [2, 3]. These climatic conditions and the shape of the relief contribute to the growing and cultivation of unusual agricultural plants and the breeding of various breeds of animals.

Agriculture occupies a leading place in the economy of these countries, because the export of food and raw materials of vegetable and animal origin is the main source of foreign exchange earnings and the main sphere of their material production [4].

A large share of food products that are not typical for Ukraine, most of the flowers that Ukrainians grow at home on their windowsills, are imported from these countries. You can make sure of the importance of economic cooperation with the countries of Latin America on your own experience by carefully considering the labels of goods in domestic stores. You can often see phrases such as “Bananas – Central America”, “Lemons – Argentina” or “Coffee. The country of origin of raw materials is Colombia.”

Colombia, Brazil, El Salvador, Guatemala are known for one of the best varieties of coffee, Colombia, Venezuela, Ecuador, Dominican Republic – cocoa. Ecuador, Panama, Colombia grow various varieties of bananas, among them the green vegetable banana – plantain, which has a starchy hard texture and is used for frying and preparing other salty and spicy dishes.

More than 90% of the world's coca plantations are concentrated in Colombia, Peru and Bolivia – the so-called Andean drug triangle. Although this plant produces not only the world-famous drug cocaine, coca leaves are also used for medical purposes as a local anesthetic (local

anesthesia), it has a tonic effect, quenches hunger and thirst, stabilizes well-being in mountainous areas, coca leaf extract is added to the Coca-Cola drink [5, 6, 7].

Brazil is famous for its oranges. It is one of the largest exporters of oranges, orange juice and concentrate. Argentina exports lemons in large quantities. Many vineyards of different varieties grow in Chile – Merlot, Chardonnay, Sauvignon, Cabernet, and there are also several local varieties, for example, Carmenere. Chilean wines are known all over the world, on a par with Italian and French wines.

Edible species of cacti grow in Mexico, the fruits of which can also be eaten, for example, prickly pear. Various national dishes are prepared from this cactus. Cultivation of agave occupies an important place in agriculture, because it produces the world-famous alcoholic drink tequila and agave syrup. In this country, cassava is grown, the root of which is used as a potato. As decorative plants, marigolds, calendula, and hibiscus of various species are grown, which are also used for the production of karkade tea.

Colombia supplies various flowers such as orchids, chrysanthemums, and carnations to the world market and Ukraine in large quantities.

All these countries grow a variety of exotic fruits – papaya, mango, mangosteen, pineapple, passion fruit and others.

Latin America is known for the cultivation of spices: vanilla, cinnamon, anise, hot pepper of various types. They also grow wax palms, sugar cane, tobacco, Paraguayan holly or yerba mate (a type of herbal ethnic tea), candlenut and other nuts: Brazil nuts, cashews, coconuts.

The countries of this region grow soybeans, corn, wheat, and cotton. It is worth highlighting quinoa (Peru, Bolivia, Ecuador) and chia seeds (Mexico, Ecuador, Guatemala, Bolivia), because these products are gaining great popularity in dietary nutrition and modern diets. Tomatoes and potatoes predominate in vegetable production [4, 8].

The two countries of the “Southern Cone” – Argentina and Uruguay – are the traditional area of livestock breeding. Since the topography of Latin American countries is mostly mountainous and the work of agricultural machinery is difficult, donkeys, mules and horses are bred as labor force. Breeding of llamas and alpacas is in great demand, their wool is stronger than that of sheep, and various warm products are made from it all over the world.

Cows of various breeds, both meat and dairy, are bred in large numbers. The world-famous Argentinian ribeye steaks are produced from the Black Angus meat breed. Hereford and Shorthorn are also bred among the meat breeds, and the Dutch-Argentine breed is also bred for milk. Sheep breeding has a meat and wool direction. Pig farming is poorly developed.

In the diet of Latin Americans, plant products predominate, products of animal origin can be quite expensive, but prices can vary depending on the country [8, 9].

Trade and economic relations of Ukraine with Latin American countries are built mainly on Ukrainian imports. In Colombia, Ukraine buys edible fruits and nuts (46.8%), coffee and tea (8.4%), live trees and other plants (2.1%). The basis of Ukrainian exports is grain crops (1.6%), sugar and sugar confectionery (0.5%) [10].

Edible fruits and nuts (54%), seeds and fruits of oil plants (6.1%), coffee and tea (4.7%), cereals (1.4%) are the main group of goods from Peru on Ukrainian markets. The main groups of goods exported from Ukraine are fats and oils of animal or vegetable origin (3%) [10].

The basis of imports from Panama is edible fruits and nuts – 86.1%, alcoholic and non-alcoholic beverages – 9.7%, essential oils – 2.3%. The basis of Ukrainian exports is alcoholic and non-alcoholic beverages – 10.0%, vegetable oil – 8.4% [11].

In general, Latin American countries account for 21% of fruit, 19% of cotton, 18% of corn, and 15% of world meat production. So:

- Colombia, Brazil, Mexico, Argentina and Venezuela are the largest producers of agricultural products among Latin American countries;
- coffee, cocoa, sugar, cotton, bananas, citrus fruits, other tropical fruits and flowers form the basis of the export of agricultural products of Latin American countries to the world market;
- Latin American countries export their products to Ukraine as well;

- in turn, among the Ukrainian agricultural products exported to the countries of Latin America, grain crops, vegetable and animal oils, sugar and confectionery products, various beverages stand out;
- economic relations between Latin American countries and Ukraine in the field of agriculture are insufficient and have certain development prospects for solving food problems.

Literature:

1. Учасники проєктів Вікімедіа. Південна Америка – Вікіпедія. *Vikimedia*. URL: https://uk.wikipedia.org/wiki/Південна_Америка (дата звернення: 07.03.2024).
2. Учасники проєктів Вікімедіа. Географія Мексики – Вікіпедія. *Vikimedia*. URL: https://uk.wikipedia.org/wiki/Географія_Мексики#:~:text=Острови-Клімат,рясно%20зрошують%20навітряні%20схили%20гір. (дата звернення: 08.03.2024).
3. Погода в Панамі по місяцях. Турагентство «Поехали с нами» – крупнейшая сеть туристических агентств и фирм Украины. URL: <https://www.poehalisnami.ua/ua/countries/panama/climate#:~:text=Панама%20має%20тропічний%20клімат,%20але,коли%20прибувають%20північно-східні%20пасати>. (дата звернення: 08.03.2024).
4. Сільське господарство. *StudFiles*. URL: <https://studfile.net/preview/5650976/page:8/> (дата звернення: 08.03.2024).
5. В П. Н. КОКАЙНОВИЙ КУЩ. *Фармацевтична енциклопедія*. URL: <https://www.pharmacencyclopedia.com.ua/article/3604/kokainovij-kushh> (дата звернення: 09.03.2024).
6. Рослина кока: опис, властивості, плоди і листя. *Про квіти*. URL: <http://kviti.pp.ua/8159-roslina-koka-opis-vlastivost-plodi-listya.html> (date of access: 09.03.2024).
7. Виховний захід "Все про Кока-Колу". *Освітній проєкт «На Урок» для вчителів*. URL: <https://naurok.com.ua/vihovniy-zahid-vse-pro-koka-kolu-27071.html> (дата звернення: 09.03.2024).
8. Сільське господарство Латинської Америки. *Електронна бібліотека підручників*. URL: https://eduknigi.com/geo_view.php?id=450 (дата звернення: 09.03.2024).
9. «М'ясний цех» Латинської Америки. *Портал "Аграрний тиждень. Україна" www.a7d.com.ua* *Агрополітика, новини, технології, техніка, агрохімія та все про агробізнес*. URL: <https://a7d.com.ua/tvarinnictvo/7251-myasniy-ceh-latinskoyi-ameriki.html> (дата звернення: 10.03.2024).
10. Торговельно-економічне співробітництво з Колумбією. Посольство України в Республіці перу. URL: <https://peru.mfa.gov.ua/ukrayina-kolumbiya/torgovelnno-ekonomichne-spivrobitnictvo-mizh-ukrayinoyu-ta-kolumbiyeyu/tes-kol> (дата звернення: 10.03.24)
11. Торговельно-економічне співробітництво між Україною та Панамою. *Посольство України в Мексиканських Сполучених Штатах*. URL: <https://mexico.mfa.gov.ua/spivrobitnictvo/ukrayina-panama/3204-trade> (дата звернення: 10.03.24)

УДК 336.2

PECULIARITIES OF TAXATION IN UKRAINE DURING MARTIAL LAW (ОСОБЛИВОСТІ ОПОДАТКУВАННЯ В УКРАЇНІ ПІД ЧАС ВОЄННОГО СТАНУ)

Яблуновська Г.С. – здобувач вищої освіти групи БЗ/І

Науковий керівник: Ракова А.Ю., викладач кафедри іноземних мов МНАУ

Ця тема дуже актуальна у нас час, адже в нашій країні вже більш ніж два роки воєнний стан. Всі українці відчули на собі негативний вплив ситуації на економіку країни. Тому держава вирішила спростити систему оподаткування. Тож сьогодні ми розглянемо

особливості оподаткування в Україні під час воєнного стану. У цих тезах ми проаналізуємо існуючі податкові політики та їх ефективність в умовах воєнного стану, та порівняємо їх з політиками довоєнного часу. Проаналізуємо податкові ставки, яких змін вони зазнали та які пільги впровадилися. У висновку зазначимо як змінився економічний стан країни з початку воєнного стану дотепер.

Ключові слова: податки, податкова ставка, система оподаткування, підприємства, воєнний стан, економічне становище країни.

This topic is very relevant in our time, because our country has been under martial law for more than two years. All Ukrainians felt the negative impact of the situation on the country's economy. Therefore, the state decided to simplify the taxation system. So today we will consider the peculiarities of taxation in Ukraine during martial law. In these theses, we will analyze existing tax policies and their effectiveness under martial law, and compare them with pre-war policies. We will analyze the tax rates, what changes they have undergone and what benefits have been introduced. In the conclusion, we will note how the economic condition of the country has changed since the beginning of the martial law until now.

Key words: taxes, tax rate, taxation system, enterprises, martial law, economic situation of the country.

During the war, the economic condition of our country improved significantly. A lot of enterprises closed down, especially small and medium-sized ones. Of course, the service sector also stopped its work. As a result, jobs were significantly reduced. As a result of all of the above, tax revenues to the budget have significantly decreased. For all this, it was necessary to continue to supply the army with weapons, ammunition, food and to pay soldiers salaries. The government began to actively engage in foreign policy, turning to allied countries for help. But all funds that are provided to this day are credit. So, the country's economy has deteriorated significantly.

In order to solve these problems, the Government decided to change the tax legislation of the country, improving the domestic economy of the country. Therefore, decisions were made regarding the simplification of taxation, some benefits and other features of taxation arose in order to continue the work of enterprises. In this work, we will consider some examples of such laws.

First of all, I would like to speak for the support of small and medium-sized businesses. In order to support the agricultural sector, on March 12, 2022, the Cabinet of Ministers of Ukraine decreed changes to the State Program "5-7-9% Available Loans" with the expansion of opportunities to support business entities - agricultural producers, first of all, to ensure their financing of sowing operations [1].

Also, in July 2022, the Government adopted such projects that determined the situation in the field of entrepreneurship, such as [2]:

- Ongoing relocation of enterprises. The recovery of the Ukrainian economy depends on the activation of Ukrainian business. From the start of the relocation program until August 3, 2022, 692 companies moved to safe regions, of which 484 started working.
- Redistribution of coverage of debt obligations of agricultural producers. The Cabinet of Ministers of Ukraine has reduced the amount of state guarantees on a portfolio basis to some creditor banks in 2021-2022. The state guarantee limits thus released will be transferred to ensure partial fulfillment of debt obligations under the portfolio of loans of 4 creditor banks provided to economic entities micro-enterprise, small and/or medium-sized enterprise - to residents of Ukraine. For example, in this way, in the liberated regions of Ukraine, agricultural commodity producers will be provided with the sowing campaign of 2022. Also, the maximum size of the provision of these guarantees for each creditor bank has been established.
- Improvement of development conditions for industrial parks. On July 15, 2022, the President of Ukraine signed draft laws No. 5688 and No. 5689 on additional tax and customs benefits for industrial parks, adopted in the second reading on June 21.
- Deregulation of the regime of contractual labor relations. On July 19, 2022, the Verkhovna Rada of Ukraine generally supported draft law No. 5371 on the deregulation of labor

relations for small and medium-sized businesses, which should strengthen the principles of market self-regulation and eliminate numerous bureaucratic obstacles for the self-realization of employees and to increase the competitiveness of employers. A contractual regime for the regulation of labor relations has been introduced for certain categories of employees and for subjects of small and medium-sized enterprises; the bureaucratic burden on labor relations for employers is reduced.

- Legislative consolidation of non-standard forms of employment. On July 18, the Verkhovna Rada adopted draft law No. 5161 on non-standard forms of employment (freelance), which introduces a new special form of employment contract - an employment contract with non-fixed working hours as an alternative to civil law contracts.

- and other.

Also, in our opinion, it is worth noting that the Cabinet of Ministers of Ukraine adopted a resolution amending the Procedure for providing compensation to employers for employment of internally displaced persons. According to the Government's order, the employer support program will continue to operate in 2023. For each employed internally displaced person, the state pays the employer compensation in the amount of the minimum wage (6,700 UAH) for 2 months [3].

Also, since the beginning of the war, the Verkhovna Rada of Ukraine has adopted a number of changes to the Tax Code of Ukraine regarding issues of taxation and reporting of private enterprises. Changes directly related to the taxation of FOP were introduced by Laws No. 2120-IX dated 15.03.2022, No. 2142-IX dated 24.03.2022, No. 2173-IX dated 01.04.2022, No. 2192-IX dated 14.04.2022. Yes, regulated the issue of payment of the single tax and EUV by natural persons - entrepreneurs who are payers of the single tax, peculiarities of reporting for the period of martial law. Single tax, EUV and submission of reporting by FOP - by single tax payers of the first and second groups. They are granted the right not to pay a single tax (for the period from April 1, 2022 until the end of martial law in Ukraine) and EUV (from March 1, 2022 until the end or cancellation of martial law in Ukraine and for 12 months after the end or cancellation of martial law). But it is worth paying attention to the fact that this is a right, not an obligation of such persons, and the decision to pay a single tax or VAT is made by such a person independently [4].

Also, the simplification of the taxation system can be attributed to the fact that tax audits that have been started have been suspended, and new ones are not being started; voluntary transfer or alienation of funds, goods, provision of services for the benefit of the Armed Forces of Ukraine and other military formations are not considered sales operations for tax purposes, and certain adjustments established by the Tax Code are not carried out for certain goods or services that are voluntarily transferred to military formations. These features are aimed at easing the tax burden during martial law and take into account the special circumstances affecting taxpayers in Ukraine [5].

In summary, we can say that, despite the fact that until we win this war, the country's economic situation will not be ideal, nevertheless, these bills on tax benefits and tax simplification have improved it compared to the period from February to November 2022. New FOEs are opening, large and medium-sized enterprises are resuming work, the number of jobs has significantly increased, etc.

Література:

1. ShieldSquare Captcha. *ShieldSquare Captcha*. URL: <https://www.kmu.gov.ua/news/zmini-do-programi-dostupni-kredit-5-7-9-pidtrimka-posivnoyi-kampaniyi-ta-aktivaciya-pidpriyemnictva28032022#:~:q=2> (date of access: 05.03.2024).
2. Огляд інструментів підтримки бізнесу в період воєнного стану в Україні (за 01.07 – 31.07.2022 р.). Національний інститут стратегічних досліджень. URL: <https://niss.gov.ua/news/komentari-ekspertiv/ohlyad-instrumentiv-pidtrymky-biznesu-v-period-voyennoho-stanu-v-0> (date of access: 05.03.2024).
3. Підтримка бізнесу в умовах війни. Дія.Бізнес - Головна сторінка. URL: <https://business.dija.gov.ua/wartime> (date of access: 05.03.2024).

4. ФОП під час війни: особливості оподаткування та звітності | ЮРЛІГА. *ЮРЛІГА*. URL: https://jurliga.ligazakon.net/news/211513_fop-pd-chas-vyni-osoblivost-opodatkovannya-ta-zvtnost (date of access: 05.03.2024).
5. Особливості оподаткування та звітності під час воєнного стану. LexInform: Правові та юридичні новини, юридична практика, коментарі. URL: <https://lexinform.com.ua/zakonodavstvo/osoblyvosti-opodatkovannya-ta-zvtnosti-pid-chas-voyennogo-stanu/> (date of access: 05.03.2024).

УДК 811.111

PROGRESS IN GENOMIC RESEARCH WITH BWA: EFFICIENCY, APPLICATIONS IN BIOTECHNOLOGY (РОЗВИТОК ГЕНОМНИХ ДОСЛІДЖЕНЬ З BWA: ЕФЕКТИВНІСТЬ, ЗАСТОСУВАННЯ В БІОТЕХНОЛОГІЇ)

Яценко А.Д. – здобувач вищої освіти групи БТ 3/1

Науковий керівник: Саламатіна О.О., доцент кафедри іноземних мов МНАУ

У цій публікації досліджується метод вирівнювання Берроуза-Вілера (BWA), основний метод біоінформатики, і детально описується його сучасне використання перетворення Берроуза-Вілера та FM-індексу для ефективного і точного вирівнювання послідовностей ДНК з референтними геномами.

Ключові слова: біоінформатика, BWA, вирівнювання послідовностей, ДНК.

This publication explores the Burrows-Wheeler Aligner (BWA), a cornerstone bioinformatics method, detailing its sophisticated use of the Burrows-Wheeler Transform and FM-index for the efficient and accurate alignment of DNA sequences to reference genomes.

Key words: bioinformatics, BWA, sequence alignment, DNA.

The analysis of genomic data plays a pivotal role in contemporary biotechnology, driving advancements in fields ranging from personalized medicine and pharmacogenomics to agricultural improvements and microbial genomics. By decoding the complex information encoded in the DNA, researchers can uncover genetic variations linked to diseases, identify targets for new drugs, develop genetically modified organisms for enhanced agricultural productivity, and much more. This wealth of genomic data offers unprecedented opportunities for understanding life at a molecular level and tackling some of the most pressing health and environmental challenges.

However, the sheer volume and complexity of genomic data present significant computational challenges. The rapid increase in genomic data outpaces traditional data processing capabilities, necessitating efficient and scalable computational tools for data analysis. One of the primary tasks in genomic data analysis is sequence alignment, where newly sequenced DNA fragments (reads) are aligned to a reference genome to identify genetic variants and understand genomic structures.

Among the tools developed to address these challenges, the Burrows-Wheeler Aligner (BWA) stands out as a cornerstone in genomic research. BWA utilizes the Burrows-Wheeler Transform (BWT) and the FM-index, sophisticated algorithms that allow for efficient and rapid alignment of DNA sequences to a reference genome. This capability is crucial for processing the vast amounts of data generated by high-throughput sequencing technologies. BWA supports various types of alignments, including end-to-end (traditional alignment) and local (allowing for partial alignments), making it versatile for different genomic research needs [1].

BWA has significantly contributed to the field by enabling the handling of large-scale genomic datasets, thus facilitating the identification of genetic markers for diseases, understanding population genetics, and exploring the genetic basis of traits in agriculture. Its efficiency and

accuracy in aligning sequences to reference genomes have made it an indispensable tool in genomics research. However, the continuous growth in data volume and the evolving complexity of genomic studies call for ongoing enhancements in algorithms like BWA and the development of new computational strategies to keep pace with the advancing frontiers of genomics.

Essence of the BWA Method

The core of BWA's methodology is the Burrows-Wheeler Transform (BWT) coupled with the FM-index, a compressed full-text substring index. This combination allows BWA to perform efficient, memory-saving alignments of DNA sequences (reads) to a reference genome. The BWT reorganizes the reference genome in a way that groups similar character sequences together, making it more amenable to compression and faster to search. The FM-index then enables quick, efficient searches of the transformed data, allowing BWA to locate the positions where genomic reads could align with the reference genome [3].

Problems Addressed by BWA

High-Throughput Sequencing Data Volume: With the advent of high-throughput sequencing technologies, the volume of genomic data has exploded. BWA addresses the challenge of aligning billions of short DNA sequences (reads) to large reference genomes quickly and with limited computational resources.

Accuracy and Speed: BWA balances the trade-off between speed and accuracy. It achieves fast alignment times without significantly compromising the accuracy of the alignments, which is crucial for downstream analyses like variant calling and genotyping [3].

Scalability: The method is scalable, capable of handling genomic data as reference genomes grow in size and complexity, and as sequencing technologies continue to increase the volume of data generated.

Flexibility in Alignment Types: BWA supports both end-to-end and local alignments, catering to various research needs. End-to-end alignment is used when the entire read must align from one end to the other, useful for many variant discovery applications. Local alignment, which allows for partial alignments, is beneficial when reads may contain insertions, deletions, or errors towards the ends.

Complex Genomic Regions: Through its efficient indexing and search algorithms, BWA can effectively align reads to repetitive or low-complexity regions of the genome, which are often challenging for other aligners. This capability is crucial for comprehensive genomic analyses, including those areas that are rich in genetic diversity and underlie many genetic diseases.

One exciting area for further investigation involves the integration of BWA with machine learning algorithms. The accuracy and speed of BWA make it an ideal candidate for preprocessing data for machine learning models, which can predict genetic diseases, discover novel genetic associations, and understand gene function. By combining BWA's alignment capabilities with the predictive power of machine learning, researchers can uncover deeper insights into genomic data, leading to advances in personalized medicine and targeted therapies [4].

Another potential research direction focuses on improving alignment algorithms for emerging sequencing technologies. As sequencing technologies evolve, producing longer reads with unique error profiles, adapting and optimizing BWA to accommodate these changes is crucial. Research could explore modifications to BWA's algorithms to enhance its efficiency and accuracy for new data types, ensuring that it remains a valuable tool for genomic analysis in the era of long-read sequencing and beyond [5].

The exploration of parallel computing and cloud-based solutions presents a further opportunity. Given the exponential growth of genomic data, leveraging cloud computing and parallel processing can significantly reduce the time and computational resources required for genomic analyses. Future research could develop more sophisticated BWA implementations that are optimized for cloud environments, facilitating large-scale genomic studies and collaborative research efforts across the globe.

Literature:

1. BURROWS. *University of south florida*. URL: <https://wiki.rc.usf.edu/index.php/Burrows>. (date of access: 11.03.2024).
2. Burrows-Wheeler Aligner. Burrows-Wheeler Aligner. URL: <https://bio-bwa.sourceforge.net/> (date of access: 11.03.2024).
3. GitHub - lh3/bwa: Burrow-Wheeler Aligner for short-read alignment (see minimap2 for long-read alignment). GitHub. URL: <https://github.com/lh3/bwa> (date of access: 11.03.2024).
4. José M. A. BigBWA: approaching the Burrows–Wheeler aligner to Big Data technologies, *Bioinformatics*, Volume 31, Issue 24, December 2015, Pages 4003–4005
5. Taheri, M., Ansari, M.S., Magierowski, S. and Mahani, A. (2021), Hardware acceleration of the novel two dimensional Burrows-Wheeler Aligner algorithm with maximal exact matches seed extension kernel. *IET Circuits Devices Syst*, 15: 94-103.

Наукове видання

**Матеріали студентської конференції Миколаївського національного
аграрного університету**

м. Миколаїв,
21 березня 2024 р.

Технічний редактор: Г.С. Яблуновська

Формат 60x84/16. Ум. друк. арк. 8,5
Тираж 100 пр. Зам. №__

Надруковано у видавничому відділі
Миколаївського державного аграрного університету
54020, м. Миколаїв, вул. Георгія Гонгадзе, 9

Свідоцтво суб'єкта видавничої справи ДК № 4490 від 20.02.2013 р.