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MODEL FOR ANALYSIS AND EVALUATION OF SUSTAINABLE CITIES IN BULGARIA IN THE CONTEXT OF LOCAL PUBLIC POLICY APPLIANCE

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Abstract. *In recent years, the digitalization of the economy and the increasing demand for resources have created several challenges for developing countries, their regions, and urban agglomerations. Therefore, many governments have undertaken significant changes in the policies applied to developing regions and cities. These new concepts are aimed at gradually building sustainable and smart cities. This is the response of countries to new challenges such as the digital environment, combating climate change, and maintaining favorable living conditions due to the strong environmental and socio-economic degradation. In this regard, the authors set as their main research objective to analyze and assess the sustainability of cities and the surrounding territory by implementing sustainable development policies at all levels. A major task and difficulty for the authors is to build upon and refine a model that can be used to assess sustainable and smart cities. In this paper, the authors propose an approach to studying sustainable cities, thus evaluating the effects of policies implemented in this field. The model includes the main groups of indicators that are used to analyze the sustainable and smart development of municipalities in the Northeast region of Bulgaria. Based on these indicators, data is collected, and processed, and comparative and statistical analysis is carried out to assess their sustainability and intelligence. The authors reach important conclusions such as an unsatisfactory level of sustainable and intelligent development, although the environment and conditions at the national level are favorable. In fact, in Bulgaria, based on the assessment of the studied municipalities in the Northeast region, it is clear that we cannot talk about sustainable cities because Bulgarian municipalities are still at the beginning of this development path.*

Keywords: *smart development, territorial sustainability, sustainable development, sustainable and smart cities, Bulgaria.*

Reikšminiai žodžiai: *išmanioji plėtra, teritorinis tvarumas, tvarus vystymasis, tvarūs ir išmanūs miestai, Bulgarija.*

Introduction

Sustainable development is not a new concept, but it has gained significant importance in the last decade in the context of combating climate change. In this direction, the European Union has embarked on a transition towards a carbon-neutral economy by 2050, with the Green Deal between European countries. The policies and measures set out are aimed at improving living conditions in urban areas and large cities, as well as initiatives to clean up and protect the environment. The policies thus described are mainly targeted at urbanized urban areas, where the production facilities that pollute the natural and urban ecosystems are usually located. Therefore, in urban urban areas, policies toward achieving a climate-neutral environment, including economic neutrality, are beginning to be implemented. In this context, it becomes very important to manage the territory and the urban economy to achieve sustainable results, which also includes the rational use of available resources, energy-independent buildings, the development of environmentally friendly transport, the implementation of intelligent management systems for buildings, homes, and waste, the use of environmentally friendly, recycled or environmentally friendly materials in construction, etc. Here we have a classic problem where, depending on how we want to look at the problem, we can see the glass as either half full or half empty. On the one hand, it is encouraging that public institutions in Bulgaria, at the local level, feel the need to use new technologies to make their internal processes more efficient and offer better services to citizens and companies. On the other hand, without a functional national framework for interoperability, common standards, and clear rules for interconnection, the specific solutions of different public institutions (and sometimes departments within these organizations) experience difficulties in communicating with each other, data exchange is difficult or impossible, data duplication is the norm and integrating these islands of e-government into a coherent national system will be difficult. This shows that a national vision of education is needed. The emerging signs of digital development at the national level are encouraging, but until the central administration finds the resources (financial, human, authoritative) for a coherent program of reforms to develop the necessary infrastructure for a national e-government system (and we do not „here does not mean only physical infrastructure, but also software, legislative and regulatory), cities will continue to create and implement digitization projects according to their priorities and resources, with all the advantages and disadvantages that this direction implies.

Thus, the purpose of this article is to deduce the specific regional and local policies aimed at achieving sustainable and smart urban development to show their need and necessity. That is why we set ourselves the task of understanding the nature of sustainable and smart cities, on the one hand and managing the transformation of cities and urban territory in favor of people. Another essential task is to show, on the other hand, the need to analyze and evaluate the policies applied to achieve territorial sustainability and a sustainable smart urban environment to achieve their improvement and actualization of the set goals and objectives. In this regard, the main idea of the authors is to propose a model for analyzing and evaluating the implementation of policies towards the development of sustainable and smart cities. The developed model is applied to urban centers in the northeast region of Bulgaria. The application of the evaluation model developed by the authors shows significant differences between the development of cities. In practice, Bulgarian cities in the studied region are at the beginning of their transformation towards sustainable and smart cities. The authors use geographic information systems as an important tool to analyze and illustrate the imbalances and achievements in the process of sustainable smart urban development.

Research Methodology

An important area related to the transition towards sustainable cities is the measurement of their resilience and smartness. In practice, the assessment of progress toward becoming sustainable cities focuses on the analysis of the effects of the implementation of good practices and policies for the sustainability of agglomerations and territories (Morano, Tajani, Guarini, Sica, 2021; Yigitcanlar, 2018). In this sense,

measuring sustainability is the effect of implemented policies on the urban environment. Sustainable city development policies reflect the improvement of the local ecosystem. This is done by making urban systems smart, which reduces the number of resources that are needed for the urban center.

The authors propose a sophisticated model for the assessment of public policy and practices in the field of sustainable city development. The results that the authors achieved are related to the effectiveness of sustainable city policy through the Bulgarian municipalities' progress in the transition to smartness and territorial sustainability. At the same time, Bulgaria's membership in the European Union requires us to comply with the guidelines and its policies in the direction of the practical implementation and development of intelligent technologies in the individual territories. The European Parliament (2014) offers a simple definition that includes different concepts: A smart city seeks to solve societal problems through technology-based solutions within a partnership between different actors, both public and private.

The proposed methodology is based on the opinion that territorial sustainability and smart city development are complex and integrative processes. They made social, economic, and ecological changes in the environment. In this sense, there is an objective need for the analysis and evaluation of sustainable city policy which requires the use of interdisciplinary and network approaches. The authors use comparative, statistical, and GIS analysis.

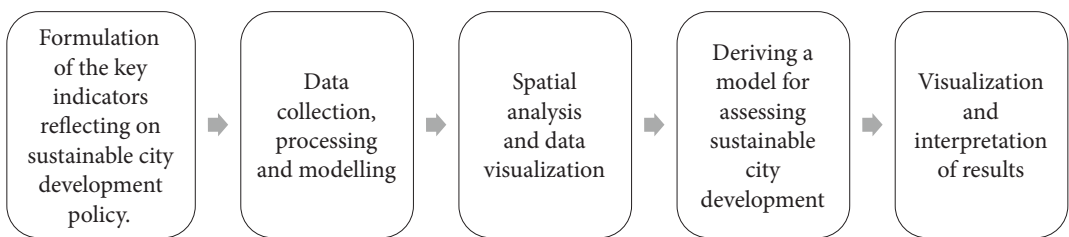


Figure 1. Research framework.

Source: Authors.

The study's main objective is to analyze and assess the smart and sustainable development of municipalities in the Northeast Planning Region through a developed model. The relevance of the research stems from the transition that cities are going through on the way to smartness and sustainability. There is a strong necessity for sophistication and upgrade of sustainable city policies evaluation, especially in the context of the Green Deal.

The important part of the research methodology is the formulation of indicators for the evaluation of sustainable city development. Based on the proposed system of indicators and criteria for the evaluation of municipalities, the authors calculate their weighted values, which express the generalized model for the evaluation of municipalities. The authors use the data for the period from 2015 to 2021. In the many definitions of smart cities, it is common to talk about the use of indicators to evaluate and analyze the level of intelligence of cities.

It is assumed that the conceptual framework of 'smart territory' emerges strongly not only as an extension of the smart city concept but also as its opposite. This suggests that hard work needs to be done to derive indicators that indicate the sustainable framework for achieving smart cities. Of course, this may require a numerical divide between and within geographical areas, especially in rural areas or villages. This calls for us to broaden the field of analysis and apply an interdisciplinary approach as well. On the other hand, however, the concepts of smart and sustainable development of territorial units have a common vision and share similar goals. This implies a boundary-spanning approach in defining common,

interrelated factors and criteria for the assessment, analysis, and measurement of smart sustainability. In this way, the evaluation indicators themselves can be defined more easily and have a consensual character. To achieve a common analysis and evaluation of a comprehensive system of indicators that measure, for example, the status or progress towards smart sustainability, we need to choose indicators that are close to both concepts. Such common evaluation indicators could be:

Internet infrastructure. It includes broadband network connectivity in the territory, the share of the population with access to the Internet;

- Adoption of the Internet of Things (IoT) concept - individuals/businesses/administration using Internet-connected devices and systems, and use of the Internet to interact with administrative bodies and public institutions.

Smart Governance. Includes e-government services directly linked to digital infrastructure:

- availability of digital delivery platforms, by local administration and citizen access to public services
- availability and accessibility of public data for public use and transparency of information;
- availability of platforms and mechanisms for citizen participation in decision-making processes.

Sustainable infrastructure. Includes engineering and technical infrastructure such as:

- Energy infrastructure - renewable energy installations, energy-efficient buildings, energy efficiency systems, and technologies;
- transport infrastructure - provision of different modes of transport to populations and settlements, quality of transport infrastructure, transport management systems (smart mobility);
- social infrastructure - provision of hospitals, healthcare facilities, and access to social services;
- waste management - the proportion of population and settlements covered by waste collection systems, waste collection, and treatment facilities, and intelligent waste management systems;
- water management - efficient use of water, water supply and sanitation systems, wastewater treatment plants.

Innovation and technology. Includes development of innovation, research, and development - investment in research, collaboration between academia and industry;

- the presence of innovation centers, technological enterprises, Start-up systems, the share of employees in these types of enterprises, and the digital skills of the population.

Environmental sustainability - includes activities related to environmental management and protection:

- Air pollution - levels of harmful emissions and greenhouse gases, promotion and investment in renewable energy sources, reduction of fuel use;
- biodiversity conservation - protected areas, biodiversity conservation investments, habitat restoration, and sustainable land use practices;
- waste management - measures to improve waste and wastewater management, reduce the amount of waste generated by households and industry, involve citizens in waste management, and separate waste collection.

Social and cultural sustainability - related to social justice, well-being, and quality of life of citizens:

- Access to services - health, education, justice, transport, and mobility. Social justice - material and social deprivation, populations at risk of poverty and social exclusion;
- Preservation of cultural and historical heritage - measures and investments to preserve cultural diversity, support local cultural practices, and maintain heritage sites.

Economic development - includes indicators to measure the economic progress of the territory:

- assessment of the overall economic performance and growth of the territory - GDP growth, GVA, the

economic activity of the population, number of enterprises, amount of investment in different sectors of the economy;

- socio-economic development indicators - employment and household income, labor migration.

The measures thus considered can be presented as follows:

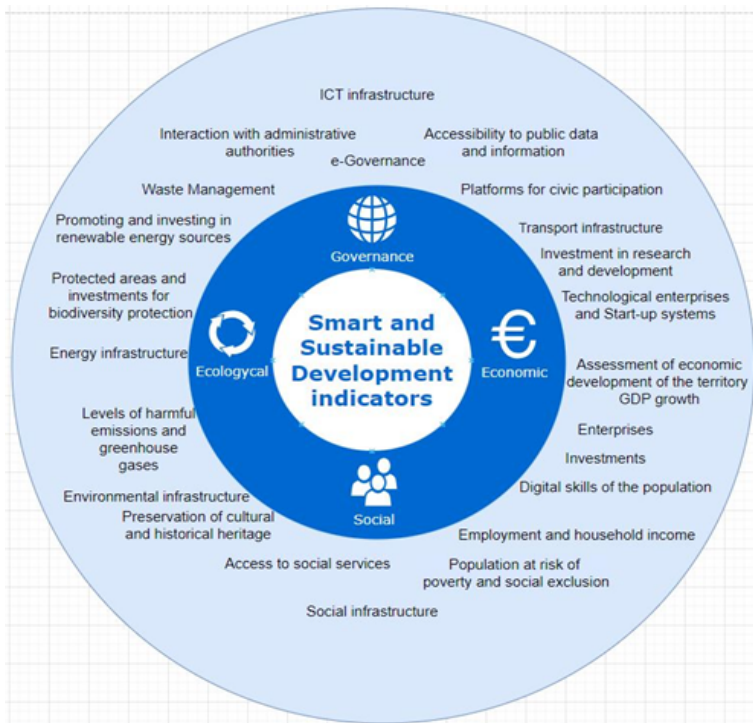


Figure 2. Measurement directions.

Source: Authors.

Each of the indicators is relevant to all elements of sustainable development and they cannot be categorically grouped by the respective dimensions of sustainable development. A change in the values of one indicator has an impact on the values of another indicator.

This system of indicators and benchmarks provides a generalized framework for assessing the smart and sustainable development of municipalities. Using these indicators, the progress of territorial units can be assessed, areas for improvement can be identified and efforts can be directed towards achieving a smarter and more sustainable urban environment.

Analysis of the theoretical framework in the field of sustainable and smart cities

The population is growing globally. This process is strengthened by the tendency of rapid expansion of cities. The excessive concentration of population in urban agglomerations creates several problems. These are related to the limitation of living space, the deterioration of the quality of the urban environment, and living conditions. At the same time, these processes are complemented by a reduction in the resources that urban centers need. The ongoing trends that are described are taking place in a changed digital environ-

ment, economy, land, and resource use reduction. In megacities and other urban centers, therefore, two concepts are intertwined - sustainable and smart development. Therefore, we can conclude that modern cities are distinguished by two main characteristics - sustainability (Trindade, Hinnig, da Costa, Marques, Bastos, Yigitcanlar, 2017; Quijano, Hernández, Nouaille, Virtanen, Sánchez-Sarachu, Pardo-Bosch, Knieiling, 2021) and smartness (Cai, Kassens-Noor, Zhao, Colbry, 2023; Gracias, Parnell, Specking, Pohl, Buchanan, 2023; Komninos, 2013; Komninos, 2011).

These two conceptual understandings argue for the development of sustainable cities (Egger, 2006; Cohen, Guo, 2021). In the scientific literature, we can find different definitions of sustainable cities such as “zero-carbon city”, “ubiquitous eco-city” („U-eco-city“), and free eco-city (Hassan, Lee, 2015). Some authors explore the difference between a smart and sustainable city (Ahvenniemi, Huovila, Pinto-Seppä, Airaksinen, 2017). This analysis presents the definitions of the two terms. In most of the definitions, the authors apply a three-dimensional evaluation system - social, economic, and environmental dimensions. Of course, the governance of urban systems is paramount to achieving sustainability. Effective urban management affects the resources used (reduction of resources used). Efficient urban management mainly concerns water supply systems, electricity distribution, municipal waste, environmental construction, and urban transport. Achieving efficiency of systems is linked to their transition to smartness.

In practice, sustainable urban development precedes the smart city concept. Sustainable development as a view is not new, but in the last decade it has begun to establish itself as a conceptual understanding of urban development (Baker, 2015; Parris, Kates, 2003). An analysis of the literature reveals a plethora of studies aimed at uncovering key characteristics of sustainable and smart cities (Bibri, Krogstie, 2017; Bibri, 2018; Zhao, 2011; Evans, Karvonen, Luque-Ayala, Martin, McCormick, Raven, Palgan, 2019; Konbr, 2019). Some of the research is aimed at enriching the theoretical framework of sustainable cities (Laconte, 2018; D'Auria, Tregua, Vallejo-Martos, 2018; Höjer, Wangel, 2015; Janik, Ryszko, Szafraniec, 2020).

There are more than 43 definitions of a smart city. They are related to different areas such as ICT, e-government, e-services, etc. In recent years, the two concepts have been merged into the concept of a sustainable city.

The review of the academic literature shows that two main characteristics of smart sustainable cities can be identified - sustainability and smartness. To achieve the construction of a sustainable smart city the foundation must be laid. It is related to territorial governance and achieving territorial sustainability and smart development. Some studies can be found in this direction (Battisti, Campo, Manganelli, 2022; García-Madurga, Grilló-Méndez, Esteban-Navarro, 2020; Troisi, Ciasullo, Carrubbo, Sarno, Grimaldi, 2019; Mitriță, Dumitrașcu, Mocanu, Grigorescu, Șerban, 2021).

An important strand of the academic literature in this area covers the analysis and evaluation of various authors on territorial sustainability and progress in building smart sustainable cities. According to the authors, resilience is a key objective in developing strategies to transform cities into smart and sustainable (Quijano, Hernández, Nouaille, Virtanen, Sánchez-Sarachu, Pardo-Bosch, Knieiling, 2022). These plans aim to manage territorial sustainability, which includes achieving resource efficiency, resilience, and smart cities. Therefore, according to the authors, the definition of indicators and the evaluation of procedures are very important.

In fact, according to the authors, making a city sustainable and smart increases its attractiveness. This concept is also adopted by other authors who believe that such a city should provide better services in transport, health, and education. The authors are aware of the importance of building a system (framework) of indicators for grading the performance and sustainability of smart cities (Petrova-Antonova, Ilieva, 2018). Similarly, Garam and Pavan's attempt to assess the quality of cities through the use of indicators and other methods for the evaluation of smart and sustainable cities is in line with their views. (Garau, Pavan, 2018). They apply their methodology to the city of Cagliari, Italy. Some indicators are related to the development of smart city strategies, high quality of life, sustainable economic development, and others. Key indicators are environment, mobility, people, economy, governance, and technology. Growth is based on better infrastructure, healthcare, smart communication, social infrastructure, and security.

Other authors share similar views that benchmarking should be applied based on standardized indicators for smart sustainable cities. (Huovila, Bosch, Airaksinen, 2019). The authors define a system of 413 indicators that are based on standards of indicators for 7 different cities.

Other studies focus more on the performance and performance of sustainable smart cities. One of them focuses researchers' attention on empirical benchmarking by developing and applying optimization patterns in China (Li, Fong, Dai, Li, 2019).

The other research focuses on an overview of the trends, architectural patterns, components, and challenges of building smart sustainable cities (Silva, Khan, Han, 2018).

Analyses related to smart city governance are also available. The research focuses on the choice of an approach to assess community participation in policymaking (Castelnovo, Misuraca, Savoldelli, 2016).

Research can also be found that explores the assessment and opinion of the local community regarding the development of smart sustainable cities (Macke, Sarate, de Atayde Moschen, 2019). All analyses cover different aspects of smart and sustainable cities. An important part of them includes the analysis and assessment of the pace of development and the achievement of goals related to the sustainability and smartness of urban systems.

Results of the municipalities' comparative analysis and evaluation

The analysis of the municipalities of the North-Eastern Planning Region in Bulgaria aims to present the current state of smart and sustainable development of the municipalities. The analysis includes some of the key indicators and benchmarks for smartness and sustainability. The focus is on the four urban centers - municipalities with a population of over 40,000 people - which have a role as growth drivers in North East Bulgaria.

As can be seen from the Figure 3, the distribution of the population across the country is uneven, concentrated in the main urban centers in Bulgaria. These urban centers have emerged as economic growth centers and are characterized by higher levels of GDP per capita.

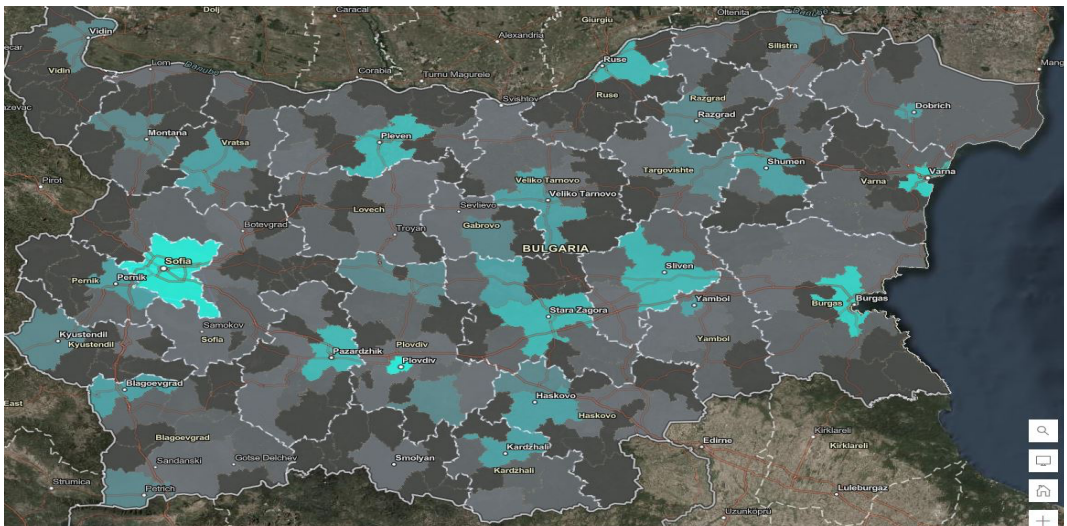


Figure 3. Population distribution by municipality and GDP per capita levels by 2022.

Source: Authors.

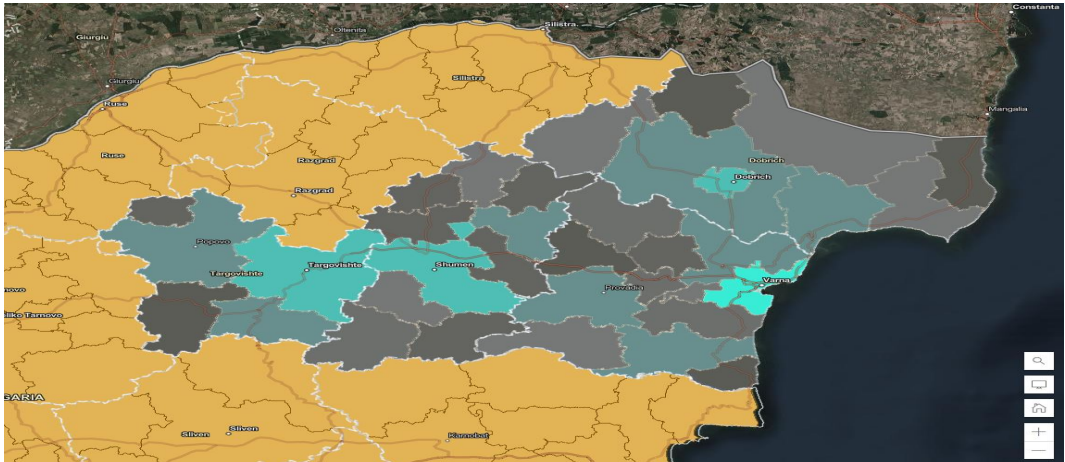


Figure 4. Population distribution by the municipality and GDP levels for the Northeast planning region in Bulgaria by 2022.

Source: Authors.

For the Northeast planning region such economic centers are the municipalities of Varna, Dobrich, Shumen, and Targovishte. The population of the region as of 31.12.2022 is 823 884 people, which is 13% of the population of the country. The population of the region is mainly concentrated in the four municipalities, with Varna municipality accounting for 39% of the region's population, Dobrich, and Shumen municipalities with about 9% each, and Targovishte municipality with 6% of the region's population (Figure 4).

The region's GDP for 2022 is BGN 13 892 million, which is 10% of the country's total GDP. The largest economic center Varna produces about 60% of the region's GDP, followed by Dobrich with 15%, Shumen with 15%, and Targovishte with 10% of the region's total GDP. The region's GDP per capita is BGN 15,135, which is significantly behind the national average (BGN 24,247) and the EU average (BGN 68,987, according to Eurostat).

The application of ICTs and the population's ability to access and use these technologies are most important for progress toward the smart and sustainable development of cities and municipalities. ICTs are relevant to citizens' access to information, citizen-local government interaction, business-local government, citizen participation in urban planning processes, infrastructure, waste, and environmental management, etc. For the application and use of ICTs in urban settings to be effective, certain factors that have a direct impact on progress toward smartness and sustainability need to be considered:

Firstly, the provision of territory and the population's access to digital infrastructure.

In recent years there has been an increase in the proportion of the population with access to the Internet. The proportion of households with internet access in the Northeast region for 2022 is 85.4%, which is close to the national average of 87.3%, with a trend towards the EU average of 92.4% (Figure 5).

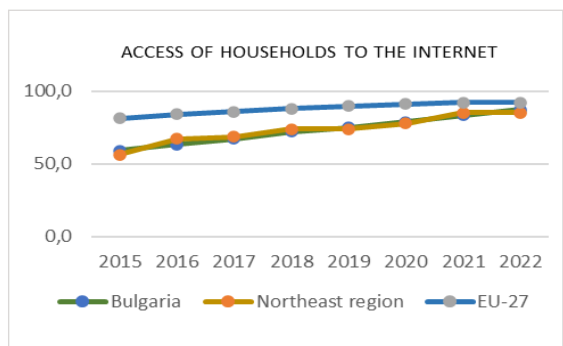


Figure 5. Household internet access 2015-2022.

Source: Authors.

Naturally, urban centers are better provided with 88.8% internet access and 82.4% provision in rural areas. The share of enterprises with Internet access is similar, just over 90%.

Next, the interaction of citizens/businesses with public institutions and access to public e-services.

For the period 2015-2021, there is an increase in the share of people using the Internet to interact with public institutions, reaching 26.6% in 2021. This interaction mainly consists of obtaining information from a public institution's website or app 19.1%; submitting documents, forms, declarations, or reports online 15.5% (Figure 6).

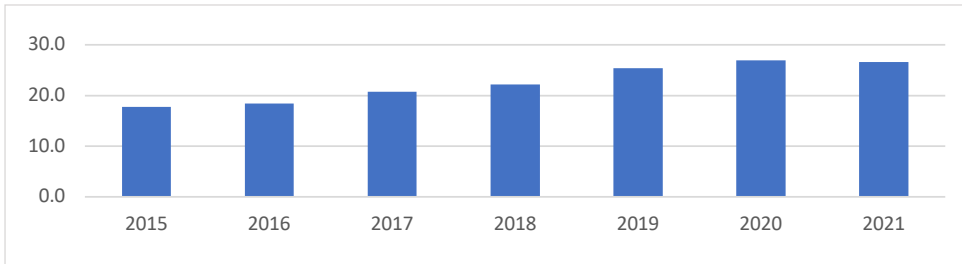


Figure 6. People use the Internet to interact with public institutions.

Source: Authors.

The age and educational structure of the population is the next most important factor in the use of ICT.

As seen in the figure, people with higher education use the Internet more and more often. Most of the younger population also uses the Internet more often, with over 90% of the 16-44 age group. As the age of the population increases, the percentage using the Internet regularly decreases. The employment status of the population also has an impact, with the employed using the Internet significantly more than the unemployed. The highest proportion of students is 98.9% (Figure 7).

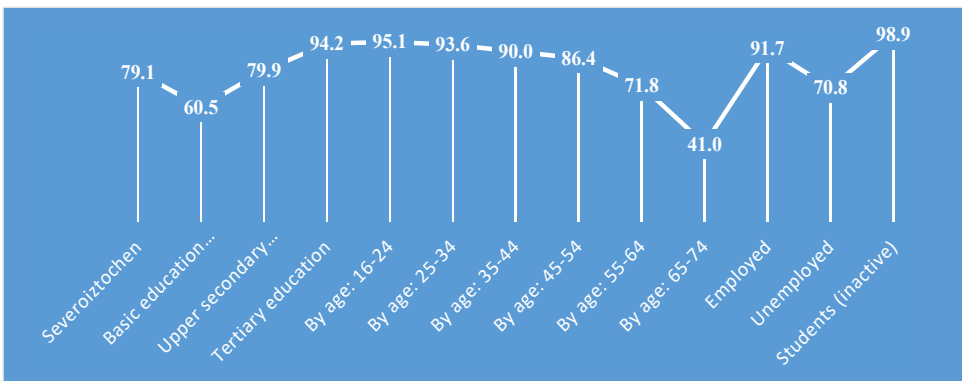


Figure 7. Persons using the Internet regularly (every day or at least once a week), 2021.

Source: Authors.

The level of education has a bearing on the use of the Internet to interact with public institutions, with the proportion of those with higher education at 55%, with secondary education at 22.8%, and with primary education or less at 5.1%.

In summary, it can be said that in recent years the internet connection and internet usage of the population has tended to increase and reach the European average. Increasing education and employment (income) of the population has an impact on the use of the Internet and the purpose of its use. At the same time, the penetration of new technologies is changing the vision of industrialization and increasing innovation. In addition, the drive to make cities inclusive and safe. This can also be done by using the components of the Digital Economy and Society Penetration Index. In practice, the Digital Economy and Society Index (DESI) monitors Europe's overall digital performance and tracks the progress of EU countries in terms of their digital competitiveness. It monitors Member States' performance on digital connectivity, digital skills, online activity, and digital public services on an annual basis to assess the state of digitization in each Member State and to identify areas requiring priority investment and action.

The data on the current situation of the municipalities under consideration in the North-East planning area, related to the indicators derived for the assessment of smart and sustainable development, are presented in the attribute table of the GIS system. The figure presents visualized data on the key indicators of the current state of the municipality.

Varna Municipality, the main economic center, is characterized by significantly higher levels of socio-economic and technological development than the other municipalities in the region. As of 2021, the population of the municipality is 341,737 people, with the share of the working-age population being 62.8%. The age dependency ratio of the population is 62.8%, that is, 37.2% of the population is below and above working age, with 22.6% of the population aged 65 and above (Figure 8).

The educational structure of the population shows that the highest share of persons aged 25-64 years with completed secondary education is 50%, with primary or lower education - 7.5% and completed higher education 42.5%.

In terms of access to the Internet, Varna Municipality has indicators above the national and EU average - 99.4% of the population has access to the Internet. Nearly 90% of people aged between 16 and 74 in the municipality use the Internet every day or at least once a week (Figure 8).

Varna Municipality has an environment for providing electronic administrative services. For example, the water supply and sanitation sector allows for full digitization. Compared to other large urban centers, a wider range of administrative e-services is offered - more than 100 e-services for the population and busi-

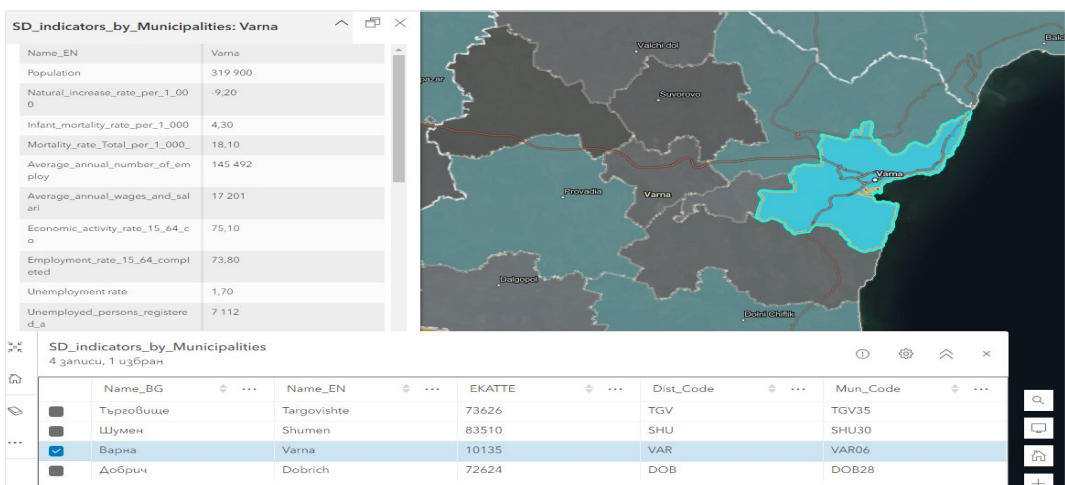


Figure 8. Visualization of Varna Municipality Key Indicators.

Source: Varna Municipality.

ness, in the following areas: Human Resources Management, Information and Administrative Services, Ecology and Environmental Protection, Municipal Property, Economy and Business Activities, Tourism, Architecture, Urban Planning and Planning, Engineering Infrastructure and Public Works, Local Taxes, Security Management and Public Order Control, Healthcare (Varna Municipality, 2023).

In the North-Eastern Planning Region of Bulgaria, after Varna Municipality, Dobrich Municipality ranks in terms of socio-economic and technological development.

As of 2021, the population of the municipality is 80,936 people, with a 64% share of the working-age population. There is an aging population, with nearly 22% of the population over 65. The economically active population is 68%, while the unemployment rate is 3.5%.

The educational structure of the population shows that the largest share of persons aged 25-64 years completed secondary education - 56%, with primary or lower education - 17% and completed higher education 27%.

The relative share of the population with Internet access is 97%, and the level of digital skills is relatively low. The relative share of people aged 16-74 using the Internet regularly is approximately 90%.

Based on the information provided by the Municipal Information Portal of Dobrich (Dobrich Municipality, 2023), the municipality is connected to a unified model for requesting, paying for, and providing electronic administrative services with 69 electronic forms for electronic administrative services developed and published in the following areas (Figure 9).

The other urban center, Shumen Municipality, is characterized by significantly lower-than-average levels of socioeconomic and technological development.

As of 2021, the population of the municipality is 72,997 people, with a working-age population of 65.75%. The proportion of unemployed is significantly high at 4.2%, while the economically active population is 67.7%. About 20% of the population is over 65 years of age.

The educational structure of the population is like that of Dobrich, with the share of persons aged 25-64 with completed secondary education being 56.6%, with primary or lower education - 16.4% and completed higher education 27% (Figure 9).

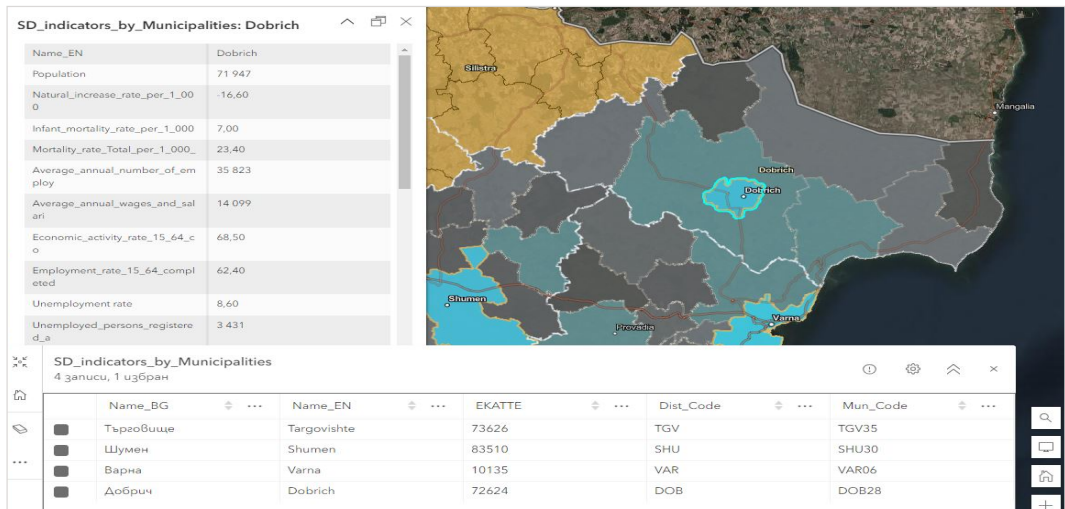


Figure 9. Key measures of Dobrich Municipality.

Source: Dobrich Municipality.

The relative share of the population with Internet access is 96.4%, and the level of digital skills is also relatively low. The relative share of people aged between 16 and 74 using the Internet regularly is around 85%. Shumen Municipality provides 34 e-services (Shumen Municipality, 2023) (Figure 10).

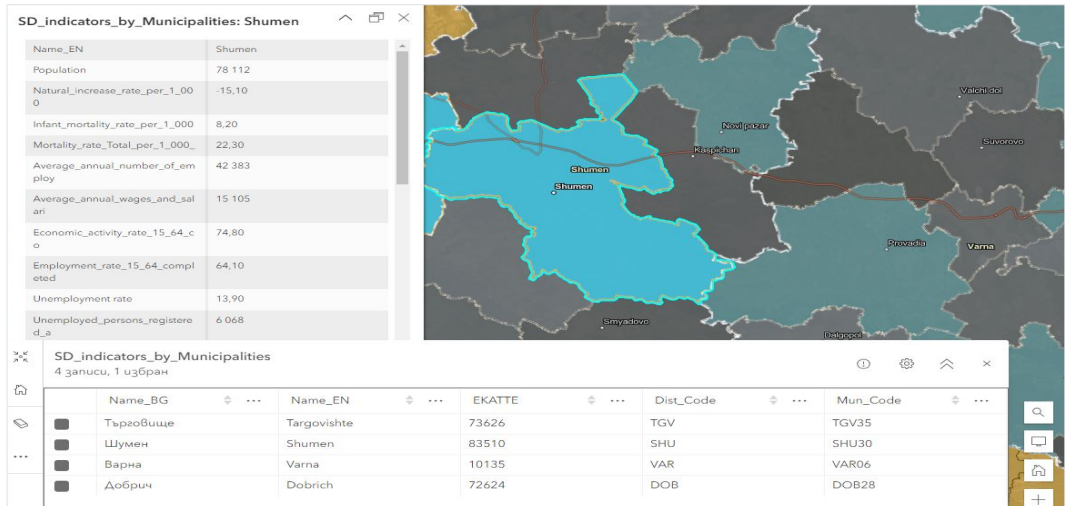


Figure 10. Key measures of Shumen Municipality.

Source: Shumen Municipality.

With the lowest levels of socioeconomic and technological development in the Northeast planning region is the administrative center of Targovishte.

The levels of development of the municipality are significantly lower than the national average. The population of the municipality is 53,041 in 2021. The economic activity rate of the population aged 15-64 is 62.4%, while the unemployment rate exceeds 10%.

The relative share of the population aged between 25 and 64 with secondary education is 50.6%, with primary and lower education 32.2% and with higher education 17.1%.

The relative share of the population with access to the Internet is about 97%, and the level of digital skills of the population is significantly low. The relative share of people aged 16-74 using the Internet regularly is about 80%.

The Municipality of Targovishte provides a significant number of electronic administrative services - over 100, in the following groups (Targovishte Municipality, 2023) (Figure 11).

It is noteworthy that the e-services portals of the municipalities of Varna, Shumen, and Targovishte work only in Bulgarian.

The provision of Internet and e-services in the examined municipalities of the Northeast planning region is relatively good and exceeds the EU average of 19 e-services by a significant margin. The more remote and sparsely populated places in the municipalities mentioned are characterized by certain communication difficulties, both socially and economically, which isolates them from the social and cultural life of the country. In this regard, the public authorities should create conditions for the inclusion of information and communication technologies in people's lives and the implementation of Smart city initiatives. This corresponds with the ongoing process of providing access to online services for people living in slums and remote areas, aiming to overcome these trends and promote social cohesion.

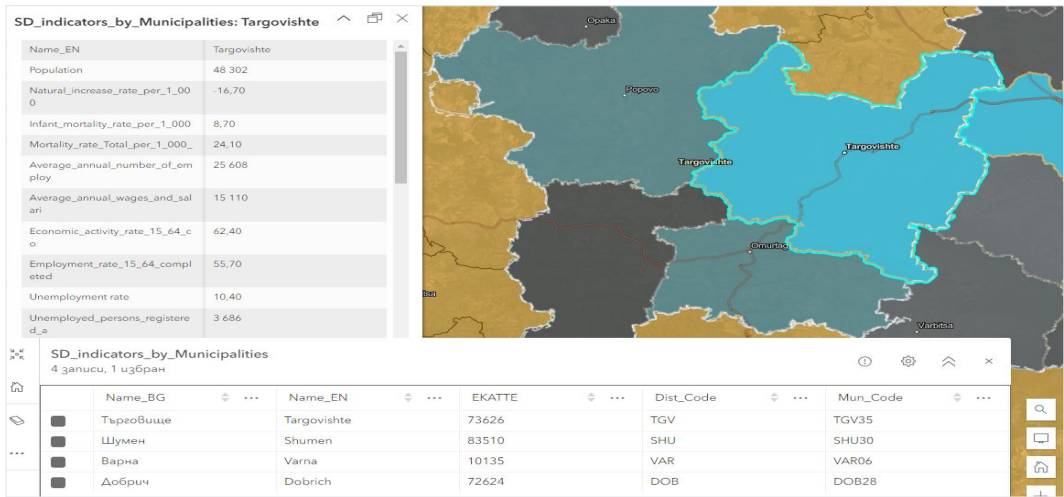


Figure 11. Key measures of Targovishte Municipality.

Source: Targovishte Municipality.

Conclusions

In conclusion, we can note that Bulgarian regions are trying to adapt quickly to European requirements for smart development. The main drawback remains previous shortcomings, concerning the foundation of the level of public works and the camouflage of the built infrastructure. Certainly, it can be inferred that the main urban centres in the Northeast planning region in Bulgaria are making progress in terms of smart and sustainable development. The municipalities of Dobrich, Shumen, and Targovishte could make more progress, as could the other cities in Level 3 and Level 4. The overall assessment shows that on smart development indicators - application of ICT, digital infrastructure, internet access, e-services provided by municipalities, etc., decent progress is reported, but it needs to be linked to integrated territorial investments and parallel measures related to regional development policies. This is evident due to the abandonment of other indicators related to sustainable development, especially in the areas of social, economic, demographic, political, and environmental activities, it is evident that the progress of municipalities is small, below 0.5, with only the municipality of Varna with 0.73. This is the main reason for the low values of the index for achieving smart and sustainable development. This requires significant action by local and national authorities to achieve sustainability. However, opportunities should be sought to improve all the development indicators of these municipalities. The backbone of this opportunity should focus on the regional centres of Varna, Dobrich, Shumen, and Targovishte, which will build the foundation of the regional network between them. In this direction, a possible direction of improving the system of awareness and connectivity by stimulating medium and long-term development of the regulatory framework that can create the legal context necessary for digital development. Involvement of relevant participants in the field of the information society (citizens, companies, local and central authorities, educational institutions, and others). Achieving interoperability, service integration, and openness of data sets and application source code between Varna, Dobrich, Shumen, and Targovishte. Building, developing, and strengthening supercomputing resources and data processing capabilities. Increasing the availability and expanding the use of supercomputers in areas of public interest such as health, environment, security, industry, and entrepreneurship (especially small and medium-sized companies). Increasing security by developing a secure communication infrastructure - Quantum Communication Infrastructure. The use of common security tools and procedures at the level of the European economy.

Another important problem is the retention of the young population in the regions. We have witnessed two types of migration. The first consists of the national space towards the capital city of Sofia or the cities of Plovdiv and Varna as new regional economic centres characterized by a higher level of geo-economic development. This result shows that within the regions, the philosophy for the development of the municipalities must be changed. There is a need to impose the integrated management model, which means creating new opportunities for attracting investments and promoting business initiatives of the population supported by the funds and the state in all municipalities in the specified regions. It is necessary to improve the level of improvement and develop the local potential of the population by applying soft measures for regional development, as well as looking for joint initiatives and projects with dynamically developing municipalities and regions to share capacity and experience. The use of the twinning tool between cities and towns from the European space is one of the possibilities for promoting European integration. Another approach could be the preparation of inter-municipal projects and policies that have a general significance for regional development. In practice, through the implementation of a successful territorial development model, it will be possible to achieve an increase in people's well-being, and from there to find a regional development model that reflects the specifics of the region. In addition, this model can serve to evaluate the accumulated experience by showing the possibility of real intelligent and sustainable development of municipalities.

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MODELIS, SKIRTAS TVARIŲ BULGARIJOS MIESTŲ ANALIZEI IR VERTINIMUI VIETOS VIEŠOSIOS POLITIKOS PRITAIKIMO KONTEKSTE

Anotacija. *Pastaraisiais metais dėl ekonomikos skaitmeninimo ir didėjančios išteklių paklausos besivystančioms šalims, jų regionams ir miestų aglomeracijoms kilo nemažai iššūkių. Todėl daugelis vyriausybių ėmėsi reikšmingų pokyčių besivystantiems regionams ir miestams taikomoje politikoje. Šiomis naujomis koncepcijomis siekiama palaipsniui kurti tvarius ir išmaniuosius miestus. Taip šalys reaguoja į naujus iššūkius, tokius kaip skaitmeninė aplinka, kova su klimato kaita ir palankių gyvenimo sąlygų palaikymas dėl didelio aplinkos ir socialinio bei ekonominio degradavimo. Atsižvelgdami į tai, autoriai išsikėlė pagrindinį tyrimo tikslą - analizuoti ir vertinti miestų ir juos supančios teritorijos tvarumą įgyvendinant darnaus vystymosi politiką visais lygmenimis. Pagrindinis autorių uždavinys ir sunkumas - sukurti ir patobulinti modelį, kuris galėtų būti naudojamas tvariams ir išmaniesiems miestams vertinti. Šiame straipsnyje autoriai siūlo darnių miestų tyrimo metodą, taip įvertindami šioje srityje įgyvendinamos politikos poveikį. Modelis apima pagrindines rodiklių grupes, kurios naudojamos Bulgarijos šiaurės rytų regiono savivaldybių darniam ir išmaniam vystymuisi analizuoti. Remiantis šiais rodikliais, renkami ir apdorojami duomenys, atliekama lyginamoji ir statistinė analizė, siekiant įvertinti jų tvarumą ir sumanumą. Autoriai daro svarbias išvadas. Pavyzdžiui, kad darnaus ir sumanaus vystymosi lygis nepatenkinamas, nors aplinka ir sąlygos nacionaliniu lygmeniu yra palankios. Iš tikrųjų Bulgarijoje, remiantis tirtų šiaurės rytų regiono savivaldybių vertinimu, akivaizdu, kad negalima kalbėti apie tvarius miestus, nes Bulgarijos savivaldybės vis dar yra šio vystymosi kelio pradžioje.*

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FORMATION OF PUBLIC POLICY IN THE FIELD OF PHYSICAL EDUCATION AND SPORTS IN UKRAINE

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Abstract. *The development and promotion of sports in society are crucial concerns for governments worldwide, including Ukraine. The purpose of this study is to examine the current state of physical education in Ukraine and create concepts of possible ways to improve this situation. Methods of analysis, synthesis, and sociological survey were used. The key principles governing state involvement in physical education and sports in Ukraine are outlined, forming the foundation for effective state policies. The primary responsibility of the state is to effectively organize and address the fulfilment of societal needs, promoting the prestige and well-being of the nation. In recent years, numerous discussions have arisen regarding the outdated nature of Ukraine's sports system, which fails to align with contemporary realities, yields unsatisfactory results, and necessitates significant reforms. Additionally, evidence has demonstrated a problem with the antiquated organisation of work, resulting in stagnation and a lack of progress. The priority of Ukraine should be the development of sports of higher achievement and mass sports for various social groups. In any conditions, sports must develop and our champions today and tomorrow must have all the available conditions to practice it. The authors emphasise that it is also necessary to create modern infrastructure and make it accessible to all segments of the population. This study will be useful for representatives of executive and legislative authorities.*

Keywords: *sports governance, hierarchy governance, state funding, principles of public management, mass sport.*

Reikšminiai žodžiai: *sporto valdymas, hierarchinis valdymas, valstybės finansavimas, viešojo valdymo principai, masinis sportas.*

Introduction

The article addresses a significant scientific problem in the field of physical culture and sports, particularly focusing on the current state and development in Ukraine. The essence of the problem lies in the discrepancy between the existing system's ideological, scientific-methodological, organizational, legal,

and financial conditions and the needs and expectations of the public, as well as European standards. This study gains its novelty by exploring the unique challenges faced by Ukraine, transitioning from a Soviet legacy in sports development to a system more aligned with democratic and market-oriented values.

Existing scientific studies on this subject, such as the works of Lasytė, Morgunov, and Kostrub, primarily focus on the distinction between high-performance and mass sports, the role of sports in national prestige and public health, and the need for decentralized management in sports. Nevertheless, these investigations frequently neglect the unique complexities and difficulties inherent in the Ukrainian context, particularly considering the impacts of the post-Soviet era.

The purpose of this study is to conduct an exhaustive analysis of the state policy in the field of physical culture and sports in Ukraine, identifying the main obstacles and providing actionable recommendations for improvement. The tasks encompass examining the current state of the sports system, understanding the roles of various stakeholders, analyzing the infrastructure and resource challenges, and considering global perspectives for comparative insights.

The research methodology includes a comprehensive survey involving 1794 respondents, representing a diverse demographic and social spectrum. This approach, combined with an analysis of existing literature and global case studies, provides a multifaceted view of the issues at hand.

Key results from the study indicate a significant need for reform in Ukraine's physical culture and sports policy. The challenges highlighted include a lack of a unified state policy, inadequacies in the legislative framework, insufficient funding, and a general misalignment with modern realities. The recommendations put forth include implementing comprehensive reforms, delineating stakeholder responsibilities, sustaining funding, and adopting a project-based approach for systemic improvements. These findings not only contribute to the academic discourse but also offer practical implications for policy-making in Ukraine's physical culture and sports sector.

Physical culture and sports play a significant role in the life of modern society at many levels: health of the nation to forming the image of the state in the international arena, from a social adaptation of the population to promote the sustainable development of the state.

Yes, it is worth emphasising that physical culture and sports are directly related to the quality of life of all age groups of the population: comfortable access to sports sections, clubs, and playgrounds is an incentive for physical activity of various categories of the population, regardless of race, gender, state of health and other characteristics that should not be reasons for limiting sports activity; high-achieving sport is an important sphere of professional life an important sector of the economy for the state as well as a means of strengthening Ukraine's international authority on the world stage.

The ongoing enhancement of the process for shaping and executing public policies in the realm of physical culture and sports holds particular significance in the era of globalisation and Ukraine's European integration. As a member of the globalised community, our nation must consider the prevailing trends in global development, including those in the domain of physical culture and sports, and adapt successful experiences from other countries to suit our own context. Such implementation can yield positive outcomes and progress within our own circumstances.

In the context of rapid changes and dynamic development inherent in globalisation, public policy in sports must constantly adapt and adjust to the demands of modern life. The problem statement revolves around one of the key priorities of Ukraine's humanitarian policy, which is the establishment of stable traditions and motivations among the population regarding physical education and mass sports. This is seen as a crucial factor in promoting a healthy lifestyle, preserving and enhancing citizens' health, increasing productivity, extending active life expectancy, preventing diseases, organising meaningful leisure activities, fostering humanistic values, and facilitating comprehensive and harmonious personal development. Another goal is the establishment of Ukraine's international sports authority.

However, despite the advantages associated with the European approach to the development of the physical culture and sports industry, Ukraine currently faces significant obstacles that hinder progress

in this area. These obstacles include the absence of a unified and systematic state policy, an imperfect legal framework, inadequate budgetary funding, and ineffective mobilisation of non-budgetary resources. Furthermore, there is a lack of interdepartmental coordination and cooperation between state authorities and local self-governments. Insufficient accountability for non-compliance with legislative and regulatory requirements regarding physical education, inadequate financing of scientific research and training of scientific and pedagogical personnel in the field of physical culture and sports, and a low level of information and technological support for the sports movement are additional challenges.

The main objective of this research is to conduct a comprehensive analysis of the current issues in the formation of public policy in the field of physical culture and sports in Ukraine. It aims to provide practical recommendations for the creation of an effective system of public management that fosters the development of physical culture and sports in the country.

A. Bazenko (2017) studied the influence of the experience of European countries on the development of physical culture in Ukraine. The author successfully analyzed foreign experience in detail and formulated assumptions about its implementation in the Ukrainian political system. However, the focus of this research was specifically on European countries, without emphasizing the peculiarities of Ukraine. N. Boretska (2018) in her article drew attention to the importance of sports as an element of state policy, and was able to explain in detail the importance of physical culture in this type of activity. Also, in this context, the research of O. Morgunov (2019), who in his article considered the issue of sports culture in the field of public administration, is important. These articles should be approached comprehensively, as they focused on different elements, and they complement each other. The development of sports culture in the context of jurisprudence was studied by A. Paliukh (2020), who managed to explain in detail all aspects of this issue. S. Khadzhyradieva (2019) was able to describe in her research the issue of behavioral features of public administration bodies in the field of sports culture development.

Without diminishing the importance of the scientific work of the above-mentioned scientists, it should be stated that the problems of forming an effective public policy regarding the functioning and development of physical culture and sports in Ukraine remain relevant at the moment.

The novelty of the research lies in providing practical recommendations for the formation of an effective system of state policy in the field of physical culture and sports in Ukraine based on the conducted survey.

Materials and Methods

To promote the development of physical culture and sports, including sports infrastructure, and gain an accurate understanding of the social reality pertaining to sports infrastructure and the system of measures aimed at the advancement of physical culture and sports in Ukraine, a survey was conducted using remote technologies.

1794 respondents took part in the study. Sampling is quota (by gender, age, and education), and nested (by type of settlement). The distribution of the interviewees according to the following categories: parents of children engaged in sports and physical culture activities - 1,502 persons; sports trainers - 116 people; students of IHE in the field of sports - 176 people (Table 1).

The sample of respondents was derived from a diverse range of sources, primarily parents of children and adolescents engaged in sports at playgrounds, sports clubs, and sports halls. Surveys were conducted through social networks and targeted groups, including managers. Additionally, students from sports institutes such as the National University of Physical Education and Sports of Ukraine (Kyiv), Lviv State University of Physical Culture (Lviv), Ternopil Pedagogical Lyceum with a sports profile (Ternopil), Kharkiv National Pedagogical University named after H. S. Skovoroda (Kharkiv), Zhytomyr Ivan Franko State University (Zhytomyr), Kolomyia Institute of Prykarpattia National University named after Vasyl Stefanyk (Kolomyia), Kremenchuk National University named after Mykhailo Ostrogradskyi (Kremenchuk), Pereyaslav-Khmelnysky State Pedagogical Grigory Skovoroda University (Pereyaslav-Khmel-

nytskyi), and others were included. Furthermore, sports coaches of various categories, qualifications, and sporting disciplines were also part of the respondent sample.

The research was conducted using an anonymous electronic questionnaire. The questionnaire was developed using the Internet-service "Google Forms", which allows you to accumulate respondents' data, and form answers in the form of tables "Excel", applicant, ion,s, and forms. Access to the questionnaire is possible using various types of electronic devices: PC, tablet, and smartphone.

The survey took place on May 15 - September 18, 2022. The questionnaire includes validation questions aimed at assessing the current state of physical education and sports. It covers various aspects such as satisfaction with training facilities, factors that encourage or hinder participation in physical education and sports, sources of funding for sports programs, motivation to engage in physical culture and sports for social well-being, health maintenance, and a healthy lifestyle. It also examines the availability of physical culture and sports opportunities during leisure time in the region, the implementation of state policies in the field of physical culture and sports in Ukraine, and other related topics.

These were three questionnaires for different groups of respondents: parents, students, and coaches. As a result, 1794 completed questionnaires were received.

The distribution of the sample of respondents is presented the Table 2.

Survey instrument: One of the keys focuses of our research is the advancement of physical culture

Table 1. Sample representativeness and methodology

Sample size	1794
Population	5736900
Representativeness	≥2.5%.
Survey method	CAWI (Computer-Assisted Web Interview)
Weighting method	No weighting
Recruiting for the panel	1502 people (83.72%) parents of children engaged in sports and physical cultural activities; 116 people (6.47%) are sports coaches; 176 people (9.81%) are students of universities in the field of sports

Source: compiled by authors.

Table 2. Selection criteria for representative samples

Allocation respondents		Sample, %	Number of respondents
Selective groups	father/mother	83,72	1502
	students	9,81	176
	trainer	6,47	116
Gender	male	40,9	733
	female	59,1	1061
Age	16-24 years old	11,3	204
	25-34 years old	15,7	282
	35-44 years old	50,7	910
	35-44 years old	19,0	342
	55-64 years old	2,7	49
	65 +	0,4	7
Location	countryside	7,2	130
	a city with a population of up to 50.000 people	14,65	263
	a city with a population of 50.000 to 99.000 people	12,07	228
	a city with a population of 100.000 to 500.000 people	29,7	534
	a city with a population of over 500.000 people	35,6	639

Source: compiled by authors.

and sports. As part of this effort, our respondents were asked to provide their input on the question, "Does the sports section where your child trains receive financial support from the budget (either state or local)?" (Category: "Father/Mother").

Results

According to the current legislation, physical culture and sports are recognised as a priority in the state's humanitarian policy. They are seen as important factors in the holistic development of individuals, the promotion of a healthy lifestyle, the pursuit of physical and spiritual excellence, the fostering of patriotic sentiments among citizens, and the cultivation of a positive international image of the country. Physical culture, while not diminishing the significance of other developmental factors, plays a crucial role in increasing social and labor activity, satisfying moral, aesthetic, and creative needs, facilitating interpersonal communication, fostering friendly relations between nations, and promoting peace.

Supporting the viewpoint of researcher V. Bazenko, it is recommended to consider sport as an integral part of physical culture and the key aspect for individuals to excel in various physical exercises, technical and intellectual training, and competitive activities. The societal value of sport lies in its effective promotion of physical culture among diverse segments of the population. However, this aspect is currently a cause for serious concern due to significant deviations in physical development and health among children and adolescents. Rapidly increasing chronic rheumatic diseases, heart conditions, hypertension, neuroses, arthritis, obesity, and other health issues pose a considerable challenge within the younger generation.

Global experience demonstrates that lifelong physical activity contributes to disease prevention and the enhancement of overall health. However, scientist O. Morgunov highlights that Ukraine ranks among the lowest in terms of average life expectancy in Europe. Only 13% of Ukraine's population engages in physical culture and sports, significantly trailing countries like Finland, Sweden, Great Britain, the Czech Republic, and Germany. Notably, as emphasized by scientist N. Boretska, the adult population's participation in physical education and sports in Ukraine is significantly lower than in leading European countries. Only one in three men and one in five women engage in physical education and sports on average, and even lower rates are observed in rural areas. In comparison, countries like Great Britain and France have participation rates exceeding 65%, while the figures reach 72% in the Netherlands and 80% in Finland.

Furthermore, researcher A. Paliukh highlights negative factors that hinder the widespread adoption of sports in Ukraine. These factors include the inconsistency of current sports legislation with modern requirements, inadequate physical culture infrastructure that fails to meet societal needs, limited logistics for children and youth sports and sports reserves, insufficient scientific development and funding in the field of physical culture and sports, inadequate promotion of a healthy lifestyle in youth sports, unsatisfactory material and technical conditions, and insufficient budget allocation and ineffective mobilization of extrabudgetary funds. Additionally, the absence of state sports lotteries, which serve as a significant funding source in many European countries, and the incomplete system for training and advancing specialists, low wages, and an insufficient number of physical education and health instructors further contribute to the challenges faced.

As a result, the state is compelled to continually reassess its approaches to optimizing the management system in the field of physical culture and sports. This is evidenced by numerous editions of the Law of Ukraine "On Physical Culture and Sports," repeated attempts to develop an effective program based on a unified conceptual framework, and constant changes in the system of public administration bodies in this sphere, often driven by subjective factors such as improper nomenclature, correspondence to the socio-political situation, and shifts in the political landscape.

In general, the activity of the state in the field of physical culture and sports contains a significant component of public interests: the health of the nation, working capacity the ability to perform functions that require special physical capabilities of a person the resistance of the population to certain diseases ensuring appropriate conditions for mass sports events, etc.

It is worth emphasising that the main subjects of the field of physical culture should be physical culture and sports clubs, which can be communal, private, or public organisations according to their organisational and legal form in terms of their commercial activities, and commercialisation of relevant services (Fig. 1).

Fig. 1. illustrates the integrated key principles of public management in the field of physical education and sports in Ukraine based on which an effective public policy in this field should be built. In turn, the implementation of an effective physical culture and sports policy will contribute to the active involvement of the population in physical and sports activities. Yes, it is, worth justifying each principle in more detail.

The principle of comprehensiveness of public administration in the field of development of physical culture and sports consists in the interconnection and interaction of all its independent subjects, structures, systems, and levels aimed at its development and reproduction processes. Complexity involves: identifying the features and orientation of various forms, methods, and means of influence and filling them with innovative content to increase their potential opportunities for further implementation; combining the efforts of various subjects of state regulation with the form of values that have the greatest impact on the formation of personal potential and public personality; creation of conditions for alternative and independent activity of all elements of public administration subjects; formation of foundations on based on a complex, balanced, weighted, multi-level and integral system of activity of its social subjects.

The principle of consistency of management decisions at all levels of government consists in the redistribution of powers in the implementation of its programs and measures between the center and the regions in favor of the latter, which will enable more effective and optimal implementation of such policies at the regional and local levels. An acceptable model of this policy should combine aspects of integrity and diversity with a certain shift in emphasis to local executive bodies. Decentralisation will not only reduce the effectiveness of the relevant programs and on the contrary will increase them as it will enable specific local entities to implement their functions more productively.

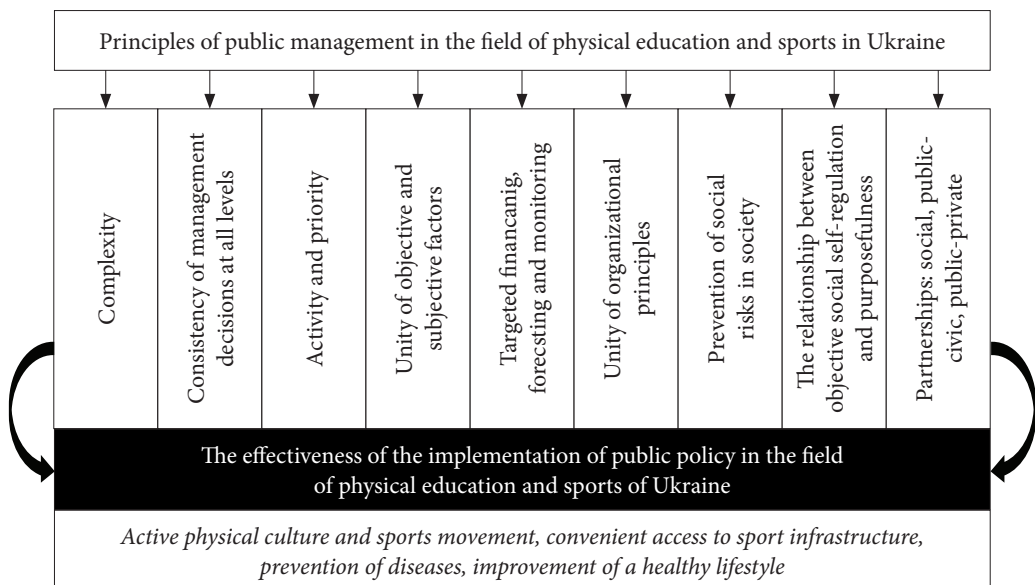


Figure 1. Key principles of implementation of public management in the field of physical education and sports in Ukraine

Source: compiled by authors.

The principle of activity and priority public management in the field of physical culture and sports is determined by activities aimed at comprehensive support of potentially active members of society, and the creation of conditions for their self-realisation in physical culture and sports. The priority of the interests of the individual involves the subordination of all multi-vector purposeful activities in the physical culture and sports of the population the use of the results of the implementation of relevant state programs in the interests of a specific person and the creation of conditions for the development of all segments of the population. The main condition for the effectiveness of this principle is the activity of all subjects of public administration in the specified sphere aimed at expanding opportunities for self-realisation of the individual comprehensive satisfaction of his specific physical needs.

The principle of unity of objective and subjective in the implementation of public management in the field of physical culture and sports involves taking into account a whole range of objective and subjective factors that determine the development of Ukrainian society. At the same time, it is necessary to fully analyse all possible phenomena by all subjects of this policy that may manifest themselves in society, taking into account both objective and subjective factors; consistent assessment of development processes or trends in particular related to human social security prevention of any manifestations of absolutisation. Ignoring this principle as a rule inhibits the growth of a person's social potential.

The principle of targeted financing, forecasting and monitoring provision and implementation of physical culture and sports programs and events means their full resource and information coverage. It is this comprehensive approach that is lacking in the complex of physical culture and sports programs - quite often the program is well-declared but there are no real mechanisms for financing it is activities.

The principle of unity of organisational principles in the implementation of our c regulation in the field of physical culture and the field involves the restructuring of it ithe s organisational structure through the formation of flexible and monopolised mechanisms of relations between subjects which should replace the rigid administrative and command system of the hierarchical organisation of society's life. Under such a restructuring the autonomy of all components of the system prevails which makes it possible to prevent the regulation of activities and promote the self-realisation of all subjects of this organisation.

The principle of prevention of social risks in society provides for the implementation of extensive preventive measures for their respective resource provision to overcome such risks. The biggest problems of insufficient implementation of this principle are the lack of appropriate funds and specialists in the system of public authorities for the development of state regulation of physical culture and the improvement of the population.

The principle of the interrelationship of objective social self-regulation and purposefulness in the implementation of public management in the field of development of physical culture and sports means that the implementation of its complex tasks must occur in correlation with the development of market relations with the constituent elements of which are: socio-demographic processes; labor market and employment; migration processes; orientation of labor resources on own forces and others.

The principle of partnership: social, public-civic, public-private will ensure not only the receipt of additional funds in the field of physical education and sports but also become a mechanism of flexibility and adequacy to the requirements of the innovative economy. The opening of the physical culture and sports system for the employer who is involved in the development and implementation of the state physical culture and sports policy the formation of lists of specialist training areas the development of state standards in the field of physical culture and sports the formation of a significant part of the total offer of partner programs and projects participation in procedures quality control of public policy in the field of physical education and sports in Ukraine.

The answers were distributed as follows: 1307 answers were received to this question. Thus only 4% of respondents believe that "all the needs of the section are provided from the budget"; 12% answered that "budget funds cover most of the expenses". At the same time, 28% of respondents believe that "very little

comes from the budget” and the largest number of respondents - 56% answered that “budget support is not provided”. The distribution of answers is presented in Fig. 2.



Figure 2. Availability of financial support from the budget (state or local) for the sports section, according to respondents in the “Father/mother” category

Source: compiled by authors.

From the provided illustrative material (Figure 2), it is evident that 56% of the respondents acknowledged the lack of budgetary support for the advancement of sports sections. It is crucial to emphasize that the political and financial backing from the government, local self-government individuals, and socially responsible businesses play a significant role in the development of sports infrastructure. To increase the level of investments in sports infrastructure, it is necessary to foster collaboration among all the aforementioned stakeholders, including through the implementation of public-private partnership models.

During the processing of sociological information, it was found that respondents from the “Father/mother” category, who are engaged in physical culture and sports to maintain physical fitness took part in the survey – 27% of respondents; for 10%, physical education, n, and sports are “the desire to increase the level of self-organization” and “raise the mood”; for 8%, the motivation to engage in physical education and sports is the “need” to stretch out, to get pleasure from “muscle fatigue” or the desire to be stronger/stronger; slightly less – 7% of respondents seek to “direct their excessive activity towards physical education and sports”; for 5% of respondents physical education and sports are “propagation of a healthy lifestyle in the mass media”, “family tradition of doing physical education and sports” and “convenience of the location of sports infrastructure facilities”. At the same time, 6% of respondents answered that physical education and sports this is – “communication in a circle of like-minded people” or “do not do sports at all” (Table 3). On 12-point scale respondents were asked to rate the factors by rating where the first is the most important and the last is the least important. The distribution of answers is presented in Fig. 3.

Based on the results of the conducted survey, it can be noted that the question “Indicate the level of restraining factors that affect people’s passive attitude to physical culture/sports?” the interviewees answered as follows: according to the respondents in the “Trainer” category, the biggest restraining factors that affect people’s passive attitude to physical culture/sports are the “cost of services” – 32% and the state of health – 16%. It is interesting for the research that the answers in the category “Trainer” and “Students” are opposite. Students on the contrary believe that first of all the restraining factor is the state of health – 25%, and then the “cost of services” – 23% (Table 4; Table 5). Respondents evaluated the factors on an 8-point scale where the first is the most important and the last is the least important. The visual distribution of data is presented in Fig. 4 and 5.

Table 3. Factors that stimulate doing sports/physical culture (Category "Father/mother")

Factors	1	2	3	4	5	6	7	8	9	10	11	12		
Point	12	11	10	9	8	7	6	5	4	3	2	1		
the desire to maintain physical form;	8112	1089	740	135	80	49	36	60	16	30	16	55	10418	30.02%
the need to "stretch out", to get pleasure from "muscle fatigue";	588	1309	500	171	120	0	66	30	28	36	34	7	2889	8.32%
the desire to be stronger;	528	1221	910	90	104	49	24	30	16	36	18	6	3032	8.74%
desire to be like your idol;	120	132	150	135	56	0	24	45	24	27	28	17	758	2.18%
the desire to increase the level of self-organisation;	540	1254	790	324	168	49	78	75	32	27	14	7	3358	9.68%
the desire to direct self-excessive activity to physical education and sports;	708	407	580	99	112	140	90	50	32	27	16	6	2267	6.53%
promoting a healthy lifestyle in the mass media;	216	374	350	90	128	140	120	40	44	30	10	5	1547	4.46%
communication in a circle of like-minded people;	228	374	540	198	120	154	108	100	24	27	10	0	1883	5.43%
The family tradition of physical education and sports;	276	363	270	162	88	63	54	40	88	30	22	6	1462	4.21%
classes lift my mood;	720	1012	980	261	144	70	54	75	40	51	14	12	3433	9.89%
The convenient location of sports infrastructure facilities;	216	429	400	90	64	91	48	50	56	15	30	8	1497	4.31%
I don't do sports at all.	1596	242	230	0	0	0	0	20	16	12	10	36	2162	6.23%
													34706	100.00%

Source: compiled by authors.

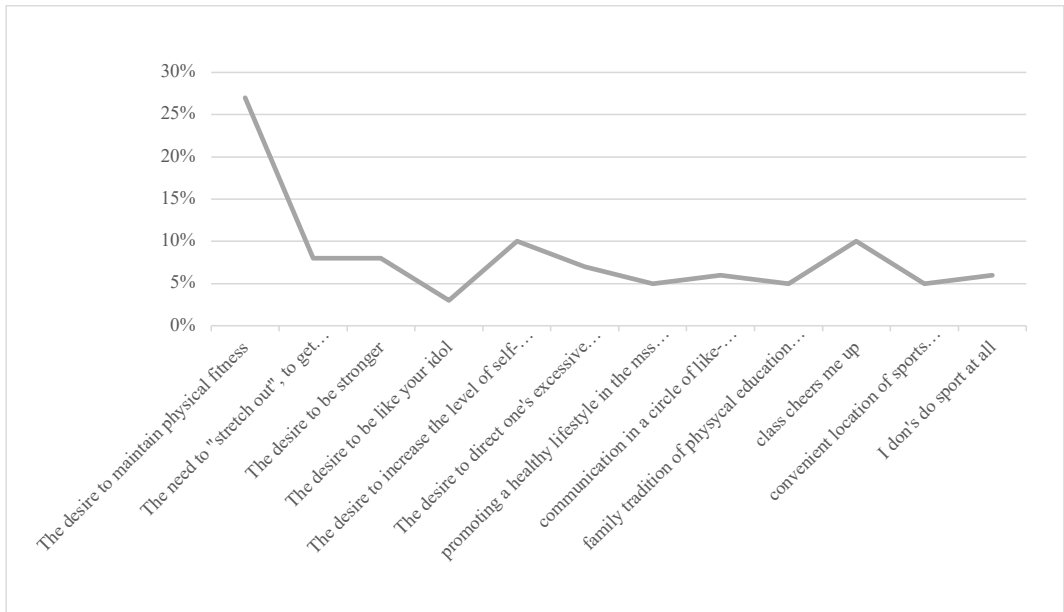


Figure 3. Factors that encourage sports in the category "Father/mother"

Source: compiled by authors.

In general, the findings of the sociological research indicate a low level of motivation for physical education and sports among the population. According to 42% of respondents, there is a lack of motivation, while 14.5% reported having no motivation at all.

Furthermore, the provision of sports infrastructure does not fully meet the needs of the respondents. Reasons for this dissatisfaction include the absence of sports facilities in their place of residence, the poor condition of existing facilities, and the failure to meet European standards. As a result, 36.8% of respondents believe that physical culture and sports are not accessible to all segments of the population in their region, despite 35.6% of respondents residing in cities with a population of over 500,000 people, as indicated in Table 2.

The lack of modern and appealing infrastructure in recreational areas, such as the absence of safe bicycle and pedestrian paths, sports grounds for individual training, and open spaces for group sports, indicates insufficient funding in this area.

An important research question posed to the categories of "Father/Mother" and "Coaches" was: "How do you generally evaluate the implementation of state policy in the field of physical culture and sports?"

The responses were distributed as follows: the highest rate of responses in both categories is "partially disapprove", in particular, 48.7% of respondents in the category "Father/mother" and 60.3% – "Coaches"; an almost similar figure for the answer "disapprove" – 22.9% of respondents in the "Father/mother" category and 21.6% among respondents in the "Coaches" category. At the same time, 28.4% of respondents in the "Father/mother" category approve of the state of implementation of state policy in the field of physical culture and sports, while the figure for the number of respondents in the "Coaches" category is 18.1%. An illustration of the data is presented in Fig. 6.

Table 4. The level of restraining factors that affect people's passive attitude to physical culture/sports (Category "Trainer")

Factors	1	2	3	4	5	6	7	8	
service cost;	37	21	12	6	5	5	7	9	102
The convenient location of sports infrastructure facilities;	14	27	24	9	6	8	6	4	98
absence of free time;	7	16	22	8	9	10	12	10	94
comfort level of existing sports facilities;	8	12	19	20	12	10	6	1	88
health condition;	18	7	13	12	15	11	9	6	91
the influence of information and propaganda on the formation of health culture;	11	11	9	6	9	17	12	11	86
conviction: "I'm not old enough to do sports.";	7	6	7	1	10	9	17	29	86
quality of service provision	12	14	8	16	12	8	9	8	87
importance	1	2	3	4	5	6	7	8	
point	8	7	6	5	4	3	2	1	
service cost;	296	147	72	30	20	15	14	9	603
The convenient location of sports infrastructure facilities;	112	189	144	45	24	24	12	4	554
absence of free time;	56	112	132	40	36	30	24	10	440
comfort level of existing sports facilities;	64	84	114	100	48	30	12	1	453
health condition;	144	49	78	60	60	33	18	6	448
the influence of information and propaganda on the formation of health culture;	88	77	54	30	36	51	24	11	371
conviction: "I'm not old enough to do sports.";	56	42	42	5	40	27	34	29	275
quality of service provision	96	98	48	80	48	24	18	8	420
									3564

Source: compiled by authors.

Table 5. *The level of restraining factors that affect people's passive attitude to physical education/sports (Category "Student")*

Factors	1	2	3	4	5	6	7	8	
service cost;	17	12	12	6	8	4	6	10	75
The convenient location of sports infrastructure facilities;	5	13	17	18	4	7	9	2	75
absence of free time;	8	14	17	11	3	9	7	6	75
comfort level of existing sports facilities;	3	5	12	18	17	13	6	1	75
health condition;	19	7	11	11	15	7	3	2	75
the influence of information and propaganda on the formation of health culture;	5	3	4	6	15	21	9	12	75
conviction: "I'm not old enough to do sports.";	5	7	1	1	11	8	25	17	75
quality of service provision	13	10	5	4	2	6	10	25	75
importance	1	2	3	4	5	6	7	8	
point	8	7	6	5	4	3	2	1	
service cost;	136	84	72	30	32	12	12	10	388
The convenient location of sports infrastructure facilities;	40	91	102	90	16	21	18	2	380
absence of free time;	64	98	102	55	12	27	14	6	378
comfort level of existing sports facilities;	24	35	72	90	68	39	12	1	341
health condition;	152	49	66	55	60	21	6	2	411
the influence of information and propaganda on the formation of health culture;	40	21	24	30	60	63	18	12	268
conviction: "I'm not old enough to do sports.";	40	49	6	5	44	24	50	17	235
quality of service provision	104	70	30	20	8	18	20	25	295
									2696

Source: compiled by authors.

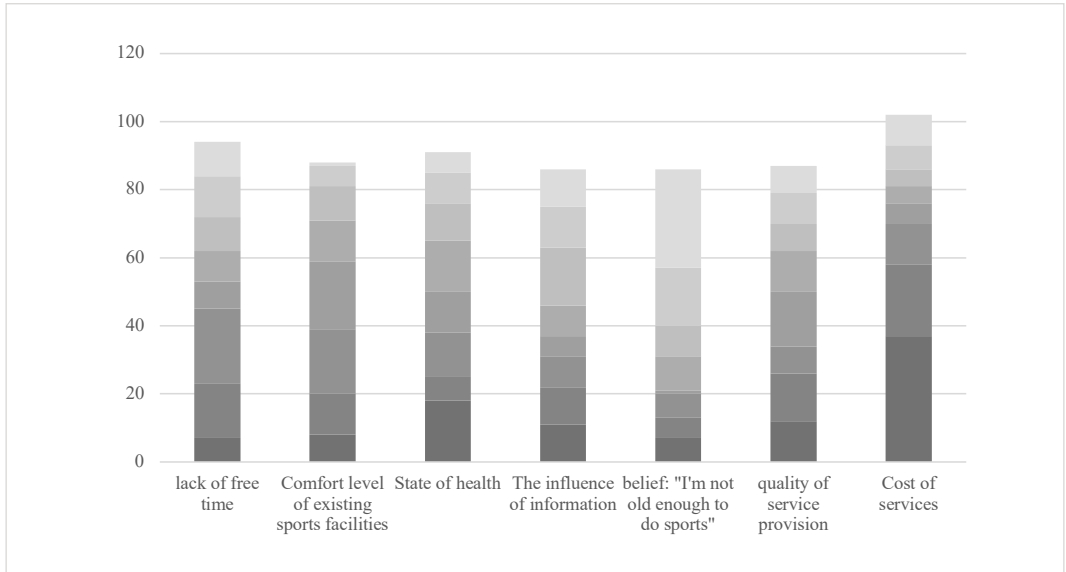


Figure 4. The level of restraining factors that affect people’s passive attitude to physical culture/sports (“Trainer” Category)

Source: compiled by authors.

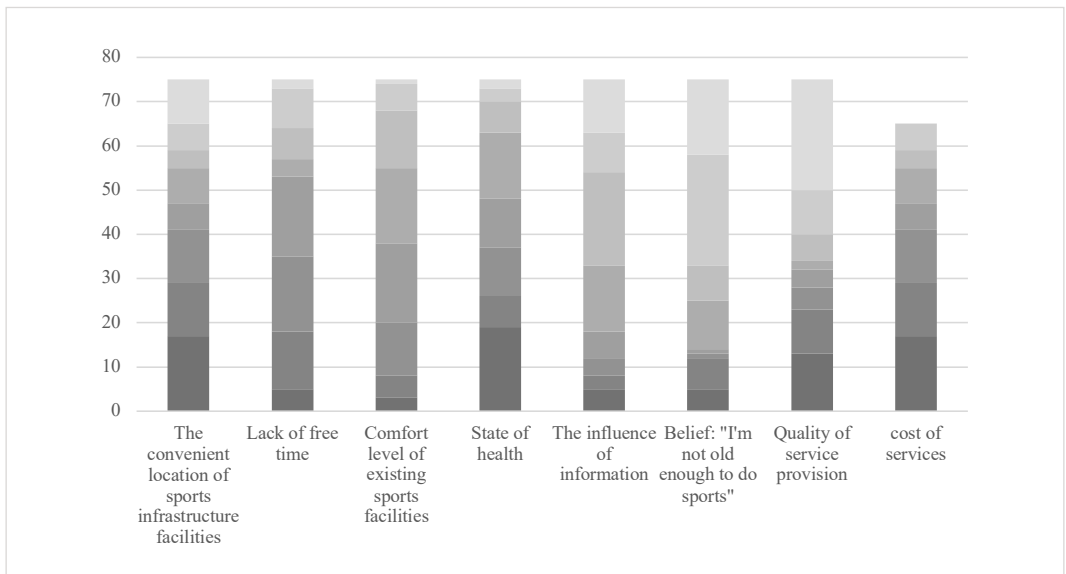


Figure 5. The level of restraining factors that affect people’s passive attitude to physical education/sports (“Student” Category)

Source: compiled by authors

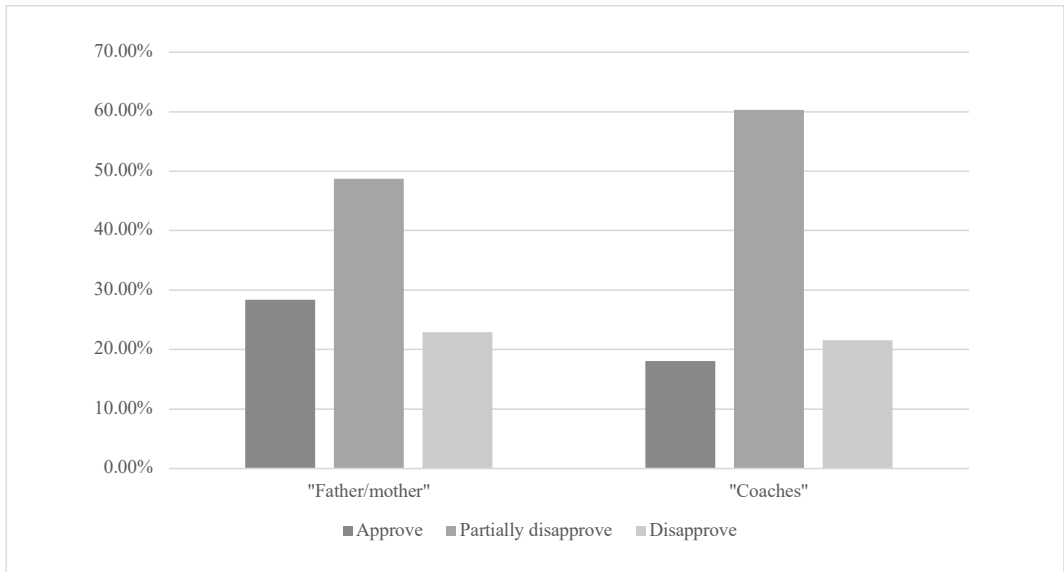


Figure 6. Comparison of indicators regarding the assessment of the implementation of state policy in the field of physical culture and sports (Categories "Father/mother" and "Coaches")

Source: compiled by authors

From Figure 6, it is evident that the majority of responses fall under the category of "temporarily disapproving" the implementation of state policy in the field of physical culture and sports. Therefore, it is important to acknowledge that modern approaches to shaping public policy in this area should encompass a comprehensive set of mechanisms, including an optimal combination of regulatory frameworks, organizational structures, economic regulatory methods, and information systems. Additionally, reevaluating the role and involvement of local authorities in the development of physical culture and sports to promote public health is becoming increasingly relevant.

The analysis of the current state of the physical culture and sports system in Ukraine reveals that the ideological, scientific-methodological, organisational, legal, and financial conditions of the system do not meet the demands and needs of the public or European standards.

Regarding the development of physical education and sports, it is worth noting the perspective of researcher Lasytė, G., who suggests distinguishing between high-performance sports and mass sports. According to her, these two directions align with the respective demands and objectives of the state: prestige and health of the nation. National prestige refers to enhancing the country's reputation internationally through the success of its athletes. When Ukrainian athletes stand on podiums in major competitions and the Ukrainian flag is raised with the national anthem playing, it instills pride in the country and evokes powerful positive emotions and inspiration among Ukrainians (Lasytė, 2020). However, sports success should not overshadow social issues or replace the need for a decent life, as seen in some totalitarian societies.

Undoubtedly, the benefits of sports, as affirmed by various researchers, are undeniable. It is the responsibility of the state to properly organize the fulfillment of social orders to enhance both the prestige and health of the nation (Khadzhyradiyeva, Hrechko, 2019). There are ongoing discussions about the outdated nature of Ukraine's sports system, its misalignment with modern realities, lack of results, and the need for radical changes. The decline in achievements among professional athletes and concerning statistics related

to mass sports and public health are evident. Additionally, the archaic organisational structure hampers progress and development. The preservation of the Soviet system, where the state is responsible for the development of physical culture and sports, poses challenges in the context of democracy and a market economy. The Soviet Union designed the sports system based on ideology and a planned economy, which does not function effectively under democratic and market conditions.

It is important to acknowledge that the roles and responsibilities of different participants in the process, such as the state, sports federations, local self-government individuals, clubs, sponsors, parents, educational institutions, and law enforcement agencies, have become blurred in Ukraine. The distinction between the customer of sports services and the responsible entities is unclear (Čingienė, Gobikas, 2019).

The critical condition of sports infrastructure capable of meeting the population's needs for daily physical activity, the lack of high-quality training for elite athletes, and the absence of manufacturers providing affordable and certified sports equipment and gear to satisfy public demand are among the main reasons contributing to the current situation in the field of physical culture and sports. The development of physical culture and sports is contingent upon establishing well-equipped and properly operated physical culture and sports facilities, which constitute a significant part of the material and technical foundation. These facilities serve multiple purposes, including educational, training, competitive, recreational, and spectator activities. Unfortunately, many sports facilities are not strategically located to ensure equal access for the population regardless of their place of residence or work. Moreover, their composition, typology, and quality fail to meet modern requirements.

It is valid to concur with the viewpoint of scientist O. Morgunov, who suggests that one of the primary needs for our country is to restore the autonomy of sports, which was compromised by the totalitarian Soviet system. The state should return the power of management to national sports federations, encompassing aspects such as organising and regulating competition rules, staffing and managing collective teams, implementing disciplinary responsibility, maintaining records, training and certifying judges and coaches, and establishing standards for the functioning of sports infrastructure for competitions and educational activities (Morgunov, 2019).

Agreement can also be found with the perspective of scientist A. Kostrub, who emphasises the importance of jointly developing educational programs for sports leaders at all levels and conducting extensive retraining of personnel in collaboration with leading universities in the USA and Europe. Transitioning to an open society system may present initial challenges, but it is crucial not to delay the reform process (Kostrub, 2021). This necessitates a conscious decision, political will, and people's responsibility. The reform should be organised as a project, incorporating the creation of technology, effective management, the establishment of a project office, resource allocation, and clear cooperation with legislative and executive bodies. With optimistic projections, our country can achieve tangible results within two years – a platform for the stable growth of the field of physical culture and sports in Ukraine (Kostrub, 2021).

Therefore, it can be asserted that the priority for Ukraine should be the development of high-performance sports and mass sports for various social groups. Sports must continuously evolve, and our champions, both present and future, should have the necessary conditions to excel in their practice. It is crucial to create modern and accessible infrastructure for all segments of the population by renovating existing sports facilities and constructing new ones. Properly organizing sports according to modern standards will enable the state to utilise sports as a unique institution for enhancing the nation and establishing a model of social relations within an open society that fosters success and happiness among its people.

Discussion

The issue of the development of physical culture and sports in society is important not only for Ukraine, but also for any country in the world. Thus, this topic was studied by a number of scientists from all over the world who were able to reach a number of important conclusions.

Japan is one of the leaders among the countries with the longest population age. To achieve this indicator, the country's government must actively work in this area. Thus, K. Ijima (2021) claims in his scientific work that sport is one of the most important elements in the development of longevity among Japanese residents. The author notes that sport is not the only element of the country's health system development, but it is an important aspect in the general context. One should agree with this opinion of the scientist, since, as already stated in the results of this study, a high level of physical culture contributes to the general development of society.

A. Polaniecka (2023) in her research studied the issue of sports development among educational institutions in Poland. In this work, attention was focused on the aspect that physical culture in educational institutions of Poland was improved during a certain period. Due to this, the author was able to determine that the development of physical culture has a positive effect on the health of schoolchildren, and this was possible to achieve due to the involvement of professional trainers in the educational process. However, it should be noted that this approach is not entirely correct, since children should be taught by professional teachers who have the appropriate education, so the more appropriate way would be to improve the system of physical education teachers.

In the context of the development of the physical education system, the study of K. Capella-Peris (2023) is important. In his scientific work, the author presented the results of a social survey regarding the influence of various factors on physical education. It was possible to conclude that such factors as gender, race, physical characteristics, and beliefs of students should be taken into account during classes in order to improve their effectiveness. It is worth agreeing with this opinion since physical education is not only a subject of acquiring physical skills but also education in general.

Groups of people with disabilities are those categories of the population for which state governments should choose a special approach, in particular, in the context of the development of sports policy. This question was investigated by R. Rebecka (2023), who was able to accurately explain the importance of how sports contribute to the development of physical and psychological health among persons with disabilities. At the same time, the author emphasises that modern sport at a high level is often unattainable and non-inclusive for such a category of people, therefore it is important for government officials to develop this type of activity. In this context, one has to disagree with the author, as today there are various opportunities and championships for people with disabilities, which ensures an appropriate level of inclusivity. However, the development of state policy in this aspect is of great importance for society.

D. Silva (2023) in her scientific work studied the influence of local self-government and local executive bodies on the development of sports culture in Brazil. As a result of the research, it was possible to find out that the active activity and interaction of self-government bodies and local institutions of executive power contributes to the spread of sports culture in society. We should agree with this opinion, since the role and influence of local institutions are important factors in the spread of sports among the population of any country in the world.

In the context of the development of sports on the territory of Ukraine, the study of O. Aldridge-Turner (2023) is important. In this article, the author studied in detail the topic of the development of sports education and culture in the territory of the countries of Eastern Europe. The scientist emphasises that the development of an adequate attitude to sports in society is an important element for state policy, which should be agreed with. As a result of the study of this topic, the researcher was able to determine that there is one of the highest rates of population involvement in sports among the countries of Eastern Europe. One should not agree with this thesis, since, as already presented in the results of this study, the highest level of this indicator exists in Holland and Finland. Perhaps in the context of comparison with other countries, in Eastern Europe there is a higher level of involvement of the population in sports, but this indicator is not the highest in the world.

One of the leading countries in the modern world is China, which is also taking important steps in the context of the development of physical education in society. These issues were studied in detail by C. Zhang (2023), who was able to describe the main problems faced by the Chinese authorities in this context. The main ones are the following: an inaccurate understanding of physical education, its deficit in schools, and a lack of resources to facilitate learning. However, physical culture in China is developed at a high level, since this subject is mandatory for learning from preschool age. The adoption of such experience for the Ukrainian education system would be a significant boost in the context of the development of general physical culture in the country.

A non-standard view of the role of sports in society is the opinion of H. Morgan (2022). The author claims in his research that the development of sports culture among politicians and judges contributes to the development of the effectiveness of their work. An important aspect in this is not only that sports contribute to the development of mental health, but also that playing sports requires social interaction to a large extent, due to which representatives of the mentioned professions can interact and understand the needs of different members of the population.

F. Hong (2021) in his article studied the topic of the influence of state policy on the development of sports culture in society. Thus, the author claims that centralised executive power promotes the active spread of sports in society, and such a model can be effective in all countries of the world. It is worth disagreeing with this opinion, since, as already indicated in the results of this study, local self-government and local bodies of executive power contribute to the better development of sports culture in Ukraine. In this context, it should be understood that there are significant cultural differences between China and Ukraine, so management methods in these countries may differ and have different effectiveness.

In general, it is worth noting that the development of physical culture and the spread of sports among society is an important element of the state policy of Ukraine, and should be carried out comprehensively with the involvement of various spheres of public activity.

Conclusions

During the research, the main obstacles to the development of physical culture in Ukraine were identified. The key problems include: lack of a unified and comprehensive state policy in the field of physical culture and sports; inadequacies in the legislative framework governing physical culture and sports; insufficient budgetary funding and ineffective mobilisation of extrabudgetary funds; low level of coordination and interaction among state authorities and local self-government bodies; limited accountability for non-compliance with legislative and regulatory requirements regarding the organisation of physical education; inadequate financing of scientific research in the field of physical culture and sports, as well as insufficient training of scientific and pedagogical personnel; inadequate information and technical support for the physical culture and sports movement.

Furthermore, the research findings confirm that an annual increase in funding alone does not address the development issues within the sports industry. Instead, there has been a systematic, multi-year decline in all industry indicators. Therefore, it is pertinent to highlight practical recommendations for improving and advancing state policy in the field of physical education and sports, including:

- implementing comprehensive and purposeful reforms to align the system with the norms of the Olympic Charter, decisions of the UN General Assembly, and contemporary challenges;
- establishing clear legal boundaries and delineating the responsibilities of the state, local self-government individuals, sports federations, clubs, coaches, parents, athletes, sponsors, and patrons, ensuring effective collaboration among them;
- sustaining state funding at both national and local levels while also attracting grants, sponsors, and patrons. It is crucial to maintain Ukraine's international standing and representation in international sports bodies;

- incorporating principles of public management in the field of physical culture and sports;
- facilitating cooperation among authorities, public organisations, and business entities in the field of physical education and sports to implement joint social projects and programs;
- establishing regional funds to support physical culture and sports;
- these recommendations aim to address the identified problems and contribute to the improvement and development of state policy in the field of physical education and sports in Ukraine.

In general, this topic is complex and inexhaustible, so it needs further study. In particular, it is necessary to study in detail the level of development of physical culture in other countries of the world, as well as in the course of implementing changes in the context of sports in Ukraine, it is necessary to carry out scientific studies of their effectiveness.

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VALSTYBINĖS POLITIKOS FORMAVIMAS KŪNO KULTŪROS IR SPORTO SRITYJE UKRAINOJE

Anotacija. Išryškinami pagrindiniai Ukrainos valstybės valdymo principai kūno kultūros ir sporto srityje, kuriais remiantis turėtų būti kuriama efektyvi valstybės politika šioje srityje. Nustatyta, kad Ukrainoje neigiami veiksniai stabdo didesnę sportinio gyvenimo sklaidą tarp ukrainiečių. Pabrėžiama, kad tokia situacija verčia valstybę nuolat peržiūrėti savo požiūrį į kūno kultūros ir sporto srities valdymo sistemos optimizavimą. Autoriai pabrėžia, kad sporto nauda yra akivaizdi ir nepaneigiama. O valstybės uždavinys – teisingai organizuoti socialinių užsakymų vykdymą vardan tautos prestižo ir sveikatos. Pastebima, kad pastaraisiais metais daug kalbama apie tai, kad sporto sistema Ukrainoje yra pasenusi, neatitinka šiuolaikinių realijų, neduoda rezultatų ir jai reikia esminių pokyčių. Įrodyta, kad problema yra ir archajiškame darbo organizavime, kai niekas nejuda ir nesivysto. Ukrainos prioritetas turėtų būti aukštesnių pasiekimų sporto ir masinio sporto plėtra įvairioms socialinėms grupėms. Bet kokiomis sąlygomis sportas turi vystytis, o mūsų šiandienos ir rytojais čempionai turi turėti visas sąlygas juo užsiimti. Autoriai pabrėžia, kad taip pat būtina sukurti modernią infrastruktūrą ir padaryti ją prieinamą visoms gyventojų grupėms.

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REGULATION, REMAINDER RISK, AND PUBLIC INVESTMENT FUND: A THEORETICAL ANALYSIS

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Abstract. *In the EU member countries that obey the rule of law principle, the legislative work of the parliament supports the market economy by producing public capital. In many cases, legislation is connected to public investment projects, and sometimes also to socially important private projects. Both include public benefits and costs, but also public risks. Moreover, as the public commitment to major private undertakings may preclude both immaterial and material contributions, there is a noteworthy threat that an accidental actualization of the remainder risk caused by some unforeseen incident would fall heavily on the taxpayers. This paper constructs a club theoretic model for the analysis of representative democracy. In the model, the public commitment to a private project is decided by the simple majority voting rule in the parliament. The analysis shows that strict assessment of the remainder risk may halt the whole undertaking implying that the promised social benefits are also lost. As a solution, we propose a constitutional Investment Fund, which would launch short-maturity public bonds to citizens and pension funds, earmarked to the material part of the public commitment to private projects. The system could partly privatize the public remainder risk so that only the immaterial part remains to common taxpayers thus increasing the probability of a majority vote for the project. At the same time, the government would get equity finance for its investments, and the citizens and pension funds would hold securities with tangible net asset value. The system should increase precision in public debt and risk management and bring democracy, public governance, and the market economy closer to each other.*

Keywords: *democracy, investments, bonds, public capital, risk management, simple majority voting*

Reikšminiai žodžiai: *demokratija, investicijos, akcijos, viešasis kapitalas, rizikos valdymas, balsavimas paprasta balsų dauguma*

Introduction

In a democratic society, the enfranchised citizen is a constitutional principal, represented by an authorized agent, the politician. In representative democracy, universal and equal suffrage grants the citizens a right to affect the allocation of economic resources in the market.

An essential economic feature of legislation is that it creates both negative and positive rights to promote market efficiency and social welfare. In that sense, the institutionally structured legal framework can

be called public capital (*Law as Public Capital*, Buchanan 1975; Buchanan & Brennan 1985). Public capital is a concrete element of the more versatile but economically important concept of social capital (Hall & Jones 1999; Alanen & Pelkonen 2000).

Public capital gets accumulated when social issues are dealt with in legislative work. The consequential implications of long-acting regulation appear often slowly, like in environmental protection, and sometimes more rapidly, like in public investments. Big private investment projects often necessitate material and immaterial public participation. Immaterial participation means regulation, which starts from background studies including social cost-benefit and environmental impact analyses, committee work, expert hearings, preparation and so on, and ends to final decision making. In its turn, material participation means in- and out-sourced construction of infrastructure and other facilities, but some cognizance is usually needed for that, too.

Public participation in private projects in one way or the other means that private and public returns as well as risks intertwist. Profit is the investor's remainder right, and the investor's remainder risk is the unanticipated part of the investments risk. When the public sector regulates or takes part in private projects, public remainder rights and risks are also due (Hartmann et al. 2021). Yet, the connection between regulation and public remainder risk is most striking when regulation is absent or too weak. For example, the 2008 financial crisis was erected from the cut-down of regulation, and the consequence was that a huge remainder of risk was shifted from private financial giants to the public. One may argue that social risk-bearing is the most effective way of risk management, but the 2008 crisis offers an indisputable counterargument (Blyth, 2013).

This paper aims to develop a market-based supplement to the legislative handling of public remainder risk. The decisions on these matters are usually made by the simple majority rule in the parliament. Emerson (2020) provides powerful critics on the simple majority rule and proposes better alternatives to it. However, the analysis of this paper accepts the common practice.

The paper proceeds as follows. Chapter 2 summarizes the concept of public capital, and chapter 3 sketches a club theoretical model of optimal regulation in representative democracy. Chapter 4 deals with the assessment of public remainder risk in joint ventures with private investors, and chapter 5 presents the public Investment Fund as a partial solution to the problem of public remainder risk. Chapter 6 concludes, and the main findings from the theoretical analyses are the following:

- Regulation can gain majority if the public remainder risk is belittled.
- Careful risk assessment may cause the ban of the whole project with its social benefits.
- Public bond finance could reduce the public remainder risk and warrant the majority vote.

Law as Public Capital

The concept of public capital connects to the efficacy of the market economy (Buchanan 1975), and trust between the market operators is a crucial prerequisite for the proper working of the market. The nature of trust has been investigated within many disciplines, from many angles and with various definitions (Giddens 1990; Dietz 2011). Niklas Luhmann (1988) separates trust from trustfulness - what is believable is not necessarily trustworthy. Basically, trust is a subjective stance, but various protocols make it impersonal. On the organizational level, trust is versatile and hierarchical (Zaheer et al. 1998; Jalava 2006). For example, the limited liability companies act is an important trust factor, which encourages business firms to invest by reducing the shareholders' risk.

Broader social trust is a public liability. It begins from public organizations and institutions, continues to the economic environment of domestically and internationally operating people and firms, stretches to the country's international agreement and credit standing, and ends up in rule-based world order with its institutions. On the national level, the basic guarantees of trust are the citizens' universal and equal suffrage, and the constitutional set of values, which materialize in the legislation produced by democratic parliamentarism.

Constitutionally based public capital creates social stability and mitigates risks in economic relations and in their continuity. Public capital is a legislative entity consisting of constitutional, strategic, and operative components. The order prescribed for the enactment of constitutional legislation makes it the slowest to evolve, while the operative components, like statutes and rules of interpretation can be changed most rapidly. The strategic components usually include legislation that can be decided by simple majority of votes. Moreover, the regulation by the EU has its effects on the accumulation of public capital in the member states.

Legal regulation facilitates efficient working of the market mechanism by securing property rights, correcting market failures, and advancing social equity and cohesion as vital bolsters of trust in the market economy. Since public capital is proactive in nature, the legislative structure must not conflict with the constitutional set of values. Therefore, the order prescribed for the enactment of constitutional legislation should be followed in any deep-acting cases. However, the economic dimension of public capital also precludes certain reactivity, for example when external shocks hit the economy. These problems can then be handled with strategic and operative measures in compliance with the constitution.

The strategic measures, commonly decided by the simple majority rule, are the main vehicles of enhancing both public capital and economic prosperity. Big social reforms need lots of regulation and so do also socially important physical investments, particularly because they often involve some kind of participation with the private sector. In closer public private partnerships, returns and risks should be divided accordingly, but the righteous principle is hard to maintain by purely regulative means (Yescombe & Farquharson 2018).

Simple Majority Voting

To start with, we consider the parliamentary processing of a legislative work concerning some purely regulatory issue. The process is assumed thoroughly rational. The citizens reveal their preferences to their representatives, the representatives maximize social welfare, the administration is efficient, and all participants have perfect information. The administration provides a preliminary account of the case, and the voters take their political stands on it. In principle, the simple majority rule means support from most of the enfranchised citizen, while in parliamentary practice it means most votes in the plenum of the parliament.

We tackle the issue by presenting a club theoretic model of representative democracy. Basically, a club is a collective in which each member's net benefit from the club good depends on positive and negative externalities caused by other members (Cullis & Jones 2009). Therefore, they collectively accept new members as far as the optimal size of the club gets reached and exclude incomers after the optimum point. In our model, the primary incomers are those who give their successive votes for the regulation, and the externalities emerge in the political discussion during the whole process: The proponents benefit from each other in the pursuit of simple majority, while the opponents provide controversial aspects to the discussion.

There are two main differences between the basic club model and our model. First, while the club good is fixed in the basic model, it is variable in our model. This is because our club good is a regulatory entity so that the political process essentially concerns the extent of regulation. That is, more votes for regulation means more regulation. Second, if the proponents of the regulatory entity gain simple majority, all taxpayers get included in the club to share the production costs of the club good. Figure 1 illustrates the model of political decision-making process in the parliamentary practice.

In Figure 1, the variable ϵ on the vertical axis is the monetary value of the measuring quantities, and the variable on the horizontal axis is the number of votes measured from zero to α , which denotes full plenum and converts to the number of taxpayers.

In the figure, graph b derives from utilitarian social benefit from regulation:

$$B = \alpha b$$

where the individual benefit b from the club good g , namely regulation, depends on its extent which in turn depends on the voters' support to it, $g = g(\alpha)$, $g' > 0$, $g'' < 0$. The voters experience positive (supportive)

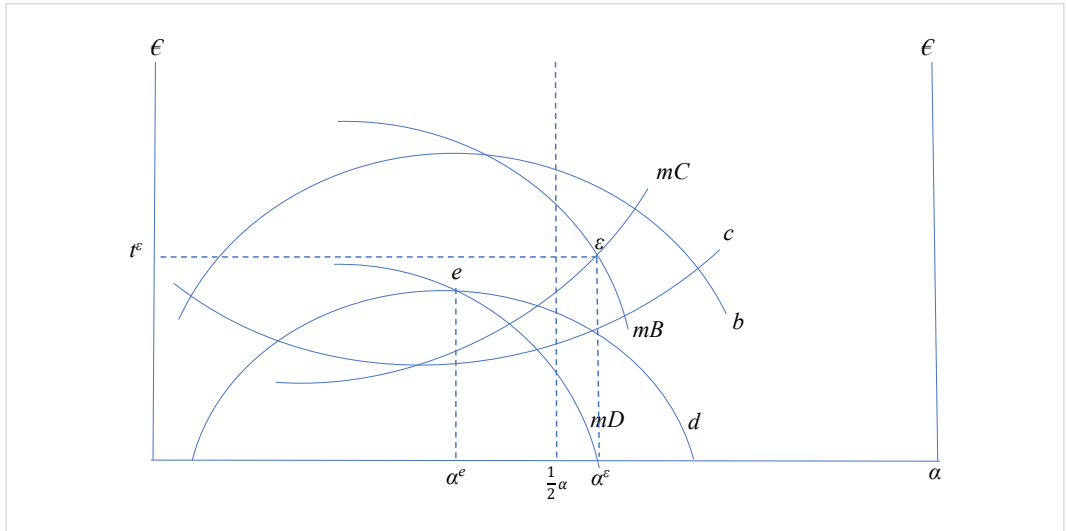


Figure 1. Majority voting rule

and negative (antagonistic) externalities from each other, and the existing support determines the extent of regulation. Thus, graph *b* shows how the political conception of from the regulatory entity develops from the viewpoint of an average taxpayer:

$$b = \frac{B}{\alpha} \tag{1}$$

The inverse U-shape of the graph $b(\alpha)$, $b' > 0$, $b'' < 0$, means that the origin function *B* is S-shaped. The intuition is that, in the political debate, there is more support for modest than comprehensive regulation so that the effect of increased regulation in producing social benefits is first positive but retarding and turns acceleratingly negative at the top of the *b* curve.

The taxpayers' marginal benefit from regulation is:

$$mB = \frac{dB}{d\alpha} \tag{2}$$

In the figure, graph *mB* strikes through graph *b* from above in its top point¹. The downward sloping marginal benefit graph *mB* below *b* depicts the "market" demand for regulation, that is the taxpayers' declining willingness to pay for it. In this sense, regulation is like a normal good with declining marginal benefit.

In Figure 1, graph *c* derives from a standard cost function, consisting of fixed and variable procedural costs of regulation:

$$C = f + v(g)$$

The fixed cost *f* is the expenditure from the existing institutional apparatus, while the variable cost *v* depends on the extent of the club good $g = g(\alpha)$, $g' > 0$, $g'' < 0$. Increasing support for broader regulation necessitates more labor input throughout the whole process, including referrals back to committee, law drafting, expert hearings and so on. Since *f* is fixed, an increase in *v* makes *C* grow first acceleratingly and then deceleratingly so that the cost function *C* is of inverse S-type in both *g* and α .

¹ Since $b = \frac{B}{\alpha} \Rightarrow B = ab$, from which the marginal benefit $mB = \frac{dab}{d\alpha} = b + ab'$. Thus, when $b' = 0$, $mB = b$; when $b' > 0$, $mB > b$; and when $b' < 0$, $mB < b$.

The average cost per taxpayer is:

$$c = \frac{C}{\alpha} \tag{3}$$

In the figure, graph c is U-shaped because scale economies in producing g are first positive, constant at the bottom of c and negative thereafter thus reflecting the inverse S-shape of the C function.

The marginal cost concept:

$$mC = \frac{dC}{d\alpha} \tag{4}$$

represents the supply of regulation. In Figure 1, the graph mC strikes through c from below in its bottom, where the average cost is at its minimum². Therefore, the “market” supply curve mC above c is rising in α because more support for regulation implies broader regulation thus adding to total costs from it.

The net benefit from regulation is:

$$D = BC$$

and the graph d in the figure depicts the average net benefit per taxpayer:

$$d = \frac{D}{\alpha} = \frac{B}{\alpha} - \frac{C}{\alpha} = b - c \tag{5}$$

Thus, the graph d illustrates the vertical distance between graphs b and c at each value of α . The marginal net benefit from regulation reads:

$$mD = \frac{dD}{d\alpha} \tag{6}$$

and the graph mD in Figure 1 strikes through graph d from above³.

In Figure 1, increased regulation gets support until the demand and supply of regulation meet at the intersection of the graphs mB and mC at point ε with votes $\alpha^\varepsilon > \frac{1}{2}\alpha$. At the same time, the marginal net benefit graph mD strikes trough the horizontal axis at α^ε .⁴ Since all taxpayers are invited to the club by the majority vote, the average tax price is:

$$\frac{\alpha\varepsilon}{\alpha} t^\varepsilon$$

In the static framework of Figure 1, optimal regulation by simple majority rule at α^ε gets realized from the beginning to the end of the whole procedure. However, the framework erects some remarks concerning the additivity of individual preferences. First, wouldn't a majority decision at the intersection of the mB and c graphs with lower taxes be fair to the taxpayers? No, because it would be inefficient compared to the optimum at ε because of excessive regulation. There would emerge a negative externality caused now by the proponents, measured by the vertical distance between mC and mB , and a welfare loss measured by the area between mC and mB . Second, if the set of curves were much closer to the right axis so that $\alpha^\varepsilon > \frac{1}{2}\alpha$, wouldn't the solution at the top of the average net benefit graph d be fair? Again, it would be inefficient because of the welfare loss measured by the area between mB and mC compared to the ε type optimum farther to the right. Thus, efficiency precludes maximization of social welfare from regulation measured by area

² By expression (3), $c = \frac{C}{\alpha} \Rightarrow C = \alpha c$, from which the marginal cost $mC = \frac{d\alpha c}{d\alpha} = c + \alpha c'$. When $c' = 0$, $mC = c$; when $c' < 0$, $mC < c$; and when $c' > 0$, $mC > c$.

³ Since $D = B - C = \alpha b - \alpha c = \alpha d$, from which the marginal net benefit $mD = \frac{d\alpha d}{d\alpha} = d + \alpha d'$. When, $d' = 0$, $mD = d$; when $d' > 0$, $mD > d$; and when $d' < 0$, $mD < d$.

⁴ Recall that at α^ε , $mB = mC \Rightarrow b + \alpha b' = c + \alpha c' \Rightarrow d = \alpha(c' - b') \Rightarrow d = -\alpha d'$. At the same time, $D = \alpha d$ from which $mD = d + \alpha d'$. Combining the results yields $mD = -\alpha d' + \alpha d' = 0$.

between graphs mB and mC , which reveals a pitfall in representative democracy: The obligation of the parliamentary agents to maximize social welfare may conflict with their average principals' individual wishes.

Public Remainder Risk

Over time, all long-acting investments yield remainder rights and cause remainder risks. Remainder right is a compensation for bearing the investment risk. In other words, it a right to profits. Remainder risk is something that remains after a thorough risk analysis, considered small enough to be accepted. Common risk analyses usually omit totally unforeseen happenings with minuscule random variation. Thus, remainder risk can be interpreted as the infinitesimal random error in the risk estimation.

If the private investment account is waterproof, the remainder right turns out quite as expected and the remainder risk is next to nothing. But if, say, an external shock strikes during the investment's life span, the remainder risk may explode, and the forecasted profits can turn even to losses. Firms, stakeholders, and financiers may then suffer, but all of them have based their voluntary participation in the project on appropriate calculations. In private market exchange, remainder rights and risks tie together.

The tie-up is more complicated when the public sector gets involved in private investments. In many cases, both immaterial and material involvements are needed, particularly when the private project is large and socially remarkable. That kind of a project necessitates parliamentary regulation, and continuous surveillance by public offices under the guidance of the parliament. Moreover, there is usually need for public construction of infrastructure as a material public input in the project. Commitment to the joint project means public remainder rights and risks from the project, and both depend on the private risks.

Since the public sector may end up as a consequential sufferer from the realization of the private risk, it must be most careful in its own risk assessments. For example, after the fall of Soviet Union, many European firms, leading businessmen and state leaderships erred to understate Russia's country risk. When the war in Ukraine started in February 2022, the country risk realized, numerous business activities and projects seized, and huge remainder risks, both private and public, exploded. The lesson from the incident is that at least the state leadership should be very cautious about unexpected risks, and it also quite reasonable that the officials are better aware of external threats than private entrepreneurs.

The problem of public remainder risk in public-private partnerships can be tackled in the model presented above. Figure 2 presents the initial stage of the project, namely the parliamentary handling of the complex set of permissions, regulations, and infrastructural commitments that are needed before the project can get started.

In Figure 2, the solid b and mB graphs represent benefit concepts based on the traditional manner of risk assessment. Namely, the probability of unforeseen happenings is assumed minuscule so that the public remainder risk should include in the random error with zero expectation value. This would lead to the same kind of a result as in Figure 1, given by the intersection of the mB and mC graphs at point e . Public commitment to the private investment project would then be accepted by simple majority α^c , and the project could get started.

As emphasized above, the state leadership must and should also be able to take risks more seriously. In dealing with genuine uncertainty, one must at least abandon the traditional assumption of thin tailed normal distribution. Accepting that the tails of the statistical distribution may be thick means that the expectation value of unforeseen events is not zero (*black swans*, Taleb 2010). Thus, more sophisticated statistical methods must be used in the administration, and the risk awareness should be appropriately mediated to the decision-makers.

Higher risk estimates make the proponents of the initiative more cautious and reinforces the arguments of the opponents. In the political debate, the result is that the benefits commonly anticipated from the project diminish. That makes the average and marginal benefit graphs shift inwards as illustrated by

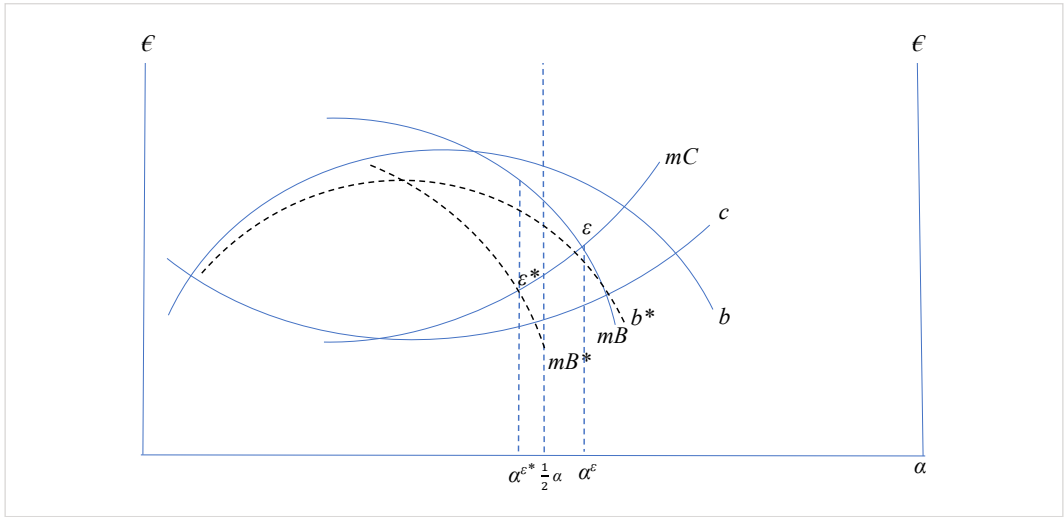


Figure 2. Public remainder risk

the dashed graphs b^* and mB^* in Figure 2. Consequently, the simple majority voting rule occurs in their intersection at point ϵ^* with votes α^ϵ . At that point, the vertical distance between mB and mB^* measures the monetary value, or price, of the politically anticipated public remainder risk.

Since $\alpha^{\epsilon^*} > \frac{1}{2}\alpha$, the price of the remainder risk is anticipated too high to warrant participation in the private project. Thus, regulation and other public commitments as well as the whole private investment project are banned in the parliament. Then, if an unexpected catastrophe should really take place, the representatives can be congratulated for their prudence. But if nothing extraordinary takes place, the ban would mean that the promised social benefits get lost. On the hindsight, the decision might then seem too hasty.

It must be noted that Figure 2 is again intentional - drawn otherwise, $\alpha^{\epsilon^*} > \frac{1}{2}\alpha$ would be possible as well. Its mere purpose is to theoretically show that public support for uncertain private endeavors is not granted in parliamentary handling and to emphasize the importance of thorough risk assessment. Moreover, the example illuminates the virtue of penetrating political debate in the parliament.

Public Investment Fund

The main question about long-acting public investments concerns their returns. In principle, the returns should be measured in terms of the effect on citizens' future wellbeing, which is very difficult. In practice, the returns are usually evaluated from budgetary perspective, that is in terms of future tax revenues, which is not accurate either. In many European countries the parliament's budgetary autonomy has deteriorated after joining the EU and particularly the Eurozone. The EU has also been criticized from its democratic deficit and lack of politicians' accountability, while expert organizations like the European Central Bank and the Court of Justice of EU have been praised for their impartial promotion of the public interest (Scharpf 1999; Follesdal & Hix 2006).

The fiscal rules of the EU stress the member counties' budgetary balance and avoidance of debt finance, but public debt has still increased in many countries due to the successive external shocks. Essentially, debt is as natural element of budgetary planning of the public sector as in the private sector, but public debt has a much worse reputation. Undoubtedly, the reputation would improve if debt could be connected to its returns more clearly. This could be achieved by partial replacement of external capital by equity funding.

By Jed Emerson (1998), novel applications of traditional debt securities could help in handling the connection between ownership and investment risks.

A constitutional Investment Fund would be a noteworthy solution to the problem of public remainder risk. Dedicated to financing socially important investment projects, the Investment Fund would be a politically independent organization with top expertise in the evaluation of returns and risks of all kinds of public investment projects. The Fund would consist of founding capital, and security loans from pension funds and private citizens. Like any government bonds, the securities would be tradable on the secondary market.

The securities should be ear-marked to ascertained investments or projects with project specific yields and maturities. In long term projects, the yield of short maturity securities could be adjusted according to the economic environment to reflect possible changes in the anticipated risk. In this way, the securities would be an appealing alternative to other modes of asset management by pension funds and the public. Thus, the Investment Fund would provide equity funding to public investment projects, including public private partnerships.

From macroeconomic perspective, the general virtue of the Investment Fund can be demonstrated by the balance of resources and expenditure:

$$Q - T = C + I + G - T + X - M \quad (7)$$

where Q is the gross national product or income, T is taxes, C is private consumption, I is private investment, G is public expenditure, X is exports and M is imports. Assuming that the economy is in external balance, $X = M$, and defining $S = Q - T - C$ as private savings, the identity (7) reduces to:

$$S - I = G - T$$

This version tells that the surplus or deficit of the private component $S - I$ must correspond to that of the public component $G - T$ of the economy. In the long run, both must balance:

$$S - I = G - T = 0 \quad (8)$$

Separating public expenditures to consumption and investment expenditures, $G = G^E + I^G$, assuming that the public investments are financed by public bonds, $I^G = B$, and substituting these into expression (8) produces:

$$(S - B) - I = G^E - T = 0 \quad (9)$$

On the left-hand side of (9), the residual $S - B$ of private savings covers only private investments I and, on the right-hand side, the public bond type saving B has absolved taxation T from financing public investments I^G . Thus, the citizens' saving in terms of public bonds is a voluntary and targeted input to public investments instead of obligatory and untargeted taxation, and a smaller tax revenue T is needed to cover nothing but consumption expenditures G^E . The system is allocatively efficient precluded that the social yield from public investments does not fall short of that of private investments.

Voluntary public bonds are public debt, but since the debt is from domestic citizens as a part of their total savings, the effect resembles that of taxation. The only difference is that a bond is a voluntary contribution with a tangible net asset value, which is a much more concrete measure than the return value of taxes. The public bonds could be sold in the secondary market for their real value, guaranteed by the high expertise of the Investment Fund. The Fund could estimate the development of the remainder risk during the life span of the project and incorporate the calculated risk price into the yield of the sequence of the short maturity bond batches.

Concerning public remainder risk in public private partnerships, the public bond finance system would separate the risk connected to immaterial regulation from the risk of material public investments. Defining total public expenditure as $G = G^E + I^{GG} + I^{GP}$, where I^{GG} denotes purely public investments and I^{GP} denotes those connected to private projects, and if $I^{GP} = B$, expression (9) turns to:

$$(S - B) - I = (G^E + I^{GG}) - T = 0 \quad (10)$$

By expression (10), purely public investments I^{GG} are financed by taxation while those connected to private projects I^{GP} are bond financed. Selling the risk of the physical part to voluntary market agents means that only the risk included in the legislative part of the project remains to be carried by the collective of taxpayers. This means that the citizens express their individual preferences in two modes: On one hand, they choose their commitment to the public authorization of the project as taxpayers, and on the other hand, they choose their commitment to the public investments as voluntary financiers. The simple majority voting rule then determines whether the latter decision mode is actualized or not.

Figure 3 illustrates how the introduction of voluntary public bond finance could affect simple majority voting in the parliament.

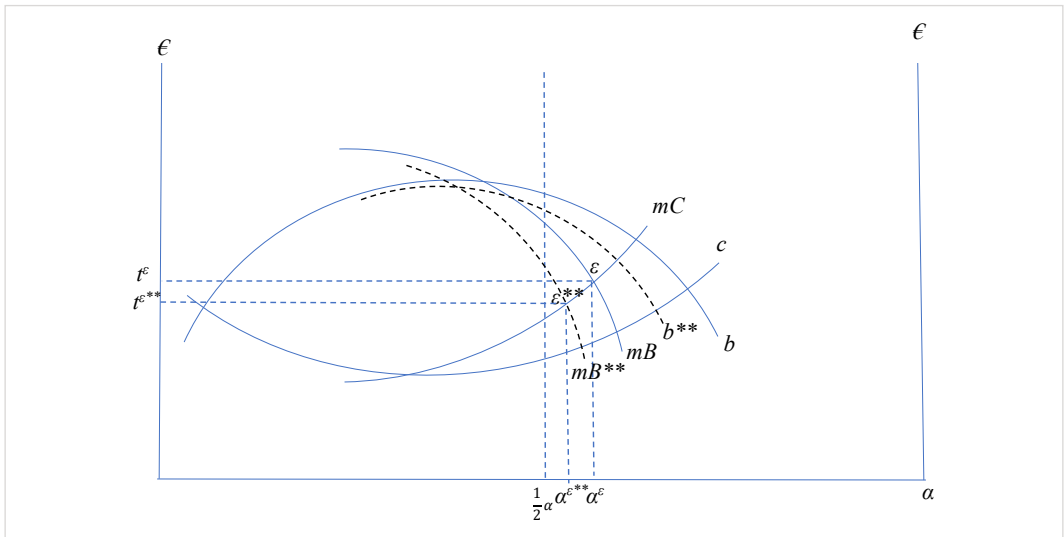


Figure 3. The taxpayers' remainder risk

Figure 3 repeats Figure 2 by assuming that the material public contribution to a private investment project is enforced by voluntary public bonds and only the remainder risk connected to the legislative contribution to the project belongs to the mass of taxpayers. The effect is that the average benefit and marginal benefit graphs b^{**} and mB^{**} slope more gently compared to those in Figure 2. As a result, the estimated price of public remainder risk, that is the vertical distance between mB and mB^{**} at ϵ^{**} is diminished, and the tax price is lower than because there is less demand for regulation such that is partly contaminated by remainder risk. The average tax price is also lower:

$$\frac{\alpha \epsilon^{**}}{\alpha} t^{\epsilon^{**}} < \frac{\alpha \epsilon}{\alpha} t^{\epsilon}$$

Again, the presentation is intentional and other outcomes would be possible as well. The argument is only that regulation may be accepted and public private partnership investment projects can get green light, if the public remainder risk is polished from all the risk that can be privatized via the Investment Fund.

The principle of voluntary exchange included in the Investment Fund would connect public finances to the citizens' preferences like Knut Wicksell (1896) and Antonio de Viti de Marco (1936) already emphasized. The later public choice theory has the same emphasis: Market driven collective action is possible

when enhancing common goals need broad cost sharing (Olson 1971). In principle, the voluntary exchange of public bonds corresponds to the use of vote case-by-case. In that sense, the Investment Fund could narrow the democratic deficit, sharpen the worth for money principle, and foster intergenerational justice.

Conclusions

In the EU member countries, public capital accumulated in the legislature is a core stanchion of the market economy. Regulation is commonly needed in connection with socially important undertakings, and the parliamentary decisions are usually made with the simple majority rule. Sometimes the public sector participates in big private projects also by material inputs, like infrastructure. In these cases, public remainder risk is often present. In principle, profits and risk bearing should belong to the same party, but the interrelation of public and private risks blurs the principle.

The paper presented a club theoretic model of regulation with simple majority voting assuming that citizens' rational preferences are perfectly reflected in the decisions of their representatives in the parliament. It was theoretically shown that:

1. Regulation can be accepted by the demand-supply equilibrium of the majority, but the underestimation of accidental risks can make the public remainder risk fall on the taxpayers.
2. On the other hand, a more careful risk assessment could lead to the ban of the whole project, implying that the social benefits from the project would remain unobtained.

As a solution to the problem of public remainder risk, the paper proposed a constitutional Investment Fund. The Fund would issue public bonds earmarked to physical investments, like infrastructure, connected to the private project. The bonds would be market securities, whose buying, holding, and selling would be purely voluntary. In this way, the public remainder risk could be washed from material public involvement to the project, and the remainder risk could consist only of the immaterial that is legislative part of it. Thus:

3. Bond financing could reduce the public remainder risk so that the joint project would be accepted by the majority rule, and the possibility of social benefits could be rescued.
4. The bonds would replace compulsory and universal taxation by voluntary and targeted saving thus enhancing the value for money principle.

The voluntary public bonds would have net asset value to their holders thus being an alternative mode of saving. In public finances, the bonds would be equity capital thus being an alternative to credit capital. The stability of the bond value would be guaranteed by the high expertise of the Investment Fund. The yield of the short maturity bonds, rolling over the life span, could be adjusted according to the changes in the risk expectations so that the risk bearing could be set on the voluntary bond buyers. Therefore:

5. As a market-based system, the Investment Fund would provide equity funding for public finance, and assets with tangible net value as a saving mode for the public.
6. The system would engage the citizens to the democratically steered market economy, narrow the democratic deficit, and foster intergenerational justice.

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Hannu Laurila, Erkki Siivonen

REGULIAVIMAS, LIKUTINĖ RIZIKA IR VALSTYBINIS INVESTICINIS FONDAS: TEORINĖ ANALIZĖ

Anotacija. *Teisinės valstybės principo besilaikančiose ES valstybėse narėse parlamento teisėkūros veikla remia rinkos ekonomiką, kurdama viešąjį kapitalą. Daugeliu atvejų teisėkūra yra susijusi su viešaisiais investiciniais projektais, o kartais ir su socialiai svarbiais privačiais projektais. Abu šie projektai apima ne tik viešąją naudą ir sąnaudas, bet ir viešąją riziką. Be to, kadangi viešieji įsipareigojimai svarbioms privačioms įmonėms gali užkirsti kelią tiek nematerialiems, tiek materialiams įnašams, kyla nemaža grėsmė, kad dėl ko-kio nors nenumatyto įvykio atsitiktinai aktualizavus likusią riziką, didžioji našta teks mokesčių mokėtojams. Šiame straipsnyje konstruojamas klubų teorijos modelis atstovaujamosios demokratijos analizei. Modelyje valstybės įsipareigojimas privačiam projektui sprendžiamas pagal paprastosios balsų daugumos taisyklę*

parlamente. Analizė rodo, kad griežtas likusios rizikos vertinimas gali sustabdyti visą projektą, o tai reiškia, kad bus prarasta ir žadėta socialinė nauda. Kaip išeitį siūlome įsteigti konstitucinį Investicinį fondą, kuris piliečiams ir pensijų fondams platintų trumpo termino valstybės obligacijas, skirtas valstybės išpareigojimų privatiems projektams materialinei daliai padengti. Ši sistema galėtų iš dalies privatizuoti valstybės likutinę riziką, kad bendriems mokesčių mokėtojams liktų tik nematerialioji dalis, taip padidinant tikimybę, kad už projektą balsuos dauguma. Tuo pat metu vyriausybė gautų nuosavų lėšų savo investicijoms, o piliečiai ir pensijų fondai turėtų vertybinių popierių su apčiuopiama grynąja turto verte. Ši sistema turėtų padidinti valstybės skolos ir rizikos valdymo tikslumą ir suartinti demokratiją, viešąjį valdymą ir rinkos ekonomiką.

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HIBRIDINĖS GRĖSMĖS LIETUVOJE: SAMPRATOS ŽINOMUMAS IR RAIŠKOS FORMŲ ATPAŽINIMAS JAUNIMO TARPE¹

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Anotacija. 2014 m. Rusijos įvykdyta Krymo aneksija ir 2022 m. pradėta plataus masto invazija į Ukrainą į politinę Lietuvos ir bendrai Vakarų pasaulio darbotvarkę ir viešumą iškėlė hibridinės karybos, hibridinių grėsmių (toliau, HG) ir pan. sąvokas. Nepaisant to, akademinų tyrimų ir ekspertinio išmanymo HG, jų suvokimo ir raiškos formų atpažinimo tema nėra daug. HG tyrimus komplikuoja tai, jog šis reiškinys neturi aiškios apibrėžties ar atpažintamų savybių, kuriomis remiantis galima būtų šias problemas išspręsti vienu universaliai teisingu būdu. Šiame kontekste jaunimas tampa itin aktualia grupe – dėl inlumo ir jautrumo naujai informacijai (ar dezinformacijai) bei svarbaus vaidmens nacionalinio saugumo srityje. Šiame straipsnyje pristatomas tyrimas, kurio objektas yra Lietuvos jaunimo žinios ir suvokimas apie HG. Tyrimu siekta atskleisti Lietuvos jaunimo žinių apie HG įvairovę ir hibridinių grėsmių suvokimo brandą. Tyrime naudotas HG apibrėžimas: tai piktavališkas užsienio aktorių veikimas, pasitelkiant karines ir nekarines priemones ir siekiant sumažinti piliečių pasitikėjimą demokratinėmis valdžios institucijomis. 2022 m. rugsėjo - 2023 m. kovo mėn. buvo atliktos penkios focus grupinės diskusijos (toliau, FGD) – trys su šaukiamojo, t.y. 18-26 metų, amžiaus jaunuoliais ir dvi su 15-19 metų amžiaus gimnazistais. Iš viso dalyvavo 41 individas (22 vaikinai ir 19 merginų). Išvados. Lietuvos jaunimo tarpe hibridinės grėsmės sąvoka yra sunkiai suprantama ir retai kam girdėta. Dažniausiai HG pirminė asociacija yra susijusi su kibernetinėmis atakomis ir propaganda. Mažiausiai HG yra siejamos su teise, viešuoju administravimu ir diplomatija. FGD eigoje buvo aktualizuojamas ekonomikos, energetikos ir švietimo bei mokslo sritys. Jaunuoliai dažnai vidaus problemas supranta kaip HG ir nesieja jų su sąmoninga piktavališku išorės veikėjų veikla. Tyrimas neatskleidė, kad dalyvavimo visuomeninėje veikloje ir nevyriausybinėse organizacijose patirtis būtų stipriai reikšminga tam, ar ir kiek jaunuoliai žino apie HG.

¹ Straipsnyje naudojami empiriniai duomenys, surinkti 2022 m. rugsėjo - 2023 m. kovo mėn. įgyvendinant Lietuvos mokslo tarybos finansuotą studento tyrimo semestro metu projektą Nr. P-ST-22-62 (vadovė dr. Irmina Matonytė) bei Generolo Jono Žemaičio Lietuvos karo akademijoje vykdančią LR Krašto apsaugos ministerijos finansuojamą MTEP projektą „Įvairių Lietuvos visuomenės grupių atsparumas hibridinėms grėsmėms“ (vadovė dr. Ieva Gajauskaitė).

Reikšminiai žodžiai: nacionalinis saugumas, hibridinė grėsmė (HG), fokusuota grupinė diskusija (FGD), socializacija, suvokimas, jaunimas, Lietuva.

Keywords: national security, hybrid threat, focus group discussion, socialization, perception, young people, Lithuania.

Įvadas

Straipsnio tema atspindi dabartines politines aktualijas – Rusijos plataus masto karą prieš Ukrainą. Šis karas veikia globalius tarptautinių santykių procesus ir keičia požiūrius ir vertinimus, susijusius su tokiais įvykiais kaip 2014 m. Rusijos įvykdyta Krymo aneksija, 2016 metais vykę JAV prezidento rinkimai, nelegalios migracijos srautai iš Baltarusijos, „Zapad“ pratybos Kaliningrade, „rusiškojo pasaulio“ (rus. russkij mir) veikla Baltijos šalyse ir pan. Per šiuos įvykius ir juos sąlygojusius procesus tiek į viešąjį diskursą, tiek į mokslinius-ekspertinius svarstymus iškilo „hibridinio karo“, „hibridinės karybos“, „hibridinių kampanijų/operacijų/atakų“, „hibridinės įtakos“, „hibridinio įsikišimo“ ar „hibridinės grėsmės“ (toliau – HG), ir pan. sąvokos². Šiomis sąvokomis apibūdinama išorinių priešišku veikėjų keliami žala ir ribotos tokių veikėjų atgrasymo galimybės krizių bei „pilkosios zonos“ tarp taikos ir konvencinio karo sąlygomis.

2021 m. priimtoje LR Nacionalinio saugumo strategijoje atkreipiamas dėmesys į tai, kad „Grėsmių kompleksiskumas pasižymi nykstančiomis skirtimis tarp karo ir taikos, išorinių ir vidinių, karinių ir nekarinių grėsmių, valstybinių ir nevalstybinių grėsmių šaltinių. Tai lemia didesnę hibridinių grėsmių iššūkių euroatlantinei bendruomenei, taigi ir Lietuvos Respublikai.“ (LR Seimas 2021). Lietuvai aktyviai remiant Ukrainą besiginančią nuo Rusijos invazijos bei plečiant bendradarbiavimą su Taivanu, susiduriama su platesnio spektro bei intensyvumo Rusijos bei Kinijos keliamomis HG. Atitinkamai, viešosios politikos lygmenyje HG apibrėžimas vis tikslinamas. Aktuali LR instituciniu lygmeniu vartojama apibrėžimo versija skamba taip: „hibridinė grėsmė – tai pažeidžiamumas, kurį savo naudai išnaudoja priešišku šalių valstybiniai ar nevalstybiniai veikėjai pasitelkdami pavienį arba kelių veiksmų kombinaciją sukuriant sudėtingesnę ir daugiamatę grėsmę“ (LR Krašto apsaugos ministerija, 2023). Didėjant grėsmių nacionaliniam saugumui spektrui, didėja ir Lietuvos visuomenės nerimas dėl konvencinių ir hibridinių grėsmių žalos bei stiprėja būtinybė informuoti visuomenę apie HG raiškos formas ir galimas kovos su jomis priemonės.

Akademiniu lygiu HG tema tik pradėta tirti. Užsienio (tarptautinio masto) moksliniai straipsniai pažymi, kad hibridinis kariavimas, hibridinės grėsmės ir atsparumas joms yra nauja saugumo politikos srities tema. Lietuvoje esama gana solidaus akademinio įdirbio nacionalinio saugumo ir įvairių sektorių grėsmių suvokimo tematikoje (Janušauskienė ir Novagrockienė 2003; Janušauskienė ir Vileikienė 2016; Lašas ir kiti 2020; Šumskas ir Matonytė 2018), tačiau akademinis įdirbis HG klausimais yra kuklesnis. Čia daugiausia apsiribojama taikomojo pobūdžio tyrimais (akcentuojant propagandą arba dezinformaciją) ir viešosios politikos rekomendacijomis (Bajarūnas ir Keršanskas 2018; Maliukevičius, 2015). Žilinskas (2017) pabrėžia, kad adaptyvaus valdymo doktrinoje svarbus vaidmuo tenka valstybės institucijų ir visuomenės tarpusavio priklausomybės didinimui, visuomenės psichologinio pasirengimo priešintis ir tarpasmeninio pasitikėjimo kultūros, visuomenės įsitraukimo į politiką skatinimui. Kilinskas (2016) akcentuoja Rusijos vykdomo hibridinio karo išskirtinumą, kurio esmė – precedento neturintis galios projekcijos mastas ir senų kariavimo metodų naudojimas naujoviškais būdais. Panašiai, Šešelgytė ir Bladaitė (2021) nurodo, kad Rusija kelia HG Baltijos valstybių visuomenėms išnaudodama jau egzistuojančias etnines ir socio-ekonomines takoskyras, per informacinį karą siekdama sumažinti visuomenių lojalumą savo valstybėms.

² Čia pateikiamas sąvokų išvardijimo eiliškumas atspindi ir tam tikrą jų išryškėjimo akademinėse publikacijose logiką. Pastaraisiais metais, kuriems būdingas sparčios technologinės plėtros ir didėjančio tarptautinių santykių konfliktškumo sąlygos, hibridiškumas vis labiau siejamas su kompleksiskais pažeidimais, trūkumais, grėsmėmis ir rizikomis, kurias patiria nacionalinės valstybės, institucijos ar/ir visuomenės ir, ypač, kai kurios viešosios politikos sritys. Akivaizdu, jog tam, kad ši įžvalga būtų pagrįsta, reikėtų išsamios sisteminės literatūros apžvalgos, o tai nėra šio straipsnio tikslas.

Nacionalinio saugumo kontekste abejojama ar hibridinių grėsmių pasireiškimo atvejais atsparumas iš esmės įmanomas individo ir visuomenės lygmeniu, jei nėra kryptingos valstybės strategijos (Keršanskas 2020). Ši abejonė yra pagrįsta, nes atsparumas hibridinėms grėsmėms yra sudėtingų asmens pažintinių (kognityvinių) gebėjimų ir socialinių įgūdžių sąveikos rezultatas, sukuriamas sėkmingoje sekoje, apimančioje tris žingsnius: pirma, informuotumas apie grėsmę; antra, grėsmės atpažinimas realiomis sąlygomis ir jos kilmės bei padarinių supratimas ir, trečia, gebėjimas tinkamai reaguoti ir veikti, stiprinant nacionalinį saugumą. Atitinkamai, veiksmingas suvokimas, įgalinantis veikti, yra neįmanomas be pirmųjų dviejų žingsnių (supratimo apie HG priežastis, raiškos formas, pasekmes ir gebėjimo atpažinti iššūkius, rizikas, problemas ar pažeidimus, su kuriais realiai susiduria Lietuva bei socializacijos proceso metu dalintis šiomis žiniomis su kitais visuomenės nariais).

Straipsnio tikslas – atskleisti Lietuvos jaunimo žinių apie hibridines grėsmes, konceptualizuotas Rusijos plataus masto puolimo prieš Ukrainą aktualijų fone, įvairovę ir hibridinių grėsmių suvokimo brandą.

Straipsnio problema – išryškinti kaip hibridinių grėsmių žinias ir suvokimą jaunimo tarpe veikia socialinė-kultūrinė aplinka ir dalyvavimas visuomeniniame gyvenime.

Jaunų žmonių supratimas ir laikysena HG atžvilgiu yra ypač svarbūs, nes jų gebėjimas tinkamai reaguoti į HG gali tapti vienu iš valstybės suverenitetą užtikrinančių veiksnių. Jaunų žmonių atvejis yra išskirtinis tuo, kad jų požiūriai vis dar formuojasi, o tai reiškia, kad informacija (įskaitant ir dezinformaciją) gali juos stipriai paveikti. Supratus, kokias žinias apie HG turi ir kaip supranta jų pasireiškimą realybėje bei ar (kaip) jie tai perteikia kitiems visuomenės nariams, būtų galima efektyviau pateikti informaciją apie HG ir stiprinti gebėjimą tinkamai į jas reaguoti. Reikia atkreipti dėmesį į tai, kad jaunoji karta auga internetiniame amžiuje – informacijos sklaida yra itin didelė ir labai greita, informacijos yra suvartojama dideliais kiekiais, o visko patikrinti tiesiog neįmanoma. Tad svarbu nustatyti kaip gyvenimas skaitmeninės (informacinės) visuomenės sąlygomis veikia jaunų žmonių požiūrius į socialines aktualijas (čia, į HG keliamas problemas) bei ar (kaip) jie suvokia savo supratimo apie HG spragas.

Jaunoji karta yra patyrusi ir patiria daugybę globalių reiškinų (COVID-19, ekonominę-finansinę krizę, migracijos krizę, ekologines katastrofas), kas irgi gali veikti jų HG suvokimą. Pavyzdžiui, Lužai ir Grad (2021) pastebi, kad Rumunijos jaunimo (Z kartos atstovų) požiūrius į saugumo srities problemas stipriai veikia tai, kokias individualias patirtis jie yra sukaukę, iš kur jie kilę (sostinė ar provincija, gyvenamojo regiono etninė sudėtis ir pan.) ir konkretaus tyrimo vykdymo laikotarpio aktualijų. Galimų tendencijų tarp jaunuolių turimų žinių ir jų tarpe esamo HG suvokimo ir jų socialinės aplinkos atskleidimas sudaro pagrindą identifikuoti veiksnius, galinčius keisti (gerinti) HG supratimą ir, atitinkamai, stiprinti gebėjimus tinkamai į jas reaguoti. Siekiant nustatyti Lietuvos jaunimo žinių apie HG įvairovę bei brandą 2022 m. rugsėjo - 2023 m. kovo mėn. buvo atliktos penkios FGD – trys Vilniuje su šaukiamojo, t.y. 18-26 metų, amžiaus jaunuoliais, atvykusiais iš įvairių Lietuvos didžiųjų miestų, ir dvi su 15-19 metų amžiaus gimnazistais Kelmėje ir Kelmės rajone. Iš viso diskusijose dalyvavo 41 individas. Atlikus diskusijų transkripciją taikytas teminis kodavimas pagal šias kategorijas: grėsmės aktualumas, daroma (galima) žala, grėsmės pasireiškimo sritis, grėsmės šaltinis (sukėlėjas, įgalinantys veikėjai ir veiksniai). Antro etapo metu, analizuojant jaunuolių HG suvokimo ir jų socialinės aplinkos (amžiaus, lyties, gyvenamosios aplinkos) bei ištraukimo (į socialinius tinklus bei visuomenines veiklas) galimus sąryšius buvo remtasi atskirai suduotais 35 individualiais naratyvais, nes ne visi FGD dalyviai aktyviai pasisakė. Lietuvos jaunimo tarpe hibridinės grėsmės sąvoka yra sunkiai suprantama ir retai kam girdėta. Dažniausiai HG pirminė asociacija yra susijusi su kibernetinėmis atakomis ir propaganda. Tyrimas neatskleidė, kad dalyvavimo visuomeninėje veikloje ir nevyriausybinėse organizacijose patirtis būtų stipriai reikšminga tam, ar ir kiek jaunuoliai žino apie HG.

Hibridinių grėsmių samprata

Mokslinė diskusija apie HG yra gana nauja, ir ji apima tiek konceptualinius samprotavimus (Libiseller 2023), tiek empirinių radinių interpretacijas. Maria Malksoo (2018) išskiria 2014 metų Krymo aneksiją ir 2016 metų JAV prezidento rinkimus kaip kertinius įvykius susijusius su „hibridine karyba“ ir akcentuoja hibridinės karybos grėsmę ne tik politiniam valstybės funkcionavimui, bet ir kasdieniam visuomenės gyvenimui, kai išsitrina ribos tarp politikos ir karo. Tampa neaišku, kada baigiasi taika ir prasideda karas – valstybės ir visuomenės tarsi įstringa neapibrėžtoje „pilkojoje zonoje“. HG apsunkina gyvenimus paprastiems žmonėms, išmuša juos iš vėžių ir žmones verčia abejoti ir nerimauti. Tokiomis aplinkybėmis ypač išauga žmonių pasitikėjimo valstybės institucijomis reikšmė.

Murat Caliskan ir Michel Liégeois (2020), remdamiesi interviu su NATO pareigūnais analize, akcentuoja pačios HG sąvokos neapibrėžtumą, kuris smarkiai išplečia kovos su tomis grėsmėmis darbotvarkę ir paradoksaliai didina hibridinių grėsmių žalos potencialą. Eitvydas Bajarūnas ir Vytautas Keršanskas HG sąvoką apibrėžia, į ją įtraukdami „manipuliaciją žiniasklaida, teroristinius veiksmus, aiškios priešininko hierarchijos ir struktūros nebuvimą, karinių, ekonominių, finansinių, energetinių bei socialinių spaudimo priemonių, asimetrinės taktikos panaudojimą, kombinuotas ir koordinuotas atvirų ir slaptų karinių, sukurtų ir civilinių priemonių įgyvendinimą“ (Bajarūnas ir Keršanskas 2018). Toks apibrėžimas, nors viena vertus, išryškina didelę HG raiškos įvairovę, kita vertus analitiniu požiūriu nėra veiksmingas, nes HG pagrindiniu kriterijumi laiko „priešišką veikimą“, kuris nėra ir negali būti vienaprasmiškai suvokiamas dalykas, aiškiai identifikuojamas laike ir erdvėje. Gustav Gressel (2019) papildoma, kad hibridinių atakų tikslas – priversti valstybę paisyti agresoriaus interesų, t.y. prarasti suverenaus sprendimo galią ir kad HG išnaudoja esamas įtampas visuomenėje (visuomenės susiskaldymą) ir tokiu būdu didina nestabilumą ir sumišimą, ir ypač pabrėžia tai, kad galimų hibridinės atakos taikinių spektras yra itin platus (Gressel 2019). Remiantis šiomis išvaidomis ir jas apibendrinant, buvo išgrynintas darbinis HG apibrėžimas: hibridinės grėsmės yra priešiško valstybinio arba nevalstybinio aktoriaus veiksmai, kurie sukelia žalą valstybės gyvybinėms funkcijoms arba politinių sprendimų, susijusių su valstybės interesais, priėmimui bei jų efektyviam įgyvendinimui ir piliečių pasitikėjimui demokratinėmis valdžios institucijomis, bei reikalauja koordinuotų valstybinių ir/ar savivaldos institucijų veiksmų, siekiant sumažinti patiriamą žalą ir užkirsti kelią tokio pobūdžio žalos pasireiškimui ateityje.

Ekspertiniu lygmeniu Europos kovos su HG kompetencijos centras išskiria sritis, kuriose reikiama HG ir pateikia dvylika viešosios politikos ir visuomeninio gyvenimo probleminių sričių apimančių modelį. Konkrečiai, jame įvardijamos šios nacionaliniam saugumui svarbios sritys: infrastruktūra; kibernetika; ekonomika ir energetika; gynyba (karinis sektorius, sienos kontrolė/apsauga); kultūra, menas, sportas; visuomenė (švietimas, visuomeninė veikla, organizacijos, socialinė diferenciacija); viešasis administravimas; teisė (prokuratūra ir teismų darbas); žvalgyba; diplomatija; politika (politinis procesas, partijos, teisėkūra); informacija (žiniasklaida, viešoji komunikacija, socialinės medijos) (Giannopoulos ir kiti 2021). HG yra reikšmingas iššūkis nacionaliniam saugumui. HG sukeltas veikėjai naudoja platų spektrą skirtingo intensyvumo žalą sukeliančių priemonių – nuo strateginės korupcijos, pakertančios pasitikėjimą politikais, iki kibernetinių atakų prieš kritinę infrastruktūrą, sutrikdančių įprastą darbo ir gyvenimo ritmą. Pažymėtina, kad viešajame sektoriuje padalintos kompetencijos tarp institucijų trukdo efektyviai „sujungti taškus“ ir gebėti greitai ir efektyviai suvaldyti patiriamą žalą.

HG yra „prakeikta“ problema (angl. wicked problem), t.y. neturi aiškios apibrėžties ar atpažįstamų savybių, kuriomis remiantis galima būtų į šias problemas reaguoti vienu universaliai teisingu būdu ir HG atveju įmanomi tik daugiau ar mažiau geri (blogi) sprendimai (Churchman 1967; Rittel ir Weber 1973; Ruhl ir Salzman 2021). Vis dėlto jeigu daugelio kitų prakeiktų problemų atveju sprendimų priėmėjai mokosi bandymų ir klaidų keliu, tai HG pasižymi ypač plačia įvairove ir bet koks mokymasis yra apsunkintas, nes priešiški aktoriai išnaudoja visas (įvairias) taikinio silpnas ir pažeidžiamas vietas. Taigi, išmokus už-

kardyti dalį kylančių HG, gali paaiškėti, kad yra sukurta priklausomybė nuo to paties priešiško aktoriaus kitoje srityje. Maža to, priešiški aktoriai veikia ir per tarpininkus (apimančius ir organizuotas nusikalstamas grupuotes, ir tarptautines nevyriausybinės organizacijas).

Tarptautinių verslo partnerių akyse bet kokios srities ar proceso sugrėsminimas mažina valstybės patrauklumą investicijoms bei ekonominiam bendradarbiavimui. Atitinkamai, kai kurios valstybinės institucijos ir privataus sektoriaus atstovai gali priešintis ir trukdyti įvardinti HG ir atvirai siekti jas įveikti bei užkardyti. Tai dar labiau apsunkina HG kaip prakeiktų problemų sprendimą. Be to, politikams paskelbus apie vienokį ar kitokį draudimą, susijusį su HG, visuomenė gali suskilti į tuos, kurie palaiko ribojančias priemones ir į tuos, kurie jas kritikuoja. Pastangos kovoti su siauresnėmis HG gali sukelti platesnes HG, pavyzdžiui, siekis suvaldyti nelegalią migraciją gali mažinti visuomenės pasitikėjimą valstybės institucijomis ar netgi pačia demokratija. Gali kilti opūs politinės moralės klausimai: kur yra riba tarp brandžios pliuralistinės politinės sistemos (su daug nuomonių už ir prieš) ir sąmoningos anti-valstybinės veiklos? Ar siekiant stiprinti nacionalinį saugumą, galima atsisakyti laisvosios rinkos principų, riboti žmogaus teises ir laisves, įdiegti perteklinės kontrolės ir priežiūros mechanizmus ir pan.? Be to, HG įveikimas ir užkardymas dažniausiai yra neįmanomas be gyventojų išitraukimo. Sąmoningumas – tiek individualiu, tiek agreguotu lygmeniu – pirmiausia grindžiamas gebėjimu atpažinti, nebūti suklaidintu ir neprisidėti prie krizės eskalavimo.

Net be išsamaus socialinio konstruktyvizmo paradigmos pristatymo žinoma, kad individų nuostatas ir požiūrius įvairių socialinių reiškinių atžvilgiu formuoja konkretūs socialiniai kontekstai ir į(si)traukimas bei dalyvavimas visuomeniniame gyvenime, kuris įgalina tiek informacijos internalizaciją, tiek jos eksteralizaciją. HG kaip reiškinio naujumas ir eksponentiškai i augęs (išaugęs) jų raiškos spektras ir intensyvumas (Giannopoulos ir kiti 2021; Jungwirth ir kiti 2023) dar labiau sustiprina socialinės aplinkos (įskaitant ir informacinę aplinką) poveikį HG žinioms, suvokimui ir gebėjimui į jas tinkamai reaguoti, tokiu būdu stiprinant nacionalinį saugumą. Požiūrių į HG įvairovė ir galimybės formuoti supratimą apie jas sukuria poreikį akademinėje analizėje plačiai remtis socialiniu konstruktyvizmu, sureikšminančiu ne tiek vertikalias (autoritetas – mokinys), kiek horizontalias (tarpasmenines) sąveikas, bendruomenių ir socialinių tinklų sukaupią agreguotą suvokimą, individų ir kolektyvų dalinimąsi patirtimis. Be to, supratimas apie požiūrių į HG įvairovę leidžia atpažinti temas, kuriomis gali manipuliuoti priešiškas aktorius, siekdamas sukelti HG. Taigi, pirmiausia reikia išsiaiškinti kokią informaciją apie HG individai turi (kokias žinias individai yra internalizavę) ir ar/kaip jie šią informaciją geba perteikti kitiems (eksternalizuoti). Įvertinus individų lygmenyje internalizuoto ir eksternalizuojamo HG pažinimo turinį, diegiant ir plėtojant kryptingus viešosios politikos sprendimus būtų galima stiprinti nacionalinį saugumą.

Metodologija

Kokybinio tyrimo metodas pagrįstas pirmiausia tuo, kad pats tyrimo objektas (žinios ir supratimas apie HG jaunimo tarpe) negali būti vienareikšmiškai apibrėžtas ir yra mažai tyrinėtas. Kokybinis tyrimo metodas iš esmės grindžiamas prielaida, kad žmonės suvokia ir priima informaciją skirtingai, tad kiekvienas tiriamasis turi savitą patirtį ir išgyvenimus, o tyrėjo užduotis yra tą patirtį pažinti (Bitinas ir kiti 2008). Konkrečiai, buvo pasirinkta atlikti seriją focus grupių diskusijų (toliau, FGD). Vienas iš pagrindinių focus grupės privalumų yra gebėjimas suteikti įžvalgų apie sudėtingų problemų suvokimą ir galimą elgesį jų atžvilgiu (Morgan 1996). FGD leidžia ne tik užfiksuoti individualių požiūrių į tam tikrą reiškinį įvairovę, bet ir atpažinti kontekstus ir prielaidas, per kurias prieinama prie tam tikrų nuomonių arba kas (galimai) daro įtaką konkretiems požiūriams. Metodas taip pat leidžia išgauti daugiau informacijos, kurios nepavyktų užfiksuoti per individualius interviu. FGD metu vyksta pokalbis ir bendravimas, ir dalyviai dinamiškai vienas kitą papildo ar pratęsia ir pagilina jau pradėtą mintį, tad įgalinančiai (amplifikuojančiai) veikia grupės efektas (Morgan, 1996). Šie FGD privalumai buvo ypač aktualūs HG temoje, kuri nėra dažna ar populiarinė nei viešajame diskurse, nei buitinėje aplinkoje. Atitinkamai, kitų FGD dalyvių pasisakymai gali padėti prisiminti, improvizuoti ir praplėsti svarstymus. Taip pat, šis metodas leidžia įvertinti ne tik internalizuotas žinias apie HG, bet ir kaip jos ir jų supratimas grupės nariams yra eksternalizuojamas diskusijos metu.

Vis dėlto FGD turi ir neigiamų aspektų. Grupės efektas gali ir sumažinti aptartų temų skaičių, t.y. veikti kaip socialinės kontrolės mechanizmas (Morgan, 1996). Tai gali nutikti ir dėl FGD dalyvių baimės suklysti ir dėl netolygaus žinių pasiskirstymo ar dėl grupinio pokalbio dinamikos (išryškėjus pokalbio lyderiui, atsiradus konkuruojančioms pokalbio stovykloms ir pan.). Nors FGD moderatorius ir gali sumažinti pastarųjų aspektų įtaką, tačiau jų neįmanoma visiškai eliminuoti. FGD kaip tyrimo metodo sunkumai susiję ir su jo organizavimu: kvietimas ir ieškojimas dalyvių, susitikimo vietos ir laiko parinkimas, ir pan. Nors visi šio konkretaus tyrimo FGD dalyviai arba jų teisėti atstovai (nepilnamečių atveju) pasirašė *Informuoto sutikimo dalyvauti* formas, jaunimas nepasižymėjo dideliu entuziazmu diskutuoti HG tema (tiek dėl to, kad pati tema mažai pažįstama, tiek ir dėl baimės būti vertinamam kitų grupės narių). Svarbu turėti omenyje, kad ir pati FGD dalyvių „imtis“ paprastai būna šališka: į FGD įsitraukia aktyvesni ir daugiau žinių turintys žmonės, tad FGD paremti tyrimo rezultatai gali būti iškreipti (per daug pozityvūs). Konkretaus mūsų tyrimo atveju iš tiesų į diskusijas labiau įsitraukė (tikėtina labiau ekstravertiški), aktyvūs ir pilietiški jaunuoliai, o tai reiškia, kad jų žinios apie HG, tikėtina, yra geresnės (išsamesnės, kritiškesnės) už numanomą vidurkį visuomenėje ar jų amžiaus grupėje.

Fokusuotos grupinės diskusijos gaires sudarė trys blokai – sociologinė informacija apie dalyvius, diskusija apie tai, kas yra ir kaip reiškiasi HG ir apie galimą kovą su HG Lietuvoje. Tyrimo pristatyme FGD dalyviams HG sąvoka buvo apibrėžta susiejant dalykus, akcentuojamus mokslinėje ir ekspertinėje aplinkoje: „*Hibridinės grėsmės – tai piktavališkas užsienio aktorių veikimas, pasitelkiant karines ir nekarines priemones ir siekiant sumažinti gyventojų pasitikėjimą demokratinėmis valdžios institucijomis.*“

Pokalbio gairėse buvo įterptas ir konkretus, remiantis Lietuvos viešojoje erdvėje prieinamais informacijos elementais empirinio tyrimo autorių sugeneruotas, HG pavyzdys:

„*Naudojant neegzistuojantį Migracijos departamento elektroninio pašto adresą įvairiems adresatams Lietuvoje platinami elektroniniai laišukai. Juose nurodoma, kad bendradarbiaujant Lietuvai ir Ukrainai Migracijos departamentas vykdo Ukrainos karo pabėgėlių paiešką Lietuvoje, o ši priemonė neva susijusi su Ukrainos piliečių prievole atlikti karinę tarnybą. Laiškuose pridedama anketa, kurioje prašoma pateikti Ukrainos piliečių asmens duomenis ir ją išsiųsti į esą Ukrainos ambasadai priklausantį elektroninį pašta, tačiau prieduose yra platinama kenkėjiška programinė įranga. Tuo pačiu metu prieš Lietuvos institucijas organizuojama kibernetinė ataka (DDOS ataka), o Rusijos Federacijos institucijos ima platinti prašymą pateikti informaciją apie Ukrainos karo pabėgėlius, gyvenančius Lietuvoje, per Tik Tok ir kitas platformas. Netrukus žiniasklaidos priemonėse pasirodo pranešimas, kad Lietuvos geležinkelių traukinių vagonai yra naudojami kariniam Rusijos tranzitui iš Kaliningrado srities – per Lietuvos teritoriją gabenami ginklai, kurie naudojami kare prieš Ukrainos karines pajėgas.*“

Šis konkretus pavyzdys pasitarnavo sklandesnėms FGD.

2022 m. rugsėjo - 2023 m. kovo mėn. buvo atliktos penkios FGD – trys su šaukiamojo, t.y. 18-26 metų, amžiaus jaunuoliais Vilniuje, atvykusiais iš didžiųjų Lietuvos miestų, ir dvi Kelmėje ir Kelmės rajone su gimnazistais (15-19 metų amžiaus).³ Kiekvieną FGD sudarė nuo 6 iki 11 dalyvių. FGD trukmė buvo nuo 75 iki 110 minučių. Pokalbių audio įrašai buvo transkribuoti. FGD iš viso dalyvavo 41 individas (22 vaikinai ir 19 merginų).

Aprašant diskusijų turinį taikėme teminį kodavimą. FGD išsklotinėse ieškojome raktinių temų ir domiuojančių teiginių, naudojome šias kategorijas: grėsmės aktualumas, daroma (galima) žala, grėsmės pasireiškimo sritis, grėsmės šaltinis (sukėlėjas, įgalinantys veikėjai ir veiksniai). Analizuojant jaunuolių HG suvokimo ir jų socialinės aplinkos (amžiaus, lyties, gyvenamosios aplinkos) bei įsitraukimo (į socialinius tinklus, į visuomenines veiklas) galimus sąryšius rėmėmės atskirai sukonstruotais individualiais naratyvais ir tyrėjų pastebėjimais, kilusiais vedant FG ir stebint diskusijos dinamiką. Kadangi ne visi FG dalyviai aktyviai pasisakė diskusijų metu, tad toliau pateikiamoje analizėje remiamasi 35 naratyvais.

³ Atkreiptinas dėmesys į tai, kad šio tyrimo FGD buvo atliktos gerokai prieš 2023 m. spalio – gruodžio mėn. Lietuvoje vykdytas hibridines atakas, kai Lietuvos mokyklos ir kitos viešosios įstaigos gavo elektroninius laiškus su grasinimais susprogdinti.

Rezultatai

Visose jaunimo tarpe atliktose FGD atsiskleidė, kad HG sąvoka yra retai kam girdėta ir jos turinys, atitinkamai, nebuvo aiškus. Dauguma dalyvių apie HG sąvoką reflektuoti ėmė konkrečiai apie ją paklausus (D2: „*Aš realiai tokią sąvoką kaip hibridinės grėsmės išgirdau va čia, ką tik atėjus*“). Keletas pažymėjo, kad buvo apie ją buvo iš žiniasklaidos girdėję (D9: „*Per žinias gal... esu girdėjęs, bet nežinau ką reiškia*“).

FGD metu pateikus galimų HG reikšimosi sričių sąrašą ir paprašius jį reitinguoti pagal svarbą, išryškėjo, kad kibernetinė sritis yra suvokiama kaip HG įgalinanti erdvė, nes jos jaunuoliai nelaiko atskira savarankiška HG raiškos sritimi. Tuo tarpu politikos sritis (demokratinė santvarka, valdžios institucijos ir jų atstovai) yra laikoma HG šaltiniu: politikos srities pažeidžiamumas pateikiamas kaip visose kitose viešosios politikos ir visuomenės gyvenimo srityse galinčių kilti ir kylančių HG priežastis. Pirminėse refleksijose jaunimo tarpe svarbiausiomis laikomos trys plačiai suvokiamos galimo HG reikšimosi sritys. Pirmą vietą užima informacinė erdvė (apimanti žiniasklaidą, viešąją komunikaciją, socialines medijas). Labiausiai suprantama ir išskiriama HG buvo propaganda ir dezinformacija (D6: „*Aš pritarčiau, labai daug dezinformacijos ir propagandos*“; D11: „*Per socialines medijas, televizorių, propaganda, kuri nurodo, kad čia, pas jus blogai, o pas mus yra viskas ok*“). Antroje vietoje yra socialiniai-kultūriniai santykiai (švietimas ir mokslas, visuomeninė veikla, nevyriausybinės organizacijos). Trečioji vieta tenka ekonomikai, finansams ir energetikai. Tolesnėje FGD eigoje, visose FGD ekonomika ir švietimas bei mokslas vis kilo savo reikšmingumo reitinge, t. y. šios sritys, kaip ypač jautrios HG, buvo aktualizuojamos ir iliustruojamos gausiais pavyzdžiais. Diskusijų metu buvo aktualizuojama ir žvalgyba kaip būdas išsiaiškinti pažeidžiamas sritis ir, turint priešiškus ketinimų, jose sukelti žalą. Jaunuolių supratimu mažiausiai HG paveikios sritys yra gynyba, diplomatija, teisė (prokuratūra ir teismų darbas) ir infrastruktūra.

HG sukeliama žala ir visuomenės pažeidžiamumas HG atžvilgiu interpretuojami per kelias takoskyras. Diskusijose dominavo rūpestis dėl tradicinių *versus* progresyvių (liberalių) vertybių atotrūkio ir bendrapiliečių nenoro įsiklausyti vieniems į kitus („D2: *Pakeisti kito žmogaus ideologiją, bent jau mano asmeniniu požiūriu, yra neįmanoma, ir neįmanoma priversti jį tikėti tuo, na, kuo tu tiki. Jei kiekvienas žmogus suprastų ir labiau gerbtų netgi tą patį maršistą, aš manau, kad ne tik kad mes visi gyventume daug geriau, bet ir pačių hibridinių grėsmių smarkiai sumažėtų*“). Kiek mažesnis dėmesys buvo skiriamas socialinei atskirčiai ir ekonominei nelygybei („D3: *didieji miestai turtingi, o regionuose gyvena mažiau ambicingi ir vis labiau atsilikantys vargšai*“). Lietuvai neloyalūs gyventojai („penktoji kolona“) buvo įvardijami kaip dar vienas rizikos veiksnys. Tipišką pavyzdį pateikė „D1: *Aš esu šiaip rusakalbis ir mokiausi rusiškoje mokykloje, dėl to mano pažįstami nėra visiškai gerai lietuviškai kalbantys, nors aš nežinau, ar jie identifikuoja save kaip rusai. Tarp jų buvo pakankamai daug, kurie palaiko ar palaikydavo tą Rusijos karinę veiklą, dabar Ukrainoje, karą tiesiog. Galbūt jie net nešiojasi tą Z raidę, postina savo „Instagram“ kaip tai faina ir t. t.*“

Visose FGD Rusija buvo išskiriama ir matoma kaip pagrindinė Lietuvai HG sukelianti išorės veikėja (D16: „*Aš manau, kad šiuo atžvilgiu galbūt, kad kaimyninių valstybių, Rusija, tą didžiausią grėsmę kelia, tiek Lietuvai, tiek pasauliui*“). Dažnai buvo minima ir Baltarusija. Kinija paminėta vos keletą kartų.

FGD išryškėjo ir bendro visuomenės informuotumo apie nacionalinį saugumą ir politines bei pilietines aktualijas sąryšis su HG suvokimu ir jo branda. Diskusijų metu buvo minimos HG, kurios reiškiasi (ar gali pasireikšti) atskirose viešosios politikos srityse. Akivaizdus buvo skirtumas tarp diskusijų apie tas sritis, apie kurias daug girdėta ir kurios kasdieniniame gyvenime asmeniui labai svarbios (informacija (ir propaganda), ekonomika, kultūra, politika), ir daug mažiau diskusijų sukeldavo tos sritys, kurios yra lyg ir „savaime aiškios“ (švietimas, visuomeninė veikla, žvalgyba, gynyba, kibernetika). Pastebėta, kad diskusijos apie viešąjį administravimą, diplomatiją, teisę, infrastruktūrą buvo plėtojamos mažiau ne dėl to, kad būtų sutariama, jog jose HG nesireiškia, o dėl konkrečių žinių stokos apie šias sritis. Kalbant apie HG, dažnai buvo vartojamos sąvokos „kritinis mąstymas“, „švietimas“, „ugdymas“ ir „mokslas“. Šie dalykai matomi kaip kertiniai - būtini tam, kad žmogus gebėtų atpažinti ir įvertinti HG (D21: „*Manau, kad reikia tiesiog įvesti į mokyklinės programos daugiau humanitarinių mokslų*“; D8: „*Paskaičius straipsnį nepulti tikėti, o pasidomėti giliau*“; D1: „*Kritinio mąstymo įskiepijimas žmonėms, nuo pat jaunumės*“).

Pereinant prie priežasties-pasekmės ryšių aptarimo ir įvertinimo, kokie socialinės aplinkos veiksniai didina (ar mažina) HG žinomumą ir HG suvokimo brandą jaunų žmonių tarpe, pirmiausia verta aptarti pašnekovų amžių. FGD apėmė 15-26 metų asmenis, t. y. tarp jauniausio ir vyriausio dalyvių buvo 11 metų skirtumas. Tokio amžiaus intervalo skirtumo pakanka, kad galėtume fiksuoti, jog amžius teigiamai siejasi su HG pažinimo ir reflektavimo apie jas kokybe (branda). Kaip taisyklė, vyresni jaunuoliai iškalbingesni ir diskutuodami apie HG, pateikia daugiau pavyzdžių bei iškelia daugiau probleminių aspektų. FGD trukmė vyresnių jaunuolių tarpe buvo ilgesnė ir diskusijos buvo intensyvesnės. Pastebėta ir skirtumų, išryškėjusių jaunesniems ir vyresniems jaunuoliams kalbant apie HG raišką. Politikos srities (demokratinės santvarkos, valdžios institucijų ir jų atstovų) pažeidžiamumą visos jaunuolių grupės pripažįsta įgalinančiu HG, visose viešosios politikos ir visuomenės gyvenimo srityse galinčių kilti ir kylančių HG priežastimi.

Tuo tarpu žvalgybos, teismų darbo ar diplomatijos sričių kaip generuojančių ir (ar) pritraukiančių HG sureikšminimas išryškėja su pašnekovų amžiumi (gimnazistai apie šias sritis praktiškai visai nereflektuoja, o vyresnėse grupėse apie šias sritis buvo kalbama išsamiau). Gimnazistų grupėse nemažai dalyvių nežinojo tokių sąvokų kaip diplomatija, viešasis administravimas ar infrastruktūra („I: *O jūsų tada aptarkite sritį diplomatijos. Kaip jūs galvojat? D4: Aš čia iš viso nieko nesuprantu. Pirmą sykį girdžiu*“; „D19: *Pakalbėkime apie viešąjį administravimą. D28: Gal tai gali būti susiję su darbo birža?*“). Vyresniųjų tarpe praktiškai nė vienas dalyvis nepasakė nesuprantančią FGD naudojamą sąvokų.

HG interpretacijose amžiaus veiksniai jautrus yra socialinių ir kultūrinių takoskyrų, didinančių visuomenės pažeidžiamumą, išskyrimas: pastebėta, kad tradicinių *versus* progresyvių (liberalių) vertybių konfliktą, labiau pabrėžė vyresnio amžiaus FGD grupės. Tuo tarpu jaunesnėse grupėse kaip takoskyra, didinanti visuomenės pažeidžiamumą HG, buvo prioretizuojama socialinė atskirtis ir socialinė nelygybė.

Dar vienas, aiškiai su socialinio konstruktyvizmo prielaidomis sietinas veiksnys, darantis poveikį FGD turiniui – tai skirtingos socialinės aplinkos; konkrečiai vienoje pusėje turime omenyje ugdomą įstaigą (mokyklą ar universitetą), o kitoje – šeimą (jaunuolio namus). FGD buvo diskutuojama apie tai, kad šiose jaunam žmogui itin svarbiose socialinėse aplinkose gana dažnai yra pateikiama skirtinga informacija. Jei tos pozicijos prieštarauja viena kitai, tuomet jaunuoliui reikia apsispręsti. Kaip taisyklė, linkstama paklusti šeimos požiūriui ir sprendimui („D9: *Mokykla sako viena, namai sako kita ir kažkiek sunku susidaryti tą savo nuomonę, bet, aišku, eini pagal tėvus. Dažniausiai tas informacijos šaltinis būna tėvai ir pagal juos nuomonę susidarai.*“). Taigi net švietimo įstaigoje ir esant efektyviam komunikavimui politiniais-socialiniais klausimais, vis tik gali nusverti namuose (šeimoje) susiformavusi ir palaikoma kitokia nuomonė ar pozicija. Šeimos įtaka jaunuolių sprendimams mažėja jiems pasiekus pilnametystę, tačiau ir universitete besimokantys pašnekovai pabrėžė šeimos ir artimųjų rato nuomonių reikšmę. FGD atsiskleidė, kad pirminės socializacijos aplinkoje reiškiama požiūriai į HG dominuoja antrinės socializacijos aplinkos atžvilgiu.

Suvokimui apie HG ir nacionalinį saugumą svarbus ir neformalus ryšiai, draugų ratas, artima socialinė aplinka ir joje vykstanti komunikacija politinėmis ir pilietinėmis temomis. Pavyzdžiui, dvidešimtmetis FGD dalyvis (kuris nėra aktyvus jokioje nevyriausybinėje organizacijoje ir nestudijuoja universitete), pasižymėjo geru supratimu ir žiniomis apie HG bei bendrą Lietuvos saugumo situaciją. Paaiškėjo, kad jis turi draugų, susijusių su LR krašto apsaugos sistema ir jie tarpusavyje dalinasi aktualia informacija ir diskutuoja. Geriau informuoti apie HG buvo jaunuoliai, priklausantys/-ę Lietuvos Šaulių sąjungos Jauniesiems šauliams, mokinių tarybos aktyvui, studentiškomis organizacijoms. Jie pasižymėjo ir gilesnėmis įžvalgomis apie HG, galėjo pateikti daugiau HG keliamos žalos pavyzdžių.

Pastebėti reikšmingi sostinės (didmiesčių) – regionų skirtumai. Jie buvo ryškūs tarp grupių, kurios diskutavo Vilniuje ir Kelmėje bei Kelmės rajone. Dvejuose grupėse, kurios buvo vykdomos ne Vilniuje, buvo vienas arba du aiškūs lyderiai, kurie diktavo diskusines temas ir pateikė daugiausiai įžvalgų. Kiti dalyviai pasisakė tik po lyderio (ir FGD moderatoriams nepavyko lengvai pakeisti tokios grupės pokalbio dinamikos). Tuo tarpu Vilniaus grupių diskusijos įtraukė visus dalyvius ir dažniausiai komentarai būdavo išsakomi ratu ir dalyviai vieni kitus papildydavo. Gali būti, kad šį lyderio dominuojamą *versus* lygiavertiškesnių pašnekovų diskutavimo skirtumą galima aiškinti ir tuo, kad Vilniuje FGD dalyvavo šiek

ties vyresni jaunuoliai negu regione vykdytose FGD. Vis tik manytume, kad amžiaus kriterijus čia nėra esminis: amžiaus požiūriu Kelmėje ir Kelmės rajone FGD dalyviai praktiškai buvo visi bendraamžiai, o tarp kai kurių Vilniaus FGD dalyvių buvo ir 5-7 metų skirtumas. Taigi didžiųjų miestų gyventojų (besisocializuojančių labiau horizontalius lygiavertiškumo ryšius puoselėjančioje aplinkoje) suvokimo apie HG lygis yra santykinai aukštesnis negu tarp regionų jaunimo (kuris imlesni labiau hierarchiniams ryšiams ir nelinkę priešintis kitai nuomonei).

Nors organizuodami šias FGD etninio atstovavimo nelaikėme svarbiu atrankos kriterijumi, vienoje FGD dalyvavo vaikinai iš rusų tautinės mažumos. Jis pats paminėjo pastebėjęs kai kurių savo pažįstamų palankų požiūrį į Rusiją ir negebėjimą suprasti, kad iš Rusijos yra skleidžiama tendencinga informacija, nuo kurios – Lietuvos nacionalinio saugumo tikslais – vertėtų atsiriboti: „D1: *Aš esu šiaip rusakalbis. (...) Kai kurie propagandiniai dalykai pasiekė ir mane, ir kitus... Taigi galima sakyti, kad ir mane pasiekdavo Kremliaus propaganda. Žinau, tikrai. Bet aš jai nepasidaviau.*“ Nors FGD formatas neleido įsigilinti į būtent šio rusakalbio vaikino atvejį, vis dėlto jo valingas pilietinis sprendimas yra akivaizdus ir panašus, jog ne jo mokykla, bet komunikacija socialiniuose tinkluose skirtingomis kalbomis ir socializacija lietuviškoje socialinėje aplinkoje dominuoja jo pilietinių nuostatų formavimesi.

FGD sudaro pagrindą padaryti ir apibendrinantį pastebėjimą: politinių ir socialinių aktualijų sekimas, domėjimasis politika, istorija ir ekonomika persiduoda į brandesnius svarstymus apie HG. Be to, kaip geras pavyzdys kiek gali duoti domėjimasis aktualijomis ir kiek įtakos gali turėti mokykla buvo gimnazistų grupė, kurios nariai santykinai gerai komentavo nacionalines ir pasaulines aktualijas. To priežastis – jų istorijos mokytoja, nuolat užduodanti namų darbams domėtis aktualijomis ir žiniomis pasidalinti klasėje. Nors, matomai, ne visiems tai įdomu ir ne visi į šį procesą įsitraukia, vis dėlto tai turi teigiamą agreguotą efektą diskusijų apie HG brandai.

Socialinių veiksnių poveikio HG sampratos žinomumui ir HG raiškos formų atpažinimui būtina akcentuoti ir tai, kad visose FGD atsiskleidė jaunimo apgailestavimas dėl susvetimėjimo visuomenėje, pasitikėjimo vienas kitu bei pagarbos vienas kitam ir geranoriškumo trūkumo, kas atitinkamai didina pažeidžiamumą ir HG neigiamą potencialą nacionaliniam saugumui. Pašnekovai šios susvetimėjimo ir asmeninės atsakomybės stokos tendencijos nesiejo išskirtinai su Lietuva, reikė bendrai nusivylimą tuo, kad visame pasaulyje žmonės nesistengia sutarti ir praranda žmogiškumą, vengia ieškoti kompromisų. „D7: *Man atrodo, kad didžiausia grėsmė pasauliui yra žmonių nemokėjimas gyventi santarvėje, taikoje ir tai ne tik liečia dabartines aktualijas (ypač karą Ukrainoje), – bet apskritai žmonės turėtų gyventi draugiškiau, padėti vieni kitiems ir tikrai yra daug grėsmių, kurios nėra susijusios su pačiais žmonėmis, kurios nėra nulemtos kažkokių konkrečių valdžios sprendimų ir jeigu žmonės sugebėtų atrasti santaiką tarpusavyje, būtų lengviau kovoti su įvairiomis grėsmėmis. Tiesiog, žmogus žmogui yra ar gali tapti didžiausiu priešu, o taip neturėtų būti.*“ Kitas FGD dalyvis akcentavo geros valios ir geranoriškumo trūkumą kaip svarbų foną tam, kad tiek nerimo ir grėsmių yra kasdieniame paprastų žmonių gyvenime: „D5: *Ne tas pats faktas, kad televizija kažką transliuoja, o patys žmonės, jų elgesys yra grėsmė, būtent žmonės yra atsakingi už tai, ką jie daro ir ne tik politikai gali turėti kažkokių blogų kėslų, ir tikslų.*“

Išvados

1. HG sąvoką jaunuoliai sieja su hibridiniais karais ar hibridine karyba, jeigu asmenys turi išankstinių žinių šia tema. Jeigu apie hibridines grėsmes girdima pirmą kartą, ši sąvoka pirmiausia siejama su klimato kaita ir ekologija.
2. Jaunuoliai dažniausiai HG pirmiausia asocijuoja su kibernetinėmis atakomis ir propaganda. Mažiausiai HG yra siejamos su teise, viešuoju administravimu ir diplomatija.
3. FGD eigoje aktualizuojamos ekonomikos, energetikos ir švietimo bei mokslo sritys, kuriose HG raiškos formos gali būti labai įvairios, o daroma žala – labai didelė.

4. Nacionalinio lygmens politika (čia, Lietuvos) universaliai visose jaunuolių grupėse yra pripažįstama kaip priešastinis HG kontekstas, o visuomenės pažeidžiamumas pateikiamas per kelias takoskyras, ypač per tradicinių *versus* progresyvių vertybių ir per socialinę atskirtį.
5. Jaunuolių samprotavimai ir konkrečios žinios apie HG priklauso nuo jų amžiaus ir nuo jų „informacinio burbulo“, t.y. nuo jų stebimoje viešojoje erdvėje ir socialiniuose tinkluose sureikšmintų dalykų bei nuo mokykloje, šeimose ir su draugais aptariamų temų. Kuo jaunesni asmenys, tuo didesnė pirminės socializacijos – t.y. šeimos rato – įtaka jų HG sampratoms; su asmens amžiumi auga antrinės socializacijos – t.y. švietimo ir mokslo įstaigų, bendraamžių, žiniasklaidos ir t.t. – skleidžiamo turinio reikšmė HG sampratoms.
6. Tyrimas neatskleidė, kad dalyvavimo visuomeninėje veikloje ir nevyriausybines organizacijose patirtis būtų stipriai reikšminga tam, ar ir kiek jaunuoliai žino apie HG. Konkrečių FGD atstovų dalyvavimo visuomeninėje veikloje ir nevyriausybines organizacijose patirtis diskusijų apie HG brandai buvo vienareikšmiškai teigiama.
7. Sritys ir sąvokos, kurios yra plačiai minimos Lietuvos viešojoje erdvėje (propaganda, dezinformacija, kibernetinės atakos, Rusija kaip grėsmė ir pan.) yra gana gerai suprantamos ir, tai nurodo, jog vien temos ir sąvokų iškėlimas į viešąjį diskursą prisideda prie didesnio HG sampratos žinomumo ir geresnio suvokimo apie HG raiškos formas.
8. Jaunimas sunkiai konkrečiai identifikuoja ir apibūdina HG jų kilmės, daromos žalos bei poveikio aspektais. Diskusijose pabrėžiama tai, kad atskiros HG sritys tarpusavyje susisieja ir persilieja. Taigi jaunimas suvokia HG kaip „prakeiktos“ viešosios politikos problemos prigimtį – vienos HG žala gali reikštis keliuose srityse.
9. Jaunuoliai HG kildina ir iš nacionalinės (čia, Lietuvos) politikos problemų, ir iš priešiško užsienio valstybių veiksmų. Rusija, Baltarusija bei – daug mažesniu mastu – Kinija sugrėsminamos. Nevalstybiniai HG sukeltantys veikėjai (teroristinės grupuotės, organizuoto nusikalstamumo tinklai) buvo sureikšminami retai. Jaunuoliai yra linkę šalies vidaus problemas pateikti kaip HG, nesusiejant jų su sąmoningu išorės veikėjo siekiu sukelti žalą.
10. Jaunimo tarpe HG aktualumas priklauso nuo asmens turimų žinių: kuo daugiau žinių turima, tuo aktualesnės atrodo grėsmės.

Tyrimo apribojimai ir ateities tyrimų perspektyvos

Šiame straipsnyje remiamasi socialinio konstruktyvizmo prieiga ir koncentruojamasi į hibridinių grėsmių sampratos žinomumo bei hibridinių grėsmių raiškos formų atpažinimo brandą bei analizuojamos jų sąsajos su socialiniais veiksniais. Kitaip tariant, susitelkta tik į sociologinę reiškinio interpretaciją. Čia neįtraukiama atsparumo (institucijų, visuomenių, individų) tematika, nes ji yra susijusi su kita, biheivioristine prieiga, akcentuojančia stebimo elgesio (ketinimų, kuriamų ir (ar) peržiūrimų procedūrų ir mechanizmų ir pan.) tyrimą. Atitinkamai, čia nesiremiama ir viešosios politikos proceso analize, kuris reikšmingai išplėstų HG kaip „prakeiktų“ problemų tyrimo lauką (kuriam į demokratinį sprendimų priėmimą būtų žvelgiama kaip į ciklinį procesą, apimančį problemas identifikavimą, sprendimo būdų spektro apžvalgą ir sprendinio išrinkimą, vėlesnę jo kritika ir sprendimo būdo peržiūrėjimą). Galiausiai, čia neįtraukiamos ir regioninio grėsmių komplekso teorijos įžvalgos, galinčios praturtinti piktavališkų išorės (užsienio) veikėjų, pasitelkiančių karines ir nekarines priemones, daromos įtakos ir sukeltos žalos interpretaciją. Ateities tyrimuose, siekiant analitiškai įdarbinti atsparumo sampratą, būtų vertinga išbandyti hibridinės atakos simuliaciją (parengus tokio biheivioristinio tyrimo tikslams adaptuotą „stalo žaidimą“), kuomet patikrintume dalyvių supratimą apie grėsmę ir galimą jos žalą bei tai, kaip eksperimente dalyvaujantys asmenys (atstovaujantys atskiras socialines kategorijas ir (ar) atstovaujantys skirtingas institucijas ar nevyriausybines organizacijas) reaguotų į HG, kokių veiksmų jie imtųsi (arba nesiimtų).

Straipsnyje pristatytame empiriniame tyrime buvo susikoncentruota į jaunimą kaip tą kritinį amžių, kuomet formuojasi pilietiškas. Ši grupė yra labai imli žinioms, o jos nuostatos labai reikšmingos nacionaliniam saugumui. Aktualu būtų palyginti su kitomis amžiaus grupėmis. Tyrimo metu buvo užfiksuota įžvalgų, susijusių su tokių socialinių veiksmų kaip lytis ir etninė (tautinė) priklausomybė sąsajomis su asmens demonstruojamu HG sampratos žinomumu ar HG raiškos formų įvairovės suvokimo branda. Adaptavus tyrimo dizainą būtų tikslinga išsamiau iširti šių veiksmų poveikį asmens turimai nacionalinio saugumo sampratai ir jo ypatingą dėmesį patraukiantiems HG aspektams. Ypač aktualu būtų taip aktualiizuoti etninį elementą („penktosios kolonos“ sugrėsminimo mastą ir užkardymo potencialą).

Regioninio grėsmių komplekso kontekste vertėtų atlikti palyginamąjį tyrimą apie panašumus ir skirtumus tarp Lietuvos visuomenėje ir kaimyninėse valstybėse (Lenkijoje, Latvijoje, Estijoje, Suomijoje ir pan.) stebimų ir reflektuojamų HG raiškos formų. Galiausiai, atpažinus, kad viešoji politika ir komunikavimas HG kaip „prakeiktos“ problemos atžvilgiu Lietuvoje ir kitur pasaulyje dar tik pradeda formuotis, būtų tikslinga analogišką tyrimą pakartoti po keleto metų.

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HYBRID THREATS IN LITHUANIA: AWARENESS OF THE CONCEPT AND RECOGNITION OF THEIR FORMS OF REALIZATION AMONG YOUNG PEOPLE

Abstract. *Russia's annexation of Crimea in 2014 and its large-scale invasion of Ukraine in 2022 have brought the concept of hybrid warfare, hybrid threats (hereinafter, HT), etc., to the political agenda of Lithuania and the West. Nevertheless, academic research and expert knowledge on the topic of HT, their perception, and identification of their forms of realization are scarce. Such research is complicated because the phenomenon of HT does not have a clear definition and is not based on a pre-defined set of characteristics. Thus, it is impossible to solve the HT problems in one universally acceptable way. In this context, knowledge and perception of HT among young people becomes particularly relevant because of their receptiveness and sensitivity to new information (or disinformation) and their important role in national security. The article presents empirical research on the knowledge and perception of Lithuanian youth about HT. The research aims to reveal the diversity of knowledge and the maturity of the perception of hybrid threats among Lithuanian youth. The definition of hybrid threats used in the article is: Hybrid threats are the malicious actions of external (foreign) actors to undermine citizens' trust in democratic institutions by military and non-military means. Five focus group discussions (hereinafter, FGDs) were conducted between September 2022 and March 2023 - three with young people (aged 18-26, conscript age in Lithuania) and two with high school students (aged 15-19). The FGDs comprised a total of 41 individuals (22 young men and 19 young females). Conclusions. The concept of a hybrid threat is difficult to understand and rarely heard among Lithuanian youth. The most common primary association of HT is with cyber-attacks and propaganda. The least common associations of HT are with law, public administration, and diplomacy. The sectors of economy, energy, education and science were highlighted during the FGDs. Young people often perceive domestic problems as HT and do not associate them*

with the intentional malicious activities of external actors. The research did not reveal that the experience of participating in social activities and NGOs strongly influences whether and how much young people know about HT.

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CITIZEN SATISFACTION'S DETERMINANTS WITH THE INTEGRATED PUBLIC SERVICES QUALITY PROVIDED BY ONE-STOP-SHOP. A CASE FROM A WESTERN BALKAN COUNTRY

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Abstract. *Government One-Stop Shops are promoted as a strategy for improving intergovernmental collaboration, coordinating “Weberian” bureaucratic structure, and streamlining service delivery using technology. One-stop-shop models, which are seen as a significant accomplishment in recent e-government initiatives, aim to provide public service delivery mechanisms that are efficient, accessible, coordinated, and cost-effective. The purpose of this research paper is to assess citizens’ satisfaction with the quality of integrated public services provided by One-Stop Shop (OSS), with a particular emphasis on the relationship between citizen satisfaction with the quality of OSS services and determinant dimensions of trust, procedures, staff skills and qualifications, time and cost savings, and perceived citizen care/support. This paper employs a quantitative approach method through a survey as a research instrument. A structured questionnaire is distributed to 114 citizens receiving service in OSS in a municipality in south Albania, a western Balkan country. The study’s primary objective is to provide top-level managers of the OSS agencies and policymakers with an effective instrument for better evaluating and understanding the perceived quality of their integrated public services offered from the perspective of their citizens. This understanding aims to facilitate the formulation of more effective policies and strategies that foster the ongoing enhancement and incorporation of novel public management best practices. The findings of the multi-regression analysis reveal that the factors - Saving, Staff, Support, Procedures, and Trust had a positive and statistically significant impact on satisfaction, accounting for 85.8 per cent of the variation values of citizen satisfaction with the quality service provided by One-Stop Shop.*

Keywords: *One-Stop-Shop, integrated public service, service quality, citizen satisfaction, determinants.*

Reikšminiai žodžiai: *vieno langelio principu veikianti parduotuvė, integruota viešoji paslauga, paslaugų kokybė, piliečių pasitenkinimas, lemiantys veiksniai.*

Introduction

The Albanian government is constantly committed to enhancing and adopting best practices in new public management to get as close as possible with European Union standards in the provision of public services.

The European Commission (EC) launched several initiatives to promote advancements in the field of e-Government and provide significant funding to encourage the development of user-friendly, cost-effective, and provide flexible access to public services from anywhere and at any time through integrated public services and systems for the various user groups of public services and public administrations (Wimmer 2002).

This approach has been referred to a variety of ways, such as information centers, citizens' service centers, one-stop shops, single-window, integrated services, community service centers, etc. In this context, the Albanian government has enabled the implementation of electronic public services and the concept of integrated public service delivery through the establishment and operation of One-Stop Shop centers. The Law 13/2016¹ for the delivery integrated services in Albania" went into effect in 2016, with the goal of preparing citizens to completely change the traditional way they received public services.

It paved the way for agencies that provide integrated services to operate as a one-stop shop where citizens could access public services from many institutions in one location.

The purpose of the law is to establish rules for the provision of public services by public administration institutions to individuals residing and/or conducting business in the Republic of Albania, by removing administrative barriers and ensuring that services are provided in a timely, efficient, transparent, and high-quality manner.

According to INSTAT¹ data, Albania is a country with a population of 2,845,955 inhabitants and offers more than 1,700 public services electronically. In 2016, the establishment of the Agency for the Delivery of Integrated Services in Albania (ADISA-OSS) marked a significant step towards enhancing the efficiency of public service delivery to citizens. As this transitional phase progresses, it becomes essential to evaluate the level of satisfaction among individuals concerning the quality of services furnished through integrated channels.

This study conducted in Albania, a western Balkan country, aim to evaluate the perceived satisfaction level of the citizen with OSS service. This evaluation is a critical step toward accomplishing the government's strategic aspiration goal of achieving a complete shift towards 100 percent online delivery of public services.

Evaluating citizen satisfaction with government services provides the public sector with a solid basis and a driving force to effectively execute daily operations while enhancing overall public management performance. Additionally, it plays a crucial role in determining the comparative performance of governments in the realm of e-government development. This assessment facilitates the identification of effective e-government initiatives and policies, paving the way for their successful implementation (Deng 2008).

In the Albanian context, there is a notable absence of research studies that delve into the evaluation of factors influencing citizens' overall satisfaction with OSS services. By addressing this research gap, this study aims to offer a foundation for policy decisions, improvements in service delivery, and strategic planning related to OSS services.

The findings generated from this study can serve as a compass for enhancing citizen experiences and bolstering their satisfaction levels. Its comprehensive approach to analysis and generation of insights has the potential to enrich both the literature review and the practical enhancement of OSS services for the betterment of citizens and society.

Literature review

New Public Management initiatives have attempted to remedy some of the conventional bureaucracy's inefficiency and reward issues (Hood 1991). Information technology is a valuable instrument in government agencies' continual efforts to improve efficiency by allowing them to digitize manual processes (Mohammed et al.,2013). Wimmer (2007) underlines that "Everyone talks about e-government, but ev-

¹ Albanian Institute of Statistics

eryone has different interpretations.” E-government is one of those concepts that means different things to different groups. Similarly, Yildiz (2007) pointed out that there is no universal definition of the concept of e-government. E-government is the continuous improvement of service delivery, electoral participation, and governance by transforming internal and external relations through technology, the internet, and new media. “This includes Government for Citizen, Government for Employees, Government for Business and Government for the Government (Fang 2002).

According to a review of the literature, there is a growing awareness of the need for citizen-centric services, as well as the importance of citizen participation and feedback in integrated service delivery and self-service delivery alternatives (Reddick 2005; Al-Kaseasbeh et al., 2019). E-government practices are implemented with the objective of enhancing public services through the reduction of processing costs, performance oversight, the establishment of strategic connections among government entities, and the empowerment of citizens (Heeks 2008). Undoubtedly one of the most important developments in the implementation of e-government practices are citizen center service or as it is often known as One-Stop Shop.

One-Stop Shop is a centralized platform for providing e-government services to citizens: “a single point of access to e-services and information provided by various public authorities”(Wimmer 2002). In a One-Stop Shop, citizens and business can receive public services from various government departments, through a single contact point.

Reforms to Citizen Service Centers have been proposed in such settings as a way of increasing accountability, reducing red tape, eradicating corruption, ensuring a government bureaucracy errands and equitable citizen access. (Fredriksson 2020; Janenova and Kim 2016; World Bank 2011; Pereira 2016). All over the world OSS models are in the pursuit of efficient, accessible, coordinated, and seamless cost-effective mechanisms for delivering public services within public organizations.

The use of OSSs can reduce the time it takes for governments to provide public services to individuals and businesses while also streamlining bureaucratic procedures, lowering transaction costs, and increasing transparency (Saha 2012). Referring to Federal Benchmarking Consortium (1997), OSS services are perceived as convenient, accessible, and tailored to individual needs.

Although many One-Stop Shop reforms were adopted in the 1990s and afterwards, there are also antecedents. In 1970 the Australian Government introduced the establishment of one stop shop with the main reason to “improve poor people’s access to welfare service providers, knowing that poor people had the most difficulty contacting the appropriate administrator for their specific problem (Wettenhall and Kimber 1997).

However, it is currently being developed as a trendy model implemented in several countries in the context of new public management reforms. In recent years, public administrations have begun to evolve into customer-focused service businesses, a process known as modernization of public administrations (Schuppan 2019). According to Fredriksson’s work (2020) based on the literature review, it is noted that at least 71 countries have undertaken Citizen Service Center reforms in the past three decades.

E-government services have as primary concern citizens and businesses as well as focused at being user friendly, fast, reliable, inexpensive, and transparent (Sarpoulaki et al., 2008). The integration of information and transactions across agencies is a crucial component of OSS, allowing individuals and businesses to have fewer interactions with government while receiving better and faster service (Ebrahim and Irani 2005). Evaluating citizen satisfaction as users is critical for organizations because it provides a detailed understanding of the values that are important to them (Thijs 2011).

The literature review reveals the presence of surveys assessing user experiences and satisfaction with One-Stop Shop services across various countries, including those within the EU (Kubicek and Hagen 2000; Askim et al., 2011), Canada (Marson and Heintzman 2009), Brazil (Fredriksson 2020), Rusia (Gallagher et al., 2003).

OSS has been widely implemented in the Balkan region, aiming to provide integrated public services to citizens in a more efficient and effective manner (Agarwal et al., 2017; Nuhu et al., 2019). OSS implementation has been successful in some Balkan countries, such as Croatia, Serbia, Monetengero, Albania

(Maksimovska et al., 2017; Đokić et al., 2020; Tafa et al., 2019). However, the success of OSS implementation in Balkan countries is dependent on a range of factors, including political will, institutional capacity, funding, and citizen participation (Maksimovska et al., 2017), staff support, perceived quality of services, and accessibility of services (Tafa et al., 2019). The utilization of technology, encompassing e-government solutions, has also been recognized as a decisive factor contributing to the accomplishment of OSS implementation in the Balkans (Maksimovska et al., 2017).

The fundamental concept behind OSS is the integration of services within a single facility, aimed at cost-sharing and facilitating individuals' access to a diverse array of services in a unified location. As a method to enhance public service delivery, governments are adopting a citizen-centric approach by consolidating various services in one place. The process of One-Stop Shop reform emphasizes the creation of a contemporary, customer-friendly, and cost-effective system that prioritizes customer needs and orientation.

Methodology

The purpose of the study is to evaluate the overall level of citizen satisfaction with the services at OSS, and to assess the relationship between such dimensions as "citizen trust, the procedures, staff, saving of time and cost used, and support to citizens with the perceived satisfaction of service recipients. Survey is used as a research instrument for this quantitative study. Primary data were obtained within a period of 3 months from a structured paper-based questionnaire addressed to 114 citizens receiving service in OSSs in the city of Gjirokastra, located in south Albania. The sampling technique follows the approach outlined by Khamis and Kepler (2010), employing a sample size formula of $n = 20 + 5k$, with k representing the number of predictors.

The questionnaire consists of two parts and was self-administered by respondents while receiving services at the OSS. The first section gathers descriptive socio-demographic information about the respondents. The following section encompasses questions designed to assess the respondents' perceptions regarding the services they have received. Service recipients were asked about five key dimensions to determine overall satisfaction with OSS service: level of trust, evaluation of the ease of OSS procedures, assessment of the service-providing staff, the time and cost savings, and perceived support received while obtaining services in these centers.

Data processing was performed through SPSSv25 at a significance level of 0.05. Data analysis was performed through descriptive analysis, cross-tabulations, correlations between variables, analysis of variance. The methodology employed in this study involves conducting a multiple regression analysis to examine the relationships between various independent variables and the dependent variable. The independent variables in this study, include trust, procedures, staff, saving, and support. The dependent variable is the respondents' perceived level of satisfaction with the services received at the OSS. In this context, this research goal is to find out the extent to which each independent variable influences the respondents' perceived satisfaction with the services provided.

Through this analysis, we aim to uncover the relative importance of trust, procedures, staff behavior, cost-saving aspects, and the perceived level of support in influencing the overall satisfaction of individuals who have interacted with the OSS. The results of the analysis will provide valuable information for policymakers and service providers to focus on areas that have a significant impact on enhancing citizen satisfaction with OSS services.

Reliability and Multicollinearity Analysis

Cronbach's Alpha test was used to assess the internal consistency of the survey instrument used in the study. For the early stages of study, a minimum alpha of 0.6 is considered as sufficient (Nunnally 1978). The results suggest that the survey instrument has high internal consistency, with Cronbach's Alpha values exceeding the recommended threshold of 0.7 (Hair et al., 2010). Table 1 shows that the Cronbach's Alpha test result for each dimension was greater than 0.7. The overall Cronbach's Alpha value of 0.937 obtained in this

study indicate that the survey instrument is highly reliable and can provide accurate results.

If there is a significant correlation between the independent variables, a research model may be statistically invalid; in this case, the variable must be adjusted or even removed. Calculations of the tolerance and the variance inflation factor (VIF) were used to test multicollinearity among the independent variables. There is no multicollinearity concern if the tolerance test result is not less than 0.1 and the VIF value is not greater than 10 (Kleinbaum et al., 1988).

Table 2 shows that all VIF values are less than 10, indicating that there is no problem with multicollinearity.

Research Model

Figure 1 illustrates the proposed study model based on the literature review and considering the main goal of the study as well as variables. A multi regression analysis, as a statistical model, it is performed to determine whether and how the variables of Support, Trust, Staff, Procedures, and Savings affect citizen satisfaction level with the quality of the OSS services.

Results

Sample profile

The results of the data analysis in the first part present a descriptive analysis of the respondents' characteristics, aiming to provide an overview and general information related to the sample distribution in the study. The study included 114 respondents who received services at the OSSs in a municipality located in south Albania.

Table 1. Reliability statistics of study dimensions

Dimension	No. of items	Cronbach's Alpha
Trust	4	0.803
Procedures	3	0.741
Staff	5	0.903
Savings	4	0.859
Support	4	0.866
Satisfaction	5	0.891

Source: Authors calculations based on SPSS25

Table 2. Multicollinearity

Coefficients ^a		
Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
TRUST	0.333	3.006
PROCEDURES	0.345	2.896
STAFF	0.374	2.674
SUPPORT	0.368	2.719
SAVING	0.348	2.876

^a Dependent Variable: SATISFACTION

Source: Authors calculation based on SPSS25

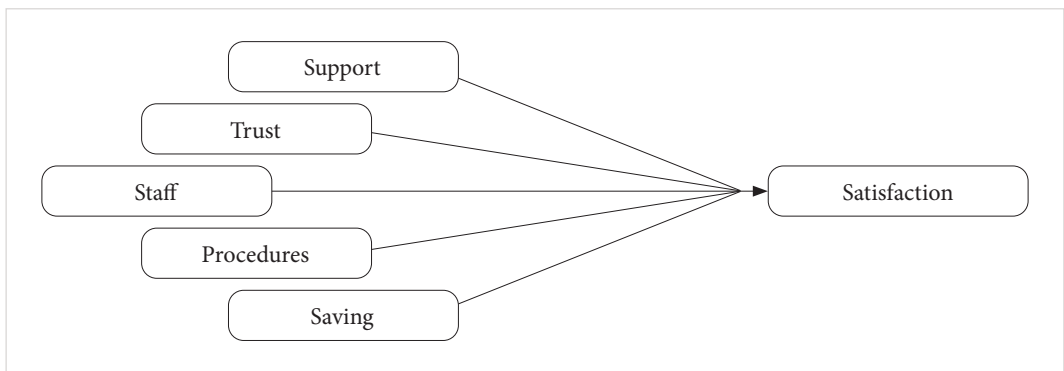


Figure 1. Research Model

Source :Authors

Table 3. Sample profile

Age		Gender		Education		Employment	
Age	In %	Sex	In %	Level	In %	Level	In %
18 - 30	27.8	Male	53.8	Primary education	11.4	Private sector	37.9
31 - 45	30.9			High School	39.4	Public sector	26.9
46 - 60	34.6	Female	46.2	University Degree	43.3	Self-employed	28.5
> 60	6.7			Postgraduate	5.9	Retired	6.7

Source: Authors calculations based on SPSS25

More than half (53.8%) of the respondents included in this study reported that they had used the OSS services more than twice, 24% had used them twice, while 22.1% of the respondents reported that they had used the OSS services for the first time. Males and females that use OSS to receive services appear to have no significant disparities. According to the survey results, 53.8% of the respondents were male, while 46.2% were female.

The group age with the highest frequency of visits to OSS offices during the study period was 46-60 years old, comprising 34.6% of the total respondents. It can be observed (see Tab.3) that 43.3 percent of the respondents have a university degree while 39.4 percent had only completed high school. Regarding to employment, most of the participants (37.9%) worked in the private sector, followed by those who worked in the public sector (26.9%). Meanwhile 28.5 percent were self-employed, and 6.7 percent were retired. The data shows that citizens from all walks of life, regardless of their gender, education level, or employment status, utilize the services offered by the OSS center for receiving public services.

Citizen satisfaction with One-Stop Shop service

Table 4 shows that respondents are mostly satisfied with the services provided by OSS centers the government organizations in charge of delivering integrated services. With a rating of 4.08 out of 5, respondents appear to be very satisfied with the integrated services provided by this one-stop shop.

When examining each component individually, it is evident that three out of five have a high average rating of more than 4 points, with the highest rating of 4.19 points for perceived support when receiving services. The respondents have expressed a high level of overall trust in the OSS when utilizing their services, with an average score of 4.10 points, and have rated the staff's abilities and expertise with 4.06 points out of 5.

Table 4. Descriptive data on service quality dimensions

	N	Minimum	Maximum	Mean	Std. Deviation
TRUST	114	2.20	5.00	4.102	0.7379
PROCEDURES	114	2.00	5.00	3.961	0.7651
STAFF	114	1.00	5.00	4.061	0.8667
SAVINGS	114	1.00	5.00	3.889	0.9009
SUPPORTING	114	1.75	5.00	4.195	0.7867
SATISFACTION	114	1.60	5.00	4.086	0.8172
Valid N (listwise)	114				

Source: Authors calculations based on SPSS25

The OSS procedures received a rating of 3.96 points out of a maximum of 5, and the cost and time savings received a rating of 3.88 points.

Multiple Regression results analysis

1. The study conducted a multiple regression analysis for estimating the dimensions that impact citizens' satisfaction with the quality of OSS services. The analysis revealed that all five dimensions *Saving*, *Staff*, *Support*, *Procedures*, and *Trust* - had a positive and statistically significant influence on citizen satisfaction ($F_{5,103} = 118.256$, Sig = 0.000), explaining 85.8% ($R^2=0.858$, Sig=0.000) of the variation in satisfaction levels.

Table 5. Factors affecting the satisfaction with the OSS quality services

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.193	0.189		-1.019	0.310
	TRUST	0.196	0.073	0.177	2.687	0.008
	PROCEDURE	0.161	0.069	0.151	2.326	0.022
	STAFF	0.252	0.059	0.268	4.297	0.000
	SUPPORT	0.232	0.065	0.223	3.557	0.001
	SAVING	0.215	0.059	0.237	3.675	0.000

^a Dependent Variable: SATISFACTION

Source: Authors calculation based on SPSS25

2. The analysis demonstrates that there is a statistically significant positive relationship ($b = 0.196$, Sig = 0.008) between the trust the citizens perceive when receive services at OSS, meaning this dimension has a positive impact on citizens' satisfaction.
3. The second dimension that was analyzed was the perceived skills and qualifications of the staff by citizens, which has a statistically significant positive relationship with regression coefficient of 0.252, Significance level of 0.000 and a positive effect on citizens' satisfaction with the services they receive from OSS. The findings suggest that greater proficiency and training among staff members contribute to heightened levels of citizen satisfaction.
4. The study shows that there is a significant positive between citizens' assessments of the procedures executed by the OSS when receiving integrated services and their overall satisfaction. The analysis indicates that this relationship is statistically significant with a regression coefficient of 0.161 and a significance level of 0.022. This signifies that the perceived simplicity of procedures holds a considerable impact on citizens' satisfaction levels.
5. Another dimension investigated in the study is cost and time savings to determine if it affects the overall satisfaction with OSS. The analysis of data shows that cost and time savings have a statistically significant positive relationship with citizen satisfaction with the quality of OSS services, with a coefficient of $b = 0.215$ and a significance level of 0.000. This indicates that cost and time savings have a pronounced positive impact on citizens' overall satisfaction with OSS services.
6. The support dimension is the last dimension considered that may potentially affect citizen satisfaction with OSS. The analysis discloses a statistically significant positive relationship between the support

dimension and citizen satisfaction., with a coefficient of $b = 0.232$ and a significance level of 0.001. This suggests that the support provided to citizens during service delivery has a considerable impact on their satisfaction.

7. In this case, the following regression model can explain the relationship between the components under consideration:

$$\text{Citizen satisfaction with OSS services} = -0.193 + 0.196 * \text{Trust} + 0.161 * \text{Procedure} + 0.252 * \text{Staff} + 0.232 * \text{Support} + 0.215 * \text{Saving}$$

8. The regression analysis results indicate a ranking of dimensions in terms of their statistical impact on citizen satisfaction with the quality of public services offered by the One-Stop Shop. These dimensions, ranked in order of significance, are Staff, Assistance, Savings, Trust, and Procedures. Each of these dimensions has a positive influence on enhancing citizen satisfaction with OSS services.
9. Conversely, the negative coefficient value for the intercept (-0.193) serves as a baseline for Citizen Satisfaction. This value implies a starting point below which the satisfaction level could potentially decline in the absence of the positive effects stemming from the independent variables (Staff, Assistance, Savings, Trust, and Procedures).
10. In essence, the provided analysis underscores the varying impacts of different dimensions on citizen satisfaction, while also considering the baseline from which satisfaction levels begin. The outcomes of the proposed research model, as derived from the analysis, hold the potential to significantly influence quality improvement endeavors or the reconfiguration of how the One-Stop Shop delivers integrated public services to citizens. This research provides valuable insights that can guide decision-makers in prioritizing dimensions that are deemed most crucial by the recipients of these services.
11. The research study model is presented as follows in Figure 2.

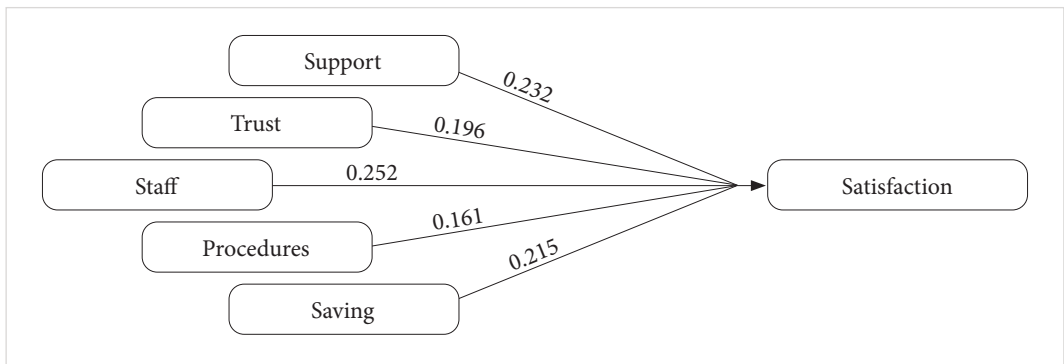


Figure 2. Factors affecting the satisfaction with the OSS quality services

Source: Authors calculations based on SPSS25

Discussion

Public service quality has been a goal of governance reforms (Zarychta 2020). There is a growing awareness of the need for citizen-centric services, as well as the importance of citizen participation and feedback in integrated service delivery and self-service delivery alternatives (Reddick 2005; Al-Kaseasbeh et al., 2019). According to Biswas and Roy (2020), one of the most key factors in determining performance in the public sector is citizen satisfaction with the quality service.

The findings of this research are consistent with previous studies on the determinants of citizen satisfaction with public services. A study conducted by Kim and Lee (2019) on the determinants of citizen satisfaction with government websites found that trust, perceived usefulness, and perceived ease of use had a significant positive effect on citizen satisfaction. Similarly, a study by Chang and Kuo (2019) on the determinants of citizen satisfaction with local government services found that service quality, staff competency, and perceived value had a significant positive effect on citizen satisfaction.

Other studies also support that the belief or trust that citizens perceive has a positive impact on the level of satisfaction and it is considered as an important source of public value perception (Kelly et al., 2002; Grimsley and Meehan 2007). A high level of trust decreases risk and increases the desire to use more online services (Parent et al., 2005; Jafari et al., 2011).

Savings and convenience make e-Government more successful in engaging citizens and providing convenient and timely integrated government services (Chatfield and Al Anazi 2013; Edmiston 2003; Gilbert et al., 2004).

In the literature, staff support is widely acknowledged as a crucial factor influencing citizens' evaluations of services provided at the OSS (Kubicek and Hagen 2000; My and Hahn 2020). Citizens' evaluation encompasses the simplicity of procedures within the OSS framework while utilizing integrated services. Notably, procedures stand out as a highly significant dimension influencing the perceived levels of satisfaction, a result supported by the research of Parasuraman and Grewal (2000).

Al-Mutairi and Al-Mutairi (2019) conducted a study that specifically examined the impact of integrated e-government services on citizen satisfaction. Their findings highlighted those key factors like perceived service quality, trust, and perceived value played a significant and positive role in influencing overall citizen satisfaction. Reaffirming the alignment of the findings from the current study with the existing literature on integrated public services and their implications for citizen satisfaction.

Drawing from the analysis of the study results and their congruence with the insights gleaned from the literature review, a conclusive observation can be made. Specifically, it can be inferred that among the dimensions considered, staff, support, savings, trust, and procedures exhibit the most notable and substantial impact on citizens' satisfaction with OSS services. This study research underscores the necessity for the OSS to prioritize the enhancement of staff skills and qualifications. Furthermore, it is recommended that procedural efficiency be optimized, while concerted efforts are taken to foster a sense of trust between citizens and the One-Stop Shop. Addressing these dimensions has the potential to significantly improve citizens' overall satisfaction with OSS services.

Conclusions

- The objective of this study is twofold: firstly, to assess the overall citizen satisfaction with the services provided by the One-Stop Shop (OSS); and secondly, to investigate the correlations between different service-related dimensions, encompassing citizen trust, procedural efficiency, staff effectiveness, time and cost efficiency, citizen support, with the perceived satisfaction among individuals receiving services at the OSS.
- The findings from the multiple regression analysis offer valuable insights into the factors influencing citizen satisfaction with ADISA-OSS services in Albania. The regression model, with independent variables including trust, procedure, staff behaviour, support, and cost-saving, indicates significant associations between these variables and the dependent variable of citizen satisfaction.
- The results demonstrate that trust, procedure efficiency, staff responsiveness, level of support, and potential cost-saving opportunities all play crucial roles in shaping citizen satisfaction with OSS services. The positive coefficients associated with each independent variable indicate their positive impacts on satisfaction levels.

- Specifically, as citizens perceive higher levels of trust in the services provided by OSS, their satisfaction increases. Likewise, efficient procedures, responsive and well-trained staff, accessible support, and potential cost-saving initiatives contribute significantly to enhancing citizens' overall satisfaction.
- It is important to note that while these factors demonstrate positive associations with satisfaction, the negative intercept (- 0.193) shows the baseline for Citizen Satisfaction. It also may indicate that there may be other unaccounted factors influencing satisfaction levels negatively. Further research and considerations are needed to address any unaccounted factors and ensure a comprehensive understanding of the dynamics influencing citizen satisfaction with OSS services.
- However, these findings provide valuable implications for policymakers and service providers seeking to enhance citizen satisfaction with OSS services. Emphasizing transparency, optimizing procedures, ensuring well-trained staff, providing accessible support, and promoting cost-saving benefits can collectively contribute to improved citizen experiences and increased satisfaction levels.

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PILIEČIŲ PASITENKINIMO VEIKSNIAI, ĮTAKOJANTYS INTEGRUOTŲ VIEŠŪJŲ PASLAUGŲ KOKYBĘ, TEIKIAMĄ PER VIENO LANGELIO PRINCIPŲ VEIKIANČIĄ PARDUOTUVĘ. VAKARŲ BALKANŲ ŠALIES ATVEJIS

Anotacija. *Vyriausybės vieno langelio principu veikiančios parduotuvės, propaguojamos kaip tarpvyriausybinių bendradarbiavimo gerinimo, "Weberio" biurokratinės struktūros koordinavimo ir paslaugų teikimo racionalizavimo, naudojant technologijas, strategija. Vieno langelio principu veikiančiais modeliais, kurie laikomi svarbiu pastarojo meto e. valdžios iniciatyvų pasiekimu, siekiama sukurti veiksmingus, prieinamus, koordinuotus ir ekonomiškai efektyvius viešųjų paslaugų teikimo mechanizmus. Šio mokslinio straipsnio tikslas - įvertinti piliečių pasitenkinimą integruotų viešųjų paslaugų, teikiamų vieno langelio principu, kokybę. Ypatingą dėmesį skiriant piliečių pasitenkinimo OSS (angl. One-Stop-Shops) teikiamų paslaugų kokybe bei sąsajoms su jas lemiančiais aspektais: pasitikėjimu, procedūromis, darbuotojų įgūdžiais ir kvalifikacija, laiko ir išlaidų taupymu bei suvokiama piliečių globa ir (arba) parama. Šiame darbe kaip tyrimo priemonė taikomas kiekybinis metodas, taikant apklausą. Struktūrizuotas klausimynas išdalintas 114 piliečių, gaunančių OSS paslaugas savivaldybėje pietų Albanijoje, Vakarų Balkanų šalyje. Pagrindinis tyrimo tikslas - suteikti aukščiausio lygio OSS įstaigų vadovams ir politikos formuotojams veiksmingą instrumentą, padedantį geriau įvertinti ir suprasti jų teikiamų integruotų viešųjų paslaugų suvokiama kokybę iš piliečių perspektyvos. Tokiu supratimu siekiama palengvinti veiksmingesnės politikos ir strategijų, skatinančių nuolatinį gerinimą*

ir naujos gerosios viešojo valdymo praktikos įtraukimą bei formavimą. Daugia-regresinės analizės rezultatai atskleidė, kad veiksniai - taupymas, personalas, parama, procedūros ir pasitikėjimas - turėjo teigiamą ir statistiškai reikšmingą poveikį pasitenkinimui ir sudarė 85,8 proc. piliečių pasitenkinimo vieno langelio tarnybos teikiamų paslaugų kokybę.

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IMPLICATIONS OF TRANSFORMATION OF ADULT EDUCATION FOR POLITICAL DECISIONS: A CASE OF LATVIA

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Abstract. *The Covid-19 pandemic has significantly contributed to the digitalisation of teaching and learning, including adult education. Since the spring of 2020, adult educational centres transformed the way how they work to ensure the continuity of the learning process. As a result, online adult education, which implies using various web-related technologies during the distance learning process, has experienced an unprecedented rise in replacing the traditional face-to-face teaching model. At the same time, policymakers had to react to external factors affecting the transformation of the adult education system by including the concept of online education in national regulations and policy documents as well as by providing various supporting mechanisms. The purpose of the study is to analyse the connections between the transformation of adult education caused by the pandemic and political decisions in Latvia. The tasks are formulated as follows: to review the latest trends in adult education and corresponding policy responses in the scientific literature; to analyse the political decisions made by the policymakers in Latvia in the context of the transformation of adult education during the Covid-19 pandemic; to formulate recommendations to the policymakers that address the compliance issues of recent developments of the concept of adult education in Latvia. Used research methods: to achieve the purpose of the study, the author has used a scientific literature review for analysing the latest trends in adult education and the political decisions behind them, expert interviews with the specialists of adult education in Latvia, and the doctrinal research method to examine the changes in the national regulation regarding adult education during the pandemic. The main findings of the research show that the transformation of adult education during the pandemic is partly incorporated in the main policy documents and national regulations. The policymakers in Latvia used both shorter-term and longer-term approaches to comply with the restrictions of gathering and the need for the digitalisation of adult education.*

Keywords: *adult education; online learning; Latvia; digitalisation; Covid-19; doctrinal research.*

Reikšminiai žodžiai: *suaugusiųjų švietimas; mokymasis internetu; Latvija; skaitmeninimas; COVID-19; doktrininiai tyrimai.*

Introduction

The Covid-19 pandemic has had significant consequences on education worldwide. Adult education was no exception. Starting in March 2020, adult education centres were forced to transform the teaching and learning processes to comply with restrictions on gatherings. As a result, various online methods were developed to ensure that adult learners could study from home. All the processes led to the so-called “forced digitalisation” (Witt, 2020) of the adult education sector. Without any doubt, adult educational centres had adopted various effective IT solutions as well as developed new pedagogical methods that are used also in the post-covid period.

As regards the consequences of the Covid-19 pandemic on teaching and learning processes in adult education, there has been a multifaceted academic debate. There had been numerous studies about the impact of the Covid-19 pandemic on adult education (e.g. Boeren et al., 2020; Stanistreet, et. al., 2020; James & Thériault, 2020; Waller, et. al., 2020; Watts, 2020; Reimers & Schleicher, 2020; Blažič & Blažič, 2020; Jekabsone, & Gudele, 2021). These studies emphasize various social and educational inequities during the distance learning process including but not limited to those linked to digital skills, language, race, social class, income, and immigration status that became more visible during the pandemic. In addition, it is admitted that for some adult learners, the rapid shift to online learning created anxiety and additional stress (Lasby, 2020). It is also claimed that access to qualitative online adult education may lead to a “Matthew effect,” where education often serves the already highly educated adults (Boeren, 2016). This could be one of the reasons why the statistics show that the Covid-19 pandemic has increased the revenue of the online learning sector (Global Market Insights, 2023). In addition, in practically all industrialised nations, including most of the EU countries, the Covid-19 pandemic has also led to an increase in public education spending (OECD, 2021) by developing various supporting mechanisms for the digitalisation of education.

At the same time, there is a discussion among scholars that online adult education may contribute to sustainability by creating an eco-friendly learning environment (Yao, 2018), expanding target audiences (Jekabsone & Gudele, 2023), and inclusiveness (Zhang, et al., 2020; Pedró, et al., 2019).

In the context of academic debate on the political response of countries to the transformation of education during the pandemic, two approaches are specified (see Hodged et al., 2020). The first approach applies to crisis or emergency situations when online teaching and learning were not planned from the beginning but as a temporary shift of instructional delivery to an alternate delivery mode (emergency remote teaching) (Khlaif, 2021). In turn, the second approach is related to the learning mode when online methods are incorporated from the beginning (online learning) (Singh & Thurman, 2019). Thereby, there is a difference between remote and online learning – emergency remote teaching more relates to the shorter-term political responses to the need for transformation of the educational process, while online learning is rather a longer-term solution.

As regards the policy development in the education sector during the pandemic, the situation created the conditions of a “natural experiment” (Capano, et. al., 2020) in various countries. Furthermore, it is argued by Phillips & Ochs (2003) that policymakers are more receptive to outside advice and more likely to significantly alter education systems during periods of acute crisis, like one caused by the Covid-19 pandemic. In this context, many international organizations and stakeholders used a political opportunity to gain international legitimacy and influence public policy agendas (Debre & Dijkstra, 2021). The pandemic may present a chance to align the preferences of a wide range of educational stakeholders, which are typically difficult to coordinate, according to OECD (2020). Similar processes also started in various countries where policy-makers in collaboration with stakeholders had included the concept of online education in a longer-term meaning in national regulation and policy documents (contrary to shorter-term force majeure regulations). However, as it is acknowledged by Zancajo, et. al. (2022), the nature, scope, and focus of the responses of policymakers to the education policy during the pandemic have not previously been examined.

As regards Latvia, in the period from March 2020 to June 2022, the adult education sector mostly experienced various restrictions on gathering. The political response included various shorter-term decisions like offering supporting mechanisms to adult education centres to ensure the digitalisation of the teaching and learning processes as well as some longer-term decisions like introducing the legal norm in the Education Law of Latvia that full-time educational programmes may contain a component of remote learning (Latvijas Vēstnesis, 1998) and incorporation the goal of digitalisation of adult education in the medium-term planning documents such as the Guidelines for the Development of Education 2021-2027 and the Guidelines for the Digital Transformation 2021-2027.

This paper intends to analyse both shorter-term and longer-term political decisions in the adult education sector that followed the transformation of the teaching and learning processes caused by the Covid-19 pandemic in Latvia. This is novel research since the nature of the responses of the policymakers was not analysed before. Based on this analysis, the author proposes recommendations to policymakers to support the further transformation of the adult education sector in Latvia.

Taking into account mentioned-above, the purpose of the study is to analyse the connections between the transformation of adult education caused by the pandemic and political decisions in Latvia. Consequently, the research question is formulated as follows: How did the political decisions transform of adult education in Latvia during the pandemic?

The tasks are formulated as follows:

1. to review the latest trends in adult education and corresponding policy responses in the scientific literature;
2. to analyse the political decisions made by the policy-makers in Latvia in the context of the transformation of adult education during the Covid-19 pandemic;
3. to formulate recommendations to the policy-makers that address the compliance issues of recent developments of the concept of adult education in Latvia.

As regards the research methodology, the author has applied several research methods. In order to examine the latest trends in the transformation of adult education as well as the political responses to it, the author has used a scientific literature review. In turn, to understand the political background of the decisions in the context of the transformation of adult education in Latvia, the author uses expert interviews (semi-structured interviews). In total, five experts in adult education (from the Ministry of Education and Science of the Republic of Latvia (ID1), the Latvian Adult Education Association (ID2), and adult education centres (ID3 and ID4) and a research institution specialising in pedagogy and andragogy (ID5)) were interviewed in February 2022. Finally, the doctrinal research method with several legal norm interpretation methods (grammatical systemic interpretation, historical, teleological) is applied to examine the changes in the national regulation regarding adult education during the pandemic.

Referring to the key results of the research, in Latvia, the policymakers intended to follow the forced digitalisation in the adult education sector by applying both approaches (shorter-term via supporting instruments and longer-term by introducing the concept of online education in the national regulation and medium-term planning documents). At the same time, the concept of online education is not fully incorporated into national regulation, since the imprecise concept of remote learning is used in the context of longer-term approach.

Overview of adult education policy in Latvia during the pandemic

Taking into consideration the discussed approaches of political responses to the Covid-19 pandemic (longer-term and shorter-term) as well as the possible results of such political responses, the author has developed the following framework for analysing the case of transformation of adult education during the pandemic in Latvia (see Table 1).

As regards the shorter-term approach, the Ministry of Education and Science of the Republic of Latvia had developed various supporting mechanisms for adult education centres, mainly through so-called public order for adult education programmes, namely, within the existing supporting programme, following the restrictions of gathering, calls for remote learning programmes were launched. In addition, regulations on how to organise teaching and learning processes were regularly updated. In order to communicate them to the sector, the Ministry developed guidelines for educational institutions as well as regularly organised Q&A sessions. In addition, the need for transformation of education, inc. adult education, was stipulated in the Development of Strategy for Latvia to mitigate the consequences caused by the Covid-19 crisis – same as the necessity to strengthen the digital skills of all involved parties in teaching and learning processes.

Table 1. *Analysis of Adult Education Policy in Latvia in the Context of Political Responses during the Covid-19 Pandemic*

Political response	Shorter-term approach	Longer-term approach
Supporting mechanisms	The Ministry of Education and Science of the Republic of Latvia has launched several calls for remote adult education programmes within the project “Improvement of Professional Competence of Employed Persons” funded by the European Social Fund (2017-2023; total budget of 46 845 105 EUR)	Support for the development of educational programmes for adults that aim at the development of digital skills within the project “Improvement of Professional Competence of Employed Persons” funded by the European Social Fund (2017-2023; total budget of 46 845 105 EUR)
National regulation and soft law	Development and regular update of the Regulations of the Cabinet of Ministers No 662 “Epidemiological Safety Measures for the Containment of the Spread of COVID-19 Infection” of 28 September 2021 (previous regulations No 360 of 9 June 2020) that also contained information about the organisation of adult teaching and learning processes Development and regular updates of soft law for educational institutions with guidelines on how to implement the restrictions stated in the above-mentioned regulations	Introducing a legal norm in the Education Law of Latvia that defines that a full-time form of education may contain remote learning (for all levels of education, inc. adult education) Development of the Regulations of the Cabinet of Ministers No 111 “Procedures for Organising and Implementing Remote Learning” of 8 February 2022 that specifies the proportion and requirements of the remote component in various levels of education, including adult education
Policy planning documents	Development of Strategy for Latvia to mitigate the consequences caused by the Covid-19 crisis: acknowledged the transformation of education, the necessity to monitor the quality of adult education programmes and insufficient digital skills of learners and teachers	Incorporation of remote learning and concept and the necessity to improve digital skills into the Guidelines for the Development of Education 2021-2027 and the Guidelines for the Digital Transformation 2021-2027

Source: Author's construction based on ((State Education Development Agency, 2023; Ministry of Economics, 2020; Latvijas Vēstnesis, 2021a; Latvijas Vēstnesis, 2021b; Latvijas Vēstnesis, 2016; Latvijas Vēstnesis, 2022; Latvijas Vēstnesis, 1998).

In turn, within the longer-term approach, several programmes and initiatives were launched aiming at the development of digital skills of adult learners. These programmes were available also in the post-covid period. Since the pandemic period coincided with the time when medium-term policy planning documents were developed, the concept of remote learning, transformation of the education system towards digitalisation, and improvement of digital skills were incorporated into the Guidelines for the Development of Education 2021-2027 and the Guidelines for the Digital Transformation 2021-2027. In addition, the necessity of an effective quality monitoring system, especially for adult education programmes (inc. the remote component) is set as a horizontal priority throughout the policy documents. Furthermore, the legislator also updated the legal norm defining the full-time form of education at any educational level – the component of remote learning is part of the full-time form of education. The proportion of the remote learning component is specified by the government in a separate regulation.

Taking into consideration that the whole notion of the learning process was transformed by introducing the above-mentioned changes in the regulation about the incorporation of the remote component in the full-time educational form, these changes are analysed in a separate section.

Analysis of the incorporation of transformation of adult education in national regulation during the pandemic

The legal norm to be analysed is Section 1.124 of the Education Law which states that full-time is „a form of completion of education where an educatee acquires the education content by attending an educational institution, including remote learning, according to the educational programme implemented by the educational institution“ (Latvijas Vēstnesis, 1998).

In order to understand the meaning of this legal norm, the author uses various methods of interpretation:

1. Grammatical interpretation;
2. Systemic interpretation;
3. Historical interpretation;
4. Teleological interpretation (Meļķis, 2014).

First, in the context of grammatical interpretation, the author would like to stress the limitations of the concept of remote learning. As is briefly discussed in the introduction, many scholars admit that the concept of remote learning refers more to crisis or emergency situations (concept “emergency remote teaching”, see Ferri, et. al., 2020). It is a temporary shift of instructional delivery to an alternate delivery model due to crisis circumstances; while online education is planned distant from the beginning using relevant teaching methods (Hodges, et. al., 2020). This is a significant difference between online learning and remote learning. Thereby, based on the grammatical interpretation, the author concludes that proposed amendments to Section 1.124 of the Education Law of the Republic of Latvia provide adult education centres with some flexibility in choosing the education form in rather the crisis circumstances such as during the pandemic.

Next, within the systemic interpretation of Section 1.124 of the Education Law of the Republic of Latvia, the author analyses the use of the concept of remote learning within the Education Law of the Republic of Latvia. This concept appears in Section 1.11 and is described as „a component of full-time education process where educatees learn without being physically present in the same room or venue as the teacher, which also includes the use of information and communication technologies“ (Latvijas Vēstnesis, 1998). However, in this context, the concept of remote learning is used with a broader meaning. The provided definition rather refers to the concepts of online learning as discussed in the introduction. Thereby, based on a systemic interpretation of the concept of remote learning, the author concludes that this concept is used in the law in a broader sense referring to the distance education process.

Then, the author applies the historical interpretation method. In order to understand the logic of incorporation of the remote learning concept in the Education Law of the Republic of Latvia, the author provides the timeline of historical events (see Table 2).

According to Section 4.3.1 of the Order of the Cabinet of Ministers No. 103 “On the Declaration of a State of Emergency” of 12 March 2020, the education institutions were obliged to terminate any education process, including adult education, in person and provide the learning process remotely in the period from 12 March 2020 until 9 June 2020 (Latvijas Vēstnesis, 2020a). Afterwards, the education process was regulated by the Regulations of the Cabinet of Ministers No 360 “Epidemiological Precautions to Limit the Spread of Covid-19 Infection” of 9 June 2020 stipulating the restrictions for face-to-face learning like ventilation, space restrictions, registration of learners, etc., as well as listing situations when educational institutions are expected to offer programmes remotely or partially remotely (Latvijas Vēstnesis, 2020b). In this context, the Ministry of Education and Science of the Republic of Latvia initiated amendments to the Education Law of the Republic of Latvia providing a legal base for the educational institutions to offer remote learning after an emergency situation. As a result, on 12 November 2020, the amendments to the Education Law of the Republic of Latvia came into force. At the same time, the emergency situation was repeatedly announced from 6 November 2020.

Table 2. Chronology of Incorporation of the Remote Learning Concept in the Education Law of the Republic of Latvia

2020	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
The emergency situation I (12 March 2020 - 9 June 2020)												
Development of amendment to the Education Law												
The emergency situation II (6 November 2020 - 6 April 2021)												
Amendments to the Education Law come into force (12 November 2020)												

Source: Author's created table.

Taking into consideration the abovementioned historical facts, the author concludes that there was a need to provide a legal basis for a remotized form of education during the pandemic for the period of time when an emergency situation was not announced in Latvia. However, flexibility in choosing the education form was required due to the need to limit the spread of Covid-19 infection. The legislator addressed this legal gap by amending the legal norm about full-time studies.

Finally, the author uses the teleological interpretation method to understand the aim of the legislator by introducing the amendments to Section 1.124 of the Education Law of the Republic of Latvia. In the annotation of the amendments to the Education Law of the Republic of Latvia, it is indicated that the amendments are necessary in order to address "the urgent need to find a solution for the day-to-day use of remote learning" (Saeima, 2020) since the Regulation of the Cabinet of Ministers No 360 "Epidemiological Precautions to Limit the Spread of Covid-19 Infection" of 9 June 2020 specifies the cases in which educational institutions must provide training partially or completely remotely. In addition, it is explained that remote learning is organized by the teacher and the educational institution within the framework of full-time learning, assessing and taking into account the learners' readiness to take responsibility for learning outcomes. In the provided definition of remote learning in the annotation, the legislator did not provide an analysis of existing practices of using the terminology that corresponds to offering education from a distance. Also, the legislator has not indicated whether proposed amendments in the formulation of a full-time educational form are restricted in time, for example, during the restrictions related to the pandemic. Thereby, it may be concluded that the legislator's aim was to introduce the amendments to the formulation of full-time education form for a longer-term perspective.

Taking into consideration the conclusions made using various legal norm interpretation methods, the author summarises the incorporation of the remote component in the full-time educational form introduced by the amendments to Section 1.124 of the Education Law of the Republic of Latvia intended to address the legal gap in the organisation of educational process in circumstances of Covid-19 related restrictions. At the same time, the legislator had not specified the termination of these amendments. The legislator intended to introduce the possibility to incorporate the principles of flexibility in teaching methods by taking advantage of the organisation of the learning process from a distance. Taking into consider-

ation that the concept of remote learning refers to crisis circumstances instead of a permanent situation, the author proposes that from a long-time perspective, the Ministry of the Education and Science of the Republic of Latvia should propose to change the terminology and instead of the concept of “remote education” use “online learning” which are broader concepts.

Analysis of policy responses to the transformation of adult education during the pandemic and the way forward

To analyse the policy responses to the transformation of adult education in Latvia during the pandemic as well as the future perspectives, the author has conducted expert interviews with five specialists (ID1, ID2, ID3, ID4, ID5) in February 2022.

All interviewed experts admitted that the pandemic has promoted the digitisation of the adult education sector. The adult education entities were forced to offer their programme in a distant mode, thereby they improved their technological provision and functionality of e-platforms, mastered different digital tools as well as improved overall digital competencies. According to the interviewed experts, distance learning has promoted the availability of adult education programmes as learners may choose a qualitative desired programme regardless of the place of residence.

However, at the same time, the experts admitted adult learning process cannot be organised fully online. E.g., the expert from the Ministry of Education and Science of the Republic of Latvia (ID1) admitted, “Low-skilled adults which is a priority in education policy have difficulty engaging in online learning. These adults, who cannot participate in the learning process due to their low skills, should not be excluded. [...] Online can never replace face-to-face. Of course, it’s convenient. The right balance should be found in the future.” This shows similar results to the study conducted by K pplinger & Lichte (2020) where one of the conclusions was that digital means cannot fully replace the face-to-face model.

As refers to the future development of adult education in Latvia (see Figure 1), the experts indicated that after-pandemic adult education will include online learning and teaching. At the same time, it is crucially necessary to provide various supporting mechanisms to adult education centres in the context of digitalisation such as programmes for the improvement of qualification for adult teachers (inc. digital skills and the use of diverse pedagogical methods for online teaching), various open source materials that adult teachers may use like methodologies, content materials about various topics, support for development and implementation of digitalisation strategies at adult education centres. In addition, the experts from adult education centres (ID3 and ID4) indicated that the remuneration system for adult teachers should be adopted for online teaching and learning processes. Namely, the current remuneration policy is based on the contact hours delivered; while the development of teaching materials, and tools for independent studies are not included in the reward.



Figure 1. Summary of Expert Interviews about the Future of Adult Education in Latvia

Source: Author’s created figure based on the results of expert interviews.

Also, most of the interviewed experts believe that adult education institutions and teachers should be responsible for deciding on the form of the education process. For example, a researcher from the Institute of Educational Sciences (ID5) admits that a blended or hybrid form of adult education is the most appropriate one, “The blended form can meet the needs of those who can study independently, as well as those who require a face-to-face form. [...] pedagogically it is a very good option. The customer would definitely be satisfied.”

In addition, the experts admitted that it is necessary to prioritise adult education at the national level and implement measures to ensure the quality of the adult programmes. The Chairwoman of the Board of the Latvian Adult Education Association (ID2) urged the necessity to implement the national policy toward adult education, “The issue of the adult education system, its organisation and its absence are escalating. [...] Quality cannot be controlled. The market is full of programmes that cannot be assessed, only the programmes supported by the project funding can be tracked.” Thereby, the establishment of a well-functioning quality monitoring system should be ensured.

Policy recommendations for further transformation of the adult education sector in Latvia

Taking into consideration the results of the expert interviews as well as the previous analysis of the policy response to the transformation of adult education during the pandemic, the author proposed the following recommendations to the Ministry of Education and Science of the Republic of Latvia:

- Adult education of high quality should be one of the national priorities. Therefore, it is necessary to create a unified system for monitoring the quality of adult education and allocate the necessary financial and administrative resources to this area.
- To comply with the rapid digitalisation trend in education, it is necessary to provide support for the development of programmes to improve citizens’ digital skills, incl. the population with low skills.
- Taking into account that in the scientific literature, the concept of “remote learning” is used to organise a short-term learning process remotely in crisis conditions, the terminology in the Education Law of the Republic of Latvia should be clarified, namely, instead of the concept of “remote learning”, the concept of “online learning” should be used, which corresponds to the understanding of the face-to-face education process where information and communication technologies are used.
- To ensure the quality of adult education, it would be advisable to determine the necessary qualification requirements for teachers who can deliver adult education programmes. In order to develop the competencies of adult teachers, higher education institutions should be provided with funding for a continuous supply of andragogy studies and continuous education courses for adult teachers, inc. aimed at developing digital skills.
- Adult education centres should be given a mandate to decide on the form (partly online, fully online, fully in-person) of education to achieve the best learning results. Such an approach ensures that regional adult education centres can also assemble larger groups of learners, as well as attract professional teaching staff.
- It is important to create and publicly share various digital methodical and content materials that could be used by educators during the teaching and learning processes.
- The development perspectives of online education are faced with a common lack of understanding regarding the determination of remuneration for teachers, as it is not clear according to what principles teachers can be remunerated for the work done in preparing various distance learning materials and tasks, providing feedback to learners, etc. Taking into account that a large part of adult education programmes is implemented within the framework of the state order, a unified methodology for paying educators should be developed, which would also be fair to teachers who develop courses or programmes with online learning elements.

Conclusions

- Scientific literature review showed that during the pandemic, the adult education sector experienced unprecedented forced digitalisation. Implications of this transformation are analysed from various perspectives. In general, it is admitted that adult education organised in a distance mode revealed various social and educational inequalities in the population. At the same time, this mode contributed to the improvement of the digital skills of all involved parties, and accessibility to quality education, thereby contributing to the sustainable development of the countries.
- As regards the policy responses to the rapid transformation of adult education, two main approaches were used by the policymakers: the shorter-term approach to react to the crisis situation and transform the teaching and learning processes to remote mode (emergency remote teaching); while the longer-term approach included action by the policymakers that incorporated the concept of online learning in policy documents, national regulation and supporting instruments.
- Referring to the proposed research question, the analysis of the policy response of the Ministry of Education and Science of the Republic of Latvia to the transformation of adult education during the pandemic showed that policymakers used both approaches (longer-term and shorter-term) to comply with the restrictions on gathering and recognise the advantages of the online adult education in the post-covid period.
- In addition, the analysis of the Education Law of the Republic of Latvia showed that the digitalisation tendencies of adult education are not directly incorporated. Due to the pandemic, the concept of remote learning as a part of full-time studies has been introduced by the legislator. According to the latest contributions by academic scholars regarding the terminology of various forms of adult education, the concept of remote learning refers to crisis circumstances instead of a longer-term situation. At the same time, using various legal norm interpretation methods, the author concluded that the legislator aimed to introduce the principle of flexibility in the teaching and learning process. Thereby, in the post-pandemic situation, the legal norm should be adapted to the most recent understanding of education forms. The author suggests using the concept of online learning.
- As regards the transformation of adult education in Latvia, interviewed experts admitted that the pandemic contributed to the digitalisation of the adult education sector. The online component of the adult learning process demonstrated successful learning outcomes, thereby this form will continue developing also after the pandemic. According to experts' opinions, the blended form of adult education would be optimal for adult learners in Latvia. At the same time, the experts indicated that there are various challenges to be addressed within online adult education in Latvia like the quality monitoring system, development and implementation of adult education policy and qualification of teachers.
- In order to ensure the further development of adult education in Latvia that complies with digitalisation tendencies, on the policy level, it is necessary to strengthen the financial and administrative capacity of the structures involved in quality monitoring in adult education. Also, the remuneration system for adult teachers should be adapted to online learning mode and should not be based on contact hours. In addition, various programmes aimed at developing the digital skills of adult learners should be launched. As regards the professional qualification of adult teachers, there should be ensured the availability of programmes for adult educators aimed at the development of their digital skills, pedagogical methods and approaches to various modes of online teaching and learning processes, and andragogy.

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Inga Jekabsone

SUAUGUSIŲJŲ ŠVIETIMO PERTVARKOS POVEIKIS POLITINIAMS SPRENDIMAMS: LATVIJOS ATVEJIS

Anotacija. *Kovid-19 pandemija labai prisidėjo prie mokymo ir mokymosi, įskaitant suaugusiųjų švietimą, skaitmeninimo. Nuo 2020 m. pavasario suaugusiųjų švietimo centrai pertvarkė savo darbo metodus, kad užtikrintų mokymosi proceso tęstinumą. Dėl to, internetinis suaugusiųjų švietimas, kuris reiškia, kad nuotolinio mokymosi proceso metu naudojamos įvairios su internetu susijusios technologijos, patyrė precedento neturintį pakilimą ir pakeitė tradicinį tiesioginio mokymo modelį. Tuo pat metu politikos formuotojai turėjo reaguoti į išorės veiksnius, darančius įtaką suaugusiųjų švietimo sistemos pertvarkai, įtraukdami internetinio švietimo koncepciją į nacionalinius teisės aktus ir politikos dokumentus, taip pat numatydami įvairius paramos mechanizmus. Tyrimo tikslas - išanalizuoti pandemijos sukeltos suaugusiųjų švietimo transformacijos ir politinių sprendimų Latvijoje sąsajas. Naudoti tyrimo metodai: siekdama tyrimo tikslo, autorė naudojo mokslinės literatūros apžvalgą, skirtą naujausioms suaugusiųjų švietimo tendencijoms ir jas lėmusiems politiniams sprendimams analizuoti, ekspertinius interviu su Latvijos suaugusiųjų švietimo specialistais ir doktrininio tyrimo metodą, skirtą nacionalinio reguliavimo, susijusio su suaugusiųjų švietimu, pokyčiams pandemijos metu nagrinėti. Pagrindinės tyrimo išvados rodo, kad suaugusiųjų švietimo transformacija pandemijos metu iš dalies įtraukta į pagrindinius politinius dokumentus ir nacionalinį reglamentavimą. Latvijos politikos formuotojai taikė tiek trumpesnio, tiek ilgesnio laikotarpio metodus, kad atitiktų surinkimo apribojimus ir suaugusiųjų švietimo skaitmeninimo poreikį.*

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AVAILABILITY OF SERVICES FOR FAMILIES OF CHILDREN WITH DISABILITIES IN LITHUANIA BY VIEW OF HEADS OF SOCIAL, HEALTH AND EDUCATION INSTITUTIONS IN THE ALYTUS REGION

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Abstract. *Family support is a crucial component affecting the functioning of parents of children with disabilities within society. Sufficient services that cater to both child support and the parents' quality of life are required, or else the state labor market runs the risk of losing able-bodied citizens who are responsible for raising children with disabilities. Thus, the research has twofold aim: to review the system of public services for families raising children with disabilities in Lithuania, and to analyze the availability of services from the perspective of managers of service-providing institutions. A structured interviews was conducted to collect information from eighteen experts who are heads of education, health and social services departments of municipalities and subordinate institutions, responsible for decision-making in the organization and provision of services to families raising children with disabilities in the Alytus region. According to research findings, the Alytus region has the potential to provide education, healthcare, and social services following legal provisions. However, the current range of services is inadequate in practice. Typically, most services are available only upon parental request for children with disabilities, with certain services not being available for numerous reasons. Based on the research findings, the insufficient provision of services in the Alytus region is mainly attributable to a shortage of service staff and limited financial resources. At the same time, the study highlights a slow responsiveness of the municipalities and their subordinate entities towards communicating and collaborating, as well as with parents of disabled children.*

Keywords: *availability of public services; families of children with disabilities; social inclusion; family-centred social policy; municipalities; Lithuania.*

Reikšminiai žodžiai: *viešųjų paslaugų prieinamumas; vaikus su negalia auginančios šeimos; socialinė įtrauktis; į šeimą orientuota socialinė politika; savivaldybės; Lietuva.*

Introduction

State services for families raising children with disabilities are essential to enable them to function effectively in society. The birth of a child with a disability changes the entire family dynamic, altering both parental responsibilities and commitments. In many cases, one of the parents gives up his or her career to care for the child (Samsonienė, 2017), putting the family on the edge of social and economic survival (Piščalkienė, 2019; Grigaitė, 2020). To retain working citizens in the labor market, families of children

with disabilities (CWD) require a diverse range of services tailored to both the children and their parents. Despite the significance of services to families of CWD and to the national economy, the sufficiency, availability, and accessibility of services are understudied by both researchers and service providers. The knowledge gap is relevant in many countries. Hu (2022), Bourke-Taylor (2021), Stefanidis (2022), and others have emphasized the need for research to prioritize the importance of providing comprehensive support to families of CWD and to dispel the idea that meeting the needs of children with disabilities is synonymous with meeting the needs of families raising CWD.

Assistance for families with CWD is provided in Lithuania in the areas of social services, health and education. However, almost all services are focused on helping the child, while the needs of the family, and especially the parents, are often overlooked. Support for parents of CWD is integral to the wellbeing of all family members (Dizdarevic, 2020; Chastang, 2022; Staunton et al., 2023; Fu et al., 2023). Whereas untimely assistance negatively impacts family relationships and leads to various health disorders among family members (Akavickas, 2021; Baranauskienė, 2021; Savari et al., 2023). In other words, a lack of services for families raising CWD can increase the risk of social exclusion for the entire family. Therefore, the paper aims to review the system of services for families raising children with disabilities in Lithuania, and to examine the availability of services from the perspective of managers of service-providing institutions.

Since services for families with CWD are planned and provided by the municipal departments and subordinate institutions, the interview with managers can reveal how the professionals on whom the range and availability of services depend perceive their role and the contribution of their organization. With this task in mind, structured interviews were conducted and information from eighteen experts was collected. Officials from education, health, and social services departments in municipalities and subordinate institutions with responsibility for decision-making related to organizing and providing services for families raising children with disabilities in the Alytus Region, Lithuania, shared their views.

The article is divided into three main sections: a theoretical examination of the state service system for families with CWD, a presentation of the empirical research methodology, and an analysis of the research results. The research findings are summarized in the conclusions section.

Public services for families raising children with disabilities: some highlights

Parents of CWD face unique challenges compared to parents raising children with typical development. It has been established that parents provided with greater support experience lower parenting stress and vice versa (Zhao, 2021; Savari et al., 2023). Unfortunately, assistance and support systems for families raising CWD are not always adequate, responsive to circumstances, or contemporary. As a result, some countries have developed specific procedures aimed at continuously assessing service needs and accessibility. For example, in the United Kingdom and the Netherlands, there is a centralized system of services for families, the effectiveness of which is regularly analyzed (Johansson, 2020). Meanwhile, in Sweden, a model is applied that ensures interventions support service quality: services are provided systematically, continuously developed and evaluated, and maintain order from input to output according to client needs (Nordesjö, 2020). Other Nordic countries emphasize more on the “enabling policies” model, where services are planned in the long-term perspective. Developing the “enabling policies” model aims to educate parents better, foster their independence, provide childcare services, and offer financial support (Cantillon, 2021).

In addition, in many countries, parents of CWD have the right to request that their child’s needs be assessed by social services. This is the first step in determining what kind of assistance and support the family may require. Parents’ ability to request support and express family needs fosters stronger parental independence and better understanding of the country’s service system capabilities (Huus, 2017; Fu et al., 2023). Conversely, families raising CWD who avoid seeking support often opt for informal sources of support (Park, 2022). These informal sources may not be as effective as public services.

Generalizing, there exists a range of services and organizational models for families with CWD available in various countries (Figure 1).

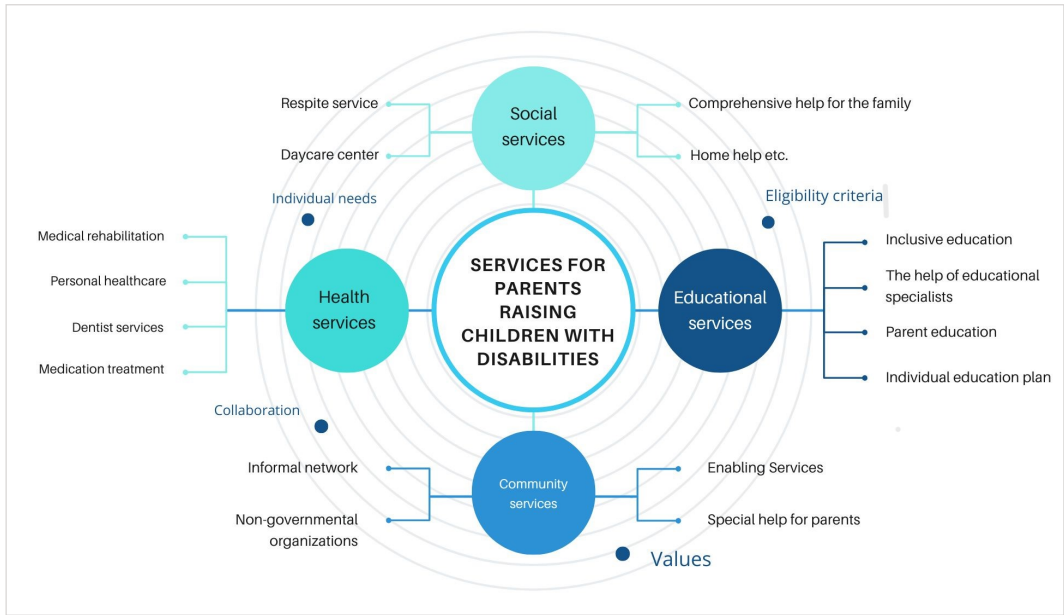


Figure 1. Theoretical perspective on the service system for families raising children with disabilities.

Source: Compiled by the authors, based on Huus, 2017; Nordesjö, 2020; Johansson, 2020; Zhao, 2021; Cantillon, 2021; Park, 2022; Fu et al., 2023; Savari et al., 2023).

For the state-provided service system to be effective for families raising CWD, it is crucial to address the needs of both the child and the other family members. Nevertheless, there is a lack of both research and practice on this issue.

State-provided service system for families raising children with disabilities in Lithuania

Social services

In Lithuania, social services aimed at preventing the emergence of social risk for individuals, families, or communities or aiding a person or family due to age, disability, social risk, etc., are regulated by the Catalogue of Social Services (Dėl Socialinių paslaugų [...], 2022).

The basic service package for families consists of 14 services (see figure 2) (Dėl Socialinių paslaugų [...], 2022). The country's municipalities are responsible for providing these services. They must identify the needs of families and ensure that they receive the necessary services. If a specific service is not provided in the municipality, the municipal administration must organize transportation and ensure that the service is provided in another municipality (Dėl [...], 2022).

Despite the advantages, there are shortcomings in the social services sector. The report of the Ombudsman for the Protection of the Rights of the Child for the year 2021 indicates that 75% (45 out of 60) of municipalities do not analyze information on the need for service development for parents whose child

has been identified with a protection or family and child support need. The report notes that not all social services for families are analyzed in the municipal social service plans, and 27% of all municipalities did not provide some of the basic services for children or parents specified in the legal acts. Municipalities cited a lack of funding and infrastructure deficiencies as the reasons (Lietuvos Respublikos vaiko teisių [...], 2022).

On the other hand, there is a clear management issue: in 2021, each municipality, together with non-governmental organizations and other social partners, had to perform a service accessibility analysis. Unfortunately, only 10 municipalities assessed the need for additional/new social services and planned steps for the development of services for families with disabled children. In the remaining 50 Lithuanian municipalities, such a need for social services was not assessed. As a result, it is understandable that families with disabled children may lack services.

Health Services

Health services in Lithuania for families with disabled children are provided according to areas of activity such as personal health care, public health care, and others. Services for families with disabled children are provided in medical institutions, public health offices, and private sectors.

In Lithuania, family medicine services are more focused on solving health problems rather than strengthening or preserving health. Moreover, the services provided by family doctors, dentists, and mental health specialists have not been coordinated at the patient level, and their provision is still not systematic. A family doctor, pediatrician, or other specialist physician, having identified a child's developmental disorder or developmental disorder risk, can refer patients to a physician providing early rehabilitation services for children with developmental disorders (Lietuvos Respublikos sveikatos apsaugos [...], 2023).

Families with CWD can also take advantage of medical rehabilitation services. Medical rehabilitation is a comprehensive set of medical rehabilitation methods, such as physiotherapy, occupational therapy, clinical speech therapist services, selection and adaptation of orthopedic and technical aids, psychological and social support, therapeutic massage, physiotherapy, drug treatment and diet, and training of patients and their relatives (Dėl vaikų raidos sutrikimų [...], 2018). It is important to note that after completing medical rehabilitation, parents receive knowledge and information about the child's disability and adaptation to it (Dėl medicininės reabilitacijos [...], 2022).

Finally, preventative healthcare occurs at the local government level, with public health offices providing these services. It is pertinent to note that health specialists operate in educational institutions and must give special consideration to children with individual needs in accordance with applicable legal provisions.

Education Services

According to Article 24 of the United Nations Convention on the Rights of Persons with Disabilities, children with disabilities have the right to learn, develop their skills, and talents. Due to disability, children cannot be excluded from schools or other educational institutions; they have the right to acquire free compulsory primary or secondary education. The Convention on the Rights of Persons with Disabilities states that learning conditions must be adapted to the specific needs of a child with a disability, and parents must be informed about it. However, parent surveys show that it is difficult to find a mainstream school adapted for children with disabilities (Raudeliūnaitė, 2022). The situation in quantitative terms is good: currently, about 90% of children with special educational needs study in mainstream classes and kindergarten groups with their peers. Unfortunately, to ensure the successful functioning of a child with a disability in society, parents face obstacles and challenges in ensuring proper inclusion in educational institutions.

Summarizing the availability of social, education, and health services for families with children with disabilities according to the current legal framework, the opportunities for assistance for the child are quite extensive. However, these services are less oriented towards providing support to the family members or parents of the child with a disability (Figure 2).

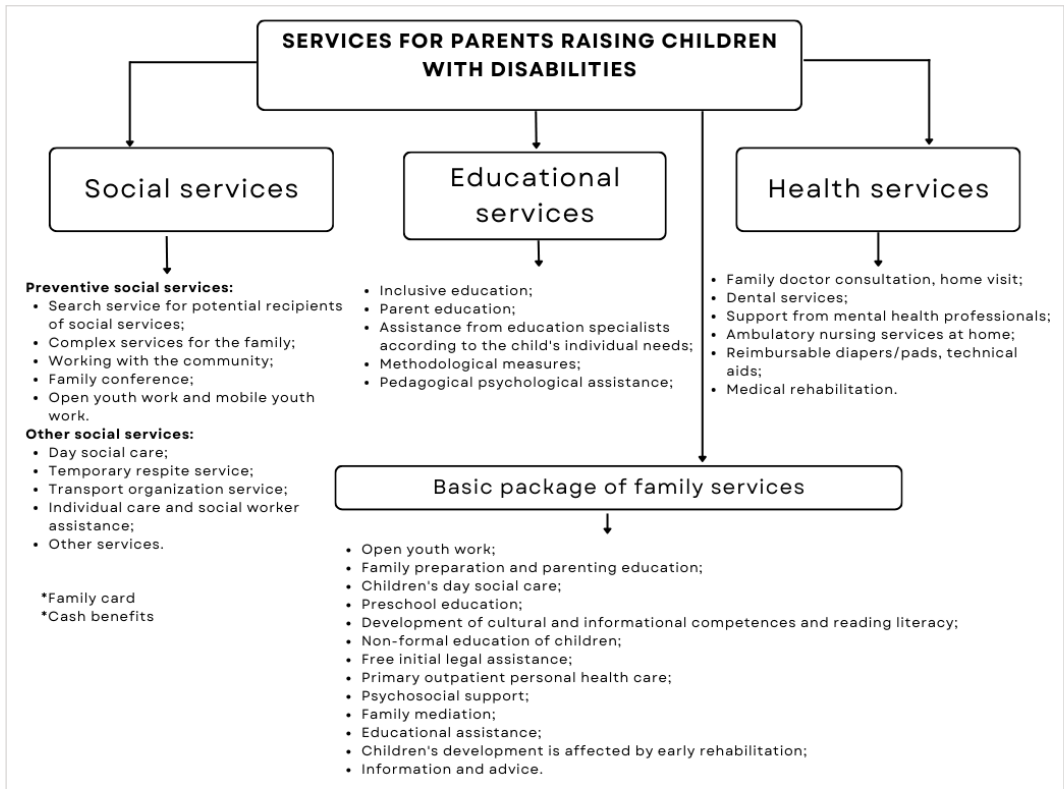


Figure 2. Services for families raising children with disabilities in Lithuania.

Source: Compiled by the authors.

In Lithuania, there is an Inclusive Education Center that provides individual counseling to students, their parents, and teachers (Itaukties švietime plėtros gairės, 2022). According to the legal regulation, parents of children with disabilities must participate in providing all educational psychological support and be part of the school team. Parents are especially important participants in providing education services to children with disabilities.

As can be seen, the current legal acts governing the accessibility of social, educational, and health services for families with children with disabilities provide a relatively broad scope of assistance for the child. Still, their focus on supporting the family members or parents of the disabled child remains weak. Furthermore, although there are legal provisions and other official documents that suggest that children with disabilities in Lithuania should receive extensive assistance, the activity report of the Child Rights Protection Controller of the Republic of Lithuania in 2021 (Lietuvos Respublikos vaiko teisių [...], 2022) casts doubt on the system's efficacy. To determine the factors contributing to the insufficiency in the availability and accessibility of government services for families with CWD, we conducted interviews with the heads of social, educational, and healthcare institutions within the municipalities of Alytus Region. The outcomes of these interviews are outlined below.

Methodology

There are a total of 10 regions in Lithuania, encompassing 60 municipalities. The chosen region for the study is the Alytus region, which includes four municipalities – Varėna District Municipality, Druski-

ninkai Municipality, Lazdijai District Municipality, Alytus City Municipality and Alytus District Municipality. For the research, the Alytus region was chosen to represent the Lithuanian context. Notably, the distribution of municipalities within this region that have assessed the sufficiency of public services for families with CWD compared to those that have not conducted an assessment reflects the national situation. In Lithuania, just 10 out of the 60 municipalities have evaluated the sufficiency of education, health-care, and social services for families who raise children with disabilities. One of the four municipalities in the Alytus region has conducted the aforementioned analysis. Thus, the Alytus region has the potential to serve as a representation of the situation throughout the country.

The research included 18 leaders of education, health and social services departments and institutions in the municipalities of the Alytus region, who are responsible for decision-making in the organization and provision of services to families raising CWD. During the interview, we aimed to collect information regarding the availability of services, the involvement of stakeholders in decision-making, and the availability of assistance in municipalities for families with children with disabilities.

Research data was collected in March-April 2023. Verbal consent to participate in the study was obtained from all participants and is stored with the interview data in an audio file in a password-protected folder by the authors of this study. When reporting the results of the interviews in the paper, the interviewees were coded with a letter C followed by a unique number of the informant. This anonymization approach maintains the confidentiality of the participants. When presenting the findings of the study in the paper, the sectors represented by the interviewees are indicated by abbreviations: education services (ES), social services (SS) and health services (HS) (Table 1). In this way, ethical principles of the research were respected.

Table 1. Information on study participants

No.	Municipality	Position	Represented Service Area
1	A	Head of the Education Department (C ¹)	EP (Education Services)
2		School Principal (C ²)	EP
3		Head of the Social Support Department (C ³)	SP (Social Services)
4		Municipal Doctor (C ⁴)	HSP (Health Services)
5		Head of the Public Health Office (C ⁵)	HSP
6	B	Head of the Education Department (C ⁶)	EP
7		School Principal (C ⁷)	EP
8		Head of the Public Health Office (C ⁸)	HSP
9		Head of the Social Support Department (C ⁹)	SP
10	C	Head of the Education Department (C ¹⁰)	EP
11		School Principal (C ¹¹)	EP
12		Municipal Doctor (C ¹²)	HSP
13		Head of the Public Health Office (C ¹³)	HSP
14		Head of the Social Support Department (C ¹⁴)	SP
15		Head of the Social Services Center (C ¹⁵)	SP
16	D	School Principal (C ¹⁶)	EP
17		Head of the Education Department (C ¹⁷)	EP
18		Head of the Social Support Department (C ¹⁸)	SP

A structured interview was the method for collecting research data. During the interview, six open-ended questions were posed: 1) What services in your represented area (education, health or social) for families with CWD are provided in the municipality? 2) Has a needs analysis been conducted in your area for a service catering to families with CWD? 3) How frequently and in what circumstances do parents of CWD contact your institution for services? 4) How is information about the institution's services conveyed to families with CWD? 5) How is it determined which services CWD families lack? 6) How is collaboration between service provider institutions and decision-making institutions for service development and funding carried out? The questions were initially presented orally and subsequently sent to participants by email, requesting comprehensive written responses.

The data collected has been analyzed using content analysis. The findings from the research are displayed in tables and written form throughout the paper.

Research Results

Initially, the analysis was focused on the provision of educational services for families with CWD. According to interview results, institutions are theoretically capable of providing services as required by legal acts; however, the availability of educational services is limited by constraints in four areas: lack of inter-institutional cooperation, lack of cooperation with CWD parents, lack of funding for services, and lack of specialized skills in educational institutions (Table 2).

Table 2. Availability of education services for families with CWD

Category	Subcategory	Supporting Quotes
Advantages of Education Services for Families with CWD	Institutions are prepared to provide services mandated by law	"[Provided] general and non-formal education services" (C ¹); "[Implemented] educational assistance - special pedagogical, social pedagogical, speech therapy, psychological <...> summer rest programs" (C ⁹); "A family centre has been established where assistance is provided, and family employment is organized" (C ⁶); "[There are] non-formal education groups organized by non-governmental organizations" (C ²); "Psychological well-being enhancement services are offered - individual consultations or group activities led by a psychologist" (C ⁷).
Constraints of Education Services for Families with CWD	Insufficient inter-institutional cooperation	"I had to cooperate only in one case" (C ⁶); "I don't know because I haven't participated in any format of cooperation events" (C ¹⁰); "First of all, communication between all responsible institutions and dissemination of information is needed" (C ⁶).
	Lack of cooperation and communication with parents of CWD	"[Parents] rarely contact the municipality" (C ¹); "Very rarely <...> over 5 years, when I work as a director, one mother contacted me" (C ⁷); "They contact us infrequently, 2-4 parents per year" (C ¹⁵).
	Limited funding for services	"There should be more funding and assistance for teachers who want to retrain as special educators" (C ²); "The school environment and shelter are not adapted for children with movement or other disorders and disabilities" (C ³); „Everything depends on the allocated funding“ (C ⁶).
	Shortage of specialists	„There is a lack of employment centers and employees who would provide non-formal education services offered by functioning institutions.“ (C ⁹); „Competent teachers' assistants (rather than those with only a secondary education from the streets)“ (C ²).

The study showed that educational institutions provide non-formal and general education assistance to CWD and identify it as the main activity for this group of education service recipients. Regional municipalities pay varying attention to discussing problematic situations and searching for solutions - some organize meetings periodically, for example, every month, while in other municipalities, meetings to discuss current issues of activities do not take place at all. It turned out that meetings are organized more frequently in the education departments of the surveyed municipalities and less frequently in the education institutions subordinate to municipalities. In other words, service providers and decision-makers have poor collaboration. Respondents emphasized the importance of parents' role in applying for service accessibility, but cooperation between education service providers and CWD families is weak. On the one hand, education department and school leaders noted that parents of CWD rarely apply for educational services. On the other hand, according to survey participants, parents have the freedom of choice, which they use irresponsibly: they do not follow the recommendations of specialists, making cooperation between specialists and parents difficult. Meanwhile, parents who apply to the municipality usually seek the services of a speech therapist, occupational therapist, physiotherapist, psychologist, special educator, or personal assistant. Unfortunately, there is a shortage of specialists. According to study participants, there is a lack of special assistance specialists, employment specialists, or competent teacher assistants. Respondents identified insufficient state funding for education and improper municipal budget allocation, where priority is not given to the provision of educational services in the municipal activities' portfolio, as the cause of the problem.

Next, the interview results in the field of health services provided to families with CWD were analyzed. According to the legislation, municipalities should ensure rehabilitation, primary and secondary health care services, as well as mental health care services for families raising CWD. Despite this, in most regional municipalities, these services are not actually provided, and the need for services is not investigated. Services are given only when parents apply for them themselves.

Information dissemination about health services for families with CWD is also limited. Parents can learn about available services on the websites of the municipality or health care institutions, from brochures distributed in health institutions, or by communicating with other parents of CWD. Thus, access to health services for families with CWD is complicated, institutions only formally offer services regulated by legal acts (Table 3).

When analyzing the availability of social services, it was revealed that preventive, general, and specialized services are provided to families with CWD in all regional municipalities. However, informants admit that there is a lack of inclusive children's day centers, self-help groups for parents, psychological and psychosocial support, and temporary respite services for parents raising CWD. On the other hand, not all shortcomings could be revealed during the study, as interview participants stated that comprehensive studies and analysis, which would help identify the need for social services, are not carried out in municipalities. As mentioned earlier, only one of the municipalities included in the research conduct a service needs assessment periodically.

Like educational services, social services for parents raising CWD are provided only when the family applies to the eldership, social assistance department, or other institutions. Meanwhile, information dissemination about social services for families with CWD is carried out passively in institutions. The main information channel about services for CWD remains communication in social networks, where parents share their experiences and institutions' websites. Parents can also consult with specialists about services, but overall, there is no unified and easily accessible information about social services provided by municipalities and their subordinate institutions (Table 4).

Overall, the interviews indicated that the educational, health, and social services for families with CWD are not provided as required by law and local regulations. The primary causes of service constraints include the slow distribution of information between institutions and families with CWD, inadequate collaboration within institutions and with parents of CWD, the shortage of service-providing professionals, and insufficient institutional funding.

Table 3. Availability of Health Services for Families with CWD

Category	Subcategory	Supporting Quotes
Advantages of Health Services for Families of CWD	Empowerment and inclusion of institution leaders in decision-making	“A meeting is organized every month with an external consultant - supervisor, so that each institution knows more specifically not only its functions and roles, but also the services provided by other institutions operating in the municipality <...> an algorithm for inter-institutional cooperation in the municipality is being created” (C1)
		“Cooperation between education, social and health sector specialists to expand and improve services for parents raising children with disabilities takes place on an ongoing basis by addressing current issues and problems directly, in the Child Welfare Commission, in the Non-Governmental Organization Council, by applying case management to families and participating institutions in joint training and supervision” (C13)
Constraints of Health Services for Families with CWD	Lack of services	“There are almost no services specifically for parents raising children with disabilities <...> only generally available lectures, psychologist consultations, exercise for adults are carried out” (C12)
		“We do not collect statistics on counseling for parents and/or children with disabilities” (C7)
		“There is a lack of occupational therapist, physiotherapist, neurologist, psychologist, special educator <...> there are no specialists at the national level” (C1)
	Involvement in providing health services	“There are requests from parents to accept children with disabilities into summer camps, but we do not have the opportunity to assign an assistant to such a child unless the parents participate together” (C12)
“If there are no specialists, the service is not provided in such a case <...> too much decision-making freedom is given to parents rather than competent specialists who write recommendations, which often remain only as recommendations” (C10).”		

Table 4. Availability of Social Services for Families with CWD

Category	Subcategory	Supporting Quotes
Advantages of Social Services for Families with CWD	Provided and organized services	“Children’s day social care, complex services for the family, personal assistant assistance, social care and rehabilitation in the disabled day center, ‘child +’ service, escort service for young people <...> services can be received by both healthy children and children with disabilities” (C13)
		“In the municipality, there is an opportunity to receive all social services that are regulated in the social services catalog” (C8)
		“Preventive services, general social services, special social services <...> the municipality organizes housing adaptation for children with disabilities” (C3)
		“General and special services <...> social care and social guardianship” (C14)

Category	Subcategory	Supporting Quotes
Constraints of Social Services for Families with CWD	Limited resources and resources	“There is a lack of inclusive children’s day centers, self-help groups for parents, psychological and psychosocial assistance.”
		“There is a need for psychologists to be attracted and trained in the preparation and implementation of training programs in the municipality.”
		“There is a lack of specialists speaking Russian.”
		“Temporary respite services.”
	Lack of service needs analysis	“Collecting and systematizing data on the number of children with disabilities according to the nature of disability and other indicators from publicly available sources <...> conducting surveys of residents, social service providers and various institutions on the need for social services.”
		“Parents or other persons contact us themselves.”
		“The need for social services for children with disabilities is determined by social workers in their place of residence.”
	Complicated accessibility of information	“Some parents <...> avoid contacting specialists, do not trust institutions and service providers or know little about what assistance might be due.”
		“Parents receive information about social services from the Disability and Working Capacity Assessment Service when a child is diagnosed with a disability <...> When submitting an application for targeted compensation, all information about social services is provided in the municipality <...> all information is provided by social work organizers working in wards.” “[Information can be found] on the Internet, in the press, through acquaintances.” “You can find out directly by contacting the ward, on the municipality’s website.”

Conclusions

The investigation has revealed that the educational, health and social services listed in the documents of the municipal institutions in the Alytus region comply with the legal requirements. However, families with CWD are often only able to access the services they need when parents take the initiative to proactively apply to the relevant agency; otherwise, the services might not be available to the clients altogether. Periodic surveys of parents raising children with disabilities are recommended to gauge the need for services. In addition, it is important to ensure improved availability of information about services provided in the municipality to families with CWD.

What is more, the study highlighted that insufficient staffing and limited institutional funding often result in a shortage of services for families with CWD. Also, the investigation revealed insufficient communication and collaboration between municipalities, their subordinated institutions, and families raising CWD, impeding the effective provision of the necessary services. Taking into account the results of the study, it is recommended to strengthen cooperation in the health, education and social sectors.

In summary, whilst legal regulations provide families raising children with disabilities with a range of support options, the accessibility of such services is limited. Therefore, extensive research involving parents on a large scale is required to better understand the limitations of the services available and accessible to families with CWD.

Limitations of the study

The limitations of this study highlight opportunities for future research. We conducted our research based on the perceptions of the heads of education, health, and social services departments of four municipalities and their subsidiaries. A manager's view of the availability of service may not align with the collective view, thus such subjective evaluations may not represent the views of other stakeholders. As the research has relied solely on the viewpoints of managers, however, it is suggested that future studies should include institutional leaders and service users, particularly parents of children with disabilities.

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PASLAUGŲ PRIEINAMUMAS TĖVAMS AUGINANTIEMS VAIKUS SU NEGALIA, REMIANTIS ALYTAUS REGIONO SOCIALINIŲ, SVEIKATOS IR ŠVIETIMO ĮSTAIGŲ VADOVŲ POŽIŪRIU

Anotacija. *Parama šeimai yra esminis komponentas įtakojantis tėvų auginančių vaikus su negalia dalyvavimą visuomeniniame gyvenime. Reikalingos paslaugos, kurios atitiktų tik vaiko išlaikymą, tiek tėvų gyvenimo kokybę, antraip valstybė netenka darbingų piliečių, kurie lieka atsakingi tik už vaiko su negalia auginimą. Tyrimo tikslas yra dvejopas: apžvelgti viešųjų paslaugų šeimoms, auginančioms vaikus su negalia, sistemą Lietuvoje ir išanalizuoti paslaugų prieinamumą paslaugas teikiančių įstaigų vadovų požiūri. Buvo atliktas struktūrinis interviu, kurio metu buvo surinkta informacija iš aštuoniolikos ekspertų, kurie yra savivaldybių ir pavaldžių įstaigų švietimo, sveikatos ir socialinių paslaugų skyrių vadovai, atsakingi už sprendimų priėmimą organizuojant ir teikiant paslaugas šeimoms, auginančioms vaikus su negalia Alytaus regione. Tyrimų duomenimis, Alytaus regionas turi potencialą teikti švietimo, sveikatos priežiūros ir sociali-*

nes paslaugas pagal teisės aktų nuostatas. Tačiau dabartinis paslaugų spektras nėra pakankamas praktikoje. Dauguma paslaugų vaikams su negalia yra prieinamos tik tėvų prašymu, o kai kurios paslaugos nėra prieinamos ir poreikis lieka nepatenkinamas dėl daugelio priežasčių. Remiantis tyrimo išvadomis, nepakankamas paslaugų teikimas Alytaus regione daugiausia susijęs su aptarnaujančio personalo trūkumu ir ribotais finansiniais ištekliais. Kartu tyrime pabrėžiamas lėtas savivaldybių ir joms pavaldžių subjektų reagavimas į bendravimą ir bendradarbiavimą tarpusavyje bei su tėvais auginančiais vaikus su negalia.

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TRANSHUMANCE CRISIS AND FOOD SECURITY ISSUES IN SOUTHEAST NIGERIA: IMPLICATIONS FOR SUSTAINABLE DEVELOPMENT

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Abstract. *Food security in sub-Saharan Africa in recent history is beginning to experience alteration due to some factors such as transhumance-related crises in the region. Although transhumance is an age-long practice among developing nations, especially in sub-Saharan Africa, its relationship with farming and agricultural sustainability has gradually changed due to increasing politically motivated resource-access crises in the region. In this study, we investigated transhumance-related resource-access crises and food security management in southeast Nigeria. The study sample is made up of 625 rural farmers domicile with farmers' cooperative societies in the region. The study was guided by the Resource-Access Theory and survey research design; a questionnaire instrument was used in data gathering while percentage, correlation and regression statistics were deployed to assess the collected data. Among the major findings of the study, transhumance-related conflict negatively correlated with the four dimensions of food security in the region such as food production (p.000, r = -.386), food availability (p.000, r = -.325), food accessibility (p.000, r = -.376) and food stability (p.000, rho = -.389). Rural-urban food circulation is predicted by open grazing, herdsmen encroachment into the farm, farmers/herders clash, climate change indicators (***) p<.000, R²=.791), while agricultural sustainability is predicted by the age of the respondents, open grazing, herdsmen encroachment into the farmland, farmers/herders clash, climate change indicators as well as desertion of farmland because of herdsmen attacks (***) p<.000, R²=.876).*

Keywords: *transhumance-related crises, resource-access crises, food security management, climate change, agricultural sustainability, rural-urban food security.*

Reikšminiai žodžiai: *su ganyklomis susijusios krizės, išteklių prieinamumo krizės, aprūpinimo maistu valdymas, klimato kaita, žemės ūkio tvarumas, kaimo ir miesto aprūpinimas maistu.*

Introduction

Pastoralists and farming communities across the world have lived in the ancient times and the current historical epoch in more of a symbiotic relationship than a saprophytic relationship, owing to the indispensability of their essences to each other. While in the developed nations the closeness between the pastoralists and the farming communities has been drastically reduced by industrialization and advanced farming and herding techniques, in recent times in the developing nations such as in sub-Saharan Africa, the situation is more of crude nature and retains largely the closeness of the herders and the farmers in the rural communities where majority of the agricultural activities took place (Turner & Schlecht, 2019; Udeagbala, 2020; Okafor et al., 2023). This constant closeness has been exploited over the years by the duo with the absence of or minimal conflicts however, in recent times there has been a change in the indicators of this relationship with unwanted outcomes across sub-Saharan Africa (Krätli & Toulmin, 2020).

Due to poverty in sub-Saharan Africa, livestock management by seasonal movement has remained a dominant form of herds business with some socioeconomic implications (Gentle & Thwaites, 2016). These movements of livestock are adapted to areas where natural resource availability varied in time and space (Niamir-Fuller, 1999). Transhumance although underestimated across the globe, is one of the vital aspects of the economy of most developing nations, but it much depended on open grazing.

The transhumance form of livestock business is largely found in Africa, where about 268million pastoralists are engaged in the business, covering about 43% of the African land mass. Nonetheless, the livestock business is part of the agricultural sector, and contributes to approximately 40 to 50 percent GDP of the economy of most of the developing nations largely located in the African Sahel region; these contributions come as the wealth from animal products such as leather, milk, etc. (Food and Agricultural Organisation, 2019).

Majority of the population of sub-Saharan Africa nations, especially in the rural communities are herders and farmers per occupation (Nwakanma & Boroh, 2019; Food and Agricultural Organisation, 2015), prompting the ever-increasing incidences of herders/farmers clashes in the rural communities across the region. With the weak governance and compromised ethnic and religious interests, the nomenclature of the relationship between the herders and farmers has gradually changed, triggering constant tensions across the region (Brottem, 2021; Dimelu, Salifu, Enwelu & Igbokwe, 2017).

The herders/farmers conflicts, which are the outcome of the winding down of the symbiotic relationship between the duos, have resulted in a number of socioeconomic crises. Such crises as killings, destruction of properties and farmlands, devastation of the farmers from their farmstead and ancestral land, distortion of industrial activities and foreign investors, etc, have all impacted negatively on the Gross Domestic Products (GDP) of many sub-Saharan African nations (Yakubu et al., 2020; Okoro, 2018; Okafor et al, 2022). More importantly, the situation in some cases has developed into full-blown wars and ethnic cleansing across the region with lasting impacts on the economy such as in the area of food security (Antwi, 2018; Obasanmi & Enoma, 2022).

In Nigeria, herders/farmers conflicts over the years have lingered in northern Nigeria with Fulani ethnic group and others. While Fulani ethnic group is mostly known with cattle rearing business in the region, other ethnic groups in the region including Fulani are mostly known with farming business.. Lately, the herders/farmers clashes have shifted towards the southern axis such as southeast Nigeria where relatively significant percentage of the population is in the farming business, both subsistence and commercial farming (Gever & Essien, 2017). Across the Nigerian southeast region in recent times, poor governance compromised ethnic interests, and religious interests have gradually rubbed off the taste of a symbiotic relationship between the pastoralists and the farming communities, bringing undesirable results (Apeh, Opat, Amaechiand & Njoku, 2021).

There has been an increase in the influx of herders into southern Nigeria with most of them settling in southeast and southwest Nigeria. This has been attributed to the increase in the impacts of climate

change, which has started surfacing aggressively in northern Nigeria with drought and other indicators (International Crisis Group, 2018). While a number of studies have supported climate change as a culprit in the recent change in transhumance, especially in sub-Saharan Africa (Akinyemi & Olaniyan, 2017; Abugu, Bello, Odele & Amahagbor, 2021; Okafor et al., 2023; Onuoha & Ezirim, 2015), other studies have attributed the change in transhumance in the developing nations such as in sub-Saharan Africa to the poor governance and overriding interests of ethnicity and religion among these nations such as in Nigeria.

With the increase in transhumance in recent times towards southeast Nigeria, there have been incidents of transhumance-related conflicts such as the destruction of farm lands, killings, destruction of properties, rape and other criminal activities across the states in the region. These herdsman take their livestock direct to feed on farm lands, destroying farm crops. They also convey their livestock on foot within rural settlement, urban centres thereby causing obstruction in the communities. When the residents complained, fights erupt, leading to killings. A number of studies have shown that in recent times across the southeast Nigerian region, herders/farmers conflicts have increased resulting to the destructions of properties and farmlands in such states as Enugu, Imo, Ebonyi, Abia and Anambra (Okafor et al., 2022). These transhumance-related conflicts have been attributed to certain factors relating to human behavioural dispositions including, struggle for access to natural resources, population explosion, climate change crises, political instability, ethnic rivalries as well as the clash of globalization and traditional mechanisms. These have invariably affected the global and regional efforts for sustainable peace and food security.

As part of the ongoing global agenda, the United Nations has set out among other 17 agenda, three (3) specific agenda to achieve sustainable development through Ending poverty in all its forms everywhere-goal-1, Ending hunger, achieving food security and improved nutrition, and promoting sustainable agriculture-goal-2 and Ensuring sustainable consumption and production patterns-goal-12. These goals are dependent mostly on the rural farmers in the developing nations such as Nigeria, where majority of the rural population depended on farming and produce over 60% of the foods consumed in the rural communities as well as the urban communities alike. The increase in the herders/farmers conflicts in southeast Nigeria has resulted to untold hardship and challenges both to the farmers and the general public with such indicators as alteration of food production, food availability, food accessibility, and food stability in the region (Oli, Ibekwe & Nwankwo, 2018; Oti, Onyia & Umoinyang, 2017). One notable effect of transhumance-related conflict in Nigeria is the alteration of food security mechanism in southeast Nigeria. Herding and farming businesses are sacrosanct in the survival of the population and economy of the sub-Saharan African nations; this is evidence in the nutritional needs of household of these nations being met by herders and farmers alike. Meeting the dietary needs of the population at the individual, household, national and global scales, which is one of the major agenda of the United Nations is a subject to the physical and economic access to food products from near and far depending on their locations.

Different researchers have explored the issue of transhumance-related conflicts in southeast Nigeria from different dimensions with different results. However, much are yet to be empirically explored on the effect of transhumance-related crises in view of the four dimensions of food security (food production, food availability, food accessibility and food stability) in the region. The recent surge in food insecurity in southeast Nigeria both in the urban and rural areas has been connected to the timeline of herdsman invasion of southeast geopolitical zone of Nigeria. The farmers are destabilized from their farms in the rural communities by the activities of herdsman, which has far reaching implications to the overall processes of food insecurity. The regional and interregional transportation networks through which food is moved from one state to another has been entirely disrupted by the herdsman insecurity activities thereby hampering food accessibility among the population; and, the price of food items in the market has obviously been unstable with price fluctuation due to the scarcity of food items. All these crises, which are connected to food security, have not been specifically investigated with population based survey research. Owing to the need for population-based empirical substantiation of the cause-effect relationship between resource-access crises and food insecurity for sustainable policy intervention and contribution to the on-

going global discuss on food security, the present study has been designed to dig deep into the indicators of reoccurring resource-access crises and the emerging food insecurity in southeast Nigeria. The study investigated the relationship between environmental-related conflicts and the four dimensions of food security. Equally, the study investigated the predicting factors to food insecurity in southeast Nigeria. These were carried out with the aid of survey design and correlation statistics specifying the relationship of the interest variables. The investigated variables in the study showed the strong relationship between the indicators of environmental-related conflicts and the food security indicators as well as climate change social indicators and the food security indicators. Having introduced the study, other sections of the study included research questions, theoretical framework, research methodology, findings of the study, discussion and conclusion.

Research Questions

The study was guided by the following research questions:

RQ1 What is the correlation between transhumance-related crises and the four dimensions of food security in southeast Nigeria?

RQ2 What are the factors affecting rural-urban food circulation management among the rural farmers in southeast Nigeria?

RQ3 What are the predictors of agricultural sustainability among the farmers in southeast Nigeria?

RQ4 What are the implications of transhumance-related resource-access crises in southeast Nigeria to agricultural-associated sustainable development goals?

Theoretical Framework

This study was guided by Resource Access Theory by Ribot and Peluso (2003). The theory was propounded in 2003 as analytical framework and thesis to understand the invisible forces of crises between resource availability and access to such resources. Central to the human existence and survival, is the question of resources and access to the available resources among a given human population. As the nature and nomenclature of resources changes with context and time, access to resources becomes dynamic in view of the obtainable among the population. The theory of access as was propounded by Ribot and Peluso (2003), points to the inalienable circumstances surrounding access to resources in the society among the given population. Basically, according to Ribot and Peluso (Ribot & Peluso, 2003), the composition of access to resources included location and schema of the dimensions and web of benefits of the resources to the interested individual/group, identification of the system of gain, control and maintenance of the flow, and distribution of benefits by the involved actors. It also involves the understanding of the power relations obtainable in the system regarding the available benefits.

Mechanism of access according to Ribot and Peluso includes the right based access and illegal access, which are captured in the knowledge, capital, market, authority, labour, technology, identities and social relations. While the right-based access according to Ribot and Peluso is the right sanctioned by the state and society through laws, norms, conventions and tradition, illegal access is on the contrary, the enjoyment of access not socially sanctioned by the society and the state. In any case, illegal access is operated through coercion and other compelling means other than socially verifiable and acceptable means among the population. According to the access resources framework, access to the available resources can be facilitated by right-based or illegal access, which are dependent on knowledge, authority, technology, labour, market capital, identity and social relations.

When individuals or group have knowledge of the available resources and the benefits thereof, they tend to utilize this knowledge to take upper hand in the setting; this also applies to having technology and capital that exploits opportunities and resources as the possessors of the technology are bound to overtake the handicapped. In identity and social relationship, the available resources are accessed through the

networks of social connections and identifications available to the individuals and groups. The transhumance-related conflicts in southeast Nigeria is anchored on the basic problem of access to natural resources [land], which the farmers and the herdsman are struggling to access and control. While the farmers in the region see themselves as possessing right-based access to the land resources, the herdsman are viewed as strangers operating illegal access to the lands by invading communities with their cows.

The benefits from the land resources observed by the farmers as cultivation and harvesting of food crops as well as by the herders as grazing reserve for their cows, are seen to be accessed through either right-based access or forceful access. However, the problem of herders/farmers' clashes emanates from the forceful access by the herdsman moving in from northern Nigeria. The herdsman who are intruders and accessing the land resources through illegal means do occupy the farmlands with weapons and frequently clash with the farmers who are indigenes and socially and traditionally approved to own land in the region. The herdsman are aided by the advanced technology in weaponry, capital (financial power) and identity connections. The crises thereof result to the interruption of farming activities evidence in food insecurity captured as interrupted food production, food availability, food accessibility, food utilization and food stability, which are affecting the region. Although Resource-Access-Theory captures the conflict dimension of resource struggle especially the developing nations such as in southeast Nigeria, the lapses of the theory in this context can be found in the role played by developmental indices. For instance, the structure of the farmers/herders conflicts is hanging more on the underdeveloped structure of the business of cattle in Nigeria. This also applies to the farmers who lacked modern mechanism for farming making them vulnerable to the herdsman invasion.

Study Methodology

The study was carried out in southeast Nigeria, which lays between latitudes 4°20' and 7°25' North of the Equator and longitudes 6°37' and 8°28' East of the Greenwich Meridian. Southeast Nigeria is home to the Igbo ethnic group that made up about 18% of Nigerian population and is majorly characterized by socioeconomic activities such as clerical duties, commercial activities and mostly commercial and subsistence agriculture among the rural population. Farming in the rural areas is much dependent on the traditional ownership of land such that non indigenous population in the region is highly restricted from owning the land resources. Traditionally in southeast Nigeria, land ownership follows ancestral lineage and in some cases acquisition through buying of land portions from individuals, families or communities.

The population of southeast Nigeria is about 22 million however, in the rural communities where the farmers reside, the farmers are not easily identified save for the cooperative societies, which classify them according to their farming specialization and interests. The study relied on the cooperative societies in the region to develop sampling frame for the study. In southeast Nigeria, there are five administrative states under which there are numerous senatorial zones, local councils and communities. Under these structures, there are cooperative societies that are platforms for the recognitions of the farmers in the region. These cooperative societies are classified according to their farming activities as well as their interests. The cooperative societies are located in the rural communities but are interconnected in terms of membership and community locations.

Among the five administrative states in southeast Nigeria, which included Abia, Anambra, Ebonyi, Enugu and Imo states, the study randomly selected three administrative states, which happened to be Enugu, Ebonyi and Anambra states. Among the three selected states, there are about 128 standard cooperative societies based on the accreditation criteria by the World Bank and other supportive organisations to agricultural programs in Nigeria. According to the classifications, for a cooperative society to be recognised and given grants and other supports, there must be specification of their types and forms of farming and the membership must not be below 36 consistent farmers, who have at least been in the business for about five years. Equally, there must be evidence of activeness among the societies such as monthly meetings,

seasonal farming activities and annual farming programs exclusive to the societies. From the available documentations, there are about 28082 active cooperative society members in the three states that are involved in the study. The above figure determined the sampling frame as well as the sample size for the study. These cooperative societies were chosen as the sampling frame due to the disjointed activities of independent farmers in the rural communities who cannot be easily located for a study of this pedigree.

Multistage clustered sampling technique was applied to select 78 cooperative societies [these comprise approximately 2736 farmers] for sampling. 625 respondents were selected using appropriate sampling techniques suitable for the study and the population involved in the study. The sampling and selections of respondents were coordinated beginning from the state level to that of senatorial, local council and community levels to accommodate the different stages of cooperative societies' existence in their fashions in the area. Equal sampling technique was applied to select 26 cooperative societies from each of the three administrative states involved in the study, while quota sampling technique was adopted to select cooperative societies at the senatorial, local council and community levels. 6 senatorial zones were selected in total for the study (2 senatorial zones from each of the 3 administrative states) while at least, 4 local councils and 4 communities were selected from each of the included senatorial zones. At least, 4 cooperative societies were selected from the included local communities and, at least 8 respondents were selected from each of the included cooperative society for data using equal proportional sampling technique. In total, 625 respondents were selected from 78 cooperative societies, 39 local councils, 6 senatorial zones and 3 administrative states in southeast Nigeria. The study adopted multistage sampling procedure due to the spatial locations of the cooperative societies and the farmers in the region. Multistage sampling technique enabled the study specifically locate the population appropriate for the study.

The instrument of data collection was questionnaire designed in nominal and ordinal scales containing questions eliciting information on socio-demographic details of the farmers and the four dimensions of food security such as food production, food availability, food accessibility and food utilization. The questionnaire instrument contained 30 items in three segmentations; the first segment contained the socio-demographic information of the respondents; the second segment contained the basic information on farming experiences, encounters with the herdsman and other similar challenges among the farmers, while the third segment of the questionnaire contained the indices of the four dimensions of food security designed in line with the FAO (2021) mild, moderate and severe food insecurity scale and Coleman et al. (2012) Household Food Security Survey Module [HFSSM]. The questionnaire was shared among the respondents simultaneously across the cooperative societies involved in the study with face-to-face approach. This was to control the possible bias envisaged in the study. The data were collected with the help of recruited research assistants from the rural communities. The collected data was analysed using SPSS version 23 while descriptive and inferential statistics were deployed to evaluate the relationship of substantive variables to the study. The analysis was carried in three stages such as the descriptive, correlation and modelling of the predicting factors to food insecurity. These were done with the aid of percentage analysis, Pearson Moment Correlation and Linear model.

Findings of the Study and Analysis

Table 1 shows the socio-demographic information of the respondents. According to the table, majority of the respondents are females (50.2%), while 49.8% are males. From the table, majority of the respondents (34.9%) are in the age category of 40-50 years followed by those in the age category of 18-28 years (20%); 15.2% are in the age category of 29-39 years, 15% are in the age category of 62 years and above, while 14.9% are in the age category of 51-61 years. Majority of the respondents are only educated up to the level of primary/secondary school (54.9%), 30% are educated up to the level of Higher National Diploma/degree certification, 10.1% are educated up to the level of National Certificate in Education/Diploma, while only five percent are educated up to the level of Masters degree and above.

Table1. Socio-demographic information of the respondents

	Variable items	N	Percentage
Gender	Male	311	49.8%
	Females	314	50.2%
Age	18-28	125	20.0%
	29-39	95	15.2%
	40-50	218	34.9%
	51-61	93	14.9%
	62and above	94	15.0%
Education	Primary/Secondary	343	54.9%
	National Certificate in Education/Diploma	63	10.1%
	Higher National Diploma/Degree	188	30.1%
	Masters of Science and above	31	5.0%
Religion	Christianity	377	60.3%
	Islam	62	9.9%
	Traditional African Religion	186	29.7%
Types of Farming by the respondents	Cereals	31	5.0%
	Tuber crops	345	55.2%
	Large crops	124	19.8%
	Vegetables	62	9.9%
	Animal husbandry	63	10.1%
Family size	Less than 1-3	62	9.9%
	4-6 in a household	250	40.0%
	7and more in a household	313	50.1%
Total		625	100.0%

Majority of the respondents (60.2%) are Christians, 29.7% are Traditional African Religion adherents, while about nine percent are Muslims. In the classification of the types of farming by the respondents, majority of the respondents (55.2%) specialized in tuber crops farming these included yams, cassava, cocoyam, potatoes, etc., 19.8% specialized in large crop farming, 10.1% are engaged in animal husbandry about nine percent of the respondents are engaged with vegetables farming and about five percent of the respondents are engaged with cereals. Majority of the farmers maintained family size of 7children and above (50.1%), 40% maintained family size of 4-6children, while only 9.9% of the respondents have family size of less than 1-3children.

Table 2 tested the correlation between transhumance-related crises and food security indicators in the region. The indices of the four dimensions of food security according to the FAO and HFSSM were statistically treated to capture the variables separately for correlation test with the variable of transhumance crisis.

Table 2. *Correlation test on Transhumance-related Crises and Food Security Indicators*

	Spearman's rho	Transhumance-related crises
Food productivity	Correlation Coefficient	-.386**
	Sig. (2-tailed)	.000
Food availability	Correlation Coefficient	-.325**
	Sig. (2-tailed)	.000
Food accessibility	Correlation Coefficient	-.376**
	Sig. (2-tailed)	.000
Food stability	Correlation Coefficient	-.389**
	Sig. (2-tailed)	.000

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the .000 level (2-tailed).

From the table, there is a significant correlation between transhumance-related conflicts and food production in southeast Nigeria and this relationship is in the negative direction (p.000, rho = -.386); the finding showed that transhumance-related crises explained about 14.9% of the problems of food production among the farmers in southeast Nigeria. This means that the more the incidence of transhumance-related crisis, the less the food production among the famers in the region. From the table also, there is a negative correlation between transhumance-related crises and food availability in the region (p.000, rho = -.325). In translation to real time impact, the finding showed that transhumance-related crises were responsible for about 10.6% of the problem of food availability in the region and this further showed that the more the incidence of transhumance-related crisis, the less of food availability in the region. From the table, there is a negative correlation between transhumance-related conflicts and food accessibility in southeast Nigeria (p.000, rho = -.376); this further showed that transhumance-related crises was responsible for about 14.1% problem of food accessibility in southeast Nigeria; this further shows that the more the incidence of transhumance-related crisis, the more difficult access to food in the region. Nevertheless, the table showed that there is a negative correlation between transhumance-related crises and food stability among the rural farmers in southeast Nigeria (p.000, rho = -.389); this is translated in the real time impacts as about 15.1% of food stability issues among the rural farmers being explained by transhumance-related crises in the region. Equally, the finding shows that the more the incidence of transhumance-related crisis, the less the food stability in the region.

Table 3 showed the predictors of rural-urban food circulation in southeast Nigeria among the rural farmers. The included variables in the model were selected based on the major thrust of the study and the factors relevant in the daily activities of the population. The explanatory power of the table is about 62.6%, that is, the table was able to explain about 62.6% of rural urban food circulation issues in southeast Nigeria. Among the included variables, only education and types of farming among the respondents positively predicted rural urban food circulation among the respondents. In any case, the more educated the respondents are, the more likely they are going to encourage rural urban food circulation in southeast Nigeria. Equally, the more varieties of farming types there are among the farmers, the more likely they are going to encourage rural urban food circulation in southeast Nigeria. Nonetheless, other included factors in the model negatively predicted rural-urban food circulation among the rural farmers in southeast Nigeria. By virtue of the position in the model, factors such as open grazing, herdsman encroachment into the farm, farmers/herders clash, climate change indicators as well as desertion of farm because of herdsman attacks negate rural-urban food circulation. In other words, the more the occurrence of these factors, the less likely the rural urban food circulation I southeast Nigeria.

Table 3. Coefficients of Rural-Urban Food Circulation and other Variables

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	4.535	.134		33.777	.000
Respondents' education	.222***	.016	.451	14.132	.000
Types of Farming by the respondents	.273***	.012	.782	22.207	.000
Rate of open grazing by herdsmen in the local communities	-.089***	.011	-.234	-7.998	.000
Frequency of herdsmen encroachment into the farm	-.222***	.013	-.617	-17.268	.000
Frequent farmers/herdsmen clash	-.267***	.016	-.737	-16.657	.000
Climate change indicators	-.210***	.014	-.485	-14.675	.000
Desertion of farm by farmers due to herdsmen attacks	-.410***	.038	-.488	-10.820	.000

a. Dependent Variable: Rural-Urban Food Circulation

(df 8), * $p < .05$, ** $p < .01$, *** $p < .000$, $R^2 = .791$ (62.6), F (128.587)

Table 4 showed the model predicting agricultural sustainability among the rural farmers in south-east Nigeria. Among the included variables in the model, only education and types of farming among the farmers positively predicted agricultural sustainability among the rural farmers in southeast Nigeria.

Table 4. Coefficients Of Agricultural Sustainability And Other Variables

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.808	.122		22.937	.000
Respondents' age	-.066***	.013	-.146	-5.089	.000
Respondents' education	.053**	.017	.091	3.073	.002
Types of Farming by the respondents	.123***	.011	.295	11.098	.000
Open grazing by herdsmen in the local communities	-.059***	.011	-.131	-5.274	.000
Frequent encroachment into the farmland by herdsmen	-.107***	.012	-.250	-8.596	.000
Frequent clash with herdsmen by farmers	-.323***	.011	-.751	-29.290	.000
Climate change indicators	-.180***	.015	-.349	-12.366	.000
Desertion of farmland due to herdsmen attacks	-.254***	.027	-.251	-9.344	.000

a. Dependent Variable: Agricultural Sustainability

(df 8), * $p < .05$, ** $p < .01$, *** $p < .000$, $R^2 = .876$ (76.7), F (224.752)

Specifically, the more the farmers become educated, the more likely the agricultural sustainability in southeast Nigeria; the more varieties of farming among the farmers in southeast Nigeria, the more likely the agricultural sustainability in the regions. Meanwhile, other included variables showed negative correlation with agricultural sustainability in southeast Nigeria; these variables included age of the respondents, open grazing, encroachment into the farmland by the herdsmen, farmers/herdsmen clash, climate change indicators as well as desertion of farmland because of herdsmen attacks. The rural farmers population is made up of people advanced in age, which by implication, shows that as they advance in age, their ability to participate in agricultural activities continuously reduce. In the cases of open grazing, encroachment, clashes and climate change indicators, they are obviously frustrating agricultural activities in the region.

Discussion of the Findings and Conclusion

Transhumance-related crises between the farmers and herdsmen in southeast Nigeria as observed in this study has appeared as one of the basic threats to food security in the region and perhaps in Nigeria and sub-Saharan Africa as a whole owing to the fact that foods produced in southeast Nigeria travel a long distance within the region. From the study for instance, transhumance-related crises in the region is responsible for about 14.9% of food production challenges in the region (see table2 above). Food production here included going to the farm, planting the farms during the season, maintaining the farm and successfully harvesting the food crops from the farm I due season. However, in the recent times in the southeast Nigeria, these activities have been interrupted in different manners such as farmers deserting their farmlands because of herdsmen/farmers clashes, changing business from farming to other trade in the urban settings, fear of going to the farm, food crops being destroyed outrightly by the herdsmen cows, etc. All these situations are directly connected to the activities of transhumance in the region. This finding corroborates the findings by other scholars (Obaniyi, Kolawole, Ajala, Adeyemo & Oguntade, 2020; Olumba, Olumba & Alimba, 2021; Ahmed & Kuusaana, 2021), that open grazing anywhere in the world contributes to crises among the herders and the farmers and in most cases with the host community. By implication, the challenges to food production in this region are capable of negatively impacting the national GDP, which has over the years depended on agriculture.

From the findings of the study, there is food availability crises in southeast Nigeria and these crises are connected to the ongoing transhumance-related crises in the region. As specified in the study's findings, transhumance-related crises explained about 10.6% of food availability crises in southeast Nigeria (see table2 above). Food availability is another key component of food security; it is the availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports. In specifics, food availability is dependent more on the productivity capacity of the rural farmers in sub-Saharan Africa, where majority of the food crops consumed are produced in the rural areas and the food consumed among the population is more of indigenous foods than imported food products. The Subsaharan African nations are majorly dependent on the food produced in the rural areas as is the case in southeast Nigeria. According to the finding of the study, the transhumance-related crises are gradually creating food availability crises in southeast Nigeria and in extension, to other regions directly or indirectly depending on the food crops from southeast Nigeria. Other studies earlier have pointed to the inalienable negative correlation between transhumance crises and food availability crises in other places raising a concern for cross examination in other regions as the present study has done (Global Agricultural Monitoring, 2022; Global Network Against Food Crises, 2021; Mbih, 2020).

From this study, it has been confirmed that transhumance-related crises has negative impact on food accessibility; this is statistically ascertained as 14.1% of the food accessibility crises in southeast Nigeria being explained by transhumance-related crises in the region (see table2 above). Food accessibility according to the Food and Agricultural Organization (Food and Agricultural Organization, 2019) is the ability of the population to reach out and secure the available food among the population and beyond following the food supply chain among the population. This included among other things, the ability to

buy the available food products in view of their cost implication, securing the quality and quantity of the food needed for daily consumption as well as accessing food crops available in another area but needed in the present area through food supply chain and interstate and regional links. However, the presence of transhumance-related crises in southeast Nigeria has interrupted the food supply chain in the region. Transhumance-related crises in southeast Nigeria over the years has interrupted farm supplies and by implication frustrated the ability of the farmers to reach out to the population in need of food supply across southeast Nigeria region. Transhumance-related crisis according to other studies (Olagbemiro, Ojediran & Oladipupo, 2022) is one of the basic challenges to food accessibility in many developing nations, complicating the issues of food insecurity in these regions.

Food stability, which is another dimension of food security, is the ability to obtain food over time. Obtaining food over time in different parts of the globe is a subject to the food security situation in a given context and time. Food stability indicators point to the regular availability of food crops produced and supplied within the food chain of a particular region as well as other areas it covers given the fact that science and technology have made it possible for the replication of methods and the approaches in producing the needed food crops without a limit. In southeast Nigeria, there are evidences that food stability as a dimension of food security is lacking in the region as transhumance-related crises have interrupted certain food crops and the farmers specializing in them. As a matter of fact, from this study, transhumance-related crises explained about 15.1% of food stability crises in southeast Nigeria (see table2 above).

Rural-urban food circulation is one of the reliable source for urban food security and this is dependent on the rural food security and food supply chain in the developing nations where there is less mechanized agriculture. In southeast Nigeria as part of the larger circle of the sub-Saharan Africa region, the increase in transhumance-related crises has interrupted rural-urban food supply chain. Notwithstanding, there are other factors in connection with the indicators of transhumance-related crises, that have negatively affected rural-urban food circulation. Social indicators of transhumance-related crises such as open grazing, herdsmen encroachment into the farm, farmers/herders clash as well as desertion of farm because of herdsmen attacks were shown to have negatively affected rural-urban food circulation. According to the study by other scholars such as (Ayantunde, Asse, Said & Fall, 2014), rural-urban food supply chain has been the reliable backup for urban food security in southeast Nigeria and this backup has been affected by the enduring climate change crises, which have affected southeast Nigeria in the recent time. Equally, the studies by (Gbamwuanand & Atim, 2022; Adebayo & Oriolan 2016) elsewhere have revealed the inalienable negative impacts of transhumance crises indicators on the rural-urban food chain and food security.

Agricultural sustainability as part of the global sustainability agenda, is hanging on the activities of farmers around the world. In southeast Nigeria, this is found around the rural farmers who are the backbone of food security in this region. The activities and condition of the rural farmers in southeast Nigeria have more impact on the overall analysis of agricultural sustainability. In the present study, there are factors found to be negating agricultural sustainability among the rural farmers. These included age of the respondents, open grazing, encroachment into the farmland by the herdsmen, farmers/herdsmen clash, climate change indicators as well as desertion of farmland because of herdsmen attacks. Age as a socio-economic variable plays a significant role to agricultural sustainability in the rural areas among the developing nations; this is because of the fact that much of farming activities in the developing nations are still dependent on the physical strength of the farmers, which invariably go down with age. Equally, the transhumance-related crises indicators as negative factors to agricultural sustainability are complicated due to the political and socio-cultural connectivity to this factor among the developing nations. With the continuous resource-access crises between the herdsmen and the farmers, agricultural sustainability seems to be endangered in southeast Nigeria due to the fact that such crises have forced many farmers to desert their farmers; others have changed farming business into other businesses in the nearby urban communities. In recent times, the transhumance-related crises in the rural communities in southeast Nigeria have unfortunately forced many farmers to seek for relief in the urban communities resulting on some population

settlement crises the southeast Nigeria urban communities. The chain reaction of the problem included the fact that the same population that are abandoning farm trade in the rural communities are the ones that are increasing the pressure on urban food security in the urban communities.

Conclusion

As part of the 17 sustainable development agenda, the United Nations have set out to end poverty in all its forms everywhere-goal-1, end hunger, achieving food security and improved nutrition, and promoting sustainable agriculture-goal-2 and ensure sustainable consumption and production patterns-goal-12. As was set out to explore in this study, these key points were found to be endangered by the situation obtainable in southeast Nigeria. For instance, transhumance-related crises in southeast Nigeria have sacked many communities and rendered many farmers jobless. Joblessness and instability in business among the rural farmers are in no doubt harbingers of poverty especially, among a population that lacks diversity in skill and alternative to indigenous farming business. Also, the crises and change in activities orchestrated by transhumance activities in the region has significantly affected food security thereby promoting hunger and consumption crises among the rural as well as urban population in the region due to the interruption of food accessibility, productivity, availability and stability in the region. More importantly, agricultural activities in the region has been generally interrupted with more complex implications such as reducing the number of willing members of the population who would want to participate in farming currently and in future. By implication, food security and agricultural sustainability has been altered among the population and required the intervention of the appropriate government and non Governmental agencies to rescue the population of the region from gradual and enduring food insecurity orchestrated by transhumance crisis.

Limitation to the Study and Direction for Further Study

The present study is limited methodologically, geographically and in the area of interest, prompting the need for further study in an expanded manner to accommodate other aspects of the food insecurity crisis, larger region and methodological triangulation. The study suggests further research on environmental resource-access crises, emerging food insecurity and humanitarian crisis in sub-Saharan Africa.

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SU GANYKLOMIS SUSIJUSIOS KRIZĖS IR APRŪPINIMO MAISTU PROBLEMOS PIETRYČIŲ NIGERIJOSJE: DARNAUS VYSTYMOŠI PASEKMĖS

Anotacija. Pastaruoju metu aprūpinimas maistu Afrikoje į pietus nuo Sacharos pradeda keistis dėl kai kurių veiksnių. Pavyzdžiui, su ganyklomis susijusių krizių regione. Nors sezoninis gyvulių perkėlimas į kitą vietovę yra sena besivystančių tautų, ypač Užsachario Afrikoje, praktika, jos santykis su ūkininkavimu ir žemės ūkio tvarumu pamažu keičiasi dėl regione vis dažniau kylančių politiškaai motyvuotų krizių, susijusių su išteklių prieinamumu. Šiame tyrime nagrinėjome su sezoniniu gyvulių pervarymu susijusias priegios prie išteklių krizes ir maisto saugumo valdymą pietryčių Nigerijoje. Tyrimo imtį sudaro 625 regiono kaimo ūkininkai, kurių nuolatinė gyvenamoji vieta yra ūkininkų kooperatinės bendrovės. Tyrimė vadovautasi išteklių prieinamumo teorija ir apklausos tyrimo planu. Renkant duomenis naudotasi klausimyno priemone, o surinktiems duomenims įvertinti taikyta procentinė, koreliacinė ir regresinė statistika. Pagrindinės tyrimo išvados: su sezoniniu gyvulių perkėlimu susiję konfliktai neigiamai koreliavo su keturiais aprūpinimo maistu regione aspektais, tokiais kaip maisto gamyba (p.000, r = -,386), maisto prieinamumas (p.000, r = -,325), maisto prieinamumas (p.000, r = -,376) ir maisto stabilumas (p.000, rho = -,389). Kaimo ir miesto maisto apyvartą prognozuoja atviros ganyklos, piemenų įsibrovimas į ūkį, ūkininkų ir piemenų susirėmimai, klimato kaitos rodikliai (***) p<.000, R²=.791), o žemės ūkio tvarumą prognozuoja respondentų amžius, atviros ganyklos, piemenų įsibrovimas į žemės ūkio paskirties žemę, ūkininkų ir piemenų susirėmimai, klimato kaitos rodikliai, taip pat žemės ūkio paskirties žemės apleidimas dėl piemenų išpuolių (***) p<.000, R²=.876).

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