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## PRIORITY DIRECTIONS FOR THE DEVELOPMENT OF GREEN ECONOMY IN AZERBAIJAN

**Khanlarzadeh Sarvinaz,**
**Gurbanli Elchin**
*Azerbaijan State University of Economics,*
*Istiqlaliyyat str. 6, AZ 1000, Baku, Azerbaijan*
*JEL Classifications: Q53, Q57, Q58*
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**Abstract**

This article explores the priority directions of the formation and development of a green economy in the Republic of Azerbaijan, which include: building the potential for the use of renewable energy sources; the development of organic agriculture and animal husbandry; the development of "clean - green" transport; the transition to the construction of energy-efficient residential buildings and increasing the efficiency of energy consumption in housing; improvement of waste management system; improvement of the water resources management system; sustainable production and consumption.The article is supplemented with proposals for economic measures and incentives aimed at further increasing Azerbaijan's "green"c growth and transition to a green economy (subsidies, subsidies, financial assistance through the introduction of environmental taxes, green tariffs, etc.). Based on the study, it was revealed that the transition to a green economy is an established trend in the development of Azerbaijan, whose competitiveness in the global economic system will, for the most part, be predetermined by how much the republic will be able to mobilize its development in the direction of green growth.

**Keywords:** green economy, energy, sustainable development, green growth, renewable energy sources, environmental, waste disposal

### 1. Introduction

The main purpose of this study is to develop recommendations on priority areas for the development of the green economy in Azerbaijan. To achieve this goal, it is necessary to solve such tasks as: to determine the directions of further development of the green economy in Azerbaijan for certain types of economic activity; to develop a set of measures in the context of individual sectors aimed at improving the development of the green economy in Azerbaijan.

Today, one of the priorities for ensuring sustainable economic development in various countries is to determine common directions and develop a concept for activating the green economy, the most important advantages of which are maximum energy efficiency and minimal impact on the external environment. Economic growth and increased consumption in the world, which arose as a result of industrialization since the end of the twentieth century, have significantly aggravated environmental problems. Currently, the main threats to the sustainable development of mankind are environmental pollution and deterioration of ecosystems. Only the transition to a "green" economy can help stabilize economic systems and balance the interests of man, nature and the efficient use of resources (Masko L.V., Gavrilov R.V.., 2020: p. 188). In this regard, environmentally friendly economic development in different countries is declared as a necessary condition, and production efficiency is perceived as one of the factors of sustainable development of society.

Azerbaijan is a part of the global economic system, therefore, it cannot stay away from global trends. The peculiarities of the domestic economy, in particular, its raw materials orientation, puts the tasks of ensuring nature-saving economic growth and innovative orientation of the development of society in the category of the most important, the solution of which seems to be a necessary condition for the transition to a fundamentally new level of development of the domestic economy. The inevitability of guaranteeing sustainable environmental and economic development based on the transition of the modern world community to a green economy, first of all, requires the development and implementation of an appropriate state policy for regulating the green economy in order to ensure its effective provision.

Many studies have been devoted to the problems of the green economy, in particular, its prospects, as well as the peculiarities of "green" business, "green" growth and "green" production in Azerbaijan, but despite a large number of works, there is still no concept linking all directions of this process, both at the level of industries, the same applies to certain types of activities, which determines the relevance of this study.

### 2. Improving the directions of development of the green economy in Azerbaijan

Determining the ways of further development of the green economy in Azerbaijan requires specific details and structuring, both in terms of identifying industries and activities in which appropriate "green" transformations should be carried out, and in terms of developing "green" measures that should be carried out in the context of individual activities and in the economic system as a whole.

In some studies, in a certain sequence, the following priority sectors are proposed, which are the core for the implementation of "green" modifications: energy; transport; mining and manufacturing; agriculture; construction; housing and communal services; fisheries; tourism; as well as activities such as waste disposal and recycling; regulation water resources. (Kozhevnikov and Lebedeva, 2019). Moreover, when defining and structuring these areas, it is customary to take into account the specifics of a particular country.

Depending on the socio-economic situation, prospects and international agreements, we will consider the priority guidelines for the formation of a green economy in the Republic of Azerbaijan.

**3. Capacity building for the use of alternative and renewable energy sources**

The potential of alternative and renewable energy sources in Azerbaijan is quite large. However, as a traditional producer of oil and natural gas, Azerbaijan, like other producers of traditional fossil fuels, "does not seem to have a sense of urgency to switch to renewable energy sources" (https://www.pwyp.org/wpcontent/uploads/2022/01/RUS_Report_Energy_Transitions_Eurasia_2021.pdf, 2022)**.** This fact is clearly reflected in the dynamics of energy supply through renewable energy sources (table 1).

Table 1

**Dynamics of energy supply from renewable energy sources, thousand NET**

| | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** |
|---|---|---|---|---|---|---|---|---|
| Energy supply, total | 15085,5 | 15569,4 | 15419,9 | 15506,8 | 15590,7 | 17085,6 | 16 642,8 | 17 566,6 |
| Of these: | | | | | | | | |
| Hydropower | 111,8 | 140,8 | 168,5 | 150,2 | 152,0 | 134,6 | 92,0 | 109,8 |
| The share of hydropower in the total energy supply, in % | 0,7 | 0,9 | 1,1 | 1,0 | 1,0 | 0,8 | 0,5 | 0,6 |
| Biomass and waste | 158,9 | 160,7 | 100,8 | 102,4 | 110,7 | 115,9 | 108,4 | 102,6 |
| The share of biomass and waste in the total energy supply, in % | 1,1 | 1,0 | 0,7 | 0,7 | 0,7 | 0,7 | 0,7 | 0,6 |
| Wind energy | 0,2 | 0,4 | 2,0 | 1,9 | 7,1 | 9,1 | 8,3 | 7,9 |
| The share of wind power in the total energy supply, in % | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Solar energy | 0,2 | 0,4 | 3,0 | 3,2 | 3,4 | 3,8 | 4,0 | 4,8 |
| The share of solar electricity in the total energy supply, in % | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Energy supply of all renewable energy sources | 271,1 | 302,3 | 274,3 | 257,7 | 273,2 | 263,4 | 212,7 | 225,1 |
| The share of renewable energy in the total volume of energy supply % | 1,8 | 1,9 | 1,8 | 1,7 | 1,8 | 1,6 | 1,3 | 1,3 |

**Source:** https://www.stat.gov.az/source/balance_fuel/, 2023

Thus, the analysis of table 1 shows that the total energy supply in Azerbaijan in 2021 amounted to 17566.6 thousand NET, i.e. there is an increase of 14% according to the same indicator in 2014. Of these, most of the electricity supply is accounted for by hydropower (109.8 thousand NET), whose share in the total energy supply of the country in 2021 amounted to 0.6% and biomass and waste (102.6 thousand NET), whose share in the total energy supply of the country decreased by 0.5% over the same period.

The share of renewabl e energy in the total volume of energy supply in 2021 amounted to 1.3%, which is 0.5% lower than the same indicator in 2014. In our opinion, this is due to the continuing trend in the country to increase the country's energy supply through traditional sources. In our opinion, in order to strengthen the potential and increase the use of renewable energy sources, the implementation of the following measures is required:

- ✓ create conditions to ensure transparency of procedures for the introduction of electricity tariffs, as well as the establishment of a transparent and uniform procedure for connecting to the grid for all subjects, in the appendix to the guarantee for the purchase of energy, the inclusion of clear and equivalent (both legal and practical) regulations for new subjects of the electric power market;
- ✓ to introduce fixed (green) price tariffs on preferential terms for renewable energy, taking into account the type of technology, which would be especially useful for promoting new technologies such as solar and wind energy;
- ✓ to transfer part of the revenues from the oil and gas sector to the development of renewable energy sources. At the same time, we consider it advisable to organize a special fund on renewable energy sources, for example, the State Fund for the Optimal Use of Natural Resources, which could contribute to the formation of a market for the latest services in the field of energy (consulting, energy audit, technical maintenance of innovative technologies, etc.) in cooperation with the authorized body (Malikova and Zlatnikova, 2019);
- ✓ systematically re-evaluate the national energy strategy for the development of renewable energy sources, through the financing of the European Union Energy Sector Support Program (ERSP). This activity should be carried out after the end of the European Union program, and the implementation of the strategy must be constantly evaluated and regularly adjusted;
- ✓ limit the role of the state by accepting competitive conditions, separating vertically integrated monopolies, and easing barriers to entry for smaller companies;

- ✓ to introduce innovative technologies, practical innovations and scientific and technical developments in the field of alternative and renewable energy development and energy efficiency, increase production and expand the concentration of energy-saving special equipment and devices, including technology transfer and organization of engineering and technical centers;
- ✓ optimize accountability in order to stimulate investments from foreign companies, provide incentives for domestic enterprises in the field of renewable energy, improve innovation potential through support for the transfer of know-how and training programs for local personnel;
- ✓ to involve business entities in the development of generating capacities based on proven technologies for the use of wind, solar energy, small and micro hydroelectric power plants;
- ✓ to reduce the energy intensity of manufactured products through the development of new and modernization, technical and technological re-equipment of operating capacities based on the introduction of the latest energy-saving and energy-efficient technologies (https://ws-conference.com/webofscholar, 2020).

At the same time, it is more important that each individual point should be investigated not in isolation, but in context with others, since most obstacles are interdependent and, as a result, a synergistic approach is required to effectively overcome them.

**4. Development of "clean-green" transport**

Transport is one of the sectors of the economy that significantly pollutes atmospheric air, soils and reservoirs more than others. The share of the transport sector in the total volume of emissions of harmful substances into the atmosphere from mobile and stationary vehicles in developed countries is 40-60%, which exceeds this indicator in any industry. The source of 80-90% of pollutants from the total emissions is road transport, 8% – rail, almost 2% – sea and river, and about 1% – air. (https://cyberleninka.ru/article/n/zelenaya-ekonomika-v-azerbaydzhanskoy-respublike-predposylki-i-napravleniya-razvitiya-1, 2022).

As a result of such exposure, the atmosphere, land and water bodies are polluted, changes in the chemical composition of microflora and soils occur, industrial waste is formed, including toxic and radioactive, as well as sludge, ash and garbage. The unfavorable environmental result from transport activities puts forward the need to step up work aimed at strengthening environmental protection and environmental management, both from the state and public sides. In order to reduce the toxic impact of transport on the environment of Azerbaijan, measures should be implemented in the following areas:

– the introduction of electric vehicles that can be produced from renewable sources, which reduces carbon dioxide emissions compared to traditional cars with gasoline or diesel engines;

– the use of hybrid vehicles that combine an internal combustion engine with an electric motor, which provides increased fuel efficiency and reduced emissions;

– the use of a public transport system, including buses, trams and subways, encouraging people to use shared low-emission modes of transportation, reducing the number of individual cars on the road;

– encouraging cycling and walking as modes of transport reduces emissions, improves physical health and reduces traffic jams;

– the use of alternative fuels such as natural gas, hydrogen or biofuels can reduce carbon dioxide emissions than conventional gasoline or diesel;

– high-speed rail and other efficient long-distance modes of transport reduce the environmental impact of travel.

The transportation industry is a significant source of air pollution and greenhouse gas emissions, so environmentally friendly transportation will be required to find a solution. Individuals, companies and governments can help create a more sustainable and environmentally conscious future by adopting and supporting these sustainable transportation options and methods.

**5. Improving the waste management system**

At the moment, the problem of waste disposal in Azerbaijan, as a whole, remains unresolved and requires an integrated approach involving the following main provisions:

- specification of the established payment calculations for the temporary dislocation of waste and the costs of their processing and disposal;
- switching from the principle of minimizing waste disposal costs to the principle of their optimization (adoption of a single tariff for waste disposal for each specific region of the country);
- providing financial independence and ensuring the sustainability of landfills for waste disposal (enterprises should accumulate the necessary funds in specialized funds and ensure the targeted use of these funds);
- building a system that guarantees the manageability of waste masses and encourages landfills to optimize.

The development of organizational and economic waste management mechanisms also implies that payments for waste disposal will be directed to the above-mentioned special trust funds, and will be consumed, for example, for the development of domestic landfills and the elimination of adverse consequences of their prolonged operation. (https://wedocs.unep.org/bitstream/handle/20.500.11822/14873/trade_GE_handbook_RU.pdf?sequence=9&isAllowed=y, 2020).

Consequently, the waste management system in Azerbaijan requires revision, and in our opinion, this process should take into account the practice of advanced countries and the latest domestic achievements in the field of recycling, burial and disposal of waste, at the same time, and modification of the relevant legislative framework, in particular, based on the principles of the waste management hierarchy adopted in the European Union. Of course, problems and risks are inevitable on the way to "greening" the domestic economy. At the same time, it can be argued that the transition to a green economy is an established developmental trend. Azerbaijan's competitiveness in the global economic system will, for the most part, be determined by the extent to which our country will be able to mobilize its movement towards green growth.

**6. Conclusions and suggestions**

At the present stage, certain shifts in the direction of sustainable development are observed in Azerbaijan due to the introduction of strategies and measures aimed at the transition to a green economy into national policy. Measures aimed at accelerating and facilitating the transition to a green economy in the republic require the use of such tools as:

1. making appropriate changes to the taxation system, greening the tax system, and introducing a pollution tax;
2. public procurement policy providing for the production of an environmental product;
3. increasing the volume of public investments in environmental infrastructure in accordance with the principles of sustainable development;
4. government support for research and development on the creation of environmentally friendly technologies;
5. creation of investment funds and financial institutions;
6. retraining of the workforce;
7. study and implementation of international practice.

Recent trends in the world confirm the need for the development of green finance, the withdrawal of investments from the oil and gas sector. The main condition for launching green finance mechanisms is the standards and policies for building an appropriate financial sector, as well as appropriate environmental legislation on emissions trading.

According to the conducted research, it can be concluded that the improvement of the main directions of the development of the green economy provides for the implementation of three key goals:

– ensuring balanced rates of economic growth in the long term, the development of an energy system that actively uses renewable energy sources;

– reduction of toxic effects on the environment (reduction of greenhouse gas emissions and other unsafe substances, reduction of emergency conditions from energy facilities, etc.);

– increase employment, improve the living environment and quality of life of the population.

Thus, the green economy is the latest trend that determines the prevention of an environmental crisis and the preservation of our society, natural resources, and ensuring the reuse of economic benefits.

In the long term, each area should be explored not separately, but in context with others, since most of the activities proposed in the study are interdependent, and a synergistic approach is required to effectively boost them.

**References:**

1. Masko L.V., Gavrilov R.V. “Green” economy in the context of sustainable development of society: economic essence and definition”, 2020, V.7(137), p. 188.
2. Kozhevnikov S.A., Lebedeva M.A. "Problems of transition to a green economy in the region (based on the materials of the European North of Russia)", Problems of territorial development. 2019, № 4 (102), p. 75-79.
3. Malikova O.I., Zlatnikova M.A. "State policy in the field of renewable energy development", Public administration. Release № 72.,2019, p. 5-29.
4. Apazhev A.K. "Utilization of animal husbandry waste with biogas production", International agricultural journal, 5., 2022.
5. Bayandin M.A., Kamenov B.S. "Foreign experience of transition to a "green" economy" Bulletin of the Innovative Eurasian University. 2016. p.19-24.
6. Safonov G. "Green growth" and innovations " Achieving progress in the transition from a planned to a market economy, 2020.
7. Salamov O.M., Aliyev F.F. "Prospects for obtaining alternative fuels from various types of biomass and waste in Azerbaijan", International Scientific Journal "Alternative Energy and Ecology" (ISJAEE), 2019, 01-03:25-41.
8. https://www.pwyp.org/wpcontent/uploads/2022/01/RUS_Report_Energy_Transitions_Eurasia_2021.pdf, 2022.
9. https://www.stat.gov.az/source/balance_fuel/, 2023.
10. https://ws-conference.com/webofscholar, 2020.
11. https://cyberleninka.ru/article/n/zelenaya-ekonomika-v-azerbaydzhanskoy-respublike-predposylki-i-napravleniya-razvitiya-1, 2022.
12. https://wedocs.unep.org/bitstream/handle/20.500.11822/14873/trade_GE_handbook_RU.pdf?sequence=9&isAllowed=y, 2020.

# DISCUSSION ON THE INNOVATIVE DEVELOPMENT STRATEGY OF ESG REAL ESTATE ECONOMIC MANAGEMENT

**Zhang Shicheng**
*Ph.D students*
*International Institute of Management and Business,220086, Minsk City, Belarus*
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**Abstract**

In the stage of social and economic transformation and development, the low-carbon economy, as a new growth point for national economic development, has had a significant impact on all walks of life. For a long time, the construction and real estate industries have adopted a high-energy consumption economic development model. As the national real estate development market enters a deleveraging cycle, real estate companies have begun to explore low-energy consumption, low-pollution, low-carbon models to achieve

Economic management must adapt to the trend of industrial transformation and upgrading while meeting national policy requirements for building an environmentally friendly society. However, during this transition period, low-carbon models have not only brought positive impacts to the economic management of construction and real estate, but also posed development threats. Therefore, it is necessary to strengthen the exploration of management strategies to promote the sustainable development of the industry.

**Keywords:** ESG, real estate, innovative development, economy, management model

Introduction: The real estate industry is a key driver of my country's economic growth. However, with ongoing market adjustments, traditional real estate management models and business operations are no longer adapting to market dynamics and the demands of industrial transformation. Therefore, real estate companies need to actively seek transformation paths in a complex and volatile market, developing rational upgrade plans that take into account changes in both internal and external environments. Economic management innovation is an effective means of improving production efficiency and overcoming bottlenecks in business development. It goes beyond product and service updates and encompasses a comprehensive overhaul of existing business rules and management models. To this end, companies should draw on successful experiences from both domestic and international markets, analyze the objectives of real estate economic management under the new development landscape, explore innovative approaches, and accelerate innovation and transformation in real estate economic management to address increasing market competition and industry pressure.

With global climate change and environmental challenges becoming increasingly severe, a low-carbon model has become a crucial tool for promoting sustainable development in the real estate industry. Achieving a low-carbon approach in the real estate industry not only helps reduce greenhouse gas emissions and improve energy efficiency, but also promotes the transformation and upgrading of industrial structures, driving economic and social development towards high-efficiency and sustainable development. Therefore, exploring innovative development strategies for real estate economic management under an ESG model is of great practical significance.

1. The impact of low-carbon models on the construction and real estate economy

1.1 Positive Impact

The construction and real estate industries adopt a low-carbon model to develop the economy, which has a positive impact on promoting the construction of a low-carbon market, increasing asset value and promoting the development of green finance.

First, as pillar industries of the national economy, the construction and real estate industries can shift from extensive management models to a focus on low-carbon economic management. This can help adjust the economic structure, promote market structure upgrades, and lead to overall progress in all industries. In the process of promoting low-carbon models, real estate companies can obtain relevant laws, regulations, and policies to quickly build green brands and develop differentiated market operation strategies. By using low-carbon buildings as a marketing slogan to shape a positive corporate image, they can win good market reputation and customer loyalty, help companies expand their market scale, and accelerate the development and construction of low-carbon markets.

Secondly, under the background of increasingly stringent energy conservation and emission reduction requirements put forward by the state, construction and real estate companies have developed low-carbon models through technological innovation. They use prefabrication, modularization and other technologies to shorten the construction period and pollution emissions, achieve efficient use of funds, create more economic benefits for enterprises, and enhance the ability of enterprises to adapt to new policies. Therefore, building low-carbon buildings is of great value in promoting the sustainable development of enterprises. In terms of building management, enterprises have introduced high-efficiency insulation materials, solar energy integration, intelligent control and other building technologies to significantly reduce the energy consumption and carbon emissions generated by the use of houses. For enterprises, they are high-quality assets with long-term operational value [1].

Thirdly, as the country successively introduces various policies related to green buildings, capital will also flow to companies that promote low-carbon models, enabling real estate companies that develop low-carbon projects to obtain funds by establishing green funds, issuing green bonds, etc., injecting vitality into the development of the industry. With the development of green finance, low-carbon companies will have more options and abundant financing channels, which will bring more possibilities for corporate development while providing strong financial support for the development of the low-carbon economy and continuously improving the low-carbon level of the industry.

Finally, according to the data from the 2023 China Building and Urban Infrastructure Carbon Emissions Research Report, the total carbon emissions from housing construction in China reached 4.07 billion tons in 2021, accounting for 38.2% of the country's energy-related carbon emissions, causing serious resource waste and ecological pollution. The construction and real estate industries promote low-carbon models and implement green and low-carbon concepts in all aspects of production and operation. This can effectively reduce the adverse impact of industry development on the environment, reduce the burden on the country's resources and environment, and show the image of a responsible major country while making significant contributions to promoting high-quality and sustainable social and economic development [2].

2. The importance of innovation in construction and real estate economic management under the ESG model

2.1 Stimulate the vitality of the construction and real estate markets

Through innovative economic management, construction and real estate companies can actively explore and apply low-carbon technologies and environmentally friendly materials, effectively reducing building energy consumption and carbon emissions. This not only helps improve the environmental performance of construction and real estate projects and significantly enhance companies' market competitiveness, but also meets consumer demand for a green and healthy environment. Furthermore, innovative economic management can promote the diversified development of the construction and real estate markets. Under a low-carbon model, construction and real estate companies can expand into new business areas, such as green building development, thereby opening up new profit growth points. Furthermore, innovative economic management can stimulate the vitality of market players, encourage more companies to invest in the development and operation of green buildings, stimulate vitality in the construction and real estate markets, and ultimately promote the sustainable development of the entire industry.

2.2 Promoting the transformation and upgrading of industrial structure

As an effective way to cope with climate change and resource shortages, the low-carbon model has become an important development direction for the construction and real estate industry. Under the low-carbon model, innovation in the economic management of construction and real estate is not only an inevitable requirement for environmental protection, but also an important means to promote the transformation and upgrading of industrial structure. With the increasing attention paid to the low-carbon economy by all sectors of society, innovation in the economic management of construction and real estate enterprises is particularly critical. By introducing low-carbon concepts and advanced technologies, construction and real estate enterprises can optimize resource allocation, improve energy efficiency, reduce the impact of project construction and operation on the environment, and achieve energy conservation and emission reduction goals. This can not only promote the green development of the construction and real estate industry, but also drive the transformation and upgrading of upstream and downstream industrial chains. For example, the research and development and application of environmentally friendly materials and the promotion of green building technologies have brought new economic growth points to the construction and real estate industry. It can be seen that under the low-carbon model, innovation in the economic management of construction and real estate enterprises can promote the transformation and upgrading of industrial structure and provide strong support for the sustainable development of the economy and society [3].

2.3 Enhance environmental awareness in the construction and real estate industries

Under a low-carbon model, innovations in construction and real estate economic management can significantly enhance environmental awareness within the industry, laying a solid foundation for building a resource-efficient and environmentally friendly society. By incorporating low-carbon concepts, construction and real estate companies can optimize design, construction, and operations, reducing energy consumption in both construction and operation. Specifically, during the design phase, designers focus on the layout of green spaces and the maintenance of ecological balance, actively adopting energy-saving materials and technologies to reduce building energy consumption. During the construction phase, builders employ green construction methods to minimize the environmental impact. During the operational phase, operators improve energy efficiency through intelligent management. Furthermore, government policy support and economic incentives for green buildings are crucial factors in enhancing environmental awareness within the construction and real estate industries. Policy support sets a baseline for environmental protection for construction and real estate companies, while economic incentives encourage them to actively adopt green building technologies, thereby increasing the industry's overall focus on environmental protection.

3. Current status of real estate economic management

The real estate economy is currently in a critical period of development and challenges. Within this context, how to promote low-carbon development in the real estate industry has become a core issue within and beyond the industry.

3.1 The real estate industry is actively exploring the path of low-carbon development

With the popularization of environmental protection concepts and the global emphasis on sustainable development, the real estate industry is undergoing a transformation and upgrading from the traditional high-energy consumption and high-emission development model to a low-carbon and sustainable development model. For example, in the planning stage of engineering projects, more and more developers have begun to incorporate energy conservation and environmental protection factors into their decision-making considerations, focusing on the rational use of land resources and the protection of the ecological environment; in the design stage of engineering projects, the concept of low-carbon building has gradually become mainstream, and designers have actively adopted new green building materials and construction technologies such as solar panels and high-efficiency insulation materials to reduce energy consumption and carbon emissions; in the construction stage of engineering projects, many construction units focus on practicing energy conservation and environmental protection concepts and adopt more environmentally friendly construction methods to reduce resource waste and environmental pollution; in the operation stage of engineering projects, operation managers have begun to introduce intelligent management systems to further improve energy utilization efficiency and reduce operating costs, thereby achieving low-carbon development [4].

3.2 Main issues facing current real estate economic management

3.2.1 Low energy efficiency

Traditional building design and construction methods fail to fully consider the efficient use of energy, resulting in significant energy waste. This is primarily due to the following three reasons: First, during the architectural design phase, some designers overly focus on the aesthetics and functionality of the building, neglecting its energy efficiency. For example, in terms of building layout, window design, and material selection, designers fail to fully utilize natural lighting and ventilation to reduce the need for energy use such as artificial lighting and mechanical ventilation. Second, improper construction management or a lack of effective energy-saving measures leads to inefficient energy utilization, which not only increases project costs but also exacerbates environmental pollution. Third, during the operational phase, some buildings' lighting, air conditioning, elevators, and other equipment operate inefficiently, resulting in irrational energy use and causing significant energy loss.

3.2.2 Insufficient application of low-carbon building materials and technologies

With the continuous improvement of public environmental awareness, more and more engineering projects have begun to try to introduce low-carbon building materials and technologies. However, in reality, the application of low-carbon materials and technologies is still relatively low. On the one hand, compared with low-carbon building materials and technologies, traditional building materials have more advantages in terms of price. For cost control considerations, some developers still tend to choose traditional building materials and processes. On the other hand, the market penetration of low-carbon building materials and technologies is not high, and some consumers and developers still have doubts about their performance, quality and reliability, which greatly reduces their confidence in choosing low-carbon building materials and technologies[5].

4. Innovative approaches to real estate economic management under the ESG development landscape

4.1 Promote centralized financial accounting management

Real estate companies operate on a large scale, encompassing multiple business units and projects. Given this situation, building a comprehensive financial accounting system and centralizing financial data management is crucial. Companies should deploy financial accounting applications across all business units and establish a unified platform to manage these applications, ensuring traceability and consistency of financial data. If different units or departments use different financial applications, they should first unify accounting standards and processes, then gradually transition to a new financial application to avoid management confusion.

Secondly, real estate companies should strengthen their financial report consolidation capabilities. Real estate companies are characterized by large group sizes, multiple companies, multiple projects, and multiple dimensions. To address this, companies should optimize automatic financial report consolidation capabilities, integrating and automatically consolidating financial statements across all levels, projects, and subsidiaries to provide a real-time reflection of the company's financial status.

Furthermore, as the correlation between the operation and development of real estate enterprises and changes in national policies becomes increasingly stronger, enterprises should pay close attention to policy changes, strengthen financial supervision according to the requirements of the State-owned Assets Supervision and Administration Commission, and enhance the monitoring of financial health. On the one hand, capital control should be regarded as the core of financial management, and the flow of funds should be tracked in real time to strengthen the compliance and transparency of capital use[6]. On the other hand, internal control management mechanisms should be embedded in the information system, and financial supervision should be improved according to the indicators of the State-owned Assets Supervision and Administration Commission, internal control management should be strengthened, and the standardization of financial management should be promoted.

Finally, real estate companies must fully transition from traditional offline transactions to online processes to address issues such as poor information transfer and cumbersome distribution. Companies should leverage online collaborative management platforms to achieve seamless transfer and real-time updates of financial data. These platforms should unify invoice verification, internal control, expenditure control, and payment processes, achieving centralized management and strengthening centralized financial control.

4.2 Further promote digital and intelligent construction

Real estate companies should start from the following four dimensions to promote the intelligent upgrade of corporate economic management.

First, digital financial management. This involves building a centralized financial accounting platform to automatically generate reports, collect capital data, and manage and analyze financial data in real time. Digital financial management emphasizes data analysis, such as using financial data to forecast cash flow, analyze profit sources, optimize capital allocation, and reduce financial risk.

Second, intelligent management of supply chains and trade operations. Enterprises need to use digital intelligence to achieve seamless integration across departments and business units, and improve the responsiveness of the supply chain. For example, they can build a supply chain management platform to track supplier order status, inventory status, payment progress, etc. in real time, or use intelligent systems to optimize trade business processes, adopt AI algorithms to predict market demand fluctuations, and achieve intelligent business resource allocation[7].

Third, intelligent risk management systems. Real estate companies face a wide variety of risks, requiring the use of digital technology to build risk management systems that monitor market conditions, policies and regulations, and operational data in real time, identify potential risks, and promptly initiate countermeasures to enhance corporate risk management capabilities.

Fourth, intelligent settlement and payment systems. Real estate companies should use technologies such as direct bank-enterprise connections and integrated USB-Shields to automate settlement and payment processes, optimize capital flows, and improve the real-time and security of capital allocation.

4.3 Comprehensive Budget Management

In order to cope with the ever-changing market environment and policy requirements, the comprehensive budget management of real estate companies must undergo comprehensive management innovation and become the core driving force for companies to achieve strategic goals and improve business performance.

First, real estate companies should standardize their budgets based on the management requirements of the State-owned Assets Supervision and Administration Commission (SASAC) and the companies themselves, unifying budget indicators and operating rules across all business units. First, comprehensive budget management should be broken down to the smallest unit of responsibility, ensuring that budget responsibilities are distributed to every department and even every employee. This will clearly define the goals and responsibilities of each responsible entity and enhance budget controllability. Second, budget indicators should be unified. Based on unified budget targets, budget indicators should be broken down and refined within the company to accurately monitor the execution of each business unit, assess budget performance, adjust budget deviations, and promote the achievement of strategic goals.

Secondly, when implementing budget management, enterprises should combine capital budget supervision with cost control. Real estate enterprises can use a unified management platform to achieve the integration of business budget, settlement and accounting, and seamlessly connect cash flow control and budget. First, enterprises should clarify the goals, definitions, target groups, focus and specific methods of business promotion. Usually different departments have different needs, and the content should be focused on different aspects[8]. For example, business promotion for the finance department should focus more on the financial centralized accounting operation process and compliance requirements, while business promotion for each project department should focus on business standard processes and information sharing strategies. At the same time, enterprises should also determine specific promotion channels or communication platforms, such as corporate intranet, office platform, WeChat group, etc. Enterprises can accurately convey the content of economic management innovation through online presentations, video training, face-to-face communication, etc., to ensure that the promotion work is comprehensive and fully covered.

Secondly, real estate companies need to design specific business communications. For example, the business communications for digital real estate economic management projects should include system functions and operational procedures, explanations of the differences between the old and new systems, business process improvements, the impact of business changes on corporate strategy, risk management, and compliance requirements.

Finally, real estate companies should clarify the business communication process to ensure that business communication and business planning are coordinated. The specific process is as follows: pre-project communication, which mainly emphasizes the project goals and importance, clarifies the project promotion time nodes and the impact on employee work; communication during project testing, the main purpose of which is to promptly identify specific problems in the project, propose solutions, and communicate to relevant units and departments through communication how to correct the problems to ensure the smooth progress of the project; continuous communication after the project is launched, which means regularly organizing communication activities, collecting employee feedback, solving specific problems during use, and helping employees gradually become familiar with the new processes, new systems, and new management models to ensure the comprehensive implementation of economic management innovation strategies.

4.4 Actively introduce new technologies

Economic management innovation not only requires construction and real estate companies to reduce energy consumption and carbon emissions during project construction, but also requires companies to actively apply new technologies during the operation phase to achieve a win-win situation in terms of economic and environmental benefits. On the one hand, construction and real estate companies can apply renewable energy technologies to reduce the dependence of buildings on traditional energy and effectively control carbon emissions during the building operation phase [9]. For example, construction and real estate companies can install solar photovoltaic systems on the roofs of buildings to provide power for daily operations. On the other hand, construction and real estate companies can introduce intelligent building management systems to improve energy management levels. Intelligent building management systems can monitor and optimize the energy use of buildings in real time, collect data such as indoor and outdoor temperature and humidity through sensors, and automatically adjust the operating parameters of lighting, air conditioning and other equipment to ensure that the building always maintains an efficient and low-carbon operating state and avoid energy waste.

in conclusion

Under a low-carbon model, innovation in construction and real estate economic management is not only an inevitable choice for the industry's sustainable development but also a key component in promoting the green transformation of the economy and society. As public awareness of environmental protection continues to grow, green buildings and low-carbon models will lead the construction and real estate industries toward a more efficient and environmentally friendly development path. Therefore, construction and real estate companies should continue to deepen economic management innovation, optimize resource allocation, promote the research and development and application of green building technologies and environmentally friendly building materials, and promote the green transformation of the construction and real estate industries.

**References:**


1. Hou Wei. Analysis of existing problems and solutions to real estate economic management under the background of new quality productivity[N]. Henan Economic News, 2024-08-10(009).
2. Zhang Xujiao. Problems and optimization strategies of real estate economic management[J]. Chinese Collective Economy, 2024, (20): 56-59.
3. Chen Junye. Innovation of construction and real estate economic management under low-carbon model[J]. China Industrial Economy, 2024(10):44-46.
4. Han Ruobin. Innovative discussion on construction and real estate economic management under low-carbon model[J]. Housing and Real Estate, 2024(24):111-113.
5. Ji Fanyi. Innovation in construction and real estate economic management under low-carbon model[J]. Public Investment Guide, 2024(12):98-100.
6. Hu Gao. Analysis of innovation in construction and real estate economic management under low-carbon model[J]. Market Weekly, 2024, 37(3): 51-54.
7. Zou Dingwen. Analysis of innovation in real estate economic management under the low-carbon model[J]. China Market, 2024(8): 62-65.
8. Hu Gao. Analysis of innovation in construction and real estate economic management under low-carbon model[J]. Market Weekly, 2024(3):51-54.
9. Wang X, Ju Z. The use of non-metallic fiber in the protection of building materials and its impact on the environment[J]. Экономика строительства, 2023 (7): 86-91.

# JURISPRUDENCE

## PRIMARY FORMS OF EXPRESSION OF FALSE TRANSACTIONS IN THE CIVIL LAW OF THE REPUBLIC OF AZERBAIJAN

**Irzayev H.**
*Ph.D. candidate and teacher*
*in the Department of Civil Law of the Law Faculty of the Baku State University*
*Baku, Azerbaijan*
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**Abstract**

Transactions, particularly contracts, play an important role as one of the bases for the formation of civil law relations. However, not every transaction is capable, in every case, of producing the corresponding legal consequences. In certain circumstances, the invalidity of transactions arises, and in such cases the transaction does not create the corresponding legal consequences. One of the grounds for such invalidity is provided in the Civil Code of the Republic of Azerbaijan in the form of false transactions. In the present article, such transactions are examined by the author, and an analysis is conducted as to the forms in which they most frequently manifest in practice.

**Keywords:** false transaction, contract, Civil Code, invalidity, concealment

Transactions play a special role as the principal means of the formation of civil law relations. A transaction is such a declaration of will that pursues the purpose of producing a legal consequence, and on the basis of this declaration of will, the legal norm realizes the legal consequence corresponding to the expressed will [13; p.84]. In transactions, the legal consequence arises because the parties so desire.

A transaction is constituted by one or more declarations of will directed towards a specific legal consequence. The essential element of a transaction is the will aimed at the conclusion, modification, or termination of a transaction. This will must be disclosed to the external world and intended in such a manner as to ensure the occurrence of the legal consequence [15; p.30].

According to Article 324.1 of the Civil Code of the Republic of Azerbaijan, a transaction is a unilateral, bilateral, or multilateral declaration of will directed at the creation, modification, or termination of a civil law relation [2].

However, sometimes the expression of will by only one party is not sufficient for the establishment of a legal relation, and the corresponding acceptance of the other party is also required. Contracts may be cited as an example of the latter. Article 324.4 of the Civil Code further provides that, for the conclusion of a contract, the coordinated declaration of will of two parties (bilateral transaction) or the coordinated declaration of will of three or more parties (multilateral transaction) is necessary [2].

As one of the fundamental principles of the civil legislation of the Republic of Azerbaijan, the principle of freedom of contract is enshrined in Article 6.1.5 of the Civil Code [2]. Pursuant to Article 390.1 of the Civil Code, natural and legal persons are granted the right to freely conclude contracts, to determine the content of such contracts, and to conclude contracts not provided for in the Civil Code, provided that they are not contrary to it. The freedom of contract established by Article 390 of the Civil Code operates as one of the elements in the realization of property rights envisaged in Article 29 of the Constitution and Article 152.1 of the Civil Code, as well as the right to free entrepreneurship enshrined in Article 59 of the Constitution [1].

In granting the freedom of contract to the participants of civil circulation, the legislation has proceeded from the presumption that they act in good faith, in accordance with the general principle of law [7]. On the other hand, the freedom to determine the content of a contract by no means implies that the validity of all agreements reached in a contract concluded between the parties may not be called into question (in this regard, the provisions of Articles 339–342 and 344 of the Civil Code concerning the invalidity of transactions, as well as the provisions of Articles 417–420 concerning standard terms of contracts, must be taken into account) [6].

If transactions constitute one of the most common legal facts, the contract of sale is a type of transaction. For the validity of any transaction (including a contract of sale), it is essential that the necessary subjects (authorized persons) participate in its conclusion, that there exists unity between the will and its expression among them, and that the form and content of the transaction comply with the requirements of the legislation [8].

Invalidity of a transaction means that it is incapable of producing the desired legal consequences, and the conditions for the validity of transactions are determined by the Civil Code [9].

Professor M. Demirchiyeva, based on the provisions enshrined in Article 337 of the Civil Code, provides the following definition of the invalidity of a transaction: by an invalid transaction is meant a transaction concluded in violation of the conditions established by the Civil Code, which does not create the civil-law relations envisaged in its content, but may only give rise to consequences connected with its own invalidity [11; p.292].

Invalidity in civil law is a general concept denoting all cases in which a transaction does not produce legal consequences due to its contradiction with the legislation. From the perspective of transactions, invalidity expresses the general state and consequence. However, the grounds giving rise to such a consequence, namely the state of invalidity, differ in nature and characteristics. In civil legislation, the legal regime and conditions governing the cases leading to invalidity are regulated in different ways. For example, while it is legally impossible to render a void transaction valid, transactions subject to challenge may be declared invalid within cesrtain time limits through contestation; if they are not contested, the legal situation that has been valid since the moment of conclusion of such a transaction remains unchanged [4].

Although in most cases the determination of the desired legal consequences at the time of the conclusion of a transaction is clear from the content of the transaction, a number of transactions may be defective in terms of content. Such transactions do not pursue the purpose of creating the civil-law relations envisaged in their content. Several types of transactions defective in content are provided for in our civil legislation. One of the types of such transactions envisaged in the civil legislation of the Republic of Azerbaijan may be distinguished as false transactions.

According to Article 340.2 of the Civil Code, a false transaction is a transaction concluded for the purpose of concealing another transaction [2].

S.Suleymanli states that transactions resulting from a declaration of will made solely for the purpose of concealing another transaction and without the intention of producing legal consequences corresponding to their apparent meaning are called false transactions [12; p.306].

M.K.Oguzman notes that a false transaction is a transaction concluded by the parties through their agreement that not the legal consequences of the apparent contract, but those of another contract, shall arise [16; p.132].

In order to speak of the existence of a false transaction, the following conditions are required: the existence of two transactions between the parties (the concealing transaction and the concealed transaction); the parties' agreement that the ostensibly concluded transaction shall not create any legal consequences for them; and the conclusion of the ostensibly concluded transaction for the purpose of deceiving others.

The Plenum of the Constitutional Court of the Republic of Azerbaijan, in its decision dated 18 March 2022, also stated that a false transaction possesses the following essential elements:

- The ostensibly concluded transaction, or the concealing transaction, creates the impression for third parties that the parties have entered into a lawful and valid contract. However, the declarations of will reflected by the parties in this contract do not correspond to the legal consequence they actually desire. With respect to this contract, which the parties concluded merely for appearance's sake, they have no intention of giving rise to legal consequences, rights, or obligations;
- The secretly concluded transaction, or the concealed transaction, is the contract hidden behind the ostensibly concluded transaction and expresses the true intentions of the parties. This constitutes the essential feature that distinguishes a false transaction from a fictitious transaction;
- The intention to create a false impression is expressed in the parties' concealment of their true intentions in order to obtain a certain benefit, by forming an opinion among third parties to that effect and by creating such an appearance [5].

As can be seen, two types of transactions exist as constituent elements of a false transaction:

1) the ostensibly concluded transaction, or the concealing transaction;

2) the secretly concluded transaction, or the concealed transaction.

In a case in which we also acted as an expert, the Plenum of the Constitutional Court noted that a false transaction possesses the following characteristics:

- With respect to the concealing (false) transaction, there exists no intention or purpose to produce any legal consequence; the legal intention of the parties, by concealing their true will, is directed towards the establishment of civil-law relations under the concealed (hidden) contract;
- The concealing transaction is encompassed by the direct intent of both parties;
- In both the concealing and the concealed transactions, it is possible not only for the same subjects to participate as parties, but also for the subject composition of these transactions to differ. Thus, in some cases, although a party to the concealed transaction does not participate in the concealing transaction, he is aware of the purpose hidden by the latter and assists in its conclusion [3].

In general, the contract of sale, by virtue of its legal content and characteristics, is considered one of the most commonly used types of contracts capable of functioning as a component of a false transaction. This can be established both through the analysis of scholarly literature and through judicial practice. When the contract of sale operates as a component of a false transaction, it may manifest either in the form of an ostensibly concluded transaction or in the form of a secretly concluded transaction.

According to Article 567 of the Civil Code of the Republic of Azerbaijan, under a contract of sale the seller undertakes to transfer the item into the ownership of the buyer, while the buyer undertakes to accept the item and to pay the monetary amount (price) determined in return. [2]. Alongside the legal definition set forth in the Civil Code, we consider it appropriate to provide the following theoretical definition of the contract of sale: 'A contract of sale is a type of contract under which the seller, in return for a sum of money that the buyer undertakes to pay, undertakes to deliver to the buyer the property which is the subject matter of the sale and thereby to transfer ownership to the buyer'. From this perspective, it can be determined that the contract of sale belongs to the category of contracts relating to the transfer of property into ownership. The practical significance of such a definition lies in the fact that it enables a more precise determination of which types of contracts may be concealed by a contract of sale and which types of contracts may conceal it. From this perspective, in cases where the contract of sale functions as a constituent element of a false transaction, it is most often the contract of gift that serves as the other constituent element.

First of all, it should be noted that there must be a property which constitutes the subject matter of the contract of sale. According to Article 135.2 of the Civil Code, property is a set of any things and intangible property benefits [2]. From this perspective, both movable and immovable things, as well as intangible property benefits permitted to be sold, may serve as the subject matter of a contract of sale. The subject matter of the contract of sale gives rise to certain differences in the legal regulation regime of the sales contract to be concluded in respect thereof. Therefore, alongside the general rules applicable to all, specific regulatory mechanisms have also been provided for each of the respective types of contracts of sale.

Among the various types of contracts of sale, it is most often contracts of sale concluded with respect to immovable property that operate as a constituent element of a false transaction. In such contracts, it is possible to encounter either simulation with respect to the price, or situations where the contract of sale is concealed by a contract of gift, or conversely, where it conceals a contract of gift.

It is necessary that the sale price of the immovable property, which is the subject of the contract of sale, be explicitly indicated in the contract and reflect its actual amount. In practice, it is observed that the parties, for various reasons, indicate the sale price as either less or more than its actual amount. Where the sale price in the contract is indicated as less or more than its actual amount, a situation arises that is referred to as 'simulation of the price.' It is a matter of debate whether such a situation, due to non-compliance with the requirements of form and content, results in the invalidity of the contract.

In a contract of sale of immovable property in which simulation of the price has taken place, the other essential terms reflect the true intentions of the parties [14; p.370]. Only with respect to the term concerning the price does a difference exist between the apparent transaction and the concealed transaction. In such cases, where partial simulation exists, the ostensibly concluded transaction and the concealed transaction are in fact transactions of the same type. Thus, in these circumstances, the contract continues to be a contract of sale of immovable property, and, as in most false transactions, there do not exist two separate contracts differing in their legal nature and characteristics between the concealing transaction and the concealed transaction.

We consider that even if simulation of the price takes place in the sale of immovable property, the seller’s will to transfer the immovable property into the ownership of the buyer still exists, and the buyer accepts that property. This situation means that at least one of the parties, and in most cases both, perform their obligation. The fact that performance of the obligation has taken place constitutes an important criterion in determining whether there has been an abuse of right when the parties invoke the invalidity of the contract. Therefore, in our view, when the parties to the contract bring a claim for invalidity of a contract of sale of immovable property in which the price has been simulated, such a claim would constitute an abuse of right. Indeed, pursuant to Article 560.3.4 of the Civil Code, the exercise of a right contrary to prior conduct in which the other party had placed trust and reliance is considered an abuse of right [2]. Since the simulation of the price results from the parties’ agreement, reached either prior to or at the time of the conclusion of the contract of sale of immovable property, through the simulated transaction, it follows that the parties have relied upon each other’s prior conduct, and in such a case, the exercise of conduct contrary to that prior conduct by a party to the contract would lead to a significant infringement of the rights of the other party. The position that it would not be correct to deem a contract of sale between the buyer and the seller invalid on the grounds of simulation of the price is also accepted in the scholarly literature [17; p.67].

In a contract of sale of immovable property, indicating a price higher than the price actually agreed upon by the parties serves the purpose of creating difficulties for persons holding a pre-emptive right to exercise that right.

The civil legislation of the Republic of Azerbaijan does not grant persons holding a pre-emptive right the right to invoke the invalidity of a contract of sale of immovable property in which simulation of the price has taken place, but rather grants them the right to demand the transfer to themselves of the rights and obligations of the buyer under that contract. Thus, pursuant to Article 218.3 of the Civil Code, where a share is sold in violation of the pre-emptive right of purchase, any other participant in the shared ownership has the right, within three months, to demand through the courts the transfer to himself of the rights and obligations of the buyer [2]. At present, this approach is also upheld by the decision of the Civil Chamber of the Supreme Court of the Republic of Azerbaijan, which determines judicial practice [10]. On the basis of the foregoing, we may conclude that in cases of simulation of the sale price in a contract of sale of immovable property, the purpose of the parties is to conclude the contract at the secretly agreed price; there exists no will directed at preventing the contract from producing legal consequences, nor any will directed at concealing another contract of a different nature. To reach the conclusion of invalidity of such contracts would not correspond to the true intentions of the parties; therefore, partially false transactions in which the price is simulated should not be confused with entirely false transactions, and it must be taken into account that the legal consequences of each are different from one another.

Since all essential terms agreed upon must be indicated in a contract of sale, the true intentions of the parties concerning the transfer of immovable property in exchange for a certain sum of money must be reflected in the contract. Where the true intentions of the parties are not directed towards the sale of property — for instance, in the case of a gift of immovable property — and it is sought to present the transaction to third parties as a contract of sale, with the donor appearing as the seller and the donee as the buyer, the concluded contract of sale will be invalid, as it does not embody the genuine intentions of the parties relating to the reciprocal exchange of property for money. In fact, in such cases where a contract of gift has been concluded but the appearance of a contract of sale is created, the contract of sale operates as a false transaction. In such circumstances, that contract of sale is void pursuant to Article 340.2 of the Civil Code. At the same time, the continuation of that Article stipulates that, taking into account the nature of the false transaction, the rules applicable to the transaction actually intended by the parties at the time of its conclusion shall apply. In such a situation, it is required to recognize that the contract of sale of immovable property is invalid, while the secretly concluded contract of gift is valid. However, in this case, an assessment must be made as to whether the conditions of validity prescribed by legislation for contracts of gift have been complied with. Considering that contracts providing for the transfer of ownership of immovable property require compliance with the requirement of official form, in such circumstances the contract of gift cannot be deemed valid. Accordingly, the contract of sale will be invalid as a false transaction, and the contract of gift will also be invalid due to non-compliance with the requirement of form.

Just as the parties may conceal a contract of gift with a contract of sale, they may also conceal a contract of sale with a contract of gift. Such contracts are most often concluded either to evade paying higher taxes or to prevent persons holding a pre-emptive right of purchase from exercising that right. For example, when a person sells his property or a share in common ownership, persons holding a pre-emptive right of purchase acquire the possibility to exercise that right; however, if the person donates his property or share to another person, no such pre-emptive right arises.

Unlike contracts of sale of immovable property, in the case of the sale of movable things it is not so easy to determine whether or not the contract constitutes a component of a false transaction. It should be taken into account that, with the exception of movable things required to be registered in the official register, contracts relating to other movable things may be concluded in any form agreed by the parties, without a mandatory form requirement. However, as a rule, in the case of contracts of sale of movable things for which no written form is required, it is rather difficult for third parties to prove that the contract is a false transaction. If, in relation to immovable property, where a gift is presented in the form of a contract of sale, the contract of sale is deemed invalid as a false transaction and the contract of gift is deemed invalid for non-compliance with the requirement of form, then in cases where the donation of movable things is presented in the form of a sale and is proven, different regulations are provided. Thus, when it is proven that the contract of sale of a movable thing is a false transaction, it shall be deemed invalid as a void transaction, and pursuant to Article 340.2 of the Civil Code, the rules applicable to the transaction actually intended by the parties at the time of its conclusion shall apply, taking into account the nature of the transaction. In such circumstances, since the primary intention of the parties when concluding the transaction was the donation of movable things, the rules applicable to contracts of gift shall apply, and because no written form is required for the donation of such things, there will be no obstacle to its validity. The identification of such situations is of considerable practical significance. For instance, where the donor has died and his property has passed to his heirs by inheritance, persons entitled to a compulsory share of the inheritance shall acquire the right to demand an increase of the compulsory share at the expense of the donated thing. Thus, pursuant to Article 1200 of the Civil Code, if the testator has donated a thing to a third party, a person entitled to a compulsory share may demand completion of his compulsory share to the extent that it would have increased had the donated thing been included in the estate. If two years have passed from the time of the donation until the opening of the inheritance, the donation shall not be taken into account [2].

Summarizing the above, it may be concluded that the contract of sale, as the most frequently encountered component of a false transaction, may operate both as the ostensibly concluded transaction and as the secretly concluded transaction. In such cases, it must be taken into account that, depending on the characteristics of the subject matter of the contract of sale, different legal regulations are envisaged and their practical legal consequences may differ from one another.

**References:**

1. Azərbaycan Respublikasının Konstitusiyası: [Elektron resurs] – URL: https://www.e-qanun.az/framework/897

2. Azərbaycan Respublikasının 28 dekabr 1999-cu il tarixli 779-IQ nömrəli "Azərbaycan Respublikası Mülki Məcəlləsinin təsdiq edilməsi, qüvvəyə minməsi və bununla bağlı hüquqi tənzimləmə məsələləri haqqında" Qanunu ilə təsdiq edilmiş Azərbaycan Respublikasının Mülki Məcəlləsi: [Elektron resurs] – URL: https://e-qanun.az/framework/46944

3. "Azərbaycan Respublikası Konstitusiyasının 13-cü maddəsinin I hissəsinin və 29-cu maddəsinin I və II hissələrinin tələbləri baxımından Azərbaycan Respublikası Mülki Məcəlləsinin 329, 340.2 və 661-ci maddələrinin əlaqəli şəkildə şərh edilməsinə dair" Azərbaycan Respublikası Konstitusiya Məhkəməsi Plenumunun 20 iyun 2025-ci il tarixli Qərarı: [Elektron resurs] – URL: https://constcourt.gov.az/az/decision/1476

4. "Azərbaycan Respublikası Mülki Məcəlləsinin 337, 339.6, 346.1 və 354-cü maddələrinin əlaqəli şəkildə şərh edilməsinə dair" Azərbaycan Respublikası Konstitusiya Məhkəməsi Plenumunun 2

aprel 2021-ci il tarixli Qərarı: [Elektron resurs] – URL: https://constcourt.gov.az/az/decision/1226

5. “Azərbaycan Respublikası Mülki Məcəlləsinin 340.2-ci maddəsinin şərh edilməsinə dair” Azərbaycan Respublikası Konstitusiya Məhkəməsi Plenumunun 18 mart 2022-ci il tarixli Qərarı: [Elektron resurs] – URL: https://constcourt.gov.az/az/decision/1274

6. “Azərbaycan Respublikası Mülki Məcəlləsinin 399.3, 399.4, 445 və 449-cu maddələrinin bəzi müddəalarının şərh edilməsinə dair” Azərbaycan Respublikası Konstitusiya Məhkəməsi Plenumunun 24 dekabr 2014-cü il tarixli Qərarı: [Elektron resurs] – URL: https://constcourt.gov.az/az/decision/305

7. “Azərbaycan Respublikası Vergi Məcəlləsinin 14-cü və Azərbaycan Respublikası Mülki Məcəlləsinin 390-cı maddələrinin şərh edilməsinə dair” Azərbaycan Respublikası Konstitusiya Məhkəməsi Plenumunun 12 mart 2012-ci il tarixli Qərarı: [Elektron resurs] – URL: https://constcourt.gov.az/az/decision/231

8. “Ə.Ə.İbrahimovun şikayəti üzrə Azərbaycan Respublikası Ali Məhkəməsinin Mülki İşlər üzrə Məhkəmə kollegiyasının 11 iyul 2003-cü il tarixli qərarının qanuniliyinin yoxlanılmasına dair” Azərbaycan Respublikası Konstitusiya Məhkəməsi Plenumunun 12 aprel 2004-cü il tarixli Qərarı: [Elektron resurs] – URL: https://constcourt.gov.az/az/decision/86

9. “Ş.Əliyevanın şikayəti üzrə Azərbaycan Respublikası Ali Məhkəməsinin Mülki Kollegiyasının 23 dekabr 2016-cı il tarixli qərarının Azərbaycan Respublikasının Konstitusiyasına və qanunlarına uyğunluğunun yoxlanılmasına dair” Azərbaycan Respublikası Konstitusiya Məhkəməsi Plenumunun 11 oktyabr 2019-cu il tarixli Qərarı: [Elektron resurs] – URL: https://constcourt.gov.az/az/decision/1094

10. Azərbaycan Respublikası Ali Məhkəməsinin Mülki Kollegiyasının 29 fevral 2024-cü il tarixli, 2(102)-781/2024 saylı qərarı: [Elektron resurs] – URL: https://sc.supremecourt.gov.az/storage/Mulki/2024/2_781+29.02.2024.pdf

11. Dəmirçiyeva, M.D. Mülki hüquq [2 cilddə] / M.D.Dəmirçiyeva. – Bakı: Zərdabi LTD, - c.1. – 2015. 695 s.

12. Süleymanlı, S.S. Mülki hüququn əsasları / S.S.Süleymanlı. – Bakı: AMADE Group Yayınları, – 2019. – 500 s.

13. Borçlar hukuku. Genel bölüm / N.Kocayusufpaşaoğlu, H.Hatemi, R.Serozan [və b.] – İstanbul: Filiz Kitabevi, – c.1, – 2017. – 824 s.

14. Eren, F. 6098 Sayılı Türk Borçlar Kanununa göre hazırlanmış Borçlar hukuku. Genel hükümler / F.Eren. – Ankara: Yetkin Yayınları, – 2016. – 1363 s.

15. Furrer, A. Borçlar hukuku. Genel hükümler / A.Furrer, M.Muller-Chen, B.Çetiner. – İstanbul: Oniki Levha yayınları, – 2021. – 799 s.

16. Oğuzman, M.K. Borçlar hukuku. Genel hükümler: [2 cilddə] / K.M.Oğuzman, M.T.Öz. – İstanbul: Vedat kitapçılık, - c.1. – 2019. – 692 s.

17. Zevkliler, A. Borçlar hukuku. Özel borç ilişkileri / A.Zevkliler, E.Gökyayla – İstanbul: Vedat Kitapçılık, – 2021. – 824 s.

# MATHEMATICAL SCIENCES

## THE APPLICATION OF MAXIMUM AND MINIMUM VALUES OF UNIVARIATE FUNCTIONS IN ECONOMICS

**Yang Xiuchuan**
*School of Mathematics and statistics, JiNing Normal University, Ulanqab, 012000, Inner Mongolia, P. R. China*
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**Abstract**

As the most fundamental optimization tool, the maximum and minimum values of univariate functions hold an irreplaceable position in microeconomic decision-making, thanks to their concise mathematical models and clear economic interpretations. Starting from core economic indicators such as cost, revenue, and profit, this paper explores the specific applications of the maximum and minimum values of univariate functions in scenarios like enterprise production decisions and resource allocation, and reveals the inherent connection between mathematical tools and economic practices.

**Keywords:** The maximum and minimum values of univariate functions; optimization; economics; application

### 1 Introduction

Seeking optimal solutions under the constraint of resource scarcity is a core proposition in economic research. From Adam Smith's "invisible hand" to modern microeconomic theory, the idea of optimization has always been the theoretical cornerstone of economic analysis. By abstracting complex economic phenomena into mathematical functions and using derivative tools to analyze their extremal characteristics, managers can scientifically formulate pricing strategies, determine optimal output, and maximize the efficiency of resource allocation. Although multivariate functions and dynamic optimization are increasingly widely used in modern economics, the analysis of the maximum and minimum values of univariate functions remains a basic tool in economics teaching and practice due to its intuitive modeling, convenient solution, and clear conclusions. It is not only a bridge to understand marginal analysis but also a practical method for small and medium-sized enterprises to make daily operational decisions.

### 2 Basic theories of the maximum and minimum values of a univariate function

#### 2.1 Definition of the maximum and minimum values of a univariate function

Suppose a function $y = f(x)$ is defined on an interval $I$. If there exists $x_0 \in I$ such that for all $x \in I$, $f(x) \le f(x_0)$ (or $f(x) \ge f(x_0)$), then $f(x_0)$ is called the maximum (or minimum) value of $y = f(x)$ on $I$, and $x_0$ is called the maximum (or minimum) point of $f(x)$ on $I$.

It should be noted that the maximum (or minimum) value of a function are global concepts, relative to the entire interval; while the extrema values of a function are local concepts, only valid for a small range near the extremal point. For example, a function may have multiple extrema values in an interval, but there is only one maximum or minimum value.

#### 2.2 Conditions for the existence of the maximum and minimum values of univariate functions

If a function $y = f(x)$ is continuous on a closed interval $[a,b]$, then according to the properties of continuous functions on closed intervals, the function must have both a maximum and a minimum value on this interval.

#### 2.3 Possible locations of the maximum and minimum values of a function

The maximum and minimum values of a function on a closed interval $[a,b]$ can only occur at the following positions:

(1) The two endpoints of the interval: $x = a$ and $x = b$;

(2) Stationary points within the interval (i.e., points where the derivative is zero);

(3) Non-differentiable points within the interval (i.e., points where the function is defined but its derivative does not exist).

#### 2.4 Steps to find the maximum and minimum values of a function

For a continuous function $f(x)$ on a closed interval $[a,b]$, the steps to find the maximum and minimum values of a function are as follows:

(1) Find all stationary points (by solving $f'(x) = 0$) and non-differentiable points of the function within the interval;

(2) Calculate the function values at these points as well as at the interval endpoints $a$ and $b$;

(3) Compare these function values: the largest is the maximum value, and the smallest is the minimum value.

(4) For open or infinite intervals: On an open interval $(a,b)$ or an infinite interval $(-\infty,+\infty)$, a continuous function does not necessarily have maximum and minimum values. If maximum and minimum

values exist, analysis via stationary points or non-differentiable points is still required, but it is necessary to judge the existence of global maxima or minima by combining the function's monotonicity and limit trends.

**3 Specific applications of the maximum and minimum values of univariate functions in economics**

**3.1 Cost minimization**

In enterprise production, the cost function describes the relationship between output and cost, usually expressed as $C(x)$ (where $x$ is output). One of the enterprise's goals is to minimize cost for a given output or maximize output under cost constraints. For example, suppose an enterprise has a cost function $C(x) = 2x^2 - 10x + 50$ （$x \geq 0$）. To find the output corresponding to the minimum cost, take the derivative of the cost function: $C'(x) = 4x - 10$. Setting the derivative to zero gives $x = 2.5$. The second derivative $C''(x) = 4 > 0$ indicates this is a minimum point, meaning the cost is minimized when output is 2.5 units.

**3.2 Revenue maximization**

The revenue function $R(x)$ reflects the relationship between output (or sales volume) and revenue, usually defined as the product of price and sales volume: $R(x) = P(x) \cdot x$ (where $P(x)$ is the price function). Enterprises can determine the optimal sales volume by solving for the maximum revenue. Suppose the price function of a commodity is $P(x) = 100\text{-}2x$ (where $x$ is sales volume). The revenue function is then $R(x) = x(100 - 2x) = 100x - 2x^2$. Taking the derivative gives $R'(x) = 100 - 4x$. Setting $R'(x) = 0$ gives $x = 25$. The second derivative $R''(x) = -4 < 0$ indicates revenue is maximized when sales volume is 12.5 units.

**3.3 Profit maximization**

The profit function is the difference between the revenue function and the cost function: $L(x) = R(x) - C(x)$. Profit maximization is the core goal of enterprises, and the optimal production scale can be determined by finding the maximum profit. Suppose an enterprise has a revenue function $R(x) = 100x - 2x^2$ and a cost function $C(x) = 2x^2 - 10x + 50$. The profit function is $L(x) = 100x - 2x^2 - 2x^2 + 10x - 50$. Taking the derivative gives $L'(x) = -8x + 110$. Setting $L'(x) = 0$ gives $x = 13.75$. The second derivative $L''(x) = -8 < 0$ indicates profit is maximized when output is 13.75 units.

**3.4 Marginal condition for profit maximization**

In quantitative economics, "marginal revenue equals marginal cost" is the core criterion for enterprises' profit-maximizing decisions, which precisely characterizes the optimal conditions of economic behavior through mathematical tools.

**3.4.1 Marginal revenue and marginal cost**

Marginal Revenue ($MR$): The increment in total revenue from increasing output by one unit, which is the derivative of the total revenue function with respect to output: $MR = \frac{dR}{dx}$.

Marginal Cost ($MC$): The increment in total cost from increasing output by one unit, which is the derivative of the total cost function with respect to output: $MC = \frac{dC}{dx}$.

**3.4.2 Mathematical derivation of profit maximization**

According to the principle of solving univariate function extrema, the necessary condition for profit maximization is that the first derivative of the profit function is zero: $\frac{dL}{dx} = \frac{dR}{dx} - \frac{dC}{dx} = 0$.This simplifies to $MR = MC$.To ensure this is a maximum (not a minimum), the second derivative condition must be satisfied: $\frac{d^2L}{dx^2} = \frac{dMR}{dx} - \frac{dMC}{dx} < 0$ (meaning the rate of decline in marginal revenue is faster than the rate of increase in marginal cost).

**3.4.3 Economic implications**

When $MR > MC$: The revenue increment from an additional unit of output exceeds the cost increment, so expanding production increases profit, and enterprises should continue to increase output.

When $MR < MC$: The cost increment from an additional unit of output exceeds the revenue increment, so expanding production reduces profit, and enterprises should reduce output.

When $MR = MC$: Adjusting output no longer increases profit, and the enterprise reaches a profit-maximizing equilibrium.

This criterion is an important bridge between mathematical optimization and economic decision-making in quantitative economics. It transforms the enterprise's profit-maximization goal into computable mathematical conditions, providing a quantitative basis for production scale decisions and resource allocation. This core criterion applies to all market structures (perfect competition, monopolistic competition, oligopoly, monopoly), though the specific expressions of $MR$ and $MC$ vary across structures.

**4 Conclusion**

The analysis of the maximum and minimum values of univariate functions closely integrates mathematical tools with economic decision-making. By solving for extremal points of profit and revenue functions using derivatives, it provides a quantifiable theoretical basis for enterprise pricing and output planning. Its intuitive modeling and convenient solution make it one of the most widely used tools in microeconomics. In the digital economy era, despite the growing popularity of big data and artificial intelligence optimization algorithms, the principle of the maximum and minimum values of univariate functions remains the cognitive starting point for understanding complex optimization models. It not only lays the mathematical foundation for the core economic law of "marginal revenue equals marginal cost" but also cultivates decision-makers' optimization thinking habits. Future research can explore its extended applications in nonlinear demand and stochastic environments, and strengthen its integration with behavioral economics to enhance the model's explanatory power.

**References:**

1. Mankiw, N. G. Principles of Economics. Peking University Press.
2. Pindyck, R. S., & Rubinfeld, D. L. Microeconomics. China Renmin University Press.
3. Jiang Zhongyi. Basic Methods of Mathematical Economics. Peking University Press..
4. Chiang, A. C., & Wainwright, K. (2005). Fundamental Methods of Mathematical Economics (4th ed.). McGraw-Hill. (Provides a detailed explanation of optimization methods in economics)

# MEDICAL SCIENCES

## ACCELERATED ORTHODONTIC TREATMENT WITH SYNCSPLINT AND CLEAR ALIGNERS: A CLINICAL CASE REPORT

**Atanasov O.**
*Dental Research and Development Center, TDS 2016 Ltd., Sofia, Bulgaria*
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**Abstract**

Clear aligner therapy offers aesthetic and functional benefits, but synchronizing tooth movements between arches often prolongs treatment. This case report presents the use of SyncSplint, a dual-arch auxiliary appliance, in combination with Dentalign® aligners for accelerated treatment. The patient, treated under the clinical supervision of Assoc. Prof. Miroslava Dinkova, showed improved treatment efficiency and comfort. The combination of clear aligners and SyncSplint reduced reliance on attachments and elastics, providing better synchronization and enhanced predictability.

**Keywords:** clear aligners, SyncSplint, accelerated orthodontics, biomechanics, case report

**Introduction**

Clear aligner therapy (CAT) is increasingly used as an alternative to fixed appliances. Despite advances in digital orthodontics, synchronizing tooth movement between maxillary and mandibular arches remains a challenge. Attachments, buttons, and elastics are often required, leading to extended treatment.

SyncSplint was developed as a digitally designed and 3D-printed dual-arch appliance. When combined with aligners, it provides occlusal stabilization, anchorage, and synchrony of tooth movements.

**Materials and Methods**

The patient was planned for aligner therapy (Dentalign®). Intraoral scans were taken, and both aligners and SyncSplint were digitally designed. SyncSplint was worn over the aligners continuously, including during sleep. Clinical supervision and treatment were carried out by Assoc. Prof. Miroslava Dinkova.

**Results**

- Improved synchronization between arches
- Reduced treatment time compared to standard aligner protocols
- Fewer attachments and auxiliaries required
- High patient comfort and compliance

**Discussion**

This case illustrates the potential of SyncSplint to enhance biomechanics in clear aligner therapy. By stabilizing occlusion and synchronizing tooth movement, treatment becomes more predictable and efficient. Limitations include the need for patient compliance and adaptation to dual appliances.

**Conclusion**

The integration of SyncSplint with clear aligners demonstrates a promising approach for accelerated and predictable orthodontic treatment. Further studies are recommended to validate these findings in larger cohorts.

*Figures*

*Fig. 1. SyncSplint appliance in intraoral position worn simultaneously with Dentalign® clear aligners.*

*Fig. 2. Initial intraoral photographs of the mandibular arch showing crowding before treatment.*

*Fig. 3. Final intraoral photographs of the mandibular arch after treatment with clear aligners and SyncSplint.*

*Fig. 4. Initial intraoral photographs of the maxillary arch before treatment.*

*Fig. 5. Final intraoral photographs of the maxillary arch after treatment.*

**References:**

1. Boyd RL. Complex orthodontic treatment using clear aligner therapy. J World Fed Orthod. 2020.

2. Atanasov O. Accelerated treatment with SyncSplint and Dentalign aligners. SyncSplint Clinical Insights. 2024.

3. Align Technology. Clear Aligner Orthodontics: Clinical Applications. J Clin Orthod. 2019.

# PHILOLOGICAL SCIENCES

## LINGUISTIC CONDITIONS CAUSING VARIATION WITHIN A LANGUAGE

**Poladova S.**
*Azerbaijan University of Languages*
*Associate Professor, Department of English Phonetics*
*Baku, Azerbaijan Republic*
*Orcid id: 0000-0003-4886-971X*
https://doi.org/10.5281/zenodo.16987405

**Abstract**

This study examines the linguistic factors that contribute to intra-language variation, emphasizing the dynamic and context-sensitive nature of language. Contemporary linguistic theory increasingly views language as a fluid, adaptive system rather than a static set of forms. Intra-language variation encompasses differences at the phonetic, lexical, morphological, and syntactic levels, shaped by stylistic choices, communicative intent, sociolects, formality, and discourse type. The findings suggest that linguistic competence, in combination with contextual and pragmatic factors, plays a key role in the speaker's selection of variant forms. The study also highlights the importance of extra-linguistic elements such as social identity and psycholinguistic processes in shaping variation. Rather than treating variation as a deviation, the research frames it as an essential feature of language's richness and adaptability. These insights carry practical implications for language learning, sociolinguistic competence, and language policy development.

**Keywords:** linguistic variation, phonetic differences, intra-language diversity, communicative competence, discourse context, sociolinguistic factors

### INTRODUCTION

Language operates as a structured and rule-governed system, yet it exhibits a remarkable degree of flexibility and responsiveness to change. Governed by internal linguistic principles, it nonetheless adapts to both communicative intentions and external social influences. This dual nature—systemic regularity paired with dynamic adaptability—explains how language evolves and varies across different contexts. Variation at the level of phonetic expression, for instance, often arises from the interaction between structural constraints and the speaker's perception of the communicative situation. As F.Y. Veysalli notes, "Phonemes in the process of communication are represented by a multitude of variants determined by the rules governing the functioning of units within the language system and controlled by that very system, yet they do not coincide with the acoustic-articulatory correlates of their realisation" [10, p.44].

Understanding linguistic variation involves accounting for a wide range of influences, both structural and social. Recent developments in linguistics, particularly within cognitive and sociolinguistic paradigms, recognize the human speaker as a central factor in shaping language use. Individual perception, social identity, and communicative needs all influence how language is realized in context. Revisiting established linguistic phenomena such as phonetic variation through these lenses has allowed for deeper insights and renewed relevance. In particular, the study of variation within phonology continues to offer valuable perspectives for both theoretical exploration and applied research.

### LITERATURE REVIEW

Language variation has long been a central focus of research in linguistics, attracting attention across subfields such as phonetics, phonology, sociolinguistics, and cognitive linguistics. Foundational studies characterize variation as a natural and essential feature of all living languages. Rather than signaling inconsistency, variation is seen as a reflection of language's functional adaptability and complexity [11; 6].

Linguistic variation is typically influenced by two broad categories of factors: intralinguistic (internal) and extralinguistic (external) [8; 4]. Intralinguistic factors arise from the structure of the language system itself, including phonetic environments, morphosyntactic arrangements, and paradigmatic relationships [5]. For example, allophonic variation frequently depends on phonetic context, where sounds adjust based on their position or neighboring sounds.

Extralinguistic factors include social, geographic, temporal, and stylistic dimensions. Variables such as age, gender, socioeconomic status, and ethnicity have been shown to systematically influence how language is used and how it evolves. Trudgill highlights the idea that linguistic choices are rarely random; rather, they align with broader social norms and communicative functions [9].

In addition to this classification, many scholars now approach language as a dynamic system that manifests differently across speakers and contexts. While the underlying structure of a language may remain stable, its spoken realization often varies. For instance, allophonic shifts and prosodic differences in list intonation patterns reveal the influence of context on phoneme realization.

The study of phonetic variability—especially at the segmental level—remains a key area of linguistic inquiry. As linguistic theory has evolved from structuralist models to more flexible frameworks, there is greater recognition of variation as a core feature of language. Understanding how systemic and external factors interact in shaping variation is essential for addressing both theoretical questions and practical challenges in language education, standardization, and applied linguistics. The distinction between standard (literary) pronunciation and its contextually shaped positional variants, particularly in connected speech, underscores the adaptive nature of spoken language.

**MATERIALS & METHODS**

Given the theoretical and analytical nature of this study, the research adopts a qualitative, descriptive approach grounded in principles of sociolinguistics, phonology, and cognitive linguistics. Rather than relying on empirical field data or experimental design, the study is based on the systematic interpretation of existing scholarly literature and theoretical frameworks that have addressed intra-language variation from multiple perspectives.

The core material consists of secondary sources, including foundational texts and contemporary studies on linguistic variation, particularly those that focus on phonetic and phonological shifts within a single language. Works by scholars such as Labov, Veyselli, Gak, Gorbachevich, and Stepanov serve as the primary sources of theoretical insight. These texts offer diverse accounts of variation as it manifests in phoneme realization, morphosyntactic behavior, and discourse usage, providing a rich foundation for comparative and interpretive analysis.

This study also draws upon naturally occurring speech phenomena as discussed in the existing literature, particularly in relation to segmental phonetic variation in connected speech. Such examples are used illustratively rather than as formal case studies. The focus remains on synthesizing these examples to understand broader theoretical patterns and to evaluate how internal (structural) and external (social, stylistic) factors intersect to produce variation.

Additionally, a comparative framework has been applied to examine how different types of variation—such as allophonic shifts, stylistic alternations, and dialectal influences—are addressed across linguistic traditions. The analysis considers how certain phonetic realizations are governed by the rules of positional phonology while others reflect speaker-specific or socially conditioned choices.

The interpretive lens adopted here integrates three main theoretical dimensions:

1. **Phonological theory**, particularly regarding allophonic and positional variation.
2. **Sociolinguistic theory**, focusing on the role of demographic and social factors.
3. **Cognitive-linguistic insights**, especially in understanding language as shaped by usage, perception, and contextual adaptability.

Though no primary data were collected, the methodological approach remains rigorous through critical engagement with existing scholarly sources, with particular attention to how variation is both systematically regulated and socially constructed. This enables the study to contribute meaningfully to the broader theoretical discourse on intra-language variation while remaining firmly anchored in established linguistic research traditions.

**DISCUSSION & RESULT**

**Internal and External Factors Shaping Phonetic Variation**

The description and classification of phoneme variants are closely tied to defining the limits of phonemic variation. A central issue in this process involves maintaining phonemic identity despite phonetic variation among individual allophones. Such variation is shaped by the combined effects of internal (systemic) and external (contextual) factors. Internally, the language system's own structural capacities - its paradigmatic and syntagmatic relations - enable a range of possible realizations for a given phoneme.

Phonetic variation often occurs when the content level (meaning) remains stable while the expression level (sound) shifts. Internal influences stem from language's function as a semiotic system with rules that govern the realization of its units. External factors - such as temporal change, spatial distribution, and socio-cultural dynamics—contribute to variation by embedding linguistic expression within broader societal processes. Therefore, variation is not an incidental feature but a structural and functional aspect of language that reflects both systemic flexibility and social responsiveness.

The diversity of variant forms within a language allows speakers to adapt their speech to varying contexts and audiences. Multiple realizations of a phoneme, morpheme, or lexeme serve communicative precision by aligning linguistic form with situational needs. As a result, the coexistence of multiple variants facilitates nuanced expression and reinforces language's role as a social and cognitive tool.

Linguists typically identify two overarching causes of phonetic variation: extralinguistic (sociological and contextual) and intralinguistic (structural and grammatical). The extralinguistic group includes factors such as the communicative setting, the influence of the interlocutor, speaker orientation, and the intended communicative goal. Intralinguistic factors include phonetic context, prosodic characteristics, and grammatical structure. Both types of factors interact dynamically and may reinforce or mitigate one another depending on the discourse situation.

Several scholars have proposed typologies of variation. F.Y. Veysalli distinguishes between internal (systemic-structural) and external factors, emphasizing that while some influences operate independently of the speaker's will, others reflect deliberate linguistic choices [10, p.48]. Similarly, G.V. Stepanov notes that internal factors derive from the inherent structure of language, while external ones pertain to sociocultural conditions such as spatial, functional, and social variation [8, p.38].

K.S. Gorbachevich offers a more detailed framework, dividing causes of variability into:

- External: territorial dialects, multiple borrowings of the same word, and contact with intermediary languages
- Internal: analogy (paradigmatic and syntagmatic), the non-equivalence of form and content, structural reorganization, and the principle of economy (whether material or cognitive) [4, p.42].

K.S.Gorbachevich also acknowledges the interaction between internal and external factors, noting that their combined influence shapes the realization and evolution of phonemes. While external causes like dialectal contact or borrowing initiate variation, internal mechanisms such as analogical extension and structural economy govern how these variants integrate into the language system. He further argues that tendencies such as highlighting distinctive phonemic features or simplifying articulation contribute to variability at all levels of the linguistic hierarchy.

From a phonological standpoint, Gleason emphasizes the systematic nature of sound change, arguing that phonetic shifts occur in consistent, socially mediated patterns across speech communities [3, p.85]. Similarly, Ivleva distinguishes between extralinguistic influences, such as lifestyle and vocabulary use, and intralinguistic factors related to structural and semantic properties of words, speech dynamics, and borrowing processes [5, p.39].

The variation of linguistic units—whether phonological, morphological, or lexical - is governed by a complex interaction of these internal and external forces. Some of these forces act objectively and unconsciously, while others reflect intentional speaker choices. According to F.Y. Veysalli, intra-structural variation involves shifts that result from combinatorial and positional conditions, which differ fundamentally from variations induced by social, idiolectal, or historical conditions [10, p.53].

Ultimately, variation is not merely a linguistic phenomenon but also a deeply social one. As K. Ajeg observes, linguistics is no longer solely the study of invariant forms but increasingly the study of variation as it emerges within and across speech communities. He writes:

"If linguistics was born as a result of the awareness of the existence of invariants, it is now largely becoming a science that studies variation against the background of invariants... a science that no longer studies the 'identical' simply 'in itself,' but in the image of a thousand faces of the 'other'; the name of this science is sociolinguistics" [1, p.120].

Variation, then, is not a marginal concern—it is central to understanding how language functions as a social, structural, and communicative system.

**Interplay of Linguistic and Sociocultural Dynamics**

The variation of linguistic units in speech arises through the continual interaction of internal and external influences, which do not act in isolation but rather intersect in complex and often unpredictable ways. This interaction shapes not only the emergence of new variants but also the conditions under which these forms stabilize, spread, or gradually disappear. The longstanding distinction between systemic (internal) and social (external) pressures serves as a useful framework for understanding the forces that underlie linguistic variability. Internal pressures reflect the organizational tendencies of the language system itself—what is often referred to as "systemic pressure." In contrast, external influences, or "social pressures," derive from the language's functional role within society and its adaptation to shifting communicative needs.

The seeds of linguistic variability are embedded both in the internal structure of the language system and in its dynamic relationship with other languages, dialects, and sociolects. Variation often results from the intersection of a language's internal systemic potential and its interaction with external systems during real-world use. For instance, A. Martinet's principle of economy of effort—originally introduced in the context of phonology—has been cited as a key force behind phonemic modification in spontaneous speech. This principle reflects both the speaker's cognitive processing efficiency and broader tendencies toward simplification in fast-paced, real-time communication [7, p.62].

Sociolinguistic studies underscore the idea that social organization, class structures, and group identities find direct expression in language. As speakers navigate their social environments, their linguistic choices reflect and reproduce their affiliations. In this context, phonetic variants are not freely chosen but are often socially constrained. The social identity of the speaker—including age, gender, social class, and regional background - plays a crucial role in shaping their choice of pronunciation, vocabulary, and syntactic structures.

Language variation thus emerges as a reflection of both individual identity and collective norms. In the case of pronunciation, for example, the speaker's selection of one variant over another is not random; it is guided by patterns that align with their social group, context, or communicative aim. This makes phonetic variation a meaningful indicator of social belonging, communicative intention, and stylistic nuance.

Within this framework, scholars differentiate between types of causes for variation:

- Internal (intrastructural): rooted in the language system's structural dynamics
- External (extralinguistic): arising from social, temporal, geographic, and cultural factors

Both sets of causes are considered equally crucial in shaping the way language evolves and adapts in use. Notably, the interaction between these two domains often produces the most complex and significant patterns of variation.

As Labov points out, variation is deeply influenced by demographic variables, famously referred to as the "big four" of sociolinguistics: socioeconomic status, age, gender, and ethnicity. Additional factors such as educational background, urban versus rural residence, and group membership also play a role in determining language use across communities [6, p.90].

Modern linguistic theory also emphasizes several intralinguistic factors that shape variation:

1. The capacity of different forms to express the same semantic function within similar phonetic contexts

2. The influence of functional styles and substyles (e.g., formal vs. informal language)

3. The phenomenon of grammatical attraction, where similar forms influence one another within a paradigm

Extralinguistic factors, on the other hand, include:

1. Historical developments in the language
2. Regional or geographic variation
3. Contact with other languages (substrate influence)
4. Social and cultural transformations [2].

These factors do not operate in opposition but in complementarity. Intralinguistic regularities ensure the coherence and predictability of the system, while extralinguistic dynamics introduce flexibility and responsiveness to real-world conditions.

In sum, linguistic variation is best understood as the product of a dual influence: the internal logic of the language system and the external realities of its use. A balanced examination of both domains allows for a richer and more nuanced understanding of how language operates—not only as a formal structure but also as a socially embedded phenomenon.

**Theoretical Implications of Linguistic Variation**

The study of intra-language variation reveals not only the complexity of the language system itself but also its capacity to function as a reflection of cognitive, social, and cultural realities. From a theoretical standpoint, variation should not be viewed as peripheral or secondary to language structure; rather, it is embedded within the very mechanisms that govern linguistic production and perception. The existence of multiple variants for a single linguistic unit—whether phonemic, lexical, or syntactic—challenges static models of language and calls for more dynamic, usage-based frameworks.

Such frameworks emphasize that language is not a closed system of fixed forms but an open, adaptive mechanism constantly shaped by speaker experience, interactional context, and social positioning. The presence of variability across different levels of linguistic structure indicates that normativity in language often accommodates, rather than excludes, diversity. In fact, the linguistic norm itself may be characterized by a "compromise status"—allowing for the coexistence of multiple variants that are functionally equivalent despite formal differences.

Furthermore, linguistic variation offers valuable insight into the processes of language change. Variants that emerge from usage under specific social or stylistic conditions may eventually become conventionalized, leading to diachronic shifts in the language system. Therefore, studying variation is not only a way to understand how language operates in the present but also how it evolves over time.

**CONCLUSION**

This study has examined the multifaceted phenomenon of linguistic variation within a single language system, emphasizing its structural, social, and cognitive dimensions. Variation was explored through a theoretical synthesis of phonetic, sociolinguistic, and cognitive approaches, with special attention given to the interaction between intralinguistic mechanisms and extralinguistic conditions. The analysis demonstrates that variation is not merely incidental but central to how language functions, adapts, and evolves.

Key findings show that phonetic variation, in particular, arises from a complex interplay of internal structural features—such as positional and combinatorial rules—and external social factors, including speaker identity, stylistic intent, and communicative context. Additionally, sociolinguistic frameworks highlight the systematic and socially meaningful nature of such variation, reinforcing the idea that language serves both structural efficiency and social differentiation.

Rather than viewing variability as a deviation from linguistic norms, this study positions it as an essential expression of language's flexibility, richness, and responsiveness to context. The coexistence of multiple variant forms reflects the inherent dynamism of language and offers valuable insights for fields such as phonological theory, language education, and sociolinguistic research.

Future studies may build on this foundation by incorporating empirical data, such as corpus analysis or spoken discourse, to further explore how specific variants function across contexts and how they contribute to broader patterns of language change. Ultimately, recognizing and embracing variation enriches our understanding of language not only as a system of rules but as a living, adaptive force embedded in human interaction.

**References:**

1. Ajège, K. Chelovek govoryashchiy: Vklad lingvistiki v gumanitarnye nauki [The Speaking Human: The Contribution of Linguistics to the Humanities]. Moscow: URSS, 2008. – 304 pages.

2. Bezrukaya, A.N. Leksiko-semanticheskie i foneticheskie manifestatsii yazykovoy variativnosti [Lexical-Semantic and Phonetic Manifestations of Language Variability]. Belgorod, 2009.

3. Gleason, H.A. Vvedenie v deskriptivnuyu lingvistiku [Introduction to Descriptive Linguistics]. Moscow: Publishing House of Foreign Literature, 1959. – 486 pages.

4. Gorbachyevich, K.S. Variantnost′ slova i yazykovaya norma: Na materiale sovremennogo russkogo yazyka [Word Variability and Language Norm: Based on the Material of Modern Russian]. Scientific ed. F.P. Filin. 2nd ed. Moscow: Librokom Publishing House, 2009. – 240 pages.

5. Ivleva, G.G. Tendentsii razvitiya slova i slovarnogo sostava: na materiale nemetskogo yazyka [Trends in the Development of Words and Vocabulary: Based on the Material of the German Language]. Scientific editor S.A. Mironov; USSR Academy of Sciences, Institute of Linguistics, Scientific Council on Lexicology and Lexicography. Moscow: Nauka, 1986. – 135 pages.

6. Labov, W. Sociolinguistic Patterns. Language in Society, Philadelphia: University of Pennsylvania Press, April 1972, Vol. 4, Issue 1, pp. 89–107. DOI:[https://doi.org/10.1017/S0047404500004528]

7. Martinet, A. The Principle of Economy in Phonetic Changes. Translated from French by A.A. Zaliznyak; edited and with an introductory article by V.A. Zvegintsev. Moscow: Publishing House of Foreign Literature, 1960. – 262 pages.

8. Stepanov, G.V. K probleme yazykovogo var′irovaniya. Ispanskiy yazyk Ispanii i Ameriki [On the Problem of Language Variation: The Spanish Language of Spain and America]. 2nd ed., stereotyped. Moscow: Editorial URSS, 2004. – 328 pages.

9. Trudgill, P. Sociolinguistic Variation and Change. Edinburgh: Edinburgh University Press, 2002. – 197 pages.

10. Veysalli F.Y. Seçilmiş əsərləri [Veysalli, F.Y. Selected Works]. Vol. I. Baku: Mutercim, 2009, 640 pages. Available from:

11. Weisgerber, L. Die Muttersprache im Aufbau unserer Kultur (Von den Kräften der deutschen Sprache). Düsseldorf, Germany: Pädagogischer Verlag Schwann, 1957.

# POLITICAL sciences

## FEATURES OF ARAB POLITICAL DISCOURSE

**Gurbanov E.**
PhD Researcher at the Institute of Oriental Studies named after acad. Z.M. Bunyadov, Azerbaijan National Academy of Sciences (ANAS)
*orcid. 0009-0004-3672-7890*

## ƏRƏB SİYASİ DİSKURSUNUN XÜSUSİYYƏTLƏRİ

**Qurbanov E.A.**
*AMEA akad. Z.M. Bünyadov adına Şərqşünaslıq İnstitutunun dissertantı*
*orcid. 0009-0004-3672-7890*
https://doi.org/10.5281/zenodo.16987407

**Abstract**

The article deals with the features of Arab political discourse. The article examines the speeches of politicians in various political situations. The aim of the article is to investigate the features of Arab political discourse through the speeches of politicians and identify the most striking characteristics of this discourse.

**Xülasə**

Məqalə Ərəb siyasi diskursunun xüsusiyyətlərinə həsr olunmuşdur. Məqlədə siyasətçilərin müxtəlif siyasi vəziyyətlərdəki nitqləri tədqiq edilmişdir. Məqalənin məqsədi, Ərəb siyasi diskursunun xüsusiyyətlərini siyasətçilərin nitqləri vasitəsilə araşdırmaq və bu diskursun ən diqqətçəkən xüsusiyyətlərini müəyyən etməkdir.

**Keywords:** political discourse, discourse, repetition, code-switching, nationalism.
**Açar sözlər:** siaysi diskurs, diskurs, təkrarlanma, kod keçidi, milliyyətçilik

**Giriş**

Diskurs məfhumu dilçiliyin qrammatik xüsusiyyətlərindən kənara çıxaraq onun funksional xüsusiyyətlərinə önəm verərək dilin cəmiyyətdə insanlar arasında necə istifadə edildiyinə diqqət yetirir. Ən bəsit formada desək, diskursu "istifadə olunan dil " kimi adlandırmaq olar. [4, s.1]

Diskurs sözünün ərəbcə mənası, (خطب ) kökündən törəyən ( خطاب ) kəliməsinin izahında "həll olunmamış bir məsələni və ya problemi aydınlaşdıran və açıq-aydın bir hökm kimi xidmət edən nitq" olaraq qeyd edilmişdir. [9]

Bu mənada, diskurs yalnız sadə bir ünsiyyət vasitəsi deyil, eyni zamanda bir məsələni, ideyanı və ya problemi izah edən, dinləyicilərə təsir göstərən və onları yönləndirən bir təhlil və ya nitq formasıdır. Diskurs bu baxımdan həm məntiqi, həm də sosial kontekstdə mühüm bir rol oynayır. Əhməd Əl-Mütəvəkkil diskursun tərifini belə ifadə etmişdir:

" Öz-özünə mövcud olan kommunikativ vahidi təşkil edən hər hansı şifahi/yazılı nitq diskurs hesab edilir." [8, s.24]

Dünyada əllidən çox Ərəb dövlətinin olması və hər birinin də öz milli dili olmasına baxmayaraq, Qurani Kərimin dili klassik Ərəb dili ( fusha) olduğu üçün bütün rəsmi sənədlər, siyasi nitqlər və media xəbərləri bu dildə istifadə edilir. Qurani Kərimin nazil olduğu zamandan bəri demək olar ki, bu dil dəyişikliyə uğramamışdır (bəzi müasir terminlərin bu dilə daxil olması istisna olmaqla) . [5, s.2-3]

Ərəb dövlətlərinin siyasətçiləri və kütləvi informasiya vasitələri, əsasən vahid bir ədəbi dildən istifadə etsələr də, hər birinin siyasi quruluşları eyni deyildir. Bəzi Ərəb ölkələri ənənəvi krallıq sistemində idarə olunmasına baxmayaraq, bir çox ərəb ölkələri "Ərəb baharı" adlanan inqilabi mərhələlərdən keçmiş və dövlət idarəetmə sistemlərində dəyişikliklər baş vermişdir. Bu kimi siyasi məsələlər, adət - ənənə fərqləri, regiondakı münaqişələrin bəzi ərəb ölkələrinə təsiri, müharibə zonasına yaxınlıq və ya müharibədə iştrak etmələri, siyasi diskursun yeni bir forma almasına səbəb olmuşdur. Bu səbəblərdən dolayı, siyasi sistemində heç bir dəyişiklik olmayan bəzi ərəb ölkələrinin siyasi diskursunda belə əvvəlkindən fərqli dəyişikliklər müşahidə olunur.

Bu dilin qədim tarixə malik olması, az dəyişikliyə uğraması və geniş coğrafiyada, fərqli mədəniyyətlərdə rəsmi dil kimi isitfadə edilməsi səbəbindən, bu dildəki siyasi diskurs digər dillərdəki siyasi diskurslardan fərqlənir.

**Ədəbiyyat icmalı**

Ərəb siyasi diskursunun xüsusiyyətləri müxtəlif mənbələrə və siyasətçilərin nitqlərindən verilən nümunələrə əsasən həm linqvistik həm də ideoloji baxımdan izah edilmişdir. Ərəb siaysi diskursu xüsusiyyətinə görə digər diskurslardan fərqləndiyi üçün bir çox tədqiqatçılar müqayisəli şəkildə araşdırmışlar. Bu tədqiqatçılardan biri olan Asma Alduhaim (2019) Ərəb siaysi duskursunun xüsusiyyətini tədqiq edərkən İngilis dilli siyasi diskursla müqayisə edərək izah etməyə çalışmışdır.

Ərəb siaysi diskursinin bəzi özünə xas olan terminləri var ki, buna toxunanlardan biri Watanabe Shokodur (2020). O, Ərəb siyasi liderlərinin nitqinin ideoloji və milliyyətçilik tərəflərinə toxunaraq "qavmiyyə" və "vataniyyə" terminlərinin bu diskursda işlənmə formalarını qeyd etmişdir.

Ərəb ləhcələri xüsusilə, emosional əlaqə üçün siyasi diskursda əhəmiyyətli rola malikdir. Ryan Zahar (2018) diglosiyanın Ərəb dilçiliyində əhəmiyyətindən və işlənmə formalarından bəhs edərkən siyasətçilərin bunlardan hansı məqsədlə faydalandıqlarını izah etməyə çalışdır.

Ərəb siyasətçilər demək olar ki, bir çox nitqlərində Qurani Kərimdən və hədislərdən istinad gətirirlər. Bu sahəyə toxunan Reema Ibrahim Al Hawamdeh və Mahmoud Ali Qudah (2024) dini istinadların Ərəb siaysi diskursundakı əhəmiyyətlərindən bəhs etmişlər.

**Ərəb siyasi diskursunda əvəzliklərin funksional rolu**

Ərəb siyasi diskursunun ən nəzərə çarpan xüsusiyyəti onun klassik Ərəb dilində ( fushada) istifadə edilməsidir. Ərəb ölkələri ədəbi dildən rəsmi yerlərdə istifadə etsələr də, onlar öz aralarında özlərinə məxsus ləhcələrdə danışırlar. Hətta bəzən bir ərəb, başqa bir ölkədən olan ərəbin ləhcəsini başa düşmür və ya başa düşməkdə çətinlik çəkir.

Bu diskursun digər dillərdəki siyasi diskurslardan fərqlənən əsas cəhətlərindən biri əvəzliklərin xüsusi roludur. Xüsusilə şəxs əvəzlikləri, cins və say (ikilik) kimi xüsusiyyətlər, ərəb dilindəki siyasi diskursu digər diskurslardan fərqləndirir.

Ərəb dilindəki əvəzliklər cümlədə işlənərkən görünməz ola bilərlər, lakin semantik funksiyaları hər zaman yerində qalır. Məsələn, Səudiyyə Ərəbistanı kralı Salman bin Abdul Aziz, öz xalqına və tərəfdaşlarına müraciət edərkən əvəzliklərdən istifadə etməyi üstün tutmuşdur. Bu, ərəb dilindəki əvəzliklərin funksional rolunu və onların mesajın dəqiq çatdırılmasındakı əhəmiyyətini vurğulayır. Buna misal olaraq,

( مسئوليتنا - شعوبنا - دينينا - اخواننا ) (məsuliyyətimiz - xalqımız- dinimiz - qardaşlarımız).

kimi bir çox nümunələr göstərə bilərik. Lakin düşmənlərinə isə birbaşa olaraq

( النظام الاراني والجماعت و التنظيمات التابعة له ) (İran rejimi və ona bağlı olan təşkilatlar) ifadəsini istifadə etmiş, ya da dolaylı şəkildə

( قوا الشر والتطرف أيا كان مصدرها ـ بعض المنتسبين ) (şər və ifrat qüvvələrinin mənbəyi nə olursa olsun - İslama mənsub olan bəzi insanlardır ) kimi müracət etməyə üstünlük vermişdir. [7, s.91]

Əvəzliklər, siyasi diskursda yalnız ünsiyyətin qurulmasında deyil, həm də dinləyicilərin və ya izləyicilərin psixoloji təsirini artırmaqda mühüm rol oynayır. Ərəb dilli siyasi diskursda, şəxs əvəzlikləri vasitəsilə lider həm özünü, həm də xalqı və ya milləti necə təmsil etdiyini göstərmək mümkündür. Bu, liderin öz mövqeyini gücləndirmək və insanlarla emosional bağ qurmaq üçün istifadə etdiyi güclü bir vasitədir. Məsələn, ərəb siyasətçilərindən H. Mübarək (sabiq Misir prezidenti) nitqində 84 dəfə "mən", 43 dəfə "biz" əvəzliyini işlədib. H. Mübarək, özünün fərdi və güclü mövqeyini təqdim edərək, şəxsi məsuliyyətini göstərmək və lider olaraq öz yerini təsdiq etmək istəmişdir.

Başqa bir Ərəb siyasətçi, sabiq Livya prezidenti M. Qəddafi, Livyada mövcud olan müxtəlif qəbilələrə yaxınlıq göstərmək üçün "biz" əvəzliyini (135 dəfə), "mən" (105 dəfə) əvəzliyindən daha çox işlətmişdir. "Biz" əvəzliyini çox işlətməklə, o, xalqı sanki birləşdirir və özünü ümumi məqsədlər üçün mübarizə aparan bir lider kimi təqdim edirdi. [2, s.152]

Qeyd olunan siyasətçilərin nitqlərində əvəzliklərin roluna diqqət yetirsək, görərik ki, əvəzliklər birlik yaratmaq, liderliyi nümayiş etdirmək, mövqeyi gücləndirmək və xalqa yaxınlaşmaq məqsədilə isitfadə oluna bilər. Ümumilikdə, əvəzliklər siyasi arenada qrammatik bir element olmaqla yanaşı, həm də siyasi xadimlərin siyasət aləmində öz siyasi ideologiyalarını nümayiş etdirdikləri bir alətdir.

**Ərəb siyasi diskursunda təkrarlama**

Ərəb siyasi diskursunun özünə xas olan xüsusiyyətlərindən biri də təkrarlanmadır. Ərəb linqvistikasında təkrarlanmanın tarixi dərin köklərə dayanır və hətta İslamdan əvvəlki dövrlərə qədər gedib çıxır. Natiqlər təkrarı bədii ifadəliliyi, ahəmgdarlığı və gözəlliliyi artırmaq, eyni zamanda inandırıcılığı gücləndirmək üçün bir vasitə kimi istifadə etmişlər. Tarixə nəzər salsaq, təkrarlanmanın üslubi, didaktik, emosional və ritorik məqsədlərlə daha çox istifadə edildiyini görərik.

Təkrarlanma dilin müxtəlif səviyyələrində – fonoloji, morfoloji, leksik, sintaktik və semantik - özünü göstərərək bir neçə mühüm funksiyanı yerinə yetirir. Bu fenomenin istifadə edilməsi dilin təsir gücünü artırmaq və dinləyicinin diqqətini cəlb etmək məqsədini güdür. Təkrarlanma vasitəsilə fikirlər vurğulanır, emosiyalar oyadılır və mesajın effektliyi artır. Ərəb dilli şəxslər təkrarlanmanın estetik və ritorik xüsusiyyətlərini yüksək dəyərləndirsələr də bəzi qeyri Ərəb dilli şəxslər bunu lüzumsuz hesab edirlər. Onlar, təkrarlanan sözlərin nitqin təkrarlayıcı və monoton olmasına səbəb olduğunu düşünürlər. Bəzi alimlər isə qeyd edirlər ki, Ərəblər mənanı daha da gücləndirmək məqsədilə sinonim və yaxın mənalı sözlərə də müraciət edirlər. Bu, həm dilin zənginliyini göstərir, həm də fikrin daha aydın və vurğulu şəkildə çatdırılmasını təmin edir.

Bütün bu səbəblər siyasi nitqlərdə təkrarlamanın əvəzsiz rolunu ortaya qoyur. Məsələn, 2011-ci ildə etdiyi nitqlərindəƏrəb siyasi liderlərindən H. Mübarək, emosiyaları oyandırmaq və nitqinin mənasını gücləndirmək məqsədilə

**"الاخوة المواطن (hörmətli həmvətənlər)** İfadəsini dəflərlə təkrarlamışdır. Bu ritorik texnika vasitəsilə geniş auditoriyalarda mövzuların diqqətə çatdırılması və ritmik bir strukturun yaradılması daha effektiv olur. Təkrarlama, nitqin təsirini artırmaqla yanaşı, dinləyicilərin diqqətini mövzunun əsas məqamlarına yönəldir və nitqin strukturunu daha aydın və yadda qalan edir.

Qarşı tərəfi qorxudaraq müəyyən fikirləri zorla qəbul etdirmək məqsədilə bu üsuldan istifadə edilir. Məsələn; M. Qəddafinin məşhur çıxışlarından birində, o,

**"شبر شبر، بيت بيت، دار دار، زنقه زنقه، فرد فرد"**

**(qarış - qarış, ev - ev, otaq - otaq, küçə -küçə, adam – adam)** ifadələrini

xüsusi qaydada təkrarlayaraq etirazçılara qarşı hədə-qorxu gəlmiş və qərarında qətiyyətli olduğunu qeyd etmişdir [2, s.152-153]. Bu təkrarlamalarla M.Qəddafi, öz mövqeyini təsdiq etmək və hər hansı bir müqavimətə qarşı əzmkarlığını nümayiş etdirmək məqsədini güdmüşdür.

Siyasi diskursda inandırma sahəsində təkrarlama, mətnlərarası strategiya ilə təqdim olunduqda daha da təsirli olur. Buna misal olaraq, H. Nəsrullahın 22 Sentyabr 2006- cı il tarixli çıxışında, o,

“ **لتقتل من تشاء تأسر من تشاء و تقصف كيفما تشاء تسلب ارضنا و مياهنا** ”

**(Ona görədə istədiyini öldürə, istədiyini tuta, istədiyini bombalaya, torpağımızı və sularımızı talaya bilər)**

ifadələrini Quran strukturunda təqdim edərək inandırma strategiyasını daha da gücləndirməyə çalışmışdır [6, s.9-10]. Bu texnika, dinamik bir ritmik quruluş yaradaraq, mesajın təsirini artırmış və dinləyicilərin diqqətini daha da cəlb etmişdir.

Qeyd olunan siyasi xadimlərin nitqlərindəki təkrarlara nəzər salsaq, görərik ki, qədim zamanlardan bəri istifadə olunan təkrarlanma, Ərəb siyasi diskursunda bədii ifadəliliyi zənginləşdirmək, nitqi vurğulamaq, auditoriyanı inandırmaq, emosiyalarda dəyişiklik yaratmaq, diqqətləri müəyyən bir hədəfə yönəltmək, qarşı tərəfi qorxutmaq və təhdid etmək məqsədilə istifadə olunan mühüm bir vasitədir. Bunlarla yanaşı, təkrarlanma həm də ritorik bir vasitədir.

**Ərəb siyasi diskursunda dini istinadların xüsusiyyəti**

Müqəddəs Qurani Kərimin Ərəb əsilli peyğəmbərə (s. a.s ) ərəb dilində nazil olması, bu din ətrafında xilafətin qurulması və xilafətin uzun müddət ərzində üç qitəni əhatə etməsi, Ərəb siyasi diskursunda dini istinadların əvəzsiz rolunu təmin etmişdir. Müasir dövrdə xilafət sistemi olmasa da, hazırda əllidən çox Ərəb dövlətləri krallıq və digər idarəetmə sistemləri ilə fəaliyyət göstərir. Bununla yanaşı, dini dövlət adını alan və ya almayan Ərərb dövlətlərinin siyasi xadimlərinin nitqində dini istinadların mövcudluğu daim əhəmiyyətli bir yer tutur. Bu, dini və mədəni irsin siyasi dil və ritorikada güclü təsirini göstərir.

Ərəb dilindəki dini və ideoloji istinadlar, xüsusən Qurani Kərimin dilindən istifadə edilməsi, natiqlərin ictimaiyyəti manipulasiya etməsi və gizli siyasi məqsədlərə çatması üçün vacib bir vasitədir. Bu istinadlar, natiqlərə dini və ideoloji gücü öz xeyrinə istifadə edərək daha geniş bir təsir dairəsi yaratmağa imkan verir.

İnandırma strategiyası siyasi diskursda mühüm bir yer tutur. Bir çox siyasi liderlər kimi, Ərəb siyasi liderləri də bu strategiyanı həyata keçirmək üçün Aristotelin Pafos, Ethos və Logos üsullarından faydalanırlar. Ərəb siaysi liderlərinin inandırma startegiyası, dini və mədəni istinadlarla daha da gücləndirilir. Onlar, Qurani - Kərimdən ayələrə, Hz. Məhəmmədin (s.a.s) hədislərinə və həmçinin hikmətli atalar sözlərinə tez-tez müraciət edirlər. Bu istinadlar, liderin dini və mədəni əsaslardan güc alaraq xalqın etibarını qazanmasına və daha geniş kütləyə təsir etməsinə imkan verir. Bu yanaşma, onların mesajlarını yalnız rəsmi və məntiqi deyil, həm də emosional və dini baxımdan təsirli edir. [3, s.86-87]

Banqladeşin qurucularından olan Muhamməd Ənvər Sədad, siyasi nitqlərində

“ ان شاء الله ” / “ بمشيئة الرب ” (Allah c.c. istərsə) kəlimələrindən tez - tez istifadə etməsi ilə diqqəti cəlb edirdi. 1977- ci il 5 fevral tarixindəki çıxışında isə, Qurani Kərimin ayələrindən istifadə edərək moizə xarakterli bir nitq təqdim etmişdir. Bu cür dini istinadlar, onların mesajlarını daha inandırıcı və qəbul edilə bilən edərək, dinləyicilər üzərində emosional və inandırma təsiri yaratmışdır.

İordaniya kralı Hüseyn bin Talal da, siyasi nitqlərində Qurani-Kərimdən, Hədislərdən və İslam tarixindən dəfələrlə istinad gətirmişdir. Hətta öz ölümünü hiss etdiyi bir dövrdə, bu dini istinadlardan istifadə edərək, aşağıdakı Qurani -Kərim ayəsini qeyd etmişdir:

الحياة والموت بيد الله سبحانه " فإذا جاء أجلهم لا يستأخرون ساعة ولا يستقدمون"

(Ölüm və həyat Allahın əlindədir, “əcəlləri gəldiyi zaman bircə saat nə gecikər, nə də irəli gedərlər. Araf 7 / 34” )

Hər iki liderin dini istinadlardan istifadəsi, onların siyasi mesajlarını daha təsirli etmək və dini bir bazaya dayanan legitimlik əldə etmək məqsədini güdürdü. [2, s.154]

Göstərilən məlumatlara əsaslanaraq, deyə bilərik ki, dini istinadlara müraciət, xüsusilə Qurani-Kərim və hədislərdən istifadə, emosiyaları manipulasiya etmək üçün mühüm bir vasitə ola bilər. Ərəb siyasi xadimlərin nitqlərindəki nümunələr göstərir ki, dini istinadlar yalnız emosiyalara təsir etməklə kifayətlənmir, eyni zamanda inandırma və legitimlik kimi mühüm strateji məqsədlərə xidmət edən təsirli bir alət olaraq istifadə olunur.

**Siyasi diskursda kod keçidi**

Diqlosiya, iki və ya daha çox dil və ya dil forması arasında fərqli istifadənin mövcud olduğu vəziyyətdir və bu fenomeni istifadə edən xalqlardan biridə Ərəb xalqıdır. Ərəb dili, rəsmi mətnlərdə, dövlət işlərində, müəssisələrdə və nitqlərdə fushadan (ədəbi dil) istifadə edilərkən, gündəlik həyatda, ailədə və qeyri-rəsmi mühitlərdə isə müxtəlif ləhcələrə üstünlük verilir. Diglosiya anlayışını izah edərkən, dilin iki səviyyəyə bölündüyünü görürük: yuxarı səviyyə, yəni fusha (ədəbi dil), və aşağı səviyyə, yəni ləhcələr. . Bu yanaşmaya görə fusha (ədəbi dil) yuxarı səviyyə, ləhcə isə aşağı səviyyə olaraq qəbul edilir. Qurani-Kərim fushada nazil olduğu üçün, bəzi ləhcələr zamanla, təxminən 1400 il ərzində, müəyyən dəyişikliyə uğrayaraq fushaya daha yaxın bir vəziyyətə gəlmişdir. Bu inkişaf, dilin dinamik təbiətini və mədəniyyətin dilə təsirini göstərir.

Ərəb xalqları arasında diqlosiyanın mövcud olması səbəbindən, Ərəb siyasətçiləri siyasi diskurslarında kod dəyişimindən geniş şəkildə istifadə edirlər. Ən çox kod dəyişimindən istifadə edən Ərəb liderlərindən biri Misir prezidenti Camal Abdel Nasserdir. Camal Abdel Nasserin nitqinə nəzər salsaq, görərik ki, geniş Ərəb auditoriyasına müraciət edərkən fushadan istifadə edirdisə, Misir xalqına müraciəti zamanı isə ləhcədən istifadəyə üstünlük verirdi. [10]

Məsələn, Tunis prezidenti Zine - Əl Abidin – ibni – Ali, nitqində kod dəyişməsi edərək fərqli ləhcə və ədəbi dilin birləşməsini nümayiş etdirir. Nitqinin əvvəlində;

**العنف ما هوش متاعنا و لا هو من سلوكنا**

**(Zorakılıq heç vaxt adətlərimizin və ya davranışımızın bir hissəsi olmayıb)**

cümləsini ləhcə ilə söyləyir, bu da onun xalqına yaxınlıq hissi yaratmaq məqsədini güdür. Ləhcə ilə danışmaq, daha çox yerli əhali ilə əlaqə qurmağa və onları daha yaxşı anlamağa xidmət edir. Cümlənin davamında isə;

**حتى نفرق بين هذه العصابات و المجموعات من المنحرفين**

**(Bu dəstələri və cinayətkar qrupları təcrid edənə qədər...)** ifadəsini

ərəb ədəbi dilində tamamlayır. Ədəbi dil, daha rəsmi və ciddi bir ifadə formasıdır, bu da onun mesajını gücləndirir və daha geniş auditoriyaya yönəldir. [2, s.154]

Verilən məlumatlardan görünür ki, Ərəb cəmiyyətində diqosiyanın geniş yayılması, siyasətçilərin fərqli auditoriyalarla qarşılaşması və xalqın sevgisini qazanmaq istəyi, kod dəyişimindən istifadəni qaçılmaz edir. Hətta təqdim olunan nümunədən də göründüyü kimi, bir siyasətçi, dediyi cümlənin əvvəlini ləhcə ilə başlasa da, davamını fusha (ədəbi dil) ilə tamamlayır. Bu kod dəyişimi, Ərəb siyasi diskursunda kifayət qədər mühüm rol oynadığını bariz şəkildə nümayiş etdirir, çünki o, həm yerli əhali ilə emosional əlaqəni gücləndirir, həm də daha geniş auditoriyaya daha rəsmi və ciddi bir mesaj çatdırır. Bu yanaşma, siyasətçilərin nitqlərində müxtəlif auditoriyalara uyğunlaşmaq və onların etibarını qazanmaq məqsədini güdür.

**Ərəb milliyyətçiliyi və siyasi diskursda "Qavmiyyə" və "Vataniyyə" terminləri**

Ərəblər müxtəlif regionlarda yaşasalarda vahid din və dil birliyi hər zaman onları milli və siyasi birliyə cəlb etmişdir. Buna təkan verən XIX əsrdə baş vermiş Nəhda intibah hərəkatı olmuşdur. Milliyyətçi olan Misir prezidenti Camal Abdul Nasir (1956-1970) kimi siyasətçilər ərəb dövlətlərinin birliyi təmin etmək üçün Ərəb dövlətlərini əhatə edən Birləşmiş Ərəb Rebspublikasını yaratmışlar (1958) . Hətta, sosial medianın inkişafı 2011 -ci ildə "Ərəb Baharı" adlı milliyatçi hərəkatlara da səbəb olmuşdur.

Ərəblərdə olan milliyyətçilik sevgisi Qərb alimlərini ərəb milliyyətçiliyi üzrə araşdırmalara sövq etmişdir. Bu araşdırmalarda Ərəb siyasi diskursunda diqqət çəkən məqamlardan biri Ərəb siyasətçilərinin istifadə etdiyi "qavmiyyə" və "vataniyyə" ifadələridir. Burada "qavmiyyə" ifadəsi böyük Ərəb topluluğunu mənasını verərkən "vataniyyə" termini isə bu topluluğun bir hissəsi mənasını verirdi [11]

Camal Abdul Nasir kimi siaysətçilərlə yanaşı Ərəb milliyyətçiliyinin qabaqcıl ziyalılarından olan Sati'al Husri kimi şəxslər də hər zaman Ərəb dilli xalqların birliyinin önəmini xüsusi ilə vurğulamış və bunun üçün edilməli olan şeyləri hər zaman Ərəb xalqının diqqətinə çatdırmışdır. [1, s.1-2]

Göründüyü kimi, vahid dil və din birliyi əsasında formalaşan müxtəlif Ərəb xalqları, fərqli zamanlarda və şəraitlərdə siyasi dirçəlişə və milli birliyə nail olmaq üçün əllərindən gələni etmişlər. Xüsusilə, Nəhda (intibah) hərəkatı ilə başlayan Ərəb dövlətləri birliyi və bununla güclənən milliyyətçilik ideologiyası, 2011- ci ildə Ərəb Bahrı hadisələrində də özünü göstərmişdir. Bütün bu fəaliyyətlərlə yanaşı, Ərərb milliyyətçiliyinin Ərəb siyasi kontekstinə gətirdiyi "qavmiyyə" və "vataniyyə" terminləri, Ərəb kimliyini həm ümumi, həm də lokal səviyyədə təhlil etməyə imkan vermişdir.

**Nəticə**

Dil baxımından zəngin, mədəniyyət və ideologiya baxımından çox şaxəli olan Ərəb siaysi diskursu bir çox mərhələlərdən keçmişdir. Regionların müxtəlifliyi, fərqli dövlət idarəetmə sistemləri, Ərəb xalqlarının fərqli və oxşar düşüncə tərzləri, dini inancları, vətənpərvərlik hissləri və emosiyaları, Ərəb dilli siyasi diskursun xüsusiyyətlərinə əhəmiyyətli dərəcədə təsir göstərmişdir. Bu təsirlər, Ərəb siyasi diskursunun formalaşmasında və inkişafında əhəmiyyətli rol oynamış, müxtəlif ideoloji və mədəni axınların birləşməsi ilə diskursun zəngin və mürəkkəb xarakterini ortaya qoymuşdur.

**Ədəbiyyat:**

1. Adeed Dawisha. *Arab Nationalism in the Twentieth Century: From Triumph to Despair*, Princeton: Princeton University Press, 2016.
2. Asmaa Alduhaim. "A comparative study of political discourse features in English and Arabic." International Journal of English Linguistics 9(6), 2019. - p. 148-159.
3. Reema Ibrahim Al Hawamdeh., Mahmoud Ali Qudah. "The Strategies of Persuasion in Political Discourse: A Comparative Analysis of the Political Speeches of Arab and Non-Arab Leaders During Covid-19 Pandemic." Jordanian Educational Journal 9(2), 2024. p. 79-95.
4. Gillian Brown., George Yule. *Discourse analysis*. Cambridge university press. 288, 1983.
5. Haeri N. *Sacred language, ordinary people: Dilemmas of culture and politics in Egypt.* New York: Palgrave Macmillan. 184, 2003.
6. El Mustapha Lahlali. "Repetition and ideology in Nasrallah's political speeches." *Arab Media & Society* 15, 2012. p.1-13.
7. Youssef Sameh Salah., Mohammed A. Albarakati. "Features of Arabic and English use of self and other-presentation in political discourse." *International Journal of Applied Linguistics and English Literature* 8(1), 2019. - p. 85-92.
8. احمد الموكل، (٢٠١٠) ، الخطاب و خصائص اللغة العربية، دراسة في الوظيفة و البنية والنمط، دار الامان الرباط، ط ١ .
9. https://www.almaany.com/
10. **Ryan Zohar.** *Diglossia and politics in Arabic*. E-International Relations. Retrieved from, 2018. https://www.e-ir.info/2018/03/29/diglossia-and-politics-in-arabic/
11. Watanabe S. Arab Nationalism and State Formation: The Maghrib Experiences. IDE Research Bulletin, Retrieved from, 2020. https://www.ide.go.jp/English/Publish/Reports/Rb/2019/2018240013.html

# SOCIAL SCIENCES

## SOCIAL MEDIA AS AN INFORMATION SOURCE FOR TRADITIONAL MEDIA: INSIGHTS FROM TELEVISION IN ARMENIA, MALAYSIA AND BOLIVIA

**Mkrtichyan A.**
*PhD (Candidate of Philology),*
*Lecturer at the Department of Journalism, Yerevan State University,*
*Republic of Armenia, Yerevan*
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**Abstract**

Today social media not only play a dominant role in distributing media content but also influence television decisions regarding content production through their recommendations and metrics. This research explores the implications of these dynamics for the future of TV journalism. This article examines the circulation of information between mass media, social media and television newscasts. The aim is to highlight how traditional media are transforming under the influence of social networks, with case studies from televisions operating in diverse regions of the world, specially Armenia, Bolivia and Malaysia. These three countries have been selected because they represent varying levels of media development, which makes it possible to reveal the influence of social media on television news through comparative analysis across diverse socio-cultural and informational environments.

**Keywords:** media, information, communication, audience, television, coverage, content, social network, TV news, media in Armenia, media in Malaysia, media in Bolivia.

### Social media vs traditional media: Between trust and use

Social media has become a primary news source for many users by personalizing news content. Additionally, it has begun to serve as a critical information source for traditional media, particularly television.

Social media are being used as an information source, including for traditional media. Actually, traditional media offers only one-way communication; the audience accept message through the media, but the media do not get directly feedback. Social media is now mainstream media. It differentiates itself by being interactive – two-way communication. There are people who will favor social media, specifically today’s audience but it doesn’t mean that traditional media is useless. It is undeniable that social media has changed the world and today people increasingly turn to social media for news. In recent years, the world, including Armenia has witnessed a profound transformation in how information is disseminated and consumed. This shift has been primarily driven by the advent of social media, which now competes with traditional media for the attention of millions across the world.

From X ((formerly Twitter)) and Facebook to Instagram, the social media world has grown. By making live streams, social TV, mobile, the apps turn audience into “active audience”. Social media introduce a new approach for TV viewers [1].

The issues related to information circulation in national segments of social networks have currently divided media experts into two groups: those who think that journalism is also the content created and publicized by non-specialists, bloggers and other people. And those who resist the "globalization" of the journalism profession at the expense of non-daily posts by doctors, builders, housewives or retirees.

Today, the Armenian segment of the Facebook social network is characterized by a number of features (diversity of perceptions and evaluations, together with various information sources, a repository of opinions and reactions not only of ordinary people, but also of public and government persons, information about operational events of public significance sometimes being made public faster than mass media and possibility of wide distribution, etc.), based on which it can be stated that this social network has also expanded its functions in Armenia and due to the fact that it has "own" content, it acts not only as an interpersonal communication channel, but also as an independent media. Over the past few years, there has been an interpenetration of traditional Armenian mass media and social networks, particularly Facebook. If in 2010-2011 Armenian mass media were positioning themselves here and taking their first network steps (trying to attract the widest possible audience), then later they started to respond to Facebook contents, to prepare materials based on them, to simply copy paste them and in other ways [2, p. 4].

Today, journalists themselves use social networks to get information, not to spread it. Accordingly, in Armenia Facebook, Telegram, YouTube serve primarily as a source of information for journalists. This trend indicates the two-way flow of information between the mass media and the social networks.

In recent years, various large and small surveys conducted among media managers and journalists in Armenia prove that through social networks they receive and spread news, receive or spread it, are in contact with the audience, follow the news, find new interviewiee and topics. 97 percent consider social networks as a source of public significance, because there is the news of the day, in many cases, exclusive information, the information base is larger, although misinformation is not a small percentage. Moreover, all journalists are at least 1 social network user. Workers in traditional media consider social networks as a tool, not as a competitor, social networks today already have a dominant role in the circulation of information and competition. And from the point of view of those who confirm the competition between social networks and traditional media, it should be accepted as an objective process. "Information is mainly consumed from websites." Competition is manifested mainly in the speed of information dissemination. On the other hand, traditional media can withstand this competition by "maintaining reliable, weighted information and the qualitative side of journalism". The influence of online media on the development of television is dual, both positive and negative, depending on the behavior of TV company [3, p. 28].

Both social media and traditional media provide the same service, i.e., they are both information channels, and the relationship between social media and traditional media is competitive – social media platforms can harm traditional media as readers increasingly use social media as their main source of news consumption, thereby significantly reducing traditional media viewership. However, the relationship between social media and traditional media could also be complementary [4].

To understand the dynamics between these two media forms, it is necessary to consider social media and traditional media and their usage and consumption in Armenia, highlighting key trends, including. The factors that influence the choice of media:

- News content and consumption,
- Most reliable source of news and information,
- Media and shaping of public opinions,
- Social media and news consumption,
- Paid news services.

Some have decried social media as the "death of journalism," but this isn't a new complaint. In fact, the downfall of "traditional journalism" has been a point of contention since the emergence of television first threatened newspaper readership. The truth is that new platforms have forced traditional media to adapt and evolve [5].

Social networks have transitioned from being competitors to become essential partners for TV channels in promoting content to the masses. The most successful TV channels leverage social networks as powerful marketing tools, reaping significant benefits, as reflected in audience metrics. While content remains king, the shift to a post-TV era has been delayed by one critical factor: the quality of content available on social networks. Just as television reshaped a generation of passive listeners into active viewers during the 1950s - 1980s, the rise of social networks has given rise to a generation of media content creator.

**Social media as the main component of the future TV**

Social networks have surpassed television as the primary source of information, with television companies themselves transitioning to the World Wide Web to maintain relevance.

In Armenia, the dominant sources of information are two social networks: Facebook and YouTube. Media experts note that Facebook boasts the largest number of subscribers in Armenia, with even the government utilizing the platform to engage with and influence society. This shift, according to experts, has cemented social networks as the main source of information, fundamentally reshaping the information market.

Using social media as a news source enables users to engage with content in diverse ways, including:

- Consume news,
- Discover news,
- Share or repost news,
- Post their own photos, videos, or reports of news (i.e., engage in citizen or participatory journalism),
- Comment on news [6].

The spread of news has become increasingly dependent on websites such as blogs, YouTube, X and Facebook. These platforms are reliant on brief and fast content in order to keep the interest of their users, therefore quantity is better than quality. Journalists face more challenges because of all the information that comes through these networks. They need to filter through all so that their work can still be reliable.

With the constant evolution of the internet and the growing need for social media in the workplace, the work of journalists and their practices are also changing. Traditionally, when collecting the publics opinion, journalists ask participants questions and participants are aware of what is being asked of them, and by whom, but with the rise of social media, journalists are able to collect public information without social media users knowing or consenting. For example, when journalists quote social media posts, it may be seen as an invasion of privacy since the usernames are sometimes used to identify the individuals being quoted. These practices become questionable to their audiences; it depends on what they believe is suitable social media behaviour. The use of social media as a journalistic source may also be taken out of context and misinterpreted which in turn misrepresents the public. People who are unsure about whether journalists can reliably make claims using social media may question the value and integrity of the journalists' reports. The media and media news source, such as journalists must present information that is trustworthy [7].

In an age where information is constantly at our fingertips, traditional media continue to face the challenges posed by digital media, trying to find new solutions. In today's world, social media and networks are changing the way news is created and distributed. They greatly influence traditional media in several ways, including:

1. Content creation,
2. Information distribution and communication,
3. By becoming a tool for seeking, receiving and accessing information [8].

As a result, social media allows for more variety and pluralism than traditional media, resulting in audiences moving from traditional media to the online realm on a daily basis, specifically starting to search for information on social platforms.

Paul Bradshaw, an independent consultant on online media, expresses himself on the pages of his blog titled "Online Journalism" about the essence of online journalism in the following words: "Online media operate in their work with two complementary and contradictory factors: speed and quality. New technologies allow news to be disseminated faster than the old means of communication - radio and television. The Internet, unlimited in space and time, its hypertextuality, the ability to link everything together, make it potentially deeper and broader than the previous kings of context and analysis: newspapers and magazines" [9] .

According to M. McLuhan, television has an effect regardless of its content. And social media with its interactivity and dynamic nature is attractive for receiving and communicating news, at the same time, traditional media continues to persistently search for ways to keep its role and importance in high positions in the lives of the audience. That is why traditional media, particularly television, needs to be used and actively uses the opportunities provided by new media.

According to our observations, in the last few years, Facebook has been joined by X, YouTube, Telegram and other social platforms.

Social networks are a source of information of public importance, and not only of a fun and personal nature, as evidenced by the majority of media representatives who deal with information professionally with the following explanations:

• Provide the news of the day,

• Here is exclusive information,

• Most people immediately write about any offense on the social network,

• The issues affecting the public are more diverse here than in traditional media, the information base is larger,

• There is a large mass of users from the most remote villages, and there are different age, social, political and professional groups, etc.

No, they are not a source of public information, because:

• There is a lot of misinformation or partially incorrect information.

Today, the Armenian domain of social networks is flooded with a variety of information, from political news to civil initiatives, cases of human rights violations, consumer rights, criminal chronicles, from election processes to environmental, agricultural, health, educational, sports and cultural news, especially social platforms during emergency situations. are active and in high demand.

If a few years ago it was possible to talk about the competition between social and traditional media in Armenia, today social networks already have a dominant role in the circulation of information and competition as such no longer exists. And from the point of view of those who confirm the competition between social networks and traditional media, it should be accepted as an objective process. The internet is gradually absorbing traditional media. Information is mainly consumed from websites and social networks. Competition is manifested mainly in the speed of information dissemination. On the other hand, the traditional media can withstand this competition "by keeping reliable, weighted information and the qualitative aspect of journalism". The competition is manifested mainly in the audience's reactions to this or that event, in connection with the audience, in other words, in this or that impact on the audience. It has a positive effect because:

• Is a free platform, and this freedom has its influence on traditional media,

• Gives traditional media the opportunity to present issues in a multifaceted manner,

• More operative in spreading news, and this speed makes traditional media act even faster,

• Is a rich repository of information, sometimes great content is provided to the media by the users themselves.

It has a negative effect because:

• There is a decline in quality, according to one of the journalists, "fast food journalism is developing", fast, sensational and often meaningless information enters the media from social networks,

• Social networks contribute to the circulation of incorrect language, unspecified information in the media, "a random, incompetent user can become a source of news"

• The demand for professional journalism is decreasing,

• It makes journalists lazy, "journalists have gotten used to looking for information", "they fill news sections with Facebook statuses",

• Copyright is violated,

• Getting stuck in social networks, journalists don't even feel how they turn from information spreaders into information consumers,

• There are so many discussions and references on social networks that sometimes the interesting topic becomes beaten and boring for the readers.

The social media content found in the media we studied was presented in three formats: texts, videos and photos. Texts made up the vast majority in the press and in TV programs. In second place are videos. Moreover, the number of social media videos in the press was greater than the number of those used in TV programs. And in the case of the used photos, it is the opposite image. Television programs used social media in the form of photos more than the press. Social media, and in particular social networks, are today an active platform for the circulation of public information in Armenia, where you can find exclusive information. And the journalists themselves admit this.

The perceptions of journalistic circles about the use of Facebook content by the Armenian mass media are diverse. There are opinions that the mass media abuse this issue, print news and other materials without effort, etc. And that is professional degradation. From the point of view of others, you should use every means to have and maintain an audience, including using this opportunity provided by social networks.

Today, a significant portion of Armenian TV news content is sourced from Facebook. This is supplemented by posts on X by various foreign figures, which often address critical geopolitical events, such as those related to our region, the Nagorno-Karabakh conflict, the Russian-Ukrainian war, global economic issues, and epidemics.

Furthermore, press secretaries of certain state bodies have adopted social networks as their primary communication channels, sharing updates and messages directly through these platforms instead of traditional email correspondence.

Traditional journalism is evolving under the influence of social media, which provides new and vital impulses. Today, the public consumes news instantly across multiple platforms. Social media often outpaces traditional outlets in delivering breaking news, as seen during live events, natural disasters, and political announcements. Platforms like X (formerly Twitter), Facebook, and Instagram enable the public to contribute to and shape the news in real time, reaching audiences faster than traditional media.

Users now curate personalized news feeds by following specific accounts, making it easier to access tailored content but harder for news outlets to reach broader audiences. Headlines and tweets have become critical in driving engagement, as attention spans shrink and demand for concise, digestible content grows. Meanwhile, algorithm-driven content delivery on Facebook and Instagram adds another challenge for brands and outlets aiming to guarantee audience reach.

Perhaps the biggest effect of social media on traditional media and content is that now everyone feels like they have a voice. Whether through Facebook, TikTok, Snapchat or Medium, social media has provided a public forum for anyone who has an opinion. While this has created an overwhelmingly saturated social atmosphere, this has also led to a genuine wave of voices and influencers on social. The pandemic also contributed to it. The audience moved to social platforms. In these days of pandemic, protests, economic recession and angst among the world's population a recently issued report shows that consumers continue to shift away from traditional media sources for their news and are moving more towards social media and messaging services to find the news.

The influence of social media on public opinion is enormous. Often, not only social media is preferred and becomes the primary source of information dissemination, but vice versa. It becomes a traditional media platform for disseminating information, discussing publications and establishing feedback.

Table 1

**Most popular social networks worldwide** [11]

| N | Network | Number of active users (in millions) |
|---|---|---|
| 1. | Facebook | 3.070 |
| 2. | YouTube | 2.530 |
| 3. | WhatsApp | 2.000 |
| 4. | Instagram | 2.000 |
| 5. | TikTok | 1.590 |
| 6. | WeChat | 1.380 |
| 7. | Facebook Messenger | 947 |
| 8. | Telegram | 950 |
| 9. | Douyin | 766 |
| 10. | Snapchat | 850 |
| 11. | Kuaishiou | 714 |
| 12. | Reddit | 606 |
| 13. | Weibo | 599 |
| 14. | Twitter/X | 586 |
| 15. | QQ | 562 |

Actually, the social media metrics could explain a certain percentage of the variability in TV ratings [12].

Social media is an integral part of daily internet usage. Market leader Facebook was the first social network to surpass one billion registered accounts and currently boasts approximately 2.9 billion monthly active users, making it the most popular social network worldwide. In June 2023, the top social media apps in the Apple App Store included mobile messaging apps WhatsApp and Telegram Messenger, as well as the ever-popular app version of Facebook. Social media usage is one of the most popular online activities. In 2024, over five billion people were using social media worldwide, a number projected to increase to over six billion in 2028 [13].

There are two types of visions for the future of journalism. The positive vision of these two involves an idea of developing the already diverse media publicity into something that is more strongly based on dialogue and interaction. Rather than having a passive group of recipients, media will be greeted by an active audience. In this way, the digital era is changing the traditional concept of the professional identity of reporters. Discussions taking place on social media can at their best promote democracy, enhance the supervision of journalistic work, support multivocality and offer access to information and arenas of discussion, even to those living on the periphery.

According to the negative vision, in the future traditional media will not be democratised, its news production will not spread out, and citizens will not be better informed. The ownership of the media, by contrast, will become concentrated, resources decreased, products standardised and made more entertainment-focused and their quality impaired. Hoping to gain the most clicks, populists and shocking news will replace in-depth and slow analyses. News, and in particular news headlines, will become more sensational. Under commercial pressure and the concentration of ownership, the autonomy of journalists will decrease.

This is not the first time, however, that the media will have undergone a change. Every time a new form of media becomes popular, it challenges the way the existing media corporations work [14]. Finally, some experts also note that social media is the new television.

**Media as social network user: Armenia, Malaysia, Bolivia**

Media, like other parts of the Armenian social network community, uses Facebook the most. There is no mass media operating in Armenia, including regional televisions, which is not represented on any social network, first of all on Facebook. As the media managers point out, mainly because Facebook is actively used by political forces, various public groups, the largest Armenian-language social network audience is here, operative, often exclusive information is generated here. Among the other social networks with the most distribution among the media are Youtube (89%), Telegram (60%), Instagram (44%) and X (38%). The media has also become a TikTok user (17%), as the respondents say, because

• "... on that social network information is digested faster, it is important for the day news gathers a much larger audience" (Past.am),

• "it is the most attractive and developing social network for young people today" (Yerevan.Today) [15, p. 13].

In fact, taking into account the change in the media environment and reality in Armenia, there is a need to think about new and fresh approaches for the activities of traditional media, particularly television, and to form new regulations and mechanisms for managing and confronting new risks against disinformation and fake news [16], which will contribute to the health of the environment, the coexistence of old and new media.

The young and middle-aged population prefers to get their news and other information from online sources. The convenient access to online news, consumers' changing patterns, shift towards digital content has brought the traditional media to find new ways to act and create its impact on the society at a faster pace [17].

According to the Freedom of Speech and Media Consumption survey, the primary source of information for 59% of respondents in Armenia is social media (social networks, blogs, vlogs, podcasts) [18]. Television is in second place, followed by news websites, then radio and print media. Among social networks, Facebook remains the leader, followed by Odnoklassniki, Instagram, Telegram, YouTube and etc.

The marriage between news outlets and social media has become rocky, with platforms favoring polarization and extremism for click-driven engagement. The future of digital news remains uncertain. However, trends like niche newsletters, paid subscriptions, and smaller online communities are emerging as potential alternatives, offering hope for a rebirth of the industry on a human scale [19].

Here are some key ways in which social media has influenced traditional media:

- Speed and Accessibility
- Audience Engagement.
- Diversification of Content.
- Crisis Reporting.
- Monetization Challenges.
- Filter Bubbles and Misinformation.
- Competition for Attention.
- Data and Analytics [20].

Overall, traditional media and social media both have their pros and cons. Based on that, the relationship between them is still a relationship of integration, not a relationship of exclusion or cancellation. Thus, instead of being pitted against one another, traditional and new media outlets can go hand-in-hand in order to reach the widest amount of people at an effective frequency as the more these types of media integrate with each other, the more the negative aspects and disadvantages associated with each type will be overcome. In other words, developing a successful integration, a complementary relationship, and a sustainable sharing processes between the traditional media and the social media outlets in a collaborative, cohesive, and in an ethical manner would enhance their roles and services, provide added values than ever [21].

The impact of social media on television news is undeniable, as journalists increasingly rely on social networks in their daily work. In Malaysia, platforms like Facebook, Instagram, YouTube, and TikTok serve as important information sources for TV news channels. However, this reliance underscores the critical need for verification to ensure authenticity and avoid misinformation.

The process of tabayyun (Arabic for verifying and investigating) is essential when handling content from social media. Television journalists must confirm the credibility of sources and visuals before incorporating them into news scripts. For instance, during the 2023 Elmina plane crash in Selangor, viral dashcam footage and videos shared by the public on social media were used by journalists after rigorous fact-checking and validation.

Social networks act as both partners and competitors to television. While they enable public engagement and content sharing, they also challenge TV’s role as a premier news source by allowing users to bypass traditional reporting and share unverified visuals [22].

The situation in Bolivia mirrors global trends in the increasing influence of social networks. Now TikTok is the most used social network in Bolivia, followed by Facebook, Instagram and Youtube. Journalists and media organizations in Bolivia frequently incorporate social media content into their reporting, including footage or posts shared by citizens documenting newsworthy events. This shift has significantly impacted journalism practices, as social networks often serve as primary sources for television broadcasts. This is particularly evident when state authorities or political commentators use these platforms to communicate directly with their audiences. Television channels frequently showcase tweets, videos, and user-generated content related to major events such as protests or crimes. In this context, social networks act as both partners and competitors to traditional television. On one hand, they enhance coverage by providing real-time content; on the other, they compete fiercely for audience attention, contributing to a decline in traditional TV viewership. To adapt, many journalists and media professionals in Bolivia now create content tailored for social media platforms. During protests or periods of civil unrest, individuals often take to social media to share live footage, conduct interviews, and offer commentary, further redefining the boundaries between citizen journalism and traditional media. If significant events are live-streamed or recorded by social media users, television news programs frequently incorporate this material into their broadcasts [23].

Social media has become a significant source of information for television news programs. TV channels increasingly rely on social media for several reasons, including the speed and immediacy with which news is reported and circulated.

This reliance is particularly prominent where TV channels face limitations in covering events on the ground due to restricted human or material resources. While audiences often prefer social media for quick access to news, television continues to hold public trust for its more accuracy and reliability.

**References:**


1. Mei-Hua Cheng, Yi-Chen Wu, Ming-Chih Chen, Television Meets Facebook: The Correlation between TV Ratings and Social Media, American Journal of Industrial and Business Management, 2016; Access mode: https://www.scirp.org/journal/paperinformation?paperid=64995
2. Social media as a source of information for Armenian mass media: Formed standards and applied practice, results of Armenian media surveys and media monitoring, Yerevan, 2014, pg 4.
3. Mkrtichyan A., The Correlation between social media and TV: issues and perspectives, ISCIENCE.IN.UA “Current scientific research in the modern world”, N 8(40), part 2 , pg. 28.
4. Jie Ren, Hang Dong, Ales Popovic, Gaurav Sabnis and Jeffrey Nickerson, Digital platforms in the news industry: how social media platforms impact traditional media news viewership, European Journal of Information Systems 2024, VOL. 33, NO. 1, 1–18; https://doi.org/10.1080/0960085X.2022.2103046 6
5. https://www.lexisnexis.com/community/insights/professional/b/industry-insights/posts/impact-of-new-media-traditional-sources
6. Anderson, Monica; Caumont, Andrea (2014). "How social media is reshaping news". Pew Research Center.
7. Dubois, Elizabeth; Gruzd, Anatoliy; Jacobson, Jenna (August 8, 2018). "Journalists' Use of Social Media to Infer Public Opinion: The Citizens' Perspective". Social Science Computer Review. 38 (1): 57–74. DoI:10.1177/0894439318791527. ISSN 0894-4393. S2CID 70281241
8. Saroyan V., “The influence of social media on the formation of public opinion”, YSU SSS collection of scientific articles, Soc., 1.2 (25), Social sciences and humanities, Yerevan, 2018, p. 254-259.
9. A model for the 21st century newsroom: pt1 — the news diamond [electronic resource]-Access mode: https://onlinejournalismblog.com/2007/09/17/a-model-for-the-21st-century-newsroom-pt1-the-news-diamond (20.02.2017).
10. https://www.forbes.com/sites/mikevorhaus/2020/06/24/people-increasingly-turn-to-social-media-for-news/?sh=378965e03bcc
11. https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/; as of February 2025
12. Television Meets Facebook: The Correlation between TV Ratings and Social Media, American Journal of Industrial and Business Management, 2016, 6, 282-290, Published Online March 2016 in SciRes. Access mode: http://www.scirp.org/journal/ajibm http://dx.doi.org/10.4236/ajibm.2016.63026
13. Number of social media users worldwide from 2017 to 2028; https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/
14. https://mediaguide.fi/mediaguide/social-media-challenging-traditional-media/
15. Armenian media in the age of social networks, survey results of 100 media executives, Yerevan, 2022, pg. 13; https://www.regioncenter.info/sites/default/files/%D5%80%D5%A1%D5%B5%D5%A1%D5%BD%D5%BF%D5%A1%D5%B6%D5%AB%20%D5%B4%D5%A5%D5%A4%D5%AB%D5%A1%D5%B6%20%D5%BD%D5%B8%D6%81%D6%81%D5%A1%D5%B6%D6%81%D5%A5%D6%80%D5%AB%20%D5%A4%D5%A1%D6%80%D5%A1%D5%B7%D6%80%D5%BB%D5%A1%D5%B6%D5%B8%D6%82%D5%B4.pdf
16. “Mapping the Armenian media sphere in the context of the fight against disinformation”, Yerevan, 2021; Access mode: https://foi.am/wp-content/uploads/2023/10/Media-Mapping-Research-FOICA-ARM.pdf
17. https://www.researchgate.net/profile/Preethi-Thesinghraja/publication/309014723_The_Impact_of_New_Media_on_Traditional_Media/links/57fe403108ae6b2da3c88978/The-Impact-of-New-Media-on-Traditional-Media.pdf
18. Research on Freedom of Speech and Media Consumption in Armenia, Yerevan, September, 2023; Access mode: https://media.am/hy/lab/2023/11/14/36724/
19. Allyn, Bobby (April 28, 2023). "Hard times are here for news sites and social media. Is this the end of Web 2.0?". NPR. Retrieved June 25, 2023
20. The Impact of Social Media on Traditional Media: A Comprehensive Review, https://ijcrt.org/papers/IJCRT2403310.pdf, Volume 12, Issue 3 March 2024
21. https://www.researchgate.net/publication/366177022_Traditional_media_versus_social_media_challenges_and_opportunities
22. Ardi Herman Mohd Mardzi, Journalist, Anchor, News Editor & Producer at TV ALHIJRAH, Malaysia
23. Jorge Luis Palenque Medina, Journalist, News Presenter, General Director at TV RTP, Bolivia

# MODERN APPROACHES TO IMPROVING THE EFFICIENCY OF PERSONNEL POLICY IN THE CIVIL SERVICE

**Bakirov Ye.**
*MBA, DBA program doctoral student Almaty Management University, Kazakhstan*

# СОВРЕМЕННЫЕ ПОДХОДЫ К ПОВЫШЕНИЮ ЭФФЕКТИВНОСТИ КАДРОВОЙ ПОЛИТИКИ В ГОСУДАРСТВЕННОЙ СЛУЖБЕ

**Бакиров Е.**
*MBA, докторант программы DBA, Алматы Менеджмент Университет, Казахстан*
https://doi.org/10.5281/zenodo.16987411

**Abstract**

The article examines contemporary approaches to enhancing the effectiveness of human resource policy within the civil service. Drawing on international experience (Singapore, Canada, the Scandinavian countries, and South Korea), the study identifies key trends: the development of leadership competencies and talent pools, the introduction of HR analytics, a focus on sustainability and employee well-being, and the digitalisation of HR processes. The Kazakhstani context is explored through the Civil Service Development Concept 2030, the implementation of the "E-kyzmet" platform, the growing use of HR analytics, and ongoing institutional reforms. The findings emphasise the need for a shift towards a results-oriented, flexible model of HR policy, treating human capital as a strategic resource for the modernisation of public administration.

**Аннотация**

В статье рассматриваются современные подходы к повышению эффективности кадровой политики в системе государственной службы. На основе анализа международного опыта (Сингапур, Канада, Скандинавские страны, Южная Корея) выявлены ключевые тенденции: развитие лидерских компетенций и кадрового резерва, внедрение HR-аналитики, ориентация на устойчивость и благополучие сотрудников, цифровизация кадровых процессов. Казахстанский контекст представлен через Концепцию развития государственной службы до 2030 года, внедрение платформы «E-kyzmet», развитие HR-аналитики и институциональные реформы. Сделан вывод о необходимости перехода к модели кадровой политики, ориентированной на результативность, гибкость и развитие человеческого капитала как стратегического ресурса модернизации государственного управления.

**Keywords:** civil service, HR policy, effectiveness, HR analytics, digitalisation, talent management, leadership competencies, human capital management.

**Ключевые слова**: государственная служба, кадровая политика, эффективность, HR-аналитика, цифровизация, кадровый резерв, лидерские компетенции, управление человеческим капиталом.

## 1. Введение

Вопросы эффективности кадровой политики в системе государственной службы занимают центральное место в современных дискуссиях о государственном управлении. Служащие являются не только исполнителями политических решений, но и ключевым ресурсом, определяющим качество работы государственных институтов, уровень доверия общества и способность аппарата к адаптации в условиях быстрых социальных и технологических изменений.

На протяжении последних десятилетий в разных странах наблюдается переход от традиционной бюрократической модели к новым формам управления человеческими ресурсами, основанным на принципах меритократии, компетентностного подхода, цифровизации HR-процессов и ориентации на результат. В этой связи кадровая политика рассматривается не как вспомогательная функция, а как стратегический элемент государственной службы, напрямую связанный с её эффективностью.

Для Казахстана тема эффективности кадровой политики имеет особое значение в контексте реформ государственного управления. Несмотря на предпринятые шаги по внедрению цифровых решений, формированию кадрового резерва и развитию системы обучения государственных служащих, сохраняются вызовы, связанные с формализмом процедур, недостаточной мотивацией персонала и неравномерностью доступа к возможностям развития.

Цель данной статьи – проанализировать современные подходы к повышению эффективности кадровой политики в государственной службе, сопоставить международный опыт и казахстанскую практику, а также определить направления, которые могут способствовать формированию более результативной и устойчивой кадровой стратегии.

Исследовательские вопросы, на которые отвечает статья:

– Какие современные концепции и подходы к кадровой политике в государственной службе преобладают в международной практике?

– Какие особенности и ограничения характеризуют кадровую политику в Казахстане?

– Какие направления могут повысить эффективность кадровой политики, обеспечив баланс между международными тенденциями и национальными реалиями?

## 2. Литературный обзор и концептуальные подходы

Современная дискуссия о кадровой политике в государственной службе смещается от «администрирования персонала» к стратегическому управлению человеческим капиталом. В докладе UN DESA подчёркивается, что кадровые решения напрямую влияют на способность государства обеспечивать инклюзивные публичные услуги и «не оставлять никого позади», то есть кадровая политика становится ядром публичной ценности и устойчивости институтов [1].

Р. Крамар систематизирует отличие Sustainable HRM от классического стратегического HRM: фокус переносится с краткосрочной производительности на баланс экономических, социальных и человеческих эффектов во времени [2], для госслужбы это означает:

– приоритизацию сохранения компетенций и здоровья персонала,

– равный доступ к развитию и карьере,

– выстраивание кадровой политики как части устойчивости государственных институтов.

Ключевая дилемма, на которую указывает Крамар – как совместить бюджетные ограничения и требования к результативности с инвестициями в благополучие и обучение? В терминах практики это ведёт к пересмотру KPI кадровой функции, когда метрики удержания, благополучия и равных возможностей становятся целевыми, а не «вторичными» для госорганов.

Отчёт CIPD «People Profession 2030» фиксирует сдвиг к Agile HRM с вязанный с децентрализацией решений, быстрой итерации и продуктовой логикой команд как условия реакции на турбулентность внешней среды [3]. Применительно к государственному сектору это воплощается в:

– распределении полномочий HR по уровням управления;

– циклах «эксперимент–оценка–масштабирование» для практик найма/обучения;

– проектной мобильности служащих (временные кросс-функциональные команды).

Выгода связана с сокращением времени отклика кадровой системы, а риск с фрагментацией стандартов. Поэтому Agile-подход требует «сквозных» компетентностных рамок и единой архитектуры данных.

Дж. Марлер и Дж. Будро показывают, что HR-аналитика приносит эффект только при двух условиях: наличия качественных, интегрируемых данных и «перевода» аналитики на язык управленческих решений, понятный не-HR руководителям [4]. Для госслужбы это означает, что цифровизация кадровых процессов сама по себе недостаточна; необходимы модели, связывающие показатели вовлечённости, текучести, обучения и производительности с результатами государственных программ. Иначе аналитика превращается в отчётность, не изменяющую управленческое поведение.

OECD подчёркивает, что результативность реформ в госсекторе упирается в лидерские компетенции среднего звена: управление изменениями, совместное лидерство (Distributed Leadership) и работа с данными [5]. Здесь наблюдается важный разворот от «формальных полномочий» к наблюдаемым поведенческим индикаторам, именно они должны становиться базой для отбора, продвижения и обучения руководителей. Следствием является тот факт, что кадровая политика эффективна постольку, поскольку она институционализирует поведенческие стандарты и привязывает их к карьерным решениям.

Б. Брайсон, Б. Кросби и Л. Блумберг показывают, что управление в логике Public Value требует координации множества акторов и постоянной легитимации решений перед обществом [6]. Для кадровой политики это означает:

– приоритет компетенций сотрудничества (Co-production), этики и подотчётности;

– развитие инклюзивности и разнообразия как источника легитимности и качества решений;

– отказ от узко «аудиторного» понимания эффективности персонала в пользу оценки вклада в общественную ценность.

Сопоставляя аргументы Крамар, CIPD, Марлера-Будро и OECD, получаем четыре опорных принципа эффективной кадровой политики в госслужбе:

1. Устойчивость: баланс производительности и благополучия (Sustainable HRM) [2].
2. Адаптивность: децентрализация и цикличность практик (Agile HRM) [3].
3. Доказательность: аналитические связки «HR-метрики – результаты программ» [4].
4. Лидерство/ценности: поведенческие стандарты и публичная ценность как критерий кадровых решений [5; 6].

Рассмотренные выше принципы формируют рамку, в которой кадровая политика перестаёт быть вспомогательной функцией и становится стратегическим механизмом производительности и легитимности государственной службы.

## 3. Международный опыт повышения эффективности кадровой политики

Международные исследования и практики реформ государственной службы позволяют выделить широкий спектр инструментов, направленных на повышение эффективности кадровой политики. Сравнительный анализ демонстрирует, что страны с разными институциональными традициями сближаются в направлении более гибких, аналитически обоснованных и ориентированных на устойчивость кадровых решений.

1) Сингапур: кадровая политика как стратегический актив. Сингапур традиционно рассматривается как эталон стратегического управления кадрами в государственном секторе. Система Public

Service Leadership Programme сочетает централизованный отбор с долгосрочным развитием кадрового резерва. Важнейший элемент кадровой политики – интеграция ротации, когда перспективные служащие проходят работу в нескольких агентствах, что формирует у них комплексное видение государственного управления [7]. Особое внимание уделяется лидерским компетенциям, межведомственному сотрудничеству и гибкому управлению проектами.

2) Канада: HR-аналитика и доказательная кадровая политика. Канадская государственная служба активно развивает HR-аналитику для поддержки кадровых решений. Government of Canada создала платформу People Analytics, которая агрегирует данные о текучести кадров, вовлечённости, результативности обучения и здоровье служащих [8]. Исследования показывают, что такая аналитическая поддержка позволяет органам власти принимать решения о перераспределении ресурсов на основе фактов, а не интуиции, что повышает эффективность кадровой политики и доверие к управленческим решениям.

3) Скандинавские страны: устойчивое кадровое управление. Швеция, Дания и Норвегия активно внедряют практики Sustainable HRM. Центральным приоритетом становится благополучие служащих, гибкие формы занятости и баланс между профессиональной и личной жизнью [9]. Подобная кадровая политика обеспечивает не только снижение текучести кадров, но и формирует позитивный имидж государственной службы, что облегчает привлечение талантливых специалистов. Важным элементом является системная поддержка гендерного равенства и инклюзии, что повышает легитимность госслужбы в глазах общества.

4) Южная Корея: цифровизация и прозрачность. Южная Корея демонстрирует успехи в области цифровизации кадрового менеджмента. Интеграция HRTech в рамках e-Government позволила автоматизировать процедуры найма, оценивания и продвижения служащих. Система Government HRMIS обеспечивает прозрачность конкурсов и минимизацию коррупционных рисков [10]. Особый акцент делается на обучении государственных служащих цифровым компетенциям, что позволяет адаптировать кадровую систему к вызовам технологической трансформации.

Обобщая международный опыт, можно выделить несколько стратегических векторов:

- долгосрочное развитие кадрового резерва и лидерских компетенций (Сингапур);
- использование HR-аналитики для доказательной кадровой политики (Канада);
- приоритет устойчивости, благополучия и инклюзии (Скандинавия);
- цифровизация кадровых процедур и развитие цифровых навыков (Южная Корея).

Совокупность этих направлений демонстрирует, что кадровая политика становится ключевым фактором конкурентоспособности государственной службы. Для Казахстана актуальным остаётся вопрос адаптации данных практик с учётом институциональной специфики и приоритетов реформ.

## 4. Казахстанский контекст

Современная кадровая политика Казахстана развивается в условиях активных институциональных и цифровых преобразований. Основные направления заданы Концепцией развития государственной службы до 2030 года, утверждённой в июле 2024 года [11]. В документе акцент сделан на формирование профессионального корпуса, развитие лидерского потенциала и внедрение механизмов прозрачного карьерного продвижения, что соответствует общемировой тенденции перехода к компетентностно-ориентированной кадровой политике.

Одним из приоритетов становится цифровизация кадровых процессов. В Национальном докладе о цифровой трансформации Министерства цифрового развития (2022) подчёркивается необходимость интеграции HR-аналитики и автоматизации процедур в системе «E-kyzmet» [12]. Дальнейшее развитие этой платформы рассматривается как ключ к повышению прозрачности конкурсов, объективности аттестаций и минимизации коррупционных рисков. При этом сохраняется проблема недостаточной интеграции с другими информационными ресурсами и ограниченной практики использования аналитики для принятия управленческих решений.

Оценка результативности государственных служащих остаётся ещё одним чувствительным звеном. Указ Президента от 29 декабря 2015 года закрепил систему оценки деятельности, которая действует и сегодня. Однако в обзоре OECD Public Governance Scan of Kazakhstan (2025) отмечается, что текущая модель носит во многом формальный характер и слабо связывает индивидуальные показатели служащих с результативностью государственных органов [13]. Данные слабые зоны формируют риск подмены содержательных оценок бюрократическими процедурами. Значительное внимание уделяется и развитию управленческих компетенций. Согласно исследованию UNDP и Регионального хаба по государственной службе (ACSH), эффективность программ профессионального развития в Казахстане во многом зависит от интеграции обучения с карьерными траекториями и системами оценки [14]. Международные эксперты подчеркивают, что без увязки «обучение – продвижение – эффективность» долгосрочный эффект образовательных инициатив остаётся ограниченным.

В целом кадровая политика Казахстана сочетает прогрессивные элементы: стратегическую ориентацию, цифровизацию, развитие компетенций. При этом имеют место быть ограничения, связанные с формализмом процедур и недостаточным использованием аналитики. Благодаря чему формируется двойственный контекст: с одной стороны, создаётся институциональная база для модернизации, а с другой сохраняются риски воспроизводства прежних практик, что требует дальнейшей адаптации международных подходов к национальной специфике.

**5. Заключение**

Эффективность кадровой политики в системе государственной службы является одним из ключевых факторов, определяющих качество государственного управления, устойчивость институтов и уровень доверия граждан. Проведённый анализ показал, что международная практика выстраивается вокруг нескольких стратегических направлений: развитие кадрового резерва и лидерских компетенций (Сингапур), использование HR-аналитики и доказательных подходов (Канада), ориентация на устойчивость и благополучие сотрудников (Скандинавские страны), цифровизация кадровых процессов и формирование новых цифровых навыков (Южная Корея).

Казахстанский контекст демонстрирует стремление интегрировать эти тенденции в национальную систему. Принятие Концепции развития государственной службы до 2030 года, реализация цифровой платформы «E-kyzmet» и развитие HR-аналитики являются шагами в направлении модернизации кадровой политики. Вместе с тем сохраняются вызовы, связанные с формализмом процедур оценки результативности, ограниченной связью между обучением и карьерным продвижением, а также недостаточной глубиной использования данных для управленческих решений. Сравнительный анализ указывает на необходимость перехода от нормативно-бюрократической логики к более гибкой, результативной и ориентированной на человека модели кадровой политики. Для этого требуется институциональное закрепление практик HR-аналитики, формирование комплексных карьерных траекторий, увязка образовательных программ с продвижением и развитие механизмов оценки, учитывающих стратегические цели органов власти.

Дальнейшая эффективность кадровой политики в Казахстане будет зависеть от способности адаптировать международный опыт к национальной специфике, а также от готовности государственных институтов рассматривать кадровую сферу не как вспомогательный процесс, а как стратегический ресурс устойчивого развития страны.

**Список литературы:**


1. United Nations Department of Economic and Social Affairs (UN DESA). World Public Sector Report 2021: Leaving No One Behind in Public Service Delivery. – New York: United Nations, 2021. – 176 p. URL: https://publicadministration.un.org/en/Research/World-Public-Sector-Reports (дата обращения: 25.07.2025).
2. Kramar, R. Beyond Strategic Human Resource Management: Is Sustainable Human Resource Management the Next Approach? – The International Journal of Human Resource Management, 2014, Vol. 25(8), pp. 1069–1089. URL: https://doi.org/10.1080/09585192.2013.816863 (дата обращения: 25.07.2025).
3. Chartered Institute of Personnel and Development (CIPD). People Profession 2030: A Collective View of Future Trends. – London: CIPD, 2020. – 64 p. URL: https://www.cipd.org/uk/knowledge/reports/people-profession-2030/ (дата обращения: 25.07.2025).
4. Marler, J. H., Boudreau, J. W. An Evidence-Based Review of HR Analytics. – The International Journal of Human Resource Management, 2017, Vol. 28(1), pp. 3–26. URL: https://doi.org/10.1080/09585192.2016.1244699 (дата обращения: 25.07.2025).
5. OECD. Leadership for a High Performing Civil Service. – Paris: OECD Publishing, 2020. – 88 p. URL: https://www.oecd.org/publications/leadership-for-a-high-performing-civil-service-9789264291347-en.htm (дата обращения: 26.07.2025).
6. Bryson, J. M., Crosby, B. C., Bloomberg, L. Public Value Governance: Moving Beyond Traditional Public Administration and the New Public Management. – Public Administration Review, 2014, Vol. 74(4), pp. 445–456. URL: https://doi.org/10.1111/puar.12238 (дата обращения: 28.07.2025).
7. Public Service Division Singapore. Public Service Leadership Programme. – Singapore, 2022. – 42 p. URL: https://www.psd.gov.sg/what-we-do/developing-people/public-service-leadership-programme (дата обращения: 26.07.2025).
8. Government of Canada. People Analytics in the Public Service. – Ottawa, 2021. – 58 p. URL: https://www.canada.ca/en/treasury-board-secretariat/services/people-management-people-analytics.html (дата обращения: 30.07.2025).
9. Nordic Council of Ministers. Sustainable HRM in the Public Sector: Practices from Scandinavia. – Copenhagen: NCM, 2020. – 74 p. URL: https://www.norden.org/en/publication/sustainable-hrm-public-sector (дата обращения: 01.08.2025).
10. Kim, S., & Rhee, C. Digital HRM and E-Government in South Korea: Enhancing Transparency and Efficiency. – International Review of Administrative Sciences, 2019, Vol. 85(3), pp. 589–606. URL: https://doi.org/10.1177/0020852317751593 (дата обращения: 06.08.2025).
11. Указ Президента Республики Казахстан от 17.07.2024 № 602 «Об утверждении Концепции развития государственной службы до 2030 года». – Астана: Официальный сайт Президента РК, 2024. – 28 с. URL: https://www.akorda.kz (дата обращения: 27.07.2025).
12. Министерство цифрового развития, инноваций и аэрокосмической промышленности Республики Казахстан. Национальный доклад о цифровой трансформации. – Астана, 2022. – 72 с. URL: https://www.gov.kz/mcdi (дата обращения: 31.07.2025).
13. OECD. Public Governance Scan of Kazakhstan. – Paris: OECD Publishing, 2025. – 124 p. URL: https://www.oecd.org/publications/public-governance-scan-kazakhstan-2025 (дата обращения: 04.08.2025).
14. UNDP & ACSH. E-HRM in Kazakhstan: Evaluation of the Integrated Information System «E-kyzmet». – Astana: Academy of Civil Service, 2021. – 140 p. URL: https://www.undp.org/kazakhstan/publications (дата обращения: 05.08.2025).

# TECHNICAL SCIENCES

## THERMAL TREATMENT OF LOW-CARBON THIN-SHEET COLD-ROLLED STEEL BLANKS TO IMPROVE TECHNOLOGICAL PLASTICITY, PREVENTING THE POSSIBILITY OF DEFORMATION AGING AND REDUCING DEFECTS IN THE MANUFACTURE OF PRODUCTS

**Doschechkina I.,**
*Candidate of Technical Sciences,*
*Professor of the Department of Materials Science,*
*Kharkiv National Automobile and Highway University, Ukraine*
https://orcid.org/0000-0002-6278-7780
**Subotin V.**
*Postgraduate student of the Department of Materials Science,*
*Kharkiv National Automobile and Highway University, Ukraine*
https://doi.org/10.5281/zenodo.16987413

**Abstract**

Temperature and time parameters have been developed for high-speed recrystallisation annealing and subsequent ageing of thin-gauge cold-rolled steel 08 kp to achieve increased technological plasticity while maintaining strength and preventing natural ageing in order to reduce the number of rejects in blanks intended for cold deep drawing.

**Keywords:** thin cold-rolled steel 08kp, rapid heating and cooling, recrystallization annealing, overaging, strength, technological plasticity, aging, cold stamping

**State of the problem.**One of the most sought-after types of metal products in manufacturing is cold-rolled thin sheet metal, which is widely used in all sectors of the economy [1,2]. Due to the increasing complexity of product design and operating conditions, as well as the expansion of consumption in various important sectors of modern industry, it is very important to meet the needs of machine builders for cold-rolled thin sheet metal with increased technological plasticity and deep drawing capability, while maintaining its sufficient strength. At the same time, it is necessary to achieve an increase in labor productivity, a reduction in metal consumption, and savings in electricity and natural gas, which is very important in our time.

Cold-rolled thin sheet (0.5-0.8 mm thick) low-carbon steel grades 08kp, 08ps (the equivalent in is steel 1008 or 1010 according to the American standard AISI (ASTM) is an important structural material widely used in various fields of machine building, household appliances, building structures, etc. Parts made from this sheet metal are manufactured with minimal energy consumption due to significant cold plastic deformation with very deep drawing (category VG).

The ability of cold-rolled steel to deform well in a cold state is determined by the structure formed as a result of stress-relieving heat treatment of rolled products, the purpose of which is to reduce the yield strength and significantly increase the plastic properties ‒relative elongation with a sheet thickness of 0.5 to 1.5 mm is not less than 28%. [2,3]. For boiling steels, the best plasticity, and therefore stampability, is achieved with an equilibrium ferrite structure with a grain size of 6 to 8 points [4-6]. A high-quality smooth sheet surface is achieved with a uniform ferrite grain size of no more than 7 points [7]. Large grains lead to very rough surface roughness and product breakage after deep stamping. Eliminating this defect requires complex surface treatment operations on finished stamped products. The uniformity of grain size is also very important for successful deep and complex stamping. Mixed grains of varying sizes lead to uneven deformation and defects due to cracks [8].

To achieve high-quality cold forming processes, especially for complex shapes, the structure and properties of cold-rolled steel at metallurgical plants are most often achieved by prolonged recrystallization annealing of densely packed metal coils in batch-type bell-type furnaces [4,6,9]. The purpose of annealing is to reduce the yield strength and increase the ductility of the metal. According to [10], the recrystallization annealing temperature is set depending on the steel grade in the range from 680 to 740 ºС (below the critical point AC1). A homogeneous structure with equiaxed grains of 7-8 points is formed in the metal, which, according to [6, 9], ensures the best cold plastic deformation capacity of steel in the manufacture of products. With an increase in the annealing temperature, the plastic properties increase, but the strength characteristics decrease.However, annealing steel in bell-type furnaces has a number of specific disadvantages: uneven heating of steel sheet coils and heterogeneity of structure and properties along the length and width of the sheet, unsatisfactory surface quality [11,12], and a very long and energy-intensive process [4,6]. In addition, annealed steel undergoes natural aging after a certain period of aging. All these factors deteriorate the quality of steel and its ability to be deformed without defects during the manufacture of products by cold pressure processing methods.

High-speed continuous heat treatment in continuous mills is an effective and productive technology that combines recrystallization annealing and aging in a single process to soften cold-rolled steel, ensure stability of properties, and prevent natural aging. The main and undeniable advantage of high-speed processing is the irreversible reduction in time—from several days to several tens of minutes [13-14]. At the same time, significant temperature differences are eliminated, which allows for a uniform structure and properties of the sheet in the roll, as well as better shape and surface quality. The short processing time provides a significant increase in productivity. However, continuous high-speed annealing has its own requirements: each steel grade requires a certain thickness of rolled stock and degree of preliminary deformation, the use of low-carbon steels (0.05-0.06% C) that are well purified of harmful elements of penetration, which will be less susceptible to deformation aging after accelerated heating and cooling during annealing [14 -16]. All this requires additional technological operations and significant financial costs.

It should also be noted that enterprises that consume sheet products do not have effective methods for improving the quality of finished sheets (blanks) to correct and reduce defects. In this regard, the development of new methods for improving the quality of thin-gauge rolled steel 08kp, as well as the reprocessing of finished sheets (blanks) in order to increase technological plasticity while simultaneously increasing strength and preventing aging, is a pressing issue and has unconditional practical significance.

**Material and methods of research**. The study used cold-rolled 08 kp steel sheet with a thickness of 0.6 mm. In its initial state after rolling with 60% reduction, the steel had a textured structure with an average ferrite grain size of 60-70 μm and the following properties: $\sigma_B$ = 810 MPa, $\sigma_{0.2}$ = 640 MPa, $\delta \sim 2\%$.

Cold-rolled sheets were subjected to high-speed recrystallisation annealing at temperatures in the range of 680 -720 °C with a holding time of 5, 10 and 15 seconds. The sheet in a roll was heated on a heat exchanger drum unit, and the sheet blanks were processed on a heat exchanger flat plate unit. The sheet from the roll enters the furnace, where it successively wraps around two heated drums and is annealed as a result of contact with their surfaces. The blanks are annealed upon contact with the heated plates. Upon exiting the furnace, the sheet metal is cooled on water-cooled rollers. The heating and cooling rates were 100 and 80 °C/s, respectively.

After recrystallisation annealing, the steel was subjected to ageing at a temperature of 400 °C with a holding time of 5 seconds to 2 minutes. The natural ageing of the steel during its storage after heat treatment lasted 30 days.The effectiveness of annealing and overaging was evaluated based on the microstructure of the steel and its mechanical properties both immediately after heat treatment and after natural ageing.

The mechanical properties were determined by tensile testing using a standard method. The drawability of the steel was evaluated on 50 × 50 × 0.5 mm samples based on the results of tests using the Erichsen method.

Grain size and size distribution were evaluated using a special computer program.

**Results and discussions**. The size of the recrystallized grain of cold-worked metal depends on the heating temperature and the holding time, due to which the recrystallization processes are completed. The heating rate also has an effect: the lower it is, the larger the grain in the steel will be and the worse its properties will be. High-speed recrystallisation annealing at 680 °C with a holding time of 5 seconds completely eliminates the texture of deformed steel, but the ferrite grain remains large – average size 50–45 microns (5 on the grain size assessment scale) (Fig. 1, a). After a 10-second hold, small grains appear alongside grains measuring 30–35 μm, which is a result of the onset of recrystallisation processes (Fig. 1, b). When the hold time is increased to 15 seconds, a noticeable grain refinement to 23 μm is observed. However, grain size variability persists, with grains up to 10-12 μm in size being recorded (Fig. 1, c). Mixed grains of varying sizes lead to uneven deformation and defects due to breaks.

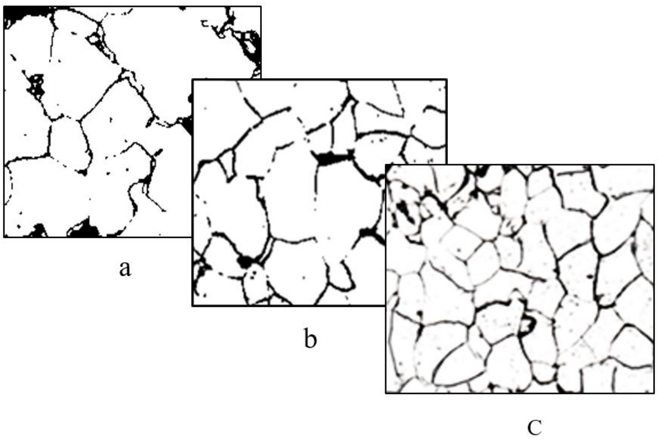
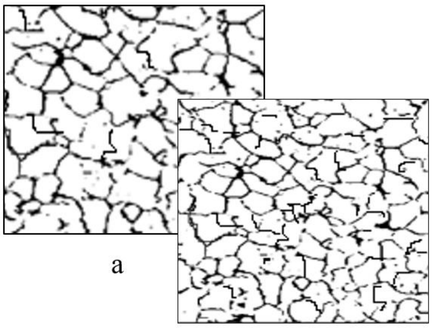



*Figure 1. Microstructure of 08kp steel after rapid annealing at 680 °C with holding times: a – 5 s ; b – 10 s; c – 15 s; ×500*

Annealing at a temperature of 700 °C with a holding time of 15 seconds ensures the formation of a structure with fairly uniform grains of a predominant size of 18-20 μm, which corresponds to number 8 of the evaluation scale (Fig. 2, a).When the temperature is increased to 720 °C and a holding time of 15 seconds, most of the grains have a size of 12-13 μm (number 10) (Fig. 2, b). It should be noted that such small ferrite grains contribute to the strengthening of the steel and complicate its processing by pressure methods in the cold state.



a

b

*Figure 2 – Microstructure of 08kp steel after rapid annealing at 700 °C with holding time: a –15 s ; b –after annealing at 720 °C with holding time 15 s; ×500*

Changes in the structure at different annealing temperatures with different holding times affected the mechanical properties of the steel, which, according to microstructural studies, indicate that the best mode of steel weakening is recrystallization annealing at 700 °C with a holding time of 15 s (Table 1). The obtained mechanical characteristics correspond to the category of very deep drawing for 08kp steel, which is achieved by long-term and low-performance recrystallization annealing in hood furnaces. Increasing the annealing temperature is not advisable both from the point of view of strength and technological plasticity of the steel.

Table 1.

Mechanical properties of cold-rolled steel after different recrystallization annealing regimes

| Annealing temperature, ºC | Exposure time, sec | Ϭв, MPa | Ϭ0.2, MPa | δ, % |
|---|---|---|---|---|
| 680 | 15 | 363 | 310 | 27 |
| 700 | 15 | 350 | 293 | 30 |
| 720 | 15 | 370 | 320 | 28 |

However, sometimes during storage or transportation of a steel sheet to the consumer, its natural aging occurs - the relative elongation δ significantly decreases (from 30 to 15%), and the strength indicators, especially the yield strength, increase (from 293 to 340 MPa), which is explained by the release of excess brittle phases from the supersaturated metastable ferrite solution, which was formed as a result of high-speed recrystallization annealing. The consequence of deformation aging of steel is a deterioration in its ability to deform in the cold state during the formation of products, which will lead to the impossibility of obtaining high-quality products and a significant number of defective blanks

To prevent the ageing effect, the steel was subjected to overaging after recrystallisation annealing under optimal conditions. Studies have shown that after overaging at 400 °C with a holding time of 2 minutes, plasticity increases (δ = 31.7%) while maintaining sufficiently high strength. The mechanical properties of steel remained almost unchanged over the course of a month (Fig. 3). Such stabilisation of mechanical properties over time, when structure formation processes proceed slowly, can be explained by the complete purification of the solid solution (ferrite) from excess carbon and harmful impurities and the achievement of a balanced structural state.

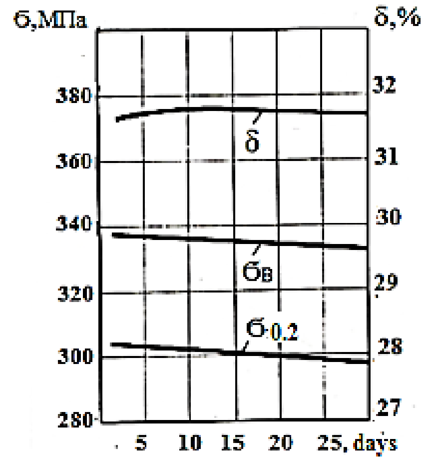



*Figure 3 – Mechanical properties of 08 kp steel after annealing (700 °C, 15 s), over-aging (400 °C, 2 min) and natural aging for one month.*

Considering that most parts made of thin-gauge cold-rolled steels are manufactured by cold stamping from drawn steel, the metal's ability to deform cannot be accurately assessed by strength and ductility indicators, which are determined by uniaxial tensile tests, while during stamping, the metal is subjected to biaxial tensile stress. Therefore, special technological tests are used to assess the stamping ability, when the same conditions are created as in the part manufacturing process. The simplest and most widespread method is the spherical indentation method, known as the Ericksen method, in which the diameter of the indentation is used to determine the metal's ability to be drawn during cold stamping of parts (Table 2).

The data in Table 2 and Fig. 4 show that high-speed two-stage heat treatment of sheet steel 0.8 kp with a thickness of 0.6 mm ensures high-quality formation of a hole with a depth of 10.1 mm, which corresponds to the OSV category - the ability of steel to particularly difficult drawing, and is usually guaranteed for higher-quality steel of the 08Yu brand (S235JR according to EN 10025-2).

Table 2.

Eriksen test results

| Annealing temperature, °C, holding time 15 s, over-aging | Hole depth without cracks, mm |
|---|---|
| 680 | 9,3 |
| **700** | **10,1** |

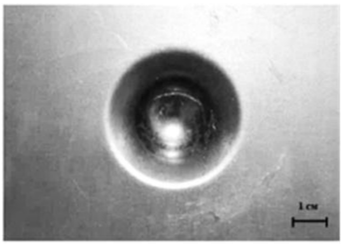



*Figure 4 – Eriksen test result of a sheet that underwent two heat treatments (annealing at 700 °C, 15 s and over-aging at 400 °C, 2 min)*

**Conclusions.**

High-speed (V = 100 °C /s) recrystallization annealing at 700 °C with a holding time of 15 s provides cold-rolled sheet steel 08 kp with a thickness of 0.6 mm with the best set of properties corresponding to the VG category, i.e. the ability of steel to cold deformation with very deep drawing.

Further natural deformation aging for a month of high-speed annealed steel 08 kp leads to a sharp drop in plasticity (δ almost 2 times) and an increase in strength

Two-stage high-speed heat treatment, consisting of recrystallization annealing in the optimal mode and subsequent aging at 400 °C for 2 minutes, provides cold-rolled steel 08kp with the OSV category - the ability to particularly difficult drawing and eliminates its deformation aging over time.

Continuous high-speed two-stage heat treatment with contact heating and cooling should be effectively used to increase technological plasticity without loss of strength of blanks from an already finished sheet and to reduce defects when forming products by cold deformation methods. To improve the deformation of blanks, bell furnaces and continuous annealing installations for rolled sheet are not suitable.

**References:**

1. Cold-rolled steel: characteristics, features, applications [Electronic resource] – Access mode:https://government.com.ua/nashi-hroshi/kholodnokatana-stal-kharakteristiki-osoblivosti-zastosuvannya.html, 2021.

2. Vasilev Ya.D., Samokish D.M., Zhuravlyova S.V., Proydak Yu.S., Zamogylny R.O. The state of production of thin flat steel rolled products in the world and trends in the development of cold rolling mills. Theory and practice of metallurgy. 2019. No. 1. pp. 15–28.

3. Thin-sheet steel: Monograph / Y.S. Proydak, V.Z. Kutsova, M.A. Kovzel, T.V. Kotova, G. P. Stetsenko / Dnipro: NMetAU, 2018.

4. Chubenko V. A., Khinotska A. A. Technology of rolling production: a textbook. Kryvyi Rih: Publishing center of KNU, 2017. 169 p.

5. Protsenko V. M., Bondarenko Y. V., Yavtushenko A. V. Heating technology and heating equipment in pressure metal processing: educational and methodological manual. Zaporizhzhia: ZNU, 2021. 126 p.

6. Sigova V. I. Technology and design solutions for thermal workshops and sites: a manual. Sumy: Publishing house of SumDU, 2011. 318 p.

7. Sologub M.A., Rozhnetsky I.O., Nekoz O.I. Technology of structural materials and materials science. K. Tekhnika, 2002. 374 p.

8. Opalchuk A.S., Technology of structural materials and materials science. Textbook. / Opalchuk A.S., Aftandylyants E.G., Klendiy M.B., Rogovsky L.L., Semenovsky O.E. Nizhyn.: LLC "Publishing house "Aspect-Polygraph", 2012. 792 p.

9. Nikolaev V. O. Technology of production of long and sheet metal. Part 1 textbook / V. O. Nikolaev, V. L. Mazur, Zaporizhzhia: ZGIA, 2000. 258 p.

10. Recrystallization annealing [Electronic resource] – Access mode: https://studfile.net/preview/7381342/ page: 4/ 09.12.2018

11. Annealing of Cold Rolled Steel , Satyendra November 9, 2013 steel [Electronic resource] – Access mode: https://www.ispatguru.com/annealing-of-cold-rolled-steel/

12. Mikhailov V. M. Technology of structural materials and materials science. Laboratory practical: teaching manual / Mikhailov V. M., Lebedynets I. V. Kh: KhDUKHT, 2016. 196 p.

13. Annealing of Cold Rolled Steel , Satyendra November 9, 2013 steel [Electronic resource] – Access mode: https://www.ispatguru.com/annealing-of-cold-rolled-steel/

14. Recrystallization annealing of steel [Electronic resource] – Access mode: https://www.tec-science.com/material-science/heat-treatment-steel/ annealing-process-of-steel-recrystallization-annealing/ 2021

15. The effect of heating a deformed metal on its structure and properties [Electronic resource] – Access mode: https://studfile.net/preview /9269637/ page:11/ 2019.

16. The effect of heating a deformed metal on its structure and properties [Electronic resource] – Access mode: https://studfile.net/preview/ 8437262/page:2/

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