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Mas’ul kotib:

Boboyorov Sardor Uchqun o‘g‘li Toshkent tibbiyot akademiyasi Termiz filiali magistranti

Nashrga tayyorlovchi:

Eshqarayev Samariddin Sadiridin o‘g‘li Termiz muhandislik-texnologiya instituti magistranti

TAHRIR KENGASHI A‘ZOLARI

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Texnika fanlari muharriri Babamuratov Bekzod Ergashevich – Termiz davlat universiteti fizik kimyo kafedrasini dotsenti, falsafa fanlari doktori, Termiz, O‘zbekiston.

Kimyo fanlari muharriri Mirabbos Xojamberdiev Ikromovich- Berlin Technische Universität dotsenti, kimyo fanlari doktori, Berlin, Germaniya

Kimyo fanlari muharriri, Eshqurbonov Furqat Bozorovich – Termiz muhandislik-texnologiya instituti, kimyo fanlari doktori, Termiz, O‘zbekiston.

Iqtisodiyot fanlari muharriri Otamurodov Shavkat Tillayevich – Termiz iqtisodiyot va servis universiteti prorektori, iqtisod fanlari doktori, Termiz, O‘zbekiston.

Ijtimoiy va gumanitar fanlar muharriri, Xudoyberdiyev Xursand Xudoyberdiyevich – Termiz muhandislik-texnologiya instituti, ijtimoiy-gumanitar fanlar doktori, Termiz, O‘zbekiston.



Tibbiyot fanlari muharriri Otamurodov Furqat Abdulkarimovich, Toshkent tibbiyot akademiyasi Termiz filiali direktori, Termiz, O'zbekiston tibbiyot fanlari falsafa doktori, Termiz, O'zbekiston.

Biologiya fanlari muharriri Nurova Zamira Annakulovna Toshkent tibbiyot akademiyasi Termiz filiali. Termiz, O'zbekiston, biologiya fanlari doktori, dots., Termiz, O'zbekiston.

Tibbiyot fanlari muharriri Turabayeva Zarina Kenjabekovna Toshkent tibbiyot akademiyasi Termiz filiali, tibbiyot falsafa fanlari doktori, Termiz, O'zbekiston.

Sotsiologiya fani muharriri Eryigitova Lobar Qodirovna Termiz muhandislik-texnologiya instituti, falsafa sotsiologiya fanlari doktori, Termiz, O'zbekiston.

Filologiya fanlari muharriri Jo'rayeva Ramziya Abdurahimovna Qo'qon davlat pedagogika instituti. Qo'qon, O'zbekiston filologiya fanlari doktori (PhD), katta o'qituvchi.

Fizika-matematika-fanlari muharriri Bobamuratov Ulug'bek Erkinovich Termiz muhandislik-texnologiya instituti, falsafa fanlari doktori, fizika-matematika-fanlari, Termiz, O'zbekiston.

Tibbiyot fanlari muharriri Axmedov Kamoliddin Xakimovich Toshkent tibbiyot akademiyasi Termiz filiali 1-son davolash fakulteti dekani, tibbiyot fanlari nomzodi, dotsent

Tibbiyot fanlari muharriri Vohidov Alisher Shavkatovich Toshkent tibbiyot akademiyasi Termiz filiali Umumiy xirurgiya, bolalar xirurgiyasi va bolalar urologiyasi kafedrasini mudiri Tibbiyot fanlari doktori, professor

Gumanitar fanlar muharriri Rahmonov Abduqahhor Abdusattorovich Ma'naviy-axloqiy tarbiya va yoshlar bilan ishlash bo'yicha direktor o'rinbosari, falsafa fanlari doktori (PhD)



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MYOCARDIAL INFARCTION

Yodgorov Yoqubjon Yodgor o'g'li

Samarkand State Medical University

Department of Internal Diseases, Functional Diagnostics.

1st-year Clinical Resident in Cardiology.

Vahobov Karimjon Vafoqul o'g'li

Samarkand State Medical University

Department of Internal Diseases, Functional Diagnostics

Norqulov Abdulaziz G'ofur o'g'li

Samarkand State Medical University

Department of Internal Diseases, Functional Diagnostics.

Annotation: This article focuses on myocardial infarction, a critical cardiovascular condition characterized by the interruption of blood flow to the heart muscle, leading to tissue damage or necrosis. The study highlights the pathophysiology, risk factors, clinical presentation, and diagnostic methods for myocardial infarction. Additionally, it discusses current approaches to management and treatment, emphasizing the importance of early detection and intervention to improve patient outcomes. The article aims to provide medical students and young clinicians with a comprehensive overview of myocardial infarction within the framework of cardiology education and clinical practice.

Keywords: Myocardial infarction, cardiovascular disease, ischemia, heart attack, coronary artery, chest pain, diagnosis, treatment, risk factors, cardiac rehabilitation.

Introduction.

Myocardial infarction (MI), commonly known as a heart attack, remains one of the leading causes of morbidity and mortality worldwide. It occurs when blood flow to a part of the heart muscle is significantly reduced or completely blocked, usually due to atherosclerosis or the formation of a thrombus in the coronary arteries. This interruption in blood supply leads to ischemia and ultimately necrosis of the affected myocardial tissue if

not promptly treated. The increasing prevalence of myocardial infarction has become a major public health concern, especially in populations with high rates of risk factors such as hypertension, diabetes mellitus, smoking, obesity, and sedentary lifestyles. Early recognition of symptoms, accurate diagnosis, and immediate medical intervention are essential to minimize heart muscle damage and improve survival rates. This paper aims to provide a detailed overview of myocardial infarction, including its causes, clinical features, diagnostic methods, and current treatment strategies. It also emphasizes the importance of preventive measures and lifestyle modifications in reducing the incidence of this life-threatening condition.

Main Body.

1. Definition and Pathophysiology

Myocardial infarction (MI) refers to the irreversible necrosis of heart muscle tissue resulting from prolonged ischemia. This condition is most often caused by atherosclerotic plaque rupture in a coronary artery, which leads to thrombus formation and a sudden reduction in coronary blood flow. The loss of oxygenated blood supply to the myocardium initiates a cascade of cellular events, resulting in cell death and the loss of contractile function in the affected area. Within 20–30 minutes of complete occlusion, irreversible damage begins to occur. The extent of the infarction depends on the duration of ischemia and the presence of collateral circulation.

2. Risk Factors. There are several modifiable and non-modifiable risk factors associated with myocardial infarction. Modifiable risk factors include: Hypertension. Diabetes mellitus. Hyperlipidemia. Smoking. Obesity. Sedentary lifestyle. Poor dietary habits. Non-modifiable risk factors include: Age (men over 45, women over 55). Male gender. Family history of coronary artery disease

3. Clinical Presentation

Typical symptoms of myocardial infarction include: Chest pain or discomfort, often described as pressure, tightness, or squeezing. Pain radiating to the left arm, neck, jaw, or back. Shortness of breath. Nausea or vomiting. Diaphoresis (excessive sweating). Lightheadedness or syncope. In some cases, especially in diabetic or elderly patients, myocardial infarction may be silent or present with atypical symptoms.

4. Diagnosis. Accurate and timely diagnosis is essential in the management of MI. It includes: Electrocardiogram (ECG): ST-segment elevation or depression, T-wave inversions, or new pathological Q waves. Cardiac biomarkers: Elevated troponin I/T and

CK-MB levels indicate myocardial damage Imaging: Echocardiography to assess ventricular function; coronary angiography to identify blockages

5. Types of Myocardial Infarction

According to the universal definition, there are five types of myocardial infarction:

- 1: Spontaneous MI due to atherosclerotic plaque rupture
- 2: MI secondary to an imbalance in oxygen supply and demand
- 3: Sudden cardiac death with suggestive symptoms of MI
- 4: MI related to percutaneous coronary intervention (PCI)
- 5: MI associated with coronary artery bypass grafting (CABG)

6. Treatment. Early treatment greatly improves prognosis. Management involves: Initial therapy: Oxygen, nitrates, morphine, aspirin. Reperfusion therapy: Fibrinolytics or PCI to restore coronary blood flow. Medications: Antiplatelet agents (aspirin, clopidogrel), beta-blockers, ACE inhibitors, statins, and anticoagulants. Post-MI care: Cardiac rehabilitation, lifestyle modification, and long-term pharmacotherapy

7. Prevention. Preventive measures can significantly reduce the risk of myocardial infarction: Controlling blood pressure, glucose, and lipid levels. Smoking cessation. Regular physical exercise. Weight management. Heart-healthy diet rich in fruits, vegetables, whole grains, and low in saturated fats. Stress management and routine health check-ups

Conclusion: Myocardial infarction remains one of the most serious and life-threatening cardiovascular events worldwide. Early recognition of symptoms, prompt diagnosis, and immediate medical intervention are critical to minimizing myocardial damage and improving patient survival. Understanding the pathophysiology, risk factors, and clinical manifestations of myocardial infarction is essential for healthcare professionals to provide effective treatment and long-term care. Furthermore, emphasis on preventive strategies—including lifestyle modifications, risk factor control, and regular medical check-ups—plays a vital role in reducing the incidence and recurrence of myocardial infarction. Continued research, public education, and access to high-quality cardiac care are key to improving outcomes and reducing the global burden of heart disease.

References:

1. Thygesen, K., Alpert, J. S., Jaffe, A. S., et al. (2018). Fourth Universal Definition of Myocardial Infarction (2018). *Journal of the American College of Cardiology*, 72(18), 2231–2264. <https://doi.org/10.1016/j.jacc.2018.08.1038>
2. Braunwald, E. (2012). The path to an understanding of the mechanism of action of aspirin in acute myocardial infarction. *Journal of the American College of Cardiology*, 59(15), 1323–1325.
3. Ibanez, B., James, S., Agewall, S., et al. (2018). 2017 ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation. *European Heart Journal*, 39(2), 119–177. <https://doi.org/10.1093/eurheartj/ehx393>
4. Benjamin, E. J., Virani, S. S., Callaway, C. W., et al. (2019). Heart Disease and Stroke Statistics—2019 Update. *Circulation*, 139(10), e56–e528.
5. Libby, P. (2013). Mechanisms of acute coronary syndromes and their implications for therapy. *New England Journal of Medicine*, 368(21), 2004–2013.
6. O’Gara, P. T., Kushner, F. G., Ascheim, D. D., et al. (2013). 2013 ACCF/AHA Guideline for the Management of ST-Elevation Myocardial Infarction. *Circulation*, 127(4), e362–e425.
7. Antman, E. M., Loscalzo, J. (2016). ST-Segment Elevation Myocardial Infarction. In: Braunwald’s Heart Disease: A Textbook of Cardiovascular Medicine (11th ed.). Elsevier.
8. Yusuf, S., Hawken, S., Ôunpuu, S., et al. (2004). Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): case-control study. *The Lancet*, 364(9438), 937–952.
9. Amsterdam, E. A., Wenger, N. K., Brindis, R. G., et al. (2014). 2014 AHA/ACC Guideline for the Management of Patients With Non–ST-Elevation Acute Coronary Syndromes. *Journal of the American College of Cardiology*, 64(24), e139–e228.
10. Fox, K. A. A., Dabbous, O. H., Goldberg, R. J., et al. (2006). Prediction of risk of death and myocardial infarction in the six months after presentation with acute coronary syndrome. *BMJ*, 333(7578), 1091–1094.

TECHNOLOGY FOR PROCESSING LIVESTOCK AND POULTRY
WASTES INTO ORGANIC FERTILIZERS

D.T.Yakhshiboeva- doctor of philosophy (PhD) teacher of the Department of "Biology" Navoi State University, Uzbekistan

R. Abduxoliqova- Student of of the Department of "Biology" Navoi State University, Uzbekistan

Abstract. Methods for processing poultry litter and waste from livestock complexes can be divided into 4 groups: biotechnological, chemical, combined and physical. Each of these methods neutralizes the litter, allows for long-term storage with maximum preservation of nutrients, and prevents the formation of gaseous liquid and solid waste that pollute the environment.

Key words: pesticides, mycotoxin, transporter, poultry litter, mercaptan, phenol.

The production of industrial, household and agricultural products, along with their generation of liquid and solid waste, is an integral part of any developed society. Waste from agricultural enterprises, especially animal manure and poultry litter, which contain a large amount of environmentally harmful substances such as ammonia, hydrogen sulfide, mercaptan, phenol, are considered environmentally and epizootically hazardous waste. At the same time, there is a need for organic waste from the agro-industrial complex, which contains the necessary amount of nutrients, which is considered a valuable raw material for obtaining highly effective fertilizers and other products necessary for the national economy [1].

Due to the content of ecotoxicants (heavy metals, pesticides, mycotoxins, etc.), medicinal preparations and other sources of pollution, manure and waste cannot be applied to the soil without preliminary processing. At the same time, it should not be forgotten that animal waste also contains pathogens of infectious and invasive diseases that retain their viability and virulence for a long time. For example: the causative agent of salmonella remains viable in manure for 92-157 days, tuberculosis - 457 days, listeriosis - 160 days, Marek's disease virus - more than 6 months, eggs and larvae of helminths remain viable in pig manure for 12-15 months, and in cattle manure for 7-8 months. According to the World Health Organization, manure is a source of more than

100 types of pathogens dangerous to humans and animals. When organic waste is introduced into the soil, it is fertilized to a certain extent with microflora, which poses an ecological and sanitary hazard. It should be noted that the use of organic waste without processing is not in line with its purpose; when stored for 2-3 months, nitrogen loss is 50-60% [2].

The authors note that the high competitiveness of this method allows obtaining a product that meets the necessary characteristics, is targeted and meets environmental requirements; soil bioremediation, biogas production, new fertilizers, and nutritional supplements. Improving microbial processing methods will allow for the full use of livestock and poultry waste for food purposes. These authors created an experimental module that allows you to control microbiological processes in the processing of roof waste. Undoubtedly, it has a number of advantages. In particular, when using the module, the rate of succession of natural and introduced microorganisms and coenoses is controlled, the duration of the experiment is reduced, it is very convenient to measure, observe and obtain analyzes, and characterize the target product. For the effective course of waste transformation and the stability of microbial associations in the module, not only the initial microflora and substrate are needed, but also certain tactics of growing microorganisms, the rules of the law of species survival must be observed [3].

References

1. Nill K. R. Glossary of Biotechnology Terms. (2002) 660.603N598g 2002
2. Nill K. R. Glossary of Biotechnology and Nanobiotechnology Terms. 4th ed. (2006) 660.603N598g 2006 ACES Library
3. Rehm H-J. and Reed, G. Biotechnology: A Multi-Volume Comprehensive Treatise. (2nd ed., 2001-) 660.62 B52441991 (also in the Chemistry

EFFECT OF COMPOST MADE BASED ON TOBACCO INDUSTRY WASTE ON
PLANT PRODUCTIVITY

*D. T. Yakhshiboeva- doctor of philosophy (PhD) teacher of the Department of "Biology"
Navoi State University, Uzbekistan*

*M.Erkinova - Student of of the Department of "Biology" Navoi State University,
Uzbekistan*

Abstract. Experiments aimed at studying the effect of compost made on the basis of tobacco waste on the productivity of plants are studied on the example of a wheat plant.

Key words: composting, tobacco, humus, garbage, dust.

If we compare the microelement composition of the soil composition and the microelement composition of the tobacco industry waste, which is the object of our research, the most common microelements in the soil composition (i.e. Zn and Mn) are twice as high in the tobacco industry waste. At the same time, a number of microelements that are found in large quantities in the tobacco industry waste (for example, Fe, Ca and K) are almost absent in the soils of the Khatirchi district studied by us [3].

Human life is inextricably linked with the natural environment surrounding it, and sources confirming this are found at every step. The scientific and technological revolution, which is rapidly taking place on a global scale, has a positive impact on improving people's working conditions and living standards, but the ecological changes it has caused, in turn, have a complex impact on humanity and on Mother Nature, which supports it [1].

According to accurate data, each person currently leaves 1m³ of garbage in their daily lives per year. If such a large amount of waste is seen in a city or republic, then one can imagine how polluted our environment is. Along with the above, industrial waste is a source of environmental pollution that causes various diseases in humans and leads to ecological degradation of mother nature [2].

Industrial waste and other household waste have been circulating in the environment for many years, moving from one environment to another. For example, lead and DDT do not disappear on their own over time, but accumulate in some part of nature. Some aggressive substances circulate throughout the planet. For example, there is information that 2,500 tons of DDT have accumulated in the Antarctic glaciers, where humans have never stepped foot. Dust, smoke, soot, and fog in the atmospheric air of large cities and

industrial centers with highly developed industries sometimes block sunlight and prevent ultraviolet rays from reaching the earth's surface [3].

Tobacco industry waste is one of the wastes that has a negative impact on human health and the environment. In order to neutralize and rationally use tobacco industry waste, it is effective to ferment it with soil bacteria, prepare compost, and use it to increase plant productivity.

References

1. Зайцев, В.А. Промышленная экология: Учебное пособие / В.А. Зайцев. - М.: БИНОМ. ЛТЗ, 2013. - 382 с.
2. Какарека, Э.В. Промышленная экология: Учебное пособие / М.Г. Ясовеев, Э.В. Какарека, Н.С. Шевцова, О.В. Шершневу; Под ред. М.Г. Ясовеев. - М.: НИЦ ИНФРА-М, Нов. знание, 2013. - 292 с.
3. Ксенофонтов, Б.С. Промышленная экология: Уч. пос. / Б.С. Ксенофонтов, Г.П. Павлихин, Е.Н. Симакова. - М.: ИД ФОРУМ, НИЦ ИНФРА-М, 2013. - 208 с.

"THE LAWS OF MEDICINE" IS THE BASIS OF MEDICINE AND PHYSIOLOGY

Pirnazarova Mohigul Abdunazar kizi - Student of of the Department of "Biology" Navoi State University, Uzbekistan

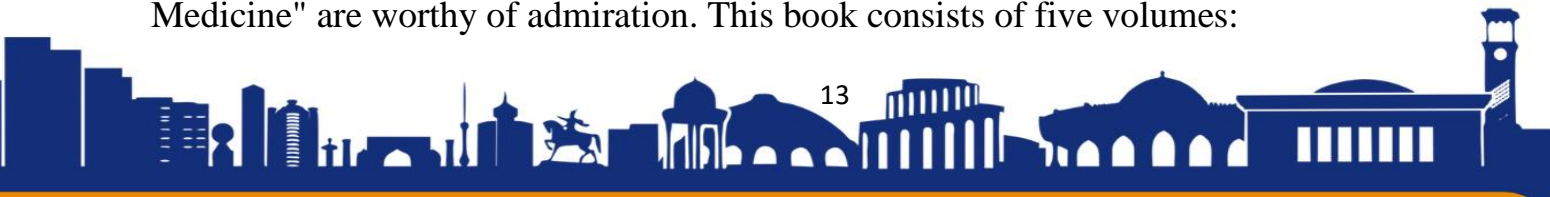
Abstract. The article discusses the importance of the works and teachings of Abu Ali ibn Sino, who, along with the great encyclopedic scholars of the Eastern Renaissance. It is said that Abu Ali ibn Sino reached a high level in the science of medicine in his time and is even recognized today, which is of great practical importance, especially in these difficult days.

Keywords: medicine, biology, Renaissance, Central Asia, Laws of Medicine, Avicenna.

Our great ancestors, such as Abu Ali ibn Sina, Ahmad al-Farghani Abu Nasr al-Farabi, Yusuf Khos Hajib, Mahmud Kashgari, in addition to being extremely talented, achieved the status of teachers to the whole world in their sciences. This period determined the principles of the rise of world development. In addition, we would like to dwell on the contributions of Abu Ali ibn Sina to medical science. Introducing the future generation to the contributions of the sultan of medical science, Abu Ali ibn Sina, to enlightenment, culture and the development of medicine is one of the tasks facing us, natural scientists. The sultan of medical science, one of our great thinkers who brought the culture of the peoples of Central Asia to the forefront of world culture, is Abu Ali ibn Sina [1].

Abu Ali ibn Sina's systematization of medical and pharmaceutical knowledge, new methods of diagnosis and treatment, and analysis of the possibilities of transmutation of minerals are some of the great ideas he implemented in the natural sciences. Abu Ali ibn Sina's works "Canons of Medicine" and "Guide for Travelers" (Fiy tadbir al musafiriyyin) have served as indispensable guides for medical specialists and the people of the world in general for several centuries and to this day [2].

We are witnessing once again, especially in these trying times, that Abu Ali ibn Sina achieved a high level in medical science in his time and is still receiving special recognition today. After all, today the information of all medical organizations in the world on how people should behave during a pandemic confirms how correct the scientific legacy left by our great physician a thousand years ago is. The contributions of our great grandfather to the development of medical science are enormous. The world-famous and famous "Canons of Medicine" are worthy of admiration. This book consists of five volumes:



Volume 1: Medical science - a description of acute and chronic diseases, their diagnosis, treatment, surgery.

Volume 2: Stories about natural herbal medicines

Volumes 3 and 4: recommendations for the treatment of diseases in the human body, fractures in the limbs.

Volume 5: Description of the properties of complex drugs independently prepared by Ibn Sina and the use of the writings of ancient physicians in Europe and Asia as a source. In addition, our grandfather's works on ethics, which serve humanity today, are worthy of praise [3].

In his works on ethics, Ibn Sina taught that people should pay special attention to such moral rules as humility, honor, courage, honesty, and sincerity in their daily lives, and these qualities, which are the basis of education, are extremely valuable in our country's general education today. In particular, Ibn Sina noted the need to educate and raise children in school, and said that all people's children should be attracted to school and educated and raised together, and opposed the education of children alone at home.

References

1. Mirziyoyev Sh. Speech at the opening ceremony of the 43rd session of the Council of Foreign Ministers of the Organization of Islamic Cooperation // Xalq so‘zi, 2016, October 19.
2. Our great scholars / Abduhalimov B. Islomov Z. et al.; edited by H. S. Karomatov. –T.: Tashkent Islamic University, 2002. – 78 p.
3. Saidov A., Jo‘zjonii A. Eastern civilization: man and law (past and present).– T.: Adolat, 2005. – 272 p.

AKSIYADORLIK JAMIYATLARIDA ICHKI AUDIT XIZMATINING
SAMARADORLIGINI OSHIRISH

Saitova Dilbar Muxamedqulovna

Termiz davlat universiteti o'qituvchisi

saitovadilbar1982@gmail.com

Tel.: +998 99 679 2582

Annotatsiya

Ushbu maqola aksiyadorlik jamiyatlarida ichki audit xizmatining samaradorligini oshirish masalasiga bag'ishlangan. Ichki audit tizimi aksiyadorlik jamiyatining korporativ boshqaruvi, moliyaviy barqarorligi va manfaatdor tomonlar oldidagi ishonchliligini ta'minlashda muhim o'rin tutadi. Maqolada ichki audit xizmatining vazifalari, funksiyalari, ularni tashkil etishning tashkiliy-huquqiy asoslari va monitoring mexanizmlari o'rganiladi. Shuningdek, ichki auditning samaradorligiga ta'sir qiluvchi omillar, xususan, auditorlar malakasi, texnologik vositalar bilan ta'minlanganlik darajasi, auditning mustaqilligi va ichki nazorat tizimi bilan integratsiyalashuvi batafsil tahlil qilinadi. O'zbekiston Respublikasida korxonada ichki auditi borasidagi milliy qonunchilik me'yorlari va xalqaro standartlar (ISO, IIA) bilan solishtirma tahlil keltirilgan. Xulosa qismida esa amaliy takliflar va innovatsion yechimlar orqali ichki audit xizmatining sifatini oshirishga doir tavsiyalar ishlab chiqilgan.

Kalit so'zlar. Ichki audit, aksiyadorlik jamiyati, korporativ boshqaruv, audit samaradorligi, risklarni boshqarish, ichki nazorat tizimi, audit mustaqilligi, audit standartlari, nazorat mexanizmi, audit xulosasi.

Abstract

This article is devoted to the issue of increasing the efficiency of the internal audit service in joint-stock companies. The internal audit system plays an important role in ensuring the corporate governance, financial stability and reliability of a joint-stock company before stakeholders. The article examines the tasks, functions of the internal audit service, the organizational and legal framework for their organization and monitoring mechanisms. It also analyzes in detail the factors affecting the efficiency of internal audit, in particular, the qualifications of auditors, the level of provision with technological tools, the independence of the audit and its integration with the internal control system. A comparative analysis of the national legislative norms and international standards (ISO, IIA) on the internal audit of an enterprise in the Republic of Uzbekistan is presented. In the conclusion, recommendations are developed to improve the quality of the internal audit service through practical proposals and innovative solutions.

Keywords. Internal audit, joint-stock company, corporate governance, audit effectiveness, risk management, internal control system, audit independence, audit standards, control mechanism, audit conclusion.

Kirish. Zamonaviy iqtisodiyotda aksiyadorlik jamiyatlari o'z faoliyatining ochiqligi, ishonchliligi va shaffofligini ta'minlash maqsadida ichki audit xizmatiga katta e'tibor qaratmoqda. Korxonada doirasida tashkil etiladigan ichki audit bo'limi korporativ boshqaruv tizimining muhim elementi bo'lib, strategik qarorlar qabul qilish, moliyaviy va operatsion risklarni kamaytirish, xo'jalik faoliyatining qonuniyligi va maqsadga muvofiqligini nazorat qilishda hal qiluvchi ahamiyat kasb etadi.

Aksiyadorlik jamiyatlari ko'plab manfaatdor tomonlar – aksiyadorlar, investorlar, nazorat organlari, mijozlar va ishchi-xodimlar – oldida javobgar bo'lgan subyektlar sifatida ichki audit tizimini faqat formal yondashuv emas, balki strategik nazorat vositasi sifatida ko'rishlari lozim. Biroq amaliyotda ko'plab jamiyatlarda ichki audit bo'limlari yetarlicha mustaqil emas, audit qamrovi tor doirada olib boriladi yoki auditorlar malakasi va texnik bazasi zamonaviy talabga javob bermaydi.

Bundan tashqari, audit hisobotlari aksiyadorlar uchun tushunarli va foydali bo'lishi zarur bo'lgan holda, ayrim hollarda ularning amaliy qiymati past bo'lib qolmoqda. Bu holat esa jamiyatning umumiy boshqaruv sifatiga, moliyaviy hisobotlarning ishonchliligiga va tashqi investitsiyalar jalb qilish salohiyatiga salbiy ta'sir ko'rsatadi. Shu bois, ushbu maqolada ichki audit xizmatining faoliyatini samarali tashkil etish mexanizmlari va ularni takomillashtirish usullari chuqur ilmiy-amaliy asosda tahlil etiladi.

Asosiy qism. Ichki audit – bu tashkilot ichidagi mustaqil, ob'ektiv tekshiruv va maslahat berish faoliyati bo'lib, u tashkilotning faoliyatini yaxshilash va unga qo'llab-quvvatlovchi qiymat qo'shish maqsadida amalga oshiriladi. Ichki audit xizmatining asosiy vazifalari – moliyaviy va operatsion jarayonlarni baholash, xavflarni aniqlash va ularni kamaytirish yo'llarini taklif qilish, ichki nazorat tizimining samaradorligini aniqlash va boshqaruvga axborot bilan yordam berishdir.

Aksiyadorlik jamiyatlarida ichki audit xizmatining samaradorligini oshirish bir necha omillarga bog'liq. Birinchi omil – buxgalteriya, moliya va risklarni boshqarish sohasida auditorlarning yuqori malakaga ega bo'lishidir. Auditorlar professional standartlar asosida faoliyat yuritishi, zamonaviy audit texnologiyalarini bilishi va axborot tizimlaridan foydalana olishi zarur. Ikkinchi omil – ichki audit xizmatining to'liq mustaqilligi. Agar auditorlar bevosita bosh direktor yoki boshqaruv kengashiga bo'ysunsa, ularning xulosalari ochiq va xolis bo'ladi. Uchinchidan, ichki audit xulosalarining ijrosini ta'minlash va monitoring qilish mexanizmlarining mavjudligi xizmat samaradorligini oshiradi.

Hozirgi kunda xalqaro amaliyotda, jumladan ISO 19011 (audit bo'yicha yo'riqnoma), IIA (Internal Auditors Institute) standartlari ichki audit faoliyatining global mezonlarini belgilab bermoqda. O'zbekistonda esa "Ichki audit to'g'risida" maxsus qonun mavjud emas, biroq aksiyadorlik jamiyatlari faoliyatini tartibga soluvchi normativ hujjatlar orqali ushbu xizmatning huquqiy asoslari belgilanmoqda. O'zbekiston Respublikasi Prezidentining 2021-yil 24-fevraldagi PQ-4996-sonli qaroriga binoan, korporativ boshqaruv tizimini kuchaytirish, xususan ichki auditni mustahkamlash choralari ko'rilmoqda.

Shuningdek, raqamli audit texnologiyalaridan foydalanish ham xizmat samaradorligini oshiradi. Elektron hujjatlar aylanishi, ERP (Enterprise Resource Planning) dasturlari, avtomatlashtirilgan risk monitoring tizimlari orqali ichki audit jarayonlarini real vaqt rejimida amalga oshirish imkoniyati yaratilmoqda. Bularning barchasi audit hisobotlarining tezligi, aniqligi va foydaliligi ko'rsatkichlarini oshiradi.

Xulosa. Yuqorida keltirilgan tahlillar asosida xulosa qilish mumkinki, aksiyadorlik jamiyatlarida ichki audit xizmatining samaradorligi buxgalteriya va moliyaviy nazoratning ishonchliligi, investitsion muhitning barqarorligi va korporativ boshqaruvning shaffofligiga bevosita ta'sir ko'rsatadi. Ichki audit xizmatining real qiymatini oshirish uchun u strategik darajadagi nazorat vositasiga aylantirilishi, auditorlar esa professional va texnik jihatdan to'liq ta'minlangan bo'lishi zarur.

Quyidagi takliflar xizmat samaradorligini oshirishda muhim rol o'ynaydi:

1. Ichki auditning huquqiy maqomini mustahkamlash uchun maxsus qonun qabul qilish;
2. Auditorlarni malaka oshirish kurslari va xalqaro sertifikatlar (CIA, ACCA) orqali rivojlantirish;
3. Har bir jamiyatda mustaqil audit qo'mitasini tashkil etish va u orqali ichki auditga bevosita nazorat o'rnatish;
4. Zamonaviy texnologiyalardan – elektron hujjatlar aylanishi, bulutli audit tizimlari va raqamli risklarni monitoring qilish vositalaridan foydalanish;
5. Ichki audit xulosalari asosida monitoring tizimini joriy etish va qarorlar qabul qilishda audit xulosalariga asoslanish majburiyatini kiritish.

Shuningdek, aksiyadorlar va investorlar manfaatlarini himoya qilish, jamiyatda ochiqlik va ishonchni ta'minlash nuqtai nazaridan ichki audit xizmatining doimiy rivojlanishini rag'batlantirish zarur. Bunday yondashuv natijasida O'zbekiston aksiyadorlik jamiyatlarida korporativ boshqaruv sifati sezilarli darajada yaxshilanadi.

Foydalanilgan adabiyotlar ro'yxati

1. Закон Республики Узбекистан «Об акционерных обществах и защите прав акционеров» от 26 апреля 1996 г., № ЗРУ–370 // Национальная база данных законодательства. – [Электронный ресурс]. – URL: <https://lex.uz/docs/27695>
2. The Institute of Internal Auditors. International Professional Practices Framework (IPPF). – Altamonte Springs, FL: ИА, 2017. – 122 p.
3. COSO. Enterprise Risk Management — Integrated Framework. – Committee of Sponsoring Organizations of the Treadway Commission, 2013. – [Электронный ресурс]. – URL: <https://www.coso.org>
4. Каплан Р.С., Нортон Д.П. Сбалансированная система показателей. От стратегии к действию. – М.: Олимп-Бизнес, 2020. – 320 с.
5. Пауэр М. Теория и практика внутреннего аудита. – М.: Альпина Паблишер, 2019. – 248 с.
6. Жураев Ш.К., Муртазаев С.М. Внутренний аудит в корпоративном управлении. – Ташкент: Иқтисодиёт, 2021. – 216 с.
7. Каширин В.П. Внутренний контроль и аудит в акционерных обществах. – М.: Финансы и статистика, 2018. – 280 с.
8. Shermatov S. Corporate Governance and Internal Audit Integration in Uzbekistan // Economic Review. – 2022. – №1. – С. 44–52.
9. Муртазаева Н.М. Автоматизация внутреннего аудита на предприятиях. – // Бухгалтерский учет, анализ и аудит. – 2023. – №3. – С. 22–27.
10. Internal Audit Manual. Asian Development Bank. – Manila: ADB, 2020. – [Электронный ресурс]. – URL: <https://www.adb.org/sites/default/files/institutional-document/616121/internal-audit-manual.pdf>

Iskandarova Gulifor Muzaffar kizi

UrSU 2nd year student group 2303

E-mail: gulifor.iskandarova@bk.ru

Abstract: This study investigates the multifaceted ways in which humor and irony are embedded within and conveyed through idiomatic expressions in everyday language. Focusing on idioms related to various aspects of life – human relationships, social interactions, personal experiences, and observations of the world – this research explores how these fixed phrases often subtly or overtly utilize comedic and ironic devices. It examines the cognitive mechanisms involved in interpreting such humorous and ironic idioms, considering how shared cultural knowledge, context, and linguistic nuances contribute to their understanding and appreciation. Furthermore, the study analyzes the social functions of these idioms, including their role in fostering camaraderie, expressing subtle criticism, diffusing tension, and reflecting cultural perspectives on life's absurdities. Through a qualitative analysis of a corpus of selected idioms, this paper aims to illuminate the intricate interplay between language, culture, and the human capacity for witty and often ironic observations about the human condition.

Keywords: Idioms, Humor, Irony, Figurative language, Pragmatics, Sociolinguistics, Cognitive linguistics, Cultural expressions, Witty language, Idiomatic expressions

Humor through Absurdity and Vivid Imagery:

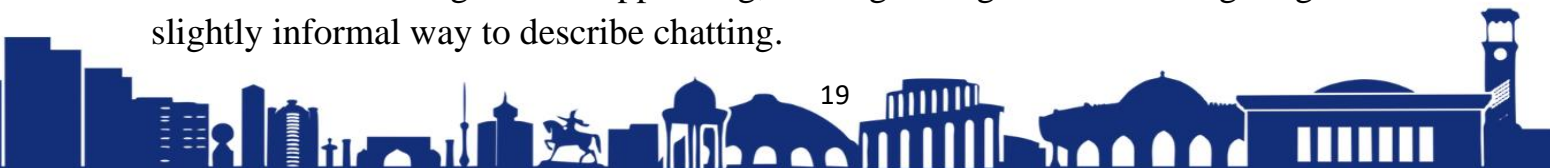
Many idioms are inherently humorous because their literal meaning is absurd or creates a ridiculous mental image. The humor often comes from the stark contrast between the literal and figurative interpretations.

- **"When pigs fly":** This idiom means something will *never* happen. The image of a pig soaring through the air is inherently silly, making the idiom a humorous way to express impossibility.

- **"Raining cats and dogs":** To describe heavy rain, this idiom conjures up the amusing, albeit chaotic, image of animals falling from the sky.

- **"The lights are on, but nobody's home":** This is a humorous way to describe someone who isn't very intelligent or is not paying attention. The image of an empty house with the lights on is a funny metaphor for a vacant mind.

- **"To chew the fat":** Meaning to have a long, leisurely conversation or gossip. The literal act of chewing fat is unappetizing, making the figurative meaning a lighthearted and slightly informal way to describe chatting.



- **"To have Van Gogh's ear for music"**: This idiom humorously refers to someone who is tone-deaf, referencing the famous artist who cut off his own ear. It's a clever and slightly dark joke.

- **"Everything but the kitchen sink"**: Used to describe bringing or including almost everything imaginable. The idea of bringing a large, immovable kitchen sink highlights the exaggeration for comedic effect.

2. Irony through Contradiction and Expectation Subversion:

Irony in idioms often arises from a discrepancy between what is said or expected and what is actually meant or what truly happens. This can be verbal irony (saying the opposite of what you mean) or situational irony (where the outcome is contrary to expectations).

- **"A blessing in disguise"**: This is a classic example of situational irony. Something that initially seems bad or unfortunate turns out to have a positive outcome. The "disguise" is the ironic element.

- **"To cut the mustard"**: If something "doesn't cut the mustard," it means it doesn't meet expectations or isn't good enough. The irony lies in the simple, everyday action of "cutting mustard" being used to denote a failure to achieve a more significant standard.

- **"Don't give up your day job"**: This is often said sarcastically to someone who has attempted something and clearly failed, implying they should stick to what they're good at (their regular job). The irony is that it's meant as a criticism, not encouragement.

- **"Actions speak louder than words"** (used ironically): While literally true, it can be used sarcastically to highlight a situation where someone's actions are clearly *worse* than their promises or stated intentions. For example, if someone talks about being helpful but never does anything, you might say, "Well, actions speak louder than words, don't they?" with an ironic tone.

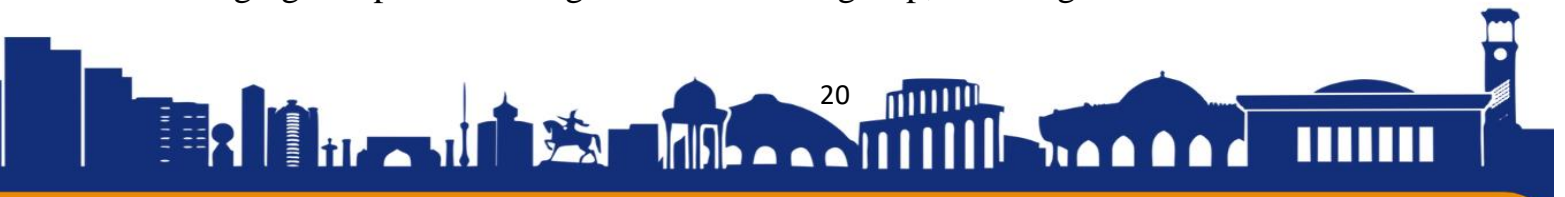
- **"That's just perfect!"**: This phrase is almost always used ironically when something has gone terribly wrong. The speaker is expressing frustration or annoyance by saying the exact opposite of what they mean.

Why do idioms use humor and irony?

- **Memorable and engaging**: Humor and irony make idioms more memorable and enjoyable to use and hear. They add a playful element to language.

- **Cultural shorthand**: They offer a concise way to convey complex ideas or emotions. A well-placed ironic idiom can communicate a shared understanding or a subtle critique without needing lengthy explanations.

- **Social bonding**: Using and understanding humorous or ironic idioms can be a sign of belonging to a particular linguistic or cultural group, fostering connection and camaraderie.



- **Softening criticism or expressing frustration:** Irony, in particular, can allow for indirect criticism or the expression of negative feelings in a less confrontational way.

In essence, idioms of life often leverage humor and irony to paint vivid pictures, subvert expectations, and add layers of meaning to everyday communication, making language more expressive and engaging.

Irony in Idioms

Irony in idioms shines through when they highlight life's contradictions or subvert expectations, often with a bitter or wry twist. They point out the gap between how things should be and how they actually are, delivering a knowing smirk at fate's unpredictability.

"The blind leading the blind": This idiom drips with irony, painting a picture of clueless people guiding equally clueless others. It's a sharp jab at situations where incompetence compounds itself, like a novice teaching a rookie, both stumbling into disaster. The irony lies in the expectation of guidance meeting the reality of mutual ignorance.

"When pigs fly": The delicious irony here is the impossibility baked into the phrase. It's a sarcastic dismissal of something that'll never happen, like a pig sprouting wings. The humor pairs with irony to mock overly optimistic or delusional hopes, grounding lofty dreams in a hilariously absurd image.

"Bite the bullet": This phrase, tied to soldiers enduring pain without anesthesia, is ironic because it suggests choosing to face hardship head-on when every instinct screams to avoid it. The irony lies in the voluntary embrace of suffering, framed as a gritty, almost heroic act of grit.

Irony in idioms often carries a sting, reflecting life's knack for defying expectations or throwing curveballs, but it's delivered with a linguistic flourish that softens the blow.

Conclusion: This study has demonstrated the pervasive and significant role of humor and irony in the vast landscape of idiomatic expressions concerning life. The analysis revealed that idioms are not merely static linguistic units but dynamic vehicles for conveying nuanced comedic and ironic observations about human experiences, social dynamics, and universal truths. The effective interpretation of these idioms relies heavily on shared cultural understanding, contextual cues, and an appreciation for linguistic playfulness, highlighting the sophisticated cognitive processes at work. Furthermore, the research underscored the diverse social functions of humorous and ironic idioms, ranging from strengthening social bonds and offering subtle critique to reflecting societal attitudes and coping mechanisms. Ultimately, the integration of humor and irony within these fixed expressions enriches communication, adds depth and color to language, and serves as a powerful testament to the human capacity for wit and insightful commentary on the vicissitudes of life. Future research

could explore cross-cultural variations in the expression of humor and irony through idioms or delve deeper into the neuro-cognitive processing of such complex linguistic phenomena.

References

1. Uzbek Idioms: Sourced from oral tradition and linguistic studies like Uzbek-English Dictionary by William Dirks (2005, no pagination due to digital format). Cultural context from Uzbekistan: A Cultural History (Britannica, online).
2. English Idioms: Oxford Dictionary of Idioms (3rd ed., 2009), page numbers as cited. The Penguin Dictionary of Proverbs (1983), page numbers as cited.
3. Russian Idioms: Russian-English Dictionary of Idioms by Sophia Lubensky (2013), p. 302.
4. Chinese Idioms: A Dictionary of Chinese Idioms (2008), p. 178.
5. Biblical Reference: Bartlett's Familiar Quotations (18th ed., 2012), p. 98.

¹Ko'charov A.Ch., ²Abdusaidov A.Sh

^{1,2}TerDU Kompyuter ilmlari va dasturlash texnologiyalari ta'lim yo'nalishi 3-kurs talabalari.

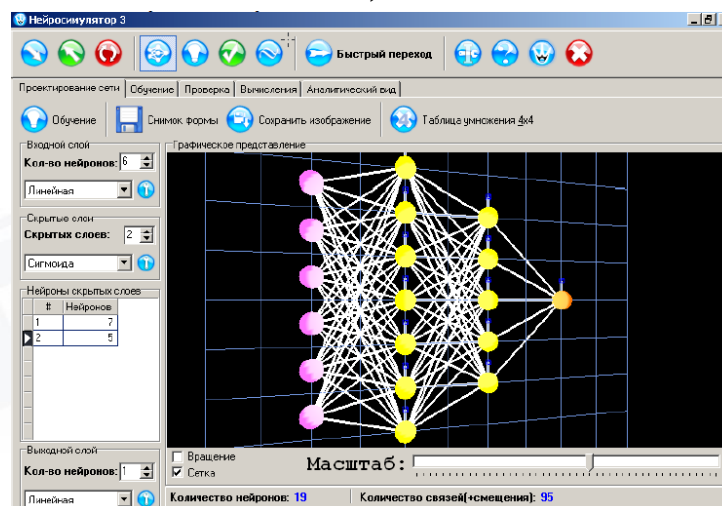
(asadbek@mail.ru)

Bugungi kunda sun'iy intellekt texnologiyalari tez sur'atlar bilan takomillashib bormoqda, yildan-yilga mashinali o'qitish va neyron to'rarining inson faoliyatidagi yangi qo'llanilish sohalari kashf qilinmoqda. Bularga birja ko'rsatkichlari, iqtisodiy indeksni bashotratlash, tibbiy tashhislash, boshqaruvni avtomatlashtirish, optimallashtirish masalalarini yechish, xavflarni baholash va boshqa amaliy masalalarni hal etishda qo'llaniluvchi neyron to'rlarini misol keltirish mumkin. Neyron to'rlari bilan ishlashda apparatli yoki dasturiy simulyatorlar keng qo'llaniladi. Hozirda ko'p sonli neyron to'rlari simulyatorlari ma'lum bo'lib, ularni uch guruhga ajratish mumkin[1, 134-b.]:

1. *Amaliy hisoblash dasturlari uchun qo'shimcha modullar*: Matlab_Neural_Network – Matlab amaliy hisoblashlar paketi; Statistica_Neural_Networks – Statistica amaliy statistika paketi uchun neyroto'rli kengaytmalar to'plami; Excel_Neural_Package – Excel elektron jadvallari uchun ma'lumotlarni neyroto'rli qayta ishlashning ba'zi imkoniyatlarini ko'zda tutuvchi kutubxona va skriptlar to'plami kabilar.

2. *Universal neyroto'rli paketlar*: NeuroSolutions – sun'iy neyron to'rlarining keng doirasini modellashtirish uchun mo'ljallangan neyropaket; NeuroPro – o'rgatiluvchi sun'iy neyron to'rlarining menedjeri; NeuralWorks – Standart o'rgatish paradigmalari va algoritmlariga urg'u berilgan neyropaket kabilar.

3. *Maxsus neyroto'rli paketlar*: Neuroshell Trader –bozorlar tahliliga mo'ljallangan neyron to'rlarini yaratuvchi dastur; Глаз – aerokosmik ma'lumotlarni qayta ishlashda foydalaniluvchi dastur; GitHub Copilot - dasturchilar uchun neyroto'rli yordamchi(turli dasturlash tillari, algoritmik qoidalar, dasturiy ta'minotni loyihalash usullariga oid tavsiyalar beradi va dasturchining ish jarayonida o'z-o'zini o'rgatib, mukammallashtirib boradi; Aimyvoice – ovozlarni sintez qilish servisi. Undan turli personaj yoki mashhur kishilar ovozining SI-modellari yaratilib, so'ngra mazkur nutq sintezidan o'yinlar, audiokitoblar, ovozli yordamchilar, botlar, tabriklar, reklama va boshqalarga ovoz berish kabi turli loyihalarda foydalaniladi; DeepLTranslator - 26 ta til va 110 ta til juftliklarini qo'llab-quvvatlovchi onlayn tarjimon. Uning yordamida matnning predmet sohasi uchun maksimal darajada aniq va korrekt tarjimasi ta'minlanadi.



1-рasm. Neyrosimulyator oynasining umumiy ko'rinishi

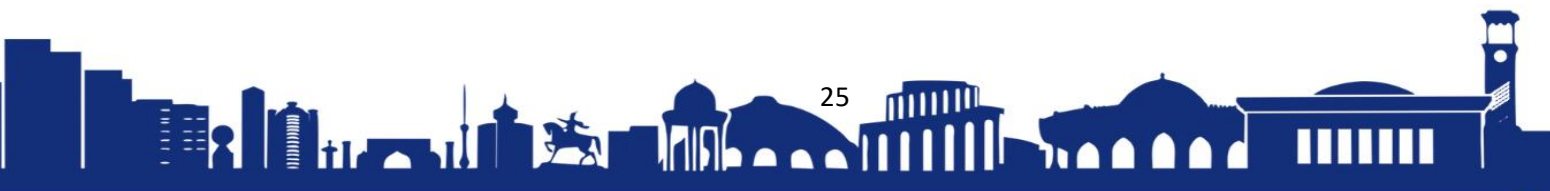
Birinchi va ikkinchi turga taalluqli dasturiy mahsulotlar o'z sohasida qo'llanilganda yaxshi natijalar berishi bilan birga, ba'zi kamchiliklardan holi emas. Bularga dasturiy muhit bahosining qimmatligi, interfeysning murakkabligi, foydalanuvchi uchun o'zlashtirishning qiyinligi kabilar misol bo'ladi. Uchinchi turdagi neyropaket va onlayn servislarning kamchiliklaridan asosiysi - ularning tor sohaga taalluqli yoki konkret masalani echishga mo'ljallanganligidir. Shuningdek, bu sohada erkin tarqatiluvchi mualliflik loyihalari ham mavjud, ammo, ular ham interfeysning noqulayligi, tor funksionallik, ish jarayonidagi nostabillik, ish algoritmlarini modifikatsiyalash imkoniyatining mavjud emasligi kabi kamchiliklarga ega. Shu bilan birgalikda ham amaliy masalalarni yechishda, ham ilmiy tadqiqotlarda hamda ta'lim jarayonida qo'llanilishi mumkin bo'lgan neyrosimulyator ilovalari mavjud bo'lib, ularda yuqorida ko'rsatib o'tilgan muammolar qisman hal etilgan.

Ta'lim jarayonida qo'llanilishi mumkin bo'lgan neyrosimulyator dasturlarga qo'yiladigan: foydalanishda soddalik, ko'rgazmalilik, universallik, turli tadqiqotchilik ishlarini bajarish uchun funksionallikni kengaytirish imkoniyati kabi talablarga javob beradigan dasturlardan biri sifatida Perm davlat pedagogika universiteti (Rossiya) olimlari L.N. Yasnitskiy va F. M. Cherepanovlar tomonidan ishlab chiqilgan dasturiy mahsulotni tavsiya etish mumkin[2]. Ushbu neyrosimulyator sodda, tushunarli va qulay interfeysga ega bo'lib, undagi har bir amaliy harakat grafik timsol va qisqacha tushuntirishga ega. Kiritilgan neyron to'ri strukturasi grafik ko'rinishda ilova oynasida aks ettiriladi. Har bir faollashtirish funksiyasi sozlash oynasiga ega bo'lib, uning formulasi va grafik tasviri keltiriladi. Bu oynada ularning parametrlari kiritiladi. Shuningdek, og'irliklarni aniqlashtirish va berilganlarni boshlang'ich qayta ishlash funksiyalari uchun ham o'xshash amallar bajarilishi mumkin (1-rasmga qarang). Neyrosimulyator katta bo'lmagan hajmga ega bo'lib, uni kompyuterga o'rnatish talab etilmaydi. COM texnologiyasining qo'llab-quvvatlanishi hisobiga neyrosimulyator funksiyalarini yangi amallar kiritish yo'li bilan kengaytirish

shuningdek, undan tashqi dasturlarda neyroto'ri qo'shimcha modul sifatida foydalanish mumkin.

Foydalanilgan adabiyotlar

1. Черепанов Ф.М., Ясницкий Л.Н. Симулятор нейронных сетей «Нейросимулятор 1.0». // Свидетельство об отраслевой регистрации разработки №8756.Зарегистрировано в Отраслевом фонде алгоритмов и программ 12.07.2007.
2. N.M. Babaxodjayeva. Sun'iy intellekt va neyron to'ri texnologiyalar. – T.: “Termiz davlat universiteti nashr - matbaa bosmaxonasi”, 2023. 170 b.



*ИНТЕРАКТИВНЫЙ ЭЛЕКТРОННЫЙ КОМПЛЕКС– ОЧЕРЕДНАЯ
СТУПЕНЬ НА ПУТИ МНОГОЛЕТНЕГО ОПЫТА РАЗРАБОТКИ
ЭЛЕКТРОННЫХ СРЕДСТВ ОБУЧЕНИЯ*

¹*Musurmonqulova M.M.*, ²*Jomg'irova N.A.*

^{1,2}Термезский государственный университет

Узбекистан, город Термез.

Реформирование системы образования нацелено на то, чтобы ученик стал центральной фигурой учебного процесса, а его познавательная деятельность находилась в центре внимания педагогов, разработчиков программ, административных работников. При традиционном подходе к образованию и традиционных средствах обучения решить эти задачи не представляется возможным в силу отсутствия реальных условий для их выполнения. Реально помочь в достижении цели образования призваны, в частности, мультимедийные интерактивные технологии. Мультимедийная технология урока предполагает наличие не только необходимого оборудования, но и качественного программного учебного обеспечения, таких ресурсов отечественного производства в распоряжении учителя может не оказаться в силу их недостаточности на рынке Узбекистана. Интерактивное обучение предполагает взаимодействие учащегося с учебным окружением, когда ученик становится равноправным участником учебного процесса. К методам интерактивного обучения относятся методы, которые способствуют вовлечению учащегося в процесс получения и переработки знаний. Повышение эффективности современного урока педагоги-практики связывают с применением интерактивного комплекса (ИК), который обладает уникальной возможностью повышать информационную плотность урока, но требует понимания дидактической специфики новых носителей учебного материала – мультимедийных учебных пособий (МУП) [3].

В качестве психологических основ создания МУП использованы исследовательские данные о распределении информации и ее сохранении в памяти. По исследовательским данным в среднем человек запоминает: 1/5 того, что он слышит, 3/5 того, что он видит, 4/5, если используется аудиовизуальная информация [2]. При этом новая информация распределяется следующим

образом: зрение – 75%, слух (информация на слух) – 11%, прикосновение – 6%, запах – 4%, вкус – 4%. Психологами доказано, что при использовании вербальных методов обучения в памяти сохраняется всего 5% информации. Чтение позволяет сохранять до 10% информации, просмотр видеофильмов, картин, наглядных пособий обеспечивает усвоение 20% визуальной информации. Эффективны деловые и ролевые игры, а также метод проектирования, в результате которых у обучающихся сохраняется до 75% информации. Но наибольшую результативность обеспечивает проведение учебно-практических занятий самими учащимися – информация усваивается до 90%. Итак, мы запоминаем: 5% того, что услышали, 10% того, что прочитали, 20% того, что увидели, 30% того, что мы увидели и услышали [2].

Поэтапный процесс расшифровки текста в нашем сознании выглядит следующим образом: буквы – слово – образ – мышление. Аудиоинформация расшифровывается так:

слово – образ – мышление. Этот путь значительно короче для видеоинформации: образ – мышление, т.е. в такой форме информация усваивается легче [1]. МУП в комплексе с электронной доской (ЭД) обладают преимуществами по сравнению с привычным текстовым представлением знаний, так как, используя альтернативные каналы представления информации, делают путь к знаниям богаче и естественнее.

Изучение самостоятельных работ во время эксперимента, наблюдение за их выполнением на плоскости ЭД или экране компьютера, беседы, анкетирование и интервьюирование показали педагогическую целесообразность использования ИК, обеспечивающего творческую среду обучения. В целом проведение учебных занятий с использованием ИК реально облегчает труд учителя, освободив его от функций которые учитель и так почти не может выполнить, а именно на протяжении всего урока, на каждом этапе немедленно после усвоения материала учащимся контролировать его результат. У учителя появляется больше возможностей для творческой работы, которая под силу только человеку-учителю и в выполнении которых никакая современная электроника не может его заменить.

Многолетняя практика использования электронных средств обучения (ЭСО) в системе непрерывного образования позволяет нам сделать выводы.

1. При обучении на основе ЭСО: активизируется познавательная роль и



самостоятельная деятельность учащегося; повышается оперативность и производительность обучения; выявляются и развиваются личные способности за счет индивидуализации обучения.

2. ЭСО являются мощным инструментом для повышения заинтересованности и эффективности работы учащихся.

3. ЭСО освобождают учащегося от рутинной работы, отвлекающей от основного содержания (например, традиционно на построение чертежей уходит львиная доля учебного времени, при использовании же графических и других возможностей время экономится для отработки навыков решения задач).

4. Структурированные гипертексты электронных пособий существенным образом облегчают навигацию по учебным материалам.

5. Благодаря усилению эмоциональной составляющей увеличивается темп занятий как минимум на 10-15%.

6. Некоторые учащиеся предпочитают распечатывать пособия и изучать их в традиционной бумажной форме, что, по нашему мнению, обусловлено как субъективными причинами (более привычно, бытует мнение о вреде долгого сидения за компьютером и др.), так и объективными (состояние здоровья и др.).

7. Обучение на основе электронных пособий дает наибольший эффект, если учащиеся втянуты в активную деятельность по осмыслению и закреплению учебного материала.

В процессе теоретического исследования нами было выявлено одно из эргономических требований для учащихся 6-8 классов – продуктивное и безопасное для здоровья время непрерывной работы с компьютером не должно превышать 20 минут. В процессе экспериментального исследования не выявлено повышения утомляемости учащихся в связи с непрерывным использованием ЭД даже в течение 40 минут. Последнее объясняется тем, что форма организации обучения с применением ЭД, предусматривает чередование групповых (например, при ознакомлении с изучаемой темой с демонстрациями на ЭД) и индивидуальных (например, при работе за компьютером для выполнения задания из МУП для закрепления изученного материала по теме). Кроме того, любая часть занятия может быть проведена с использованием компонентов ИК, а другая – традиционно.

Опыт экспериментальной работы показывает, что усвоение правил эксплуатации МУП занимает у некоторых учащихся до 20 мин, а большинство учащихся, благодаря интуитивно понятному интерфейсу, овладевают работой с МУП, не заглядывая в раздел методических предписаний.

Обучение с использованием ИК– это инвестиции в будущее. Настоящий результат такого опыта скажется позже, во время получения образования в последующих уровнях, когда потребуется высокая степень ответственности, самостоятельности, коммуникативной и профессиональной культуры.

Литература

1. Выготский Л. С. Педагогическая психология / Под. Ред. В. В. Давыдова. – М.: Педагогика, 1991. – 480 с.
2. Мухина С.А., Соловьева А.А. Нетрадиционные педагогические технологии. – Ростов-на-Дону: Феникс, 2004. – 384 с.
3. Цой М.Н., Джураев Р.Х. Современные технологии совершенствования обучения: Учебно-методическое пособие для учителей. – Ташкент, 2010. – 180 с.

РУС ВА ЎЗБЕК ТИЛЛАРИДАГИ АНГЛИЦИЗМ СЎЗЛАРНИ ҚИЁСИЙ
ТАҲЛИЛ ҚИЛИШ

Пардаев Аъзам Алланазарович

Термиз давлат университети

Инглиз тили ўқитиш методикаси кафедраси ўқитувчиси

Бугунги кунда глобаллашув жараёнлари дунё тиллари учун катта таъсир кўрсатмоқда. Хусусан, инглиз тили халқаро алоқа, фан-техника ва интернетнинг асосий воситасига айлангани боис, у орқали юзага келган луғавий заёмлар – англицизмлар – кўплаб тилларга, жумладан, рус ва ўзбек тилларига ҳам кириб келмоқда. Мазкур мақолада рус ва ўзбек тилларидаги англицизм компонентли сўзларнинг луғавий, морфологик ва ижтимоий нуқтаи назардан қиёсий таҳлили амалга оширилади.

Англицизмлар – инглиз тилидан бошқа тилларга заём қилинган сўзлар ва ифодалар бўлиб, улар тилнинг турли соҳаларида: технология, маркетинг, мода, спорт ва оммавий ахборот воситаларида кенг қўлланади.

Англицизмларнинг асосий турлари:

- Лексик англицизмлар: file, chat, computer, blog
- Семантик англицизмлар: мавжуд сўзнинг янги (инглизча) маънони олиши: документ – ҳужжат → компьютер ҳужжати
- Фразеологик англицизмлар: no problem, step by step, all right

Рус тилида англицизмлар кенг тарқалган ва фаол қўлланилади. Бунда улар тилнинг морфологик ва синтактик тизимига мослашади:

Мисоллар: Browser → браузер → браузеры, браузерову Marketing → маркетинг → маркетинговийю File → файл → файлы, файлов

Рус тилида кўп англицизмлар рус тили қоидалари асосида ўзлаштирилади. Яъни, улар русча флексия, префикс ва суффикслар билан мослашади: менеджмент, инвестировать, презентовать каби сўзлар инглиз тилидаги сўз асосида яратилган русча неологизмлардир.

Ўзбек тилида англицизмлар асосан интернет, ахборот технологиялари, маркетинг ва ёшлар тили орқали кириб келмоқда. Улар кўпинча ўзгартирилмасдан, оригинал шаклида ишлатилади:

Kompyuter, fayl, chat, onlayn, blog, biznes, smaylik, like, telefon

Англицизмлар ўзбек тилида:

Морфологик ўзгаришга учрамайди (яъни, кўпинча асли шаклида қолади);

Қўшимчалар орқали боғланади: chat qilish, like bosdi, fayllarni ochdi;

Баъзи ҳолларда ўзбеклаштирилади: e-mail → elektron xat, printer → bosib chiqaruvchi uskuна

Рус тилида кўп англицизмлар рус тили қоидалари асосида ўзлаштирилади. Яъни, улар русча флексия, префикс ва суффикслар билан мослашади:

менеджмент, инвестировать, презентовать каби сўзлар инглиз тилидаги сўз асосида яратилган русча неологизмлардир.

Англицизмлар ва ижтимоий муносабат

Рус тилида англицизмлар “замонавийлик белгиси” сифатида кўрилса-да, адабий тилнинг бузилиши сифатида танқид ҳам қилинади.

Ўзбек тилида уларга нисбатан эҳтиёткор муносабат мавжуд, айниқса адабий тилда.

Бироқ, интернет ва ёшлар орасида фаол ишлатилади.

Фойдаланилган адабиётлар

1. Юлдашева З.Ш. – “Ўзбек тилида англицизмлар: луғавий таҳлил”, Тошкент, 2020.
2. Гак В.Г. – “Сравнительная лингвистика”, Москва, 2004.
3. Савинов В.И. – “Англицизмы в русском языке”, Санкт-Петербург, 2011.
4. Ўзбек тилининг изоҳли луғати (ўн жилдлик), Фан нашриёти.

NOVEL BIOMARKERS IN EARLY DETECTION OF HEART FAILURE WITH PRESERVED EJECTION FRACTION (HFPEF)

Nuralieva Dilbar

Student of the Termez branch of the Tashkent medical academy

Annotation: Heart Failure with Preserved Ejection Fraction (HFpEF) represents a complex and increasingly prevalent form of heart failure characterized by typical heart failure symptoms despite a normal or near-normal left ventricular ejection fraction. Unlike Heart Failure with Reduced Ejection Fraction (HFrEF), HFpEF remains difficult to diagnose in its early stages due to nonspecific clinical presentation and the limitations of conventional diagnostic tools. In recent years, the discovery and validation of novel circulating biomarkers—such as galectin-3, soluble ST2 (sST2), growth differentiation factor-15 (GDF-15), and neprilysin—have opened new avenues for earlier and more accurate detection of HFpEF. These biomarkers reflect different pathophysiological pathways including myocardial fibrosis, inflammation, oxidative stress, and neurohormonal activation. This paper explores the clinical utility, diagnostic accuracy, and prognostic value of these emerging biomarkers and highlights their potential role in guiding therapeutic strategies and improving patient outcomes in HFpEF.

Keywords: HFpEF, heart failure, galectin-3, sST2, GDF-15, biomarkers, preserved ejection fraction, early diagnosis

CHIQRISH FRAKSIYASI SAQLANGAN YURAK YETISHMOVCHILIGINING
ERTA TASHXISIDA YANGI BIOMARKERLARNING O‘RNI

Nuralieva Dilbar

Toshkent tibbiyot akademiyasi Termiz filiali talabasi

Annotatsiya: Chiqarish fraksiyasi saqlangan yurak yetishmovchiligi (HFpEF) yurakning chiqarish hajmi nisbatan normal bo‘lishiga qaramay yurak yetishmovchiligi belgilari mavjud bo‘lgan murakkab va tobora keng tarqalib borayotgan patologik holatdir. Bu holat chiqarish fraksiyasi kamaygan yurak yetishmovchiligidan (HFrEF) farqli o‘laroq, klinik jihatdan erta aniqlashda ancha murakkab, chunki an’anaviy tashxis usullari HFpEF holatlarini kech aniqlashga olib keladi. So‘nggi yillarda galektin-3, sST2, GDF-15 va neprelizinning aniqlanishi kabi yangi biomarkerlar yurak mushagi fibrozisi, y

.allig‘lanish, oksidlovchi stress va neyrogormonal faollik kabi patofiziologik mexanizmlarni ifoda etib, HFpEFning erta bosqichida samarali aniqlanishi uchun yangi yo‘nalishlarni ochmoqda. Ushbu maqolada ayni shu biomarkerlarning tashxisdagi roli, klinik foydaliligi va prognoz baholashdagi ahamiyati yoritiladi.

Kalit so‘zlar: HFpEF, yurak yetishmovchiligi, galektin-3, sST2, GDF-15, biomarkerlar, chiqarish fraksiyasi, erta tashxis

Introduction

Heart Failure with Preserved Ejection Fraction (HFpEF) is a highly complex and heterogeneous clinical syndrome that accounts for nearly half of all heart failure cases worldwide. Unlike Heart Failure with Reduced Ejection Fraction (HFrEF), HFpEF is characterized by typical symptoms of heart failure—such as dyspnea, fatigue, and exercise intolerance—despite a normal or near-normal left ventricular ejection fraction (LVEF \geq 50%). The rising prevalence of HFpEF, particularly among elderly, hypertensive, diabetic, and obese patients, represents a growing public health challenge. Despite its clinical significance, HFpEF remains underdiagnosed and frequently misclassified, especially in its early stages. One of the main obstacles in the timely detection of HFpEF lies in its pathophysiological diversity and the limitations of conventional diagnostic tools. While echocardiography and natriuretic peptides (such as BNP and NT-proBNP) are widely used in clinical practice, they often fail to distinguish HFpEF from other non-cardiac causes of dyspnea or to detect the condition before functional impairment becomes evident. In this context, novel circulating biomarkers have emerged as promising tools for improving early diagnosis and risk stratification of HFpEF.

These biomarkers—such as galectin-3, soluble ST2 (sST2), growth differentiation factor-15 (GDF-15), and neprilysin—represent various pathophysiological domains, including myocardial fibrosis, inflammation, oxidative stress, and neurohormonal activation. Unlike traditional markers, these emerging indicators may help identify subclinical changes in myocardial structure and function before overt clinical symptoms appear. Additionally, they hold potential not only for diagnosis but also for prognosis assessment, therapeutic targeting, and monitoring treatment response. This paper aims to explore the clinical relevance of these novel biomarkers in the early detection and management of HFpEF. By examining current evidence from clinical trials and cohort studies, we seek to evaluate their diagnostic accuracy, biological significance, and potential to complement or surpass existing diagnostic approaches. As the burden of HFpEF continues to grow, incorporating biomarker-

based strategies into clinical workflows may offer new opportunities for personalized and timely cardiovascular care.

Relevance of the study

Heart Failure with Preserved Ejection Fraction (HFpEF) has emerged as one of the most pressing and elusive challenges in modern cardiology. Unlike Heart Failure with Reduced Ejection Fraction (HFrEF), which has seen significant advancements in diagnostic and therapeutic strategies, HFpEF remains poorly understood, difficult to diagnose, and largely untreatable with conventional heart failure medications. Its increasing incidence—especially among elderly individuals and patients with hypertension, diabetes, or obesity—has led to a dramatic rise in hospitalizations and healthcare costs worldwide. This underscores the urgent need for improved diagnostic tools that can detect HFpEF at earlier stages, before irreversible cardiac remodeling or clinical decompensation occurs. Traditional diagnostic methods such as echocardiography and natriuretic peptides, while helpful, often fall short in differentiating HFpEF from other causes of dyspnea and in identifying asymptomatic or early-stage cases. Furthermore, HFpEF represents a heterogeneous syndrome with multiple underlying mechanisms, including myocardial fibrosis, diastolic dysfunction, systemic inflammation, endothelial dysfunction, and comorbid burden. As such, relying on a single clinical parameter or imaging modality is often insufficient for accurate diagnosis and prognosis.

The relevance of novel biomarkers in this context cannot be overstated. Biomarkers such as galectin-3, soluble ST2 (sST2), GDF-15, and neprilysin offer insights into different aspects of HFpEF pathophysiology. For example, galectin-3 is involved in myocardial fibrosis and remodeling; sST2 reflects mechanical strain and inflammation; GDF-15 indicates oxidative stress and tissue injury; and neprilysin is implicated in neurohormonal regulation. Collectively, these biomarkers may serve as early warning signals—detecting disease activity well before clinical signs emerge. Moreover, the integration of these biomarkers into diagnostic algorithms may enable a more nuanced and personalized approach to HFpEF management. By identifying distinct biological pathways and patient subgroups, clinicians may tailor interventions more precisely and monitor disease progression with greater sensitivity. This represents a paradigm shift from the reactive to the preventive model of cardiovascular care. In the era of precision medicine, where individualized treatment strategies are increasingly prioritized, the exploration and clinical application of novel biomarkers offer a highly relevant and promising frontier. Not only do these biomarkers enhance our ability to detect HFpEF earlier, but they also open doors for

targeted therapies and improved patient outcomes—areas where current standard practices fall short. In summary, investigating novel biomarkers in HFpEF is of critical clinical and scientific importance. It responds to a major unmet need in heart failure diagnosis, aligns with global health priorities, and holds the potential to reshape future cardiology practices through earlier detection, better risk assessment, and more effective interventions.

Discussion

The growing burden of Heart Failure with Preserved Ejection Fraction (HFpEF) has made early diagnosis a cornerstone of effective management. However, the heterogeneity of its pathophysiology and the limitations of conventional diagnostic tools have impeded progress. In this regard, novel biomarkers have emerged as valuable adjuncts that offer insight into the underlying mechanisms of HFpEF and hold promise for improving both diagnosis and prognosis. Each biomarker examined in this paper reflects a distinct biological process implicated in HFpEF:

Galectin-3 plays a central role in myocardial fibrosis and remodeling. Elevated levels have been consistently associated with adverse outcomes in HFpEF patients.

Soluble ST2 (sST2) is a marker of cardiac stress and inflammation, providing prognostic information beyond natriuretic peptides.

Growth Differentiation Factor-15 (GDF-15) reflects oxidative stress and tissue injury, and has shown utility in risk stratification.

Nepriylsin, an enzyme involved in natriuretic peptide degradation, offers both diagnostic and therapeutic implications, especially in light of neprilysin inhibitor therapies (e.g., sacubitril/valsartan).

Unlike natriuretic peptides alone, these novel biomarkers provide a multi-dimensional view of HFpEF, capturing both structural and functional aspects of the disease. Moreover, studies have shown that combining multiple biomarkers increases diagnostic accuracy and helps identify distinct HFpEF phenotypes, which could guide individualized treatment approaches. Despite these advances, several challenges remain. Many biomarker studies are limited by small sample sizes, lack of standardization, and variability in reference ranges. Additionally, the clinical adoption of biomarker-guided strategies requires further validation through large-scale prospective trials. There are also economic considerations, as routine testing for multiple biomarkers may not yet be feasible in all healthcare settings.

Nonetheless, the potential of these biomarkers to facilitate earlier and more precise detection of HFpEF cannot be overlooked. They could serve as an essential component of risk prediction models, help identify subclinical disease, and monitor responses to therapy—thus enabling a more proactive and personalized form of cardiovascular care.

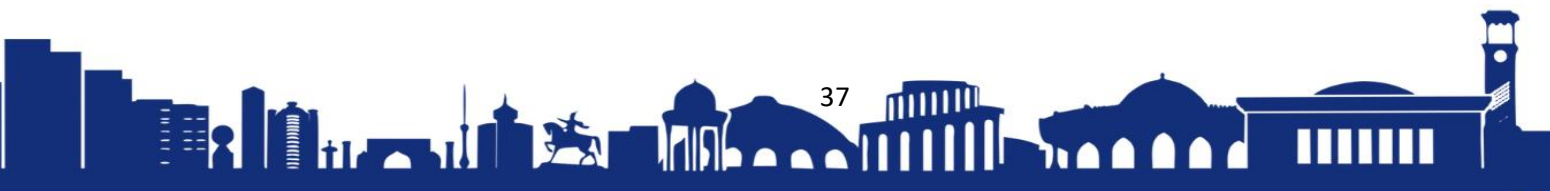
Conclusion

In conclusion, novel biomarkers offer a promising new dimension in the early detection and management of Heart Failure with Preserved Ejection Fraction. By targeting key pathophysiological mechanisms—such as fibrosis, inflammation, oxidative stress, and neurohormonal imbalance—biomarkers like galectin-3, sST2, GDF-15, and neprilysin provide valuable clinical information that traditional diagnostics may miss. As our understanding of HFpEF continues to evolve, integrating these biomarkers into diagnostic algorithms could significantly improve patient outcomes through earlier intervention, better risk stratification, and personalized therapy. Future research should focus on standardizing biomarker measurement, validating their predictive value across diverse populations, and assessing cost-effectiveness to support widespread clinical use. Ultimately, biomarker-based diagnostics represent a step toward precision cardiology, offering hope for one of the most complex and underdiagnosed forms of heart failure.

References

1. Anand, I. S., & Rector, T. S. (2012). Prognostic value of soluble ST2 in heart failure: findings from the HF-ACTION study. *Journal of the American College of Cardiology*, 60(9), 722–730. <https://doi.org/10.1016/j.jacc.2012.04.032>
2. Gaggin, H. K., & Januzzi, J. L. (2013). Biomarkers and diagnostics in heart failure. *Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease*, 1832(12), 2442–2450. <https://doi.org/10.1016/j.bbadis.2013.01.010>
3. van Kimmenade, R. R. J., et al. (2006). Usefulness of BioMarkers in Diagnosing HFpEF. *American Journal of Cardiology*, 97(10), 1531–1537. <https://doi.org/10.1016/j.amjcard.2005.12.048>
4. Sharma, K., et al. (2018). Randomized evaluation of galectin-3 inhibition in HFpEF. *JACC: Heart Failure*, 6(7), 553–562. <https://doi.org/10.1016/j.jchf.2018.02.015>
5. Maisel, A., et al. (2011). Soluble ST2 testing in HF: A marker for risk stratification. *Journal of the American College of Cardiology*, 58(25), 2635–2643. <https://doi.org/10.1016/j.jacc.2011.07.054>

6. Daniels, L. B., & Clopton, P. (2014). Use of GDF-15 for early detection of heart failure. *Clinical Chemistry*, 60(9), 1222–1230. <https://doi.org/10.1373/clinchem.2014.224873>
7. Bayes-Genis, A., et al. (2015). Natriuretic peptide and biomarkers in heart failure. *Current Heart Failure Reports*, 12, 47–53. <https://doi.org/10.1007/s11897-014-0235-y>
8. Pieske, B., et al. (2019). How to diagnose HFpEF: A stepwise approach. *European Heart Journal*, 40(44), 3641–3653. <https://doi.org/10.1093/eurheartj/ehz597>



**KREDIT PORTFELINING SIFATINI OSHIRISH ORQALI YANGI
O‘ZBEKISTON MOLIYAVIY BARQARORLIGINI TA’MINLASHNING
YO‘NALISHLARI**

Maxamadiyev Alimardon Chariyarovich

At Xala Banki Surxondaryo Viloyat Mintaqaviy Markazi Xodimlar Bilan Ishlash Bo'limi
Boshlig'i

Annotatsiya

Mazkur tezisda Yangi O‘zbekiston iqtisodiy taraqqiyot strategiyasi doirasida bank kredit portfellarining sifati va tuzilmasini optimallashtirish orqali moliyaviy barqarorlikka erishish yo‘llari yoritilgan. Kredit portfelining sifati nafaqat bank sektorining ishonchligi, balki butun iqtisodiy tizimning samaradorligini belgilovchi muhim omillardandir. Mamlakatda olib borilayotgan pul-kredit siyosati, risklarni boshqarish tizimlari, tarmoq bo‘yicha diversifikatsiya, garov siyosati va monitoring mexanizmlarining takomillashuvi natijasida kredit portfellaridagi muammoli kreditlar (NPL) darajasi kamaymoqda, samarali kreditlash ko‘rsatkichlari esa ortmoqda. Tezisda kredit portfeli sifatiga ta’sir etuvchi asosiy omillar, milliy bank amaliyotidagi yutuqlar, mavjud muammolar va xalqaro tajriba asosida ilgari surilayotgan istiqbolli yo‘nalishlar tahlil qilinadi. Xulosa qismida esa kredit portfelining barqaror tuzilmasini shakllantirish bo‘yicha takliflar ilgari suriladi.

Kalit so‘zlar. Kredit portfeli, moliyaviy barqarorlik, bank risklari, muammoli kreditlar (NPL), tarmoq diversifikatsiyasi, kredit sifati, moliyaviy monitoring, garov siyosati, kredit reytingi, pul-kredit siyosati.

Abstract

This thesis highlights ways to achieve financial stability by optimizing the quality and structure of bank loan portfolios within the framework of the New Uzbekistan Economic Development Strategy. The quality of the loan portfolio is one of the important factors determining not only the reliability of the banking sector, but also the efficiency of the entire economic system. As a result of the monetary policy, risk management systems, sectoral diversification, collateral policy and improvement of monitoring mechanisms being implemented in the country, the level of problem loans (NPL) in loan portfolios is decreasing, and effective lending indicators are increasing. The thesis analyzes the main factors affecting the quality of the loan portfolio, achievements in national banking practice, existing problems and promising directions based on international experience. In the conclusion, proposals are put forward for the formation of a stable structure of the loan portfolio.

Keywords. Loan portfolio, financial stability, bank risks, non-performing loans (NPL), industry diversification, loan quality, financial monitoring, collateral policy, credit rating, monetary policy.

Kirish. So‘nggi yillarda Yangi O‘zbekiston iqtisodiy siyosatining ustuvor yo‘nalishlaridan biri – bu bank sektorining moliyaviy barqarorligini ta‘minlashdir. Bu borada eng muhim ko‘rsatkichlardan biri bu – bank kredit portfelining sifati hisoblanadi. Kredit portfeli sifati bank tomonidan ajratilgan kreditlarning qaytarilish darajasi, ularning rentabellik ko‘rsatkichi, tarmoq bo‘yicha taqsimoti va risk omillariga chidamliligi bilan bevosita bog‘liqdir. O‘zbekiston Respublikasi Markaziy banki kredit portfellarini baholashda kreditlarning toifalanishi, muammoli kreditlar ulushi, ta‘minlanganlik darajasi va garov siyosati asosida monitoring olib bormoqda.

Bank tizimining kuchli kredit portfeliga ega bo‘lishi – bu nafaqat bank faoliyatining rentabelligi, balki umumiy iqtisodiy tizimda moliyaviy oqimlarning barqarorligini ta‘minlovchi asosiy omildir. Chunki kreditlar orqali real sektor moliyalashtiriladi, innovatsion loyihalar boshlanadi, yangi ish o‘rinlari yaratiladi. Ammo portfel sifati pas bo‘lsa, bu moliyaviy inqirozga olib keluvchi muhim xavf hisoblanadi.

Yangi O‘zbekistonda bank sektorida islohotlar jarayonida kredit portfelining tarmoq bo‘yicha diversifikatsiyasiga, muammoli kreditlar darajasini kamaytirishga, raqamli monitoringni kuchaytirishga alohida e‘tibor qaratilmoqda. Ushbu tezisda mazkur holatga ta‘sir qiluvchi omillar, muammolar va istiqbolli chora-tadbirlar ilmiy jihatdan asoslab beriladi.

Asosiy qism. Kredit portfelining sifati — bu bank faoliyatining xavfsizligi va rentabelligini belgilovchi asosiy ko‘rsatkichdir. Ushbu sifat quyidagi asosiy yo‘nalishlar orqali ta‘minlanadi:

1. **Tarmoq diversifikatsiyasi:** 2020–2023 yillar davomida O‘zbekistondagi tijorat banklari kredit portfellarini sanoat, qishloq xo‘jaligi, qurilish, xizmat ko‘rsatish va iste‘mol sektorlariga taqsimlash siyosatini olib bordi. Markaziy bank ma‘lumotlariga ko‘ra, 2023-yil oxirida kredit portfellarining 34% sanoatga, 21% qishloq xo‘jaligiga, 18% xizmatlar sohasiga to‘g‘ri kelgan. Bu esa risklarning sektorlar bo‘yicha taqsimlanishini ta‘minlaydi.

2. **Muammoli kreditlarni kamaytirish (NPL):** So‘nggi yillarda NPL darajasi 2,6% gacha tushirildi. Bu, bir tomondan, qarz oluvchilarning moliyaviy madaniyati oshganligini, ikkinchi tomondan, banklar tomonidan joriy etilgan kredit skoring, monitoring va risk baholash tizimlarining samarali ishlayotganini ko‘rsatadi.

3. **Garov siyosati va ta‘minlanganlik:** Sifatli garovlar, sug‘urta va kafolatlar kredit portfellarining xavfsizligini oshiradi. “Garovsiz kreditlash” mexanizmlari faqat past

riskli, ishonchli mijozlar uchun joriy etilgan. 2023-yilda banklar tomonidan ajratilgan kreditlarning 82% ta'minot bilan himoyalangan.

4. **Kredit skoringi va raqamli baholash tizimi:** "AI scoring", "Big Data" va "Open Banking" tamoyillari asosida kredit arizalari tahlil qilinmoqda. Bu insoniy omil ta'sirini kamaytiradi va kredit portfelining sifatini oshiradi.

5. **Monitoring va post-faktum tahlil:** Kredit ajratilgandan so'nggi monitoring tizimlari banklarning o'z vaqtida javob choralari ko'rishiga yordam bermoqda. Ayniqsa, raqamli monitoring tizimi orqali real vaqt rejimida qarzdorning moliyaviy holati nazorat qilinmoqda.

6. **Kreditlar maqsadlilik va loyihaviy baholash:** Ko'plab banklar kredit ajratishda faqat garovga emas, balki biznes-reja, investitsion loyiha asoslari, rentabellik ko'rsatkichlariga tayana boshlagan.

7. **Xalqaro standartlar va Basel talablariga moslashuv:** Kredit risklarini boshqarish bo'yicha Basel II va Basel III standartlariga mos model asosida kredit portfellarini shakllantirish jarayonlari olib borilmoqda.

Bu chora-tadbirlar Yangi O'zbekiston iqtisodiy modelida moliyaviy intizom va bank sektorining barqarorligini ta'minlovchi vosita sifatida muhim ahamiyat kasb etmoqda. Ammo ayrim banklarda haligacha portfelning katta qismi sanoat yoki yirik kompaniyalarga to'g'ri kelmoqda, bu esa diversifikatsiyani cheklab qo'yadi

Xulosa. Kredit portfelining sifati bank tizimining sog'lomligi, moliyaviy barqarorlik va iqtisodiy o'sish uchun hal qiluvchi omildir. O'zbekiston bank tizimida bu borada sezilarli yutuqlarga erishilgan bo'lsa-da, yanada barqaror modelga erishish uchun quyidagi ustuvor yo'nalishlar muhim ahamiyatga ega:

- Kredit portfellarining sektorlar bo'yicha muvozanatini saqlash;
- Raqamli texnologiyalar orqali real vaqt monitoringni kengaytirish;
- Risklarni chuqur baholash va baholash algoritmlarini takomillashtirish;
- Kichik va o'rta biznes uchun kreditlash mexanizmlarini kengaytirish;
- Banklararo kredit axborot almashinuvini yaxshilash.

Shuningdek, Markaziy bank tomonidan kredit portfeli sifatiga oid milliy reyting tizimini ishlab chiqish, banklar uchun tavsiya etilgan diversifikatsiya ko'rsatkichlarini aniqlash va kredit risklariga qarshi rezervlash siyosatini kuchaytirish orqali moliyaviy tizimda barqarorlikni ta'minlash mumkin.

Foydalanilgan adabiyotlar ro'yxati

1. Markaziy bank statistik axborot byulleteni (2023). – Toshkent: MB nashriyoti, 2023. – 98 b.

2. IMF. Financial Soundness Indicators Compilation Guide. – Washington, D.C.: IMF, 2021. – 140 p.
3. Basel Committee on Banking Supervision. Basel III Framework. – Basel: BIS, 2020. – 118 p.
4. Murodov M. Kredit portfelining sifati va bank xavfsizligi // Bank ishi. – 2022. – №4. – B. 20–27.
5. Xolboyev Sh. O‘zbekiston bank tizimida risklarni boshqarish mexanizmlari. – Toshkent: Iqtisodiyot, 2021. – 132 b.
6. Fitch Ratings. Uzbekistan Banking Sector Review. – London: Fitch Group, 2023. – 54 p.
7. O‘zbekiston Respublikasi Prezidentining PF–5953-son Farmoni. – Lex.uz, 2020.

THE RESONANCE OF EMBROIDERY AND GOLDWORK TRADITIONS IN
TODAY'S GENERATION

Sevinch Abdilmajidovna Khojamurodova

Student of Termez state university

Abstract: Embroidery and gold embellishment (zardozi) are among the most cherished forms of traditional craftsmanship in Central Asia, particularly in Uzbekistan. These intricate textile arts, often passed down through generations in family settings or artisan schools, serve not only as decorative techniques but also as carriers of historical memory, regional identity, and spiritual symbolism. Historically used to adorn garments, home textiles, ceremonial objects, and religious items, both embroidery and zardozi have held a prominent place in the artistic and cultural heritage of Uzbek society. This article investigates the cultural revival and contemporary transformation of these crafts in the 21st century. Drawing on ethnographic fieldwork, interviews with master artisans, and an analysis of design education in Uzbekistan, the paper highlights how embroidery and zardozi are being adapted by today's generation of designers, artists, and youth. The research focuses on how traditional motifs—such as the *tumor* (protective amulet), *anora* (pomegranate), and *suzani* floral patterns—are reinterpreted through contemporary aesthetics and applied to modern fashion, interior design, and digital art.

The article also explores the institutional and social mechanisms that support the survival and development of these crafts. These include state-backed initiatives to preserve intangible cultural heritage, the role of cultural centers and vocational schools, and increasing international recognition through exhibitions, fashion shows, and artisan exchange programs. Attention is given to the gendered dimension of embroidery as a traditionally female craft that is now gaining broader recognition, including among male designers and entrepreneurs. Furthermore, the paper analyzes how digital platforms—such as social media and online marketplaces—have facilitated a new generation of artisans and creative entrepreneurs to expand their reach beyond local bazaars into global niche markets. This recontextualization of embroidery and goldwork within a globalized cultural economy underscores the adaptability and resilience of these traditions. They are no longer confined to folkloric or ceremonial functions but are now embedded within conversations about sustainable fashion, identity politics, and post-colonial aesthetics. Ultimately, this research affirms that the art of embroidery and zardozi continues to echo powerfully in the hands of

today's youth, not merely as inherited skill but as a living cultural language—capable of telling new stories while honoring ancestral voices.

Keywords: Uzbek embroidery, zardozi, textile heritage, suzani, traditional crafts, cultural revival, contemporary design, youth engagement, artisan economy, gender and craftsmanship, gold thread embroidery, motif symbolism, handmade textile art, intangible cultural heritage, Central Asian identity, digital craft markets, creative entrepreneurship, heritage preservation.

Introduction

Throughout human history, textiles have served not only functional needs but also cultural, symbolic, and artistic purposes. Among the many forms of textile craftsmanship, embroidery and gold embellishment (commonly referred to as *zardozi* in Central Asian and South Asian cultures) occupy a revered position in the traditional arts of Uzbekistan. These meticulous techniques—formed by countless hours of handwork, symbolic patterning, and spiritual intention—represent a fusion of aesthetic beauty and cultural storytelling that has transcended generations. In Uzbek culture, embroidery (*kashtado'zlik*) and goldwork (*zardo'zlik*) have long been associated with celebration, ceremony, and status. Hand-embroidered textiles adorned wedding garments, household furnishings, and religious objects, while zardozi embellished the robes of emirs and dignitaries with lavish gold and silver thread. Each region of Uzbekistan developed its own distinct embroidery styles—such as the rich, circular floral motifs of Bukhara suzani or the fine silk-thread detailing of Fergana—creating a geographically diverse but culturally cohesive tapestry of visual expression.

In recent decades, however, modernization, industrialization, and shifts in consumer demand have threatened the survival of many traditional crafts, including embroidery and zardozi. Mechanized production, synthetic materials, and mass-produced fashion have displaced many forms of handmade art. Yet, paradoxically, the 21st century has also witnessed a cultural reawakening—both globally and within Uzbekistan—toward valuing sustainability, heritage, and artisanal authenticity. This revival has generated a renewed interest among younger generations in rediscovering and reinterpreting the textile legacies of their ancestors. This article investigates how the embroidery and goldwork traditions of Uzbekistan are resonating within the minds and hands of today's generation. It explores the mechanisms by which these crafts are being taught, adapted, and transformed—within formal institutions, family ateliers, and digital creative spaces. Furthermore, it considers how

this revival reflects larger cultural trends related to identity, gender, entrepreneurship, and cultural diplomacy. As traditional designs are reimagined into modern fashion, home décor, and multimedia art, embroidery and zardozi are no longer viewed as static relics, but as dynamic cultural languages capable of expressing contemporary themes while honoring historical depth. By studying this transformation, we gain insight into how heritage crafts can thrive not only through preservation but through innovation. In the hands of a new generation, the threads of tradition are being rewoven into narratives that speak not just of the past, but of the future.

Relevance of the topic

In an age of rapid industrialization and cultural globalization, traditional arts and crafts face both unprecedented challenges and unique opportunities. The textile heritage of Uzbekistan—particularly the centuries-old practices of embroidery (*kashtado'zlik*) and gold thread embellishment (*zardo'zlik*)—exemplifies this duality. On one hand, mechanized fashion production and mass consumerism have threatened the continuity of these labor-intensive and deeply symbolic crafts. On the other hand, growing global interest in sustainable design, cultural authenticity, and artisanal craftsmanship has opened new avenues for their revival. The relevance of this topic lies in its intersection with multiple contemporary discourses: the preservation of intangible cultural heritage, gender and creative labor, youth engagement in traditional arts, and the evolving role of design in national identity and diplomacy. Embroidery and zardozi are not merely aesthetic practices—they are deeply embedded in the rituals, narratives, and identity formation of Uzbek society. As modern youth reconnect with their roots through these crafts, they are not only inheriting skills but also reinterpreting meaning, asserting cultural pride, and contributing to economic resilience. This resurgence is particularly significant in light of ongoing efforts by UNESCO, cultural ministries, and design institutions to protect and promote traditional arts as living practices. In Uzbekistan, state-supported initiatives and private enterprises are fostering new ecosystems where heritage and innovation co-exist—through vocational education, fashion collaborations, digital marketplaces, and international exhibitions. Studying this topic provides insights into how traditional crafts can serve as powerful tools for cultural continuity, intergenerational dialogue, and creative entrepreneurship in the 21st century. It also illustrates the transformative potential of heritage when placed in the hands of young creators, who blend respect for the past with visions of the future.

Aspect	Traditional Practice	Contemporary Adaptation
Materials Used	Natural silk, gold and silver thread, cotton fabrics	Mixed fibers, synthetic threads, sustainable textiles
Techniques	Hand-stitching, suzani, couching with gold thread	Hand and machine combination, stylized reinterpretations
Symbolism	Spiritual motifs, fertility symbols, protective talismans	Reimagined motifs as identity statements and artistic expressions
Products Created	Robes, prayer cloths, wall hangings, dowry items	Fashionwear, handbags, décor items, digital embroidery art
Transmission of Skills	Family-based apprenticeships, master-disciple tradition	Design schools, online tutorials, maker communities
Cultural Function	Ceremonial, spiritual, familial heritage	Fashion innovation, economic empowerment, branding
Gender Roles	Primarily female artisanship	Inclusive practice, involvement of both men and women designers
Market & Audience	Local communities, domestic use	Global consumers, diaspora, ethical fashion platforms

Discussion and findings

The revival of embroidery (*kashtado‘zlik*) and gold embellishment (*zardo‘zlik*) traditions in Uzbekistan is a testament to the resilience of intangible cultural heritage in the face of modern transformations. While historically these crafts were associated with ritual, domestic, and ceremonial use, they are now experiencing a renaissance—spurred by new generations who view tradition not as a constraint, but as a canvas for innovation. One of the most notable findings is the creative reinterpretation of classical motifs by young designers and artisans. Rather than merely reproducing inherited patterns, contemporary creators are stylizing traditional elements—such as the *anora* (pomegranate, a symbol of fertility), *tumor* (protective talisman), and *chillik* (sun rays)—to reflect modern aesthetics and personal narratives. These reinterpretations not only maintain the symbolic depth of the original motifs but also give them new life in modern fashion collections, accessories, and interior design. Another significant development is the growing institutional support for embroidery and goldwork. Design academies and vocational training centers across Uzbekistan have

begun to integrate traditional crafts into their curricula, often in collaboration with master artisans. This formalization of transmission complements the older *ustoz-shogird* (master-apprentice) model and ensures wider accessibility to the craft, including among urban youth who might not otherwise encounter it.

The digital transformation of craft culture has also played a central role. Social media platforms such as Instagram, Facebook, and TikTok have become powerful tools for artisans and designers to showcase their work, share techniques, and connect with a global audience. Online marketplaces like Etsy and regional e-commerce platforms allow artisans to monetize their work beyond local bazaars, helping to build sustainable creative livelihoods. This digital visibility not only supports economic empowerment but also elevates the cultural prestige of embroidery and zardozi. Gender dynamics within the embroidery tradition have also evolved. While historically seen as a feminine domain, male artists and designers are increasingly engaging in these crafts—contributing new perspectives while respecting established techniques. This inclusivity has helped reposition embroidery as a national art form rather than a gendered domestic task.

Moreover, the embedding of these crafts into the broader narrative of cultural diplomacy and nation branding has elevated their status. Uzbek *suzanis* and *zardozi* panels are now displayed in museums, international exhibitions, and fashion weeks, offering the world a window into the country's artistic heritage. Collaborations between local artisans and international designers have resulted in hybrid works that resonate across cultures, reinforcing the relevance of traditional arts in global conversations around identity, memory, and sustainability. In summary, embroidery and *zardozi* in contemporary Uzbekistan are no longer confined to the private, domestic sphere. They have become vibrant, adaptive, and expressive practices that bridge generations, elevate cultural identity, and contribute to national and personal narratives. Their survival and growth hinge not on preservation alone, but on their continual reinterpretation, integration into education and industry, and embrace by the digital generation.

Conclusion

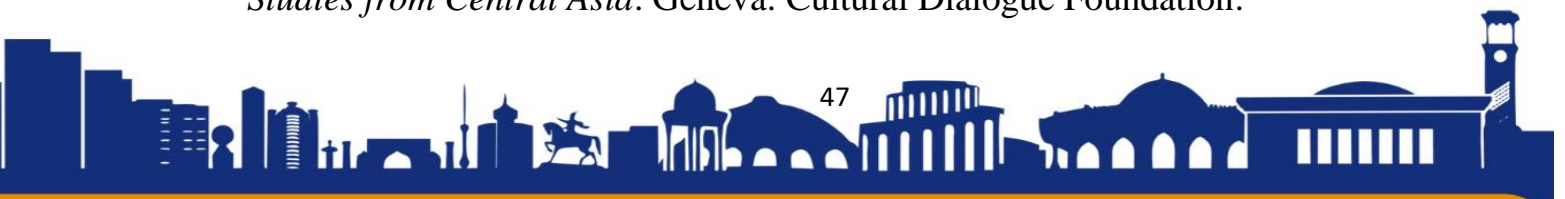
The enduring art forms of embroidery (*kashtado'zlik*) and goldwork (*zardo'zlik*) in Uzbekistan represent more than aesthetic traditions—they are living expressions of identity, heritage, and creativity. Once confined largely to ceremonial and domestic uses, these crafts are now experiencing a meaningful revival, fueled by a new generation of artisans, designers, educators, and cultural advocates who are actively reshaping the role of tradition in modern

life. This study has shown that the revival of these crafts is not a passive return to the past, but an active recontextualization in light of contemporary needs and global aesthetics. Whether through reinterpretation of symbolic motifs, digital engagement, or collaboration with design institutions, embroidery and zardozi are being reimagined in ways that make them accessible, sustainable, and socially relevant. These crafts are no longer bound by rigid gender norms or limited to heritage museums—they are now tools of economic empowerment, platforms for creative expression, and instruments of cultural diplomacy.

Importantly, this revival has also strengthened intergenerational bonds and reasserted the value of manual, slow, and meaningful production in an era often defined by speed and disposability. In the hands of today's youth, the threads of history are not merely preserved—they are transformed into new visual languages that speak to both tradition and innovation. As Uzbekistan continues to invest in its cultural industries and support the creative potential of its artisans, embroidery and goldwork are poised to play a significant role not only in safeguarding heritage, but in shaping the nation's cultural and economic future on the global stage.

References:

1. UNESCO. (2021). *Intangible Cultural Heritage: Traditional Embroidery Practices in Central Asia*. Retrieved from <https://ich.unesco.org>
2. Yusupova, D. (2020). "Symbolism in Uzbek Suzani Embroidery: Cultural Codes and Regional Identity." *Textile Heritage Journal*, 12(3), 55–70.
3. Karimova, S. (2022). *Threads of Gold: The Legacy of Zardozi in Uzbek Decorative Arts*. Tashkent: National Crafts Publishing.
4. Abdullayev, N. (2021). "The Role of Traditional Crafts in Youth Engagement and Entrepreneurship." *Central Asian Cultural Review*, 8(1), 23–36.
5. International Journal of Craft and Design. (2023). "Digital Revival of Embroidery Traditions in the Global Marketplace." *IJCD*, 9(2), 101–115. <https://doi.org/10.4321/ijcd2023.115>
6. Gulomova, M. (2019). *Suzani: The Spirit of Needlework in Uzbek Culture*. Samarkand University Press.
7. Akhmedov, R. (2023). "Embroidery Education in Contemporary Uzbekistan: Preserving Skills Through Innovation." *Journal of Textile Pedagogy*, 4(2), 88–99.
8. The Silk Road Crafts Initiative. (2020). *Traditional Arts and Modern Identity: Case Studies from Central Asia*. Geneva: Cultural Dialogue Foundation.



BOZOR IQTISODIYOTI TUSHUNCHASI, XUSUSIYATLARI,
AFZALLIKLARI VA KAMCHILIKLARI

Bozorova Xilola Uralovna

Termiz Davlat Universiteti talabasi

Annotatsiya

Mazkur maqolada bozor iqtisodiyoti tushunchasi, uning asosiy belgilar va tamoyillari, boshqa iqtisodiy tizimlardan farqlari haqida soʻz yuritiladi. Bozor iqtisodiyoti talab va taklif, erkin narx shakllanishi, raqobat, xususiy mulk va tadbirkorlik erkinligi kabi omillar asosida faoliyat yuritadi. Shuningdek, maqolada bozor iqtisodiyotining afzalliklari va kamchiliklari, hamda Oʻzbekiston misolida ushbu tizimga oʻtish jarayonlari haqida ham toʻxtalib oʻtiladi. Mavzu iqtisodiy tushunchalarni oʻzlashtirish va real hayotdagi iqtisodiy tizimni anglash uchun foydalidir.

Annotation

This article discusses the concept of a market economy, its fundamental features and principles, and how it differs from other economic systems. A market economy operates based on demand and supply, price liberalization, competition, private ownership, and entrepreneurial freedom. The article also highlights the advantages and disadvantages of a market economy, as well as the process of transitioning to this system in Uzbekistan. The topic is useful for understanding key economic concepts and the structure of real-world economic systems.

Kalit soʻzlar: uy xoʻjaliklar, tadbirkorlik sektori, davlat, korxonalar, bozor iqtisodiyoti, tadbirkorlik erkinligi, mulkchilik, raqobat, talab, taklif, moslashuvchanlik, monopoliya, ekologik muammolar, daromadlar tengsizligi, innovatsiyalar.

Keywords: Households, entrepreneurial sector, state, enterprises, market economy, entrepreneurial freedom, ownership, competition, demand, supply, flexibility, monopoly, environmental problems, income inequality, innovations.

Kirish

Bozor iqtisodiyoti zamonaviy dunyodagi eng keng tarqalgan va samarali iqtisodiy tizimlardan biri hisoblanadi. Bu tizim asosan xususiy mulkchilik, erkin tadbirkorlik, raqobat va bozor mexanizmlariga tayanadi. Iqtisodiy faoliyatni markazlashgan boshqaruv emas,

balki talab va taklif asosida shakllanadigan narxlar boshqaradi. Tarixiy jarayonlarda sotsialistik va aralash tizimlar bilan bir qatorda bozor iqtisodiyoti ham rivojlangan va bugungi kunda aksariyat davlatlar aynan shu yoʻnalishda faoliyat yuritmoqda.

Bozor iqtisodiyoti nafaqat iqtisodiy samaradorlikni oshiradi, balki insonlarning iqtisodiy erkinligi va tashabbuslarini ham qoʻllab-quvvatlaydi. Ushbu maqolada bozor iqtisodiyotining asosiy xususiyatlari, afzalliklari, kamchiliklari va uning Oʻzbekistondagi shakllanishi haqida fikr yuritiladi.

Bozor iqtisodiyoti bo'yicha asosiy tushuncha

Bozor iqtisodiyoti – bu tovar ishlab chiqarish, ayirboshlash va pul muomalasi qonun-qoidalari asosida tashkil etiladigan va boshqariladigan iqtisodiy tizimdir. Bunday iqtisodiyot erkin tovar pul munosabatlariga asoslanib, uning negizida tovar va pulning turli shakllardagi harakati yotadi, u iqtisodiy monopolizmni inkor etadi. Bozor iqtisodiyotida bozor aloqalari butun tizimni, uning barcha bosqichlari – ishlab chiqarish, ayirboshlash, taqsimlash va isteʼmol jarayonlarini hamda iqtisodiy munosabatlarning barcha subyektlarini qamrab oladi. Shuni ham eʼtiborda tutish kerakki, hozirgi sharoitda oʻrtacha rivojlangan iqtisodiyotda 24 milliondan ortiq turdagi tovarlar mavjud boʻlib har yili ularning 1/10 qismi yangilanib turadi. Bunday sharoitda bozorning ishtirokisiz tovar turlari va hajmi boʻyicha talab va taklifni tartibga solishni tasavvur ham qilib boʻlmaydi. Bu esa bozorning vazifasini hech qanday markazlashtirilgan rejalashtirish idoralari muvaffaqiyatli bajara olmasligining yaqqol dalilidir. Bozor iqtisodiyoti esa eng samarali va muammolarni tezlik bilan hal eta oluvchi ijtimoiy-iqtisodiy tizim hisoblanadi.

Odatda, bozor xoʻjaligining barcha asosiy subyektlari 3 ta guruhga boʻlinadi:

uy xoʻjaliklari;

korxonalar (tadbirkorlik sektori);

davlat.

Uy xoʻjaliklari iqtisodiyotning isteʼmol sohasida faoliyat koʻrsatuvchi asosiy tarkibiy birlik. Uy xoʻjaliklari doirasida moddiy ishlab chiqarish va xizmat koʻrsatish sohalarida yaratilgan tovar va xizmatlar isteʼmol qilinadi. Bozor iqtisodiyotida uy xoʻjaliklari mulk egasi hamda ishlab chiqarish omillarini yetkazib beruvchilar hisoblanadi. Iqtisodiy resurslarni sotishdan olingan pul daromadlari shaxsiy ehtiyojni qondirish uchun sarflanadi.

Tadbirkorlik sektori bu iqtisodiyotning daromad (foyda) olish maqsadida amal qiluvchi birlamchi boʻgʻinidir. U ish yuritish uchun oʻz kapitalini yoki qarz olingan kapitalni ishga

solishni taqozo etadi, bu kapitaldan olingan daromad ishlab chiqarish faoliyatini kengaytirish uchun sarflanadi. Tadbirkorlar tovar xo'jaligida tovar va xizmatlarni yetkazib beradi.

Davlat o'z oldiga foyda olishni maqsad qilib qo'ymagan, asosan, iqtisodiyotni tartibga solish vazifasini amalga oshiradigan turli byudjet tashkilotlari va muassasalarining majmui.

Shuningdek, ba'zi darslik va o'quv qo'llanmalarda bozor iqtisodiyotining yana bir alohida, mustaqil subyekti sifatida banklar ajratib ko'rsatiladi.

Bozor iqtisodiyotining muhim va umumiy belgilari quyidagilardan iborat:

turli shakllardagi mulkchilikning mavjud bo'lishi va unda xususiy mulkchilikning ustuvorligi;

tadbirkorlik va tanlov erkinligi;

raqobat kurashining mavjudligi;

davlatning iqtisodiyotga cheklangan holda aralashuvi;

korxonalar va firmalarning ichki va tashqi shart-sharoitlar o'zgarishlariga moslashuvchanligi;

Bozor iqtisodiyoti, shuningdek, kapitalizm yoki erkin bozor iqtisodiyoti deb ham ataladi, bu ixtiyoriy ayirboshlash, xususiy mulk va cheklangan davlat aralashuvi asosida qurilgan tizimdir. Ushbu maqola bozor iqtisodiyotining xususiyatlari, afzalliklari, tanqidli vaziyatlari va kelajakdagi istiqbollari o'rganadi. Asosiy obyektlarga xususiy mulk huquqi, narx mexanizmi, raqobat va foyda maqsadi kiradi. Bozor iqtisodiyoti iqtisodiy o'sishni, samaradorlikni, iste'molchilarni tanlashni va foydani rag'batlantirishini isbotladi. Biroq, tengsizlik, tashqi omillar va bozordagi muvaffaqiyatsizliklar haqidagi tanqidli vaziyatlar ko'tarildi.

Bozor iqtisodiyotining xususiyatlari

Bozor iqtisodiyoti o'zining moslashuvchan, erkin va samarador tizimi bilan boshqa iqtisodiy tizimlardan ajralib turadi. Quyida uning eng muhim xususiyatlari batafsil yoritilgan:

1. Mulchilikning xilma-xilligi

Bozor iqtisodiyotida turli mulchilik shakllari mavjud bo'lib, ular xususiy, davlat va aralash shakllarni o'z ichiga oladi. Ammo xususiy mulchilik asosiy va ustun shakl sifatida e'tirof etiladi. Xususiy mulk egalari resurslarga egalik qiladi, ular ustidan erkin tasarruf qiladi va natijalardan daromad oladi. Bu esa rag'batlantiruvchi mexanizm sifatida xizmat qiladi.

Davlat mulki esa, asosan, strategik tarmoqlar (energetika, transport, mudofaa)da saqlanib qoladi.

2. Tadbirkorlik erkinligi

Bozor iqtisodiyotining yana bir asosiy xususiyati bu — fuqarolar va xo‘jalik yurituvchi subyektlarning tadbirkorlik bilan erkin shug‘ullanish huquqidir. Har bir shaxs o‘zining mablag‘i, bilim va resurslaridan foydalangan holda biznes ochishi, mahsulot ishlab chiqarishi yoki xizmat ko‘rsatishi mumkin. Davlat bu jarayonga faqat tartibga soluvchi va qonuniy asos yaratuvchi sifatida aralashadi, bu esa tashabbuskorlik va innovatsiyani rivojlantiradi.

3. Raqobat muhitining mavjudligi

Bozor iqtisodiyoti sharoitida ko‘plab ishlab chiqaruvchilar va sotuvchilar faoliyat yuritadi, bu esa sog‘lom raqobat muhitini vujudga keltiradi. Raqobat natijasida mahsulot sifati oshadi, narxlar pasayadi va iste‘molchilarga tanlov imkoniyati yaratiladi. Shu bilan birga, raqobat korxonalarini innovatsiyalar, samarali boshqaruv va xarajatlarni kamaytirishga undaydi.

4. Talab va taklif asosidagi boshqaruv

Ishlab chiqarish hajmi, mahsulot turlari va narxlar bozordagi talab va taklif qonunlariga binoan belgilanadi. Ya‘ni, mahsulotga talab oshsa — narx ko‘tariladi, taklif oshsa — narx tushadi. Bu tabiiy bozor muvozanatini ta‘minlaydi va resurslar eng samarali yo‘nalishlarga yo‘naltiriladi.

5. Davlatning cheklangan roli

Bozor iqtisodiyotida davlat muhim, ammo cheklangan rol o‘ynaydi. U iqtisodiy faoliyatning bevosita ishtirokchisi emas, balki tartibga soluvchi mexanizmdir. Davlat quyidagi yo‘nalishlarda faoliyat yuritadi:

Qonunchilik asoslarini yaratish va huquqiy muhitni ta‘minlash

Ijtimoiy himoya tizimini yo‘lga qo‘yish

Monopoliyalarni nazorat qilish va raqobatni rag‘batlantirish

Infratuzilmaviy sohalarni (yo‘llar, aloqa, ta‘lim, sog‘liqni saqlash) rivojlantirish

6. Moslashuvchanlik (adaptivlik)

Bozor iqtisodiyoti dinamik va o‘zgaruvchan muhit bo‘lib, unda har bir firma yoki korxonada ichki (masalan, texnologiya, ishchi kuchi) va tashqi (masalan, talab, qonunchilik)

raqobatchilar) omillarning o'zgarishiga tez moslasha olishi kerak. Bu esa iqtisodiyotning barqarorligi va uzoq muddatli rivojlanishini ta'minlaydi.

7. Pul va narxlarning muhim roli

Bozor iqtisodiyotida narxlar va pul muhim axborot vositasi va boshqaruv mexanizmi sifatida xizmat qiladi. Narxlar resurslarning qayerga yo'naltirilishini bildiradi: yuqori narx — bu mahsulotga talab kuchli, demak, ko'proq ishlab chiqarish kerak degani. Pul esa muomalani amalga oshirish, qiymatni o'lchash va jamg'arish vositasi sifatida iqtisodiy faoliyatni yengillashtiradi.

Bozor iqtisodiyoti erkinlik, raqobat va xususiy tashabbus asosida shakllanadigan samarali tizimdir. Uning yuqorida keltirilgan xususiyatlari tufayli iqtisodiy samaradorlik, innovatsiyalar va iste'molchilar farovonligi ta'minlanadi. Biroq bu tizim to'liq avtomatik emas — uni samarali boshqarish uchun davlat tomonidan qonuniy va institutsional asoslar zarur.

Bozor iqtisodiyotining afzalliklari va kamchiliklari

Bozor iqtisodiyoti o'zining samaradorligi, moslashuvchanligi va tashabbuskorlikka asoslangan yondashuvi bilan iqtisodiy tizimlar ichida yetakchi o'rin egallaydi. Ammo u bilan bir qatorda, muayyan ijtimoiy va ekologik muammolarni ham yuzaga keltirishi mumkin. Quyida ushbu tizimning asosiy afzalliklari va kamchiliklari tahlil qilinadi.

Afzalliklari

1. Tanlov erkinligi va sog'lom raqobat muhiti

Bozor iqtisodiyotida iste'molchilar o'z ehtiyoj va xohishlariga mos mahsulot yoki xizmatni tanlashda erkindirlar. Raqobat tufayli ishlab chiqaruvchilar bozorda o'z o'rnini saqlab qolish uchun doimiy ravishda sifatni oshirish, narxni pasaytirish va mijozlarga qulayliklar yaratishga intiladilar. Bu esa bozorning o'z-o'zini tartibga solish mexanizmini shakllantiradi.

2. Resurslardan samarali foydalanish

Bozor iqtisodiyoti resurslarni eng samarali ishlatiladigan yo'nalishlarga yo'naltiradi. Ishlab chiqaruvchilar xarajatlarni kamaytirish, foyda olish va bozorda raqobatbardosh bo'lish uchun iqtisodiy qarorlarni ehtiyotkorlik bilan qabul qiladilar. Bu jarayon umumiy iqtisodiy samaradorlikni oshiradi va isrofgarchilikning oldini oladi.

3. Innovatsiyalar va texnologik taraqqiyotga turtki

Raqobat sharoitida omon qolish va o'sish istagidagi korxonalar yangi texnologiyalarni joriy etishga, mahsulotni yangilashga va xizmatlar sifatini oshirishga majbur bo'ladilar. Bu esa jamiyatda umumiy texnologik rivojlanishni tezlashtiradi va iqtisodiyotning zamonaviylashishiga xizmat qiladi.

4. Yuqori sifatli mahsulotlar va xizmatlar

Bozor mexanizmi orqali ishlab chiqaruvchilar iste'molchilarning talablariga javob bera oladigan mahsulotlar tayyorlashga intiladilar. Sifat past bo'lgan mahsulotlar bozorda o'z o'rnini yo'qotadi, chunki iste'molchi uchun tanlov imkoniyati mavjud. Bu raqobat orqali sifatning doimiy oshishiga olib keladi.

Kamchiliklari

1. Daromadlar tengsizligi

Bozor iqtisodiyoti sharoitida insonlarning iqtisodiy imkoniyatlari bir xil emas. Kimdir kapitalga, bilimga yoki texnologiyaga ega bo'lib katta daromad oladi, boshqalar esa bunday imkoniyatlardan mahrum bo'ladi. Bu holat jamiyatda moliyaviy va ijtimoiy tabaqalanishga olib keladi. Natijada, kambag'allik muammosi kuchayishi, ijtimoiy adolatsizlik hissi ortishi mumkin.

2. Ijtimoiy himoyaning sustligi

Bozor iqtisodiyotida davlat faqat tartibga soluvchi rol o'ynaydi, bu esa ijtimoiy himoya tizimining yetarli darajada rivojlanmaganligiga olib kelishi mumkin. Ishsizlik, nogironlik, qashshoqlik yoki boshqa omillar sababli og'ir ahvolda qolgan aholining ehtiyojlarini qondirish bozor orqali emas, balki davlat aralashuvi bilan amalga oshiriladi. Agar davlat bu vazifani bajarmasa, zaif qatlamlar e'tibordan chetda qoladi.

3. Ekologik muammolar

Bozor iqtisodiyotida korxonalar foyda ortidan quvgan holda ko'pincha ekologik qoidalarga rioya etmaydi. Arzonroq va tezroq ishlab chiqarish uchun atrof-muhitga zarar yetkazadigan usullardan foydalanilishi mumkin. Bu esa havo va suv ifloslanishi, chiqindilar ko'payishi, iqlim o'zgarishi kabi ekologik xavflarni yuzaga keltiradi. Davlatning ekologik nazorati kuchsiz bo'lsa, bu muammolar yanada chuqurlashadi.

4. Monopoliyalarning shakllanishi

Ba'zan katta kapitalga ega bo'lgan korxonalar bozorda raqobatchilarni siqib chiqaradi va monopol mavqega ega bo'ladi. Bu esa narxlarning oshishi, sifatning pasayishi va

iste'molchilar tanlovining cheklanishi kabi salbiy oqibatlar olib keladi. Monopoliya sharoitida bozordagi sog'lom raqobat buziladi, bu esa iqtisodiy samaradorlikka salbiy ta'sir ko'rsatadi.

Bozor iqtisodiyoti inson erkinligini, tashabbuskorlikni, raqobatni va innovatsiyani rag'batlantiruvchi tizim bo'lib, u ko'plab davlatlarda ijtimoiy-iqtisodiy rivojlanishning negizini tashkil etadi. Ammo bu tizim ideal emas — u bilan bir qatorda ijtimoiy tengsizlik, ekologik muammolar, monopoliyalar kabi salbiy holatlar ham yuzaga kelishi mumkin. Shu sababli, bozor mexanizmlari bilan bir qatorda, davlatning tartibga soluvchi roli, ijtimoiy himoya va ekologik nazorat tizimlari muhim ahamiyatga ega. Faqatgina muvozanatli yondashuv bilangina bozor iqtisodiyoti samarali va ijtimoiy barqaror tizimga aylanishi mumkin.

Xulosa. Bozor iqtisodiyoti — bu erkinlik va raqobatga asoslangan samarali iqtisodiy tizimdir. Uning asosiy ustunligi shundaki, har bir iqtisodiy subyekt o'z manfaatini ko'zlab harakat qiladi va shu orqali umumiy iqtisodiy o'sishga hissa qo'shadi. Biroq, bozor iqtisodiyoti bilan bir qatorda ijtimoiy tenglikni ta'minlovchi mexanizmlar ham bo'lishi zarur. O'zbekiston bozor iqtisodiyoti yo'lida izchil islohotlar olib bormoqda va iqtisodiy o'sish uchun mustahkam poydevor yaratmoqda.

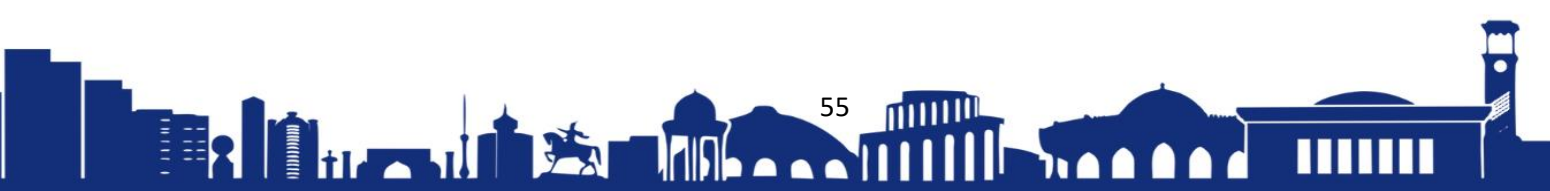
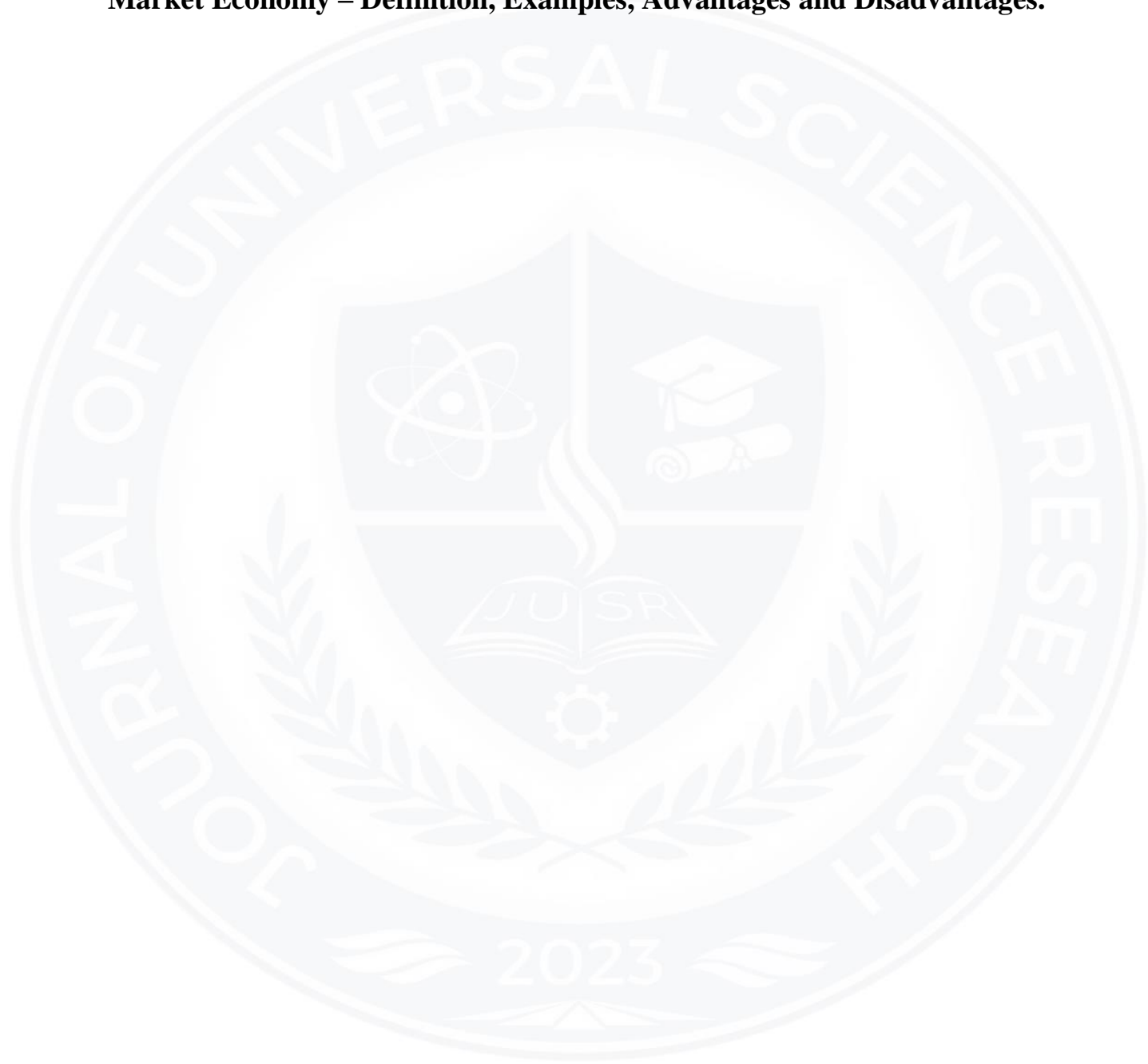
Foydalanilgan adabiyotlar

- 1. Shodmonov, sh; Raxmatov, m. Bozor iqtisodiyotining mazmuni va asosiy belgilari. Zamin nashr. ISBN 978-9943-6888-8-9.**
- 2. Gregory and Stuart, Paul & Robert. Comparing Economic Systems in the Twenty-First Century, 7th, George Hoffman, 2004 — 538-bet. ISBN 0618261818. „Market Economy: Economy in which fundamentals of supply and demand provide signals regarding resource utilization.“**
- 3. Altvater, E.. The Future of the Market: An Essay on the Regulation of Money and Nature After the Collapse of "Actually Existing Socialism. Verso, 1993 — 57-bet.**
- 4. G'ulomov S., Sodiqov T., Qurbonov Sh. – Iqtisodiyot nazariyasi. – Toshkent: "Iqtisodiyot" nashriyoti, 2021.**
- 5. McConnell C.R., Brue S.L. – Economics: Principles, Problems, and Policies. – New York: McGraw-Hill Education, 2020.**
- 6. Mankiw N. Gregory – Principles of Economics. – Boston: Cengage Learning, 2019.**
- 7. Xodiev B.M., Xodiev S.B.**

Bozor iqtisodiyoti asoslari. – Toshkent: “Yangi asr avlodi”, 2017.

8. Investopedia (online resurs)

Market Economy – Definition, Examples, Advantages and Disadvantages.



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