UDK 2956-2406

ISSN 2956-2406
e ISSN 2956-249X

MB University International Review - MBUIR

Journal of Theory and Practice

Vol. III (2025), No 2

www.mbuir.com

Publisher:

Faculty of Business and Law, University of MB
Serbia, Belgrade, Drajzerova 27
Tel./fax: +381 64 65 970 39, +381 11 33 91 641
e-mail: mbuir@ppf.edu.rs

Publishing Council:

President:

Prof. Dr. Milija Bogavac, full professor,
Founder and Owner of MB University, Belgrade

Members of the Publishing Council:

Prof. Dr. Dušan Regodić, professor emeritus,
Faculty of Business and Law, MB University, Belgrade
Prof. Dr. Nensi Rusov, full professor, Faculty of Technology and Society, Malmö University, Sweden
Prof. Dr. Volfgang Rohrbach, academician,
European Academy of Sciences and Humanities (AASA), Salzburg, Austria
Prof. Dr. Ljubiša Mitrović, professor emeritus,
Faculty of Philosophy, University of Niš, Department of Sociology, Niš
Prof. Dr. Aleksandar Halmi, retired full professor,
Zagreb, Croatia
Prof. dr Srđan Blagojević, full professor, University of Defence, Belgrade
Prof. Dr. Dževad Termiz, academician,
Faculty of Political Science, Univerzitety of Sarajevo, Bosnia and Hercegovina
Prof. Dr. Mirko Kulić, professor emeritus,
Faculty of Law, University of the Academy of Commerce, Novi Sad
Prof. Dr. Jove Kekenovski, full professor,
Faculty of Tourism and Hospitality, University of "St. Kliment Ohridski", Bitola, North Macedonia
Prof. Dr. Boris Krivokapić, academician, Faculty of Business and Law, MB University, Belgrade
Prof. Dr Venelin Terzijev, full professor, University of Rousse Sofia, Ministry of Culture Republic of Bulgaria
Prof. Dr. Nedjo Danilovic, academician, professor emeritus, Faculty of Business and Law, MB University, Belgrade, Serbia
Prof. Dr Aleksandar Stojanović, full professor,
University of East Sarajevo, Faculty of Economics, Republic of Srpska
Prof. Dr Zoran Jovanovski, full professor,
General Mihailo Apostolski Military Academy, Skopje, Republic of North Macedonia
Prof. Dr Angel Ristov, full Professor, Faculty of Law "Iustinianus Primus" University "St. Cyril and Methodius" Skopje, Republic of North Macedonia

Editorial office:

Drajzerova 27, Belgrade, Serbia,
e-mail: mbuir@ppf.edu.rs;
www.mbiniverzitet.edu.rs
Tel./fax: +381 64 65 970 39, +381 11 33 91 641

Editor in chief:

Prof. Dr. Živanka Miladinović Bogavac, full professor,
Vice rector for teaching at the University of MB, Belgrade

Editor:

Prof. Dr. Neđo Danilović, academician, professor emeritus, Vice rector for science University of MB, Belgrade, Serbia

Members of the editorial board:

Prof. Dr. Nataša Simić, full professor, Faculty of Business and Law, MB University, Belgrade
Prof. Dr. Kristijan Ristić, full professor, Faculty of Business and Law, MB University, Belgrade
Prof. Dr. Nenad Perić, full professor, Institute for Serbian Culture Priština - Leposavić
Prof. Dr. Aleksandar Damnjanović, full professor,
Faculty of Business and Law, MB University, Belgrade
Prof. Dr. Lazić Dragana, associate professor, Vice dean for education et the Faculty of Business and Law, MB University, Belgrade
Prof. Dr. Aleksandar Marković, associate professor,
Faculty of Science and Mathematics, University of Kosovska Mitrovica
Prof. Dr. Vesela Vlašković, associate professor, Dean of the Faculty of Economics, Slobomir P. University of Bijeljina, Bosnia and Hercegovina
Prof. Dr. Miloš Stanković, akademician, full professor, Vice dean for science et th Faculty of Business and Law, MB University, Belgrade
Doc. Dr. Ljubomir Miljković, asisstant professor,
Faculty of Business and Law, MB University, Belgrade
Prof. Dr Željko Lazić, associate professor, Faculty of Business and Law, MB University, Belgrade, Serbia
Doc. Dr. Martin Matijašević, asisstant professor,
Faculty of Business and Law, MB University, Belgrade

Technical editor: *Prof. Dr. Lazar Stošić*, eng IT, full profesor

Editorial secretary: *prof. dr Snežana Stojanović*

English proofreader: *Professor Ms Danka Polaček*

Web tim: *MA Dragan Stanković*

Prepress: *Helena Poljovka*

Printed by: Planeta Print d.o.o., Belgrade

Copies printed: 100

The International Journal of the MB University – MBUIR is published by MB University and is indexed in EBSCO databases with full-text availability. The journal is registered with Crossref and assigns ISBN and DOI identifiers.

CONTENTS

Articles

Economics

Snežana B.Aleksić, *The Relationship between the Green Agenda of Serbia and the Urbanization of the Municipality of Surčin for the Implementation of Expo 2027 – Current Situation and Perspectives* 6-16

Snežana R. Stojanović, *International Tax System and Multinational Companies* 17-24

Management and Business

Nenad M. Mihajlov, Snežana R. Mihajlov, *Leaders' Emotional Intelligence as a Mediator Between Leadership and Job Satisfaction: A Conservation of Resources Theory* 26-38

Vasilije R. Korugić, Martin I. Matijašević, *Security Management under Epidemic Conditions* 39-44

Law and Security Studies

Dragana B. Lazić, Jelena M. Vuković, *Domestic Violence and its Repercussions on Employment-Related Reputation* 46-56

Miljan M. Žižić, *The Role of Myth in the Emergence and Evolution of Natural Law Thought* 57-64

Jordanka Galeva, *Rule of Law and Use of State and Minority Symbols in Macedona and Serbia* 65-80

Aleksandar V. Ivanović, Dragan B. Cvetković, Nenad M. Mladenović, *Estate and Property Relations in Unmarried Partnerhips* 81-88

Milan D. Ječmenić, Ratko M. Ivković, Veljko D. Sinanović, *Adapting Tort Liability Rules to Artificial Intelligence* 89-97

Marina H. Dabetić, Živanka M. Miladinović Bogavac, Milica T. Ćurčić, *The Role of Interpol in Combating Cbrn Terrorism* 98-103

Veljko M. Blagojević, *The Role of Private Security Sector in the Fight Against Terrorism (Countering the Terrorist Threat* 104-114

Zoran B. Jerotijević, Dušan Z. Jerotijević, Aleksandar M. Matić, *Role and Significance of Brics* 115-122

Information Soceity

Dušan B. Regodić, Radomir D. Regodić, Ana M. Vukić, *Modern Information Technologies and Their Application in Inventory Management* 124-143

Prezentation of the Doctoral Disertation

Dragan B. Cvetković, *Judicial Review of Decisions of the Ministry of Internal Affairs Made in Disciplinary Proceedings* 146-148

Aleksandar V. Ivanović, *Estate and Property Relations in Unmarried Partnerhips in the Family of the Republic of Serbia* 149-151

Criteria and rules for submission of authors' papers in the publishing plan of the magazine MB University International Review (MBUIR)

Criteria and Rules for Entering an Author's Work Into the Publishing Plan of the Journal MB University International Review (MBUIR) 152-154

Instructions for authors 155-157

List of Peer Reviewers for the MB University International Review - MBUIR, 2025 158-159

ECONOMICS

REVIEW SCIENTIFIC PAPER

RECEIVED: 04. 04. 2024.
ACCEPTED: 28. 11. 2025.

UDC: 330.322.14(497.11)
711.4:502.131.1(497.11 Сурчин)
061.41(100)"2027"(497.11)
COBISS.SR-ID 183303433
doi: https://doi.org/10.61837/mbuir030225006a

THE RELATIONSHIP BETWEEN THE GREEN AGENDA OF SERBIA AND THE URBANIZATION OF THE MUNICIPALITY OF SURČIN FOR THE IMPLEMENTATION OF EXPO 2027 - CURRENT SITUATION AND PERSPECTIVES

Snežana B. ALEKSIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia

snezanaaleksic3@gmail.com

https://orcid.org/0009-0003-1908-2595

Abstract: *The construction of the National Stadium and the exhibition-residential complex "EXPO 2027" for the purpose of holding an international specialized exhibition is expected to generate positive effects on the Republic of Serbia. These benefits include the development of a new urban zone in Belgrade, located within the jurisdiction of the Municipality of Surčin. At the same time, the development of road and railway infrastructure at this location will enable accessibility from all parts of the Republic of Serbia, which further reinforces the national importance of this capital investment, classifying it on a macro level as the most significant project in the modern history of Serbia. However, at the micro level–specifically within the Surčin municipality–the current state and future development in terms of environmental protection remain uncertain. This study aims to examine whether, and to what extent, the planned major investments will impact the quality of life of residents in the Surčin municipality, that is, whether the project "Expo 2027" will meet the goals of the Paris Climate Agreement, reduction of environmental pollution - air, soil and water, and contribute to harmonization with the legal acquis of the EU in the areas covered by the Green Agenda: decarbonization, energy efficiency and reduction of industrial emissions. This study employed descriptive and comparative methods, as well as methods of analysis and synthesis, supplemented by statistical techniques where applicable. The financial aspects of the capital investment were not addressed in this paper.*

Keywords: *Expo 2027, Serbia, Belgrade, Surčin, Green Agenda, land, water, air*

1. INTRODUCTION

The specialized world exhibition “Expo 2027” will be held from May 15 to August 15, 2027, in Belgrade. Since the realization of the “Expo” requires a demanding infrastructure in terms of exhibition space, road infrastructure and accommodation capacities, the Belgrade municipality of Surčin was chosen as the most suitable location for the implementation of the exhibition. It is anticipated that over one hundred countries will participate in “Expo 2027,” an event regarded as having significant political, economic, touristic, and cultural importance for Serbia, but also for the entire region. However, within the Serbian public, various analysts discuss the upcoming “Expo 2027” primarily from a macro perspective, while considerations at the micro level, namely the municipality of Surčin as the place

of implementation, has not been analyzed. Thus, the question remains open: how, and to what extent, the World Exhibition will impact the quality of life of residents in the Surčin Municipality, and whether the "Expo 2027" project will achieve the objectives of the Paris Climate Agreement and contribute to the reduction of environmental pollution: air, soil and water, and contribute to the implementation Green Agendas in the Republic of Serbia.

2. GREEN AGENDA AND CAPITAL INVESTMENTS EXPO 2027 IN SURČIN

The Republic of Serbia is a signatory to the Paris Climate Agreement, the Sofia Declaration on the Green Agenda for the Western Balkans and the Treaty on the Energy Community. The Green Agenda for the Western Balkans is a regional development strategy that aims to provide answers to the challenges of climate change, green transition, and to help the countries of the Western Balkans harmonize environmental regulations with European standards and norms. The key document for the implementation of the Green Agenda is the Integrated National Energy and Climate Plan of the Republic of Serbia for the period up to 2030 with projections up to 2050 - INEKP (Ministry of Mining and Energy, 2023). The goal of the Republic of Serbia is the effective implementation of the Green Agenda, in accordance with the goals of the Paris Agreement:

- Decarbonization, energy efficiency and reduction of industrial emissions,
- Circular economy for resource efficiency and industrial symbiosis,
- Protecting and investing in biodiversity and ecosystems,
- Reducing environmental pollution with a focus on air quality,
- Sustainable food systems and rural development.

In line with global trends—though still working to advance in the area of the Green Agenda—the Republic of Serbia is striving to modernize and enhance its economy and society. Accordingly, in January 2022, the Government of Serbia submitted its bid to host the World Specialized Exhibition "Expo 2027", Serbia showcased itself at Expo 2023 in Paris under the theme *"Play for Humanity – Sport and Music for All."* Its innovative projects made a strong impression on audiences and drew significant interest from international visitors. Along with the USA, Thailand, Spain, and Argentina, Serbia stood out as one of the participants that attracted notable attention, Serbia was shortlisted to host Expo 2027, and in June 2023, Serbia was chosen to host Expo 2027, winning all four rounds of voting at the General Assembly of the International Bureau of Exhibitions in Paris (Government of RS, 2023).

The announced capital investments that are in the construction plan for the needs of holding "Expo 2027" are positioned in the municipality of Surčin, in the cadastral municipality of Surčin, in an undeveloped area that previously had the status of agricultural land. In the Local Sustainable Development Strategy of the Municipality of Surčin, which was adopted for the period from 2021 to 2030 (Municipality of Surčin, 2021), it was stated that the share of agricultural land in the territory of the city municipality of Surčin is 72.2% of the total area of its territory, i.e. 20,928.4 ha. According to the ownership structure, 4,479 hectares of the total agricultural land area are owned by the Republic of Serbia [3:25]. A part of this significant land area owned by the Republic of Serbia is located in the cadastral municipality of Surčin, in Donji polje, which is located south of the modern settlement of Surčin, towards the Sava River.

During the 20th century, Surčinsko Donje polje underwent several phases in terms of ownership relations and the ways in which its land resources were used. During the first decade of the 20th century, thanks to the capital investments made by the Cooperative for the Drainage of Southeast Srem, this once swampy and marshy area became protected land. With the construction of a flood-defense embankment and a canal network, the area was drained and transformed into pasture, a small portion of which

was converted into arable land by the mid-20th century (Aleksić, 2020). After the Second World War and the change in the social order, this land area was renamed as social property, from the 60s of the 20th century, and was given to the Belgrade Agricultural Combine (PKB), which turned it from pasture land into arable land. Since the 80s of the 20th century, with the construction of a water exploitation plant, the land of Surčin's Donji polje in the coastal belt of the Sava River has gained the status of a narrow protection zone of the Belgrade Waterworks. With the change in social organization that occurred in the 21st century, and ownership transformations, since 2018, the agricultural land that was previously used by PKB, for the most part, got a new owner, while a part of this land resource was retained by the Government of the Republic of Serbia (Aleksić, 2022). Today, the state-owned portion of land previously classified as agricultural has been reclassified as construction land, and the future "Expo 2027" is planned to be built on that location. According to the published plans "Leap into the Future Serbia 2027" (Government of the RS), the future exhibition space "Expo 2027" with the National Stadium and all accompanying facilities, were designed in Surčin on a total area of 243 ha. By the end of 2026, it is expected that the works on the first phase of construction will be completed:

- New interchanges - connections to the Miloš Veliki highway,
- New pier on the Sava for cruise ships and taxi boats,
- New city boulevards with all accompanying installations in a length of 10 km,
- Public parking lots with a capacity of 9,000 parking spaces.

Work on the construction of an innovative and modern exhibition complex designed to host over 2.5 million visitors, on an area of 25 ha, began in July 2023. In addition to the exhibition complex, there are other complexes that will significantly enrich the sports infrastructure of Belgrade and the Republic of Serbia, and primarily Surčin:

- The construction of the national stadium, which began in April 2024, with the agreed deadline for the completion of the works by the end of 2026, with a capacity of up to 52,000 seats, according to UEFA International Standards.
- Aquatics Center – a modern complex intended for water sports with accompanying superstructure, on 10 ha, with 4,000 seats, according to the standards of the International Swimming Association.

The residential area -Expo City, will be built with all facilities for a comfortable stay of the participants of the international specialized exhibition, on an area of 160,000 m2, with a capacity of 1,500 apartments intended for housing 3,500 tenants. It is expected that the new 18-kilometer railway line from Zemun Polje to Nikola Tesla Airport and the "Expo 2027" site will be completed by the first quarter of 2026. This will form one line of the Belgrade Metro, which is planned to continue toward Obrenovac. All of the listed capital investments will be carried out by the Government of the Republic of Serbia on previously undeveloped land that had been classified as agricultural. For the purposes of implementation, the "Expo" site was reclassified as construction land.

3. SURČIN - CURRENT STATE AND PERSPECTIVES

The youngest municipality of the City of Belgrade, the Surčin municipality, was constituted on November 24, 2004. It was formed by separating from the municipality of Zemun, becoming the 17th municipality of Belgrade. The municipality of Surčin borders the Belgrade municipalities of Novi Beograd, Zemun, Obrenovac, Čukarica, and the municipality of Pećinci, which is part of the AP Vojvodina. Today's municipality of Surčin consists of seven settlements: Bečmen, Boljevci, Dobanovci, Jakovo, Petrovčić, Progar and Surčin. The territory of the youngest Belgrade municipality, Surčin, in the largest part of its total area, is today outside the borders of the General Urban Planning Project (GUP) of Belgrade. Only

the cadastral municipality of Surčin and part of the cadastral municipality of Dobanovci are included in the GUP, while other cadastral municipalities Boljevci, Bečmen, part of Dobanovci, Jakovo, Petrovčić and Progar are not included in the GUP.

According to the data published by Statistical Office of the Republic of Serbia (RZZS), between 1991 to 2024, there was a demographic growth in the settlements of today's municipality of Surčin. The increase in the number of inhabitants intensified after the formation of the Municipality, especially in the period from 2011, when 18,205 inhabitants were recorded (Vukmirović, 2014: 32), while today, when there are 45,386 inhabitants in Surčin (RZZS, 2024: 2). According to statistical data, the population of Surčin Municipality in 2024 increased by 59.86% compared to 2011.

By carefully observing the results of demographic statistics in the 2011-2024 period, it can be concluded that in the area of the entire municipality of Surčin, which consists of seven settlements, a disproportionate increase in the number of inhabitants was recorded in the settlement of Surčin itself. The reason for the dynamic demographic growth in the Surčin settlement cannot be attributed to natural growth, but is the result of population immigration (Ibid: 3). However, the problem of Surčin is that the communal and social infrastructure of this municipality has not kept up with the growth of the population, with the exception of the road infrastructure, which provides excellent connectivity between the territory of Surčin Municipality and other parts of Belgrade and the Republic of Serbia. The Pan-European Corridor 10 and the Bypass around Belgrade pass through the territory of the Surčin municipality, which connect the Surčin settlement with the urban parts of Belgrade, primarily the municipalities of Novi Beograd and Zemun. In recent years, Surčin's road connectivity has been further enhanced by the "Miloš Veliki" highway, which was constructed in a part of the municipality's territory not covered by the GUP. Surčin is connected to this highway by two connecting roads. However, despite the traffic advantages that modern roads have brought to Surčin, the question remains: how have these many kilometers of roadway affected Surčin's environment, given that increased road capacity has led to a rise in the number of vehicles traveling through the municipality each day?

The intensity of traffic that currently circulates through the village of Surčin is extremely high. The likely reason for this is that the residents of Surčin cannot meet all their daily needs within the municipality itself, forcing them to use transportation every day to reach destinations outside Surčin. The reason for the daily migration of residents of Surčin is the observed shortcomings of Surčin municipality:

A particular problem for the population of Surčin is the insufficient capacity of health services in Surčin, where a modern Health Center was built only at the beginning of the second decade of the 21st century, which was opened in 2013 (Davidov-Keser). According to data from the City Institute for Public Health (2022: 11), the Surčin Health Center separated from the Zemun Health Center in 2011 and began operating as an independent health institution as of October 1, 2022. In 2022, in the municipality of Surčin, on average, there were 1,513 residents per doctor (Gavrilović, 2023: 305), which is unacceptably the lowest average in the entire Belgrade region. Apart from the insufficient number of doctors who provide primary health care to the Surčin population at the Surčin Health Center, it is important to highlight the fact that Surčin has neither a polyclinic nor a hospital. Therefore, the citizens of this municipality are forced to travel outside the territory of their municipality for secondary or tertiary health care, commonly to KBC "Bežanijska kosa" or KBC "Zemun".

There are no secondary schools or gymnasiums, nor any higher education institutions—such as colleges, academies, or faculties—within the territory of the Surčin municipality [11: 287, 295], and therefore, students from Surčin are forced to travel outside the territory of their municipality to continue their education after completing primary education.

The seriousness of the problem posed by the lack of educational institutions in Surčin is illustrated by the fact that in the school year 2021/22. In 2015, there were 156 classes with 3,671 students [11: 283] in the primary schools of the Surčin municipality, who, after completing primary education cannot continue their education in the territory of their municipality, but are forced to travel daily to other municipalities in order to attend classes.

Surcin lacks cultural institutions. There are no cinemas in the entire territory of the municipality of Surčin (Ibid: 302). Although efforts to revive the theater in Surčin (Janošević) have been ongoing for several decades, it allegedly started operating only in April 2024 (City of Belgrade). On the entire territory of the Surčin, as a legacy from the time of the SFRY, there is an Aviation Museum and two libraries: in Surčin and Dobanovci [3: 66], which, due to the mutual dispersion of settlements in the municipality, are generally not easily accessible to residents of other places in the Surčin Municipality. There is not a single gallery or exhibition space, nor a concert hall in the entire municipality. During the summer months, there is an open-air stage in the Bojčinska Forest, where the "Bojčin Cultural Summer" program is held.

With the construction of the Expo-residential complex, the number of apartments in Surčin will increase by 1,500 new residential units. It is planned that this settlement serves as a residential accommodation complex for the participants of the Expo. The Government of the Republic of Serbia has stated that it will reveal the future use of this neighborhood after the conclusion of the World Exhibition: whether it will be future "social housing" or the housing units will be offered to buyers on the free market. According to announcements, the "Expo" settlement will be able to host, that is, become a home for 3,500 residents. It was announced that this settlement in Surčin will be equipped with all the necessary communal infrastructure, but the publicly available information does not indicate that the settlement will be provided with all the necessary social infrastructure. In the announcements of the future "Expo" settlement, the following points are not defined: health center, hospital, school, kindergarten, cinema, library, theater, etc. For now, it can be concluded that the urban project of the "Expo" settlement lacked projects that would satisfy all social segments that are needed for the daily life of people in the future "Expo" settlement. If the future "Expo" settlement is not provided with all the necessary infrastructure, it is essential that the future residents of this new settlement in Surčin rely on the existing social infrastructure, which currently does not meet the needs of the population of the Surčin municipality. With the additional influx of population into the Surčin municipality, without expanding the existing social infrastructure, the living conditions of current residents will inevitably deteriorate. Hence, the "Expo 2027" project, in the form it has been presented to the public to date, has a well-founded tendency to affect the overpopulation of Surčin, that is, lead to a decline in the quality of the social segment of people's lives in this municipality.

In 2022, a total of 16,843 employed persons resided in the Surčin municipality. There were 371 employees per 1,000 inhabitants of Surčin [11:136]. Among the 17 municipalities of the Belgrade region, Surčin ranked 13th in terms of the number of employed persons per 1,000 inhabitants. In the category of unemployed persons, 1,108 unemployed persons were listed in Surčin, so that there were 24 unemployed persons per 1,000 residents of Surčin [11:156], which ranked Surčin second to last, in 16th place. In the category of average net earnings, excluding taxes and contributions, Surčin was in 13th place in Belgrade region in 2022, with an average earnings of RSD 66,688 [11:160]. It is important to point out that until 2017, Surčin was the first in the category of average salary in Belgrade, and that in that year there was a change in the method of calculating the average salary [3:54]. Until then, the average salary was calculated according to the employer's headquarters. Thus, due to the highly profitable companies headquartered in the Surčin municipality—most notably "Nestle," "Coca-Cola," and "Air Serbia"—the average earnings

for the municipality were presented in an unrealistically high manner.

According to the new calculation, the average salary is calculated based on the place of residence of the employed person, so with the application of the new methodology for calculating average salaries, Surčin ranks at the bottom of the Belgrade region. However, since Serbian media, in the years prior to the adoption of the new methodology for calculating average wages, reported unrealistically high earnings in Surčin, this likely influenced people from other municipalities and regions of Serbia to move to the Surčin municipality.

The perception of economic well-being in Surčin is further contradicted by data on social protection beneficiaries. The Local Sustainable Development Strategy states that 734 hot meals are distributed daily to users of the National Kitchen services. In 2020, there were a total of 1,064 users of social assistance [3:56-58]. The above data support the fact that, on average, in the Surčin Municipality, the social status of the population is far from enviable. Hence, it can be assumed that apart from personal needs, the population of Surčin municipality does not have the economic power to meet the needs of the community.

It should not be forgotten that the implementation of the Green Agenda is a process that requires certain material resources, and therefore, it can be assumed that the population of Surčin does not have enough economic power to individually undertake any initiative related to sustainable development and environmental protection at the local level.

According to Keynesian economic theory, the construction of the "Expo 2027" complex could act as a catalyst for initiating economic growth in the area where the investment is being carried out. However, it is unlikely that residents of Surčin will participate in capital works, which are exclusively carried out by specialized construction companies. However, as an opportunity for Surčin, the question of accommodation capacity for the workers directly involved in the construction of the "Expo" complex remains unresolved. Our public still does not know which companies will be directly involved in the construction of the capital complex, but it is certain that the future construction site must be served by people, who must live, sleep, and eat somewhere. For Surčin, this can be a source of income, that is, a short-term development opportunity. It is certain that due to the influx of workers to the area of Surčin, there will be an increase in consumption of food, water and energy. Whether the Surčin municipality has sufficient capacity to accommodate an additional, temporary influx of people—and whether this will actually benefit its residents—remains an open question for now.

3.1. Water

Settlements on the territory of the Surčin Municipality are connected to the water supply system of the Belgrade Waterworks, which supplies the territory of Surčin with drinking water from its system, from the "Bežanija" production plant. Water is distributed to consumers through pipelines, with the total length of about 258 km. [3:43]. In addition to the drinking water distribution network, there is also a raw water distribution network on the territory of the Surčin municipality, which is exploited along the banks of the Sava River, along the entire length of its course, and which flows through the territory of the Surčin municipality. Therefore, according to Article 77 of the Law on Water, 46 kilometers of the Sava River's shoreline within the Surčin municipality are designated as a source for the Belgrade Waterworks. In recent years, the area of the water source has been threatened by illegal construction along the banks of the Sava River. Illegal construction takes place in the sanitary protection zone of the water source (Aleksić, 2019).

According to the General Urban Plan of Belgrade (GUP) from 2016, Donje polje is designated as a zone of sanitary protection of the Belgrade water source. The construction of the "Expo" was planned at this location, and not far from the future "Expo" complex, on the left bank of the Sava, in the zone of narrower sanitary protection, the construction of a

pier for cruise ships and taxi boats is planned. Therefore, it can be concluded that, from the perspective of protecting both the broader and narrower sanitary zones of water sources, as well as preserving biodiversity and ecosystems within these zones, the "Expo" will not have positive effects. The conclusion was drawn from the aspect of the future intensity of river and road traffic, which will inevitably lead to an increase in the emission of harmful gases, as well as an increase in the degree of risk of possible hazards and accidents, which is not in line with the goals of the Paris Agreement and the implementation project of the Green Agenda in the Republic of Serbia.

There is no sewage system in the settlements of the Surčin municipality, except in a small part of the modern settlement of Surčin (Notice, 2019). The disposal of wastewater in the settlements of the Surčin municipality is a major problem. Sewerage and drainage of waste water from Surčin is planned as part of the future Batajnica sewage system (Decision, 2021). However, when this planned capital project will be completed and put into use remains unknown for now. On the other hand, through publicly available data related to the "Expo" project, in which the construction of a water supply and sewage network was announced, it does not appear that the "Expo" project will make any progress in solving the environmental problems that Surčin is currently facing. Currently, in the area of the Surčin municipality, used water, including fecal water, flows uncontrollably into the open canal systems, which have existed in places in the Surčin municipality for more than a century, as a flood defense system (Aleksić, 2021).

In the part of Surčin's Donje polje where the "Expo" is located, there are a number of smaller, side canals and two central canals: Galovica and Petrac. The Galovica canal is located at the very edge of the Surčin settlement. The Galovica canal collects surface and waste water from Surčin and directs it to the Petrac canal, which then flows into the Sava River. According to the Reports on the quality control of rivers and canals in the territory of Belgrade, over the past years, the Galovica canal, instead of the prescribed II, is in the V class of surface water quality [3:24]. As the Galovica canal collects sanitary and waste water from settlements, companies and agrocomplexes, in the past 10 years it has been found to be highly polluted with organic matter, which leads to the absence of oxygen and the death of aquatic organisms, and it also has an adverse effect on the groundwater in the coastal area and in the narrower zone sanitary protection (Ibid). In addition, it has a negative impact on air quality. It is known that water, as an element necessary for the survival of mankind, can be a source of health problems if it contains harmful substances of biological, chemical or radiological origin. Hence, Surčin's waste water, which mostly flows into the open channels that flow into the Sava River through a network system, in the sanitary protection zone, represents a potential danger not only to the ecosystem of Surčin, but also to the health of the population of all Belgrade municipalities, who consume water from the Belgrade water supply system, which sources its water from the Surčin municipality area.

The capital project "Expo" in Donje polje in Surčin is located between the Galovica canal and the Petrac canal. If, due to the excessive pollution of this open water course, the construction of a sewage network in the Surčin settlement does not start, and in order to prevent waste water from spilling out in the immediate vicinity of the "Expo" complex, the entire "Expo" capital project will not have a positive effect in the segment of reducing pollution in the municipality of Surčin.

As previously noted, the Surčin municipality is situated along the Sava River, which, through its waterway, connects to the Danube River—the European waterway corridor—stretching for 46 km. At the same time, the left bank of the Sava River in the territory of Surčin is in a special status, as a narrow zone of protection of Belgrade's water sources, where 28 reni wells and 20 tube wells are located [3:23]. According to the report of the Environmental Protection Agency, the water quality of the Sava

River based on the analysis dated February 14, 2024. at the measuring point Ostružnica, which is located opposite Surčin, was within the limits of the prescribed values for the I and II class of surface water quality (Ministry of Environmental Protection). Whether the water of the Sava River will maintain its current quality class after the construction of the "Expo" pier for cruisers and speedboats—planned within the narrow protection zone of Belgrade's water sources—remains an open question.

3.2. Land

It is known that the land resource is one of the most important non-renewable natural resources. In the modern world, human activities and climate changes are increasingly leading to its pollution and degradation, which has negative effects not only on the volume of agricultural production, but also on the environment and human health. By 2021, the share of agricultural land from the total area of the Surčin municipality was 72.7%. From a pedological point of view, the most widespread types of soil in Surčin are: rite black, chernozem and gajnjače [3:25]. These types of land belong to productive agricultural land suitable for arable production. In the cadastral municipality of Surčin, in the category of agricultural land in 2021, there was an area of about 6,365 ha, of which is the most represented land area was in the category of arable land.

Since 2016, when the entire Donje polje in Surčin was treated as an area outside the construction area (GUP) until today, the funding of agricultural land in the territory of the municipality of Surčin, especially in the cadastral municipality of Surčin, in accordance with the current Law on Planning and Construction, has been reduced by repurposing agricultural land into construction land (Aleksić, 2018).

Firstly, the reduction of agricultural land in the municipality of Surčin, during the previous years, was influenced by capital investments in transport infrastructure: the high-speed road from New Belgrade to the "Miloš Veliki" highway and part of the route of the "Miloš Veliki" highway, the expansion of the airport, Nikola Tesla", but also the construction of other industrial and commercial buildings and complexes. In the coming years, it is certain that the trend of decreasing agricultural land in Surčin municipality will continue. It is known that the "Expo" complex, with all accompanying facilities, was designed on former agricultural land in Donje polje, in the cadastral municipality of Surčin. Therefore, it is not surprising that the trend of decreasing agricultural land in the area of the city of Belgrade, during the last years, is most pronounced in the municipality of Surčin (Statistical Yearbook of Serbia, 2023). The reduction of agricultural areas in Surčin is certainly accompanied by the reduction of agricultural holdings, that is, the reduction of food production capacity.

By comparing Census data on the population and the area of agricultural land in Belgrade, it can be concluded that in 2011 there were 0.13 ha of arable land per resident, while in 2022 this figure had decreased to 0.09 ha per resident. Furthermore, the results clearly show that the population in 2022 increased by 1.55% compared to 2011 and that in the same time period, agricultural land decreased by 29.76%. The average annual air temperature in Belgrade in 2022 compared to 2011 increased by +1.5 °C" (Aleksić, 2023), and hence it can be assumed that the construction of the "Expo 2027" complex on former agricultural land will additionally influence the growing trend of the average air temperature in Belgrade.

Viewed from the perspective of a sustainable food system and rural development, the "Expo 2027" project clearly undermines these objectives, as the conversion of arable agricultural land into construction—effectively turning a rural zone into an urban one—does not support the goals of the Paris Agreement.

3.3. Air

As of 2020, the air quality control program in Belgrade also includes the measuring site Surčin. The measuring point is located in the center of the Surčin settlement, at Braće Puhalović no. 12, near the Health Center, in

the immediate vicinity of the Municipality. Monitoring showed air pollution is caused by the emission of harmful substances originating from cargo and passenger vehicles, and the degree of air pollution in Surčin is determined by the intensity of traffic, the structure of traffic vehicles, as well as meteorological conditions [3:22].

It is known that traffic corridors 10 and 11 pass through the municipality of Surčin, as well as the highways Belgrade-Niš, "Miloš Veliki", that parts of the main railway network pass through the territory of the municipality, and Surčin is also home to the most important international airport "Nikola Tesla". Consequently, emissions of harmful gases from both land and air traffic negatively affect the air quality for the residents of the Surčin municipality. With the construction of the "Expo" complex, it is certain that the frequency of traffic will increase, which will have a negative impact on the air quality in Surčin.

In addition to traffic, air pollution in Surčin is also caused by emissions of harmful gases from individual combustion plants. Although the Surčin municipality has invested significant efforts in the realization of gasification of all inhabited places of the municipality, not all households are connected to the gas network, and during the winter months, the use of individual fireplaces negatively impacts air quality in Surčin.

The thermal power plant "Nikola Tesla," specifically blocks A and B, is a particularly significant source of harmful emissions that negatively affect air quality in the Surčin municipality. Both blocks of the thermal power plant are located in the municipality of Obrenovac, which is the first neighbor of the municipality of Surčin.

All of the aforementioned factors of air pollution in Surčin municipality in the publicly available data related to the "Expo" project do not offer solutions for the existing problems of air pollution in Surčin. Therefore, it can be concluded that the "Expo" project will not support the objectives of the Paris Agreement or the implementation of the Green Agenda in Surčin.

4. CONCLUSION

The Government of the Republic of Serbia announced the upcoming World Exhibition as a development opportunity, which should position the Republic of Serbia on the geo-economic and geo-political stage of the world. The "Expo 2027" project, which will be held in Surčin, will in many ways affect the changes expected by Belgrade and the Republic of Serbia, especially with regard to the construction of capital investment and supporting infrastructure, which should meet the needs of the upcoming World Fair.

However, any benefits of the "Expo" at the micro level in Surčin are not yet evident. This conclusion particularly highlights the ongoing challenges faced by the municipality, including the absence of secondary and tertiary healthcare facilities such as hospitals, the lack of secondary and higher education institutions, the scarcity of cultural institutions, and, most critically, the deficiencies in communal infrastructure, especially the sewage network. Despite the shortcomings that the "Expo" will not address, it is certain that the project will lead to an increase in the population of the Surčin municipality. This, in turn, will intensify traffic and result in a reduction of agricultural land in the area. Hence, as a result of this empirical research, which was conducted on the basis of publicly available data, it can be concluded that there were no concrete answers to certain questions. In particular, the issue of preserving Belgrade's water sources, that is, preserving the zone of narrower and wider sanitary protection, remains open. In certain aspects, the "Expo" project appears to contradict the goals of the Paris Agreement, and in some cases, it is even directly opposed to these objectives, thereby negatively affecting the implementation of the Green Agenda in the Republic of Serbia. Therefore, the "Expo 2027" construction project in Surčin would need to be accompanied by initiatives aimed at addressing the existing challenges. Such complementary projects would support the goals of the Paris Agreement, advance the implementation of the Green Agenda, and improve the living conditions of Surčin's residents.

REFERENCES

[1] Ministarstvo rudarstva i energetike. (2023). *Integrisani nacionalni energetski i klimatski plan Republike Srbije za period do 2030. godine sa projekcijama do 2050. godine – INEKP. https://www.mre.gov.rs/tekst/sr/1115/-integrisani-nacionalni-energetski-i-klimatski-plan-republike-srbije-za-period-do-2030-sa-vizijom-do-2050-godine.php* (February 20, 2024).

[2] Vlada Republike Srbije. (2023). *Srbija izabrana za domaćina renomirane međunarodne izložbe EXPO 2027.* https://www.srbija.gov.rs/vest/714105/srbija-izabrana-za-domacina-renomirane-medjunarodne-izlozbe-expo-2027.php (February 18, 2024).

[3] Opština Surčin. (2021). *Strategija lokalnog održivog razvoja gradske opštine Surčin*. Beograd: Opština Surčin.

[4] Aleksić, S. (2020). *Jugoistočni Srem sredinom XX veka u dokumentima Istorijskog arhiva Beograda: Dobrovoljno, silom naterano*. Novi Sad: IK Prometej i Arhiv Vojvodine.

[5] Aleksić, S. (2022). *Vlasnički odnosi i način korišćenja zemljišnog resursa u istočnom Sremu od sredine XVIII veka do danas*. Doktorska disertacija. Beograd: Fakultet za poslovne studije i Geoekonomski fakultet.

[6] Vlada Republike Srbije. (2024). *Skok u budućnost Srbije 2027*. https://srbija2027.gov.rs/expo-2027/ (February 18, 2024).

[7] Vukmirović, D. (2014). *Uporedni pregled broja stanovika 1948-2011. Beograd: Republički zavod za statistiku. https://pod2.stat.gov.rs/objavljenepublikacije/popis2011/knjiga20.pdf* (February 21, 2024).

[8] Republički zavod za statistiku. (2024). *Surčin, profil januar 2024*. Beograd. http://devinfo.stat.gov.rs/SerbiaProfileLauncher/files/profiles/sr/1/DI_Profil_Surcin_EURSRB001001001016.pdf (February 21, 2024).

[9] Davidov-Keser D. (5. sept. 2013). Surčin dobija novi dom zdravlja posle osam decenija. *Politika*, bb.

[10] Gradski zavod za javno zdravlje. (2020). *Zdravstvena zaštita u Beogradu*. zdravstvena-zastita-u-beogradu-2020.pdf (zdravlje.org.rs) (February 21, 2024).

[11] Gavrilović, D. (ur). (2023) Opštine i regioni u Republici Srbiji 2023. Beograd: Republički zavod za statistiku.

[12] Janošević V. (26. mar. 2022). Gde je pozorište u Surčinu koje vidi samo Ana Brnabić. *Danas*, 9.

[13] Grad Beograd. (17.04.2024). Počinje s radom teatar u Surčinu. https://www.beograd.rs/lat/beoinfo/1808386-pocinje-s-radom-teatar-u-surcinu/ (april 23, 2024)

[14] Zakon o vodama, *Sl. glasnik RS*, 30/10, 93/12, 101/2016, 95/2018.

[15] Aleksić, S. (2019). Historical-economic retrospective of Water Supply Development of Belgrade. In: Marinković, D. et al (eds.) *11th International Scientific Conference Returning the Planet to people and returning man to the Planet* (83-104). Belgrade: Ministarstvo zaštite životne sredine, Visoka sanitarno-zdravstvena škola strukovnih studija Visan, Banja Luka College, Visoka strukovna škola za preduzetništvo, Centar za industrijske odnose.

[16] Generalni urbanistički plan Beograda. Sl. list grada Beograda, 11/16.

[17] Opština Surčin. (2019) Obaveštenje o priključenju na sekundarnu kanalizacionu mrežu. https://surcin.rs/?p=29679 (February 25, 2024).

[18] Odluka o izradi Prostornog plana područja posebne namene Batajničkog kanalizacionog sistema. *Sl. glasnik RS*, 67/2021.

[19] Aleksić, S. (2021). Zadruga za isušenje jugoistočnog Srema: Prilog za razumevanje imovinskih odnosa. U: Jovanović, V. i dr. (ur.). *II Naučno-stručni skup „Nauka, ekonomija, društvo", Zbornik radova* (75-82). Beograd: Visoka škola strukovnih studija za ekonomiju i upravu.

[20] Ministarstvo zaštite životne sredine. (2024). Rezultati ispitivanja kvaliteta vode reke Dunav i reke Save na širem području grada Beograda 14.02.2024. https://www.sepa.gov.rs/download/kvbg/izvestajAktuelni.pdf (april 10, 2024).

[21] Direkcija za građevinsko zemljište i izgradnju Beograda, J.P. https://www.beoland.com/planovi/gup-beograda/ (mart 20, 2024)

[22] Zakon o planiranju i izgradnji, *Sl. Glasnik RS*, br.72/2009, 81/2009-ispr., 64/2010-odluka US, 24/2011, 121/2012, 42/2013-odluka US, 50/2013-odluka US, 98/2013-odluka US, 132/2014, 145/2014, 83/2018, 31/2019, 37/2019-dr. Zakon, 9/2020, 52/2021 i 62/2023

[23] Aleksić, S. (2019). Retrospektiva ekonomskog aspekta produktivnog poljoprivrednog zemljišnog fonda na teritoriji GO Surčin – prilog ekonomskoj istoriji GO Surčin. *Megatrend revija*, Vol 15 (1), 1-18.

[24] Vućićević, A. (ur.). (2023). Statistički godišnjak Srbije 2023. Beograd: Republički zavod za statistiku.

[25] Aleksić, S. (2023). Climate changes in the Republic of Serbia froma an economic and political point of view with special reference to opportunities in the Citu of Belgrade. In: Maksimović, S. & Petrović, S. (ed) *Geopolitical, geoeconomical and geofinancial challenges* (16-31). Beograd: Institut za finansije i makroekonomsku politiku.

ОДНОС ЗЕЛЕНЕ АГЕНДЕ СРБИЈЕ И УРБАНИЗАЦИЈЕ ОПШТИНЕ СУРЧИН ЗБОГ РЕАЛИЗАЦИЈЕ ЕХПО 2027 – СТАЊЕ И ПЕРСПЕКТИВЕ

Резиме: *Изградња Националног стадиона и изложбено-стамбеног комплекса „ЕКСПО 2027“ ради одржавања међународне специјализоване изложбе, имаће позитивне ефекте на Републику Србију. Они се огледају кроз развој нове урбане области у Београду, на локацији којом администрира Општина Сурчин. Уједно, развој путне и пружне инфраструктуре ка овој локацији омогућиће приступачност из свих делова Републике Србије, што додатно потврђује национални значај ове капиталне инвестиције, сврставајући је на макро нивоу у најзначајнији пројекат у модерној историји Србије. Међутим, остаје отворено питање микронивоа – Сурчинске општине - затеченог стања и будућег развоја из перспективе заштите животне средине. У овом раду настоји се доћи до сазнања о томе да ли ће и на који начин планирана капитална инвестиција утицати на квалитет живота људи који настањују Сурчинску општину, односно, да ли ће пројекат „Ехпо 2027“ испунити циљеве из Споразума о клими из Париза, смањењу загађења животне средине – ваздуха, земљишта и вода, те допринети усаглашавању са правним тековинама ЕУ у областима обухваћеним кроз Зелену агенду: декарбонизацији, енергетској ефикасности и смањењу индустријских емисија. У овом истраживању примењене су дескриптивна и компаративна метода, метода анализе и синтезе, а где је било могуће коришћена је и статистичка метода. У раду нису разматрани финансијске вредности капиталне инвестиције.*

Кључне речи: *Ехпо 2027, Србија, Београд, Сурчин, Зелена агенда, земља, вода, ваздух*

UDC: 336.221:334.726
COBISS.SR-ID 183305993
doi: https://doi.org/10.61837/mbuir030225017s

REVIEW SCIENTIFIC PAPER

RECEIVED: 10. 04. 2024.
ACCEPTED: 27. 11. 2025.

INTERNATIONAL TAX SYSTEM AND MULTINATIONAL COMPANIES

Snežana R. STOJANOVIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia
snezana.stojanovic@ppf.edu.rs; snezanastojanovic27@gmail.com
https://orcid.org/0000-0002-2737-493X

Abstract: *Nowadays modern international tax system is faced and challenged with many issues. Mainly, these are the consequences of rapidly growing globalization, and several economic crises in the world in over last two decades. As major players on the international stage, multinational companies play a crucial role in shaping the global tax system, and their conduct is now under closer scrutiny by modern states and international organizations than ever before. The reasons for this lie in the vast resources multinational companies have and their ability to influence global developments. The globalization and digitalization of nearly all social and economic spheres have simplified both business operations and everyday life, a trend that became particularly evident following the outbreak of the global Covid-19 pandemic in 2020. On the other hand, these developments—and the crises that followed—exposed significant weaknesses in the international tax system. Companies no longer need to cross borders to conduct business; they can operate entirely online. While this model greatly benefits companies, it poses substantial challenges for states. Nowadays, modern states are more than ever faced with tax evasion and tax avoidance of the multinational companies. Together, the world's most powerful market economies—organized within the G8 (and G20)—along with the international economic institution, the Organization for Economic Cooperation and Development (OECD), and the European Union, have undertaken various measures and initiatives, following OECD recommendations, to address the global economic challenges arising from recent and ongoing health, political, economic, and military crises. These crises have contributed to a growing tendency among multinational companies to avoid paying taxes in the countries where they conduct business and to shift their profits to jurisdictions with low or zero tax rates. Projects such as Base Erosion and Profit Shifting (BEPS) focused on different aspects of multinational companies' business and their taxation is the one that has occupied the attention of the international tax audience since 2013, when the Action Plan on BEPS had been published. Many measures have been implemented and have produced positive results; however, each time states expect companies to comply with regular tax obligations, a new crisis emerges, undermining the efforts of states and, primarily, the OECD.*

This paper focuses on the developments shaping the modern international tax system and the taxation of multinational companies. The author reviews the most important recent and ongoing measures adopted at the global level, offering conclusions and observations based on their impact on the taxation of multinational companies and on the global economy as a whole.

Keywords: *international tax system, multinational companies, OECD, BEPS, globalization, crises*

1. INTERNATIONAL TAX SYSTEM

The international tax system traces its origins to the early twentieth century. In the period following the First World War, states recognized the importance of cooperation, as well as the need to import goods from other countries and export their own products abroad. Maintaining strong economic relations and cooperation became essential for ensuring a stable and healthy national economy. Here, the issue of taxation comes into the scene, because it is the one of the key spheres that provides stability of the whole national economy. However, it was not only domestic taxation that mattered. The taxation of goods, enterprises, and individuals crossing national borders and conducting business in other states also became essential for national revenue and the stability of the economy. States recognized this early on, which paved the way for the development of the international tax system. The first rules governing the cross-border taxation of companies were established in the 1920s and 1930s, and over time, these rules gradually led to the creation of broader international tax standards. Conducting business and generating income in two or more countries necessitated the establishment of precise international rules to be applied by each state involved in the business activities. Each state sought not only to tax income generated within its own territory but also to tax the income of its citizens regardless of whether it was earned domestically or abroad. These overlapping interests inevitably led to economic and financial conflicts, which in turn could escalate into political and even military tensions—outcomes that the international community, already recovering from the crisis following the First World War, could ill afford. Furthermore, different national interests could lead to the double or multiple taxation of cross-border business income. It had become evident that only supranational body/ international organization can establish unique rules to be followed in each state. The rules were gradually established, beginning with the work of the League of Nations and later continuing through the efforts of the Organization for Economic Cooperation (OEC) and the Organization for Economic Cooperation and Development (OECD). The only viable way to reconcile national interests in tax revenues was through the conclusion of treaties between two or more states where companies and individuals earned income. Accordingly, the work of the aforementioned international organizations focused on developing models for interstate (bilateral and multilateral) tax treaties. The first model of the tax convention had been created by the OECD in 1977 and it had become a standard for economically developed states in negotiations and conclusion of the bilateral tax treaties to prevent double taxation. Industrial and economic development of the states, new political map, connecting people from different states more and more over time, expansion of the cross-border business, etc, had led to the several revisions of the first OECD model tax convention till today (Holmes, 2007; OECD, 2014; OECD, 2017)[1]. The rules established by the OECD had been supported by the Organization of United Nations, but modified to satisfy the economic interests of developing and undeveloped states represented in this international organization". (Stojanović, 2022)

However, in the modern world, where the globalization and digitalization have taken place in almost all social and economic spheres, the international tax rules established in the first decades of the XX century are not in line with the expansion of the cross-border business and the era of companies doing business and making profit in many states (multinational companies), regardless of whether they are "actually" present on site or all operations are done online, which makes the problem even more complex. With this in mind, the definition that the multinational company is the one that derives at least ¼ of revenues from operations undertaken outside of its home country (IBFD, 1996) does not follow the development of the world economy and global expansion of multinational business, because digitalization

[1] The OECD model convention adopted in 1977 had been revised in the following years: 1992, 1994, 1995 1997, 2000, 2002, 2005, 2008, 2010, 2014, and 2017.

has enabled these companies to do all the operations online from the home country and take profit from many other countries, regardless of the sector. Today, multinational companies exert an even greater influence on national and global GDP and wealth, which in turn significantly shapes political relations and decisions both within and between the countries where they operate. As noted earlier, it has become increasingly evident that the international taxation rules established in the 1920s and 1930s are no longer adequate. They fail to keep pace with the rapid globalization of business and the digitalization of nearly all industrial, social, cultural, and other aspects of daily life. This situation has created an urgent need for the definition and implementation of new international taxation rules, as well as the revision and modernization of existing ones. (Stojanović, 2023)

2. THE OECD AND THE REFORM OF THE INTERNATIONAL TAX SYSTEM

International organizations such as OECD, IMF (International Monetary Fund), WB (World Bank), UN (United Nations), etc., followed by organizations in different parts of the world at the very end of XX century have started the projects to stop and prevent actions of the multinational companies that lead to the avoidance or evasion of their tax duties. The projects initiated and implemented by the OECD attract the most attention and have the greatest impact on both national and international taxation, as well as on national economies. This is because the OECD is widely recognized as a leading authority in combating tax abuse and illicit tax practices by all business taxpayers, particularly multinational companies. The project that attracted the most attention at the end of the twentieth century was the OECD's *Project on Harmful Tax Competition*, launched in 1998 (OECD, 1998). In the twenty-first century, the OECD continued this initiative and introduced other closely related projects, including those on the exchange of information, transfer pricing, and the highly topical *Base Erosion and Profit Shifting* (BEPS) project. All of them have been initiated with the intention to stop and prevent activities of the multinational companies that lead to nonpayment of taxes and measures of the states that encourage such activities. The project on Harmful Tax Competition, had originally been initiated to establish measures for prevention and tackling the influence of harmful tax competition on investment decisions and tax consequences in the economy of the states of investment. As mentioned earlier, corporate tax systems play a critical role in shaping global wealth, leading international organizations to take steps to curb national government actions that might negatively impact neighboring economies. The OECD did the research and made the whole list of the measures to be undertaken to tackle the problem of the harmful tax regimes differentiating between tax havens (as, potentially, the most dangerous harmful tax regimes) and other preferential tax regimes[2] (Stojanović, 2010). Parallel to the actions proposed by the OECD, the EU had undertaken measures to tackle the same problem within the borders of its Common Market - in the European Union, harmful tax practices create even greater challenges and higher economic costs due to the comparatively smaller size of its market (Stojanovic, 2023). Over the years, the Harmful Tax Competition project continued to be implemented by jurisdictions and in the coming years the OECD published the reports on the realization and implementation of the project by the countries (2001, 2004, 2006, and 2009).

With the project initiated in 2013, Project on Base Erosion and Profit Shifting (BEPS), the OECD continued with its work to provide stability in global wealth, fair and transparent taxation, both for the multinational business and countries where the business operations take

[2] In its publication *Harmful Tax Competition: An Emerging Global Issue*, (Paris, OECD Publishing, 1998), the OECD recommended to its countries to undertake three group of measures to tackle the problem of harmful tax competition and harmful tax regimes: (1) recommendations concerning domestic legislation with a goal to increase its effectiveness; (2) recommendations concerning tax treaties mostly directed to the effectiveness of the exchange of information between tax administrations and tax benefits given only to the residents of the treaty partners; (3) recommendations for intensification of international cooperation.

place, taking into account different aspects of multinationals' business and its taxation. This project has focused on the development of the new set of standards for prevention of double non-taxation; closer national and international cooperation, greater transparency in reporting and disclosure of certain data, development of multilateral instrument to amend bilateral tax treaties, and actual harmful tax regimes (OECD, 2013). The BEPS project has been initiated by the G-8, then by G-20, which asked the OECD to do research and make proposal on the actions preventing and eliminating tax avoidance and other illegal activities of the MNEs doing business worldwide. The Action Plan on BEPS was fully endorsed by the G20 in 2013. The BEPS project comprises 15 actions, all designed to ensure that companies are taxed in the jurisdictions where they carry out business and earn profits. The actions are defined as follows:

1) Addressing the tax challenges of the digital economy;
2) Neutralizing the effects of the hybrid mismatch arrangements;
3) Designing the effective controlled foreign companies' rules;
4) Limiting base erosion involving interest deductions and other financial payments;
5) Countering harmful tax practices more effectively by emphasizing transparency and economic substance;
6) Preventing the granting of treaty benefits in inappropriate circumstances;
7) Prevention of the artificially avoiding permanent establishment status;
8) Actions 8-10: Ensuring that transfer pricing reflects where economic value is actually created;
9) Actions 11: Measuring and monitoring BEPS;
10) Actions 12: Mandatory disclosure rules;
11) Actions 13: Transfering pricing documentation and country-by-country reporting;
12) Actions 14: Making dispute resolution mechanisms work effectively;
13) Actions 15: Developing multilateral instruments to modify bilateral tax treaties (Stojanović 2017; Stojanović, 2023).

From the very beginning of the implementation of the BEPS project, states around the world have started following the OECD recommendations and Inclusive Framework defined for each of the actions of the project. The OECD initially focused on several key actions, including: transfer pricing (Actions 8–10); mandatory disclosure rules (Action 12); preventing the artificial avoidance of permanent establishment status (Action 7); neutralizing the effects of hybrid mismatch arrangements (Action 2); and limiting base erosion through interest deductions and other financial payments (Action 4). Right after that, in 2017, the OECD had published multilateral instrument named Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS as an instrument that would be used for modification of the current bilateral tax treaties and to make a model for the future tax treaties to be concluded and signed (Action 15), which up to now has been signed by 102 states[3]. Alongside the core BEPS actions, the OECD addressed Action 1 on digitalization and Action 5 on harmful tax practices, though these initially received less focus. Over the past three years, however, Actions 15 and 5 have emerged as key priorities in the OECD's BEPS agenda. The challenges posed by the digital economy became increasingly evident, revealing numerous problems and gaps during the global Covid-19 pandemic and the closure of national borders in 2020. After the states had started recovering their economies from "the Covid-19 pandemic shock", the OECD sped up its work on the digitalization and made proposals to prevent

[3] The first signing ceremony of the multilateral instrument was held on June 7, 2017, so the convention came into effect on July 1, 2018. Up to now, 102 states joined to this convention, and 85 states have ratified, accepted or approved it. The result is the modification and amendments of around 1900 bilateral tax treaties. See: https://www.oecd.org/tax/treaties/beps-mli-signatories-and-parties.pdf, Visited: 02\15\2024
On June 29, 2023 the OECD published a new and improved version of the Multilateral convention. See: https://www.oecd.org/tax/beps/oecd-launches-new-version-of-the-beps-multilateral-convention-matching-database-to-further-support-international-tax-co-operation.htm Visited: 02\15\2024

and stop the misuse of the digitalization and online business by the multinational companies. The most powerful economies (presented in the G-20) had gathered and made a joint decision to stop such a behavior of the multinational companies and to prevent breaking out of the new global financial and economic crisis: they endorsed the OECD's proposal on the global minimum company tax, as a realization of BEPS Action 1 on digitalization, aimed at addressing current abuses and preventing future illicit activities by multinational companies worldwide. This mechanism has been structured around two pillars. Pillar one is focused on the reallocation of the taxing rights between the states where multinational companies do business; the second pillar is focused on the global anti-base erosion mechanism/ global minimum company tax. (Stojanović, 2021). In 2021, the OECD and national governments were focused on the effects of the pillar two solution implementation and during 2022 on the effects of the pillar one implementation. The very end of the 2022 was the time when the OECD launched the GloBE Model Rules defining the frame for the countries to implement the global minimum company tax and so-called GloBE strategy. Pillar one is focused on a fair distribution of profits and taxing rights among states in relation to the largest multinational companies (mainly, digital companies). Under Pillar Two, competition between countries over corporate income tax will be reduced or eliminated through the implementation of a global minimum corporate tax rat. The global minimum company income tax with a minimum rate of 15% is estimated to generate annually around USD 150 billion in additional global tax revenues. Further effects are going to be achieved by increasing stabilization of the international tax system and the greater tax certainty for taxpayers and tax administrations. (OECD, 2021). Pillar one rules target the largest and most profitable multinational companies, requiring them to allocate a portion of their profits to the countries where their products are sold and services are provided. The OECD separated pillar one in two solutions: Amount A and the amount B. Amount A is based on a comprehensive scope using quantitative thresholds to determine whether a multinational company is a subject to the rules on Amount A, regardless of the business type, which means that each multinational company with revenues greater than 20 billion EUR and profitability greater than 10% will be within the scope of the Amount A (with some exceptions as defined in the GloBE Model Rules). To satisfy the interests of national governments to collect taxes, the OECD has made the exclusion of the extractive industry and regulated financial service profits (the exclusion of extractive industries (mining, oil, and gas companies) was designed to protect source countries' right to tax profits from the extraction of their natural resources, while the exclusion of regulated financial services reflects the regulatory nature of that sector). (Stojanović, 2021, OECD, 2022). Another segment of the pillar one (Amount B) would make it easier to identify how much tax might be owed on marketing and distribution activities in countries (Bunn, 2022).

Under Pillar two, national competition over corporate income tax will be reduced or eliminated through the implementation of a global minimum corporate tax rate. It is estimated that the global minimum company income tax with a minimum rate of 15% would generate annually around USD 150 billion in additional global tax revenues, which would increase stabilization of the international tax system and make greater tax certainty for taxpayers and tax administrations. (OECD, 2021)

In 2022 and the beginning of the 2023, the focus of the OECD was on the harmful tax regimes and implementation of the BEPS Action 5 ("Countering harmful tax practices more effectively taking into account transparency and substance"). The OECD Forum on Harmful Tax Practices that was created in 1998 continued conducting reviews of the preferential regimes around the world in order to determine if the regimes could be harmful to the tax base of other jurisdictions. With BEPS Action 5, the mandate of the Forum on Harmful Tax Practices (FHTP) was expanded to cover three

key areas: (1) the assessment of preferential tax regimes (to identify features of such regimes that can facilitate base erosion and profit shifting and consequently potentially unfair impact of the tax base of other jurisdictions); (2) the peer review and monitoring of the Action 5 transparency framework through the compulsory spontaneous exchange of relevant information on taxpayer-specific rulings; and (3) the review of substantial activity requirements in jurisdictions with no or only nominal taxes to ensure a level playing field[4]. In January 2019, the OECD released Progress report on harmful tax regimes (Harmful Tax Practices - 2018 Progress Report on Preferential Regimes), which had been approved by the OECD/G20 Inclusive Framework on BEPS. The Progress Report includes the results of the review of preferential tax regimes undertaken by the Forum on Harmful Tax Practices in accordance with the BEPS Action 5 minimum standard and in February 2024 this report was updated taking into account the status of the preferential tax regimes in different spheres of industry, standard for the exchange of information on tax rulings (which has been renewed in this report); and substantial activities in no or only nominal tax jurisdictions. Having in mind that a criteria set out in the harmful tax framework from 1998 cannot support the expansion of cross-border business and current digitalization, the Inclusive Framework released an additional guidance on the framework for the spontaneous exchange of information collected by no or only nominal tax jurisdictions according to the defined global standard[5]. The guidance addresses the practical modalities regarding the exchange of information requirements of the standard, including the exchange timelines, the international legal framework and clarifications on the key definitions. The guidance also contains the standardized IT-format to be used for the exchange of information.

The implementation of the BEPS actions has undoubtedly impacted cross-border business. Multinational companies operating in multiple countries have recognized that it is preferable to pay taxes in the source countries where profits are generated, rather than shifting them to low- or no-tax jurisdictions through various legal tax planning schemes, conduit structures, or base companies. This is particularly true for large multinationals operating in ten or more countries, which previously used various legal tax planning strategies to understate their profits and often overstate their business expenses. Countries around the world are implementing BEPS, including many that are not OECD members (the OECD reports that more than 135 countries participate in the BEPS Inclusive Framework). Countries around the world are implementing BEPS, including many that are not OECD members (the OECD reports that more than 135 countries participate in the BEPS Inclusive Framework). This is happening alongside the requirement for the largest multinational companies to submit annual consolidated reports on their global operations, as well as country-by-country reports for each country where they do business.

3. CONCLUSION

Modern times are characterized by the globalization of nearly all spheres of business and individual activity, presenting numerous opportunities but also significant challenges. States today face unprecedented pressures from globalization, including climate change, shortages of water and food, the global spread of pandemics, territorial and resource conflicts, and the threat of destruction through nuclear and other weapons. At the same time, there is rapid expansion of online business by companies and individuals, the swift growth of multinational corporations, and business activities that easily cross-national borders. All

[4] https://www.oecd.org/tax/beps/beps-actions/action5/ Visited: 10\02\2024

[5] The global standard means that mobile business income cannot be parked in a zero-tax jurisdiction without the core business functions having been undertaken by the same business entity, or in the same location. In this way, the Inclusive Framework ensures that substantial activities are carried out for the same types of mobile business activities, regardless of whether they occur in a preferential regime or a jurisdiction with no or only nominal taxes. See: https://www.oecd.org/tax/beps/beps-actions/action5/ Visited: 02\10\2024

of these factors have contributed to a situation in which wealthy countries have grown richer, while poorer countries have become even poorer. The same applies to individuals, with a race for wealth and power driving increasing inequality. Modern technologies have made life and business more convenient, but they have also contributed to greater social estrangement among people. From the perspective of multinational business and taxation, globalization has highlighted the shortcomings of the international tax system established in the early 20th century, demonstrating the urgent need for comprehensive reform. It is expected that once all measures of the OECD BEPS project are fully implemented—and by more countries than the current participation of slightly over 140 nations in the BEPS Inclusive Framework—the landscape of international taxation for multinational businesses will undergo a radical transformation. Certainly, reforms and initiatives across various industries will transform the global landscape, affecting businesses, entrepreneurs, and having a significant impact on individuals' lives. The coming period will reveal the success or failure of current reforms and indicate whether additional measures or entirely new reforms are necessary.

REFERENCES

[1] Bunn, D, Three Questions on Pillar One, https://taxfoundation.org/oecd-pillar-one/ published on July 25th, 2022; Date visited: 02\10\2024;

[2] Holmes, K. (2007), International Tax Policy and Double Tax Treaties: An Introduction to Principles and Application, Amsterdam, IBFD;

[3] IBFD (1996), *International Tax Glossary*, Revised Third Edition, Amsterdam, pp. 203 and 314;

[4] OECD (2013), Action Plan on Base Erosion and Profit Shifting (BEPS), OECD Publishing, Paris;

[5] OECD (2014), Model Tax Convention on Income and on Capital with Commentary: Condensed Version, OECD Publishing, Paris;

[6] OECD (2017), Model Tax Convention on Income and on Capital with Commentary, OECD Publishing, Paris;

[7] OECD (2021). OECD/G20 Base Erosion and Profit Shifting Project: *Tax Challenges Arising from the Digitalization of the Economy – Commentary to the Global Anti-Base Erosion Model Rules (Pillar Two), Inclusive Framework on BEPS*, OECD Publishing, Paris;

[8] OECD (2022). OECD/G20 Base Erosion and Profit Shifting Project: *Tax Challenges Arising from the Digitalization of the Economy – Commentary to the Global Anti-Base Erosion Model Rules (Pillar Two), Inclusive Framework on BEPS*; OECD Publishing, Paris;

[9] OECD (1998), *Harmful Tax Competition: An Emerging Global Issue,* OECD Publishing, Paris

[10] Stojanović, S. (2010), *Nepravična poreska konkurencija u Evropskoj uniji*, Kragujevac, Pravni fakultet Univerziteta u Kragujevcu,;

[11] Stojanović, S. (2017), *Poresko planiranje multinacionalnih kompanija – izazovi i ograničenja,* Beograd, Poslovni i pravnifakultet;

[12] Stojanović, S. (2021), 75th International Scientific Conference on Economic and Social Development - Belgrade, 02-03 December, 2021, *Book of Proceedings*, eds. B. Taheri, A. Damjanovic, M. Bogavac, "Tax Transparency of the Operations of Multinationals in the Era of Covid-19", pp. 256-264;

[13] Stojanović, S. (2023), "Multinationals' Taxation in the Time of Globalization, MB University International Review - MBUIR 2023, Vol. 1, No. 2,68-75; doi: https://doi.org/10.61837/mbuir010223068s

[14] Stojanović, S. (2023), 96th International Scientific Conference on Economic and Social Development - "Era of Global Crises" – Belgrade, 18-19 May, 2023, *Book of Proceedings*, eds. Milija Bogavac, Živanka Miladinović - Bogavac, Željka Marcinko Trkulja, "Fair Taxation under the Global Anti-base Erosion Rules?", pp. 225-231;

[15] Taheri, B, Damjanovic, A. & Bogavac, M (eds.) (2021), *Book of Proceedings of 75th International Scientific Conference on Economic and Social Development* - Belgrade, 02-03 December, 2021, Varazdin Development and Entrepreneurship Agency, Varazdin, Croatia / University North, Koprivnica, Croatia / University MB, Belgrade, Serbia / Faculty of Management University of Warsaw, Warsaw, Poland / Faculty of Law, Economics and Social Sciences Sale - Mohammed V University in Rabat, Morocco / Polytechnic of Medjumurje in Cakovec, Cakovec, Croatia;

[16] https://www.oecd.org/tax/beps/beps-actions/action1 (February 14\2024);

[17] https://www.oecd.org/tax/beps/beps-actions/action5/ (February 10, 2024);

[18] https://www.oecd.org/tax/beps/faq/(February 14, 2024);

[19] https://www.oecd.org/tax/treaties/beps-mli-signatories-and-parties.pdf (February 2, 2024)

[20] https://www.oecd.org/tax/beps/oecd-launches-new-version-of-the-beps-multilateral-convention-matching-database-to-further-support-international-tax-co-operation.htm (February 2, 2024)

МЕЂУНАРОДНИ ПОРЕСКИ СИСТЕМ И МУЛТИНАЦИОНАЛНЕ КОМПАНИЈЕ

Резиме: *У данашње време модерни међународни порески систем суочен је са многим изазовима. Углавном су то последице наглог ширења глобализације, али и неколико економских и финансијских криза у свету у последње две деценије. Мултинационалне компаније, као главни "играчи" на међународној сцени, имају кључну улогу у обликовању међународног пореског система, због чега је њихово понашање у фокусу модерних држава и међународних организација више него икада раније.*

Разлоге за то треба тражити у богатству којим мултинационалне компаније располажу и утицају на глобална дешавања. Глобализација и дигитализација скоро свих друштвених и економских области олакшала је пословање и животе појединаца, што је посебно изражено након појаве глобалне пандемије Ковид-19 у 2020. С друге стране, ова и кризе које су уследиле показале су недостатке међународног пореског система - компаније више не морају да прелазе државне границе ради пословања - сада углавном послују онлине, међутим колико год да је овај начин пословања добар за компаније, толико је лош за државе. Данас су, модерне државе више него икада суочене са избегавањем плаћања пореза од стране мултинационалних компанија. Заједно, најмоћније тржишне економије окупљене у Групу 8 (и Групу 20) и међународне економске организације -Организација за економску сарадњу и развој (ОЕЦД) и Европска унија, следећи препоруке ОЕЦД, предузимају мере и пројекте за решавање глобалних економских проблема насталих услед скорашњих здравствених, политичких, економских, ратних и других криза, које су продубљене склоношћу мултинационалних компанија да избегну плаћање пореза у државама свог пословања и да пребаце своје профите у државе које ће их ниско или нимало опорезовати. Пројекат о ерозији пореске основице и пребацивању профита усмерен је на различите аспекте пословања мултинационалних компанија и њихово опорезивање окупира пажњу међународне пореске јавности од 2013. године када је објављен план активности из којих се овај пројекат састоји. Многе од ових активности су већ реализоване и дају добре резултате. Међутим, кад год државе "помисле" да ће компаније редовно плаћати порезе, избије нова криза и напори држава и углавном ОЕЦД буду суочени са неуспехом.

Овај рад фокусира се на дешавања која утичу на модерни порески систем и опорезивање мултинационалних компанија. У обзир су узете најзначајније скорашње и актуелне мере које се предузимају на глобалном нивоу, уз давање закључака и препорука имајући у виду опорезивање мултинационалних компанија и читаву глобалну економију.

Кључне речи: *међународни порески систем; мултинационалне компаније; ОЕЦД; БЕПС; глобализација; кризе*

MANAGEMENT AND BUSINESS

ORIGINAL SCIENTIFIC WORK

RECEIVED: 28. 10. 2025.
ACCEPTED: 25. 11. 2025.

UDC: 005.322:316.46]:159.942.075(497.11)
159.942.075:159.95(497.11)
COBISS.SR-ID 183309065
doi: https://doi.org/10.61837/mbuir030225026m

LEADERS' EMOTIONAL INTELLIGENCE AS A MEDIATOR BETWEEN LEADERSHIP AND JOB SATISFACTION: A CONSERVATION OF RESOURCES THEORY PERSPECTIVE

Nenad M. MIHAJLOV

MB University, Faculty of Business and Law, Belgrade, Serbia
nenadmihajlov@hotmail.com
https://orcid.org/0009-0004-7891-0933

Snežana R. MIHAJLOV

MB University, Faculty of Business and Law, Belgrade, Serbia
snezanamihajlov@hotmail.rs
https://orcid.org/0000-0003-1976-2905

Abstract: *Job satisfaction is crucial for organizational success, and transformational leadership is widely recognized as a key driver. However, research has rarely explored how leaders' emotional intelligence (EI) might act as a bridge between these two factors, leaving a gap in understanding. This study investigates whether EI mediates the link between individualized consideration (a core aspect of transformational leadership) and job satisfaction. According to the Conservation of Resources theory, we view emotional support as a crucial resource provided by leaders. Data from 275 employees in Serbia's insurance sector were analyzed using structural equation modeling (SEM) in SmartPLS 4, with standardized scales measuring leadership behaviors, EI, and job satisfaction. Results revealed that leaders' EI fully mediates the relationship between individualized consideration and job satisfaction, while other transformational leadership traits showed no direct effects. Importantly, EI directly enhances job satisfaction, functioning as both a mediator and an independent contributor. This research advances leadership theory by clarifying how emotional support underpins effective leadership, validating teamwork's role in fostering satisfaction, and offering actionable insights for EI-focused leadership training programs*

Keywords: *emotional intelligence, transformational leadership, conservation of resources theory, job satisfaction, emotional support*

1. INTRODUCTION

Job satisfaction—the extent to which an individual derives a positive affect from their work [1]—is a key determinant of organizational health and a fundamental component of workplace dynamics [2]. As a major contributor to employee well-being, job satisfaction enhances professional fulfillment and serves as a critical mechanism for sustaining productivity [3, 4]. In addition, it is also a widely recognized indicator of reduced absenteeism, lower turnover rates, and diminished workplace stress [7], underscoring its role as a central issue in human resource management.

For these reasons, the study of job satisfaction holds significant relevance for organizational psychology because it lies at the heart of our understanding of how affective states shape workplace behavior. Its importance as a classic problem in the discipline stems from its instrumental role in explaining employee engagement and performance. As a fundamental property of organizational systems, job

satisfaction has been the subject of many classic studies since the mid-20th century, solidifying its status as a major area of interest for both researchers and practitioners.

However, employee dissatisfaction remains a major problem in the global workplace. Surveys such as the annual Gallup report [8] consistently reveal alarmingly high levels of dissatisfaction. This is compounded by particularly worrying ineffective management, which manifests itself in poor communication, inconsistent support and perceived injustice. Also, one of the biggest challenges is the stark discrepancy between managers' self-assessments of leadership effectiveness and employees' experiences, which highlights systemic shortcomings in current organizational practices. Therefore, there is an urgent need to address the problems caused by these managerial shortcomings, as they perpetuate cycles of disengagement and stress. Also, without rethinking leadership strategies, organizations risk exacerbating the critical decline in workplace well-being, which highlights the imperative for evidence-based interventions.

Indeed, leadership is widely recognized as a critical determinant of employee satisfaction, with extensive research confirming its role in mitigating workplace dissatisfaction [9]. However, beyond this direct influence, recent evidence shows that leadership's impact extends through multiple mediating mechanisms. For instance, studies have identified employees' self-efficacy as a key mediator [10], while others highlight psychological empowerment [11] and trust in leadership [12] as pivotal factors. Similarly, investigations into leader-member exchange (LMX) dynamics [13], motivation [14], and organizational identification [15] have revealed additional pathways through which leaders cultivate positive affective and cognitive workplace responses. Collectively, these findings underscore that leadership behaviors do not operate in isolation, but activate a network of psychosocial processes to enhance employee well-being.

Although emotional competencies are widely recognized as essential for effective leadership [16], and the critical role of leaders in shaping employees' daily emotional experiences is well established [17], the precise way in which a leader's affect—specifically, their ability to perceive, understand, and manage emotions—impacts employee outcomes remains less clear. Despite existing evidence linking leaders' EI to employee satisfaction [19, 20], the psychological mechanisms underlying this relationship remain poorly understood [18]. Indeed, little is known about the processes through which leaders' emotional awareness translates into tangible workplace well-being, leaving a significant gap in both theory and practice.

For these reasons, this study explored the indirect influence of leaders' EI on employee job satisfaction, addressing a critical gap in leadership research. The central thesis of this paper is that leaders' EI operates through resource dynamics articulated by conservation of resources (COR) theory [24]. In theory, individuals show a tendency to protect valuable resources in order to reduce stress and maintain well-being. In addition, we build on transformational leadership (TL) theory—a framework that explains how leaders inspire followers to transcend self-interest and internalize organizational values [21]. Although the effectiveness of TL is well documented [22] and often attributed to leaders' emotional intelligence [23], we explore the psychological mechanisms that link leaders' emotional intelligence to employee satisfaction. Specifically, we propose that emotionally intelligent leaders, by providing emotional support, foster environments in which employees conserve and replenish psychological resources, wherewith increasing job satisfaction.

This study provides new insights into the interplay between TL and job satisfaction by revealing two novel contributions. First, it offers a new perspective on the psychological basis of TL, introducing leaders' EI as a key moderating factor. Specifically, while prior research has predominantly focused on cognitive and motivational mechanisms [34], our findings show that leaders' ability to recognize and regulate emotions—both their own and their

team's—significantly enhances employee satisfaction, thus extending the theoretical boundaries of TL from inspiration to emotion-driven competence. Second, this study fills a gap in the literature by theorizing the mediating psychological processes linking TL to satisfaction. Specifically, it enhances our understanding of how leaders' EI facilitates emotional support practices—such as active listening, empathetic responsiveness, and constructive feedback—that reduce stress and cultivate belonging. Importantly, these practices, which are directly tied to higher job satisfaction [35], reveal a previously under-explored pathway: TL's efficacy hinges not only on vision but also on leaders' capacity to engage in emotion-laden interpersonal interactions.

2. THEORY AND HYPOTHESES

2.1. COR Theory, Social Support, and Job Satisfaction

According to the COR theory [24], individuals strive to accumulate, protect, and manage resources—defined as anything perceived as useful for achieving goals [36]—to cope with stressful demands. These resources are categorized into personal resources (e.g., self-confidence, optimism) and social resources (e.g., managerial support, peer networks) [30]. While personal resources enable adaptive coping, social resources, such as a supportive environment, bolster psychological resilience (e.g., self-efficacy) and foster trust in organizational networks, especially under stress [24, 31].

As we can see from the categories of resources, when these are depleted or when returns on resource investment fall short, stress arises in two scenarios: (1) perceived/actual resource loss or (2) insufficient returns on resource investment. This imbalance can trigger a loss spiral—a destructive cycle in which dwindling resources weaken our ability to respond and adapt, leading to ever-greater losses. [37]. Similarly, in the organizational context, this dynamic directly intersects with job satisfaction. Employees often experience positive emotional states, higher motivation, and greater engagement when the resources they receive (e.g., support, recognition, autonomy) outweigh the resources they invest (e.g., time, emotional effort) [38]. Conversely, excessive resource loss correlates with burnout and productivity declines [39]. Notably, under high stress, resource value escalates as their role in sustaining performance becomes critical [40]. For example, leaders' support during peak demands acts as a buffer against depletion, highlighting the interplay between stress and resource prioritization.

Expanding this perspective, social support—particularly from leaders—emerges as a vital organizational resource. It includes not only tangible help (e.g., mentoring) but also the perceived availability of support in future challenges [37]. Leader support operates through dual mechanisms: (1) mitigating immediate stress via practical/emotional help and (2) enhancing resilience by reinforcing employees' confidence in sustained support during adversity [41]. These two mechanisms act to interrupt or mitigate the loss spiral described above by replenishing depleted resources and restoring adaptive capacities. Importantly, studies position leader support as a stronger predictor of satisfaction than peer support, owing to leaders' authority in resource allocation [42]. A critical extension of this concept is perceived social support—employees' belief that leaders value their contributions, care about their well-being, and will act in crises [43]. Unlike sporadic support, this perception fosters lasting security, reduces anticipatory stress, and promotes psychological well-being [44]. Meta-analytic research confirms that perceived leader support has both direct and indirect effects on job satisfaction, with mediating factors such as trust and organizational belongingness [45]. Unlike enacted (actual) support—which employees experience through a leader's concrete actions at a particular moment—perceived support reflects the expectation that help will be available in future challenges, thus creating a lasting sense of security and reducing anticipatory stress.

Drawing on these insights, Bass's transformational leadership theory [21] emphasizes

that leaders enhance employee job satisfaction of two key forms of support: idealized influence and individualized consideration. Idealized influence is based on building trust and moral authority, which encourages employees to adopt shared values and identify with both the leader and the organization. This identification reduces feelings of isolation and increases job satisfaction by fostering a sense of belonging [46]. For instance, when employees believe that leaders genuinely care about their well-being, they feel safer, experience less stress, and develop greater emotional stability [47]. Individualized consideration involves leaders recognizing and adapting to employees' unique needs, goals, and emotional states. It includes: (1) emotional support (e.g., empathy, mentoring), which reduces anxiety and boosts self-worth; (2) instrumental support (e.g., training, resource provision), which facilitates goal achievement and strengthens self-efficacy [43]. Building on the above discussion of idealized influence and individualized consideration, we propose the following hypotheses:

Hypothesis 1: Perceived leader idealized influence is positively associated with employee job satisfaction.

Hypothesis 2: Perceived leader individualized consideration is positively associated with employee job satisfaction.

2.2. Emotional intelligence as a leader's personal resource

The COR theory posits that stress arises when individuals perceive a threat to, or experience, the actual loss of valued resources. Emotional responses such as tension, anxiety, and frustration represent adaptive reactions to these stressors [48]. Crucially, their intensity is inversely related to the availability of perceived social support [49]. Building on this premise, adequate emotional (social) support—conceptualized as the systematic provision of care, empathy, and trust—functions as a protective factor [50]. As such, it mitigates stress, fosters emotional stability, and strengthens individuals' adaptive capacities despite challenges [51]. This buffering effect operates through two complementary mechanisms: (1) the generation of positive affective states and (2) the reinforcement of emotional resources through reciprocal interpersonal interaction [52].

Turning to other-oriented positive emotions, including sympathy, compassion, and empathy [53], these play a pivotal role in strengthening social cohesion through their inherently altruistic nature. In particular, these emotions represent adaptive responses to events perceived as detrimental to others' well-being. Compassion, defined as a motivated desire to mitigate suffering [54], is distinguished from empathy, which is conceptualized as a two-dimensional construct: (1) affective sensitivity to others' emotional states, resulting in shared feelings (e.g., sympathy), and (2) cognitive ability to decode and respond appropriately to others' needs [55]. Expanding on this idea, Weine and Auster [56] define compassionate care as sustained emotional engagement that integrates understanding others' emotions and taking proactive beneficial action. The key components are intentional perspective-taking and selfless active listening devoid of judgment or expectation.

Moving on to EI, this concept provides a foundation for understanding individuals' capacity to apply care and empathy in social contexts. According to Mayer and Salovey's influential model [57], EI includes four interrelated competencies: (1) accurately perceiving, appraising, and expressing emotions; (2) using emotions to support cognitive activities; (3) understanding emotional complexity and developmental trajectories; and (4) regulating emotions to foster personal and relational growth. In addition, these competencies enable individuals to engage in affective learning and internalize pro-social behaviors, such as active listening and emotional support, thus directly promoting empathy.

Given EI's central role, empathy—as a core component of emotionally intelligent behavior—extends beyond mere recognition of emotional states. It entails the intentional integration of emotional information into decisions

and behaviors that prioritize others' wellbeing [54]. Therefore, EI functions as a bridge between individual psychological resources and collective social cohesion, linking personal affective abilities with group-level dynamics and performance.

While the COR theory does not explicitly categorize EI as a resource, scholarly work has extended its conceptual framework to incorporate EI—defined as the ability to recognize, understand, and regulate one's own and others' emotions—as a critical personal resource [26–29]. Indeed, this inclusion aligns with COR's characterization of personal resources as stable traits or capacities that enhance stress resilience [24]. Specifically, these include emotional regulation and interpersonal skills, both of which facilitate goal attainment and foster the accumulation of further resources. Supporting this view, empirical studies reinforce this: individuals with higher EI are better equipped to reframe stressors as challenges, regulate their emotions, reduce psychological strain, and cultivate supportive social relationships [55, 56]. Therefore, EI contributes both to stress moderation and the amplification of personal and social resources, consistent with the COR theory's cyclical model of resource conservation and expansion [57].

Shifting focus to leadership, transformational leadership (TL)—characterized by its emotionally engaged and value-driven nature [58]—is intrinsically linked to leaders' emotional intelligence. Although some critical perspectives exist [59], the prevailing consensus, however, identifies EI as a key predictor of TL effectiveness [60, 61], particularly in the dimensions of idealized influence and individualized consideration. Specifically, idealized influence manifests through a leader's emotional self-regulation and authentic behavior, serving as a role model for followers [62]. Emotionally intelligent leaders are more adept at managing their own emotions, thus fostering trust and alignment with organizational values [63].

Likewise, individualized consideration—tailoring communication and support to meet employees' specific needs—is strongly associated with EI. This is because leaders with higher EI are better at perceiving and interpreting emotional cues, enabling them to provide personalized guidance and motivation [64]. Supporting this point, a meta-analytic review by Harms and Credé [65] underscores this link, concluding that EI not only facilitates emotional bonding but also transforms it into a strategic leadership tool for collective advancement. Building on these theoretical and empirical foundations, we propose the following hypothesis:

Hypothesis 3: Perceptions of leaders' idealized influence positively correlate with their level of emotional intelligence.

Hypothesis 4: Perceptions of leaders' individualized consideration positively correlate with their level of emotional intelligence.

Finally, further empirical evidence highlights the significant positive impact of leader EI on employee job satisfaction [66]. Specifically, emotionally intelligent leaders foster a psychologically safe and emotionally supportive work environment, marked by empathy and genuine concern for employee well-being. A key mechanism is emotional contagion [63], where leaders' authentic expression of positive emotions, such as enthusiasm and optimism, elevates the affective states of their followers.

Echoing the emotion-centered model of leadership [67], EI enables leaders to strategically manage interpersonal interactions to transmit constructive emotional energy. A critical component is deep acting [68], where leaders internalize and sincerely express emotions—rather than resorting to surface-level regulation that lacks authenticity. Synthesizing these insights leads us to propose the following hypothesis:

Hypothesis 5: The perceived leader EI is positively associated with employee job satisfaction.

2.3. The mediating role of leaders' emotional intelligence

Empathy, as a core facet of leaders' EI [69], constitutes a foundational component of TL. Meta-analyses [65] show that empathy not only distinguishes authentic transformational

leaders from those who simulate such behaviors but also enables a personalized approach rooted in attentive listening and understanding employees' specific needs and motivations. This approach, defined as individualized consideration, involves leaders' active engagement in identifying and valuing the unique characteristics of team members, aligning with the paradigm of supportive leadership [70]. In the following, we explore how this personalized support is operationalized through interactive empathy.

The key mechanism here is interactive empathy [71], which entails reciprocal emotional engagement: leaders not only passively recognize employees' emotions but also shape a collective affective climate through dialog and the co-creation of positive experiences. This dynamic contrasts with passive empathy, which is limited to superficial sympathy devoid of operational interventions. Thus, interactive empathy functions as a mediator between leaders' EI and employee job satisfaction, as it translates emotional intelligence into concrete actions—providing care, trust, and support [50]. Based on these findings, we propose the following hypothesis:

Hypothesis 6: Perceived leader emotional intelligence mediates the positive influence of perceived individualized consideration on employee job satisfaction.

3. METHODS

This study employs a cross-sectional design to investigate leadership dynamics within Serbia's insurance sector, focusing on the two largest companies in this industry. A self-administered online survey, developed using Google Forms, was distributed electronically to employees through their respective life insurance sales directors. This approach was selected to ensure efficient data collection across geographically dispersed teams while maintaining respondent anonymity. Accompanying the survey was a detailed cover letter outlining the research objectives, methods, and assurances of confidentiality, with the directors instructed to emphasize the voluntary nature of participation.

The survey required employees to evaluate their direct managers' leadership style (aligned with transformational leadership theory), EI, and their own job satisfaction. A cross-sectional design was chosen to capture a comprehensive snapshot of workplace attitudes and behaviors at a specific point in time, balancing practicality with the need for timely insights. Using subordinate-reported EI ratings, validated in prior leadership research, enhances validity by reflecting employees' experiences. By integrating these measures, the methods provide a robust framework for analyzing how leaders' emotional competencies mediate workplace satisfaction.

The final sample comprised 275 participants, predominantly female (83%), reflecting the gender distribution prevalent within Serbia's insurance sector. Respondents averaged 43 years of age, and a majority (63.5%) reported a high school diploma as their highest educational attainment. This demographic profile aligns with industry-specific workforce trends in Serbia, where frontline roles in insurance sales are predominantly occupied by mid-career professionals with secondary education. The sample's composition mirrors the sector's reliance on experienced, non-tertiary-educated personnel, consistent with national workforce data characterizing such roles as accessible entry points into the industry.

In order to assess TL, the Multifactor Leadership Questionnaire 5X (MLQ 5X) [72]—a validated 20-item instrument—was used. This tool operationalizes TL across four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. To measure TL behaviors, employees were asked to rate their managers on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree), reflecting the frequency of observed practices.

To evaluate leaders' EI, the Wong and Law Emotional Intelligence Scale (WLEIS) [73] was administered, capturing four dimensions: self-emotion appraisal, others' emotion appraisal, use of emotions, and regulation

of emotions. Subordinate-reported EI ratings were selected because of their empirical validity in reflecting authentic leadership behaviors [74]. For the measurement of job satisfaction, a 7-item scale adapted from Clark [75] was employed, focusing on satisfaction with advancement opportunities, salary, supervisor relationships, job security, autonomy, task nature, and work hours. All constructs used 5-point Likert scales to standardize the response formats.

To analyze the data, partial least squares structural equation modeling (PLS-SEM) was conducted in SmartPLS 4.0. PLS-SEM was chosen for its robustness in testing complex mediation models and estimating direct effects [76], particularly suited for smaller sample sizes and exploratory contexts. The process involved two stages: (1) evaluating the measurement model for reliability and validity and (2) assessing the structural model to estimate the path coefficients and mediation effects, ensuring the rigorous testing of the hypothesized relationships.

4. RESULTS

The first set of analyses focused on evaluating the reliability of the indicator variables. Outer loadings ranged from 0.743 to 0.929, exceeding the recommended threshold of 0.70 [77], confirming that each item reliably measured its intended construct. Subsequently, construct validity was assessed using three criteria: (1) Cronbach's alpha ($\alpha \geq 0.70$) to ensure internal consistency, (2) composite reliability ($CR \geq 0.70$) to verify latent variable stability, and (3) average variance extracted ($AVE \geq 0.50$) to establish discriminant validity. As summarized in Table 1, all constructs met or exceeded these thresholds, demonstrating that they shared more variance with their indicators than with other constructs. These results affirm the measurement model's reliability and validity, providing a statistically sound foundation for testing structural relationships.

Discriminant validity was assessed using the Fornell-Larcker criterion [77], which requires that the square root of the average variance extracted (√AVE) for each construct (diagonal values in Table 2) exceeds the bivariate correlations between that construct and all other constructs (off-diagonal values). As shown in Table 2, the √AVE for all constructs (EI = 0.862, II = 0.941, IC = 0.885, IM = 0.889, IS = 0.915, ZP = 0.778) is greater than the highest correlation coefficients between any pair of constructs (e.g., EI-II: 0.859; IC-IM: 0.855). For instance, the √AVE for idealized influence (II) (0.941) surpasses its correlations with other constructs (ranging from 0.684 to 0.929), confirming that II is empirically distinct from related variables. Similarly, employee job satisfaction (JS) demonstrates discriminant validity, as its √AVE (0.778) exceeds its correlations with leadership dimensions (r = 0.618–0.684). These results robustly support the discriminant validity of the measurement model, affirming that each construct captures a unique latent trait.

Table 1. Testing Convergent Validity

Variables	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Significance	Effect
Individualised consideration (IC)	0.807	0.835	0.783	0.331	79.272
Idealised influence (II)	0.858	0.865	0.799	0.269	81.441
Inspirational motivation (IM)	0.812	0.838	0.791	-0.036	84.233
Intellectual stimulation (IS)	0.835	0.853	0.836	0.130	81.487
Emotional intelligence (EI)	0.873	0.876	0.743	0.268	78.642
Job satisfaction (JS)	0.794	0.815	0.605		

Table 2. Correlations and Discriminant Validity

	EI	II	IC	IM	IS	JS
EI	0.862					
II	0.859	0.941				
IC	0.852	0.929	0.885			
IM	0.818	0.896	0.855	0.889		
IS	0.843	0.894	0.831	0.876	0.915	
JS	0.670	0.684	0.677	0.618	0.666	0.778

In the initial phase of hypothesis testing, we examined the direct effects of TL components on job satisfaction. As shown in Table 3, path coefficients for the relationships between idealized influence and JS (β = 0.192, t = 0.967, 95% CI [-0.202, 0.575]) and individualized consideration and JS (β = 0.252, t = 1.636, 95% CI [-0.033, 0.576]) were statistically non-significant ($p > 0.05$). The confidence intervals for both relationships included zero, further corroborating the absence of direct effects. Thus, Hypothesis 1 and Hypothesis 2 were not supported.

Subsequently, we tested the direct effects of TL components on leaders' EI. Both II and IC exhibited statistically significant positive effects on EI:

II → EI: β = 0.288, t = 2.047, 95% CI [0.008, 0.560]

IC → EI: β = 0.296, t = 3.120, 95% CI [0.096, 0.474]

These results confirm Hypothesis 3 and Hypothesis 4. Finally, EI show a significant direct positive effect on JS (β = 0.268, t = 2.195, 95% CI [0.031, 0.514]), supporting Hypothesis 5.

Table 3. Direct Effects

Hypotheses	Path Coefficient	T-Statistic	2.5% CI	97.5% CI
II ® ZP	0.192	0.967	-0.202	0.575
IC ® ZP	0.252	1.636	-0.033	0.576
EI ® ZP	0.268	2.195	0.031	0.514
II ® EI	0.288	2.047	0.008	0.560
IC ® EI	0.296	3.120	0.096	0.474

To test the significance of the indirect effects of TL on job satisfaction through EI, we applied the bootstrapping method [78] with 5,000 re-samples. The results, presented in Table 4, reveal that the indirect effect of the idealized influence on job satisfaction is not statistically significant (β = 0.077, $p > .05$), with a 95% confidence interval (CI) spanning [-0.004, 0.218]. In contrast, the indirect effect of individualized consideration is statistically significant (β = 0.079, $p < .05$), supported by a 95% CI [0.005, 0.185] that excludes zero. These findings show that EI fully mediates the relationship between individualized consideration and job satisfaction, thus confirming Hypothesis 6.

Table 4. Total Indirect Effects

Path	Original Sample	Mean	2.5%	97.5%
II ® ZP	0.077	0.079	-0.004	0.218
IC ® ZP	0.079	0.078	0.005	0.185

The nonsignificant mediation for idealized influence suggests that its impact on job satisfaction operates through mechanisms beyond EI. Conversely, the significant mediation for individualized consideration underscores EI's critical role in translating personalized leadership behaviours into enhanced employee satisfaction. These results align with the theoretical frameworks positing EI as a conduit for relational leadership practices [67].

The importance-performance analysis (IPA) presented in Table 1 reveals critical insights into the alignment between employee expectations and organizational delivery. Notably, the individualized consideration dimension (Effect = 79.272) highlights a significant gap between employees' high valuation of personalized leadership and the organization's current performance in meeting these expectations. While employees prioritize tailored support (implied by high importance ratings), the moderate effect score suggests unmet needs, potentially undermining job satisfaction and engagement. Similarly, the idealized influence (Effect = 81.441) and intellectual stimulation (Effect = 81.487) exhibited a stronger alignment although room for improvement remains. The negative coefficient for inspirational motivation (Significance = -0.036) signals a paradoxical relationship, where perceived motivational efforts may inadvertently strain employed well-being, warranting qualitative exploration. Emotional intelligence (Effect = 78.642) and job satisfaction (AVE = 0.605) further underscore the need

for targeted interventions to bridge gaps in leadership practices.

5. DISCUSSION AND CONCLUSION

Grounded in the COR theory [24], this study tested a mediation model in which leaders' EI mediates the relationship between TL and employee job satisfaction. Contrary to expectations from prior literature [79, 80], the analysis of Serbian insurance sector data revealed no direct influence of TL on job satisfaction. However, the results confirmed that leader EI acts as a critical mediator in the relationship between individualized consideration and job satisfaction (Hypothesis 6), suggesting that employees perceive satisfaction only when they recognize leaders' authentic care and operationalized support. This aligns with COR mechanisms, where EI functions as a personal resource that fosters the acquisition of other work-related resources (e.g., trust, emotional stability).

A possible explanation for this discrepancy lies in the pronounced emphasis on teamwork within insurance organizations. In such contexts, collective dynamics, such as team autonomy and shared accountability, reduce employees' reliance on immediate supervisory support, as team identification emerges as the primary source of psychological resources [48]. This does not diminish the relevance of leaders' EI; instead, it underscores its contextually contingent influence: leaders with high EI cultivate a positive emotional climate through empathy and support, thus indirectly enhancing psychological capital and collective efficacy [81].

In organizations with pronounced team dynamics, empirical evidence suggests a strategic imperative to cultivate leaders' EI to foster synergy between team autonomy and sustained emotional support. Practitioners should prioritize team-based interventions, such as peer mentoring programs and collaborative problem-solving frameworks, that strengthen collective psychological resources, rather than relying solely on individualized approaches. These findings contribute to leadership theory by underscoring the moderating role of the organizational context in shaping leader-employee dynamics, while reaffirming the universal significance of EI as a critical mechanism for stress mitigation and resource optimization.

This study is limited by several methodological constraints that warrant a cautious interpretation of the results. First, a key limitation is the cross-sectional design, which prevents causal inferences because of the inability to account for temporal dynamics. A longitudinal approach would be necessary to trace how leaders' EI shapes job satisfaction across time. Second, the reliance solely on employee-reported data introduces potential biases rooted in subjective perceptions. Incorporating multi-source data—such as leader self-assessments or objective performance metrics—could mitigate this issue and enhance validity. Third, the absence of employee EI measures limits insights into the dyadic interplay between leaders and teams. Future research should address this gap by integrating employees' EI as a mediator or moderator. Finally, the generalizability of the findings is constrained by the study's confinement to Serbia's insurance sector. Replicating this work across diverse industries and cultures is essential to validate the external applicability of the results.

REFERENCES

[1] Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. *American Journal of Community Psychology, 13*(6), 693–713.

[2] Judge, T. A., & Kammeyer-Mueller, J. D. (2012). On the value of aiming high: The causes and consequences of ambition. *Journal of Applied Psychology, 97*(4), 758–775.

[3] Barling, J., Kelloway, E. K., & Iverson, R. D. (2003). High-quality work, job satisfaction, and occupational injuries. *Journal of Applied Psychology, 88*(2), 276-283.

[4] Ewen, C., Jenkins, H., Jackson, C., Jutley-Neilson, J., & Galvin, J. (2021). Well-being, job satisfaction, stress and burnout in speech-language pathologists: A review. *International Journal of Speech Language Pathology, 23*(2), 180-190.

[5] Green, F. (2010). Well-being, job satisfaction, and labour mobility. *Labour Economics, 17*(6), 897-903.

[6] Jung, H. S., & Yoon, H. H. (2015). The impact of employees' positive psychological capital on job satisfaction and organizational citizenship behaviors in the hotel. *International Journal of Contemporary Hospitality Management, 27*(6), 1135–1156.

[7] Zaghini, F., Biagioli, V., Fiorini, J., Piredda, M., Moons, P., & Sili, A. (2023). Work-related stress, job satisfaction, and quality of work life among cardiovascular nurses in Italy: Structural equation modeling. *Applied Nursing Research, 72*, 151703.

[8] Gallup. (2022). *State of the Global Workplace: The voice of the world's employees*. [Report]. Gallup.

[9] Smerek, R. E., & Peterson, M. (2007). Examining Herzberg's theory: Improving job satisfaction among non-academic employees at a university. *Research in Higher Education, 48*(2), 229–250.

[10] Liu, J., Siu, O.-L., & Shi, K. (2010). Transformational leadership and employee well-being:The mediating role of trust in the leader and self-efficacy. *Applied Psychology: An International Review, 59*, 454-479.

[11] Choi, S. L., [et al.] (2016). Transformational leadership, empowerment, and job satisfaction: The mediating role of employee empowerment. *Human Resources for Health, 14*.

[12] Zhu, Y., & Akhtar, S. (2014). How transformational leadership influences follower helping behavior: The role of trust and pro social motivation. Journal of *Organizational Behavior, 35*(3), 373–392.

[13] Liao, J. C., Mi, L., Pontrelli, S., & Luo, S. (2016). Fuelling the future: Microbial engineering for the production of sustainable biofuels. *Nature Reviews Microbiology, 14*(5), 288-304.

[14] Braun, S., & Peus, C. (2016). Crossover of work–life balance perceptions: Does authentic leadership matter? *Journal of Business Ethics*. Advance online publication.

[15] Avey, J. B., Wernsing, T. S., & Palanski, M. E. (2012). Exploring the process of ethical leadership: The mediating role of employee voice and psychological ownership. *Journal of Business Ethics, 107*, 21–34.

[16] Rosette, D., & Ciarrochi, J. (2005). Emotional intelligence and its relationship to workplace performance outcomes of leadership effectiveness. *Leadership & Organization Development Journal, 26*(5), 388–399.

[17] Gooty, J., Connelly, S., Griffith, J., & Gupta, A. (2010). Leadership, affect and emotions: A state of the science review. *The Leadership Quarterly, 21*(6), 979-1004. [18] Mayer, J. D., Roberts, R. D., & Barsade, S. G. (2008). Human abilities: emotional intelligence. *Annual Review of Psychology, 59*, 507-536.

[19] Winton, B. G. (2022). Emotional intelligence congruence: The influence of leader and follower emotional abilities on job satisfaction. *Leadership & Organization Development Journal, 43*(5), 788–801.

[20] Abebe, D. W., & Singh, D. P. (2023). The relationship between emotional intelligence, job satisfaction, and job performance: Empirical evidence from public higher education institutions. *European Journal of Business and Management Research, 8*(3), 45-52.

[21] Bass, B. M. (1985). *Leadership and Performance Beyond Expectations*. Free Press; Collier Macmillan.

[22] Deng, C., Gulseren, D., Isola, C., Grocutt, K., & Turner, N. (2022). Transformational leadership effectiveness: an evidence-based primer. *Human Resource Development International, 26*(5), 627–641.

[23] Görgens-Ekermans, G., & Roux, C. (2021). Revisiting the Emotional Intelligence and Transformational Leadership Debate: (How) Does Emotional Intelligence Matter to Effective Leadership? *SA Journal of Human Resource Management, 19*, a1279.

[24] Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513–524.

[25] Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology, 6*(4), 307–324.

[26] Liu, Y., Prati, L. M., Perrewé, P. L., & Ferris, G. R. (2008). The relationship between emotional resources and emotional labor: An exploratory study. *Journal of Applied Social Psychology, 38*(10), 2410–2439.

[27] Wang, M., Liao, H., Zhan, Y., & Shi, J. (2011). Daily customer mistreatment and employee sabotage against customers: Examining emotion and resource perspectives. *The Academy of Management Journal, 54*(2), 312-334.

[28] Gao, Y., Shi, J., Niu, Q., & Wang, L. (2013). Work-family conflict and job satisfaction: Emotional intelligence as a moderator. *Stress & Health, 29*(3), 222-228.

[29] Wen, J., Huang, S. S., & Hou, P. (2019). Emotional intelligence, emotional labor, perceived organizational support, and job satisfaction: A moderated mediation model. *International Journal of Hospitality Management, 81*, 120-130.

[30] Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior, 5*, 103–128.

[31] Taylor, S. E. (2011). Social support: A review. In H. S. Friedman (Ed.), *The Oxford handbook of health psychology* (189–214). Oxford University Press.

[32] Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology, 95*(5), 834–848.

[33] Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25*(3), 293–315.

[34] Inceoglu, I., Thomas, G., Chu, C., Plans, D., & Gerbasi, A. (2018). Leadership behavior and employee well-being: An integrated review and a future research agenda. *The Leadership Quarterly, 29*(1), 179–202.

[35] French, K. A., Dumani, S., Allen, T. D., & Shockley, K. M. (2018). A meta-analysis of work–family conflict and social support. *Psychological Bulletin, 144*(3), 284–314.

[36] Halbesleben, J. R., Neveu, J.-P., & Gaudreau, P. (2014). Getting to the COR: Understanding the role of resources in conservation of resources theory. *Journal of Management, 40*(5), 1334–1364.

[37] Hobfoll, S. E. (1991). Traumatic stress: A theory based on rapid loss of resources. *Anxiety Research, 4*(3), 187–197.

[38] Schwarzer, R., & Taubert, S. (2002). Tenacious goal pursuits and striving toward personal growth: Proactive coping. In E. Frydenberg (Ed.), *Beyond coping: Meeting goals, visions, and challenges* (19–35). Oxford University Press.

[39] Hur, W.-M., Han, S.-J., Yoo, J.-J., & Moon, T. W. (2015). The moderating role of perceived organizational support in the relationship between emotional labor and job-related outcomes. *Management Decision, 53*(3), 605–624.

[40] Billings, J., de Bruin, S. R., Baan, C. A., & Nijpels, G. (2020). Advancing integrated care evaluation in shifting contexts: Blending implementation research with case study design in project SUSTAIN. *BMC Health Services Research, 2* 20, Article 971.

[41] Halbesleben, J. R. B., & Wheeler, A. R. (2015). To invest or not? The role of coworker support and trust in daily reciprocal gain spirals in helping behavior. *Journal of Management, 41*(6), 1628–1650.

[42] Ng, T. W. H., & Sorensen, K. L. (2008). Toward a further understanding of the relationships between perceptions of support and work attitudes: A meta-analysis. *Group & Organization Management, 33*(3), 243–268.

[43] Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I.L. and Rhoades, L. (2002). Perceived Supervisor Support: Contributions to Perceived Organizational Support and Employee Retention. *Journal of Applied Psychology, 87*, 565-573.

[44] Mathieu, J. E., Eschleman, K. J., & Cheng, D. (2019). Meta-analytic and multi-wave comparison of emotional support and instrumental support in the workplace. *Journal of Occupational Health Psychology, 24*(3), 387–409.

[45] Lord, R. G., Day, D. V., Zaccaro, S. J., Avolio, B. J., & Eagly, A. H. (2017). Leadership in applied psychology: Three waves of theory and research. *Journal of Applied Psychology, 102*(3), 434–451.

[46] Hobfoll, S. E., Nadler, A., & Leiberman, J. (1986). Satisfaction with social support during crisis: Intimacy and self-esteem as critical determinants. *Journal of Personality and Social Psychology, 51*(2), 296–304.

[47] Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology, 87*(4), 611–628.

[48] Lambert, N. M., Fincham, F. D., & Stillman, T. F. (2012). Gratitude and depressive symptoms: The role of positive reframing and positive emotion. *Cognitive Emotion, 26*(4), 615–633.

[49] Wanous, J., Reichers, A., & Austin, J. (2000). Cynicism about organizational change. *Group & Organization Management, 25*(2), 132-153.

[50] House, J. S. (1981). *Work stress and social support*. Reading, MA: Addison-Wesley.

[51] Haber, M. G., Cohen, J. L., Lucas, T., & Baltes, B. B. (2007). The relationship between self-reported received and perceived social support: A meta-analytic review. *American Journal of Community Psychology, 39*(1-2), 133–144.

[52] Heller, K., & Rook, K. S. (1997). Distinguishing the theoretical functions of social ties: Implications for support interventions. In S. Duck (Ed.), *Handbook of personal relationships: Theory, research and interventions* (2nd ed., pp. 649–670). John Wiley & Sons, Inc.

[53] Ortony, A., Clore, G., & Collins, A. (1988). *The Cognitive Structure of Emotions*. Cambridge: Cambridge University Press.

[54] Batson, C. D. (2011). *Altruism in humans*. New York: Oxford University Press.

[55] Liu, H., & Boyatzis, R. E. (2021). Focusing on resilience and renewal from stress: The role of emotional and social intelligence competencies. *Frontiers in Psychology, 12*, Article 685829.

[56] Weiner, S. J. & Auster, S. (2007). From empathy to caring: defining the ideal approach to a healing relationship. *Yale Journal of Biology and Medicine, 80*, 123–130.

[57] Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (3–34). Basic Books.

[58] Foster, C., & Roche, F. (2014). Integrating trait and ability EI in predicting transformational leadership. *Leadership & Organization Development Journal, 35*(4), 316-334

[59] Antonakis, J. (2004). On why "emotional intelligence" will not predict leadership effectiveness beyond IQ or the "big five": An extension and rejoinder. *Organizational analysis, 12*(2), 171-182.

[60] Daus, C. S., & Ashkanasy, N. M. (2005). The case for the ability-based model of emotional intelligence in organizational behavior. *Journal of Organizational Behavior, 26*(4), 453–466.

[61] Barbuto, J. E. Jr., & Burbach, M. E. (2006). The emotional intelligence of transformational leaders: A field study of elected officials. *Journal of Social Psychology, 146*(1), 51-64.

[62] Barling, J., Slater, F., & Kelloway, E.K. (2000). Transformational leadership and emotional intelligence: An exploratory study. *Leadership and Organizational Development, 21*(3), 157–161.

[63] Ilies, R., Curşeu, P. L., Dimotakis, N., & Spitzmuller, M. (2013). Leaders' emotional expressiveness and their behavioural and relational authenticity: Effects on followers. *European Journal of Work and Organizational Psychology, 22*(1), 4–14.

[64] Hoffman, B. J., & Frost, B. C. (2006). Multiple intelligences of transformational leaders: An empirical examination. *International Journal of Manpower, 27*(1), 37-51.

[65] Harms, P. D., & Credé, M. (2010). Emotional intelligence and transformational and transactional leadership: A meta-analysis. *Journal of Leadership and Organizational Studies, 17*(1), 5–17.

[66] Miao, C., Humphrey, R. H., & Qian, S. (2016). Leader emotional intelligence and subordinate job satisfaction: A meta-analysis of main, mediator, and moderator effects. *Personality and Individual Differences, 102*, 13-24.

[67] Ashkanasy, N. M., & Humphrey, R. H. (2011). A multi-level view of leadership and emotion: Leading with emotional labor. In N. M. Ashkanasy, R. H. Humphrey, & W. L. Gardner (Eds.), *The Sage handbook of leadership* (363-377). Thousand Oaks, CA: Sage.

[68] Kashive, N., & Raina, B. (2023). Transformation leadership's emotional labor and follower's psychological capital: Mediating effect of emotional contagion. *Journal of Organizational Effectiveness: People and Performance, 10*(4), 301-319.

[69] Salovey, P., & Mayer, J. D. (1989-1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*(3), 185–211.

[70] Rafferty, A. E., & Griffin, M. A. (2006). Perceptions of organizational change: A stress and coping perspective. *Journal of Applied Psychology, 91*(5), 1154–1162.

[71] Kellett, J. B., Humphrey, R. H., & Sleeth, R. G. (2006). Empathy and the emergence of task and relations leaders. *The Leadership Quarterly, 17*(2), 146–162.

[72] Avolio, B. J., & Bass, B. M. (2004.). *Multifactor Leadership Questionnaire TM Instrument* (Leader and Rater Form) and Scoring Guide (Form 5X-Short). Published by Mind Garden, Inc.

[73] Wong, C. S., & Law, K. S. (2002). *Wong and Law Emotional Intelligence Scale (WLEIS)* [Database record]. APA PsycTests.

[74] Atwater, L. E., & Yammarino, F. J. (1997). Self-other rating agreement: A review and model. In G. R. Ferris (Ed.), *Research in personnel and human resources management, Vol. 15*, 121–174). Elsevier Science/JAI Press.

[75] Clark, A. E. (1997). Job satisfaction and gender: why are women so happy at work? *Labour economics, 4(*4), 341-372.

[76] Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods, 15*(3), 209-233.

[77] Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A workbook (Classroom Companion: Business)*. Springer Cham.

[78] Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.

[79] Griffin, M., Patterson, M. G., & West, M. A. (2001). Job satisfaction and teamwork: The role of supervisor support. *Journal of Organizational Behavior, 22*(5), 537-550.

[80] Galletta, M., Portoghese, I., Penna, M. P., Battistelli, A., & Saiani, L. (2011). Turnover intention among Italian nurses: The moderating roles of supervisor support and organizational support. *Journal of Advanced Nursing, 13*(2), 184–191.

[81] Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford University Press.

ЕМОЦИОНАЛНА ИНТЕЛИГЕНЦИЈА ЛИДЕРА КАО МЕДИЈАТОР ИЗМЕЂУ ЛИДЕРСТВА И ЗАДОВОЉСТВА ПОСЛОМ: ПЕРСПЕКТИВА ТЕОРИЈЕ ОЧУВАЊА РЕСУРСА

Резиме: *Задовољство запослених је суштински фактор успеха сваке организације, а трансформационо лидерство је широко препознато као значајан покретач задовољства. Међутим, у постојећој литератури се ретко истраживало како емоционална интелигенција (ЕИ) лидера може функционисати као посредник у односу између лидерства и задовољства послом, остављајући значајну истраживачку празнину. Ова студија је имала за циљ да испита посредничку улогу перципиране ЕИ лидера у вези између индивидуализованог приступа (кључне димензије трансформационог лидерства) и задовољства запослених послом. Полазећи од Теорије очувања ресурса, емоционална подршка коју пружају лидери се сматра фундаменталним ресурсом. Подаци за анализу прикупљени су од 275 запослених у осигуравајућој индустрији у Србији. Анализа је спроведена методом моделирања структурних једначина (СЕМ) коришћењем софтвера SmartPLS 4, ослањајући се на стандардизоване скале за мерење релевантних конструкта - лидерског понашања, ЕИ и задовољства послом. Добијени резултати су показали да перципирана ЕИ лидера у потпуности посредује у вези између индивидуализованог приступа и задовољства послом, док остале испитиване карактеристике трансформационог лидерства нису показале директне ефекте. Важно је истаћи да је ЕИ лидера такође показала значајан директан ефекат на повећање задовољства послом, делујући тако као медијатор и независни предиктор. Ово истраживање доприноси теорији лидерства пружајући јаснији увид у то како емоционална подршка коју пружају лидери подржава ефикасно вођство. Такође потврђује важност улоге лидера у подстицању задовољства запослених и нуди конкретне смернице за дизајнирање програма обуке за лидерство са акцентом на развој емоционалне интелигенције.*

Кључне речи: *Емоционална интелигенција, трансформациони лидерство, теорија очувања ресурса, задовољство послом, емоционална подршка*

UDC: 005.334:614.4
351.77
COBISS.SR-ID 183318793
doi: https://doi.org/10.61837/mbuir030225039k

REVIEW SCIENTIFIC PAPER

RECEIVED: 05. 11. 2025.
ACCEPTED: 25. 11. 2025.

SECURITY MANAGEMENT IN EPIDEMIC CONDITIONS

Vasilije R. KORUGIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia

vasilijekorugic@yahoo.com

https://orcid.org/0009-0002-7230-7549

Martin I. MATIJAŠEVIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia

martin.matijasevic@yahoo.com

https://orcid.org/0009-0006-5840-7446

Abstract: *Amid global health crises, effective management of security during epidemic conditions has become a critical concern for governments, organizations, and communities. This article explores the multifaceted approach required to address security challenges that arise during epidemics, including public health threats, misinformation, and social unrest. It examines the role of coordinated response strategies, the importance of communication, and the integration of technology in monitoring and enforcing health regulations. Furthermore, the article discusses case studies from recent epidemics, highlighting best practices and lessons learned. By analyzing the interplay between health security and broader societal impacts, this study aims to provide a comprehensive framework for improving security management in future epidemic scenarios. The findings underscore the necessity for proactive planning, inter-agency collaboration, and community engagement to enhance resilience and ensure public safety during health emergencies.*

Keywords: *epidemic mmanagement, public health, security measures, risk, crisis response*

INTRODUCTION

In recent decades, the world has faced numerous epidemics that have significantly impacted public health, the economy, and everyday life. Security management during epidemics has become increasingly important to protect lives and maintain the functionality of social systems. This paper explores the key aspects of security management during epidemics, with a particular focus on strategies, challenges, and best practices. Security management in the context of epidemics represents a crucial aspect of crisis management, facing growing challenges in the modern world. Epidemics such as COVID-19, SARS, and MERS not only threaten public health but also destabilize economic and social structures. In such situations, effective security management becomes essential for protecting lives and health, as well as for preserving the functionality of organizations and communities. This paper explores key elements of security management, including how security measures are planned, implemented, and assessed in epidemic conditions. We will also consider the role of communication, education, and collaboration among various stakeholders, including governments, health institutions, and the private sector (Fiore, Hanrahan, & Anderson,

1990). Given globalization and interconnectivity, it is important to understand how security management can be adapted to different contexts and community needs. Through the analysis of previous epidemics and current strategies, our aim is to identify best practices and recommend guidelines for improving security management in future crisis situations. This paper will also encompass ethical aspects, as well as the challenges faced by managers when making decisions that affect the health and safety of the population. Finally, we will emphasize the importance of an interdisciplinary approach in developing effective security management strategies, which includes collaboration among different sectors and experts. In the modern world, security management is becoming an increasingly important aspect of organizational management, especially in the context of global epidemics. Epidemics such as COVID-19, SARS, and other infectious diseases present significant challenges for public health, the economy, and society as a whole. In such conditions, organizations are compelled to develop and implement strategies that will ensure not only the physical safety of their employees but also business continuity. The role of security management is expanding, encompassing aspects such as risk assessment, crisis management, communication, and employee training. Furthermore, effective security management during epidemics requires collaboration among various sectors, including health institutions, governments, and the private sector. This paper will explore the key principles of security management in the context of epidemics, analyze the challenges and opportunities that arise, and propose recommendations for enhancing security practices.

1. SECURITY MANAGEMENT IN PUBLIC HEALTH SYSTEMS

Security management in public health encompasses a range of activities and strategies aimed at protecting the health of the population from various threats, including infectious diseases, chemical and physical hazards, as well as natural disasters. This process requires collaboration among various sectors, including government entities, health organizations, non-governmental organizations, and communities. One of the key aspects of security management in public health is risk assessment, which involves identifying potential hazards and analyzing their impact on human health. Based on these assessments, prevention and response strategies are developed, which may include vaccination, public education, and emergency preparedness. Additionally, an important component of this management is communication with the public (Bush, Abrams, Beall, & Johnson, 2001). Transparent communication with citizens regarding risks and protective measures can significantly enhance community response during crisis situations. The role of the media is also crucial, as they can aid in disseminating information and raising awareness about the importance of public health. Furthermore, security management in public health must be flexible and adaptable, as threats can change rapidly. This requires continuous monitoring and evaluation of existing strategies, as well as a readiness for innovation and the application of new technologies. Ultimately, successful security management in public health can significantly contribute to the reduction of morbidity and mortality, as well as the improvement of quality of life within the community. Security management encompasses processes and strategies used to identify, assess, and control risks that may jeopardize the health and safety of individuals. In the context of epidemics, security management involves planning, implementing, and evaluating measures that are applied to reduce disease transmission and protect the most vulnerable populations.

2. PUBLIC HEALTH SURVEILLANCE ACTIVITY

Public health surveillance activity is the continuous, systematic collection, analysis, interpretation, and dissemination of health data to aid in decision-making and actions in public health. Surveillance functions as a way to gauge the community's overall health and activity. The

objective of public health surveillance, sometimes referred to as "information for action," is to illustrate current patterns of disease occurrence and potential disease threats so that research, control, and preventive measures can be applied effectively and efficiently. This is achieved through systematic collection and evaluation of morbidity and mortality reports, as well as other relevant health information, and the dissemination of these data and their interpretations to those involved in disease control and decision-making in public health (Galil et al., 2002). Morbidity and mortality reports are common data sources for surveillance for local and state health agencies. These reports are typically submitted by healthcare providers, infection control practitioners, or laboratories that are mandated to notify health authorities of any patient with a reportable disease such as chickenpox, meningococcal meningitis, or AIDS. Other sources of health-related data used for surveillance include reports from investigations of individual cases and disease clusters. Public health surveillance plays a crucial role in preserving community health through the systematic collection, analysis, and interpretation of health data.

Source: Author's analysis

Figure 1. Public Health Monitoring System

Reports on morbidity and mortality represent a crucial source of data for local and national health authorities. These reports typically originate from healthcare professionals, infection control practitioners, or laboratories that are mandated to inform health authorities about patients with reportable diseases, such as pertussis, meningococcal meningitis, or AIDS (Olsen, MacKinon, Goulding, Bean, & Slutsker, 2000). In addition to reports on individual cases and disease clusters, other data sources include information from public health programs, such as community immunization coverage, disease registries, and health surveys. Although not all cases of disease are reported, health officials regularly review the reports they receive and search for patterns among them, which has proven invaluable in identifying issues, evaluating programs, and guiding public health initiatives. While public health surveillance has traditionally focused on infectious diseases, contemporary systems also address injuries, chronic diseases, genetic and congenital disorders, occupationally related illnesses, and potential environmental diseases, as well as health behaviors. Following September 11, 2001, various systems relying on electronic reporting have been developed, including those that report daily visits to emergency services, over-the-counter medication sales, and worker absenteeism. Given the expectation that epidemiologists will be called upon to design and utilize these and other new surveillance systems, the fundamental competencies of epidemiologists should encompass the design of data collection instruments, data management, descriptive methods and graphical representation, data interpretation, as well as scientific writing and presentation.

3. KEY CHALLENGES IN SECURITY MANAGEMENT DURING EPIDEMICS

Public health security management represents a complex process that involves the identification, assessment, and management of risks that may threaten the health of the population. This process encompasses various strategies and measures aimed at the prevention, control, and response to health threats, including epidemics and pandemics (Goodman, Buehler, & Koplan, 1990). The key challenges in security management during epidemics encompass several aspects. Firstly, the lack of timely information and data can significantly hinder decision-making and the implementation of appropriate measures. Secondly, coordination among various sectors

and organizations, including health institutions, governments, and non-governmental organizations, is often necessary but can also be highly challenging. Thirdly, public perception and trust in health authorities play a crucial role in the success of prevention and control strategies, and managing these factors requires a careful approach to communication and education of the population. Additionally, resources such as human capacity and financial means are often limited, further complicating effective management during crises. Finally, the development and implementation of innovative technologies and tools for monitoring and analyzing epidemics pose a challenge that requires continuous research and adaptation of existing strategies. In the light of these challenges, it is essential to develop a comprehensive approach to public health security management that enables effective responses to health threats and the preservation of population health. Key aspects regarding the emergence of epidemics are the following (Keene et al., 1997):

- Speed of disease spread: epidemics often spread at a rate that exceeds the system's ability to respond, leading to an overload of health resources.
- Information and communication: accurate and timely information is critical for crisis management. Misinformation can incite panic and hinder the implementation of measures.
- Psychological factors: fear and uncertainty among the population can impact compliance with safety measures.
- Economic impacts: Many measures undertaken to control epidemics may have negative consequences for the economy, complicating the implementation of necessary strategies.

4. STRATEGIES FOR SECURITY MANAGEMENT IN RESPONSE TO EPIDEMIC

Security management during epidemics faces a range of key challenges that require careful planning and effective response (Bender, Williams, Johnson, & Jagger, 1990). To begin with, one of the most significant challenges is the rapid and accurate collection and analysis of data regarding the spread of the disease. In this context, it is essential to establish an efficient system for the transmission of information between health institutions, governments, and the public to enable timely decision-making. Secondly, ensuring adequate resources, including medical equipment and personnel, poses a challenge, which is crucial for implementing preventive measures and treating the sick (Washington State Department of Health, 2001). In situations where resources are quickly depleted, management must develop strategies for optimizing existing resources and identifying additional sources. Thirdly, communication with the public plays a key role in security management during epidemics. Reassuring citizens about the measures being taken, as well as educating them about behaviors that can reduce the risk of infection, is of crucial importance. Effective communication can help mitigate panic and misinformation. In addition, security management must also address the legal and ethical issues that arise during epidemics. This includes making decisions regarding quarantines, vaccinations, and other measures that may impact human rights and freedoms. Finally, it is important to emphasize that security management strategies must be continuously adapted in accordance with the evolving situation and new insights about the disease. This flexibility is crucial for successful crisis management and minimizing negative consequences for health and society as a whole. The following measures and actions are particularly significant (Marx, 2003):

- Prevention and preparedness: Developing emergency plans, training staff, and conducting simulations can facilitate a quicker response to epidemics.
- Monitoring and risk assessment: Continuous monitoring of the situation and risk assessment allow for timely adjustments to strategies.
- Collaboration and coordination: Involving various sectors (public health, economy, education) in the decision-making process can enhance the efficiency of the response.

- Education and communication: Informing the public about prevention measures and the importance of adhering to them can significantly reduce the risk of disease spread.

5. CONCLUSION

Security management in the context of epidemics requires a comprehensive approach that encompasses prevention, preparedness, rapid response, and continuous learning. In a world facing increasingly significant health challenges, effective security management strategies are crucial for safeguarding the health and safety of the population (Swaminathan, Barrett, Hunter, & Tauxe, 2001). Collaboration among various sectors and ongoing education are essential for successful crisis management. The phrase "security management in epidemic conditions" highlights the critical role of effective governance in crisis situations arising from epidemic occurrences. In the light of growing global health threats, it is imperative to develop and implement comprehensive strategies that integrate various aspects of public health, including surveillance, prevention, and response to epidemics (Preston, 1999). This paper emphasizes the importance of mutual cooperation among health institutions, governments, and communities, as well as the need for continuous education and training of professionals in the fields of epidemiology and crisis management. Only through the synergy of these elements can a faster and more effective response to health crises be ensured, thereby minimizing the negative consequences for public health and society as a whole. In conclusion, security management in epidemic conditions requires a proactive approach, relying on data analysis, technological innovations, and community engagement to build a more resilient health infrastructure. Managing security during epidemics is crucial for protecting public health and minimizing risks. Below are several recommended practices:

1. Monitoring and Notification System: In countries such as South Korea and Taiwan, efficient systems for contact tracing and notifying citizens about potential exposure to the virus have been established. The use of mobile applications and technology has enabled rapid identification and isolation of infected individuals.
2. Clear Communication Strategies: During the COVID-19 pandemic, many countries established clear communication channels to inform the public about protective measures, symptoms, and prevention methods. Transparency in communication has fostered trust among citizens.
3. Adaptation of Health Resources: In Italy and Spain, during the first wave of COVID-19, hospitals quickly adapted their resources to cope with the increased number of patients. This included reallocating staff, expanding capacities, and establishing temporary hospitals.
4. Coordination Between Sectors: In Australia, the government coordinated efforts between the health, economic, and educational sectors to ensure a comprehensive response to the epidemic, including support for small businesses and educational institutions.
5. Psychological Support: During the pandemic, many countries recognized the importance of mental health and established support programs for citizens facing stress and anxiety due to the epidemic.

These examples demonstrate how effective management of safety can help mitigate the impact of epidemics on society.

- Application of Technology: The use of digital tools for contact tracing and information dissemination can enhance the speed and efficiency of responses.
- Focus on Vulnerable Groups: Special attention should be given to protecting the most vulnerable members of society, such as the elderly and individuals with chronic illnesses.
- Evaluation and Learning from Experiences: Following every epidemic, it is essential to evaluate what was effective and what was not, so future crisis strategies can be improved.

REFERENCES

[1] Bender, A. P., Williams, A. N., Johnson, R. A., & Jagger, H. G. (1990). Appropriate public health responses to clusters: The art of being responsibly responsive. *American Journal of Epidemiology*, 132(Suppl), S48–S52.

[2] Bush, L. M., Abrams, B. H., Beall, A., & Johnson, C. C. (2001). Index case of fatal inhalational anthrax due to bioterrorism in the United States. *New England Journal of Medicine*, 345, 1607–1610.

[3] Fiore, B. J., Hanrahan, L. P., & Anderson, H. A. (1990). State health department response to disease cluster reports: A protocol for investigation. *American Journal of Epidemiology*, 132(Suppl), S14–S22.

[4] Galil, K., Lee, B., Strine, T., Carraher, C., Baughman, A. L., Eaton, M., et al. (2002). Outbreak of varicella at a day-care center despite vaccination. *New England Journal of Medicine*, 347, 1909–1915.

[5] Goodman, R. A., Buehler, J. W., & Koplan, J. P. (1990). The epidemiologic field investigation: Science and judgment in public health practice. *American Journal of Epidemiology*, 132, 9–16.

[6] Keene, W. E., Hedberg, K., Herriott, D. E., Hancock, D. D., McKay, R., Barrett, T., & Fleming, D. (1997). A prolonged outbreak of *Escherichia coli* O157:H7 infections caused by commercially distributed raw milk. *Journal of Infectious Diseases*, 176, 815–818.

[7] Marx, M. (2003). Diarrheal illness detected through syndromic surveillance after a massive blackout, New York City. Presented at 2003 National Syndromic Surveillance Conference.

[8] Olsen, S. J., MacKinon, L. C., Goulding, J. S., Bean, N. H., & Slutsker, L. (2000). Surveillance for foodborne disease outbreaks — United States, 1993-1997. In *Surveillance Summaries, March 27, 2000*. MMWR, 49(No. SS-1), 1–59.

[9] Preston, R. (1999). West Nile mystery. *The New Yorker*, 90, 18–25.

[10] Swaminathan, B., Barrett, T. J., Hunter, S. B., & Tauxe, R. V. (2001). PulseNet: The molecular subtyping network for foodborne bacterial disease surveillance, United States. *Emerging Infectious Diseases*, 7, 382–389.

[11] Washington State Department of Health. (2001). Guidelines for investigating clusters of chronic disease and adverse birth outcomes [Monograph on the Internet]. Olympia, Washington.

УПРАВЉАЊЕ БЕЗБЕДНОСТИ У ЕПИДЕМСКИМ УСЛОВИМА

Резиме: *Суочени са глобалним здравственим кризама, ефикасно управљање безбедношћу током епидемијских услова постало је критична брига за владе, организације и заједнице. Овај чланак истражује вишеслојни приступ потребан за решавање безбедносних изазова који настају током епидемија, укључујући претње по јавно здравље, дезинформације и друштвене немире. Испитује улогу координисаних стратегија реаговања, значај комуникације и интеграцију технологије у праћењу и спровођењу здравствених прописа. Поред тога, чланак разматра студије случаја из недавних епидемија, истичући најбоље праксе и научене лекције. Анализирајући међусобни утицај између здравствене безбедности и ширих друштвених утицаја, ова студија има за циљ да пружи свеобухватан оквир за побољшање управљања безбедношћу у будућим епидемијским сценаријима. Резултати наглашавају неопходност проактивног планирања, међуагенцијске сарадње и ангажовања заједнице како би се побољшала отпорност и осигурала јавна безбедност током здравствених ванредних ситуација.*

Кључне речи: *управљање епидемијама, јавно здравље, безбедносне мере, ризик, одговор на кризу*

LAW AND SECURITY STUDIES

Review scientific paper

Received: 28. 05. 2025.
Accepted: 24. 11. 2025.

UDC: 343.97:343.62
343.97:343.54/.55
COBISS.SR-ID 183320841
doi: https://doi.org/10.61837/mbuir030225046l

DOMESTIC VIOLENCE AND ITS REPERCUSSIONS ON EMPLOYMENT-RELATED REPUTATION

Dragana B. LAZIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia

dragana1908@yahoo.com

https://orcid.org/0000-0001-6227-139X

Jelena M. VUKOVIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia

vukovic.jelena2@gmail.com

https://orcid.org/0000-0001-7146-5612

Abstract: *In the paper, the authors aim to present and scientifically explain how criminal liability–or convictions for offenses involving elements of domestic violence, along with the associated primary unit–affect the perpetrator's subsequent life trajectory and their future employment-related rights. A fifteen-year analysis of convictions for domestic violence crimes, which will include minors and adults, reveals the current state of the researched problem, together with the trends in the development of the observed phenomenon. The authors will highlight the most common criminal sanctions imposed for domestic violence offenses–both in cases involving minors and adults–and will ultimately explain how prior convictions or criminal records for such offenses impact employment opportunities. The authors started their research from the assumption that the first community in which a person finds their place is the family or some other community that performs the function of a family. This raises the question of whether individuals who commit domestic violence are able to function normally in other social environments–particularly in the workplace, where they spend most of their time–without engaging in further misconduct, such as mobbing. Using relevant databases of the Statistical Office of the Republic of Serbia and other available documents, the latest literature related to this issue, and applying various scientific methods, the authors have proven the thesis that people who are prone to acts of violence in their closest social community - such as the family, have a high degree of tendency to commit violence in the workplace, school environment - regardless of age.*

Keywords: *domestic violence, criminal liability, working capacity, work liability, adults, minors*

1. INTRODUCTION

The family is the primary community for every individual—the environment in which people develop into healthy and rational persons, first encounter and understand their rights and obligations, and form their initial sense of attachment, justice, and well-being [4]. This community, as we know it today, has undergone changes in its form, characteristics, and consequently its purpose [63]. In recent times, it has been subjected to pressures from many directions; however, we believe that none of these challenges can undermine it as profoundly as the acts of violence that occur within it [71]. This is why we are deeply concerned by the data released by the official authorities of the Republic of Serbia indicating that every third marriage ends in divorce [38]. Violence is not always the reason for divorce,

but in 99% of cases some kind of violence is the reason for divorce - economic (financial) violence [2], sexual violence, psychological violence, and finally physical violence [8].

If we consider the extent of violence present within families and broader environments, and if we ourselves have been participants—whether actively or passively—in such act[12], we must ask the following question: can individuals truly set aside the impact of that violence when functioning within other types of collectives [15], (workplace, educational settings, etc.) or do they inevitably carry these negative experiences with them, letting their effects appear in new activities and relationships?[10]. The problem of domestic violence has been recognized by the state, which has undertaken a series of measures to preserve the family and implemented numerous social programs to support families. Yet, one question remains unanswered: have we, as a state and society, reacted too late [20]? Have we allowed this problem to go too far into all social structures, including the youngest members? This was precisely why the authors initiated the research on this topic, and the findings presented later in the paper are alarming. [70].

The research included both adults [40] and minors, firstly in order to obtain a more detailed picture of the prevalence of domestic violence, secondly to determine how prevalent other crimes in this area are in relation to domestic violence [21], and thirdly to see the level of violence among minor perpetrators of criminal acts - more precisely, to include in the research the group of perpetrators of criminal acts [14] who are at least fifteen years old and legally eligible for employment. Finally, an analysis of the criminal sanctions most often imposed for domestic violence was conducted [19], in order to establish the degree of responsibility of the judiciary for the recurrence of this criminal offense 61]. We did all this in order to understand where such a "wave of violence" [7] originates and to identify where it begins[22] as well as to explore ways to prevent it [72].

In addition to the current situation regarding domestic violence, we were interested in determining the cause-and-effect relationship between violent behavior 59], or the commission of the criminal offense of domestic violence, and the inability to obtain or maintain employment in certain fields [3].

2. THEORETICAL AND LEGISLATIVE FRAMEWORK

According to the currently valid positive legal regulations in the Republic of Serbia, a family is considered a community consisting of "spouses or former spouses; children, parents and other blood relatives, and persons in in-law or adoptive relationship, or persons who are foster parents; persons who live or have lived in the same family household; extramarital partners or former extramarital partners; persons who were or are still in an emotional or sexual relationship with each other, or who have a child together or a child is about to be born, even though they have never lived in the same family household." In modern law, definitions of family are rare, because it is difficult to legally define the concept of a phenomenon that is not static and is influenced by numerous factors outside the legal domain. In social theory [1] definitions of family, however, are frequent and numerous, but legal writers most often define family descriptively (by listing the members that make up the family) or operationally (by listing the functions that the family usually performs).

Available data indicate that domestic violence has very serious social and individual consequences and that its victims are most commonly women and children [41]. As victims [62] adult men can also come forward, but this happens very rarely. This claim is supported by data on the number of calls for help sent to organizations supporting victims of domestic violence [18], emergency support services and counseling centers for women and children affected by violence, available in nearly all major cities across Serbia. Research conducted in the past few years by members of women's groups in Serbia and the Victimology Society of Serbia, confirms the conclusion that this is a complex and, above all, socially conditioned phenomenon [42].

Family Law of the Republic of Serbia defines the term domestic violence in Article 197. And in that sense, it defines the following: "Domestic violence is behavior by which one family member endangers the physical integrity, mental health or peace of mind of another family member. Domestic violence is considered to be, in particular: 1. inflicting or attempting to inflict bodily harm; 2. inducing fear by threatening to kill or inflict bodily harm on a family member or a person close to him/her; 3. forcing sexual intercourse; 4. inducing sexual intercourse or sexual intercourse with a person under the age of 14 or a helpless person; 5. restricting freedom of movement or communication with third parties; 6. insulting, as well as any other impudent, reckless and malicious behavior" [43].

The Family Law also prescribes measures for the protection of the family in the following article. "Measures for protection against domestic violence are: 1. issuing an order to evict from the family apartment or house, regardless of the right of ownership or lease of the real estate; 2. issuing an order to move into the family apartment or house, regardless of the right of ownership or lease of the real estate; 3. banning approaching a family member at a certain distance; 4. banning access to the area around the place of residence or place of work of the family member; 5. banning further harassment of the family member" [44].

Alongside these regulations, criminal law also needed to ensure the protection of marriage and the family. Under the Criminal Code of the Republic of Serbia (2019), within the section aimed at protecting marriage and family, Article 194 provides that anyone who "endangers the peace, physical integrity, or mental condition of a family member through violence, threats to life or bodily harm, or through brazen or reckless behavior" may be sentenced to imprisonment ranging from three months to three years" [16. If a weapon, dangerous tool or other means capable of causing serious bodily injury or serious damage to health is used during the commission of a criminal offense of domestic violence, the legislator has prescribed a more severe punishment than the basic form of the criminal offense and has determined that the perpetrator shall be punished with a prison sentence of six months to five years. In the event that the aforementioned unlawful behavior results in serious bodily injury or serious damage to health, or the offense is committed against a minor, the legislator has determined a prison sentence of two to ten years. In the event of a more serious consequence, such as the death of a family member, a sentence of five to fifteen years is prescribed, and if the family member is a minor, a sentence of at least ten years in prison is prescribed.

The Criminal Code of the Republic of Serbia also stipulates a penalty for persons who violate a court-ordered measure of protection against domestic violence, which is a prison sentence of three months to three years and a fine, cumulatively.

During 2016, the state felt that domestic violence as an unacceptable form of behavior was spreading widely throughout the territory of the Republic of Serbia and was striving to destroy the most important social cell, so the legislator decided to adopt a special Law on the Prevention of Domestic Violence (2016). The aforementioned law regulates the prevention of domestic violence and the actions of state bodies and institutions in preventing domestic violence and providing protection and support to victims of domestic violence. It has a total of 39 articles that aim to "regulate the organization and actions of state bodies and institutions in a general and uniform manner and thus enable effective prevention of domestic violence and urgent, timely and effective protection and support to victims of domestic violence" [67].

According to this Law, domestic violence is considered "an act of physical, sexual, psychological or economic violence by the perpetrator against a person with whom the perpetrator is in a current or previous marital, extramarital or partnership relationship or against a person with whom he is a blood relative in the direct line, and in the collateral line up to the second degree or with whom he is a relative by in-laws up to the second degree or to whom he is an adoptive parent, adopted child, foster

child or foster parent or against another person with whom he lives or has lived in a common household" [67].

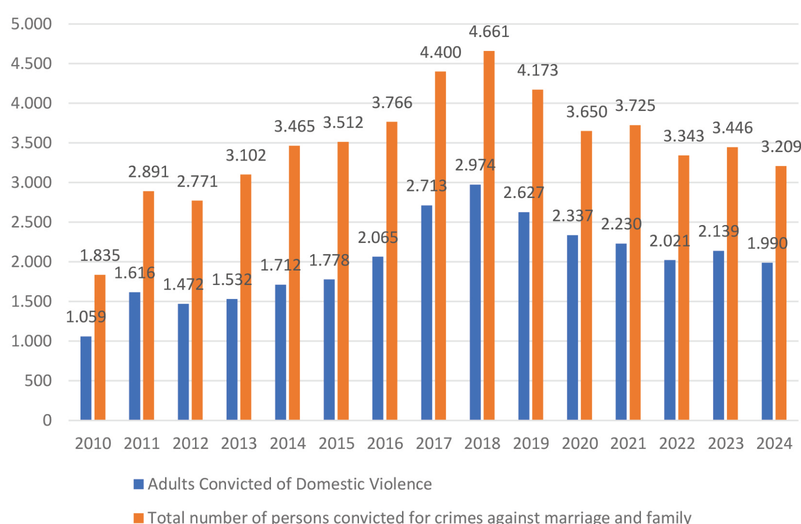
This law does not apply to minors who commit domestic violence, which is particularly interesting for our research and its final findings.

It should be particularly emphasized that this Law also applies to cooperation in the prevention of domestic violence during criminal proceedings for the following offenses defined in the Criminal Code: stalking (Article 138a); rape (Article 178); sexual intercourse with a helpless person (Article 179); sexual intercourse with a child (Article 180); sexual intercourse by abuse of position (Article 181); illicit sexual acts (Article 182); sexual harassment (Article 182a); pimping and facilitating sexual intercourse (Article 183); mediation in prostitution (Article 184); displaying, obtaining and possessing pornographic material and exploiting minors for pornography (Article 185); inducing a child to witness sexual acts (Article 185a); neglect and abuse of a minor (Article 193); domestic violence (Article 194); failure to provide support (Article 195); breach of family obligations (Article 196); incest (Article 197); human trafficking (Article 388); other criminal acts, if the criminal act is a consequence of domestic violence" [16].

3. EMPIRICAL RESEARCH

Our research began with an analysis of how many adults in Serbia were given final court sentences for domestic violence from 2010 to 2024. Namely, we wanted to determine how often criminal offenses against marriage and family are committed in the territory of the Republic of Serbia, and particularly the criminal offense of domestic violence. We collected data using a search of the Bulletin on Adult and Juvenile Perpetrators of Criminal Offenses - Reports, Accusations and Convictions, Statistical Office of the Republic of Serbia [23-37;45-58].

The collected data showed us that in the period of fifteen years analyzed, the highest percentage of criminal offenses against marriage and family each year was the criminal offense of domestic violence. In the fifteen years observed, 51,949 adults were convicted of criminal offenses against marriage and family, and of that number, 30,265 adults were convicted of domestic violence. Further analysis shows that, on average, 2,017 adults are convicted each year for the criminal offense of domestic violence—equivalent to roughly six individuals per day. This crime is also specific in that it should not be viewed as an individual number, but rather it should be analyzed through the number of victims of this crime. Therefore, the nature of this crime is not that the victim of the crime is an individual, but most commonly the entire family, which contributes to the increase in the number of victims of domestic violence. Here, we should certainly not ignore the fact that psychologists constantly appeal that "violence begets violence" and that people who grow up watching or experiencing violence have a much greater chance of becoming violent or of becoming victims of violence, believing that violence is a normal phenomenon – which we cannot agree with.



Source: author's illustration / Statistical Office of the Republic of Serbia (stat.gvo.rs)-Bulletins of the Republic Statistical Office (Year 2010-2024) [45-58]

Chart 1: Total number of adults convicted of domestic violence in relation to all adults convicted of criminal offenses against marriage and family in the period from 2010 to 2024 on the territory of the Republic of Serbia

To assess whether the penal policy corresponds to the severity of this offense, we analyzed all criminal sanctions imposed on the groups of offenders. During the observed period, the most frequently applied sanction was the suspended sentence. Out of 30,265 people, in 19,079 cases the court found it appropriate to impose a suspended sentence, that is, in 63% of cases. Based on all the above, we can conclude that the penal policy in the case of domestic violence crimes is unreasonably lenient.

Table 1: Overview of criminal sanctions imposed on adult perpetrators of domestic violence in the period from 2010 to 2024 on the territory of the Republic of Serbia

Year	Prison	Fine	Suspected sentence	House arrest	Community service and driver's license revocation	Court monition	Educational measure	Found guilty, but acquitted
2024	739	7	1,005	213	18	1	3	4
2023	765	15	1,130	210	12	2	4	1
2022	676	6	1,125	183	25	1	4	1
2021	589	13	1,388	214	17	2	3	4
2020	669	6	1,508	138	12	1	3	0
2019	628	12	1,827	146	12	0	0	2
2018	768	8	1,998	166	19	4	4	7
2017	808	6	1,736	145	12	2	0	4
2016	620	17	1,301	102	15	2	0	8
2015	483	8	1,193	59	27	2	2	4
2014	634	13	1,041	0	14	4	4	2
2013	533	8	977	0	7	1	3	3
2012	436	33	970	0	15	9	6	3
2011	360	75	1,135	0	23	10	3	10
2010	236	55	745	0	4	8	2	9
Σ	8,944	282	19,079	1,576	232	49	41	62

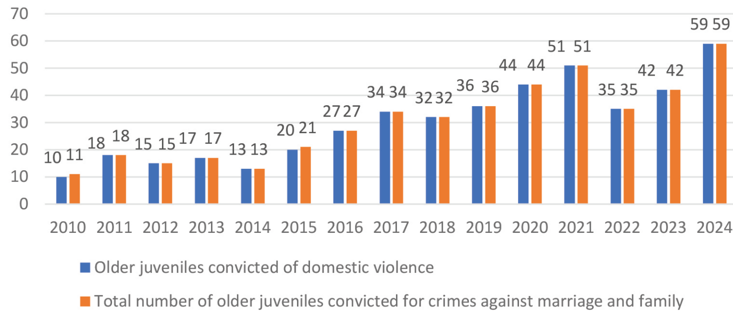
Source: author's illustration / Statistical Office of the Republic of Serbia (stat.gvo.rs)- Bulletins of the Republic Statistical Office (Year 2010-2024) [23-37]

Given that employment may be established by individuals who are fifteen years old, in accordance with the Labor Law, which states that "persons who are at least fifteen years old" may be employed[66] we also included older minors in our research – that is, persons between sixteen and eighteen years of age, in order to obtain a more comprehensive understanding of the research subject. Therefore, we investigated, over a period of fifteen years, final judgments relating to minors, in relation to the criminal offense of domestic violence. What is particularly interesting is that of all criminal offenses against marriage and family in all years of the observed period (except for 2010 and 2015 – only one individual committed a criminal offense other than domestic violence), all persons convicted of criminal offenses against marriage and family committed domestic violence. Therefore, the only criminal offense committed in the last fifteen years from this group of criminal offenses was exclusively domestic violence.

Over the past fifteen years, 453 minors have committed the crime of domestic violence. On an annual basis, a final judgment is issued against thirty minors, proving that they committed the crime of domestic violence. This data is particularly concerning given the traditions of the Serbian people and prevailing upbringing practices, where it is extremely difficult to imagine situations in which those closest to the offender—such as parents or relatives—would report their own child or family member for violence. Therefore, the number of reported and convicted offenders is far lower than the actual situation. However, what is particularly noticeable in the graphic representation of the crime of domestic violence committed by minors, is that in the last years of the observed period, this number has been growing, that is, it is the largest in comparison to all previous years. We must emphasize that the situation concerning the issue under investigation is highly alarming.

To obtain a complete, realistic picture, and determine whether minors have a chance to resocialize or relapse into criminal offenses, we have also analyzed the criminal sanctions imposed on minor perpetrators of domestic violence in the past fifteen years. In most cases, the court decided on an educational measure - a measure of increased supervision, in 236 cases out of a total of 453 (52%). Many theorists have noted that measures considered warnings for adults—such as suspended sentences and court admonitions—serve as increased supervision for minors. Consequently, it can be

concluded that even when addressing juvenile offenders, the penal policy and its implementation remain lenient and fail to achieve the intended resocialization.



Source: author's illustration / Statistical Office of the Republic of Serbia (stat.gvo.rs)- Bulletins of the Republic Statistical Office (Year 2010-2024) [23-37]

Chart 2: Total number of older juveniles convicted of domestic violence in relation to all juveniles convicted of crimes against marriage and family in the period from 2010 to 2024 on the territory of the Republic of Serbia

Table 2: Overview of criminal sanctions imposed on older juvenile perpetrators of domestic violence in the period from 2010 to 2024 on the territory of the Republic of Serbia

Year		Educational measures		
	Juvenile detention center	Warning and guidance measures	Enhanced surveillance measures	Institutional measures
2024	0	23	34	2
2023	0	19	21	2
2022	0	18	16	1
2021	0	13	30	8
2020	2	21	15	6
2019	0	13	22	1
2018	0	7	20	5
2017	0	18	15	1
2016	0	15	11	1
2015	0	7	11	2
2014	0	5	6	2
2013	0	4	9	4
2012	0	2	9	4
2011	0	5	9	4
2010	0	2	8	1
Σ	**2**	**172**	**236**	**44**

Source: author's illustration / Statistical Office of the Republic of Serbia (stat.gvo.rs)- Bulletins of the Republic Statistical Office (Year 2010-2024) [23-37]

As for adult perpetrators, it should note that for juvenile perpetrators of criminal acts, by committing such criminal acts and criminal acts of a violent nature, they cause incalculable consequences for passive subjects, which can affect their further social, family, and professional lives. Based on all the above, we can confidently claim that the phenomenon of domestic violence is worthy of research and a stronger social and institutional response to it.

4. DISCUSSION

In the previous section of this paper, we established the extent to which domestic violence constitutes a social, legal, ethical, and otherwise harmful phenomenon. It is now necessary to examine whether it has any repercussions on an individual's employment status.

To establish an employment relationship, a certificate is often required, which is proof that one has not been convicted, or that there are no criminal proceedings against the candidate for employment. Certain aspects of life and employment are simply incompatible with criminal behavior. For example, someone who is prone to forging documents cannot be employed to perform jobs where important documents are entrusted to the employee, and accordingly, a person who has been finally convicted of committing domestic violence cannot be employed and perform jobs in education, healthcare, social protection, etc. If the person was already employed, then this may lead to the termination of the employment contract.

Any criminal offenses that may reflect on the reputation of the institution or threaten the peace of mind of the rest of the team at work may be grounds for initiating disciplinary proceedings or terminating the employment contract, even if they are committed outside the workplace, because it is the obligation of every employer to ensure safety in the workplace.

In practice, it is not uncommon for partners or family members to be employed in the same organization. When a person convicted of domestic violence is ordered to avoid contact with

the victim or certain locations, this restriction can directly impede their ability to carry out work duties. In such cases, the employment contract may also be terminated, which can sometimes be the subject of abuse (due to base motives - jealousy, hatred, etc.) which is why employers must be especially careful [13].

It is also essential to improve and streamline existing regulations in this area. As a country striving for European integration, the Republic of Serbia should focus not only on harmonizing its judiciary with European standards but also on adopting best practices and advancing this aspect of society. European Union Directive 2024/1385 represents another step in the fight against domestic violence. This very directive mentions that domestic violence can have far-reaching and major consequences on working capacity, access to work, work performance, safety at work. Also, ILO Convention No. 190 sides with the victims of violence, and stipulates that the employer is obliged to develop protective measures, regardless of whether the violence is committed at the workplace or in the work environment, if it can affect the work process and disrupt the safety of the work environment. The need to harmonize legislation and ensure its effective implementation across the territory of the Republic of Serbia is also mandated by the Istanbul Convention, to which the country is a signatory.

5. CONCLUSION

The authors argue that in the Republic of Serbia, insufficient attention is given to the victims of domestic violence. We believe that the protection and assistance provided to these individuals are inadequate. In practice, the assessment by competent authorities (judges or prosecutors) that imposing a restraining order on a person or place would resolve the problem proves incorrect in approximately 90% of cases. This failure occurs for two main reasons: first, the perpetrator may be so determined to complete the criminal act that they disregard the imposed measure or its consequences; second, the victim may "forgive" the offender—voluntarily or under duress—after which, in a significant number of cases, the act is repeated, often with far more severe consequences.

Economic dependence, societal condemnation, and difficulties in performing work-related activities are among the challenges faced by victims of this crime. This is why we advocate for changes in legal regulations to ensure that victims of domestic violence receive adequate support, rather than being left— as is often the case today—at the mercy of their employers. Victims should be afforded greater understanding and assistance from both their immediate and professional environments. They should be able to rely on measures such as flexible working hours, reassignment to another workplace to prevent further harassment, or paid leave whenever possible. In the Republic of Serbia, these measures have not yet been fully implemented, although there are indications of progress through the Law on Occupational Safety and Health. It is also necessary to supplement existing legislation with new provisions under the Law on the Prohibition of Discrimination to prevent potential discrimination against victims of domestic violence, as well as to guard against the abuse of legal principles related to this crime.

In addition to the listed types of support, free legal aid is especially important, as well as free psychological aid for both the victims of the crime of domestic violence and perpetrators of domestic violence, especially psychological aid as a preventive measure, as resocialization aid. In developed countries, such support is provided not only by the state but also by private corporations.

The role of the Center for Social Work in our country has been limited. This institution currently lacks the capacity to address such a complex problem effectively. We believe that its capacities—including physical space, technology, and personnel—must be significantly expanded. The state must recognize the importance and role of centers for social work.

Proposed changes and improvements to existing legislation should not remain solely at the legal level but must also be implemented through internal procedures, work regulations,

and employer protocols. As evident, this field is highly complex, extending beyond the scope of criminal and labor law to encompass human rights, social policy, constitutional law, psychology, ethics, and related disciplines. Furthermore, there are significant areas of abuse, such as false or exaggerated reports of violence, which are increasingly observed in practice 17].

The data presented in this paper are compelling and clearly indicate that immediate action is required to implement measures that ensure a comprehensive and effective approach to combating this phenomenon, which not only destroys families as communities but also harms the individuals within them. The rapid increase in the number of minors who commit domestic violence indicates the seriousness of the problem and a series of omissions made in the initial stages of the lives of those individuals, the perpetrators of criminal acts. It must also be recognized that violence—whether in the family, workplace, school, or any other environment—takes on various forms. In addition to conventional manifestations, violence is increasingly perpetrated through information technologies. Special attention must be paid to this emerging dimension. The authors hope that the data presented in this paper will encourage every reader to reflect on and engage with this pressing issue.

REFERENCES

[1] Bošković, D. (2009). Sprečavanje nasilja u porodici, [Prevention of domestic violence] Bezbednost, vol. 51, br.3.

[2] Bowlus, A. J., & Seitz, S. (2006). Domestic violence, employment, and divorce. International economic review, 47(4), 1113-1149.

[3] Buzawa, E. S., & Buzawa, C. G. (2003). Domestic violence: The criminal justice response. Sage.

[4] Cohen, L., Chavez, V., & Chehimi, S. (2010). Prevention is primary: strategies for community well being. John Wiley & Sons.

[5] C190 - Violence and Harassment Convention, 2019 (No. 190) - (https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C190 – pristup 10.04.2025.)

[6] CETS 210 - Council of Europe Convention on preventing and combating violence against women and domestic violence (https://rm.coe.int/168008482e - pristup 15.05.2025)

[7] Davis, L. V. (1991). Violence and families. Social Work, 36(5), 371-373.

[8] DeKeseredy, W. S., Dragiewicz, M., & Schwartz, M. D. (2017). Abusive endings: Separation and divorce violence against women (Vol. 4). Univ of California Press.

[9] Directive (EU) 2024/1385 of the European Parliament and of the Council of 14 May 2024 on combating violence against women and domestic violence (https://eur-lex.europa.eu/eli/dir/2024/1385/oj/eng - pristup 10.05.2025.)

[10] Duck, S. (2007). Human relationships.

[11] Gelles, R. J. (1993). Family violence. Family violence: Prevention and treatment, 1, 1-24.

[12] Goode, W. J. (1971). Force and violence in the family. Journal of Marriage and the Family, 624-636.

[13] Hammond, L., Fraga Dominguez, S., & Richards, J. (2025). Seeking to Be Heard: Reflections on the Value of a Partnership Approach to Involving Victims in the Development of Domestic Abuse Policy and Practice. Behavioral Sciences (2076-328X), 15(7), 960.

[14] Humin, O., & Szajna, A. (2024). Violence against minors: Concept and types. Вестник национального университета «львовская политехника». серия: юридические науки, 11(42), 40-45.

[15] Kleinman, A. (2000). The violences of everyday life. Violence and subjectivity, 226, 241.

[16] Krivični zakonik, [Criminal Code] Službeni glasnik Republike Srbije, br. 85/2005, 88/2005 - ispr., 107/2005 - ispr., 72/2009, 111/2009, 121/2012, 104/2013, 108/2014, 94/2016, 35/2019 i 94/2024.

[17] Kruk, E., & Harman, J. J. (2025). Countering Arguments Against Parental Alienation as A Form of Family Violence and Child Abuse. American Journal of Family Therapy, 53(2), 117–146.

[18] Lukić, M., Jovanović, S. (2001). Drugo je porodica: nasilje u porodici – nasilje u prisustvu vlasti, [The second is the family: violence in the family - violence in the presence of the authorities] Institut za kriminološka i sociološka istraživanja, Beograd.

[19] Maxwell, C. D., & Garner, J. H. (2012). The Crime Control Effects of Criminal Sanctions for Intimate Partner Violence. Partner Abuse, 3(4).

[20] Moroney, R. (1986). Shared responsibility: Families and social policy. Transaction Publishers.

[21] Myhill, A. (2017). Measuring domestic violence: Context is everything. Journal of gender-based violence, 1(1), 33-44.

[22] Malley-Morrison, K., & Hines, D. (2004). Family violence in a cultural perspective: Defining, understanding, and combating abuse. Sage.

[23] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2022) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[24] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2023) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[25] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2024) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[26] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2025) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[27] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2020) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[28] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2012) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[29] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2021) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[30] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2013) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[31] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2014) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[32] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2015) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[33] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2016) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[34] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2017) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[35] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2018) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[36] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2019) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[37] Maloletni učinioci krivičnih dela – prijave, optuženja, osude (2011) [Juvenile perpetrators of criminal acts - reports, accusations, convictions] Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/maloletni-ucinioci-krivicnih-dela/ - pristup 09.03.2025.).

[38] Marjanovic, S. (2022). Serbia: Legal Framework: National Report. Se. Eur. LJ, 10, 293.

[39] Nikolić Ristanović, V., (2008). Preživeti tranziciju: svakodnevni život i nasilje nad ženama u postkomunističkom i postratnom društvu [Surviving the transition: everyday life and violence against women in post-communist and post-war society], Službeni glasnik, Beograd.

[40] Osterlee, A., Vink, R. M., & Smit, F. (2009). Prevalence of family violence in adults and children:

estimates using the capture–recapture method. The European Journal of Public Health, 19(6), 586-591.

[41] Pejak-Prokeš, O., (2006). Nasilje u porodici, [Domestic violence], Glasnik Advokatske komore Vojvodine, 78(1-2).

[42] Petrušić, N., Konstantinović Vilić, S., (2010). Porodičnopravna zaštita od nasilja u porodici u pravosudnoj praksi Srbije, [Family law protection against domestic violence in the judicial practice of Serbia], Beograd, Autonomni ženski centar.

[43] Počuča, M., (2010). Nasilje u porodici, Domestic violence] Pravo – teorija i praksa, 27(9-10).

[44] Porodični zakon, [Family law Službeni glasnik Republike Srbije, br. 18/2005, 72/2011 - dr. zakon i 6/2015.

[45] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2011) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[46] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2012) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[47] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2013) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[48] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2014) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[49] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2015) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[50] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2016) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[51] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2017) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[52] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2018) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[53] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2019) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[54] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2020) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[55] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2021) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[56] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2022) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[57] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2023) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[58] Punoletni učinioci krivičnih dela – prijave, optuženja, osude (2024) [Adult perpetrators of criminal acts - reports, accusations, convictions], Republički zavod za statistiku, Beograd (https://www.stat.gov.rs/sr-latn/oblasti/pravosudje/punoletni-ucinioci-krivicnih-dela/ - pristup 10.03.2025.)

[59] Polites, A., & Mulcahy, M. B. (2023). Causes of domestic violence. Understanding Interpersonal Violence: An Academic Supplement and Resource Guide.

[60] Rada, C., Neagu, A.-E., Marinescu, V., Rodideal, A.-A., & Lunga, R.-A. (2025). The Impact of Childhood Abuse on the Development of Early Maladaptive Schemas and the Expression of Violence in Adolescents. Behavioral Sciences (2076-328X), 15(7), 854.

[61] Robinson, P. H. (1993). Functional Analysis of Criminal Law. Nw. UL Rev., 88, 857.

[62] Rusac, S., (2006). Nasilje nad starijim osobama, Older people and violence] Ljetopis socijalnog rada, 13(2).

[63] Roffey, S. (2013). Inclusive and exclusive belonging: The impact on individual and community wellbeing. Educational and Child Psychology, 30(1), 38-49.

[64] Zakon o bezbednosti i zdravlju na radu, [Law on Safety and Health at Work] Službeni glasnik Republike Srbije, br. 35/2023.

[65] Zakon o maloletnim učiniocima krivičnih dela i krivičnopravnoj zaštiti maloletnih lica, [Law on juvenile offenders and criminal protection of minors] Službeni glasnik Republike Srbije, br. 85/2005.

[66] Zakon o radu, [Labor Law] Službeni glasnik Republike Srbije, br. 24/2005, 61/2005, 54/2009, 32/2013, 75/2014, 13/2017 - odluka US, 113/2017 i 95/2018 - autentično tumačenje.

[67] Zakon o sprečavanju nasilja u porodici, Law on Prevention of Domestic Violence] Službeni glasnik Republike Srbije, br. 94/2016 i 10/2023 - dr. zakon.

[68] Zakon o zabrani diskriminacije, [Law on Prohibition of Discrimination] Službeni glasnik Republike Srbije, br. 22/2009 i 52/2021.

[69] Žilić, M., Janković, J., (2016). Nasilje, [Violence] Socijalne teme: Časopis za pitanja socijalnog rada i srodnih znanosti, 1(3).

[70] Scheffer, M., Westley, F., & Brock, W. (2003). Slow response of societies to new problems: causes and costs. Ecosystems, 6(5), 493-502.

[71] Whitehead, N. L. (2007). Violence & the cultural order. Daedalus, 136(1), 40-50.

[72] Wilson, K. J. (2006). When violence begins at home: A comprehensive guide to understanding and ending domestic abuse. Hunter House.

НАСИЉЕ У ПОРОДИЦИ И ЊЕГОВЕ РЕПЕРКУСИЈЕ НА РАДНОПРАВНУ РЕПУТАЦИЈУ

Резиме: *У раду који је пред читаоцем аутори су покушали из епистемолошког угла објасне како то кривичноправна одговорност, односно осуђеност за кривична дела са елементом насиља у примарној припадајућој јединици, утиче на даљи ток живота насилника, као и на његова даља права у области рада. Петнаестогодишња анализа осуђености за кривична дела насиље у породици која обухвата малолетна и пунолетна лица, пре свега открива трендове развоја посматране појаве. У раду аутори на аргументовани начин скрећу пажњу научне и шире јавности на најдоминантније кривичне санкције које се изричу на кривична дела насиље у породици, како у категорији малолетних лица, тако и за пунолетна лица, На крају рада аутори научно објашњавају како претходна осуђиваност односно кажњивост за кривична дела утице на заснивање радног односа. Аутори су истраживање започели од претпоставке да је прва заједница у којој човек нађе своје место управо породица. Поставља се питање да ли људи који врше насиље у породици, могу нормално функционисати без вршења кривичних дела у неком другој друштвеној групи – радном колективу у коме проводе највише времена, а да не врше кривична дела као што је рецимо мобинг. Коришћењем релевантних база података Републичког завода за статистику и осталих доступних извора који се односе на ову проблематику, уз примену одговарајућих научних метода, у раду је потврђена хипотеза да људи који су склони актима насиља у најужој друштвеној заједници - каква је породица, имају висок степен склоности вршења насиља и на радном месту, без обзира на узраст.*

Кључне речи: *насиље у породици, кривичноправна одговорност, радна способност, унолетна лица, малолетна лица*

UDC: 340.12:165.9
398.22
316.658.4
COBISS.SR-ID 183355657
doi: https://doi.org/10.61837/mbuir030225057z

Review scientific paper

Received: 19. 05. 2024.
Accepted: 18. 11. 2025.

MYTH AS A FACTOR IN THE EMERGENCE AND DEVELOPMENT OF NATURAL-LAW THOUGHT

Miljan M. ŽIZIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia

zizicmiljan90@gmail.com

https://orcid.org/ORCID/0009-0000-0537-7331

Abstract: *The challenges of the modern world order have led, among other consequences, to a visible stagnation in the development of legal thought, as well as to deregulation and the transformation of the state and law. In chaotic and crisis situations, humanity has often sought salvation in myths, spiritual reflection, and natural-law thinking and understanding.*

The history of the study of myth began in antiquity and can be assumed to reach back even before the earliest Hellenic thinkers. Later, Renaissance mythographers continued this work. In the nineteenth century, comparative mythology emerged, taking a critical stance towards myth and mythology as rivals to science, calling mythology a "disease of language" or a misinterpretation of magical ritual.

Myth is a feature of every culture. It arose in the past and has survived, evolved, and taken shape up to the present day as a symbol-a set of symbolic images derived from the human psyche, stories, imaginary representations, spiritual and customary heritage, and traditions transmitted orally from generation to generation to individuals and communities over the course of their historical development. Myth thus forms part of the cultural and historical heritage of each community.

Ancient myths were taken over by the Sophists, who, through reinterpretation and elaboration, laid the foundations of natural-law theories. The spirit and development of these theories has continued across the centuries to the present day. Myths had an important role in the development of legal thought, especially in the past, but they may have a role even today. The key question is whether new myths will emerge in the future, connected with the spiritual rebirth and salvation of humankind, and articulated through the forms and contents of natural-law teaching.

Keywords: *myth; natural law; culture; heritage; influence; modern society*

INTRODUCTION

The challenges of the modern world order have led, among other things, to a visible stagnation in the development of legal thought, as well as to the deregulation and transformation of the state and law. In chaotic and crisis situations, humanity has sought forms of salvation in myths, spiritual reflection, and natural-law ways of thinking and understanding.

The question arises whether, even today, in the demanding reality of the modern world,

natural-law thought, myths, and mythology can still play a role and have significance in identifying possible solutions.

1. THE PERIOD OF MYTHS ABOUT LAW

Myth, as a characteristic feature of every culture, arose in the distant past and has survived, developed, and taken shape until today. It is a symbol-a set of symbolic images derived from the human psyche, mythological stories, imaginary representations, spiritual and customary heritage, and traditions transmitted orally from generation to generation to individuals and communities throughout their historical development. Myths also include naïve fantasies about many phenomena, gods, heroes, supernatural beings, and personifications of nature. In this sense, myth represents an important foundation for the cultural-historical development of a particular group or community and is relevant for the establishment of various social norms, such as moral, customary, religious, technical, and later legal norms. Characters and contents from mythological stories are often of a religious nature, so the mythology and religion of a particular society are closely connected.

The study of myths began in ancient times and may be assumed to have existed even before the appearance of the ancient Hellenic thinkers. According to Plato, Euhemerus, and Sallustius, the Neoplatonists in ancient Greece began systematizing such views, which were later continued by Renaissance mythographers (Encyclopaedia Helios, 1952).

In the nineteenth century, comparative mythology emerged, taking a critical stance towards myth and mythology as rivals to science, pointing out that mythology is a “disease of language” (Müller) or a misinterpretation of magical ritual (Frazer, 1913).

Since itinerant Sophist teachers in ancient Greece derived their first ideas about law from the myths of the Middle East, we may assume that early ideas and myths about law originated both before and during the Hellenic and Roman eras in the broader Mediterranean–Asian region, today called the Middle East in geopolitical terms. In this region, civilizations developed that were not strictly defined by the now dominant world religions (Arab mythology).

Such representations-myths about law-were adopted by ancient Hellenic thinkers, primarily the Sophists, as a starting point for the development of their legal ideas about the nature, origin, and essence of law. Thus, the Sophists became the progenitors of ideas about natural law. They initiated the conceptual and theoretical formation of this idea of the original nature of law-natural law (Greek mythology): a law that is given, eternal, universal, corrective, and superior to human creation in the form of positive law. Positive law, created by people, is expressed through legal norms contained in legal acts and was elaborated by ancient Roman jurists and their legal science through Roman law over almost fourteen centuries. Many of its basic principles are still present today in the modern continental European legal system and, beyond it, serve as a guideline and foundation for constructing legal orders in specific states.

The teachings of the Sophists on law and natural law found followers in the ancient Roman Empire, where jurists nevertheless gave primacy to refining doctrines and understandings of material legal reality, social conditions, needs, and interests. In doing so, they shaped Roman law, established positive legal sources, and defined the formal sources of law through general legal acts. These sources determined the centuries-long course of legal development primarily within the European continental legal system up to the present day.

Mythology can also be seen as a fantastic history of a community, in which stories and legends about gods, heroes, and other irrational supernatural beings are transmitted orally “from generation to generation” to existing and future members of the community. Such narratives significantly influence the emergence, survival, development, and fate of communities from the earliest primitive clan societies onward.

Mythology, understood both as a cultural phenomenon and as a discipline that

systematically examines, presents, compares, and explains "sacred stories," is thus an important source for the study of myths.

Myths are inherent to every civilization and culture; they constitute a collective form of cultural expression. They personify natural phenomena, historical events, and rituals with realistic or exaggerated content. Over time, such myths become more widely accepted, developed, and transmitted to other communities, influencing the consciousness of individuals and collectives. This consciousness shapes belonging to a narrow or broader group or community and contributes to the emergence and formation of various social norms (moral, customary, religious, technical, and later legal norms).

For the purposes of this paper, legal norms are of particular importance, but we do not neglect the influence of other types of social norms, which are evidently interrelated and interdependent in complex ways.

Whether myth, as a product of complex circumstances and psychological processes in individual and collective representations in the rational–irrational sphere of the human mind, can be a true or false reflection of reality remains an open question. Human beings, in addition to other qualities, are both rational and irrational.

The entire historical and evolutionary path of myth—from its emergence in original communities in the age of barbarism to the present day—as a significant cultural-historical phenomenon and an agent of social development, deserves special attention in research on the normative element of law and on the causes and factors that have influenced or may influence the material and formal origins of legal norms.

It is evident that myth, with its indicated properties and characteristics, can be regarded as an important factor influencing the creators of normative law—that is, the creators of the normative element of the legal order—alongside many other causes and factors. Undoubtedly, myth, in cooperation with other factors, is a possible material legal cause or factor in the creation of law and legal norms, at least in the initial stages of their development. This conclusion can be drawn from an examination of the development and influence of, among others, ancient Arab and Hellenic mythologies on what later came to be shaped, in form and content, as law and legal norms.

1.1. Arab Mythology

Arab mythology can be described as a diffuse, incomplete, and unsystematized set of myths and beliefs of pre-Islamic, tribally organized, polytheistic Arabs who lived in the area of today's Middle East. These myths and beliefs, to a greater or lesser extent, served ancient Greek thinkers-especially the Sophists-as a source for developing their ideas about a distinct type of law: natural law.

Before the Islamic period, Arabs and other peoples in the region were organized in tribes; religiously, they believed in a multitude of gods (polytheism) and led a largely nomadic Bedouin lifestyle. This period was marked by pronounced spirituality, which laid a solid foundation for the development of art, spirituality, philosophical reflection, and scientific observation of the world, nature, and society. This intellectual and spiritual heritage would significantly influence the later development of art, philosophy, and scientific thought in antiquity, particularly in ancient Greece and the Roman Empire, and thus European civilization more broadly—especially in parts of South-East Europe and North Africa. Through the subsequent adoption of Islamic religious teachings and the expansion of political power, this legacy spread to these areas by means of conquest.

1.2. Greek Mythology

Hellenic (ancient Greek) mythology consists of a group of unsystematized myths about natural and social phenomena in that era, as well as about numerous gods, heroes, mythological beings, customs, rituals, cults, and literature. These stories were most often transmitted orally "from generation to generation" within narrower or wider communities, so

that a multitude of such representations and understandings survived and were transmitted to later times, possibly even to the present day.

Greek mythology, in its breadth and richness, had a strong influence on the centuries-long development of European civilization (Plato, 1976; Aristotle, 1975), including the development of legal thought. The Sophists, as progenitors of the idea of natural law, drew on mythological material in order to shape their ideas about law and justice. Their natural-law ideas later flourished with the emergence of bourgeois revolutions, when they were used as powerful arguments against the feudal order.

1.3. The Ancient Hellenic–Roman Period: The Beginnings of Natural Law and Positive Law (Roman Law)

The generally accepted view, as already noted, is that ideas about natural law in European civilization were conceived in antiquity, beginning in ancient Greece and later in the Roman Empire. During the feudal era, these ideas were significantly reduced and subordinated to justifying the feudal social order. The prevailing natural-law view was that the state and law were of divine origin, and that they served to protect the feudal system and the position of the Church within it (Thomas Aquinas, Augustine).

In ancient Greece, over the centuries, a constellation of thinkers, philosophers, and scientists emerged who studied nature, society, and the state, but only sporadically law. It was not until the fifth century BCE, with the appearance of the Sophists—travelling thinkers, philosophers, and teachers of practical knowledge and skills—that systematic reflection and teaching about law as a phenomenon began. The Sophists drew, among other sources, on certain myths about law from the region of the present-day Middle East, which they enriched and used to articulate the idea of natural law.

The Sophists (Protagoras, Hippias, Gorgias, Callicles, Lycophron, and others) are considered the founders of the idea of natural law. Ideas about the existence of a law not created by human beings but eternally given in the universe and in nature emerged in their teachings and further developed through both democratic and aristocratic variants. The democratic variant (Hippias, Antiphon) stressed the natural equality of human beings, whereas the aristocratic variant (Callicles, Thrasymachus, Aristotle, Plato) emphasized their natural inequality. This dualism between natural and positive law persists to this day in legal thought.

Plato divided reality into two spheres: the visible world of the senses and the invisible world of ideas. On this basis, he developed his concept of the ideal state, founded on the common good, in which everyone performs tasks according to their abilities, for the benefit of all and of the state. Aristotle rejected this strict dualism between the sensory world and the world of ideas. For him, the ultimate goal of all sciences is the good, and the greatest good is the main goal of political science. The greatest good that the state strives for is justice, understood as the general welfare. Aristotle points out that justice has several meanings: in addition to justice as moral correctness in general, there is justice as conformity with law and equality. Natural law, in his view, has universal significance and does not depend on whether it has been adopted or not; positive law, by contrast, becomes meaningful only once it has been formally established.

Further development of natural-law teaching continued with Epicurus and the Stoic school. Epicurus argued that the political community arises from contracts concluded by free and equal citizens and that justice is not absolute but the consequence of mutual agreement not to cause harm. Epicurus and the Stoics regarded self-sufficiency (autarchy) of the individual—not the polis—as the ideal; a person should be a citizen of the world rather than bound exclusively to the polis. The Stoics proclaimed natural law as the supreme law of nature, against which all existing laws and states could be measured. They advocated the idea of universal brotherhood. Their teachings were adopted in ancient Rome (Seneca, Cicero, Marcus Aurelius, and others). The idea

of natural law contributed to the construction of Roman law and Roman jurisprudence (Ulpian, Gaius, Paulus) (Žižić, 2004).

Scholars in the ancient Roman Empire, most often pragmatic practicing lawyers, adopted the teachings of the Sophists and other Hellenic thinkers. However, unlike Greek philosophers, they focused primarily on the study of law, and only secondarily on the study of the state. They developed the famous Roman law, which is still studied today. Roman jurists were especially interested in legal positivism, that is, in the positive law that was being created and that was in force. They created and determined the formal legal sources of law, paying less attention to material sources. They established that the formal sources of law were general legal acts: constitutions, laws, and bylaws. To this day, this determination has been accepted in European countries that belong to the continental legal system.

By contrast, Anglo-Saxon countries initially inherited elements of the Roman legal tradition but subsequently developed their own common-law system, in which the overriding formal sources of law are custom and a specific type of court decision-judicial precedent. This system applies in Great Britain, the United States, and the Commonwealth countries.

In recent decades, with the rise of neoliberal capitalism in the world and in Europe, the influence of the Anglo-Saxon legal system on the European continental model has become increasingly evident. It is difficult to predict the ultimate outcome of this influence.

1.4. The Feudal Period: Religiously Based Natural Church Law

Legal thought, originally conceived at least two and a half millennia ago in antiquity, took on a predominantly philosophical and religious character with the emergence of the feudal social order. Legal doctrine in this period was mainly directed toward justifying the feudal state and law, that is, the existing social order, with a pronounced intolerance toward divergent views. The development of legal thought stagnated as a result. It was emphasized, among other things, that the state and law were God's creation and that the secular state was not autonomous (Thomas Aquinas, Augustine).

1.5. The Bourgeois Period: Strong Development of Legal Thought – The Beginnings of Humanism and the Renaissance

A radical transformation and rebirth of consciousness, spirituality, and life in all spheres of social reality began with the advent of humanism and the Renaissance in Europe. This transformation implied a break with the previous world order and the birth of a new world with new views and determinants.

The change was especially evident in culture, science, and art, as well as in other spheres of life. There emerged a powerful hunger, curiosity, and need for new knowledge, particularly in the mentioned domains. A general awakening of scientific consciousness took place, accompanied by the appearance of many scientific creators in all fields of science, including legal science, where numerous theories of the state and law arose. Many of these theories served, among other things, as "instruments" in the struggle of the emerging bourgeois society against the preceding feudal social order.

These theories, and not only they but also developments in science and art, often found their origins and justification in the renewed and intensified interest in antiquity and the study of ancient science, culture, art, and other heritage, especially that of ancient Greek and Roman civilizations. Knowledge drawn from ancient thought was frequently used as a theme or starting point for further research and creation in various sciences, as well as in culture and art, during the past centuries. Roman law and the history of the state and law are illustrative examples.

If we look at the vertical timeline of social development from antiquity to the present day—particularly in European civilization—we see that already at the beginning of humanism and

the Renaissance a key methodological pattern was established in the process of research and knowledge: seeking ideas and solutions first in ancient scientific, cultural, artistic, and other legacies; then, conditionally speaking, "skipping" the feudal period and its legacy; and only thereafter, on this basis, developing a broad and awakened social consciousness and a hunger for new knowledge, discoveries, and advances in all areas of social life.

This methodological path, or matrix, assumes that scientific roots and ideas derive primarily from ancient Hellenic and Roman civilization, while the legacy of the feudal era and of many other ancient and non-European civilizations is largely neglected. Such an approach can lead to one-sided, dogmatic, or erroneous scientific or other perspectives. It is therefore evident that these problems must be approached as broadly and comprehensively as possible in the pursuit of scientific truth.

Many bourgeois theories of the state and law arose after the emergence of humanism and the Renaissance. These theories viewed the state and law in different ways-either as ideal or as social realities-addressed various causes of their origin, and proposed diverse conceptualizations, down to the present day. Many of these theories were intended to serve as tools in the ideological and political conflict between the feudal and emerging bourgeois orders, and thus between different legal orders: some sought to challenge the existing order and justify the new one, while others aimed to justify the existing order and dispute the upcoming changes.

In the past four or five centuries, a multitude of natural-law, sociological, realist, dogmatic-normativist, historical-legal, psychological, and other theoretical approaches have been formulated. Yet the question and problem of defining law remain topical and unresolved, subject to different theoretical approaches, which indicates the complexity and enduring relevance of these phenomena.

2. A REVIEW OF DEREGULATION AND TRANSFORMATION OF THE STATE AND LAW IN MODERN TIMES

If we accept that the goal of the science of the state is to achieve the greatest good (Aristotle, 1975), that the state is a phenomenon to be studied through legal, social, and political theory (Jovanović, 1922), that state power is based on legitimacy (Weber, 1976), and that the state is a tool for the wise and just organization of the political community (More, 1964), then, in light of historical experience and knowledge of the destructive consequences that have occurred in the past and continue to occur today, several questions arise:

a. Is humanity, that is, its "managers," repeating historical mistakes that have already cost civilization dearly?
b. Or are such developments in some sense necessary and inevitable?

It is evident that modern civilization is significantly threatened by numerous existential challenges, including the confrontation between the current and the emerging world order, which is conceptually based primarily on a neoliberal conception of the development of a transhumanist society of a post-democratic and post-industrial character. This new order is grounded in the unfathomable currents of the Fourth Industrial Revolution and the application of artificial intelligence, which will significantly and radically alter the present existence of civilization.

Among other things, these processes, by driving globalization of society, the state, and the law, imply the deregulation and transformation of existing systems. The basic features of the traditional state and law—such as sovereignty, national equality, and certain other values—are being lost, transformed, or transferred. In such a situation, legal science significantly lags behind in offering knowledge and answers to these numerous challenges.

In recent decades, the individual has become increasingly alienated and self-sufficient, subject to various forms of social engineering that

often diverge from authentic human nature and from spiritual and material existential needs. An important question thus arises: will there be new processes in the natural, natural-law development of human spirit, within the broader existential cycle, that could contribute to a “return of man to man, nature, and society”?

3. THE POSSIBLE ROLE AND CONCEPTION OF MYTH IN MODERN SOCIETY

Myths have had a certain importance in the development of legal thought, and in the spiritual and social development and formation of societies, especially in the past. However, they may also play a role today, at a time when numerous challenges accompany the currents of modern society.

The role and significance of myths in the contemporary world can be examined from several perspectives:

1) Formation of collective identity and belonging. Myths influence the shaping of primarily collective identity and the sense of belonging to a particular collective (group, nation, people). Among other things, they can provide a foundation for a society to form, build, and enrich common values, traditions, and a sense of historical continuity, supporting the preservation of cultural heritage and identity.
2) Explanation of the world, emotional support, and spiritual inspiration Through symbols and stories, myths offer individuals and groups a particular understanding of the world around them and help provide meaning to life. In this sense, they serve as frameworks for interpreting reality and coping with existential uncertainty.
3) Development of moral consciousness and ethical values. Myths can offer individuals and groups concrete instructions and guidelines for behavior and decision-making, thus contributing to the development of solidarity, respect for human rights, responsibility in social processes, and respect for and protection of nature.
4) Psychological influence and integration. Through archetypal symbols, characters, and narrative patterns implanted in the collective unconscious of certain groups or peoples, myths can help individuals better understand and integrate their psychological processes. This can foster self-understanding, personal development, and overall spiritual growth.
5) Spiritual and creative inspiration and art. In the sphere of culture-art, literature, music, and other forms of expression-myths can inspire individuals and groups to engage in diverse creative activities and to expand their imaginative horizons.
6) Although myths are often associated with the past, with natural-law origins and spirituality, their role and significance in contemporary social processes should not be underestimated. The strength and influence of myths can contribute to a better and deeper understanding of oneself and of the modern world, which may have a positive impact on everyday life and spiritual growth and, in turn, on addressing certain challenges of modern society.

REFERENCES

[1] Bascom, R. W. (1965). *The Forms of Folklore: Prose Narratives*. Los Angeles: University of California.

[2] Encyclopaedia Helios (1952).

[3] Frazer, J. G. (1913). *The Golden Bough: A Study in Magic and Religion*. London: Macmillan and Company, Ltd.

[4] Žižić, A. M. (2004). *Introduction to Law*. Kraljevo: 21. novembar – Duga, pp. 160–168.

[5] Aristotle (1975). *Politics*. Belgrade: BIGZ, p. 72.

[6] Jovanović, S. (1922). *O državi* [On the State]. Belgrade: Izdavačka knjižarnica Gece Kona, pp. 8–9.

[7] Weber, M. (1976). *Economy and Society*, Vol. II. Belgrade: Prosveta, pp. 432–436.

[8] More, T. (1964). *Utopia*. Belgrade: Kultura, pp. 134–135.

МИТ- КАО ЧИНИЛАЦ У НАСТАНКУ И РАЗВОЈНОСТИ ПРИРОДНОПРАВНЕ МИСЛИ

Резиме: *Изазови савременог светског поретка условили су, поред осталог, и видљив застој у развоју правне мисли, дерегулацију и трансформацију државе и права. У хаотичним, кризним ситуацијама људски род је тражио и вид спасења у митовима, духовном, природноправном промишљању и схватању. Мит је једна од карактеристика сваке културе, настао у прошлости, опстајао. развијао и уобличавао се до данашњих дана, као симбол, тј. скуп симболичких слика произашлих из људске психе, прича, замишљених представа, духовног, обичајног наслеђа, предање које се са колена на колено усменим предањима преносило на појединце, заједницу и заједнице током свог историјског развоја до данас, као део културно – историјског наслеђа. Улога и значај митова у савремености могу бити различити, и могу се сагледавати кроз неколико видова (аспеката), и то: 1) кроз утицај на обликовање превасходно колективног идентитета и осећаја припадности одређеном колективу (групи, нацији, народу); 2) кроз објашњење света, емоционалну подршку и духовну инспирацију, путем симбола, прича, пружајући појединцима, групи, одређено разумевање света око себе, и пружајући им смисао живота; 3) кроз психолишки утицај на појединце, групе, и психолошку интеграцију 4) Кроз духовну инспиративну креативност и уметност појединаца, група, у сфери културе (уме: тност, књижевност, музика и сл). 5) кроз утицај на развој моралне свести и вредности. Иако се митови везују за прошлост, природноправну изворност и духовност, не треба занемарити улогу и значај митова у савременим друштвеним токовима, њихову снагу и утицај, чиме могу допринети бољем и дубљем разумевању себе, савременог света, што се може позитивно, одражавати на свакодневни живот и духовним раст, тиме и на решавању одређених изазова савременог друштва.*

Кључне речи: *мит, идентитет, припадност, морал, инспирација, духовност, емоција, психологија*

UDC: 342.228(497.11+497.7)
COBISS.SR-ID 183360521
doi: https://doi.org/10.61837/mbuir030225065g

Review scientific paper

Received: 23. 04. 2024.
Accepted: 25. 11. 2025.

RULE OF LAW AND THE USE OF STATE AND MINORITY SYMBOLS IN THE MACEDONIAN AND SERBIAN CASE

Jordanka G. GALEVA

Faculty of Law, Goce Delcev University, Stip, Macedonia
jordanka.galeva@ugd.edu.mk
https://orcid.org/my-orcid?orcid=0009-0005-4243-9614

Abstract: *The rule of law implies that all individuals, as subjects of law, are equal before the law in terms of their rights and obligations, as well as in the limitations imposed on certain forms of behavior. This equality and these limitations should not discriminate on any national, religious, gender, or official basis. The subject of this paper is a comparative analysis of the rule of law in North Macedonia and Serbia, conducted through an examination of the implementation of constitutional and legal regulations regarding the use of state symbols and community symbols. The aim of the research is to determine whether the application of these principles is in accordance with the rule of law. Practice shows that the rule of law is not always fully implemented in either case. The use of official authority and the free will of individuals can be regarded as among the causes of non-compliance with the rule of law. In the conclusion, two assessments are offered: one concerning the adequacy of the existing regulation and the other proposing possible future solutions that would be in accordance with the rule of law.*

Keywords: *rule of law, state symbols, minority symbols, North Macedonia, Serbia*

INTRODUCTION

The elements of state identity encompass various aspects, such as geographical location, the state's name and symbols, including the anthem, coat of arms, and flag. Another key component is the population, whose language and religion significantly contribute to shaping state identity. While religion typically remains separate from the state and does not serve as an element of state identification, the language spoken by the people often becomes the official language of the country, used both at the national and international level, thus becoming one of the foremost markers of identification.

Regarding symbols, state emblems like the flag, coat of arms, and anthem hold significance for both national and international representation. At the national level, flags of cities, municipalities, regions, federal units, military divisions, as well as flags representing minority groups, are also used. The flag, along with language, usually serves as a crucial element of ethnic identification for individuals belonging to a particular ethnic group. There are cases in which the ethnic affiliation of minority groups differs from that of the majority, whose identification symbols are the same as the state symbols.

Considering the diversity of the population living in North Macedonia and Serbia, these two societies are examples of multicultural

societies in which the law guarantees rights related to state symbols, as well as rights to cultural expression and the use of minority symbols.

According to the latest Census data from 2022 (Statistical Office of the Republic of Serbia, 2022), the total population of Serbia is 6,647,003, divided by ethnicity into: Serbs 80.64%, Hungarians 2.77%, Bosniaks 2.31%, Roma 1.98%, Albanians 0.93%, Slovaks 0.63%, Croats 0.59%, Yugoslavs 0.41%, Romanians 0.35%, Vlachs 0.32%, Montenegrins 0.30%, Macedonians 0.22%, ethnic Muslims 0.20%, Bulgarians 0.19%, Bunjevci 0.17%, Rusyns 0.17%, Russians 0.16%, Gorani 0.12%, Ukrainians 0.06%, Germans 0.04%, Slovenians 0.04%, others 0.33%, regional affiliation 0.18%, undeclared 2.05%, and unknown 4.84%.

According to the latest Census data from 2021 (State Statistical Office, 2022), 1,836,713 of the population in the Republic of North Macedonia are resident citizens and 260,606 are non-resident citizens. The total enumerated population is 2,097,319, of which 54.21% declared themselves as Macedonians (58.44% of resident population and 24.45% of non-resident), 29.52% as Albanians (24.30% of resident population and 66.36% of non-resident), 3.98% as Turks (3.86% of resident population and 4.79% of non-resident), 2.34% as Roma (2.53% of resident population and 1.02% of non-resident), 1.18% as Serbs (1.30% of resident population and 0.35% of non-resident), 0.87% as Bosniaks (0.87% of resident population and 0.81% of non-resident), 0.44% as Vlachs (0.47% of resident population and 0.19% of non-resident), 0.98% as members of other ethnic communities (non-specified), 0.02% as non-stated, and 0.03% as unknown.

Given the ethnic diversity in both countries, this discussion focuses on a review of the national symbols of Serbia and North Macedonia, along with an examination of the legal framework governing the symbols of minority groups residing within these states.

1. CONSTITUTIVE ACTS AND LEGAL NORMS REGULATING SYMBOLS IN THE SERBIAN AND MACEDONIAN CASES

The Republic of Serbia and the Republic of North Macedonia share a common 47-year history as parts of the Yugoslav Federation, which was established in 1943 during the Second World War. The Anti-Fascist Council for the National Liberation of Yugoslavia (AVNOJ) was a deliberative and legislative body established in November 1942 by the armed resistance movement, led by the Communist Party of Yugoslavia and the partisan leader Tito. During the second session of AVNOJ, held in Jajce on November 29–30, 1943, it declared itself the supreme legislative body in the country and the representative of Yugoslav sovereignty. It affirmed a commitment to forming a democratic federation and recognized the equal status of Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia, and Slovenia in the future federation.

On August 2, 1944, the First Anti-Fascist Assembly for the National Liberation of Macedonia (ASNOM) convened, marking the establishment of ASNOM as the supreme legislative and executive representative body of Macedonia and the Macedonian state. It was declared that the Macedonian state would be constituted as an equal federal unit within the newly formed Democratic Federal Yugoslavia.

The constitutive peoples of the Yugoslav states were Serbs, Croats, Slovenes, Macedonians, and Montenegrins (later joined by ethnic Muslims in 1974). Alongside these, other ethnicities, nationalities, and ethnic groups-such as Albanians, Hungarians, Romani, Turks, Slovaks, Romanians, Aromanians, Bulgarians, Ruthenians, Czechs, Italians, Rusyns, Germans, Russians, Jews, Poles, Greeks, Megleno-Romanians, and Istro-Romanians-were guided by the slogan of "brotherhood and unity".

The first federal constitution of Yugoslavia was adopted in 1946, with its fundamental principles outlined in the first five constitutional articles (https://www.arhivyu.rs, 1946).

These principles declared that the Federal People's Republic of Yugoslavia was a federal people's republic, a republican state, and a community of equal peoples based on the right to self-determination, including the right to secession and free expression of their will to live in a federal state (Art. 1). Yugoslavia consisted of the People's Republic of Serbia (including the Autonomous Province of Vojvodina and the Autonomous Region of Kosovo and Metohija), the People's Republic of Croatia, the People's Republic of Slovenia, the People's Republic of Bosnia and Herzegovina, the People's Republic of Macedonia, and the People's Republic of Montenegro (Art. 2). The other three fundamental principles outlined the state coat of arms[1], the state flag (a tricolor of blue, white, and red placed horizontally, with a red five-pointed star in the middle), and Belgrade as the capital city.

In 1963, the Yugoslav Parliament approved the second constitution, renaming the country the Socialist Federal Republic of Yugoslavia (http://srpskaenciklopedija.org/, 1963). The constitution was amended in 1968 to recognize the Muslim national group of Serbo-Croatian-speaking Muslims. Amendments VII–XIX, adopted on December 26, 1968, also renamed the Autonomous Province of Kosovo and Metohija as the Socialist Autonomous Province of Kosovo. The provinces were granted the right to adopt their own constitutional laws (Todorović, 2022).

However, the constitution of 1963 was replaced 11 years later, when the parliament approved a new constitution in 1974 (https://www.worldstatesmen.org/). One significant difference between the second and third constitutions was the strengthening of the position of the autonomous provinces and the introduction of self-management. According to the new constitution, the Socialist Federal Republic of Yugoslavia was a federal state in the form of a state community of voluntarily united nations and their Socialist Republics and the Socialist Autonomous Provinces of Vojvodina and Kosovo, which were constituent parts of the Socialist Republic of Serbia, based on the power and self-management of the working class and all working people. The Socialist Federal Republic of Yugoslavia consisted of the Socialist Republic of Bosnia and Herzegovina, the Socialist Republic of Croatia, the Socialist Republic of Macedonia, the Socialist Republic of Montenegro, the Socialist Republic of Slovenia, the Socialist Republic of Serbia, the Socialist Autonomous Province of Vojvodina, and the Socialist Autonomous Province of Kosovo (Art. 2). Regarding state symbols, there were no changes, except for the number of torches in the coat of arms, which increased to six in 1974, set obliquely with flames merging into a single flame.

Additionally, all three federal constitutions stipulated that each people's republic had its own constitution, allowing it to regulate its internal organization independently. These constitutions had to reflect the specific characteristics of the republic and comply with the Federal Constitution. On this basis, Macedonia and Serbia adopted their own constitutions.

1.1. Macedonian Constitutive Acts and Legal Norms for Symbols

In the first Constitution of 1946, the People's Republic of Macedonia was defined as a nation-state with a republican form of government. It was united with the other Yugoslav peoples and their national republics[2] in a common federal state-the Federal People's Republic of Yugoslavia. In the Constitution of 1963, the state was renamed the Socialist Republic of Macedonia, and in the Constitution of 1974, Albanian and Turkish nationalities were, for the first time, explicitly mentioned as a constituent part of the state. According to this constitution, the Socialist Republic of Macedonia was described as a national state of the Macedonian people and a state of the Albanian and Turkish nationalities living within it.

[1] A field encircled by ears of corn tied with a ribbon on which is inscribed the date 29-XI-1943. Between the tops of the ears is a five-pointed star. In the center of the field five torches are laid obliquely, their several flames merging into one single flame.

[2] People's Republic of Serbia, People's Republic of Montenegro, People's Republic of Bosnia and Herzegovina, People's Republic of Croatia and People's Republic of Slovenia

Regarding the symbols of the Macedonian state, the flag was mentioned in the first constitutive acts of the ASNOM Presidium. In the Decision approving the issuance of a proclamation to the Macedonian people on the occasion of the capitulation of Bulgaria, it was stated that "the red Macedonian flag is raised, and Macedonian people's democratic authority is established—the sovereign authority of free Macedonia in democratic and federative Yugoslavia."

In the first adopted constitution in 1946 (Ј.П. Службен весник, 1947), Article 4 stipulated that the state flag of the People's Republic of Macedonia was red with a five-pointed star. The star was red with a golden (yellow) border and had a regular five-pointed shape. In the second constitution (Ј.П. Службен весник, 1963) and third constitution (Ј.П. Службен весник, 1974), the words "state flag of the People's Republic of Macedonia" were replaced with "the flag of the Socialist Republic of Macedonia". In the first two constitutions, the use of any other flag (of national minorities or nationalities) besides the state flag was not mentioned. For the first time, a provision regarding the flags of nationalities appeared in the Constitution of 1974 (Art. 178), which stipulated that nationalities had the right to use the flag of their nationality, and members of ethnic groups had the right to use the flag of their ethnic group (Art. 222).

In 1989, the Constitution was amended by Amendment LVI (Ј.П. Службен весник, 1989), which stipulated that the Socialist Republic of Macedonia was a national state of the Macedonian people, founded on the sovereignty of the people and on the power and self-management of the working class and all workers, and a socialist self-managing democratic community of workers and citizens, of the Macedonian people and of the other nations and ethnicities living within it on an equal basis. With this amendment, the words "and a state of the Albanian and Turkish nationality within it" were removed from paragraph 2 of Article 1 of the Preamble; paragraph 1 of Article 1 was replaced; Article 2 was abolished; and the words "members of other nations" were added to Articles 3 and 4 of the Constitution of the SRM.

Two years later, a referendum on the independence of Macedonia was held in September 1991. In November of the same year, the first Constitution of the Republic of Macedonia as an independent state was adopted, constituting it as a sovereign, independent, democratic, and social state (Ј.П. Службен весник на РМ, 1991). According to the Preamble of the Constitution, the Republic of Macedonia was constituted as a national state of the Macedonian people, ensuring full civic equality and permanent coexistence of the Macedonian people with Albanians, Turks, Roma, Vlachs, and other nationalities living in it.

This Preamble has been amended twice: in 2001 by Amendment IV and in 2019 by Amendment XXXIV. According to Amendment IV, the citizens of the Republic of Macedonia include the Macedonian people, as well as citizens living within its borders who are part of the Albanian people, the Turkish people, the Vlach people, the Serbian people, the Romani people, the Bosniak people, and others, who, in accordance with the tradition of the Krushevo Republic, the decisions of ASNOM, and the Referendum of September 8, 1991, decided to establish the Republic of Macedonia as an independent and sovereign state. Amendment XXXIV deleted the words "as well as citizens living within its borders who are" and "have decided to", replaced the words "the decisions of ASNOM" with "the legal decisions cited in the Proclamation of the First Session of ASNOM to the Macedonian people about the said session of ASNOM", and added the words "which expressed the will to create an independent, sovereign state and the Ohrid Framework Agreement" after the word "year" (www.sobranie.mk, 2019).

1.1.1. International and Internal Issues Related to Flags

The 1991 Constitution stipulates that state sovereignty is indivisible, inalienable, and non-transferable (Art. 1); that sovereignty

emanates from and belongs to the citizens (Art. 2); and that the territory of the state is indivisible and inalienable (Art. 3). Regarding the other constitutive elements of the state, the Constitution provides that the state symbols are the coat of arms, flag, and anthem, and that a law shall provide an accurate description of these symbols and regulate their use (Art. 4). In this Constitution, the term "nationalities" is used for minorities, and there are no provisions regarding other flags, unlike the Constitution of 1974.

The vote on the first Constitution of independent Macedonia was not supported by the Albanian parties PDP–NDP, due to several demands raised during parliamentary debates. One of the issues discussed was the use of national flags. Namely, the PDP demanded that the right to use national symbols be included in the Constitution, explaining that the flag for which a constitutional solution was sought would not be treated as the flag of the Albanian state. However, this demand did not become part of the constitutional text. Long debates also arose during the selection of state symbols that had to be legally regulated and adopted (Докмановиќ, 2021, p. 169).

Regarding the determination of the new symbols of independent Macedonia, a parliamentary commission was formed in May 1992 with the task of selecting state symbols. As to the flag, the commission voted with 18 votes in favor of a red flag with a golden sun, in contrast to another proposal—a red and white flag without a symbol—which received 8 votes. A golden-yellow sun with 16 rays, known as the Star or Sun of Vergina (Kutlesh), a symbol of the ancient Macedonian rulers, was accepted. This symbol, among other things, was found on the golden larnax containing the remains of the ruler Philip II, discovered in the Greek part of Macedonia in the 1970s (Докмановиќ, 2021, p. 193).

After the acceptance of this proposal, on August 11, the Assembly of the Republic of Macedonia passed the Laws on the Flag and Anthem of the Republic of Macedonia, with a two-thirds majority (88 votes) (Ј.П. Службен весник на РМ, 1992). However, this choice of flag was not supported by the representatives of the PDP–NDP, who did not attend the session, nor by Greece.

The new Greek Foreign Minister, Michalis Papakonstantinou, declared on August 13, 1992: "I am Macedonian, and I am particularly affected by the latest provocation of Gligorov and the adoption of the Sun of Vergina as the symbol on the flag of Skopje." He added that foreign embassies in Athens would be informed about this issue, and that, through Greek embassies abroad, the entire world would be informed (Докмановиќ, 2021, p. 193).

For this reason, on April 8, 1993, when Macedonia was admitted as a member of the United Nations, its official name and flag were not accepted. Membership in the UN was granted under the provisional reference "the Former Yugoslav Republic of Macedonia" (FYROM), while the official flag was placed in front of the UN building only on October 22, 1995, after its amendment. Following the signing of the Interim Accord between Macedonia and Greece on September 13, 1995, in New York, the Macedonian Law on the Flag was adopted on October 5, 1995 (Ј.П. Службен весник на РМ, 1995), according to which the official flag is red with a yellow sun and eight sunbeams[3].

Once the international issue had been resolved, a new internal problem emerged. In July 1997, following the display of Albanian flags in front of municipal buildings in Gostivar and Tetovo-which resulted in injuries and one fatality-the Law on the Use of Flags by Which the Members of Nationalities in the Republic of Macedonia Express Their Identity and National Characteristics was adopted. However, the Decree on the Proclamation of

[3] Art.2 The flag of the Republic of Macedonia is red with a golden-yellow sun. The sun has eight sun signs that extend from the sun disk extending to the edges of the flag. The sun's rays cross diagonally, horizontally and vertically. The diameter of the sun's disk is one-seventh of the length of the flag. The center of the sun coincides with the point where the diagonals of the flag intersect. The ratio of the width to the length of the flag is one to two. The use of the flag of Macedonia is regulated by the Law on the use of the coat of arms, flag, and anthem of the Republic of Macedonia (Ј.П. Службен Весник на РМ, 1997).

this Law and the Law itself were declared invalid after a procedure before the Constitutional Court to assess constitutionality. The procedure was initiated by several political parties[4]. In its decision of November 18, 1998 (Decision No. 141/97 and No. 146/97), the Court held, among other things, that Article 48 of the Constitution-which guarantees the right of members of nationalities to express, foster, and develop their identity and national characteristics-relates to the cultivation, expression, and development of their customs, culture, language, and traditions through cultural and artistic institutions, scientific and other associations. This does not imply that the rights to state symbols of the respective countries, such as coats of arms, flags, and anthems, are encompassed within this group. Accordingly, the constitutional guarantee of protection of the ethnic, cultural, linguistic, and religious identity of members of nationalities cannot be expressed by providing the possibility of or adopting special laws on the use of flags.

Four years later, in 2001, the largest constitutional revision was carried out through the adoption of 15 amendments derived from the Ohrid Framework Agreement (OFA) (Organization for Security and Co-operation in Europe, 2001).

According to point 7 of OFA, entitled "Expression of Identity", with regard to emblems, alongside the emblem of the Republic of Macedonia, local authorities shall be free to place, in front of local public buildings, emblems marking the identity of the community in the majority in the municipality, respecting international rules and customs. Pursuant to this provision, the Law on the Use of Flags of the Communities in the Republic of Macedonia was adopted in 2005 (Ј.П. Службен весник, 2005).

According to Article 2 of that Law, communities in the Republic of Macedonia have the right to use a flag chosen and used by them as a means of expressing their identity and characteristics. Article 3 provides that communities in the Republic of Macedonia may use the flag that expresses their identity and characteristics in public, official, and private life, in the manner determined by law. The council of the unit of local self-government decides on the use of the flag in public and official life. Article 8 regulates the manner of displaying the flags of communities, while Article 8a stipulates that the flag of the Republic of Macedonia is to be displayed alongside other flags in accordance with the law and must be at least one-third larger than the other flags.

Article 5 determines the occasions on which the flags of communities are displayed in front of, and in, the buildings of state authorities, public services and legal entities established by the state, public services and legal entities established by the units of local self-government, as well as on streets, squares, and other infrastructure facilities. In 2011, the Law on Amendments and Supplements to the Law on the Use of Flags of the Communities in the Republic of Macedonia was adopted (Ј.П. Службен Весник, 2011). According to Article 4 of this Law, in units of local self-government where citizens belonging to a particular community constitute more than 50% of the population, the flag of the Republic of Macedonia and the flag of that community are permanently displayed in front of and in the buildings of the local self-government authorities. The council of the unit of local self-government decides on the use of the flag in public and official life where members of a community constitute more than 50% of the population.

In these units of local self-government, if the flag of a community is displayed, the flag of Macedonia must also be displayed at multilateral events, competitions, and other gatherings, as well as during celebrations, ceremonies, and other public cultural, sports, and similar events of importance for the unit of local self-government. The Law further stipulates that members of communities in Macedonia have the right to use the flag that expresses their identity and characteristics in private life and during cultural, sports, and other events organized by members of the communities.

[4] Initiative for assessment was initiated by VMRO-DPMNE, the Liberal Democratic Party, the Democratic Party of Macedonia, the League of Democrats, the Macedonian People's Party, VMRO.

According to the Law, the flag of Macedonia, whenever displayed together with other flags of communities, must be at least one-third larger than the other flags. Under this Law, the Albanian, Serbian, Turkish, and Bosniak communities in Macedonia use the national flags of their respective kin-states, while the Roma and Vlachs, who do not have a kin-state, use flags that they have chosen to represent them.

1.2. Serbian Constitutive Acts and Legal Norms for Symbols

The first Serbian Constitution, known as the Sretenje Constitution, was adopted in 1835, marking the establishment of modern Serbian statehood. Considered "too liberal", it was the shortest-lived Serbian constitution, in force for only 55 days-from February 15 to April 11, 1835. This Constitution has been followed by twelve subsequent constitutions or constitutional texts (1838, 1869, 1888/1889, 1901, 1903, 1921, 1931, 1947, 1963, 1974, 1990, and 2006) (Бојанић, 2016)[5].

The constitutions of 1947, 1963, 1974, and 1990 were adopted while Serbia was part of the People's/Socialist Federal Republic of Yugoslavia. For the purpose of this paper, these constitutions and the last one, adopted in 2006, will be taken into consideration for the analysis and comparison with the Macedonian constitutions (Jovanović, 2016).

The ninth Constitution, known as the Constitution of the People's Republic of Serbia of 1947, was the first communist constitution defining Serbia as a national state with a republican form of government. It emphasized that the Serbian people, on the basis of the principle of equality, united with the other peoples of Yugoslavia and their republics in the SFRY. The tenth Constitution, adopted in 1963 and known as the Constitution of the Socialist Republic of Serbia, defined Serbia as a state of a socialist democratic community of the people of Serbia, based on the power of the working people and self-management. According to this Constitution, Serbia contained two autonomous provinces within its framework, Vojvodina and Kosovo and Metohija (in 1968, the term "Metohija" was dropped and the term "Socialist" was added).

The eleventh Constitution, known as the Constitution of the Socialist Republic of Serbia, was in force between 1974 and 1990 and represented the pinnacle of the system of self-management. Under this Constitution, Serbia included two autonomous provinces-the Socialist Autonomous Province (SAP) of Kosovo and the Socialist Autonomous Province (SAP) of Vojvodina—with their own constitutions and elements of statehood (Kuci, 2021). This meant that the two SAPs had an advanced legal status, being constituent parts of the Federation and defined as social, political, and self-governing communities of working people and citizens, in which the ethnic and political rights of all nations and nationalities living in their territory were respected. They were defined as having legal and political links with the Socialist Republic of Serbia and the SFRY.

The twelfth Constitution, adopted in 1990 (https://www.worldstatesmen.org, 1995) and known as the Constitution of the Republic of Serbia, defined Serbia as a constitutional

[5] The official name of second Constitution was Sultan's Hatt- I-Sharif, known as the Turkish Constitution, was adopted outside the borders of Serbia, abolishing the absolutism of Prince Miloš and establishing the Council as an exponent of Turkish interests in Serbia. It was effective from 1838 to1869. The third Constitution for the Principality of Serbia was adopted in 1861 introducing a representative system of government for the first time in Serbia and was effective in the period between 1869-1888 and 1894-1901, known as the Regency, Spiritual, or Trinity Constitution. The fourth Constitution for the Kingdom of Serbia, known as the Radical Constitution, was effective in the period between 1888-1894 and 1903-1918 (with amendments from 1903), regarded as the most democratic Serbian constitution and one of the most advanced civil constitutions in Europe at that time. It introduced the principles of constitutional and parliamentary monarchy in Serbia and provided guarantees for the personal and political rights of citizens. The fifth Constitution of the Kingdom of Serbia, known as the April or Imposed Constitution, was effective between 1901-1903 and expressed the autocratic tendencies of King Alexander Obrenovic. It introduced a bicameral system, the Senate and the Assembly, for the first time. The sixth Serbian Constitution of the Kingdom of Serbia was effective between 1903-1918, represented a partial modification and supplement to the 1888 Constitution. The seventh Constitution is the Constitution of the Kingdom of Serbs, Croats, and Slovenes, known as Vidovdan Constitution. It was adopted in 1921 and prescribed a unitary and centralistic system, with a monarchy under the Karadjordjevic dynasty. The eighth Constitution of the Kingdom of Yugoslavia, known as the September or Imposed Constitution, was effective in the period between 1931-1945, defining the Kingdom of Yugoslavia as a constitutional, but not a parliamentary monarchy.

and parliamentary republic and proclaimed the principle of separation of powers and a multi-party system. The two SAPs lost their attributes of statehood and became territorial autonomies (the province of Kosovo was renamed the Province of Kosovo and Metohija). In January 2002, the Serbian parliament approved the restoration of Vojvodina's autonomy.

The current Serbian Constitution was adopted in 2006 (constitute.org, 2006), following the final breakup of the Yugoslav federation. From 1992 to 2006, Serbia had been part of a federation with Montenegro, regulated by two federal constitutions adopted in 1992 and 2003[6]. After a referendum held in Montenegro in June 2006, Montenegro declared independence, leading to the dissolution of the State Union of Serbia and Montenegro.

The new Serbian Constitution was adopted in October 2006. This constitution-the first of Serbia as an independent state after 103 years-designates Serbia as the state of the Serbian people and of all citizens living in it, based on the rule of law, social justice, civil democracy, human and minority rights and freedoms, and a commitment to European principles and values. It formalizes that Vojvodina and Kosovo and Metohija, as autonomous provinces, have certain extended financial powers, determining their position in the Preamble, while the details of their autonomy are regulated by law[7]. According to Article 12, state authority is limited by the right of citizens to provincial autonomy and local self-government, which is subject only to supervision of constitutionality and legality. Article 182 provides that the autonomous provinces-the Autonomous Province of Vojvodina and the Autonomous Province of Kosovo and Metohija-are autonomous territorial communities in which citizens exercise the right to provincial autonomy[8].

In Articles 75–81 of the Constitution, additional individual and collective rights are guaranteed to members of national minorities, beyond those guaranteed to all citizens[9].

Two years after the adoption of the Constitution, in February 2008, Kosovo declared independence from Serbia, proclaiming itself the Republic of Kosovo. This declaration remains contested by the Serbian state, and the new "country" is not recognized by all states in the world.

Regarding Vojvodina, in 2009 the Statute of the Autonomous Province of Vojvodina was adopted at the provincial level. According to its basic provisions, Vojvodina is recognized as

[6] The constitution of 1992 established that the Federal Republic of Yugoslavia consists of the Republic of Serbia and the Republic of Montenegro as member republics, based on the equality of citizens and the equality of member republics. In 2003 was adopted the Constitutional charter state community of Serbia and Montenegro. According to article 2 of the Charter, Serbia and Montenegro are founded on the equality of the two member states, the state of Serbia and the state of Montenegro.

[7] Considering the state tradition of the Serbian people and equality of all citizens and ethnic communities in Serbia, Considering also that the Province of Kosovo and Metohija is an integral part of the territory of Serbia, that it has the status of a substantial autonomy within the sovereign state of Serbia and that from such status of the Province of Kosovo and Metohija follow constitutional obligations of all state bodies to uphold and protect the state interests of Serbia in Kosovo and Metohija in all internal and foreign political relations, the citizens of Serbia adopt Constitution of the Republic of Serbia.

[8] The substantial autonomy of the Autonomous province of Kosovo and Metohija shall be regulated by the special law which shall be adopted in accordance with the proceedings envisaged for amending the Constitution. New autonomous provinces may be established, and already established ones may be revoked or merged following the proceedings envisaged for amending the Constitution. The proposal to establish new, or revoke or merge the existing autonomous provinces shall be established by citizens in a referendum, in accordance with the Law. Territory of autonomous provinces and the terms under which borders between autonomous provinces may be altered shall be regulated by the Law. Territory of autonomous provinces may not be altered without the consent of its citizens given in a referendum, in accordance with the Law.

[9] Equality before the law is guaranteed, discrimination is prohibited, and the possibility of introducing special regulations and temporary measures to achieve full equality is provided (Article 76). The right to participate in the management of public affairs and to hold public office under the same conditions as other citizens is guaranteed, with the stipulated obligation to take into account the national composition of the population and the corresponding representation of members of national minorities when employing in state bodies, public services, bodies of autonomous provinces, and local self-government units (Article 77). The prohibition of forced assimilation is prescribed (Article 78), rights to preserve specificities are guaranteed in accordance with the law (Article 79), the right to associate and cooperate with compatriots is provided (Article 80), and the state is obligated to encourage the spirit of tolerance and intercultural dialogue and to take effective measures to promote mutual respect, understanding, and cooperation among all people living on its territory, regardless of their ethnic, cultural, linguistic, or religious identity (Article 81). Article 97, paragraph 2, of the Constitution, among other things, stipulates that the Republic of Serbia regulates and ensures the realization and protection of freedoms and rights of citizens.

an autonomous province of citizens living in it, within the territory of Serbia and as an integral part of it. It represents a region in which multiculturalism, multiconfessionalism, and other European principles and values are traditionally nurtured (Art. 1).

Five years later, at a session held on May 22, 2014, the Autonomous Province of Vojvodina adopted a new Statute (https://www.skupstinavojvodine.gov.rs, 2014). According to this Statute, Vojvodina is defined as an autonomous territorial community and an integral part of the Republic of Serbia in which citizens exercise the right to provincial autonomy in accordance with the Constitution and the law. Citizens of AP Vojvodina are guaranteed equal rights, irrespective of race, gender, national origin, social background, birth, religion, political or other beliefs, property, culture, language, age, or mental or physical disability, in accordance with the Constitution and the law (Art. 6). Within its rights and responsibilities, AP Vojvodina contributes to the realization of full equality for Hungarians, Slovaks, Croats, Montenegrins, Romanians, Roma, Bunjevci, Rusyns, Macedonians, and members of other numerically smaller national minorities/national communities living there, along with members of the Serbian people.

1.2.1. State Symbols and National Symbols of Serbia

According to Article 7 of the 2006 Serbian Constitution, the Republic of Serbia has a coat of arms, flag, and national anthem. The coat of arms of the Republic of Serbia (a double-headed white eagle) is used in the form of a large and a small coat of arms. The flag of the Republic of Serbia (red–blue–white) exists and is used as the national flag and as the state flag. The appearance and use of the coat of arms, flag, and national anthem are regulated by law.

This tricolor flag was also used during the Second World War, but after the victory of the communist partisan movement and the creation of the SFRY, the coat of arms on the flag was replaced by a red five-pointed star. This remained in force until 1991, when the star was removed. The double-headed eagle on the tricolor was restored in 2004.

The first Law on the Appearance and Use of the Coat of Arms, Flag and Anthem of the Republic of Serbia was adopted in 2009 and amended in 2023 (https://pravno-informacioni-sistem.rs, 2023). Section 3, titled “State and National Flag”, regulates the use of the Serbian flag as the state and national flag.

According to Article 18, the state flag is a horizontal tricolor with fields of equal height, from top to bottom: red, blue, and white, with the small coat of arms[10] placed above all three fields and shifted toward the hoist by one-seventh of the total length of the flag. The state flag is flown continuously at the main entrances to the buildings of state organs (except the National Assembly) and in their official premises; at the main entrance to the building of the National Assembly during sessions and on the national holiday of the Republic of Serbia; and at the main entrance to the buildings of organs of provincial autonomy, local self-government, and public services on the national holiday of the Republic of Serbia. If several state organs have official premises in the same building, only one flag is flown (Art. 20).

According to Article 19, the national flag is a horizontal tricolor with fields of equal height, from top to bottom: red, blue, and white. The national flag is flown continuously at the main entrance to the building of the National Assembly and at the main entrances to the buildings of organs of provincial autonomy, local self-government, and public services. If several such organs have official premises in the same building, only one flag is flown. The national flag is displayed at polling stations on the day of elections for organs of provincial autonomy and local self-government. If elections for state organs and organs of provincial

[10] The Small Coat of Arms is a red shield with a two-headed silver eagle between two golden crowns at the bottom, with the same kind of tongues and legs, with a red shield on the chest with a silver cross between four of the same kind of eyes turned by the edges towards the vertical axis of the cross. The shield is crowned with a golden crown (art. 12). The coat of arms of the Republic of Serbia is the coat of arms established by the Law on the Coat of Arms of the Kingdom of Serbia of June 16, 1882, and is used as the Great Coat of Arms and as the Small Coat of Arms (art. 10).

autonomy or local self-government are held simultaneously, the state flag is displayed at polling stations (Art. 28).

1.2.2. Symbols of Vojvodina and Traditional Symbols

Regarding the symbols of AP Vojvodina, Article 9 of the Statute of AP Vojvodina determines its symbols-the flag and the coat of arms-and the manner of their use, on the basis of the Constitution. The flag of AP Vojvodina consists of three colors-red, blue, and white-arranged horizontally in proportions of 1:8:1. In the center of the blue field, three yellow stars are arranged in a circle. The coat of arms of AP Vojvodina is a shield composed of three fields, two vertical and one horizontal, on which the historical coats of arms of Bačka, Banat, and Srem are placed from left to right[11].

The same Article explains the traditional symbols of AP Vojvodina[12]. A provincial assembly decision on the appearance and use of symbols and traditional symbols of AP Vojvodina regulates the detailed appearance and use of these symbols (https://www.skupstinavojvodine.gov.rs/, 2016). The detailed manner of use is further regulated by the Instruction on the Detailed Regulation of the Use of Symbols of AP Vojvodina. The flag and the traditional flag of AP Vojvodina are displayed alongside the flag of the Republic of Serbia whenever it is required by law or other regulations to display the flag of the Republic of Serbia, with the flag of AP Vojvodina placed to the right of the Serbian flag.

1.2.3. Symbols of National Minorities in Serbia

According to Article 16 of the Law on the Protection of Rights and Freedoms of National Minorities of 2018, members of national minorities have the right to choose their national symbols and signs (https://ravnopravnost.gov.rs, 2018). Under this Law, national symbols and signs may not be identical to the symbols and signs of other states. National councils may propose national symbols, signs, and holidays of national minorities.

Alongside the symbols and signs of a national minority, when marking a public holiday of the Republic of Serbia and a recognized holiday of the national minority, the state flag of the Republic of Serbia must also be displayed, as well as the small coat of arms of the Republic of Serbia. At the entrance to the official premises of a national council, symbols of the national minority may be displayed throughout the year, along with the state symbols of the Republic of Serbia.

According to the Law on the Appearance and Use of the Coat of Arms, Flag and Anthem of the Republic of Serbia, Serbian national symbols represent the state and express belonging to Serbia (https://www.paragraf.rs, 2023). They may be used only in the forms and with the content specified by the Constitution and related laws (Art. 2). The Law further provides that when the Serbian coat of arms or flag is displayed alongside other domestic or foreign symbols, it must be given a place of honor (Art. 3). It also stipulates that the coat of arms or flag of a foreign state may be displayed in Serbia only together with the Serbian coat of arms or flag, unless otherwise provided by an international agreement ratified by the Republic of Serbia (Art. 8).

According to Serbian law, the National Council of the Hungarian National Minority in Serbia has chosen the official tricolor flag of Hungary (red–white–green) with the coat of arms in the middle[13]. The Bulgarian national minority currently uses a tricolor (white–green–red) with the coat of arms in the middle,

[11] The Small Coat of Arms is a red shield with a two-headed silver eagle between two golden crowns at the bottom, with the same kind of tongues and legs, with a red shield on the chest with a silver cross between four of the same kind of eyes turned by the edges towards the vertical axis of the cross. The shield is crowned with a golden crown (art. 12). The coat of arms of the Republic of Serbia is the coat of arms established by the Law on the Coat of Arms of the Kingdom of Serbia of June 16, 1882, and is used as the Great Coat of Arms and as the Small Coat of Arms (art. 10).

[12] The flag of AP Vojvodina is a traditional tricolor with horizontal fields of equal height in red, blue, and white, from top to bottom. The ratio of the flag is 3:2 (length to height). The coat of arms of AP Vojvodina is a traditional coat of arms from 1848.

[13] This flag was not used in territory of Hungary was informal for a period, and later became the formal flag of the Kingdom of Hungary within the Austro-Hungarian Empire, and after 1919, it became the state flag of Hungary under the dictatorship of Miklós Horthy.

featuring a crowned lion. The lion bears a smaller shield on its chest depicting a golden lily and a black eagle. Croats and Slovaks introduced minor changes to their flags, which are otherwise identical to the national flags of their kin-states. Croats removed the crown above the coat of arms from the Croatian flag, while Slovaks changed the white border of the Slovak coat of arms on the flag to gold. The national council of the Albanian minority in Serbia decided in 2012 that their flag should be identical to the flag of Albania (Slobodna reč, 2022).

2. EXAMPLES OF NON-COMPLIANCE WITH LEGAL NORMS REGARDING THE USE OF FLAGS

Instances of violations of laws related to flags have occurred in both countries. Some examples are outlined below.

In August 2023, during the visit of the Macedonian and Serbian presidents to Vranje, there was an irregular and unlawful use of the Serbian flag. Flags positioned at the entrance to the city were mistakenly hung upside down. Similarly, in September 2020, an 18-meter mast bearing the flag of Serbia was placed at the entrance to Vranjska Banja, but the flag had incorrect proportions—it was nine meters long, and the small coat of arms was placed in the middle of the flag instead of being shifted toward the hoist (Slobodna reč, 2023).

In Vojvodina, two decisions were adopted regarding the use of symbols: one on the coat of arms in 2002 and another on the flag in 2004. These decisions remained in effect even after the adoption of the 2006 Serbian Constitution and the Statute of the Autonomous Province of Vojvodina in 2008. Interestingly, the 2008 Statute did not introduce or describe the symbols, despite being enacted after the Constitution. However, in 2009, through a form of legal reclassification, the unconstitutional decisions of 2002 and 2004 were transformed into "provincial assembly decisions" (Orlović, 2016).

The new Statute introduced in 2014, in line with constitutional norms, explicitly introduced and described the symbols of AP Vojvodina in Article 9. It also stipulated that certain issues related to the appearance and use of symbols and traditional symbols shall be regulated by a provincial assembly decision. Two years later, in September 2016, a decision was adopted regarding the parallel use and application of the flag and coat of arms of AP Vojvodina and its traditional flag and coat of arms. Although the deadline for implementation was April 2017, the first notice was issued only on August 31, 2017, and by December of the same year, 45 municipalities had not fully adapted to the new regulations. None of them consistently implemented the decision on the use of AP Vojvodina symbols (https://vojvodjanskevesti.rs/, 2017).

Regarding the flags of minorities living in Serbia, there is an example of a violation of Article 49(3) of the Law on National Minorities by the president of the municipality of Preševo. This violation occurred in June 2023, when the Albanian flag was displayed in a public place contrary to the Law. The former president of the National Council, Ragmi Mustafi, referred to Article 79 of the Constitution in his statement to Al Jazeera Balkans but failed to take into account the Law on the Protection of the Rights and Freedoms of National Minorities, which stipulates that minority symbols and signs may not be identical to the symbols and signs of other states (Slobodna reč, 2022).

On November 28, 2023, in municipalities in Serbia with a majority Albanian population, Albanian flags were once again prominently displayed to mark Albanian Flag Day. In Bujanovac, the Albanian flag was positioned alongside the flags of the European Union and the state flag of Serbia. Similarly, in Preševo, the Albanian flag was displayed on the building of the National Council of Albanians. As a consequence of the use of the Albanian flag, the police have consistently filed misdemeanor charges against municipal officials, presidents of the National Council of Albanians, public officials, and directors of public institutions.

They have been fined for violations under Article 41(1) (3) of the Law on the Appearance and Use of the Coat of Arms, Flag and Anthem of the Republic of Serbia. Despite these legal repercussions, Albanians have remained steadfast in their refusal to modify their national symbols in any way, invoking the Serbian Constitution as guaranteeing their right to use their own symbols (Lazić, 2021).

There are also cases in which Croats in Serbia continue to face difficulties in exercising some of their rights (Žigmanov, n.d.). According to the decision of the Croatian National Council and in accordance with positive legal regulations, the Croatian community has four holidays during which Croats in Serbia organize various events. On such occasions, the flag of the Croatian community should be raised on all buildings and premises of local authorities and organizations with public authority. However, this practice has not been observed in Subotica and its surroundings, in Tavankut or Bajmok, on October 16, when Croats in Serbia celebrate the birthday of Ban Josip Jelačić.

In the Macedonian context, examples of non-compliance with the law relating to the use of flags include the following: in 2012, a six-meter Albanian flag was placed on a 35-meter-high pole in Kičevo to mark Albania's Independence Day (https://mkd-news.com, 2012). Similarly, in 2013, an Albanian flag of the same dimensions as the Macedonian national flag was placed illegally along the Kičevo–Zajas road and remained there for three months. In addition, in front of the municipal building in Aračinovo, next to a memorial center for the victims of 2001, 20-meter Albanian flags were erected. Furthermore, during public holidays of the Albanian community in the municipality of Čair and in Struga, the Macedonian flag is almost never displayed.

These experiences have revealed a notable gap in the law concerning such violations. The State Administrative Inspectorate has no jurisdiction over the use of community flags, while the State Inspectorate for Local Self-Government oversees the legality of decisions adopted by local self-government bodies (including schools and streets), but lacks the authority to impose sanctions regarding the use of flags.

Another incident took place in Ohrid during the Easter holidays in 2019. A folklore group unfurled an Albanian flag at Samuel's Fortress, after which a high-ranking official of Albanian nationality publicly claimed that the Albanian flag could be displayed anywhere without consequences. In response, the government clarified that adherence to the law is mandatory and pointed to a court ruling on this issue (https://a1on.mk, 2019).

The most recent events occurred in March 2024, when unidentified individuals placed an Albanian flag on top of the dome of the church of Saint Athanasius in the fortress of Tetovo. In addition, a flag of the Kosovo Liberation Army (UCK) was prominently displayed on a banner at the entrance to the fortress (https://m.makpress.m, 2024).

The only known legal action taken in Macedonia to address violations regarding the use of flags appears to involve lawyer Toni Menkinoski (https://mkd.mk, 2024). In 2019, Menkinoski displayed a flag featuring the Sun of Kutlesh in the center of Ohrid for the Epiphany holiday. The misdemeanor proceedings against him, based on charges of disturbing public order, were concluded earlier this year before the Basic Court in Ohrid. A misdemeanor report was filed for the display of a flag that did not conform to the legally prescribed attributes.

In his final statement, Menkinoski declared: "I do not feel guilty, and I wish to state before the court that my actions are not prohibited by any law or regulation in Macedonia. Furthermore, I am proud to display a symbol that has cultural and national significance for Macedonians. Regardless of the court's decision, I intend to continue displaying the Macedonian flag from Kutlesh, and I am committed to advocating for its recognition as the national flag of Macedonia," he concluded (https://novamakedonija.com.mk, 2024).

3. CONCLUSION

Ideas about the rule of law have been central to political and legal thought since at least the 4th century BCE, when Aristotle distinguished "the rule of law" from "the rule of any individual" (Choi, n.d.). The rule of law is defined as the mechanism, process, institution, practice, or norm that supports the equality of all citizens before the law, secures a non-arbitrary form of government, and more generally prevents abuses of power.

According to the Serbian Constitution (Art. 3), the rule of law is a crucial foundation upon which the entire constitutional framework is built, emphasizing inalienable human rights. This principle is upheld through free and direct elections, constitutional guarantees of human and minority rights, the separation of powers, the independence of the judiciary, and observance of the Constitution and laws by public authorities. Article 19 stipulates that guarantees of inalienable human and minority rights in the Constitution serve to preserve human dignity and ensure the full freedom and equality of each individual in a just, open, and democratic society, based on the principle of the rule of law.

In the Preamble to the Macedonian Constitution, it is stipulated that the citizens have decided to constitute Macedonia (after 2019, North Macedonia) as an independent, sovereign state with the intention of establishing and consolidating the rule of law. In Article 8, the rule of law is listed among the fundamental values of the constitutional order.

At the international level, there is an independent, multidisciplinary organization—the World Justice Project—which each year publishes a ranking of states according to the Rule of Law Index, based on eight factors and 44 sub-factors (https://worldjusticeproject.org, 2024). One of these factors is the "Fundamental Rights" factor, which focuses on a relatively limited set of rights firmly established under the United Nations Universal Declaration of Human Rights and closely related to rule-of-law concerns.

According to the global ranking for 2023, North Macedonia is ranked 67th out of 142 countries. Its score for the "Fundamental Rights" factor is 0.60, placing it 54th globally and 4th regionally (Eastern Europe and Central Asia). Regarding the sub-factor "Equal Treatment and Absence of Discrimination", North Macedonia has a score of 0.65, ranking 38th globally and 3rd regionally. Serbia ranks lower—93rd globally. Its score for the "Fundamental Rights" factor is 0.55, placing it 72nd globally and 9th regionally. For the sub-factor "Equal Treatment and Absence of Discrimination", Serbia scores 0.62, ranking 45th globally and 5th regionally.

Considering these data, we may infer that North Macedonia occupies a better position than Serbia with respect to the overall ranking, fundamental rights, and the sub-factor of equal treatment and absence of discrimination.

Regarding the results of the legal analysis and their use in practice, the analysis leads to the conclusion that in both cases the constitutions support and promote the rule of law, including fundamental rights and minority rights. Both constitutions guarantee rights relating to the expression, protection, and promotion of minority identities, including the use of symbols. At the national level, fundamental symbols include the flag, coat of arms, and anthem, while language and flags serve as expressions of affiliation for minorities.

This study conducted a detailed analysis of the flag as a symbol in both the Macedonian and Serbian cases. Historically, the two countries have followed different paths, but they share a common history as parts of the former Yugoslavia. After the breakup of Yugoslavia in 1991, Macedonia became independent, while Serbia declared its independence in 2006 after the dissolution of the federation between Serbia and Montenegro.

As independent states, both face certain difficulties. Macedonia, under international pressure, changed one of its national symbols—the flag—and later even the name of the state. Furthermore, internal dissatisfaction on the part of the Albanian minority regarding

ethnic symbols posed additional challenges. In the Serbian case, one of the biggest issues was the declaration of Kosovo as an independent state, which, under the Serbian Constitution, remains part of Serbia. However, the Kosovo issue does not form part of this research. The use of symbols in Serbia was analyzed through legal norms relating to the Autonomous Province of Vojvodina and norms relating to minorities.

There are differences between the Macedonian and Serbian legal frameworks. Although both constitutions guarantee the right to express identity through symbols, Macedonian legislation allows communities to choose their symbols without restrictions, whereas Serbian legislation does not permit, for example, the use of kin-state flags as official symbols of minorities living in Serbia.

The analysis revealed violations, non-compliance, and abuses of the law in both countries, primarily in relation to the Albanian minority. In the Macedonian case, violations concern the use of the Albanian flag without the accompanying Macedonian flag, or the use of Albanian flags of inappropriate dimensions. In the Serbian case, Albanians use the state flag of Albania as their symbol, contrary to the law, and often without the accompanying Serbian flag. Other examples include non-compliance with the law in failing to display the flag of Vojvodina and the flag of the Croatian community in Serbia.

The results of the research show that, despite the existence of legislation, the norms concerning symbols and their use are frequently abused or disregarded. Even if Serbia were to amend the provision concerning the use of the symbols of other states, the experience of North Macedonia shows that, despite such a right, violations continue (for example, by displaying ethnic flags without the state flag or with larger dimensions than the state flag).

The most relevant recommendation in these cases is that laws aimed at promoting culture and diversity should be respected and implemented, rather than being used to mark territories or provoke tensions. In this context, responsibility lies not only with state inspectorates but also with the personal responsibility of officials, who are expected to serve as examples of compliance with legal norms.

REFERENCES

[1] Statistical Office of the Republic of Serbia. (2022). data.stat.gov.rs. Retrieved from Statistical Office of the Republic of Serbia: https://data.stat.gov.rs/Home/Result/3104020102?languageCode=en-US

[2] State Statistical Office. (2022, March 30). stat.gov.mk. Retrieved from Republic of North Macedonia, State Statistical Office: https://www.stat.gov.mk/PrikaziSoopstenie_en.aspx?rbrtxt=146

[3] https://www.arhivyu.rs. (1946, January 31). Retrieved from The Archives of Yugoslavia: https://www.arhivyu.rs/leksikon-jugoslavije/konstitutivni_akti_jugoslavije

[4] http://srpskaenciklopedija.org/. (1963). Retrieved from Српска енциклопедија: http://srpskaenciklopedija.org/doku.php?id=%D1%83%D1%81%D1%82%D0%B0%D0%B2_%D1%81%D0%BE%D1%86%D0%B8%D1%98%D0%B0%D0%BB%D0%B8%D1%81%D1%82%D0%B8%D1%87%D0%BA%D0%B5_%D1%84%D0%B5%D0%B4%D0%B5%D1%80%D0%B0%D1%82%D0%B8%D0%B2%D0%BD%D0%B5_%D1%80%D0%B5%D0%BF%D1%83%D0%B

[5] https://www.worldstatesmen.org/. (n.d.). Retrieved from WORLD STATESMEN.ORG: https://www.worldstatesmen.org/Yugoslavia-Constitution1974.pdf

[6] Ј.П. Службен весник. (1947, January 1). Службен весник на Народна Република Македонија, бр. 1, год. III. Retrieved from: http://www.slvesnik.com.mk/Issues/571D5D9AF0DB42A3A37F220F77476EB5.pdf

[7] Ј.П. Службен весник. (1963, April 12). Службен весник на СРМ, бр. 15, год. XIX. Retrieved from: https://www.slvesnik.com.mk/Issues/37EB0C4961424D1286094520A974BBC9.pdf

[8] Ј.П. Службен весник. (1974, February 25). Службен весник на СРМ, бр. 7, год. XXX. Retrieved from: http://www.slvesnik.com.mk/Issues/0AF2E0456C964935B7705FB5BF6F31F9.pdf

[9] Ј.П. Службен весник. (1989, July 26). Службен весник на СРМ, бр. 29. Retrieved from: http://www.slvesnik.com.mk/Issues/245BBB86D1354148B0725DC74D5D893A.pdf

[10] Ј.П. Службен весник на РМ. (1991, November 22). Службен весник на РМ, бр. 52. Retrieved from: https://www.slvesnik.com.mk/Issues/19D704B29EC040A1968D7996AA0F1A56.pdf

[11] www.sobranie.mk. (2019). Assembly of the Republic of North Macedonia. Retrieved from: https://www.sobranie.mk/the-constitution-of-the-republic-of-macedonia-ns_article-constitution-of-the-republic-of-north-macedonia.nspx

[12] Докмановиќ, М. (2021). *Сами на своето: кратка историја на македонската независност (1990–1993).* Скопје: Фондација „Фридрих Еберт" – Канцеларија Скопје.

[13] Ј.П. Службен весник на РМ. (1992, August 12). Службен весник на РМ, бр. 50. Retrieved from: https://www.slvesnik.com.mk/Issues/0E00D81461B0480F99954FAB2F2F9481.pdf

[14] Ј.П. Службен весник на РМ. (1995, October 6). Службен весник на РМ, бр. 47. Retrieved from: https://www.slvesnik.com.mk/Issues/0124CDEDBD2940C8AB642A152C9FCBEE.pdf

[15] Ј.П. Службен весник на РМ. (1997, July 9). Службен весник на РМ, бр. 32. Retrieved from: https://www.slvesnik.com.mk/Issues/F7ECE25A8E4841F8BEFF90CF399E158F.pdf

[16] Organization for Security and Co-operation in Europe. (2001, August 13). Retrieved from: https://www.osce.org/skopje/100622

[17] Ј.П. Службен весник. (2005, July 19). Службен весник на РМ, бр. 58. Retrieved from: https://www.slvesnik.com.mk/Issues/8EDCC32A9E7D654C949C24BD18E63775.pdf

[18] Ј.П. Службен весник. (2011, July 25). Службен весник на РМ, бр. 100. Retrieved from: https://www.slvesnik.com.mk/Issues/47D56301AAB3324281A085DAAC0AEF98.pdf

[19] Бојанић, Ђ. (2016, June 21). Сви српски устави на једном месту – списак српских устава. Retrieved from Српска историја: https://www.srpskaistorija.com/svi-srpski-ustavi-na-jednom-mestu-spisak-srpskih-ustava/

[20] Jovanović, J. (2016, February 15). Сви устави Србије. Retrieved from *Novi magazin*: https://www.novimagazin.rs/vesti/109823-svi-ustavi-srbije

[21] Kuci, A. (2021). Kosovo in the Constitution of 1974. *Journal of History and Future,* 7(4), 872–879.

[22] https://www.worldstatesmen.org. (1995). World Statesmen. Retrieved from: https://www.worldstatesmen.org/Serbia_const_1990.htm

[23] constitute.org. (2006). *Constitution of Serbia (2006).* Retrieved from Constitute: https://www.constituteproject.org/constitution/Serbia_2006

[24] https://www.skupstinavojvodine.gov.rs. (2014, May 24). *Statute of the Autonomous Province of Vojvodina.* Retrieved from: https://www.skupstinavojvodine.gov.rs/Strana.aspx?s=statut&j=SRL

[25] https://pravno-informacioni-sistem.rs. (2023). *Law on the Appearance and Use of the Coat of Arms, Flag and Anthem of the Republic of Serbia.* Retrieved from: https://pravno-informacioni-sistem.rs/eli/rep/sgrs/skupstina/zakon/2009/36/1/reg

[26] https://www.skupstinavojvodine.gov.rs/. (2016). *Decision on the Detailed Regulation of the Use of Symbols of AP Vojvodina.* Retrieved from: https://www.skupstinavojvodine.gov.rs/Strana.aspx?s=aktapv11

[27] https://ravnopravnost.gov.rs. (2018). *Law on the Protection of Rights and Freedoms of National Minorities.* Retrieved from: https://ravnopravnost.gov.rs/wp-content/uploads/2021/08/43e756834.pdf

[28] https://www.paragraf.rs. (2023). *Zakon o izgledu i upotrebi grba, zastave i himne Republike Srbije.* Retrieved from: https://www.paragraf.rs/propisi/zakon-o-izgledu-upotrebi-grba-zastave-himne-republike-srbije.html

[29] Slobodna reč. (2022, November 28). Шта је заправо проблем са заставом коју Албанци данас истичу? Retrieved from: https://slobodnarec.com/sta-je-zapravo-problem-sa-zastavom-koju-albanci-danas-isticu/

[30] Slobodna reč. (2023, August 9). Брука: заставе Србије и Врања на излазу из града постављене наопако. Retrieved from: https://slobodnarec.com/bruka-zastave-srbije-i-vranja-na-izlazu-iz-grada-postavljene-naopako/

[31] Orlović, S. (2016, September 9). Компромис за симболе Војводине. *Политика.* Retrieved from: https://www.politika.rs/sr/clanak/363116/Kompromis-za-simbole-Vojvodine

[32] https://vojvodjanskevesti.rs/. (2017, December 22). 45 општина не користи адекватно симболе АПВ. Retrieved from: https://vojvodjanskevesti.rs/45-opstina-ne-koristi-adekvatno-simbole-apv/

[33] Lazić, N. (2021, December 1). Држава не признаје заставу Албаније као обиљежје албанске мањине у Србији. *Al Jazeera Balkans.* Retrieved from: https://balkans.aljazeera.net/teme/2021/12/1/drzava-ne-priznaje-zastavu-albanije-kao-obiljezje-albanske-manjine-u-srbiji

[34] Žigmanov, T. (n.d.). На празник Хрвата у Србији ни једна застава хрватске заједнице на зградама тијела власти у Суботици. Demokratski savez Hrvata u Vojvodini. Retrieved from: https://www.dshv.rs/vijest/na-praznik-hrvata-u-srbiji-ni-jedna-zastava-hrvatske-zajednice-na-zgradama-tijela-vlasti-u-subotici-229

[35] https://mkd-news.com. (2012, November 18). 6-метарско албанско знаме се вее во Кичево на 35-метри висок јарбол. Retrieved from MK News: https://mkd-news.com/6-metarsko-albansko-zname-se-vee-vo-kichevo-na-35-metri-visok-jarbol/

[36] Todorović, M. (2022, February 23). *Конститутивни акти Југославије*. The Archives of Yugoslavia. Retrieved from: https://www.arhivyu.rs/en/leksikon-jugoslavije/konstitutivni_akti_jugoslavije

[37] https://a1on.mk. (2019, May 2). Бошњаковски: Законот за употреба на знамињата треба да го почитуваат сите. Retrieved from A1on: https://a1on.mk/macedonia/boshnjakovski-zakonot-za-upotreba-na-znaminjata-treba-da-go-pochituvaat-site/

[38] https://m.makpress.m. (2024, March 21). УАПСЕНИ ДВАЈЦА ПОРАДИ ПОСТАВУВАЊЕ ЗНАМЕ НА УЧК НА ТВРДИНАТА ВО ТЕТОВО. MP Mak Press. Retrieved from: https://m.makpress.mk/Home/PostDetails?PostId=579374

[39] https://mkd.mk. (2024, March 26). Судот во Охрид пресуди: Тони Менкиноски не е виновен. MKD.mk. Retrieved from: https://mkd.mk/sudot-vo-ohrid-presudi-toni-menkinoski-ne-e-vinoven-za

[40] https://novamakedonija.com.mk. (2024, March 15). Менкиноски: Ќе се борам знамето од Кутлеш повторно да биде државно знаме. *Нова Македонија*. Retrieved from: https://novamakedonija.com.mk/makedonija/politika/menkinoski-kje-se-boram-znameto-od-kutlesh-povtorno-da-bide-drzhavno-zname/

[41] Choi, N. (n.d.). *Rule of law*. Encyclopedia Britannica. Retrieved from: https://www.britannica.com/topic/rule-of-law

[42] https://worldjusticeproject.org. (2024). *Rule of Law Index*. World Justice Project. Retrieved from: https://worldjusticeproject.org/rule-of-law-index/

ВЛАДАВИНА ПРАВА И УПОТРЕБА ДРЖАВНИХ И МАЊИНСКИХ СИМБОЛА У МАКЕДОНСКОМ И СРПСКОМ СЛУЧАЈУ

Резиме: *Владавина права подразумева да су сви појединци, као субјекти права, једнаки пред законом у погледу својих права и обавеза, као и у ограничењима која намећу одређена понашања. Ова једнакост и ограничења не би требало да дискриминишу на било којој националној, верској, полној или службеној основи. Предмет овог рада је упоредна анализа владавине права у С. Македонији и Србији спроведена кроз испитивање примене уставних и законских прописа у вези са употребом државних симбола и симбола заједнице. Сврха истраживања је да се утврди да ли је примена ових принципа у складу са владавином права. Пракса показује да се владавина права не спроводи увек у потпуности у ова два случаја. Коришћење службених дужности и слободна воља појединаца могу се сматрати узроцима непоштовања владавине права. У закључку су дате две оцене: једна у вези са адекватношћу постојеће регулативе и друга која сугерише могућа будућа решења која би била у складу са владавином права.*

Кључне речи: *владавина права, државни симболи, симболи мањина, С. Македонија, Србија*

UDC: 347.626:347.628.42
COBISS.SR-ID 183365129
doi: https://doi.org/10.61837/mbuir030225081i

PROFESSIONAL WORK

RECEIVED: 17. 05. 2024.
ACCEPTED: 03. 12. 2025.

ESTATE RELATIONS OF UNMARRIES PARTNERS

Aleksandar V. IVANOVIĆ

Apelacini sud u Beogradu, Serbia
aleks968ivanovic@gmail.com

Dragan B. CVETKOVIĆ

Ministarstvo unutrašnjih poslova Republike Srbije
cvetkovicdragan76@gmail.com
https://orcid.org/ORCID/0009-0009-9473-9773

Nenad M. MLADENOVIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia
nenad.mladenovic@ppf.edu.rs

Abstract: *According to our legislation, an unmarried partnership is a cohabitation of two individuals of different genders lacking the legal form of marriage, characterized by its duration and stability. In some Western European countries, unmarried partnerships have become a common form of cohabitation over the past few decades, but they are not legally regulated by family law regulations as in Serbia, where the actions of such partnerships are regulated by provisions on the right to maintenance, as well as on the acquisition and division of joint property. Considering that with contemporary social changes, property relations in unmarried partnerships have undergone changes in terms of their recognition by positive legislation, the subject of this study will be the regulation of property relations of unmarried partners, from the perspective of positive legislation within which unmarried partners are allowed to adjust them to their own needs and interests.*

Keywords: *unmarried partnership, cohabitation, non-marital property, joint property, separate property, prenuptial agreement, rights protection*

1. INTRODUCTION

In accordance with our legislation, an unmarried partnership is a cohabitation between two individuals of different genders lacking the legal form of marriage. Another characteristic of an unmarried partnership is its duration and stability. For an unmarried partnership to enjoy legal protection under the provisions of the Family Law, the following conditions should characterize it: gender diversity, monogamy, cohabitation, the permanence of such cohabitation, and the absence of marital impediments at the establishment of the unmarried partnership. The Family Law, in defining an unmarried partnership, stipulates that it concerns the cohabitation of an unmarried woman and an unmarried man, with no predetermined duration. In previous Yugoslav judicial practice, there

were attempts to fix a necessary duration for an unmarried partnership that would trigger property-related actions. "It was assessed that property acquired during an unmarried partnership lasting longer than five years would be considered joint property" [21]. Although the Family Law of the Republic of Serbia (FL) almost entirely equates marital and non-marital partnerships concerning family and property relations, the law does not contain detailed provisions regulating the property rights of unmarried partners, which is not the case when it comes to the property rights of spouses. This is most evident concerning the acquisition and division of non-marital property and the enforcement of maintenance rights. Regarding property rights, Article 191 of the of the Law on Family Law stipulates that property acquired by unmarried partners during their cohabitation represents joint property, and the legal provisions regulating property relations between spouses apply to property relations between unmarried partners [8]. By prescribing that the legal provisions regulating property relations apply to unmarried partners, the legislator introduces a legal property regime concerning unmarried partners, leaving them the possibility to modify this regime through agreements to regulate their property relations on existing or future property. According to Article 188 of the FL, a prenuptial agreement is a written agreement between spouses or future spouses regulating their property relations on existing or future property [8]. Based on existing legal regulations, there is no obstacle for unmarried partners to, through an agreement without judicial proceedings, divide property acquired through joint efforts during their cohabitation. If they fail to reach an agreement, the division of property acquired during the unmarried partnership would be decided by the court in a property dispute upon the claim of one of the unmarried partners or their legal heirs if an unmarried partner dies before filing the lawsuit, considering that the right to division of non-marital property is inheritable. In such a dispute, as a preliminary question for the court's decision on the recognition of rights to the acquisition and division of non-marital property, the duration of the cohabitation and its effect on property relations between unmarried partners need to be conclusively determined. If the disputed moment of the start of the unmarried partnership arises, proving it in such a dispute will be much more complex than in the case of a marital partnership, which is subject to legal presumptions related to the moment of marriage. However, in the event of the termination of an unmarried partnership, proving it may not be more complicated than in the case of the termination of cohabitation between spouses, which may not coincide with the termination of marriage. In both cases, for the court's decision on the amount of contribution to the acquisition of joint property, the moment of the start and termination of the cohabitation of two individuals is relevant.

2. JOINT AND SEPARATE PROPERTY OF UNMARRIED PARTNERS

The Family Law provides for the legal regime governing the relationships of unmarried partners. Within this legal regime, a distinction is made between common property and separate property. According to Article 15, paragraph 1 of the Family Law, property acquired by unmarried partners during the duration of their cohabitation constitutes their common property [8]. Common property among unmarried partners is characterized by the fact that the shares of the partners in it are not predetermined in advance. The rights of unmarried partners extend to all property acquired during the duration of their cohabitation. Although the Family Law allows spouses, or future spouses, to regulate their property relations through a marital contract and thereby exclude the application of the legal regime to existing or future property, such a possibility is not explicitly prescribed for unmarried partners who live in a longer-term cohabitation but have no intention of marrying. We believe that this legal solution does not hinder unmarried partners from regulating their property relations differently through such a contract and excluding the application of the legal regime to property acquired during the duration of their cohabitation. Supporting this view is the fact that the property relations of

unmarried partners, according to the existing legal regulations, are equated with the property relations of spouses. To determine the concept of common property of unmarried partners, according to the legal definition, two conditions must be met: cohabitation as a longer-term life partnership and work performed by unmarried partners. Cohabitation constitutes an economic and factual partnership in which unmarried partners maintain a common household that takes into account the needs of the partners, family members, and other individuals living in the household. The Family Law does not specify what constitutes a longer-term life partnership. It is a legal standard whose precise meaning and scope are determined by judicial practice. In the majority of court decisions, it is expressed that a cohabitation is considered longer-term when it is a stable partnership between a man and a woman without marital impediments, lasting for several years, involving the birth of children, or when the partners express their intention to establish a long-lasting life partnership. In the rationale of the Family Law proposal, it is stated that the duration of cohabitation is not decisive, but rather the intention of unmarried partners for the permanence of their partnership. Based on this characteristic, a cohabitation should resemble a marriage and be established with the intention of lasting indefinitely. This definition of cohabitation, as a longer-term and stable partnership between a man and a woman without marital impediments, differs from short-term, transient emotional partnerships where such a defined shared life is not the primary purpose of existence. This condition is the basis for distinguishing between stable, longer-term cohabitations with the desire for a shared life among unmarried partners and transient, short-term partnerships focused on entertainment, fulfilling passions, and sexual desire. In practice, as a contentious issue in disputes regarding the property relations of unmarried partners, the length of the partnership and the moments of its beginning and end may arise. Not every emotional partnership is a cohabitation, nor is every longer partnership a longer-term life partnership with the characteristics of cohabitation. The existence of marriage is an absolute impediment to recognizing the cohabitation of a man and a woman, regardless of the length of their partnership. Such a position is also expressed in judicial practice in the judgment of the Supreme Court of Cassation Rev 4920/2020 of February 9, 2022, according to which the plaintiff does not have the right to claim a share of the immovable property based on acquisition in a cohabitation with the defendant who was married, as the life partnership of the litigants during the disputed period was not a cohabitation [21]. ...Namely, from the established factual situation, it follows that the plaintiff D.D. and the defendant Ž.P. lived together from 1978 to 1983, however, as the defendant Ž.P. was married to M.P. during that time (marriage concluded in 1972), which marriage was dissolved in 1983, contrary to the allegations of the revision not only from the statements of the plaintiff in the lawsuit for main interference but also from the attached evidence, legally valid judgment of the District Court in Belgrade P 4184/82 of January 11, 1983, it is the correct conclusion of the appellate court that the life partnership between the plaintiff D.D. and the defendant Ž.P. was not a cohabitation, considering that a cohabitation is a longer-term life partnership between a man and a woman, without marital impediments as prescribed by Article 4 of the Family Law, and therefore there are no conditions to establish the plaintiff's share in the subject property based on acquisition in a cohabitation" [22]. Regardless of the duration of cohabitation between unmarried partners, the property acquired by a partner before the commencement of cohabitation or after its termination is their separate property. However, determining the separate property of unmarried partners can be problematic in practice. This issue arises from the fact that unmarried partners initiate and terminate their cohabitation through informal agreements. Since there are no appropriate registers for unmarried partnerships where they could be documented, determining the property that a partner had before the formation of the partnership must reliably establish its beginning. In the absence of agreement on this matter, the court will determine

that moment in a dispute concerning the property relations of unmarried partners.

In litigation, the existence of an unmarried partnership is proven by evidence, with the hearing of the litigants and witnesses being of paramount importance in establishing the factual circumstances relevant to the court's decision. This is understandable, as the events subject to proof are life occurrences that can be directly observed and have an immediate impact on the rights and obligations of the participants.

Regarding the property consequences of the termination of an unmarried partnership, the legislator has provided the same rules as for the termination of a marital union. The application of these rules is not necessary at the time of establishing an unmarried partnership.

In practice, in the absence of an agreement, the property relations of unmarried partners are resolved by a court judgment in a lawsuit filed by one of the partners to recognize their share in the acquisition of common property. Before initiating proceedings before the court, positive law allows unmarried partners to resolve disputes over property relations through mediation. By resolving the dispute in this way, unmarried partners could avoid a lengthy and expensive court process. The number of property disputes resolved by mediation between unmarried partners in some countries is greater than those resolved in court proceedings. However, in domestic practice, unmarried partners still rarely opt for this relatively quick, inexpensive, and efficient way of resolving disputes while respecting their needs and interests.

In addition to a lasting cohabitation, another condition for recognizing the right to contribute to the acquisition of common property arises from the work of unmarried partners. Besides work that generates income, contributing to the maintenance or increase of existing property is also significant for the acquisition of common property. Under the regime of common property, unmarried partners manage and dispose of property by mutual agreement. However, there is a difference depending on whether the disposal relates to movable or immovable property. In the case of disposing of movable property, there is an assumption that unmarried partners do so with the consent of the other. In the case of disposing of immovable property, if there is no consent, the disposal is invalid.

According to the law, in a situation where one unmarried partner disposes of immovable property that becomes part of the common property without the consent of the other partner, any interested party, including the unmarried partner whose consent was lacking, may request a court to declare the nullity of such a contract. In a dispute where the claim is upheld by a judgment, the court would annul the contract and all legal consequences it produced. Subsequent consent of the other unmarried partner would allow such a contract to remain in force.

Considering that the legal regime of marital property also applies to unmarried partnerships, which are expressly equated with marriage in terms of property relations, the same presumption of equal shares of each unmarried partner in its acquisition applies to unmarried property. This presumption of equal shares in the acquisition of unmarried property can be corrected by negotiating a different proportion in shares. The legal regime implies clearer property relations, better realization of the principle of family solidarity, and equality. Moreover, judicial practice, based on family law, often determined their shares in equal parts. However, in practice, the legal property regime, as envisaged by the Family Law, could lead to injustice, especially in the case of unequal contributions of unmarried partners to property creation. Such a situation arises when one partner makes maximum efforts and contributes while the other does not contribute at all and often only consumes the created property. Such behavior contradicts the idea of the rights and duties of unmarried partners. In the case of unequal contributions to common property, an unmarried partner can conclude an agreement with the other partner stipulating their unequal shares in the unmarried property. If no agreement is reached, an

unmarried partner can protect their rights regarding greater contributions to the acquisition of common property by filing a lawsuit requesting the division of unmarried property. In proceedings conducted according to such a lawsuit before the court, an unmarried partner would rebut the legal presumption of equal shares of unmarried partners in the acquisition of unmarried property. In addition to the common property acquired through work during the duration of the partnership, according to the provisions of Article 10 in conjunction with Article 191 paragraph 2 of the Family Law, the property that an unmarried partner had at the time of the establishment of the partnership, property acquired by dividing common property, inheritance, gift, or other legal transactions resulting in exclusive rights represent their separate property [8]. Each unmarried partner manages and disposes of their separate property independently. Property encompasses absolute and relative rights. Absolute rights include real rights (ownership, servitudes, mortgages, state ownership, etc.). Relative rights comprise contractual rights, intellectual property rights (copyrights and industrial property rights), and personality rights that can be monetarily expressed and separated from their holder in legal transactions.

As an absolute right, the right of ownership over movable or immovable property can be acquired by derivative or original acquisition, where the criterion depends on whether the acquirer bases their ownership right on the right of a predecessor. The method of acquisition determines its legal status, meaning that the property acquired by unmarried partners can be either common or separate. In the case of original acquisition, an unmarried partner can acquire property by finding others' property (occupation). Ownership of a lost item is acquired under law-prescribed assumptions. Whether property is deemed common or separate depends crucially on work and its contribution to property acquisition. If an unmarried partner accidentally finds an item, it becomes their separate property. However, if they professionally engage in collecting items (e.g., collecting recyclable materials), such acquired items and the proceeds from their sale are considered common property of unmarried partners.

Work serves as the dominant criterion in determining the status of unmarried partners' property. This criterion also applies when unmarried partners jointly create a new item from their material and, under Article 22 of the Law on Obligations and Property Relations, acquire co-ownership rights over it [15]. The most common way of acquiring ownership rights in this manner is through the construction of a family home using the joint funds of unmarried partners. In a dispute arising from the composition of common property, which includes a family home where one unmarried partner is registered as the exclusive owner, the other unmarried partner seeking recognition of their share in the common property must prove that both unmarried partners participated in its acquisition, using funds from their separate property as well as joint funds.

In addition to the mentioned cases, unmarried partners can acquire ownership rights over movable or immovable property through possession. The statutory limitation period for movable property is three years, while for immovable property, it is ten years. Following the provisions of Article 30 paragraph 1 of the Law on Obligations and Property Relations, the commencement of the limitation period for unmarried partners regarding movable or immovable property representing their common property begins when both or one of the unmarried partners takes possession of the property and ends with the expiration of the last day of the maintenance period [15].

If both unmarried partners or just one simultaneously take possession of the property, the maintenance period ends with the expiration of the last day of the maintenance period. In cases where the maintenance period runs simultaneously for both unmarried partners, questions of dishonesty, as a reason preventing the acquisition of ownership rights through possession, must be considered concerning both unmarried partners.

The lack of conscientiousness of one cohabiting partner in a situation where maintenance simultaneously applies to both cohabiting partners prevents the acquisition of property rights to items that constitute joint property of cohabiting partners, even in cases where the other cohabiting partner is conscientious. Such an outcome results from the fact that both cohabiting partners have simultaneously entered into possession of the items, thereby making conscientiousness and legality of possession assessed in relation to both cohabiting partners, just as the deadline for maintenance expires simultaneously for both cohabiting partners.

As previously mentioned, cohabiting partners, besides absolute rights, can also acquire relative rights. Relative rights or obligations have effects solely between participants in the given obligation relationship. The most significant source of relative rights is the Law on Obligations. The law considers contracts, causing damage, acquiring without grounds, agency without authority, and unilateral expressions of will as sources of obligations In some cases, the Law on obligations has recognized the right of cohabiting partners under certain conditions the right to monetary compensation that can be awarded to a cohabiting partner in the event of the death or severe disability of a close person, provided that there was a lasting cohabiting relationship between the deceased (injured) and the cohabiting partner [15]. The existence and duration of the cohabiting relationship are factual questions determined by the court in the procedure for compensation, taking into account all circumstances of the case. The surviving cohabiting partner will be entitled to compensation for non-material damage if they prove that they lived with the deceased (injured) in a cohabiting relationship that constitutes a cohabiting union. The duration of that cohabiting union, as a preliminary question on which the right to compensation depends, is not prescribed by the law, but according to existing judicial practice, it refers to a cohabiting relationship that lasted longer [12], [11]. With the new amendments to the Law on Pension and Disability Insurance in Article 28 paragraph 2 it is prescribed that a cohabiting partner can exercise the right to family pension of the deceased insured person, i.e., old-age, early old-age, or disability pension [6], [5], [6]. In this way, with the amendments to the Law on Pension and Disability Insurance, the cohabiting partner is allowed to exercise the right to family pension, provided that they prove in court that they lived in a cohabiting relationship with the deceased insured person. Except for the mentioned cases in which the rights of cohabiting partners are equated with the rights of spouses, domestic legislation does not recognize rights to cohabiting partners that are recognized to spouses. An example is the Law on Inheritance, which exhaustively lists the circle of persons who are statutory heirs, among which a cohabiting partner is not included, and the Labor Law in Article 77 prescribes that an employee has the right to leave from work with wage compensation (paid leave) for a total duration of five working days during the calendar year, in case of their spouse's childbirth [14], [3]. Although the employee is not explicitly granted the right to paid leave in case of their cohabiting partner's childbirth, the law allows the possibility for this right to be recognized by the employer's general act, indicating that the realization of this right depends on the employer's discretionary decision.Top of Form

CONCLUSION

Non-marital cohabitation is a legal institution regulated by various provisions with different legal effects. In family law, the definition of non-marital cohabitation reflects legislative views on the necessary prerequisites for its family effects. However, difficulties can arise in the application of regulations, particularly regarding the duration of the cohabitation as a condition for recognizing the establishment of a non-marital cohabitation and the effects it produces on the rights and obligations of cohabiting partners. Existing family law regulations governing the property relations of non-marital partners are characterized by a small number of provisions. In essence, the

situation is quite clear, at least from a theoretical standpoint, and judicial practice has commendably expressed itself on legal regulation.

More precisely, the provisions of the new family legislation have created initial conditions to avoid lengthy legal proceedings in the future, which sometimes lasted for a decade or more just to determine each non-marital partner's share in the creation and subsequent ownership of common property that needed to be divided. The introduction of a new institution into our family law system, the marital agreement, which allows non-marital partners to regulate their property relations concerning existing or future property, should certainly contribute to avoiding disputes regarding property division.

Based on all the above, it can be concluded that in the legal system of the Republic of Serbia, non-marital cohabitation is equated with marriage, primarily based on the Constitution and the Family Law regulating marriage, family relations, and personal status of citizens. Non-marital partners can also claim rights from social security, such as the right to family pension and the right to compensation for non-material damage in case of the death or severe disability of a close person. Outside of these cases, a non-marital partner is not equated with a spouse in inheritance law and in certain rights related to employment. The current Law on Inheritance does not include a non-marital partner in the circle of legal heirs, but this current legal solution does not exclude the possibility of future changes in the legal regulation of this issue, aiming to equalize their inheritance rights, considering societal trends. The same applies to other areas of legal regulation where non-marital cohabitation is not equated with marriage.

REFERENCES

[1] Constitutional Charter, "Official Gazette of RS" No. 18/2020).

[2] Decision of the SFRY, and 57/89, Official Gazette of the SRJ No. 31/93, Official Gazette of SCG, No. 1/2003

[3] Decision of the Constitutional Court, 113/2017 and 95/2018 – authentic interpretation.

[4] Decision of the Republic of Serbia, 84/2004.

[5] Decision of the Republic of Serbia, 5/2009, 107/2009, 101/2010, 93/2012, 62/2013, 108/2013, 75/2014, 142/2014, 73/2018, 46/2019.

[6] Decision of the Republic of Serbia, 86/2019, 62/2021, 125/2022, 138/2022 and 76/2023)

[7] Draškić Marija. (2005). *Porodično parvo i parvo detete,* Beograd: Čigoja Štampa.

[8] Family law, "Official Gazette of RS", No. 18/2005, 72/2005. – dr. zakon I 6/2015.

[9] Judgment of the Supreme Court of Cassation of Croatia Rev. 648/17 dated May 14, 1987

[10] Judgment of the Supreme Court of Cassation Rev. 4920/2020 dated February 9, 2022.

[11] Judgment of the Novi Sad Court of Appeal, Case No. 3015/13.

[12] Judgment of the Novi Sad Court of Appeal, Case No. 282/12.

[13] Judgment of the Novi Sad Court of Appeal, Case No. 138/13.

[14] Labor Law, "Official Gazette of RS", No. 24/2005, 61/2005, 54/2009, 32/2013, 75/2014, 13/2017

[15] Law on Obligations, "Official Gazette of the SFRY" No. 29/78, 39/85, 45/89.

[16] Law on Pension and Disability Insurance, "Official Gazette of RS", No. 34/2003, 64/2004, 85/2005, 101/2005, 63/2006.

[17] Law on Games of Chance (Official Gazette of RS 18/20).

[18] Panov, Slobodan. (2014). *Porodično pravo*. Beograd: Pravni fakultet, p. 147.

[19] Počuča Milan, Šarkić Nebojša. (2011). *Porodično parvo i porodično pravna zaštita*. Beograd: JP "Službeni glasnik" I Pracni fakultet Univerziteta Union.

[20] Ponjavić, Zoran. (2007). *Family Law,* Kragujevac: Pravni fakulteta.

[21] Presuda Vrhovnog kasacionog suda, Rev 4920/2020, od 9. februara 2022.

[22] Presuda Okružnog suda u Beogradu, P 4184/82, od 11. januara 1983.

[23] Supreme Court of Croatia Rev. 648/17, May 14, 1987.

[24] Vrhovni sud Hrvatske, Rev. 648/17, 14. maj 1987.

ИМОВИНСКИ ОДНОСИ ВАНБРАЧНИХ ПАРТНЕРА ПАРТЕРА

Резиме: *Према законодавству Републике Србије, ванбрачна заједница је заједнички живот две особе различитог пола којима недостаје законски облик брака, а карактерише је трајање и стабилност. У неким западноевропским земљама, ванбрачне заједнице су постале уобичајен облик заједничког живота у последњих неколико деценија, али нису правно регулисане прописима породичног права као у Србији, где је деловање таквих заједница регулисано одредбама о праву на издржавање, као и о стицању и подели заједничке имовине. С обзиром на то да су са савременим друштвеним променама, имовински односи у ванбрачним заједницама претрпели промене у смислу њиховог признавања позитивним законодавством, предмет ове студије биће регулисање имовинских односа ванбрачних партнера, из перспективе позитивног законодавства у оквиру којег је ванбрачним партнерима дозвољено да их прилагоде својим потребама и интересима.*

Кључне речи: *ванбрачна заједница, заједнички живот, ванбрачна имовина, заједничка имовина, посебна имовина, предбрачни уговор, заштита права*

UDC: 347.94:004.8
COBISS.SR-ID 183395337
doi: https://doi.org/10.61837/mbuir030225089j

Review scientific paper

Received: 26. 04. 2024.
Accepted: 02. 12. 2025.

ADAPTING RULES ON TORT CIVIL LIABILITY TO ARTIFICIAL INTELLIGENCE

Milan D. JEČMENIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia
milanjecmenic@yahoo.com
https://orcid.org/0009-0003-6109-3490

Ratko M. IVKOVIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia
ratko.ivkovic@pr.ac.rs
https://orcid.org/0000-0002-6557-4553

Veljko D. SINANOVIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia
veljkosinanovic@gmail.com

Abstract: *On September 28, 2022, the European Commission introducedaProposal for a Directive on adapting rules regarding tort civil liability to artificial intelligence, known as the Directive on Liability for Artificial Intelligence. However, considering the distinctive features of artificial intelligence (autonomy, lack of transparency, and complexity) that pose challenges to existing liability rules, coupled with the complexity of the burden of proof issue, the choice of suitable legal instruments is highly constrained. In the Directive on Liability for Artificial Intelligence, the focus narrows down to "evidence disclosure" and "rebuttable presumptions", strategically and proportionally reducing the burden of proof. This paper specifically examines the provisions of the Directive on Liability for Artificial Intelligence, with a closer look at the provisions related to evidence disclosure, provisions on the rebuttable presumption of failure to exercise due care, and provisions on the rebuttable presumption of causation in cases of negligence.*

Keywords: *artificial intelligence, civil liability, evidence disclosure, burden of proof*

INTRODUCTION

On 28.9.2022, the European Commission presented the Proposal for a Directive on adapting non-contractual civil liability rules to Artificial Intelligence (Proposal for a Directive of the European parliament and of the Council on adapting non-contractual civil liability rules to artificial intelligence (AI liability directive), available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022PC0496, hereinafter: the AI Liability Directive). The aim of the AI Liability Directive is to improve the functioning of the internal market by defining uniform requirements for certain aspects of non-contractual civil liability for damage caused by the use of AI systems, and it also serves to adapt private law to the digital economy. However, given the characteristics of AI (autonomy, opacity, and complexity) that challenge existing liability rules, as well as the complexity of the burden of proof issue, the choice

of suitable legal instruments is very limited, and in the AI Liability Directive boils down to "disclosure of evidence" and "rebuttable presumptions" through which the burden of proof is very specifically and proportionately reduced.

Accordingly, as regards the subject matter of the AI Liability Directive, it contains rules on the disclosure of evidence relating to high-risk AI systems, with the aim of enabling the claimant to substantiate their non-contractual civil claim for damages based on fault, as well as rules on the burden of proof in cases of non-contractual civil claims for damages based on fault brought before national courts for damage caused by an AI system (Directive on Liability for Artificial Intelligence, Art. 1, Para. 1), as well as rules on the rebuttable presumption of a failure to comply with a duty of care and the rebuttable presumption of causation in case of fault. As for the scope of the AI Liability Directive, it applies to non-contractual civil claims for damages based on fault, if the damage caused by the AI system occurred after the deadline for implementation of the AI Liability Directive (Directive on Liability for Artificial Intelligence, Art. 1, Para. 2).

The AI Liability Directive does not affect the rules of European Union law governing liability conditions in the field of transport, nor the rights that the injured party may have under national provisions implementing the Council Directive on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products (Council Directive 85/374/EEC of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31985L0374), nor the exclusions from liability and duties of care laid down in Regulation (EU) 2022/2065 of the European Parliament and of the Council on a Single Market for Digital Services (Digital Services Act) (Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act), available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32022R2065) and amending Directive 2000/31/EC, and finally, national rules on which party bears the burden of proof, what standard of proof is necessary or how fault is defined (Directive on Liability for Artificial Intelligence, Art. 1, Para. 3). Member States have the option to adopt or maintain national rules that facilitate the claimant's proof of non-contractual civil claims for damages caused by an AI system, provided that those rules are compatible with European Union law (Directive on Liability for Artificial Intelligence, Art. 1, Para. 4).

The focus of the author in this paper is precisely the provisions of the AI Liability Directive, specifically the provisions on the disclosure of evidence, the provisions on the rebuttable presumption of a failure to comply with a duty of care, as well as the provisions on the rebuttable presumption of causation in case of fault. However, first, the definitions.

1. OVERVIEW OF ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) refers to the simulation of human intelligence processes by machines, especially computer systems. AI systems are designed to perform tasks that would typically require human intelligence, such as perceiving, learning, reasoning, and decision making. AI development involves training models using large datasets to enable the AI system to recognize patterns and make predictions or decisions without being explicitly programmed with rules. There are various AI techniques like machine learning, deep learning, natural language processing, computer vision, etc.The current stage of AI development is considered

Artificial Narrow Intelligence (ANI) where AI systems excel at specific, narrowly defined tasks like playing chess, facial recognition, language translation, etc. but lack the generalized intelligence of humans.

Artificial General Intelligence (AGI) refers to hypothetical AI that exhibits human-level intelligence across a wide range of cognitive tasks, having strong reasoning, problem-solving, and learning capabilities akin to the human mind. AGI does not yet exist but is a long-term goal of AI research.

Artificial Superintelligence (ASI) is a speculative concept of AI that surpasses human intelligence in virtually every domain of interest, exhibiting capabilities far beyond the human intellect. ASI is considered an existential risk by some experts if not developed with robust controls.

The legal field is significantly impacted by advancements in AI technology. AI systems are increasingly being deployed in areas like legal research, contract analysis, prediction of case outcomes, etc. However, AI also raises complex ethical, regulatory and liability challenges that the legal system must grapple with. Developing robust governance frameworks for the development and deployment of AI is crucial to mitigate risks while realizing its benefits.

2. DEFINITIONS OF THE AI LIABILITY DIRECTIVE

The AI Liability Directive contains definitions of the terms “artificial intelligence system”, “high-risk artificial intelligence system”, “provider”, “user”, “claim for damages”, “claimant”, “prospective claimant”, “defendant”, as well as “duty of care”. For the definitions of the terms “artificial intelligence system”, “high-risk artificial intelligence system”, “provider” and “user”, the Directive refers, for the sake of consistency, to the definitions of these terms contained in the Regulation of the European Parliament and of the Council on Harmonised Rules on Artificial Intelligence (the Artificial Intelligence Act) and amending certain European Union legislative acts (Proposal for a Regulation of the European Parliament and of the Council laying down harmonized rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52021PC0206). Specifically, for the definition of “artificial intelligence system”, it refers to Article 3(1) of the Artificial Intelligence Act; for the definition of “high-risk artificial intelligence system”, it refers to Article 6 of the Artificial Intelligence Act; for the definition of “provider”, it refers to Article 3(2) of the Artificial Intelligence Act; and finally, for the definition of “user”, it refers to Article 3(4) of the Artificial Intelligence Act.

An artificial intelligence system is software that is developed with one or more of the techniques and approaches listed in Annex I to the Artificial Intelligence Act (The concept of machine learning with supervised, unsupervised, and reinforcement learning, utilizing a wide range of methods including deep learning, logic-based and knowledge-based concepts, including knowledge representation, inductive (logical) programming, knowledge bases, inference and deduction modules, symbolic reasoning systems, expert systems, statistical approaches, Bayesian estimation methods, search, and optimization. See Annex I of the Artificial Intelligence Act, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52021PC0206) and that can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments with which the AI system interacts (Artificial Intelligence Act, Art. 3, Para. 1). An artificial intelligence system is considered high-risk if the AI system is used as a safety component of a product covered by the European Union harmonisation legislation listed in Annex II to the Artificial Intelligence Act (See Annex II of the Artificial Intelligence Act containing a list of European Union legislation on harmonization, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52021PC0206), or if the AI system itself is such a product covered by the European Union harmonisation legislation listed in Annex II to the Artificial Intelligence Act, and if the product whose safety component is the AI system, or the AI system itself as a product, is required to undergo a third-party conformity assessment

with a view to the placing on the market or putting into service of that product under the European Union harmonisation legislation listed in Annex II to the Artificial Intelligence Act. In addition, the artificial intelligence systems listed in Annex III to the Artificial Intelligence Act (Artificial Intelligence Act, Art. 6. According to Annex III of the Artificial Intelligence Act, high-risk artificial intelligence systems are systems in any of the following areas: biometric identification and categorization of individuals, critical infrastructure management and operation, education and vocational training, employment, workforce management and access to self-employment, access and use of essential private services, as well as public services and social benefits, criminal prosecution, migration management, asylum and border control supervision, judiciary, and democratic processes. See Annex III of the Artificial Intelligence Act, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52021PC0206) are also considered high-risk artificial intelligence systems. A provider is a natural or legal person, public authority, agency or other body that develops an AI system or has an AI system developed with a view to placing it on the market or putting it into service under its own name or trademark, whether for payment or free of charge (Artificial Intelligence Act, Art. 3, Para. 2). A user is a natural or legal person, public authority, agency or other body using an AI system under its authority, except where the AI system is used in the course of a personal non-professional activity (Artificial Intelligence Act, Art. 3, Para 4).

A claim for damages is a non-contractual civil claim based on fault for damages caused by the output of an AI system, or through the AI system's failure to produce an expected output. A claimant is a person who brings a claim for damages and who is either harmed by the output of an AI system or through the AI system's failure to produce an expected output (A claim for compensation can therefore be filed not only by the injured party but also by persons who have inherited the rights of the injured party, or by persons to whom the rights of the injured party have been transferred by subrogation. Subrogation implies the assumption from a third party (e.g., an insurance company) of the right to claim payment or compensation. This means that one person has the right to enforce the rights of another person for their own benefit. Subrogation also applies to the heirs of the deceased victim), or who has acquired rights from the injured party by means of transfer or inheritance under the applicable national law, or who represents one or more injured parties by mandate or operation of law (Therefore, a claim for compensation can also be filed by a person acting on behalf of one or more injured parties. The aim of this provision is to provide individuals who have suffered damage caused by artificial intelligence systems with more opportunities to have their claims considered by the court, even in cases where individual lawsuits are deemed too costly or burdensome, or where the benefit would be greater by filing a joint lawsuit). A prospective claimant is a natural or legal person considering bringing a claim for damages but who has not yet done so. A defendant is a person against whom a claim for damages is brought. Duty of care is a standard of conduct established under European Union law or national law to be adhered to in order to avoid harm to legally protected interests recognized under national law or European Union law, such as life, physical integrity, property, and fundamental rights (Directive on Liability for Artificial Intelligence, Art. 2).

3. DISCLOSURE OF EVIDENCE AND REBUTTABLE PRESUMPTION OF FAILURE TO COMPLY WITH DUTY OF CARE

Claimants seeking compensation for harm caused by a high-risk AI system should be provided with effective means to establish potentially responsible persons and to gather relevant evidence. To this end, the AI Liability Directive provides that Member States shall ensure that national courts are empowered, upon request of a prospective claimant (who has

previously unsuccessfully requested the disclosure of relevant evidence concerning a particular AI system suspected of having caused harm from the provider, a person subject to the obligations of a provider under Article 24 (If a high-risk artificial intelligence system related to products subject to the legal acts listed in Annex II of the Artificial Intelligence Act is placed on the market or put into operation together with a product manufactured in accordance with those legal acts and under the name of the manufacturer of that product, the manufacturer of the product assumes responsibility for the conformity of the artificial intelligence system with this Regulation and regarding the artificial intelligence system has the same obligations as those provided for by this Regulation for suppliers. See, Art. 24 of the Artificial Intelligence Act, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52021PC0206) or 28(1) (Distributors, importers, users, or other third parties are considered suppliers for the purposes of this Regulation and are subject to the obligations of suppliers if they place a high-risk artificial intelligence system on the market or put it into operation under their own name or trademark, if they change the intended purpose of a high-risk artificial intelligence system that has already been placed on the market or put into operation, or if they make a substantial modification to a high-risk artificial intelligence system. See, Art. 28,Para. 1 of the Artificial Intelligence Act, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52021PC0206) of the Artificial Intelligence Act, or the user) or of a claimant, to order the disclosure of relevant evidence available to those persons. However, to substantiate their request (relating to the disclosure of relevant evidence), the prospective claimant must demonstrate the plausibility of their claim for damages by presenting facts and evidence. Nevertheless, regarding a claim for damages, the national court shall order the disclosure of evidence only if the claimant has undertaken all reasonable steps to obtain the relevant evidence from the defendant (Directive on Liability for Artificial Intelligence, Art. 3, Para. 1).

Member States also have an obligation to ensure that national courts are empowered, upon request of a claimant, to order specific measures for the preservation of relevant evidence (Directive on Liability for Artificial Intelligence, Art. 3, Para. 2). In order to ensure proportionality in the disclosure and preservation of evidence and to prevent indiscriminate requests, national courts shall limit the disclosure and preservation of evidence to what is necessary and proportionate to support the claim of the claimant or prospective claimant for damages (Directive on Liability for Artificial Intelligence, Art. 3, Para. 3). When assessing the proportionality of an order for the disclosure or preservation of evidence, national courts shall take into account the legitimate interests of all parties involved, including affected third parties, in particular with regard to the protection of trade secrets within the meaning of Article 2(1) of Directive (EU) 2016/943 of the European Parliament and of the Council on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition (Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use, and disclosure, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016L0943#. Article 2, Para. 1 of this Directive provides that business secrets shall be considered information meeting the following conditions: 1) the information is secret in that it is not, as a body or in the precise configuration and assembly of its components, generally known or easily accessible to persons within the circles that normally deal with that kind of information; 2) it has commercial value because it is secret; 3) and the person who lawfully controls the information has taken reasonable steps under the circumstances to preserve its secrecy), use and disclosure, as well as the protection of confidential information relating to public

or national security. Member States shall ensure that, in cases where the disclosure of a trade secret or alleged trade secret classified as confidential by the court within the meaning of Article 9(1) of Directive (EU) 2016/943 is ordered, national courts are empowered (Article 9, Para. 1 of this Directive provides that Member States shall ensure that parties, their lawyers or other representatives, judicial officers, witnesses, experts, and any other persons participating in court proceedings concerning the unlawful acquisition, use, or disclosure of a trade secret, or who have access to documents that form part of such court proceedings, shall not be allowed to use or disclose any trade secret, or alleged trade secret, which the competent judicial authorities have determined, upon a justified request by the interested party, to be confidential and of which they became aware because of such participation or access. Member States may also allow competent judicial authorities to take such measures on their own initiative. This obligation shall apply even after the end of the judicial proceedings, provided that it ceases to exist if it is established by a final decision that the alleged trade secret does not meet the conditions set out in Article 2, Para. 1, or if the relevant information becomes generally known or easily accessible to persons within the circles that normally deal with such information over time), upon a duly reasoned request by one of the parties or on their own initiative, to take specific measures necessary to preserve the confidentiality of such information in proceedings before them or when referring to that information. This achieves a balance between the rights of the claimant and the legitimate interests of others in protecting trade secrets and confidential information. Member States shall also ensure that persons against whom an order for the disclosure or preservation of evidence is directed have adequate legal remedies against such an order (Directive on Liability for Artificial Intelligence, Art. 3, Para. 4).

Furthermore, a rebuttable presumption of failure to comply with a duty of care is introduced. Namely, if the defendant fails to comply with the national court's order to disclose or preserve available evidence, the national court shall presume that the defendant failed to comply with their duty of care. However, the defendant has the right to rebut this presumption (Directive on Liability for Artificial Intelligence, Art. 3, Para. 5).

4. REBUTTABLE PRESUMPTION OF CAUSATION IN CASE OF FAULT

Given that proof of a causal link between the failure to comply with a duty of care and the output or lack of output of the AI system that caused harm to the claimant may be difficult, the AI Liability Directive provides that national courts shall presume a causal link between the defendant's fault and the output produced by the AI system or the AI system's failure to produce an output, if three cumulative conditions are met. The first condition is that the claimant has proven, or the court has presumed, the fault of the defendant or a person for whose conduct the defendant is responsible for a breach of a duty of care established under European Union law or national law, the direct aim of which is to prevent the harm that has occurred. The second condition is that, based on the circumstances of the case, it can reasonably be assumed that the fault influenced the output produced by the AI system or the AI system's failure to produce an output. The third condition is that the claimant has proven that the output produced by the AI system or the AI system's failure to produce an output has caused harm (Directive on Liability for Artificial Intelligence, Art. 4, Para. 1).

However, if the claim for damages is brought against the provider of a high-risk AI system or a person subject to the obligations of a provider (See, footnotes 16 and 17), the aforementioned first of the three cumulative conditions is only fulfilled if the claimant proves that the provider or the person subject to the obligations of a provider has failed to comply with any of the following requirements: 1) if the AI system uses techniques involving the training of models with data, the AI system must have been developed on the basis of training, validation

and testing data sets that meet quality criteria; (Quality criteria are established in Art. 10, Para. 2, Para. 3, and Para. 4 of the Artificial Intelligence Act) 2) the AI system must be designed and developed to meet transparency requirements; (Requirements regarding transparency are established in Art. 13 of the Artificial Intelligence Act) 3) the AI system must be designed and developed in a manner that allows for effective human oversight during its use; 4) the AI system must be designed and developed with an appropriate level of accuracy, robustness, and cybersecurity in light of its intended purpose; 5) corrective measures must be taken without undue delay to bring the AI system into compliance with the requirements (Obligations to comply with regarding artificial intelligence systems are determined in Chapter 2, Chapter III of the Artificial Intelligence Act, or more specifically in Articles 8-15 of the Artificial Intelligence Act) or, if necessary, to withdraw or recall the AI system (Directive on Liability for Artificial Intelligence, Art. 4, Para. 2). If the claim for damages is brought against a user of an AI system, the Directive provides that the aforementioned first of the three cumulative conditions is only fulfilled if the claimant proves that the user failed to comply with their obligation to use or monitor the AI system in accordance with the accompanying instructions for use or failed to comply with their obligation to suspend or stop the use of the AI system when necessary, or if the claimant proves that the user provided inputs to the AI system that were under their control but were not suitable for the intended purpose of the AI system (Directive on Liability for Artificial Intelligence, Art. 4, Para. 3).

In the case of a claim for damages relating to a high-risk AI system, national courts shall not apply the presumption of causation in case of fault if the defendant proves that the claimant had access to evidence or expertise under acceptable conditions that would have enabled them to prove causation (Directive on Liability for Artificial Intelligence, Art. 4, Para. 4). If, however, the claim for damages relates to an AI system that is not high-risk, the presumption of causation in case of fault shall only apply if, in the view of the national courts, it would be excessively difficult for the claimant to prove causation (Directive on Liability for Artificial Intelligence, Art. 4, Para. 5). If the claim for damages is brought against a defendant who uses the AI system in the course of a personal non-professional activity, the presumption of causation in case of fault shall only apply if the defendant significantly modified the operating conditions of the AI system or if the defendant was required or able to define the operating conditions of the AI system but failed to do so (Directive on Liability for Artificial Intelligence, Art. 4, Para. 6). The presumption of causation in case of fault is a rebuttable presumption, meaning that the defendant has the right to rebut it (Directive on Liability for Artificial Intelligence, Art. 4, Para. 7).

5. EVALUATION

The AI Liability Directive also provides for an evaluation and targeted review. Namely, within five years after the deadline for the implementation of the AI Liability Directive, the Commission shall review its application and submit a report to the European Parliament, the Council, and the European Economic and Social Committee, together with a legislative proposal, if necessary (Directive on Liability for Artificial Intelligence, Art. 5, Para. 1). The report shall analyse the impact of Articles 3 and 4 on the achievement of the objectives pursued by the AI Liability Directive. In particular, the report shall consider whether rules on strict liability are appropriate for claims against operators of certain AI systems, and whether liability insurance coverage is necessary, taking into account the effects on the introduction and use of AI systems, particularly by small and medium-sized enterprises (Directive on Liability for Artificial Intelligence, Art. 5, Para. 2). For the purpose of preparing the report, the Commission shall establish a monitoring program setting out how and at what intervals data and other necessary evidence will be gathered, and defining the measures that the Commission and Member States will take

in relation to the gathering and evaluation of data and other evidence. For the purposes of this program, Member States shall provide the Commission with relevant data and evidence by 31 December of the second full year following the implementation deadline and by the end of each subsequent year (Directive on Liability for Artificial Intelligence, Art. 5, Para. 3).

CONCLUSION

The problem with the classical fault-based compensation system was the injured party, in addition to having suffered damage-which often caused serious financial hardship-was also in a difficult procedural position because they had to prove both the causal link and the fault of the wrongdoer. For this reason, legal proceedings for compensation often took a very long time, so that, over time, even the compensation itself could become meaningless. These were the reasons why modern legal systems, including ours, have departed from the traditional rule that, the burden of proof lies by the injured party. It has been recognized that if there is a causal link between the wrongdoers behavior and the damage, that is sufficient to create a rebuttable presumption of their fault, and consequently, the burden of proof shifts from the injured party to the wrongdoer(Antić, 2008:472). This is the meaning of the provision that the wrongdoer is obliged to prove that the damage occurred without their fault. In other words, the injured party proves causation, while the wrongdoer proves the absence of fault (Art. 154 Law on Obligations. "The Official Gazette of the SFRY", No. 29/78, 39/85, 45/89 – Decision of the CCY and 57/89, "The Official Gazzete of the FRY", No. 31/93, "The Official Gazzete of Serbia and Montenegro ", No. 1/2003 – Constitutional Charter and "The Official Gazzete of RS", No. 18/2020).

The Directive on liability for artificial intelligence goes even further, as we have seen. Under certain conditions, it not only introduces a presumption of fault, but also a presumption of causation, which we certainly consider justified. Although the Directive on AI liability provides for evaluation in this regard, we cannot help but feel that so-called high-risk AI systems, objective liability should have been established from the outset, based on the principle that damage arising in connection with a high-risk AI system is presumed to originate from that system, unless it is proven that the system was not the cause of the damage (See, Art. 173 Law of Obligations).

REFERENCES

[1] Law on Obligations. "The Official Gazette of the SFRY", No. 29/78, 39/85, 45/89 – Decision of the CCY and 57/89, "The Official Gazzete of the FRY", No. 31/93, "The Official Gazzete of Serbia and Montenegro ", No. 1/2003 – Constitutional Charter and "The Official Gazzete of RS", No. 18/2020).

[2] Antić, O. (2008). Obligation Law, Faculty of Law in Belgrade, Službeni Glasnik, Belgrade.

[3] Proposal for a Directive of the European parliament and of the Council on adapting non-contractual civil liability rules to artificial intelligence (AI liability directive), available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022PC0496.

[4] Council Directive 85/374/EEC of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products, availableat: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31985L0374.

[5] Regulation (EU) 2022/2065 of the European Parliament an of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act), availableat: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32022R2065.

[6] Proposal for a Regulation of the European Paliament and of the Council laying down harmonized rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts, availableat: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52021PC0206.

[7] Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure, availableat: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016L0943#.

ПРИЛАГОЂАВАЊЕ ПРАВИЛА О ДЕЛИКТНОЈ ГРАЂАНСКОПРАВНОЈ ОДГОВОРНОСТИ НА ВЕШТАЧКУ ИНТЕЛИГЕНЦИЈУ

Резиме: *Европска комисија је 28.9.2022. године представила Предлог директиве о прилагођавању правила о деликтној грађанскоправној одговорности на вештачку интелигенцију, тзв. Директиву о одговорности за вештачку интелигенцију. Међутим, с обзиром на особине вештачке интелигенције (аутономија, нетранспарентност и комплексност) које представљају изазов за постојећа правила о одговорности, као и сложеност проблематике сношења терета доказа, избор погодних правних инструмената је врло ограничен и у Директиви о одговорности за вештачку интелигенцију своди се на „откривање доказа“ и „оборive претпоставке“ путем којих се циљано и сразмерно смањује терет доказивања. Предмет пажње аутора у овом раду управо су одредбе Директиве о одговорности за вештачку интелигенцију, конкретније одредбе о откривању доказа, одредбе о оборивој претпоставци непоштовања обавезе пажљивог поступања, као и одредбе о оборивој претпоставци постојања узрочне везе у случају кривице.*

Кључне речи: *вештачка интелигенција, грађанскоправна одговорност, откривање доказа, терет доказивања*

Review scientific paper

Received: 05. 11. 2025.
Accepted: 25. 11. 2025.

UDC: 343.85:343.341
343.85:323.28
351.74::061.1(100)
COBISS.SR-ID 183399945
doi: https://doi.org/10.61837/mbuir030225098d

THE ROLE OF INTERPOL IN COMBATING CBRN TERRORISM

Marina H. DABETIĆ

Vinča Institute of Nuclear Sciences Institute of National Importance for the Republic Serbia, University of Belgrade, Belgrade, Serbia
fmarina@vin.bg.ac.rs
https://orcid.org/0000-0003-0903-0110

Živanka M. MILADINOVIĆ BOGAVAC

MB University, Faculty of Business and Law, Belgrade, Serbia
zivankamiladinovic@gmail.com
https://orcid.org/0000-0003-0477-8277

Milica T. ĆURČIĆ

Vinča Institute of Nuclear Sciences Institute of National Importance for the Republic Serbia, University of Belgrade, Belgrade, Serbia
milica.curcic@vin.bg.ac.rs
https://orcid.org/0000-0002-4326-4036

Abstract: *Terrorist incidents involving CBRN (Chemical, Biological, Radiological, and Nuclear) substances have long posed a significant threat to international security, offering a potent means for terrorists to cause large-scale casualties and lasting psychological, socioeconomic, and political impacts with relatively limited resources. This review paper aims to elucidate the role of INTERPOL in preventing the realization and escalation of CBRN-related terrorism. While some CBRN attacks have been successfully prevented, others have reached their targets, and many remain ongoing threats. This paper highlights INTERPOL's essential contributions to counter-CBRN terrorism and outlines its broader counterterrorism strategy, emphasizing its collaboration with the United Nations (UN) and member countries in line with global counter-terrorism frameworks such as the INTERPOL Counter-Terrorism Strategy the United Nations Secretary-General's 2018 Agenda for Disarmament, and the UN Security Council Resolution 1540.*

Keywords: *UN, INTERPOL, CBRN terrorism, incident*

1. INTRODUCTION

Terrorism poses a significant threat to international peace and security (Al-Rikabi, 2021), as it undermines the stability of societies (Carter & Amlôt, 2016), disrupts economic development (Cavallini et al., 2014), and can lead to widespread fear and suffering (Ruggiero & Vos, 2015). Terrorist groups, driven by ideological, political, religious, or altruistic, use violence and intimidation to achieve their goals, often targeting civilians, critical infrastructure, and governmental institutions (Berman, 2011). The impact of terrorism goes beyond

immediate casualties, causing long-term psychological, social, and economic harm to individuals and communities.

One of the most dangerous forms of terrorism is that which involves Chemical, Biological, Radiological, and Nuclear (CBRN) materials (Nazari et al., 2023). CBRN terrorism, which refers to the use or threat of using weapons made from hazardous substances, can cause large-scale destruction, mass casualties, and long-term environmental and public health crises (Szklarski, 2024). The threat of CBRN terrorism is particularly alarming because the materials used are capable of inflicting immediate harm and also have the potential to create fear and panic on a global scale.

The use of CBRN agents by terrorists could result in devastating consequences. Chemical weapons, for example, can cause severe injuries or death through exposure to toxic gases or substances (Chauhan et al., 2008). Biological agents can spread infectious diseases, leading to pandemics and widespread fear, as seen in past attempts to use biological agents for terrorism (Cenciarelli et al., 2013). Radiological and nuclear materials can cause long-lasting damage to the environment, health, and infrastructure, creating a humanitarian disaster and posing long-term recovery challenges (Bunn & Bielefeld, 2007). Overall, CBRN terrorism represents an highly sophisticated threat to international peace and security, one that demands coordinated global efforts to mitigate risks, protect populations, and ensure that international norms and laws are enforced to prevent the proliferation and use of these devastating weapons (Nikolić, Stanković, Kovačević & Dabetić, 2020).

On the international stage, terrorism transcends borders, meaning that no country is immune from the threat (Ernazarovich, 2021). Terrorist groups often operate transnationally, with members, supporters, and resources spread across multiple countries (Mbara et al., 2021). These groups may engage in cross-border activities such as financing, recruitment, and the trafficking of weapons, making it difficult for individual states to combat terrorism on their own (Ghanei et al., 2008). A century ago, INTERPOL was founded with the goal of providing a neutral and trusted platform for national law enforcement agencies to securely exchange intelligence, while maintaining control over their sensitive information. From the outset, its mission has been to promote law enforcement collaboration for a safer world (Stock, 2023).

Interpol has an important role in combating the threat of CBRN terrorism. As an international organization comprising 195 member countries, INTERPOL facilitates global cooperation among law enforcement agencies, helping to coordinate responses to cross-border CBRN threats.

2. INTERPOL GENERAL ASSEMBLY RESOLUTION ON CBRNE AWARENESS

During its 80th session in Hanoi, Vietnam, from October 31 to November 3, 2011, the ICPO-INTERPOL General Assembly adopted a resolution recognizing the unique challenges posed by crimes involving CBRNe[1] materials. Although these crimes have low occurrence rates, they carry significant human and economic costs. The Assembly highlighted the importance of intelligence-led, prevention-focused investigations for effective management. Recognizing that CBRN investigations and related operations require member countries to commit significant resources.

The resolution urges member countries to support INTERPOL's efforts in several ways:

- Supporting the General Secretariat: Members are encouraged to help INTERPOL's General Secretariat in its mission, which includes CBRNe intelligence analysis, prevention programs, and operational response.
- Backing the CBRNe Terrorism Prevention Programme: This includes providing member countries with regular intelligence updates, assisting in capacity-building, facilitating cooperation between experienced CBRNe units, and supporting members facing CBRNe-related incidents.

[1] E-explosives is included to account for explosive devices like bombs, improvised explosive devices etc. (Murtinger et al., 2021).

- Seconding Officers with Expertise: Countries with advanced CBRNe capabilities are encouraged to second officers to INTERPOL's General Secretariat, contributing specialized knowledge to enhance the program.
- Valuing INTERPOL as a Multilateral Liaison: The resolution highlights the INTERPOL CBRNe Programme as a valuable opportunity for international collaboration that can strengthen national and global law enforcement's readiness to prevent or respond to CBRNe terroris (INTERPOL, 2011).

One of INTERPOL's main contributions is its CBRN terrorism prevention program, which focuses on enhancing the capacity of law enforcement agencies to prevent, detect and respond to incidents involving hazardous materials. Through this program, INTERPOL provides training, technical expertise, and operational support, helping to build the capacity of member states to identify, interdict, and disrupt the trafficking of CBRN materials. To counter potential CBRNE attacks, INTERPOL conducts threat assessments, increases awareness among national law enforcement agencies, provides training, and shares prevention strategies (INTERPOL, 2013).

3. COLLABORATION WITH GLOBAL COUNTER-TERRORISM FRAMEWORKS

INTERPOL works closely with global frameworks, notably the United Nations and other international organizations, to strengthen its approach to preventing CBRN terrorism. These partnerships support a cohesive, unified response to the growing risks associated with CBRN terrorism. Together with the United Nations Counter-Terrorism Centre (UNCCT), INTERPOL has initiated a five-year project to develop a Global Threat Study, examining the potential misuse of CBRNe materials by non-state actors. By drawing on threat assessments grounded in national law enforcement data, the study aims to advance the global community's capacity to address CBRNE threats (UN, 2020). These assessments should inform international support and capacity-building efforts, especially through INTERPOL's CBRNE and Vulnerable Targets program, to enhance prevention and response measures worldwide.

4. THE INTERPOL COUNTER-TERRORISM STRATEGY

INTERPOL's approach to supporting countries in countering terrorism covers five main areas:

1. Identification – Focusing on the detection and verification of individuals involved in transnational terrorist groups and their support networks.
2. Travel and Mobility – Strengthening border security to reduce the movement of terrorists and intercept networks that enable their travel.
3. Online Presence – Enhancing efforts to identify and prevent terrorist use of cyberspace for propaganda, recruitment, or coordination.
4. Weapons and Materials – Tracking and intercepting illegal flows of conventional weapons like firearms, as well as hazardous materials (chemical, biological, radiological, and nuclear).
5. Finances – Monitoring and disrupting financial sources that fuel terrorism (INTERPOL, 2022).

These areas collectively enhance global cooperation, security measures, and the ability to effectively counter both traditional and emerging terrorist threats.

5. UNITED NATIONS SECRETARY-GENERAL'S 2018 AGENDA FOR DISARMAMENT

The United Nations Secretary-General's 2018 Agenda for Disarmament provides a framework to reduce the proliferation of Weapons of Mass Destruction (WMDs) and other strategic weapons, while strengthening international norms and disarmament frameworks. The nuclear risks we are currently facing are becoming more serious and are on the rise. This is compounded by a recent shift in

major military powers away from disarmament and arms control, which were once essential tools for lowering international tensions and improving global security. Technological advancements are also intensifying these risks, such as the growing vulnerability of nuclear weapons systems, their command and control structures, and early warning networks to potential cyberattacks. Furthermore, the ongoing development of missile systems with anti-satellite capabilities and space platforms that may be used for weaponry introduces new challenges to global security (UN, 2018). INTERPOL's collaboration with the UN supports the enforcement of international agreements regulating the use and trade of CBRN materials. By working together, both organizations help member states uphold disarmament principles, preventing these materials from falling into the hands of terrorists or rogue states.

6. UN SECURITY COUNCIL RESOLUTION 1540

UN Security Council Resolution 1540 (2004) seeks to prevent the spread of nuclear, chemical, and biological weapons, as well as their delivery systems, particularly by non-state actors such as terrorists. The resolution mandates binding obligations for UN member states to establish legal and regulatory frameworks to prevent the acquisition and misuse of CBRN materials by terrorists. INTERPOL plays an important role in supporting the enforcement of UNSCR 1540 by assisting member states with compliance, sharing best practices, providing technical support, and helping to develop national controls on CBRN materials. This effort aligns with the broader commitment to multilateral cooperation, especially through frameworks like the International Atomic Energy Agency, the Organization for the Prohibition of Chemical Weapons, and the Biological and Toxin Weapons Convention, all of which are critical to advancing non-proliferation and fostering international cooperation for peaceful purposes.

As the threat of CBRN terrorism continues to evolve (Koblentz, 2020; Prosser & Bonin, 2009; Walsh, 2021), it is essential that INTERPOL and its partners remain agile and proactive in addressing emerging risks. Advancements in technology, such as the development of new detection tools and enhanced intelligence-sharing platforms, will be critical in enhancing global efforts to counter CBRN terrorism. Furthermore, as the global security landscape shifts, new forms of terrorism may arise, such as cyber-enabled CBRN threats, requiring additional international cooperation and strategic planning.

7. CONCLUSION

INTERPOL contributes actively to countering CBRN terrorism by fostering international cooperation and providing specialized expertise to tackle these complex threats. In close partnership with the United Nations and other global frameworks, INTERPOL aids nations in preventing and managing CBRN-related risks while promoting compliance with international standards designed to prevent the misuse of hazardous materials. As CBRN terrorism continues to pose new challenges, INTERPOL's commitment to collaboration, intelligence-sharing, and advancing protective measures strengthens global security frameworks, supporting sustained peace and resilience in the face of emerging threats.

Acknowledgements

This work was carried out within the scientific research activities of the 'Vinča' Institute of Nuclear Sciences, National Institute of the Republic of Serbia, funded by the Ministry of science, Technology, and Innovation, grant number 451-03-136/2025-03/200017.

REFERENCES

[1] Al-Rikabi, M. K. (2021). The Role of the Interpol in the Counter-terrorism in Iraq 2003-2017. *Journal of Social Sciences and Humanitarian*, *18*(1).

[2] Barral, V. (2012). Sustainable development in international law: nature and operation of an evolutive legal norm. *European Journal of International Law*, *23*(2), 377-400.

[3] Berman, E. (2011). *Radical, religious, and violent: The new economics of terrorism*. MIT press, Cambridge.

[4] Bunn, M., & Bielefeld, T. (2007, July). Reducing nuclear and radiological terrorism threats. In *Proceedings of the 48th Annual Meeting of the Institute of Nuclear Materials Management, Tucson, AZ, July* (pp. 8-12).

[5] Carter, H., & Amlôt, R. (2016). Mass casualty decontamination guidance and psychosocial aspects of CBRN incident management: A review and synthesis. *PLoS Currents*, *8*.

[6] Cavallini, S., Bisogni, F., & Mastroianni, M. (2014). Economic impact profiling of CBRN events: Focusing on biological incidents. *Archivum Immunologiae et Therapiae Experimentalis*, *62*, 437–444.

[7] Cenciarelli, O., Rea, S., Carestia, M., D'Amico, F., Malizia, A., Bellecci, C., Gaudio, P., Gucciardino, A., & Fiorito, R. (2013). Biological Weapons and Bio-Terrorism: A review of History and Biological Agents. *International Journal of Intelligent Defence Support Systems*, *6*(2), 111–129.

[8] Chauhan, S., D'cruz, R., Faruqi, S., Singh, K., Varma, S., Singh, M., & Karthik, V. (2008). Chemical warfare agents. *Environmental Toxicology and Pharmacology*, *26*(2), 113–122.

[9] Ernazarovich, J. O. (2021). For Future Teachers in The Process of Globalization Factors for The Development of Ideological Immunity. *Zien Journal of Social Sciences and Humanities*, *1*, 136–139.

[10] Ghanei, M., Shohrati, M., Jafari, M., Ghaderi, S., Alaeddini, F., & Aslani, J. (2008). N-acetylcysteine improves the clinical conditions of mustard gas-exposed patients with normal pulmonary function test. *Basic & Clinical Pharmacology & Toxicology*, *103*(5), 428–432.

[11] INTERPOL (2013). Fact Sheet. CBRNe Terrorism. COM/FS/2013-11-PST-05.

[12] INTERPOL (2022). Counter-Terrorism Global Strategy 2022-2025. Available at: https://www.interpol.int/en/Who-we-are/Strategy/Strategic-Framework-2022-2025 Accessed 11 October 2024.

[13] Koblentz, G. D. (2020). Emerging technologies and the future of CBRN terrorism. *The Washington Quarterly*, *43*(2), 177–196.

[14] Mbara, G. C., Ehiane, S. O., & Gopal, N. (2021). The Cost of Terrorism in Africa. *African Governance, Security, and Development*, 243.

[15] Murtinger, M., Jaspaert, E., Schrom-Feiertag, H., & Egger-Lampl, S. (2021). CBRNe training in virtual environments: SWOT analysis & practical guidelines. *International Journal of Safety and Security Engineering*, *11*(4), 295–303.

[16] Nazari, S., Sharififar, S., Marzaleh, M. A., Zargar, S., Azarmi, S., & Shahrestanaki, Y. A. (2023). Structural elements and requirements in forming prehospital health response teams in response to chemical, biological, radiation, and nuclear incidents (CBRN), a comparative review study. *Disaster Medicine and Public Health Preparedness*, *17*, e300.

[17] Nikolić, D., Stanković, S., Kovačević, A., & Dabetić, M. (2020). *CBRN crime scene management and investigation*. 6th International Conference - Security and Crisis Management - Theory and Practice. 248–256.

[18] Prosser, A., & Bonin, S. (2009). The CBRN threat: Past, present and future. *Freedom from Fear*, *2009*(5), 12–15.

[19] Ruggiero, A., & Vos, M. (2015). Communication challenges in CBRN terrorism crises: Expert perceptions. *Journal of Contingencies and Crisis Management*, *23*(3), 138–148.

[20] Stock, J. (2023). INTERPOL: The Past, Present and Future of International Police Cooperation. *Belügyi Szemle*, *71*(3. ksz), 89–95.

[21] Szklarski, Ł. (2024). *The Threat of CBRN Terrorism: An Overview and Improvised Use of Chemical, Biological, Radiological and Nuclear Materials*. *2*(91), 39–62.

[22] UN (2018). Securing Our Common Future. An Agenda for Disarmament. Available at: https://s3.amazonaws.com/unoda-web/wp-content/uploads/2018/06/sg-disarmament-agenda-pubs-page.pdf#view=Fit Accessed 9 June 2024.

[23] UN (2020). CBRNE terror threat focus of INTERPOL-UN initiative. Available at: https://www.un.org/counterterrorism/events/CBRNE-terror-threat-focus-of-INTERPOL-UN-initiative Accessed 01 May 2024.

[24] Walsh, P. F. (2021). Evolving chemical, biological, radiological and nuclear (CBRN) terrorism: Intelligence community response and ethical challenges. In *National Security Intelligence and Ethics* (pp. 261–279). Routledge.

УЛОГА ИНТЕРПОЛА У БОРИ ПРОТИВ ХБН ТЕРОРИЗМА

Резиме: *Терористички инциденти који укључују ХБН (хемијске, биолошке, радиолошке и нуклеарне) супстанце дуго представљају значајну претњу међународној безбедности, нудећи моћно средство терористима да изазову велике жртве и трајне психолошке, социоекономске и политичке последице са релативно ограниченим ресурсима. Овај прегледни рад има за циљ да разјасни улогу Интерпола у спречавању реализације и ескалације тероризма повезаног са ХБН оружјем. Док су неки ХБН напади успешно спречени, други су достигли своје циљеве, а многи остају сталне претње. Овај рад истиче суштински допринос Интерпола борби против ХБН тероризма и описује његову ширу стратегију борбе против тероризма, наглашавајући његову сарадњу са Уједињеним нацијама (УН) и земљама чланицама у складу са глобалним оквирима за борбу против тероризма као што су Стратегија Интерпола за борбу против тероризма, Агенда генералног секретара Уједињених нација за разоружање из 2018. године и Резолуција 1540 Савета безбедности УН.*

Кључне речи: *УН, Интерпол, ХБН тероризам, инциденти*

Review scientific paper

Received: 11. 06. 2025.
Accepted: 02. 12. 2025.

UDC: 343.85:343.341
343.85:323.28
334.728:351.74/.76
COBISS.SR-ID 183401993
doi: https://doi.org/10.61837/mbuir030225104b

THE ROLE OF THE PRIVATE SECURITY SECTOR IN THE FIGHT AGAINST TERRORISM (COUNTERING THE TERRORIST THREAT)

Veljko M. BLAGOJEVIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia

shavrka@gmail.com

https://orcid.org/0009-0001-9201-8480

Abstract: *Among the many challenges of security and threats that people of the modern society are facing, terrorism has emerged as one of the leading problems for all security structures and no country is immune to it.*

In addition to the government security agencies that are ready and mandated to actively oppose any security challenge, including terrorism, private agencies are also an unavoidable factor which deals with protection of facilities, spaces and people in them and are a part of the overall security system of a country.

Irrespective of limitations in legal authorizations to perform their assigned work, private protection agencies - as the bearers of activities of the private sector security - are of particular importance for the overall security system because they have the necessary resources - human, technical and material - to be of invaluable help to the state security authorities for the prevention of any security threat, and that includes terrorism.

Even though the private security sector is limited in its activities to a certain space/facility and cannot act outside of it, it can provide significant support to the government authorities in the prevention, suppression and thwarting of terrorist activities, but also in eliminating the consequences after an attack. Therefore, the private security sector is an unavoidable factor in combating this security phenomenon.

Keywords: *terrorism, terrorist threat, private security sector, private protection agencies, counter-terrorism*

1. INTRODUCTION

The concept of the private security sector was almost unknown until the beginning of the 21st century in the Republic of Srpska. The state itself and the system of government had been organized differently, so there was no need for this way of organizing security bodies. In the rest of the world, this type of security had been well known. The first official and most famous agency dealing with private security was the detective agency “Pinkerton”, which was formed in 1850 by an American detective of Scottish origin, Alan Pinkerton. Pinkerton was a pioneer in private security and his detective agency adopted and set up some working methods that are still applied today. To begin with, it is considered that he was the

first to develop a functional system of surveillance over suspects, to design and apply the method of investigation using a secret agent or an undercover investigator, and was one of the first and few owners of a private agency to hire a woman as an investigator to perform detective work. At the beginning of its work, his agency was engaged in investigating theft on the railway and providing railway transport of materials, goods and money, and later it became very famous and in demand when performing various other tasks in this field.

In the area of the former Yugoslavia, private security agencies appeared at the end of the 20th and the beginning of the 21st century, mainly as physical security of facilities, and later the activity of these agencies expanded to other jobs in the field of security.

It should be noted that the tasks performed by private agencies do not fall under the scope of tasks performed by police authorities or other state administration agencies, regardless of the fact that these are security tasks and their activity often coincides with the tasks performed by state authorities.

2. PRIVATE SECURITY SECTOR

In the last thirty years or so, there has been a significant transformation in the ownership of business entities and the transition of many state-owned companies into private ownership. At the same time, new privately owned economic entities are formed, so the need for their security protection has arisen. In the earlier period and under a different political system, it was common for security affairs to be handled only by the police and other state security agencies, but in recent times this practice has changed. State authorities are no longer able to equally deal with the protection of all business entities, nor to commercialize and offer their services on the market, so, in accordance with the emerging needs, space has been created for the formation of other security entities that are not state authorities and do not belong to state authorities. In accordance with this need, laws have been adopted that allow this type of activity with regulated rights and authorizations [1]. The aforementioned legal regulations manage the activity of the private security sector in such a way that they determine in detail the conditions for founding companies or agencies that will deal with the protection of persons and property [*Ibid*, 9-14], and define the rights, obligations and authorizations of members of physical and technical security [*Ibid*, 20-25] and private detectives [*Ibid*, 35-54], as well as the supervision of the work of these companies for the protection of people and property and private detective activity [*Ibid,* 58-68].

These laws have enabled both state and private business entities to organize their own security, and also to create private agencies for the security of people and property that can provide their security services to other economic entities. In order to distinguish such ways of organizing security activities from the previous conventional and usual way, which belonged exclusively to the state security sector, the name Private Security Sector has become established and accepted. In addition to organizing its own security, this private security sector could commercialize and offer its services on the market and participate in securing other business entities that need such protection and participate in the securing of cultural and sports events, political and other gatherings and other events that do not fall under the mandatory security of state services. This includes the security of persons who believe that they need such a form of protection and do not belong to the ranks of certain protected persons who are protected by state services according to the obligations prescribed by law, such as owners of private commercial enterprises, and persons from entertainment or sports life, etc. (Persons protected by law include: the President of the Republic, the Prime Minister, the Speaker of the Parliament, and similar.)

2.1. Private security authorizations and mode of operation

According to the Law on Agencies for the Protection of Persons and Property and Private Detective Activities, the authorizations

of security personnel employed in agencies that provide this type of service or in another company as part of their own security are very broad or sufficient for the successful performance of these tasks.

In the performance of physical security tasks, the security officer is authorized, while on duty, in accordance with the law:

- to determine the identity of the person who enters or exits the facility, i.e. the space they are securing,
- to order the person disturbing the law and order to leave the secured premises or facility,
- to prohibit unauthorized persons from accessing the facilities or the space secured,
- to detain the person found in the area or in the facility they are securing who is commiting a criminal offence until the arrival of the police,
- to inspect the vehicle or person at the entrance to the space or facility being secured and at the exit [*Ibid*, 23].

In addition to the aforementioned authorizations, a private security member is allowed to use physical force while performing physical security tasks only if they cannot otherwise deter:

- unlawful and imminent attack endangering their life or the life of the person being secured,
- unlawful and imminent attack aimed at the destruction or diminution of value of the property they secure.

Use of physical force is the intervention used in self-defense to overcome the resistance of a person who physically attacks a security guard, persons or facilities, or objects that are being secured [*Ibid*, 24].

Security personnel are allowed to carry short firearms only during performance of tasks of direct guarding and protection of persons and property.

A security guard is allowed to use a firearm in the performance of activities of direct guarding and security of a person only when it is necessary to protect the life of the person being protected or their own life, if a simultaneous or imminent attack against either could not be repelled by the use of physical force [*Ibid*, 25].

From the above, it is obvious that the Law on Agencies for the Protection of Persons and Property and Private Detective Activities [1] provides for very broad powers for security personnel employed in agencies engaged in this activity. These powers are sufficient to perform the tasks for which the employees of these agencies are intended. However, to the greatest extent, these agencies are engaged in the activities of physical security of entrances to some business entities, they provide security in marketplaces and their presence in banks is reduced to pro forma and obligation that is a condition for securing money.

As for the technical component within the scope of the aforementioned agencies, it mainly comes down to the installation of alarms and video surveillance, and reviewing the recordings to eliminate the consequences.

2.2. Method of training private security

The Rulebook on Training and Manner of Taking the Professional Exam for Members of Physical and Technical Security and Private Detectives [2] prescribes the manner of training and taking the professional exam for registered candidates who want to do this job.

That Rulebook stipulates that:

- training for members of physical security consists of 60 instruction sessions, of which 39 hours are the theoretical part, and 21 hours are the practical part;
- training for members of technical security consists of 24 classes of the theoretical part;
- additional training is scheduled for the use of specially trained dogs, for certain members of the security service;
- training for private detectives consists of 30 theoretical lessons [*Ibid*, 3].

After completing the training, candidates take the professional exam before a commission appointed by the Minister [*Ibid*, 5].

The training program itself covers the following areas:

- Identification,
- Issuing orders,
- Restriction of access,
- Detention,
- Inspection of vehicles and persons,
- Basis of knowledge of legal provisions (Law on Agencies for the Protection of Persons and Property and Private Detective Activities, Criminal Code, Criminal Procedure Law, Law on Internal Affairs, Law on Misdemeanors, Law on Public Order and Peace, Law on Weapons and Ammunition),
- Familiarization with means of work and work equipment,
- Course of action of a guard,
- Guard duties,
- Performing tasks of control, security and escort of persons,
- Rules of securing money, stock bonds and precious metals [2, I].

Many important things are listed as part of the training of Private security sector members. However, in practice, something completely different has been shown. The planned number of classes cannot be nearly enough for exercises and training of security personnel to be complete. Especially as terrorist threats are constantly increasing and transforming, and thus require a more organized professional approach of all security segments.

3. TERRORISM – BASIC CONCEPTS

When talking about terrorism, it is necessary to note that there are different definitions of the term. Institutional and non-institutional definitions should be distinguished. Institutional are those that are official, adopted by certain official bodies of the state. These definitions differ, depending on the state or authority that adopted them. There are even examples of different authorities of the same state defining terrorism differently.

On the other hand, non-institutional definitions of terrorism were made by scientific circles or professional individuals dealing with this topic and trying to give the most accurate interpretation that would define this term.

Schmid and Jongman define terrorism as follows: Terrorism is an anxiety-inspiring method of repeated violent action, employed by (semi) clandestine individual, group, or state actors, for idiosyncratic, criminal, or political reasons, whereby, in contrast to assassination, the direct targets of violence are not the main targets. The immediate human victims of violence are generally chosen randomly (targets of opportunity) or selectively (representative or symbolic targets) from a target population, and serve as message generators. Threat and violence, based communication processes between terrorist (organization), (imperiled) victims, and main targets are used to manipulate the main target (audience(s)), turning it into a target of terror, a target of demands, or a target of attention, depending on whether intimidation, coercion, or propaganda is primarily sought. [8]

Bruce Hoffman sees terrorism as is the deliberate creation and exploitation of fear through violence or the threat of violence in the pursuit of political change. [9]

The United Nations General Assembly, in its Resolution No. 49/60 of 1994, defines terrorism as: Criminal acts intended or calculated to provoke a state of terror in the general public, a group of persons or particular persons for political purposes are in any circumstance unjustifiable, whatever the considerations of a political, philosophical, ideological, racial, ethnic, religious or any other nature that may be invoked to justify them. [10]

The United States Federal Bureau of Investigation defines terrorism as having two components: International Terrorism: Violent, criminal acts committed by individuals and/or groups who are inspired by, or associated with, designated foreign terrorist organizations or nations (state sponsored).

Domestic Terrorism: “Violent, criminal acts committed by individuals and/or groups to further ideological goals stemming from domestic

influences, such as those of a political, religious, social, racial, or environmental nature. [11]

Encyclopedia Britannica defines terrorism as: Terrorism, the calculated use of violence to create a general climate of fear in a population and thereby to bring about a particular political objective. [12]

League of Nations in Convention from 1937, defines terrorism as "Acts of terrorism" means "criminal acts directed against a State and intended or calculated to create a state of terror in the minds of particular persons, or a group of persons or the general public" [13,23]. This convention never entered into force but represents one of the earliest international attempts to define terrorism.

Of course, there are other divisions and approaches to defining terrorism, but we will not deal with that now.

Due to different interpretations and definitions of the term terrorism, it is difficult to decide on the definition that could be called the right one. It is important to know that terrorism involves an organized and planned form of violence by a group or individual, aimed at hurting and intimidating, selectively or randomly determined targets in an area of their choice. The goal of this violent action is to cause fear, panic, send a certain message and try to achieve certain goals, political or criminal, that could not be achieved in other, conventional way. It is also characterized by brutality, immorality, and even irrationality in the choice of targets of attacks, that is, in the choice of objects and victims, which gives terrorism as a problem of today the character of one of the greatest criminal acts and crimes. Additionally, in practice, it is noted that each terrorist attack is followed by reporting and taking responsibility by the perpetrators or the group to which the perpetrators belong in order to make it clear that they have the power and intention to attack the goals they choose.

4. OPPOSING THE TERRORIST THREAT

Given the basic characteristics of a terrorist act, it can be concluded with a high degree of confidence that countering this type of threat should mobilize all security structures, both state and private, as well as the entire social community.

Terrorist attacks are most often carried out in places of mass gathering, where a large number of people are staying or circulating, in order to increase the number of victims and strengthen the message that perpetrators want to send. Some of the recorded attacks happened in underground railways (e.g. sect *Aum Shinrikyo* carried out a poison attack on the Tokyo subway in 1995), schools (e.g. school in Beslan, Russia was attacked by Chechen terrorists, 1-3 September 2004), facilities with a large number of employees (e.g. World Trade Center in New York, where the accident took place on September 11, 2001, and Al Qaeda is accused for this assault), sports facilities (e.g. attack on athletes at the Munich Olympics, carried out by Palestinian terrorists on Israeli athletes during the Munich Olympics in 1972), etc. These are just some of the examples of terrorist attacks on places of mass gathering, and there were many more of them. Practically, there is no place that is completely immune to the terrorist threat and susceptible to a potential attack.

The police and other security authorities are in charge of securing all places of mass gathering, occasions and events where a large number of visitors gather and state officials are present as well.

However, for gatherings organized by various associations, legal entities or persons, other than state bodies, security guards or members of private security who will take care of security measures at the gathering itself are required [14,11].

This means that in addition to the mandatory presence of the police, members of private security must be engaged. This obligation also gives much greater importance to the private security sector, and at the same time, a significant level of responsibility for creating a safe environment.

In theoretical terms, members of the private security sector should be a significant factor in the overall security structure in the state and

a very important support in the work of state and security authorities. However, in practice, the situation is quite different.

Countering the terrorist threat itself consists of several factors and should be observed as such:

- Anti-terrorism, which includes organizing and conducting defensive activities which reduce the sensitivity to terrorist attacks and increase security of potential targets of a terrorist attack. These include operational activities aimed at monitoring extremist groups, controlling cyberspace, monitoring financial flows, providing facilities and events with physical security and technical means, making a quality security assessment and taking the necessary preventive measures in accordance with that assessment, etc.;
- Counterterrorism, which involves taking offensive measures to prevent terrorist attacks on presumed targets, implementing security and deterrence measures, responding to an attack that is in progress, and also measures that can be taken for preventive purposes, based on security assessment and operational knowledge. Sometimes measures are taken to retaliate against the destruction of terrorist training camps and other infrastructure, measures of increased control and monitoring the movement of persons of interest, responding to a terrorist attack by specialized and trained forces that are prepared and trained for that purpose;
- Remedial activities, which include the elimination of consequences after a terrorist attack, evacuation and care for the injured, securing the scene of the attack, preventing the spread of the ongoing attack and possible search for the perpetrators;
- Analytical activities, which include analyzing the attack that occurred, identifying perpetrators and searching for them, detecting errors and omissions in the security system, and taking other necessary measures to eliminate deficiencies in the security system and planning predictive actions.

5. THE ROLE OF THE PRIVATE SECURITY SECTOR IN COUNTERTERRORISM THREAT (TRAINING, AUTHORIZATION)

By the very nature of the security of facilities in which mass gathering events are organized, it is easy to see that private security is so positioned that it represents the first line of defense, that is, a barrier that protects these facilities and persons in them from threats of any kind, and thus also from a terrorist attack.

However, we should keep in mind that although members of private security are part of the security system and have significant powers permitted by law, they also have their own significant limitations and cannot be compared to police and other security structures.

The law regulating private security activities has granted them certain powers, but they are significantly different from the powers held by police authorities. If private security officers spot a person breaking the law, they can and should notify the police, and there's nothing more they can do. The most they can do in this situation is to detain the person violating the law until the police arrive and upon the arrival of the police hand them over, according to law, with obligation to record the detention action taken. When taking this action, members of private security may use the means of restraint provided for this purpose. Also, the law provides for the use of means of coercion, physical force, and, if necessary, the use of firearms. However, with all the permissible possibilities, their limitations are obvious. Private security personnel protect a facility or premises for which they have been hired by the owner and cannot operate outside of those facilities. Thus, private security is limited only to the facilities and premises of the employer who hired them, and outside this framework they can act only like any other citizen, in accordance with the law.

A survey was conducted in 2023 in security agencies with the aim of obtaining results that would better define the role of private security in countering the terrorist threat. The research was spatially determined on the

territory of Republic of Srpska and Bosnia and Herzegovina and included 600 members of private security, deployed in four security agencies. The research was conducted using the survey method and its techniques of questionnaire and interview. The survey was conducted by surveying a selected sample, the results of which were supplemented by the results of the structural interview, in order to obtain more precise conclusions. A total of 18 questions were designed for the purpose of this research. The survey questions are divided into two groups. The first group of questions should provide answers and define the very structure of employees in private security and the second group of questions should provide answers and create a clear picture of the training and functionality of employees in private security agencies and their readiness, training and expertise to address security challenges and thus to counter the terrorist threat. Based on empirical indicators and the performed descriptive analysis, it will be possible to define the role of private security to independently counter the terrorist threat, and also their role in assisting state security agencies, as they are part of the overall security system. So, the research will show a clear picture of the role of private security in the fight against terrorism, but it will also shed light on other facts relevant to the role of private security. The structure of the sample is shown in Table no. 1.

Table 1. Structure of the sample

Sample	Number of respondents		%
SEX	M	591	98.5
	F	9	1.5
Age	20-35	188	31.4
	36-50	299	49.8
	50+	113	18.8
Educational background	Primary School	-	-
	High school education	589	98.2
	University degree	11	1.8
Work experience (in security agencies)	Up to 5	122	20.3
	6-15	256	42.7
	16-25	80	13.3
	25+	142	23.7

According to the results presented in Table 1, it is evident that the surveyed members of protection agencies are mostly men (98.5%), aged 20 to 50 (81.2%), with high school education (98.2%) and with work experience in security agencies up to 25 years (76.3%).

It should be noted that respondents who are over 50 years old and have work experience of more than 25 years in security agencies are, for the most part, retired or former police officers who are engaged in security activities because they meet the necessary conditions and are not subject to additional training and certification, but exercise this right automatically, in accordance with the law.

Table 2. Assessment of the security situation in B and H from the aspect of terrorist threats

Answers offered	Sample	%
Stable	-	
Unsatisfactory	276	46
Satisfactory	146	24.3
Compromised	178	29. 7

The answers of the respondents to the question “how do you assess the security situation in Bosnia and Herzegovina, from the aspect of a terrorist threat,” are divided, but only 146 subjects (24.3%) believe that the security situation in B and H, from the aspect of a terrorist threat, is satisfactory. Other respondents define this condition as UNSATISFACTORY, 276 of them (46%), or even COMPROMISED, 178 of them (29.7%).

Table 3. Regularity of carrying out training and exercises in the use of firearms

Answers offered	Sample	%
Yes	-	-
No	498	83
Sometimes	102	17

Regarding the regular training and drills of the use of firearms, 498 respondents (83%) of them explicitly said that such activities are not carried out while 102 subjects (17%) answered they sometimes perform the necessary training and shooting firearms.

Table 4. Regularity of carrying out training and exercises in martial arts

Answers offered	Sample	%
Yes	113	18.8
No	396	66
Long time ago	91	15.2

With regard to conducting martial arts training, the results of the research showed that the majority of respondents, a total of 396 (66%), don't have any training in martial arts, 113 (18.8%) do have training and feel that they are in good physical shape, while 91 respondents (15.2%) had some training in martial arts long time ago, and are not ready to use those skills. All activities related to martial arts were carried out by the respondents themselves, privately, regardless of the jobs they were engaged in.

Table 5. Assessment of martial arts training intensity

Answers offered	Sample	%
Yes	89	14.8
No	511	85.2

In the assessment of the intensity of martial arts practice, only 89 or 14.8% responded that they are actively and intensively involved in martial arts, while 511 respondents or 85.2% are now not involved in martial arts.

Table 6. Regularity of physical fitness checks

Answers offered	Sample	%
Yes	-	-
No	507	84.5
Sometimes	93	15.5

According to the obtained data, 507 respondents (84.5%) do not have regular checks of their physical fitness, while 93 respondents (15.5%) stated that they periodically check their physical fitness.

Table 7. Degree of training in the use of physical force

Answers offered	Sample	%
Yes	207	34.5
No	393	65.5

The majority of respondents, 393 (65.5%) do not consider themselves trained in the use of physical force, while 207 respondents (34.5%) stated that they do considered themselves trained in this activity.

Table 8. Evaluation of the adequacy of the regulations governing the area of protection against terrorism

Answers offered	Sample	%
Yes	68	11.3
No	285	47.5
I don't know	247	41.2

To the question: "Are the regulations governing the field of protection against terrorism adequate," respondents mostly believe that such regulations are not adequate. This answer was given by 285 respondents (47.5%), some of them stated they did not know, 247 (41.2%), while only 68 respondents or 11.3%, believe that the existing regulations are adequate.

Table 9. Assessment of the development of the methodology for combating terrorist threats by private security agencies

Answers offered	Sample	%
Yes	36	6
No	421	70.2
I am not familiar with this	143	23.8

Private security agencies do not have a developed methodology for countering the terrorist threat is the opinion of 421 respondents (70.2%), 143 of them (23.8%) stated that they are not familiar with it, while 36 respondents (6%) believe that such a methodology exists.

Table 10. Implementation of anti-terrorism training in private security agencies

Answers offered	Sample	%
Yes	12	2
No	511	85.2
I am not aware of this	77	12.8

In answering to the question, "do private security agencies conduct special training of their workers to combat terrorism," 511 respondents or 85.2% answered that private security agencies do not conduct special training of their members to combat terrorism, while 77 respondents or 12.8% are not aware of this, and only 12 respondents or 2% declared that such training is in place.

Table 11. Assessment of training and competence for countering terrorist threats

Answers offered	Sample	%
Yes	121	20.2
No	426	71
Partially	53	8.8

When asked, "do you consider yourself sufficiently trained to counter the terrorist threat," 426 respondents or 71% gave a negative answer; 121 of them or 20.2% replied that they felt sufficiently trained, while 53 respondents or 8.8% felt partially trained.

Table 12. Attitude about the readiness to provide assistance to the police in a crisis situation caused by a terrorist threat

Answers offered	Sample	%
Yes	445	74.2
No	51	8.5
I'm not sure	104	17.3

Regarding the issue related to assisting the police in a crisis situation, the vast majority of respondents, 445 or 74.2% expressed willingness to help the police authorities, 51 respondents or 8.5% were not ready to help, while 104 respondents or 17.3% stated that they were not sure.

Table 13. Attitude about readiness to use firearms in the event of a terrorist attack on an object being protected

Answers offered	Sample	%
Yes	248	41.3
No	111	18.5
I'm not sure	241	40.2

When asked whether they were ready to use firearms in the event of a terrorist attack, less than half of the respondents, 248 or 41.3% gave a positive answer and expressed readiness for such an action, 111 respondents or 18.5% strongly rejected this possibility, while 241 respondents or 40.2% stated that they were not sure how they would act. When personally asked, some of the respondents who were not sure expressed their opinion on low salaries and complicated procedures for justifying the use of firearms, concluding it was best to avoid such situations.

Table 14. Opinions of respondents on the way to proceed in the event of a terrorist threat

Answers offered	Sample	%
Call the police	451	75.2
Call an ambulance	21	3.5
Call colleagues for reinforcements	118	19.6
Do nothing	10	1.7

In case they notice a potential terrorist threat, 451 respondents or 75.2% would immediately call the police, 21 respondents or 3.5% would call an ambulance, 118 respondents or 19.6% would ask colleagues for reinforcement, while 10 respondents or 1.7% believed that nothing needed to be done. In an interview, they explained this by the fact that it was not in their job description within the facility they were securing and that they did not want to interfere with the activities of the state security authorities.

Table 15. Respondents' views on the readiness to provide assistance to the injured after a terrorist attack on the facility they provide

Answers offered	Sample	%
Yes	594	99
No	-	-
I'm not sure	6	1

Almost all respondents are ready to provide assistance in caring for the injured after a terrorist attack, while only 6 respondents or 1% are unsure of their help, justifying it with a bad personal health condition.

6. CONCLUSION

Private security sector possesses significant material and human resources, but for the time being, it does not play a significant role in countering terrorism and the terrorist threat. Observing objectively, and research has also shown, private security sector is neither professionally nor organizationally qualified to address serious security challenges such as terrorism. Agencies that deal with the security of facilities or provide protection to persons who hire them are not sufficiently trained to recognize the terrorist threat itself, so they can contribute little in prevention of a terrorist attack. It is an indisputable fact that protection

agencies provide security at places of mass gathering, but cannot engage in operational work and gathering operational knowledge about the activities of important persons and/or groups that may be a potential threat and endanger the facilities they secure and the people in them.

Also, they can only engage in the facility they secure, and outside that space their authority ceases and they cannot intervene. In addition, the professional training of security personnel employed by protection agencies does not include the type of training that would enable them to counter a terrorist threat. The research shows, and this can be concluded by analyzing the training program, that members of the private security sector do not undergo even elementary levels of training in the handling and use of firearms or the use of means of coercion and physical force. Also, it is evident that in their employment in companies they work for, they have not undergone training, additional training or periodic verification of acquired knowledge and abilities. They do not focus on the possibility of a terrorist threat nor receive additional training to counter such a threat.

Security personnel, employed in the private security sector have the technical means at their disposal, and could significantly assist state security authorities in creating a safer environment. This primarily refers to the ability to control access to the protected space using metal detectors, barriers, alarms, video surveillance and other means. They can also significantly contribute to repairing damage after an attack, securing the scene, assisting in the evacuation of people found at the scene of attack or providing first aid to the injured or providing important information to the police authorities.

Regardless of any limitation and the lack of necessary potential to counter a terrorist threat, the private security sector holds an important place in the security system of the state and should be improved through professional training and authorization and adoption of the necessary legislation.

REFERENCES

[1] Zakon o agencijama za obezbjeđenje lica i imovine i privatnoj detektivskoj djelatnosti (*Sl. gl. Republike Srpske* br. 04/12).

[2] U.S. Bureau of Labor Statistics. (n.d.). *Security guards and gaming surveillance officers*. In *Occupational outlook handbook*. https://www.bls.gov/ooh/protective-service/security-guards.htm

[3] Cunningham, W. C., Strauchs, J. J., & Van Meter, C. W. (1990). *The Hallcrest Report II: Private security trends 1970-2000*. Butterworth-Heinemann.

[4] Elms, D., & Phillips, P. (2009). *Private military and security companies: Ethics, policies and civil-military relations*. Routledge.

[5] Kakalik, J. S., & Wildhorn, S. (1971). *Private police in the United States: Findings and recommendations* (Vol. 1, R-869-DOJ). RAND Corporation.

[6] National Advisory Committee on Criminal Justice Standards and Goals, Private Security Task Force. (1976). *Private security: Report of the task force on private security*. U.S. Government Printing Office.

[7] Pravilnik o obuci i načinu polaganja stručnog ispita za pripadnike fizičkog i tehničkog obezbjeđenja i privatnog detektiva (*Sl. glasnik Republike Srpske*, br. 85, od 11.09.2012. god.),

[8] Schmid, A. P., & Jongman, A. J. (1988). *Political terrorism: A new guide to actors, authors, concepts, data bases, theories and literature*. Transaction Books.

[9] Hoffman, B. (2017). *Inside terrorism* (3rd ed.). Columbia University Press.

[10] United Nations General Assembly. (1994). *Declaration on measures to eliminate international terrorism* (Resolution 49/60). https://www.un.org/documents/ga/res/49/a49r060.htm

[11] Federal Bureau of Investigation. (2016). *Terrorism*. https://www.fbi.gov/investigate/terrorism

[12] Britannica, T. Editors of Encyclopaedia. (2024, November 22). *Terrorism*. Encyclopedia Britannica. https://www.britannica.com/topic/terrorism

[13] League of Nations. (1937). *Convention for the prevention and punishment of terrorism*. League of Nations Official Journal.

[14] Zakon o javnim okupljanjima (*Sl. gl. Republike* Srpske, br.6/2016).

УЛОГА СЕКТОРА ПРИВАТНЕ БЕЗБЈЕДНОСТИ У БОРБИ ПРОТИВ ТЕРОРИЗМА (СУПРОТСТАВЉАЊЕ ТЕРОРИСТИЧКОЈ ПРИЈЕТЊИ)

Резиме: *Међу бројним безбједносним изазовима и пријетњама са којима се сусрећу савремена друштва, тероризам се наметнуо као један од водећих безбједносних проблема за све безбједносне структуре и ни једна држава није имуна на њега. Поред државних, безбједносних, органа који су спремни и обавезни да се активно супротставе свим безбједносним изазовима па тако и тероризму, незаобилазан фактор су и приватне агенције које се баве заштитом објеката, простора и лица у њима а дио су свеукупног безбједносног система у држави. Без обзира на ограничења у законским овлаштењима за обављање послова који су им задати, приватне агенције за заштиту, као носиоци активности сектора приватне безбједности, су од посебног значаја за свеукупан безбједносни систем јер располажу потребним ресурсима, и људским и техничким и материјалним, да буду од непроцјенљиве помоћи државним безбједносним органима за превенцију било које безбједносне пријетње па тако и тероризма. Иако је сектор приватне безбједности ограничен својим дјеловањем на одређен простор и не може дјеловати изван њега, може пружити значајну подршку државним органима у превенцији, сузбијању и осујећивању терористичких активности али и у отклањању последица после извршеног напада. Дакле, приватни сектор безбједности је незаобилазан фактор у сузбијању овог безбједносног феномена.*

Кључне речи: *тероризам, терористичка пријетња, приватни сектор безбједности, приватне агенције за заштиту, супротстављање тероризму*

UDC: 339.923:061.1BRICS
COBISS.SR-ID 183406601
doi: https://doi.org/10.61837/mbuir030225115j

Professional paper

Received: 28. 04. 2024.
Accepted: 02. 12. 2025.

ROLE AND SIGNIFICANCE OF BRICS

Zoran B. JEROTIJEVIC

MB University, Faculty of Business and Law, Belgrade, Serbia
zoranjerotijevic@gmail.com
https://orcid.org/0000-0002-1889

Dusan Z. JEROTIJEVIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia
dusanjerotijevic@gmail.com
https://orcid.org/0000-0003-4252-7487

Aleksandar B. MATIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia
aleksandarmatic.fpim@gmail.com
https://orcid.org/0000-0002-2979-3011

Abstract: *The contemporary global landscape is characterized by continuously evolving socio-economic and political dynamics, in which a special place is occupied by the group of countries known as BRICS - Brazil, Russia, India, China and South Africa. This heterogeneous alliance arose from sharing common interests and aspirations in order to articulate their voices in the international arena. The ability of BRICS to assert itself as a significant actor on the world stage raises questions about the dynamics of global relations, economic stability and diplomatic interactions. This grouping, with its varied geographical distribution and economic power, is positioned as a key factor in shaping international flows and influences. Therefore, understanding the motivations, goals and challenges arising from this cooperation provides a deeper insight into the global political and economic paradigm.*

Keywords: *BRICS, dynamics, world scene, international flows*

INTRODUCTION

Through the analysis of the economic dynamics of BRICS, we will see how the members of the group realize their economic interests through mutual trade, investments and joint projects. At the same time, we will deal with the political aspects of their cooperation, especially in the context of diplomatic relations and their influence in international institutions. Through this in-depth analysis, this paper aims not only to investigate the current state of BRICS, but also to provide insight into the possible future directions of development of this grouping.

Based on a systematic analysis, it is expected that this paper will contribute to a comprehensive understanding of the role of BRICS in global relations, providing a basis for further research and discussion in the field of international relations, economic policy and geopolitics. Through this academic endeavor, we hope

to shed light on key issues arising from BRICS activities and their impact on world order.

The aim of this paper is to provide a comprehensive overview of the role and importance of BRICS in contemporary international relations, with a special focus on the economic and political aspects of their cooperation. Through the analysis of economic dynamics, trade relations, political diplomacy and global influence, the paper aims to investigate how this group affects the international order and shapes the global political and economic paradigm. The starting hypothesis of the work is based on the claim that BRICS, as a geopolitical entity, has a significant impact on contemporary international relations, expressed through economic initiatives, political attitudes and joint efforts to solve global challenges.

1. BRICS DEFINITION

In this chapter, we will lay the theoretical foundations of the research. We will point out what exactly BRICS is. In addition, it is important to lay the theoretical foundations regarding how this organization was formed, and what are its basic goals. In the introductory part, we gave general guidelines, while in this chapter, setting clear theoretical frameworks is important, since that way we can properly direct the research itself. In order for the entire chapter to be properly conceived, it is important to determine the possible cause-and-effect relationships in a certain context. In this sense, in this chapter we will clearly indicate what are the main causes of the formation of BRICS and how this organization fits into the existing global economic landscape.

BRICS represents a geopolitical entity that brings together five countries: Brazil, Russia, India, China and South Africa. This grouping found its roots in economic changes and the growing influence of its members on the global stage. It was formed at the beginning of the 21st century, with the first formal meeting of BRICS leaders held in 2009. The main goal of the formation of BRICS was the articulation of common interests and the creation of a platform for cooperation between countries with significant economic potential[2].

BRICS was formed at a time when the economic powers in the world were shifting, and the traditional centers of influence were becoming more diverse. Each BRICS member has significant resources, both human and natural, and is characterized by dynamic economic activity. This partnership resulted from the desire to jointly articulate the interests of those countries in international economic and political matters.

1.1. BRICS goals

The basic goals of BRICS are reflected in achieving balance and fairness in international relations, supporting sustainable development, strengthening economic cooperation among members, and contributing to solving global challenges[2]. The group strives to strengthen its role in international institutions as well as to improve the economic and political stability of its members.

1.2. The structure of BRICS

The BRICS structure is characterized by regular high-level meetings, where member leaders discuss key issues, sign agreements and coordinate their positions. Also, there is an economic dimension of BRICS, which implies the intensification of trade ties, joint investments and exchange of technologies.

BRICS represents a dynamic grouping of countries with significant economic potential, and its goals and structure reflect the need for fairer and more balanced international relations, with a focus on sustainable development and global prosperity[4]. This group remains a significant subject in contemporary international relations, which justifies the attention given to it in research work.

1.3. Causes of BRICS formation

The formation of BRICS was a response to dynamic changes in the global political and economic landscape at the beginning of the 21st century. This entity resulted from the need

for a fairer distribution of power, and strengthening the influence of countries that were less represented in global decisions until then.

With accelerated globalization, economic power has shifted from traditional centers to developing economies. Brazil, Russia, India, China and South Africa were becoming key figures in the global economic system. Their growth and development laid the foundation for strengthening their position in global affairs. Traditional international institutions have not always reflected the actual distribution of economic and political power in the world. The formation of BRICS reflected the desire to create a fairer and more inclusive system, where developing countries have a stronger voice in global affairs [5].

BRICS members, faced with the challenges and opportunities of globalization, began to actively diversify their diplomatic relations. This grouping provided them with a platform for strengthening mutual cooperation and coordination in solving common challenges. Brazil, Russia, India, China and South Africa shared similar interests in issues such as economic stability, sustainable development, and addressing global challenges such as climate change. The formation of BRICS enabled them to work together to achieve those goals[5]. BRICS's fit into the global political and economic landscape is reflected in its ubiquitous influence on international relations. This grouping has become a key factor in shaping global policies, trade, and economic stability. Through regular high-level meetings, BRICS members harmonize their positions, thus strengthening their position in the international arena.

2. HISTORY OF BRICS

The formation of BRICS marks a pivotal moment in the evolution of international relations, where Brazil, Russia, India, China and South Africa jointly recognized the need to come together to articulate their interests on the global stage. The founding of BRICS formally took place during the first official meeting of leaders in Yekaterinburg, Russia, in 2009. This initiative arose from previous informal contacts between the countries, which shared similar economic and political challenges[1].

2.1. Key moments in the development and emergence of BRICS

1) The history of BRICS has its roots in the need for a stronger representation of developing countries in a world where traditional power centers had dominated. BRICS members, recognizing their common influence and the need for joint action, would build their cooperation through regular meetings, economic initiatives and joint political declarations.
2) The development of cooperation among BRICS members is a dynamic process marked by key moments in the evolution of this grouping. Founded with the intention of strengthening the position of developing countries in international relations, BRICS has gone through significant phases over time that have shaped its cooperation and influence in the world.
3) The first key moment took place in 2009 at the first meeting of leaders in Yekaterinburg, Russia, where the members formalized their cooperation. This event marked the beginning of organized joint action, and the leaders then emphasized the need to strengthen the international system in order to achieve a fairer global balance. Then, 2011 witnessed a meeting in Sanya, China, where BRICS members laid the foundations for economic cooperation. Participants expressed a common concern about global financial challenges, and the idea of strengthening economic cooperation emerged as a key initiative. The culmination of this development took place in 2014 at a meeting in Fortaleza, Brazil. Here, the leaders signed an agreement on the establishment of the New Development Bank (NDB) and the Common Reserve Fund (Contingent Reserve Arrangement or CRA). These institutions, with the aim of providing support to infrastructure projects and stabilizing currencies, represented a significant step towards strengthening the economic self-sustainability of BRICS members and

creating alternative mechanisms in relation to traditional financial institutions.

4) The meeting in China in 2017 additionally emphasized the principle of multilateralism and an open world, stressing the importance of cooperation between countries and opposing protectionism. This moment pointed to the political dimension of BRICS cooperation, marking it not only as an economic but also a political alliance.

5) The last significant moment was recorded at the virtual meeting in 2021, during which BRICS leaders discussed current global issues, including the Covid-19 pandemic, climate change and economic recovery [3]. This meeting confirmed the durability and importance of cooperation within BRICS in facing current challenges.

6) Through these key moments, BRICS members gradually strengthened their cooperation, recognizing common challenges and providing a model for inclusive global cooperation. BRICS has evolved from a platform for economic cooperation into a comprehensive political and economic alliance shaping the modern global order. This history of development testifies to the creation of significant goals in achieving sustainable cooperation among developing countries.

3. BRICS MEMBERS

In contemporary international relations, BRICS members (Brazil, Russia, India, China and South Africa) represent a dynamic entity that stands out for its economic power, political influence and a wealth of cultural diversity. This grouping, formed with the aim of strengthening the voice of developing countries in global affairs, has brought a common platform that brings together different nations with similar ambitions[3].

Brazil, the largest country in South America, stands out for its exceptional economic strength. Its agrarian industry, combined with large oil and gas resources, makes it an economic leader in the region. Politically, Brazil is a federal republic with a democratic system, and its culture is steeped in diversity - from carnival and samba to the wealth of traditional Amazonian cultures[6].

Russia, the largest country in the world, possesses significant economic resources, including vast oil and gas reserves. Industry, especially the military-industrial complex, is a key component of the Russian economy. Politically, Russia is a federal republic with a clear presidential system, while its rich cultural heritage ranges from the literature of Dostoyevsky to classical music and ballet.

India, the fastest growing economy among the BRICS members, excels in the information technology, pharmaceutical and services sectors. Politically, India is a parliamentary republic with federal characteristics, and its culture is deeply rooted in diversity - from the rich tradition of Hindu festivals to the Bollywood film industry [4].

China, the world's second largest economy, dominates the global market through production and exports. Its political structure, a socialist republic with a one-party system, recalls the long history of Chinese civilization. Chinese culture, with its contributions to philosophy, art and traditional medicine, reflects a long and rich history.

South Africa, the most developed economy in Africa, stands out for its wealth of resources and diversity of industries. Politically, South Africa is a parliamentary republic with a multi-party system, and its culture is permeated with the influence of different ethnic groups, languages and traditions.

Although each BRICS member has its own unique characteristics, there are a number of similarities that connect them. All of them are countries with significant economic power, striving for global influence and fighting for a fairer international balance. However, differences are reflected in political systems, from democratic republics to socialist systems, and cultural specificities, such as linguistic diversity, traditions and artistic contributions. This diversity, despite similarities in economic goals, contributes to the unique identity of BRICS as an important force in the modern world.

4. BRICS DIMENSIONS

In this part of the paper, we will look at the economic and political dimensions of BRICS. We will point out the economic and political dimensions of BRICS, and then look at the future that this organization faces. We will further look at questions related to the challenges and criticisms that can be made in its actions.

4.1. The economic dimension of BRICS

Brazil has been a key player in the economic success of BRICS. Its economy, based on agriculture, the energy sector and a growing service sector, contributes to the diversification of the global economic picture. However, it is faced with challenges related to infrastructure and the labor market.

Russia stands out for its oil and gas resources, thus playing a key role in the global energy supply. This country faces the challenges of diversifying its economy, but still contributes to the stability of the world energy market [5].

India is the fastest growing economy among BRICS members. Its information technology, services and agriculture sectors play a key role in growth. With a large workforce and technological innovation, India is attracting global investment and contributing to the development of the digital economy.

China is an economic powerhouse that has experienced spectacular growth over the past few decades. Its growth model based on exports, investments and urbanization contributed to the country's transformation into a global economic leader. China's technology, manufacturing and service sectors dominate world markets.

South Africa has the most developed economy in Africa. Its economic dynamics is based on mining, agriculture and services. The country faces challenges of inequality and unemployment, but continues to be a significant contributor to regional economic growth. Through the analysis of the economic dynamics of each member, it is clear that BRICS plays a key role in the global economic landscape. Their collective strength contributes to the diversification and stability of the world economy. BRICS members have made significant progress in promoting mutual trade and investment in order to strengthen their economic ties [4].

BRICS members have been actively working to remove trade barriers between themselves. Various free trade initiatives, including bilateral and multilateral agreements, have provided impetus to the growth of mutual trade. Member countries implement policies that support diversification in trade, thereby creating more stable and sustainable trade links. BRICS members actively cooperate on joint projects, especially in the fields of energy, infrastructure and technology. This promotes mutual investment and joint economic growth.

The establishment of the New Development Bank (NDB) and the Contingent Reserve Arrangement (CRA) represents a key step towards strengthening financial cooperation within the BRICS. These institutions support projects that contribute to the economic development of the members [4]. Through these initiatives, BRICS members are building the foundations for sustainable economic cooperation. Mutual trade and investments not only stimulate the economic growth of the members but also contribute to the stability of the global economy. This cooperation positions BRICS as a key player in the modern world, with the ability to shape and influence global economic flows.

4.2. The political dimension of BRICS

BRICS (Brazil, Russia, India, China and South Africa) represents a grouping of countries that operate in different spheres, but their political dimension is key to understanding the influence of this group on the international political scene. This part of the paper explores the forms and importance of political cooperation between BRICS members.

BRICS members actively coordinate their political positions and act in terms of common diplomacy. This cooperation is visible in the joint statements and positions that the countries put forward in international forums. An

example of this kind of diplomatic coordination is the fight against protectionism and support for an open world, which was emphasized at BRICS meetings [5].

Although BRICS does not have a formal military pact, member countries are considering various forms of military cooperation. This includes military exercises and training, as well as security dialogue. One example is the joint military exercise between China and Russia, which sent a message of forming new military cooperative ties.

The formation of NDB and CRA represents the political contribution of BRICS in the form of financial cooperation. These institutions serve as an alternative to traditional financial institutions, demonstrating the political engagement of members in achieving financial stability. BRICS members actively participate in multilateral processes such as the G-20 and the United Nations. This cooperation enables them to act as a group and determine their position on important issues, including climate change, development, and the fight against terrorism. Although BRICS displays significant political influence, it faces challenges in maintaining consensus among the various political systems and interests of its members. There are also different perspectives on the future of BRICS, including issues of harmonization of positions and effectiveness of cooperation in various fields.

The political dimension of BRICS represents a strong basis for cooperation between different countries. Through diplomatic initiatives, military exercises, economic institutions and participation in multilateral forums, BRICS members actively shape the political landscape of the international arena. Predictions exist, but political cooperation and diplomatic coordination are necessary for the survival and progress of this group. BRICS not only represents an important pillar of global politics, but also shapes a new, multipolar world structure.

4.3. Challenges and Criticisms of BRICS

BRICS members have different political systems, economic structures and security priorities. Reconciling these diversities is a challenge in making joint decisions and implementing effective cooperation. Within BRICS, there are significant economic differences, both in the size of the economies and in the level of development. This can create tensions in matters of trade, monetary policies and resource allocation.

The New Development Bank and the Contingent Reserve Arrangement represent a significant step, but the challenge is to ensure their effectiveness and ability to provide real support for infrastructure projects and currency stability. Members' differing approaches to political issues and security challenges may limit the potential for joint action. Sensitive issues like Syria, Ukraine, and terrorism can also cause disagreements.

Critics claim that despite ambitious goals, BRICS has not achieved significant concrete results in solving global problems, calling into question the real effectiveness of this grouping. BRICS faces skepticism due to its lack of a clear ideological identity. This diverse group of countries has not built a single model of cooperation that would clearly articulate its approach to global issues. Criticisms focus on economic and social inequalities within BRICS. Although some countries are economic superpowers, others face the challenges of poverty, inequality and corruption. There is skepticism about the real power and influence of BRICS, with the view that this grouping may only be a passing phenomenon and has no long-term sustainability.

CONCLUSION

BRICS, although it represents a significant force in the modern world, faces a series of challenges and criticisms that it must carefully address. Balancing diversity within the group, achieving economic balance and articulating a clear political identity are key steps in achieving

the long-term goals of BRICS. Despite the criticism, BRICS remains an important player in global affairs and has the potential to shape the international order for years to come. This process requires constant dialogue, adaptation and mutual understanding within the group in order to overcome challenges and achieve common goals.

The initial hypothesis, which claims that BRICS has a significant impact through economic initiatives, political attitudes and joint efforts in solving global challenges, can be considered confirmed for several reasons. BRICS members represent a significant part of the world economy, with China and India as key players. The New Development Bank (NDB) and the Contingent Reserve Arrangement (CRA) demonstrate the willingness of members to create their own financial institutions, showing their intention to free themselves from traditional dependence on Western institutions.

The Group actively participates in dialogue on key global issues. Their joint declaration of an open world and support for multilateralism indicates a clear political stance. BRICS often act as a coordinated bloc in international forums, which further strengthens their influence. Initiatives for free trade and the strengthening of economic cooperation between BRICS members show that the group is actively working to improve economic synergy. The increase in mutual trade and investment testifies to their commitment to strengthening economic ties within the group.

The participation of BRICS in international organizations such as the G-20 and the UN provides them with a platform for representing their interests. This group, with its diverse membership, has the ability to represent the perspectives of developing countries and highlight important issues such as sustainability and inclusive development. However, challenges and criticisms cannot be ignored. Different economic structures, political systems and security priorities of members often make it difficult to reach a common position. Also, the lack of a clear ideological identity and insufficient visibility of concrete achievements may cause skepticism regarding the real impact of BRICS.

Although BRICS faces challenges, it can be argued that the grouping has had a significant impact in shaping contemporary international relations. Their economic initiatives, political views and efforts to solve global challenges make them a relevant and influential actor in the global arena. However, in order to maintain their influence, members will have to actively work to overcome internal differences and challenges in order to achieve common goals.

REFERENCES

[1] Dragičević, O. (2016). “The Bretton Woods Institutions Have No Alternative: Is the Asian Infrastructure Investment Bank a Threat to Existing International Financial Institutions?” International Politics, 67(1164), 24-41.

[2] Dugalić N. (2020) The role and importance of BRICS countries in the modern global economy, Faculty of Economics, University of Kragujevac, Kragujevac;

[3] Ilić, B., Praća, N., Kolarski, I. (2016). “Economic-political aspects of the new world order”. Auditor-magazine for Management, Finance and Law, 2(3), 49-62.

[4] Stamatović Lj. (2021) Research on economic growth factors in BRICS countries, Belgrade Banking Academy, Union University, Belgrade;

[5] Crnić M., Stefanović A. (2018) “BRICS in contemporary global economic relations: history, achievements, challenges”, International Politics year LXIX, number 1171, pp. 84-99.

[6] Bali S., Demir E. (2015) “Impact of the Global Financial Crisis on BRICS and PIIGS Countries”, Social Sciences Journal of the Eurasian Academy of Sciences, vol. 2.

УЛОГА И ЗНАЧАЈ БРИКС-А

Резиме: *Савремени глобални пејзаж карактерише континуирано еволуирајућа друштвено-економска и политичка динамика, у којој посебно место заузима група земаља позната као БРИКС - Бразил, Русија, Индија, Кина и Јужна Африка. Овај хетерогени савез настао је дељењем заједничких интереса и тежњи како би артикулисали своје гласове на међународној сцени. Способност БРИКС-а да се наметне као значајан актер на светској сцени покреће питања о динамици глобалних односа, економској стабилности и дипломатским интеракцијама. Ова групација, са својом разноврсном географском расподелом и економском моћи, позиционирана је као кључни фактор у обликовању међународних токова и утицаја. Стога, разумевање мотивација, циљева и изазова који произилазе из ове сарадње пружа дубљи увид у глобалну политичку и економску парадигму.*

Кључне речи: *БРИКС, динамика, светска сцена, међународни токови*

INFORMATION SOCIETY

Original scientific paper

Received: 30. 10. 2025.
Accepted: 05. 12. 2025.

UDC: 005.932
004.8:658.7
COBISS.SR-ID 183427593
doi: https://doi.org/10.61837/mbuir030225124r

MODERN INFORMATION TECHNOLOGIES AND THEIR APPLICATION IN INVENTORY MANAGEMENT

Dušan B. REGODIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia
dusanregodic5@gmail.com
https://orcid.org/0000-0001-6951-880X

Radomir D. REGODIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia
radomir.regodic@yahoo.com
https://orcid.org/0000-0003-3538-6284

Ana M. VUKIĆ

MB University, Faculty of Business and Law, Belgrade, Serbia
gana.vukic@gmail.com
https://orcid.org/0000-0002-0412-4647

Abstract: *Inventory plays a central role in the supply chain, connecting every stage—from procurement to sales. Efficient inventory management contributes to cost reduction, increased profitability, and strengthening of competitive advantage [1, 23]. Modern enterprises face challenges such as globalization, volatile demand, and the need for rapid response to market changes. For this reason, digitalization of inventory management processes has become a key prerequisite for competitiveness and sustainable business operations.*

Inventory management represents a crucial element of efficient business performance. Effective inventory control enables organizations to reduce costs, increase liquidity, and improve customer satisfaction. The aim of this paper is to present traditional and modern models of inventory management, with special emphasis on the application of information technology and artificial intelligence. The general objective is to examine and demonstrate the role of information technologies in improving inventory management processes and their influence on business efficiency-reducing total holding and ordering costs; increasing speed and reliability of decision-making; ensuring higher data accuracy and better control over stock movement.

The subject of this research is the analysis of the significance and impact of information technologies on planning, control, and optimization processes of inventory across enterprises of different industries. In today's business environment, information technology (IT) plays a key role in enhancing inventory management and improving supply chain efficiency. The paper also presents a Python-based software solution for calculating Economic Order Quantity (EOQ).

This research will utilize a combination of qualitative and quantitative methods. For data processing and analysis, statistical methods (descriptive statistics, correlation analysis, regression models) will be applied using software tools such as Excel or SPSS.

Understanding the purpose, categories, and inventory management systems enables companies to achieve an optimal balance between product availability and holding costs. Contemporary practice increasingly relies on digitalization and forecasting models that enhance decision-making and make the supply chain more resilient and efficient.

Keywords: *information technologies, artificial intelligence, digitalization, supply chain, inventory, economic order quantity*

INTRODUCTION

Inventory refers to temporarily allocated quantities of materials, energy, or information taken out of the production or consumption process to ensure business continuity and timely response to market needs. It represents a buffer between the input and output flows of goods, arising when there is a difference in time or quantity between procurement and consumption. Inventory management involves decisions regarding required quantities, stock formation methods, control, and replenishment, while taking into consideration all factors that influence inventory movement. It is one of the key activities within production management, since inventory requires substantial capital and affects production, marketing, and finance. Different types of materials and goods may be held as inventory: raw materials and semi-finished products, finished products, tools and spare parts, consumables, and technical waste [5,23].

Depending on the criteria, inventory can be classified in several ways. The most common categories are:

a) According to their function in the business process:
- Production inventory – raw materials and supplies required for the manufacturing process.
- Auxiliary inventory – spare parts, tools, packaging, and other elements not directly included in the product but necessary for system functioning.
- Commercial inventory – finished products intended for sale to end customers.
- Inventory in transit – goods that are being transported between suppliers, producers, and consumers.

b) According to the stage of processing:
- Raw material and component inventory – procured materials ready for production.
- Semi-finished goods inventory – partially processed products awaiting further manufacturing.
- Finished goods inventory – final products ready for sale.

c) According to purpose and intent:
- Operational (working) inventory – ensures continuous production flow.
- Safety inventory – serves as a reserve for unforeseen situations, such as delivery delays or sudden demand spikes.
- Seasonal inventory – formed during periods of increased demand (e.g., holidays).
- Speculative inventory – created when price increases or material shortages are anticipated.

Such classification enables companies to plan their needs more accurately and allocate capital more efficiently.

Forecasting is a key tool in inventory planning because it allows prediction of future demand. Based on historical data, seasonal patterns, and market trends, quantitative and qualitative forecasts are generated to support purchasing and production decisions. The most widely used methods include moving

averages, exponential smoothing, and regression models. Accurate forecasting reduces the risk of overstocking or understocking and has a direct impact on company profitability.

In the modern business environment, information technology (IT) plays a crucial role in improving inventory management processes and increasing supply chain efficiency. Rapid development of digital tools, integrated software solutions, and real-time data tracking systems has enabled organizations to reduce costs, connect different operational stages, and make decisions based on precise information. Efficient inventory management today is not possible without the implementation of modern IT solutions such as ERP (Enterprise Resource Planning), WMS (Warehouse Management System), MRP (Material Requirements Planning), as well as various demand forecasting and data analysis tools. Their application contributes to reducing delays, improving delivery accuracy, lowering storage costs, and increasing transparency throughout the supply chain.

1. LITERATURE REVIEW

Inventory management has long been recognized as a critical component of operations and supply chain management. Classical models such as Economic Order Quantity (EOQ), safety stock formulas, and reorder point systems focused primarily on balancing ordering and holding costs under relatively stable and predictable conditions (Harris, 1913; Zipkin, 2000). With the growth of globalization, shorter product life cycles, and increased demand volatility, these traditional approaches have been increasingly complemented and transformed by modern information technologies that enable faster, data-driven and more collaborative decision-making across the supply chain.

1.1. From Traditional to Technology-Enabled Inventory Management

In the traditional view, inventory decisions were often based on historical demand, manual records and periodic reviews. This approach was prone to delays, errors and the bullwhip effect, where small fluctuations in demand at the retail level amplify upstream in the supply chain (Lee, Padmanabhan & Whang, 1997). The emergence of integrated information systems, especially Material Requirements Planning (MRP) and later Enterprise Resource Planning (ERP), enabled companies to connect procurement, production, warehousing and sales in a unified database, thus improving visibility and coordination of inventory flows (Monk & Wagner, 2013).

Subsequent generations of systems extended this logic to the entire supply chain. Supply Chain Management (SCM) systems and Advanced Planning and Scheduling (APS) tools support multi-echelon inventory optimization, collaborative planning and real-time information sharing between suppliers, manufacturers, distributors and retailers (Stadtler, 2015). These platforms provide the digital backbone upon which more advanced technologies – such as RFID, IoT, big data analytics and artificial intelligence – are now being layered.

1.2. Core Information Technologies in Inventory Management

A number of modern information technologies have reshaped how firms track, control and optimize inventory:

- **Barcoding and RFID.** Barcodes and, more recently, Radio Frequency Identification (RFID) tags have fundamentally improved the accuracy and speed of inventory tracking. RFID, in particular, enables automatic, non-line-of-sight identification of items, leading to reduced counting errors, lower labor costs and improved stock visibility (Asif & Mandviwalla, 2005). Empirical studies show that RFID adoption can significantly reduce out-of-stock situations and shrinkage, especially in retail and healthcare supply chains (Wamba et al., 2008).
- **Warehouse Management Systems (WMS).** WMS solutions provide real-time information on stock locations, quantities and movements within the warehouse, supporting

activities such as put-away, picking, cycle counting and replenishment. Integration of WMS with ERP and transportation systems improves overall logistics performance, reduces lead times and enables more accurate inventory records (Faber, De Koster & Smidts, 2013).

- **Cloud-based platforms and digital integration.** Cloud computing has facilitated the development of scalable, pay-as-you-go inventory and supply chain platforms that are particularly attractive for small and medium-sized enterprises. Cloud-based inventory systems enable multi-location visibility, easier integration with e-commerce channels and collaboration with external partners, reducing the need for heavy upfront IT investments (Marston et al., 2011).
- **Internet of Things (IoT).** IoT devices—such as smart shelves, sensors and connected forklifts—collect real-time data about inventory levels, storage conditions (e.g., temperature, humidity) and equipment utilization. This data improves the accuracy of inventory records, helps prevent spoilage or damage, and supports predictive maintenance of logistics equipment (Ben-Daya, Hassini & Bahroun, 2019).

1.3. Big Data Analytics and Artificial Intelligence in Inventory Management

The proliferation of digital data has created new opportunities to enhance inventory decisions with advanced analytics and artificial intelligence (AI). Big data sources include point-of-sale (POS) systems, loyalty programs, web traffic, social media, supplier performance data and sensor outputs across the supply chain [13, 14].

Demand forecasting and replenishment.

Machine learning models—such as gradient boosting, random forests, and deep learning architectures—can capture non-linear relationships and complex seasonality patterns in demand, often outperforming traditional time-series methods in volatile environments (Carbonneau, Laframboise & Vahidov, 2008). These models enable more accurate demand forecasts, which are crucial for setting safety stocks, reorder points and replenishment schedules.

Optimization and decision support.

AI-based optimization and reinforcement learning approaches are increasingly used to determine optimal order quantities, allocation decisions and dynamic pricing that jointly influence inventory levels (Kumar et al., 2016). Decision support systems integrate these models with real-time data from ERP, WMS and IoT, providing managers with recommended actions or triggering automated replenishment in vendor-managed inventory (VMI) and consignment stock arrangements.

Exception management and anomaly detection.

AI techniques are also applied to detect anomalies and risks in inventory data—such as unexpected demand spikes, data entry errors or potential stock-outs—allowing proactive intervention instead of reactive problem-solving.

1.4. Impact of Modern IT on Inventory Performance

Numerous studies indicate that the adoption of modern information technologies positively affects inventory performance and broader business outcomes. Improved information quality and visibility lead to reduced safety stock, lower overall inventory levels, shorter order cycles and fewer stock-outs (Chopra & Meindl, 2016). RFID and real-time tracking have been linked to higher inventory accuracy and improved product availability in retail and manufacturing environments (Wamba et al., 2008).

Integration of ERP, WMS and advanced analytics supports better coordination between procurement, production and distribution, which in turn improves service levels and customer satisfaction while reducing working capital tied up in inventory (Gunasekaran & Ngai, 2004). At the same time, digital tools enable scenario analysis and "what-if" simulations,

helping managers evaluate the impact of parameter changes—such as lead times, order frequencies or demand variability—on total inventory cost and service levels.

1.5. Challenges and Limitations in the Adoption of Modern IT

Despite the demonstrated benefits, literature also emphasizes several challenges related to the adoption and effective use of modern IT in inventory management. High initial investment costs, integration issues with legacy systems, data quality problems and resistance to organizational change can limit the realized benefits (Gunasekaran & Ngai, 2004).

In addition, the successful use of AI and analytics requires appropriate data governance, skilled personnel and a clear understanding of model limitations. Over-reliance on algorithmic outputs without managerial judgement may lead to suboptimal or risky decisions, especially in situations of structural market change or unprecedented events (e.g., pandemics, geopolitical shocks).

1.6. Research Gap

While previous research has thoroughly examined individual technologies—such as ERP, RFID or specific machine learning models—there is a growing need for integrated studies that analyze how combinations of modern information technologies jointly affect inventory performance across different industries and firm sizes. Furthermore, there is limited empirical work on how AI-driven decision-support tools are actually embedded into everyday inventory management processes and how they change the roles and competencies of managers and planners.

This paper contributes to the existing literature by providing a structured overview of traditional and modern inventory management models, analyzing the role of information technologies and artificial intelligence in improving key inventory processes, and illustrating these concepts through a Python-based software solution for Economic Order Quantity (EOQ) calculation.

2. THE ROLE OF INVENTORY IN THE SUPPLY CHAIN

Inventory plays a crucial role in the functioning of the supply chain, as it connects all its stages—from suppliers to end consumers. Its primary purpose is to maintain balance between supply and demand, since these two flows rarely coincide over time. The main functions of inventory within supply chains include [11, 17]:

- **Buffer function:** inventory softens the imbalance between production and consumption, ensuring a continuous process.
- **Continuity function:** prevents production delays due to late procurement.
- **Price stabilization function:** enables companies to respond to market price fluctuations and avoid losses.
- **Service function:** increases customer service level through faster delivery.

Efficient inventory management contributes to reducing total logistics costs, increasing liquidity, and strengthening a company's competitive advantage. In modern business systems, inventory forms a part of a broader concept—Supply Chain Management (SCM). Through digitalization and use of advanced information systems (ERP, MRP, WMS), companies can monitor inventory levels in real time and automatically plan procurement and distribution. This reduces storage costs, waiting times, and the risk of product obsolescence.

Finance departments aim for low inventory levels to preserve capital, marketing seeks higher stock to increase sales and responsiveness, while production requires optimal stock to maintain an uninterrupted workflow. Therefore, inventory management must balance these opposing goals.

There are three basic material management models:

- **Push model** – based on forecasts,
- **Pull model** – based on actual customer demand,
- **Hybrid model** – a combination of both, depending on supply chain structure.

Inventory provides flexibility, reduces risk, and increases the ability of a company to respond to demand fluctuations. However, excessive inventory ties up capital, occupies storage space, and is prone to spoilage, obsolescence, and high storage costs. Low inventory reduces costs but increases the risk of shortages and inability to meet demand. The main reasons for maintaining inventory are:

1. Protection against uncertainties (safety stock);
2. Achieving economical production and purchase cycles (cycle stock);
3. Preparation for expected price, demand, or supply fluctuations;
4. Ensuring material availability during transportation between process stages.

The basic function of inventory is to separate different phases of production and consumption: raw materials separate suppliers from production, work-in-process separates production stages, and finished goods separate manufacturers from customers.

3. IMPORTANCE AND TYPES OF INVENTORY IN THE SUPPLY CHAIN

Depending on criteria, inventory can be classified in several ways. The most common divisions are:

a) **According to function in the business process:**
   - Production inventory – raw materials and components necessary for manufacturing.
   - Auxiliary inventory – spare parts, tools, packaging, and elements that do not enter the final product but enable system operation.
   - Commercial inventory – finished goods intended for sale to end customers.
   - Inventory in transit – goods currently being transported between suppliers, manufacturers, and final users.

b) **According to point of origin**:
   - Raw material inventory – procured components ready for processing.
   - Semi-finished goods inventory – partially processed products awaiting further production.
   - Finished goods inventory – completed products ready for sale.

c) **According to purpose and intent**:
   - Operational (working) inventory – ensures continuous production processes.
   - Safety inventory – reserve stock for unexpected events such as delivery delays or sudden demand spikes.
   - Seasonal inventory – created in periods of increased demand (e.g., holidays).
   - Speculative inventory – created when price increases or shortages are expected.

This classification enables more efficient inventory planning, control, and optimization. Inventory ensures continuous business operations between procurement, production, and sales, reducing risks of supply disruptions.

As a buffer between unpredictable supply and demand flows, inventory allows companies to react quickly to customer needs, avoid production interruptions, and benefit from favorable market conditions such as seasonal discounts or lower procurement prices. Although maintaining inventory incurs costs, it improves system reliability and customer satisfaction, which strengthens competitive advantage in the long term.

With digitalization and implementation of systems such as ERP, MRP, and WMS, businesses can track inventory levels in real time and automate replenishment processes, reducing storage cost, waiting time, and product aging risk.

4. CLASSIC INVENTORY PLANNING MODELS IN THE SUPPLY CHAIN

Optimal inventory represents the quantity of materials or goods that fully satisfies consumption needs with minimum total cost. The goal is to maintain enough inventory to prevent shortages and ensure continuous operations, while not tying up more capital than necessary. The optimal level of inventory is influenced by factors such as demand dynamics,

delivery lead time, storage costs, and safety stock policies.

Classic inventory management models are the foundation of modern logistics and procurement systems. Their primary purpose is to optimize order quantities, reduce storage and ordering costs, and ensure availability of materials or goods when needed. In practice, the most frequently used models are EOQ, ABC/XYZ classification, Just-in-Time (JIT), and integrated MRP/ERP systems. These approaches help organizations balance supply and demand, lower operational costs, and increase supply chain efficiency.

4.1. EOQ Model (Economic Order Quantity)

In operational practice, optimal inventory levels are determined through mathematical models—most commonly using the EOQ model, which balances ordering cost and holding cost.

The **Economic Order Quantity (EOQ)** is the order size that minimizes total inventory cost. Inventory-related costs include:

- Ordering costs (transportation, administration, purchasing);
- Holding costs (storage, depreciation, insurance);
- Shortage costs (lost sales and customer dissatisfaction).

EOQ helps companies determine the optimal order volume where the sum of ordering and holding costs is the lowest. The goal is to find an order quantity that minimizes total inventory expenditure.

The EOQ is calculated using the formula [2,23].:

$$EOQ = \sqrt{\frac{2DS}{H}}$$

Table 1. Review of Symbols Used in the Formula and Software Solution

Symbol	Meaning	Explanation
D	Annual demand	Total yearly demand for a product or material, expressed in units (e.g., pieces).
S	Ordering cost (per order)	Fixed cost incurred each time an order is placed (administration, transport, invoicing, etc.).
H	Annual holding cost per unit	Yearly cost of keeping one unit in inventory (includes storage, insurance, depreciation, obsolescence, and capital).
EOQ	Economic Order Quantity	Optimal order quantity that minimizes the total cost of ordering and holding inventory.

Based on the Economic Order Quantity (EOQ) formula, the following can be concluded:

- If orders are placed too frequently (small order quantities) → ordering costs increase.
- If orders are placed too infrequently (large order quantities) → holding costs increase.
- EOQ represents the equilibrium point between these two cost effects.

Example of EOQ numerical calculation:

Annual demand: D = 12,000 units,

Ordering cost: S = €100,

Holding cost: H = €2.

$$\text{EOQ} = \sqrt{\frac{2 \times 12{,}000 \times 100}{2}} = \sqrt{1{,}200{,}000} \approx 1{,}095 \text{ units}$$

Therefore, the optimal order quantity is approximately **1,100 units per order**.

This formula represents the Economic Order Quantity (EOQ), meaning the optimal number of units that should be ordered to minimize total procurement and storage costs.

Alternative EOQ Variant (EKN)

This is a variation of the standard EOQ model, where the variables are expressed using different symbols [20,23]. The calculation formula is:

$$\text{EKN} = \sqrt{\frac{200 \cdot \text{P} \cdot \text{Tn}}{\text{Nc} \cdot \text{Sz}}}$$

or simplified:

$$EKN = \sqrt{\frac{2 \cdot P \cdot Tn}{Nc \cdot Sz}}$$

Table 2. Symbols Used in the Formula and Software Solution

Symbol	Name	Explanation
P	Consumption	Total annual consumption of the product (in pieces, kg, liters, etc.). Represents how much is consumed per year.
Tn	Ordering cost	Cost incurred each time an order is placed (administrative, transport and related ordering costs).
Nc	Purchase price per unit	Cost of purchasing one unit of product.
Sz (or sz)	Storage cost	Annual holding cost per unit (expressed as a percentage of purchase price or fixed cost per unit).
EKN	Economic order quantity	Optimal quantity to order so that total holding and ordering costs are minimized.

Computation Explanation

- The term **200 · P · Tn** (or **2 · P · Tn** if the values are already annualized) represents **total yearly ordering cost**.
- The term **Nc · Sz** represents **annual holding cost per unit**.
- Taking the square root of the ratio gives the **equilibrium quantity per order**, i.e., the point at which total costs are minimal.

Numerical Example of EKN Calculation

Annual consumption **(P) = 10,000 units**

Ordering cost **(Tn) = 1,000 RSD**

Purchase price **(Nc) = 200 RSD/unit**

Storage cost **(Sz) = 10% = 0.10**

$$EKN = \sqrt{\frac{200 \times 10{,}000 \times 1{,}000}{200 \times 0.10}} = \sqrt{\frac{2{,}000{,}000{,}000}{20}} =$$

$$= \sqrt{100{,}000{,}000} = 10{,}000$$

In Table 3, the main limitations of the Economic Order Quantity (EOQ) model are presented along with explanations and proposed practical solutions [5,16, 23].

Table 3. EOQ Model Limitations and Possible Solutions

No.	Limitation (Problem)	Practical Consequence	Possible Solution / Adjusted Approach
1	Constant demand (EOQ assumption)	The model does not fit seasonal sales; shortages or excess stock may occur.	Apply dynamic EOQ or demand forecasting for seasonal planning.
2	Fixed purchase price	Ignores promotional discounts, exchange rate fluctuations, and inflation.	Use EOQ with quantity discounts or analyze Total Cost of Ownership.
3	Constant holding cost	In reality, storage costs vary (energy, space, insurance).	Update cost parameters regularly and include variable costs by period.
4	Constant lead time	Delivery delays can cause bottlenecks and stockouts.	Introduce safety stock and a Reorder Point (ROP) system.
5	Unlimited capital and storage space	Optimal quantity may exceed financial or warehouse capacity.	Apply capital and space constraints (Constrained EOQ).
6	Single-item model	Inefficient for large assortments with different characteristics.	Use ABC analysis and apply EOQ only to “A-class” items.
7	No interdependence between items	Does not consider items used together (components).	Introduce Joint EOQ or multi-item inventory models.
8	No shortage cost included	The model ignores losses from unmet demand and dissatisfied customers.	Include shortage cost in the extended EOQ model.
9	Full supplier availability	Assumes supplier always delivers the requested quantity.	Evaluate supplier reliability and ensure a backup source.
10	No market or technology changes	Inventory may become obsolete or lose value.	Include obsolescence risk and apply stock rotation (FIFO, LIFO).

The optimal order quantity is therefore 10,000 units per order to achieve minimum cost.

In Figure 1., the EOQ/EKN curve is illustrated, showing cost behavior for the example provided.

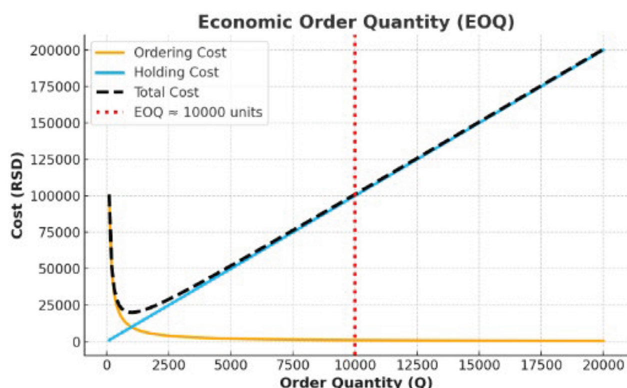


Figure 1. Economic Order Quantity with ordering costs: Orange line – Ordering Cost; Blue line – Holding Cost; Black dashed line – Total Cost; Red dotted line – Optimal point (EOQ ≈ 10,000 units), where total costs are minimized

The EOQ model provides a solid theoretical basis for procurement planning, but real business decision-making requires integration with modern inventory methods such as:

- *Just-in-Time (JIT),*
- *Material Requirements Planning (MRP),*
- *ABC/XYZ analysis,*
- *Forecast-based inventory optimization.*

4.2. ABC/XYZ Analysis

The ABC/XYZ analysis is a method of inventory classification based on item value and consumption dynamics. By combining these two criteria, companies can determine which products require special attention and which are less critical for operations.

ABC analysis is based on the Pareto principle (80/20 rule) and divides inventory into three groups:

- **A items** – small number of items with high value (often 70–80% of total inventory value),
- **B items** – medium value and importance,
- **C items** – large number of low-value, less critical items,
- The primary focus is placed on A items, as they most strongly affect financial and operational stability.

XYZ analysis classifies items according to demand stability and predictability:

- **X items** – stable, highly predictable demand,
- **Y items** – variable, seasonal demand,
- **Z items** – irregular, unpredictable demand.

A combined **ABC/XYZ matrix** makes it possible to define an appropriate control strategy for each category (e.g., AX requires strict monitoring, CZ minimal control).

4.3. Just-in-Time (JIT) System

The Just-in-Time system is an inventory management method aimed at eliminating excess stock and producing only what is needed, exactly when it is needed. Core characteristics of JIT include:

- inventories are minimized,
- procurement and production are directly linked to customer orders,
- storage costs and risk of obsolescence are reduced,
- operational efficiency and production flow speed increase.

This system requires a high level of supply chain coordination, reliable suppliers, and precise planning. The most well-known example of successful JIT implementation is **Toyota**, where this model became the foundation of lean manufacturing.

4.4. MRP (Material Requirements Planning)

Modern inventory management approaches rely on information systems that integrate purchasing, production, sales, and logistics. MRP is a material planning system based on the production schedule and product structure. Its main functions are:

- determining material requirements,
- scheduling procurement timing,

– reducing surplus inventory and production interruptions.

MRP defines **what** needs to be ordered, **how much**, and **when**.

4.5. ERP (Enterprise Resource Planning)

ERP represents an extended and more advanced version of MRP, as it integrates not only material planning but also [7, 9]:

– procurement,
– production,
– finance,
– sales and CRM,
– warehousing and distribution.

An ERP system provides a unified database and connects all business functions in real time. This significantly improves inventory management, speeds up decision-making, and increases transparency.

Determining inventory requirements involves planning the quantity and timing of procurement. The main objective is to ensure sufficient stock levels in line with the production plan and expected market demand. This process includes analysis of historical data, consumption trends, seasonality, and lead time. In modern systems, **MRP methodology** is used to automatically calculate required material quantities based on planned production.

The **Periodic System (P-System)** implies that inventory levels are checked and replenished at fixed time intervals, regardless of the current stock level. When the review moment arrives, the quantity ordered replenishes inventory up to a predefined maximum level. Its advantage is simplicity of control and suitability for products with stable demand, while the disadvantage is the possibility of stockouts between review intervals, since the system does not respond immediately to demand changes.

The **Continuous System (Q-System)** operates by continuously monitoring inventory levels, issuing a new order as soon as stock reaches the predefined **Reorder Point (ROP)**. The order quantity is usually constant (often equal to the EOQ value). Its main advantage is timely response and reduced stockout risk, while its drawback is more complex monitoring and the need for real-time information.

In practice, companies often combine both systems. The P-system is used when control costs are high and demand is stable (e.g., in grocery retail), while the Q-system is applied to higher-value items where precise tracking is crucial (e.g., automotive and pharmaceutical industries).

Modern information systems enable integration of both models within **ERP and WMS solutions**, enhancing precision and efficiency in inventory management.

5. APPLICATION OF INFORMATION TECHNOLOGY FOR CALCULATING ECONOMIC ORDER QUANTITY (EOQ)

Python program solution with algorithm development steps [1, 23]:

EOQ is calculated using the formula:

$$EOQ = \sqrt{\frac{200 \cdot P \cdot T_n}{N_c \cdot S_z}}$$

Where:

P – annual consumption (units/year)
Tn – cost per order
Nc – purchase price per unit
Sz – annual holding cost per unit

Algorithm:

1. Input values: *P, Tn, Nc, Sz*
2. Compute the numerator: numerator = 200 * P * Tn
3. Compute the denominator: denominator = Nc * Sz
4. Compute the ratio: ratio = numerator / denominator
5. Calculate the square root: EOQ = sqrt(ratio)
6. Display the result to the user

Optionally, additional cost values may also be calculated (not mandatory but useful):

– Number of orders per year: N = P / EOQ
– Annual ordering cost: $C_n = N \cdot T_n$
– Average inventory level: Z = EOQ / 2
– Annual holding cost: $C_s = Z \cdot N_c \cdot S_z$
– Total annual cost: $C_{total} = C_n + C_s$

Python program solution

Below is a Python program version that generates a cost graph based on the entered data 1,23].

The program can be run as follows:

1. When the program starts, enter the following four inputs:
   – annual consumption (P)
   – ordering cost (Tn)
   – unit purchase price (Nc)
   – annual holding cost per unit (Sz)
2. The program calculates the EOQ and all related costs.
3. It prints the results in bold format.

```
python

import math
import matplotlib.pyplot as plt
import numpy as np

# --- Funkcija za izračun EOQ ---
def eoq(P, Tn, Nc, Sz):
    return math.sqrt((200 * P * Tn) / (Nc * Sz))

# --- Funkcija za detalje ---
def eoq_detalji(P, Tn, Nc, Sz):
    Q = eoq(P, Tn, Nc, Sz)
    broj_narudzbina = P / Q
    trosak_narudzivanja = broj_narudzbina * Tn
    prosecna_zaliha = Q / 2
    trosak_skladistenja = prosecna_zaliha * Nc * Sz
    ukupni_trosak = trosak_narudzivanja + trosak_skladistenja
    return Q, broj_narudzbina, trosak_narudzivanja, trosak_skladistenja, ukupni_trosak
# --- Glavni deo programa ---
print("=" * 60)
print("📦   E C O N O M I C   O R D E R   Q U A N T I T Y   (EOQ)   📦")
print("=" * 60)

# Unos podataka
P = float(input("Enter annual demand (P) [units/year]: "))
Tn = float(input("Enter cost per order (Tn) [RSD]: "))
Nc = float(input("Enter purchase price per unit (Nc) [RSD]: "))
Sz = float(input("Enter annual holding cost rate (Sz) [e.g. 0.1 for 10%]: "))

# Izračunavanje rezultata
EOQ, broj_narudzbina, trosak_narudzivanja, trosak_skladistenja, ukupni_trosak = eoq_detalji(P, Tn,
```

```
# --- Ispis rezultata ---
print("\n" + "=" * 60)
print(f"Optimal Order Quantity (EOQ):      {EOQ:,.2f} units")
print(f"Orders per Year:                   {broj_narudzbina:,.2f}")
print(f"Annual Ordering Cost:              {trosak_narudzivanja:,.2f} RSD")
print(f"Annual Holding Cost:               {trosak_skladistenja:,.2f} RSD")
print(f"Total Annual Cost:                 {ukupni_trosak:,.2f} RSD")
print("=" * 60)

# --- Priprema grafikona ---
Q = np.linspace(100, P * 2, 200)
order_cost = (P / Q) * Tn
holding_cost = (Q / 2) * Nc * Sz
total_cost = order_cost + holding_cost
```

```
# --- Crtanje grafikona ---
plt.figure(figsize=(9,6))
plt.plot(Q, order_cost, label='Ordering Cost', color='orange', linewidth=3)
plt.plot(Q, holding_cost, label='Holding Cost', color='deepskyblue', linewidth=3)
plt.plot(Q, total_cost, label='Total Cost', color='black', linestyle='--', linewidth=3.5)
plt.axvline(EOQ, color='red', linestyle=':', linewidth=4, label=f'EOQ ≈ {EOQ:.0f} units')

plt.title('Economic Order Quantity (EOQ)', fontsize=18, fontweight='bold')
plt.xlabel('Order Quantity (Q)', fontsize=15, fontweight='bold')
plt.ylabel('Cost (RSD)', fontsize=15, fontweight='bold')
plt.legend(fontsize=13, loc='upper left', frameon=True)
plt.grid(True, linewidth=0.8)
plt.tight_layout()
plt.show()
```

4. It generates a graph with bold lines and a clearly marked optimal EOQ point.

Algorithm and Python program for calculating Maximum Purchase Need (MPN) when demand is uncertain [1,23].

1. Algorithm (steps)

We use the formula:

$$MPN = P \cdot T + F_{Zn} \cdot \sqrt{P \cdot q \cdot T}$$

Inputs:

– P – average demand per period (e.g., units/day)

– T – lead time in the same period units (e.g., days)

– q – demand variability (variance or another variability indicator)

– FZn – safety factor (e.g., 1.65 for 95% service level)

Outputs:

– MPN – maximum required purchase quantity

– average consumption during T

– safety stock

Steps:

1. Load/enter values for *P, T, q, FZn*.
2. Compute: average_consumption = P * T
3. Compute safety stock:

$$safety_stock = F_{Zn} \cdot \sqrt{P \cdot q \cdot T}$$

4. Compute maximum purchase need:

$$MPN = average_consumption + safety_stock$$

5. Print **MPN**, **average_consumption**, and **safety_stock**.

```
python

import math

def izracunaj_mpn(P, T, q, FZn):
    """
    Računa maksimalnu potrebnu nabavku (MPN) kod neizvesne potrošnje.

    P   - prosečna potrošnja po periodu (npr. kom/dan)
    T   - vreme nabavke (lead time) u istim periodima
    q   - varijabilnost (npr. varijansa potrošnje po periodu)
    FZn - faktor sigurnosti (1.65 za 95%, 2.33 za 99% itd.)
    """
    prosecna_potrosnja = P * T
    sigurnosna_zaliha = FZn * math.sqrt(P * q * T)
    MPN = prosecna_potrosnja + sigurnosna_zaliha
    return MPN, prosecna_potrosnja, sigurnosna_zaliha

if __name__ == "__main__":
    print("=" * 60)
    print("   M A X I M U M   P R O C U R E M E N T   N E E D   (MPN)")
    print("=" * 60)

    # Unos podataka od korisnika
    P = float(input("Unesite prosečnu potrošnju P (npr. kom/dan): "))
    T = float(input("Unesite vreme nabavke T (u danima): "))
    q = float(input("Unesite varijabilnost potrošnje q (npr. varijansa): "))
    FZn = float(input("Unesite faktor sigurnosti FZn (npr. 1.65 za 95%): "))

    MPN, avg_use, safety_stock = izracunaj_mpn(P, T, q, FZn)

    print("\n" + "-" * 60)
    print(f"Prosečna potrebna količina tokom T:    {avg_use:,.2f} jedinica")
    print(f"Sigurnosna zaliha (safety stock):      {safety_stock:,.2f} jedinica")
    print(f"Maksimalna potrebna nabavka (MPN):     {MPN:,.2f} jedinica")
    print("-" * 60)
```

The file can be executed using: python mpn_calc.py

The formula for Optimal Storage Time (OST) represents the period during which goods should remain in storage so that ordering and holding costs are balanced and minimized.

Optimal Storage Time is calculated as [18,23].:

$$OST = \sqrt{\frac{2 \cdot T_n}{N_c \cdot q \cdot P \cdot q}}$$

In practice, the commonly used simplified form is:

$$OST = \sqrt{\frac{2 \cdot T_n}{N_c \cdot q \cdot P}}$$

Table 4. presents the explanation of symbols used for calculating Optimal Storage Time (OST).

Table 4. Meaning of Symbols for OST Calculation

Symbol	Meaning	Explanation
OST	Optimal Storage Time	Indicates how many days (weeks/months) goods should remain in stock on average before reordering.
Tn	Ordering cost per order	Includes administrative, transport, and other purchasing expenses.
Nc	Unit purchase price	Price of one item, used to calculate storage cost.
q	Holding cost rate per unit	Usually expressed as an annual percentage (e.g., 0.1 = 10%).
P	Annual demand	Quantity of product consumed per year.

This formula represents the **time equivalent of EOQ**. While EOQ shows **how much to order**, OST shows **when to order**, i.e., the optimal time interval between orders.

In other words, OST indicates the length of one replenishment cycle — the time required to deplete the stock from one optimal purchase.

In the following Table 1.4, parameter values for OST calculation are provided:

Table 5. Parameters for the Calculation

Parameter	Symbol	Value
Ordering cost	T_n	1,000 RSD
Purchase price	N_n	200 RSD
Holding cost rate	q	0.1 (10%)
Annual demand	P	12,000 units

$$OST = \sqrt{\frac{2 \cdot 1{,}000}{200 \cdot 0.1 \cdot 12{,}000}}$$

$$OST = \sqrt{\frac{2{,}000}{240{,}000}} = \sqrt{0.00833} = 0.0913 \text{ years} \approx 33 \text{ days}$$

The optimal storage time is approximately **33 days**, meaning that the most economical ordering frequency is **about once per month**, where holding and ordering costs are in balance.

5.1. Critical Analysis of the Applied Models

Classical inventory models (EOQ, ABC/XYZ, JIT, MRP/ERP) have undeniably contributed to the development of modern logistics systems; however, each carries specific limitations:

Table 5. Advantages and Limitations of Classical Models (EOQ, ABC/XYZ, JIT, MRP/ERP)

Model	Advantages	Limitations
EOQ	Simple, fast calculation, reduces ordering costs	Ignores seasonality, demand fluctuations, and lead-time variability
ABC/XYZ Analysis	Clear item segmentation, focus on critical stock	No automated decision-making, highly dependent on data quality
JIT	Minimal inventory, lean production, lower storage costs	Highly sensitive to supply chain disruptions
MRP/ERP	Integrated system, full material flow control	High implementation cost and requirement for skilled personnel

On the other hand, artificial intelligence offers the potential to overcome many of these limitations; however, AI is not a universal solution. The main challenges include the need for large volumes of high-quality data, the financial cost of implementation, and organizational change required for digital transformation.

The conclusion of this critical analysis is that no single model is sufficient on its own — a combination of classical methods and AI provides the most effective approach to modern inventory management.

6. ARTIFICIAL INTELLIGENCE IN INVENTORY MANAGEMENT

In recent years, inventory management has undergone significant transformation due to the implementation of Artificial Intelligence (AI). Traditional inventory planning and optimization models relied on historical data and

static algorithms, whereas modern AI technologies enable automated analysis of large data sets, real-time demand forecasting, and decision-making that reduces costs and increases operational efficiency. As a result, AI has become a key component of contemporary supply chain management, especially in industries with high demand variability and frequent fluctuations [6, 15, 19, 24].

6.1. The Role of AI in Inventory Optimization

Artificial intelligence improves inventory management through automated analytics, forecasting, and decision-making. Instead of manual planning and fixed ordering models, AI-based systems autonomously propose optimal order quantities, identify potential stockout risks, and reduce total costs.

Predictive analytics uses historical sales data, seasonality patterns, and market trends to estimate future stock requirements. AI models detect hidden patterns that traditional methods often miss, enabling more accurate ordering and reducing excess inventory — particularly valuable in retail and manufacturing sectors where demand fluctuates daily.

Demand forecasting:

AI systems provide advanced forecasting capabilities using hundreds of input variables, including price changes, marketing campaigns, global events, seasonality, and customer behaviour. Improved forecasting accuracy leads to better procurement planning, fewer delivery delays, and lower inventory holding costs.

Behavioural pattern recognition:

Machine learning algorithms analyse customer habits and detect purchase trends, frequency of orders, and product popularity. The system automatically identifies items with increasing demand and recommends timely replenishment, improving product availability and preventing profit loss caused by stockouts.

6.2. Key AI Technologies

The application of artificial intelligence in logistics and inventory management relies on several technological principles. The most commonly used technologies include:

- **Machine Learning (ML)**

ML algorithms learn from data and improve their predictions over time. In inventory management, ML is used for:

- demand forecasting,
- procurement optimization,
- automated reordering,
- anomaly detection in consumption and stock levels.

ML models become increasingly accurate as more data is generated, leading to long-term cost reduction and improved strategic decision-making.

Deep Learning

Deep Learning applies multi-layer neural networks that simulate the way the human brain processes information. These systems are highly effective in complex environments with numerous variables — e.g., seasonality, geographical demand variations, and time-dependent trends. Deep Learning can predict demand trends even when patterns shift unexpectedly.

Large Language Models (LLMs), such as ChatGPT

LLMs enable automation of communication and decision-making based on textual data. In inventory management, they can:

- analyse orders and generate procurement recommendations,
- produce reports and forecasts,
- communicate with suppliers and customers,
- serve as AI assistants within logistics departments.

Integration of LLMs reduces administrative workload and accelerates information processing.

AI-integrated ERP systems

Modern ERP solutions (SAP, Oracle, Microsoft Dynamics) increasingly include AI modules that automatically optimize inventory and orders. The system can:

- track inventory levels in real time,
- forecast stock-out periods,
- generate purchase orders,
- balance inventory turnover and cost.

AI within ERP environments enables centralized inventory control while reducing the risk of human error.

6.3. Benefits and Challenges of AI in Inventory Management

AI brings significant operational advantages but also challenges that organizations must consider.

Benefits:

- substantially increased accuracy of demand forecasts,
- faster decision-making and process automation,
- lower storage and holding costs,
- reduced risks of shortages and overstock,
- improved customer satisfaction and product availability,
- real-time analytics and greater supply chain flexibility.

Challenges:

- requirement for large volumes of high-quality data,
- high initial implementation cost,
- need for skilled personnel to operate AI systems,
- risk of technological dependency and cybersecurity exposure.

Although AI requires strong digital infrastructure and financial investment, the efficiency gains, cost savings, and better inventory availability make it one of the most promising tools for modern supply chain management.

6.4. Case Studies

The impact of artificial intelligence in inventory management is most evident in real-world examples of leading global companies. The following case studies illustrate how AI enhances storage operations, forecasts demand, reduces costs, and increases market availability. Each example includes the initial challenge, the applied AI solution, and measurable results.

6.4.1. Adidas – AI-Driven Demand Forecasting

Adidas, one of the world's largest sports brands, operates with a wide product portfolio and highly seasonal demand patterns. Efficient global stock management required accurate sales forecasting to prevent overstocking and delays.

Challenges before AI:

- inaccurate demand forecasts for specific models and sizes,
- surplus stock in some regions and shortages in others,
- longer delivery times and slower inventory turnover.

AI-based solution:

- application of machine learning models for forecasting,
- analysis of historical sales data and seasonal fluctuations,
- automated stock allocation across markets based on predictions.

Results:

- up to 30% more accurate demand forecasting,
- faster inventory turnover and reduced warehousing costs,
- improved product distribution across sales channels,
- reduced losses from unsold seasonal products.

6.4.2. Amazon – Robotic Warehousing & Automatic Replenishment

Amazon operates one of the largest logistics networks globally, where delivery speed and product availability are critical success factors. AI is integrated into nearly every layer of the supply chain.

Challenges before AI:

- manual inventory handling was slow, costly, and error-prone,
- large workforce needed for physical item movement,
- continuous growth in order volume required higher efficiency.

AI-based solution:

- implementation of robotic warehouses (Amazon Robotics),
- autonomous robots transporting shelves and tracking item location,
- AI algorithms for automated replenishment and routing.

Results:

- up to 50% faster order processing,
- reduced warehouse operating costs,
- more accurate item handling with fewer delivery errors,
- ability to achieve 24-hour delivery in most regions.

6.4.3. Walmart – Big Data + Forecasting + Supply Chain AI

Walmart operates more than 10,000 retail locations worldwide and manages millions of SKUs (items). The complexity of such a logistics network required advanced forecasting and inventory management methods.

Challenges before AI:

- variable demand and frequent stockouts,
- large differences in consumer behaviour across regions,
- manual procurement planning was slow and inaccurate.

AI solution:

- implementation of big data forecasting algorithms,
- real-time customer behaviour analytics,
- integration of AI into ERP and supply chain procurement systems.

Results:

- over 20% reduction in out-of-stock occurrences,
- faster procurement decisions and more stable inventory levels,
- higher product availability and increased customer satisfaction,
- improved logistics cost optimization in transportation and warehousing.

6.4.4. Toyota – Just-in-Time + AI Optimization

Toyota is the pioneer of Lean manufacturing and the Just-in-Time philosophy. Under JIT, inventory levels are minimized and production flows in real time according to demand. With the integration of AI technology, the model was further strengthened.

Challenges before AI:

- sensitivity of JIT to supplier delays,
- lack of flexibility during sudden demand surges,
- risk of production interruptions due to low inventory buffers.

AI solution:

- integration of AI into procurement and warehouse planning,
- predictive analytics for supplier risks and potential delays,
- digital factory control systems with real-time operational data.

Results:

- up to 35% fewer production stoppages,
- more secure JIT distribution and a more resilient supply chain,
- reduced safety stock without loss of efficiency,
- faster response to market fluctuations and demand shifts.

6.5. Discussion and Recommendations for Future Research - Open Questions

The research indicates that technological development has fundamentally reshaped inventory management. However, several future research directions could further improve theoretical understanding and practical application:

Recommendations for future research

1. Deep analysis of AI-based demand forecasting algorithms: Emphasis should be placed on comparing different machine-learning models under real market conditions.
2. Examination of AI impact on decision-making and organizational culture: Human roles, decision-making processes, and technology adoption require a socio-technical perspective.
3. Research on IoT integration in warehouse systems: Internet of Things (IoT) technology enables real-time inventory tracking and higher automation potential.
4. Study of ethical and cybersecurity implications in digital supply chains: Data privacy, cybersecurity protection and AI-bias issues are becoming increasingly important.

7. CONCLUSION

Inventory represents an essential component of every supply chain and plays a crucial role in maintaining business continuity. Inventory management is one of the key elements of efficient operation, particularly in the modern global environment characterized by unpredictable demand and rapid market fluctuations. The analyzed models — ranging from classical frameworks such as EOQ, ABC/XYZ classification, JIT, and MRP/ERP systems, to modern solutions based on artificial intelligence — demonstrate that inventory management is not a static, but rather a dynamic system that continuously adapts to changing conditions. Proper inventory planning and control enhance efficiency, reduce total costs, and strengthen customer relationships.

Contemporary trends emphasize inventory optimization through integrated information systems, warehouse automation, and the development of concepts such as Just-in-Time (JIT), Lean, and Vendor Managed Inventory (VMI). The goal is not to eliminate inventory, but to manage it intelligently — in a way that supports the company's strategy and the entire supply chain. Traditional methods provide a stable basis for planning and cost control, while AI-driven approaches enable smarter, faster, and more flexible resource management. The combination of both strategies ensures optimal utilization, reduces shortages and overstock situations, improves inventory turnover, and increases profitability. Case studies of global companies (Adidas, Amazon, Walmart, Toyota) confirm that the application of artificial intelligence is not merely a theoretical concept, but a measurable and practically proven tool with real results.

In general, the future of inventory management is moving toward digitalization, automation, and predictive modelling. Organizations that integrate artificial intelligence into their supply chain processes will be better positioned to maintain competitiveness, reduce costs, and respond to market shifts in real time.

The research confirms that modern information technologies significantly improve inventory efficiency and overall supply chain performance. The use of integrated IT systems (ERP, MRP, WMS) reduces total holding and ordering costs. Digital transformation increases data accuracy and real-time visibility. Automated procurement and planning processes enhance decision-making speed, reliability, and responsiveness.

The analysis also highlights one of the major challenges — the lack of IT infrastructure and skilled personnel remains a key barrier to the effective implementation of digital inventory management systems.

REFERENCES

[1] Nair, M. K. (2025). *Inventory control in modern supply chains: Integrating advanced technologies for optimal performance.* International Journal on Science and Technology, 16(1), 44–56.

[2] Anumula, S. K. (2025). *Design-Based Supply Chain Operations Research Model: Resilience and sustainability impact.* arXiv:2511.01878.

[3] Dalain, A. F., & Agrawal, R. (2025). *Impact of disruptive technologies on digital supply chains.* Logistics, 9(4), 138.

[4] Kagalwala, H. (2025). *Predictive analytics in supply chain management: Role of AI in demand forecasting.* ACR Review, 12(1), 55–70.

[5] Rajendran, P. (2025). *Leveraging AI, IoT, and automation for real-time inventory monitoring.* In Proceedings of the 2025 International Conference on Intelligent Supply Systems.

[6] Kotecha, N., & del Rio Chanona, A. (2024). *Graph neural networks + multi-agent RL for inventory control.* arXiv:2410.18631.

[7] Khedr, A. M., & Hassan, M. (2024). *Deep learning-enhanced supply chain inventory stability.* Journal of Supply Chain Intelligence, 12(2), 120–137.

[8] Gölzer, P., & Fritzsche, A. (2024). *Digital twins and predictive inventory planning in smart factories.* IEEE Access, 12, 115220–115234.

[9] Kim, J., & Park, S. (2024). *AI-augmented real-time stock-replenishment systems.* Expert Systems with Applications, 245, 123255.

[10] Yuan, X., & Zhou, G. (2024). *A hybrid IoT-AI system for warehouse accuracy and zero-stockout goal.* International Journal of Production Research, 62(7), 3104–3120.

[11] Duarte, L., & Martins, R. (2024). *RFID-based tracking and IoT monitoring for smart inventory logistics.* Sensors, 24(11), 4562–4575.

[12] Shukla, M., & Tiwari, A. (2023). *Industry 4.0 frameworks for inventory automation and cost reduction.* Journal of Industrial Information Integration, 36, 100–120.

[13] Huang, Y., & Hu, J. (2023). *IoT-cloud architecture for autonomous warehouse inspection and stock control.* Computers in Industry, 151, 103010.

[14] Kaur, P., & Randhawa, S. (2023). *Big data-driven forecasting for warehouse-level inventory variability.* Information Systems Frontiers, 25, 215–231.

[15] Zhang, L., & Feng, W. (2023). *Neural demand forecasting to stabilize stock availability under market uncertainty.* Transportation Research Part E, 180, 103279.

[16] Roy, T. (2023). *Warehouse self-optimization algorithms for peak-demand scenarios.* Journal of Operational Automation, 9(3), 77–102.

[17] Singh, N., & Sharma, V. (2023). *Modern IT paradigms in warehouse and inventory management: A review.* Computers & Industrial Engineering, 170, 108392.

[18] Lin, D., & Xu, Y. (2023). *AI-enabled smart inventory systems: A systematic literature review (2013–2023).* International Journal of Logistics Management, 34(1), 1–40.

[19] Paredes-Barato, F., & Alvarez, R. (2023). *A global review of IoT, machine learning and automation in supply chain planning.* Expert Systems with Applications, 230, 119753.

[20] Omar, A., & Hassan, R. (2023). *Cloud ERP adoption for inventory control in SMEs.* Journal of Information Technology Management, 34(3), 21–39.

[21] Chopra, S., & Meindl, P. (2019). *Supply Chain Management: Strategy, Planning, and Operation* (7th ed.). Pearson Education.

[22] Christopher, M. (2016). *Logistics & Supply Chain Management* (5th ed.). Pearson Education Limited.

[23] Regodić, D. (2024). *Logistika i upravljanje lancima snabdevanja*. Univerzitet MB, Beograd

[24] Ivanović, M. (2018). *Upravljanje zalihama u savremenom poslovanju*. Novi Sad: Ekonomski fakultet.

САВРЕМЕНЕ ИНФОРМАЦИОНЕ ТЕХНОЛОГИЈЕ И ЊИХОВА ПРИМЕНА У УПРАВЉАЊУ ЗАЛИХАМА

Резиме: *Залихе имају централну улогу у ланцу снабдевања и повезују сваку фазу – од набавке до продаје. Ефикасно управљање залихама доприноси смањењу трошкова, повећању профитабилности и јачању конкурентске предности. Савремена предузећа суочавају се са изазовима попут глобализације, променљиве потражње и потребе за брзом реакцијом на тржишне промене. Из тог разлога, дигитализација процеса управљања залихама постала је кључни предуслов за конкурентност и одрживо пословање.*

Управљање залихама представља један од најважнијих елемената ефикасног пословања. Ефективна контрола залиха омогућава организацијама да смање трошкове, повећају ликвидност и унапреде задовољство купаца. Циљ овог рада је да прикаже традиционалне и модерне моделе управљања залихама, са посебним нагласком на примену информационих технологија и вештачке интелигенције. Општи циљ је да се истражи и покаже улога информационих технологија у унапређењу процеса управљања залихама и њихов утицај на пословну ефикасност – смањење укупних трошкова набавке и складиштења, повећање брзине и поузданости одлучивања, обезбеђивање веће тачности података и боље контроле над кретањем залиха.

Предмет овог истраживања је анализа значаја и утицаја информационих технологија на планирање, контролу и оптимизацију залиха у предузећима из различитих индустрија. У савременом пословном окружењу, информациона технологија (ИТ) има кључну улогу у унапређењу управљања залихама и повећању ефикасности ланца снабдевања. У раду је такође приказано софтверско решење засновано на програмском језику Путхон за израчунавање економске количине наручивања (EOQ).

У истраживању ће бити примењена комбинација квалитативних и квантитативних метода. За обраду и анализу података користиће се статистичке методе (дескриптивна статистика, корелациона анализа, регресиони модели), уз примену софтверских алата попут Ехцела или СПСС-а.

Разумевање сврхе, категорија и система управљања залихама омогућава предузећима да постигну оптималну равнотежу између доступности производа и трошкова држања залиха. Савремена пракса све више се ослања на дигитализацију и моделе предвиђања који унапређују доношење одлука и чине ланац снабдевања отпорнијим и ефикаснијим.

Кључне речи: *информационе технологије, вештачка интелигенција, дигитализација, ланац снабдевања, залихе, економска количина наручивања*

PRESENTATIONS OF DOCTORAL DISSERTATIONS

MB University International Review - MBUIR 2025 ● Vol. 3 ● No. 2 ● 146-148

LEGAL SCIENCES
PRESENTATION OF THE DOCTORAL DISSERTATION

doi: https://doi.org/10.61837/mbuir030225146c

JUDICIAL CONTROL OF DECISIONS OF THE MINISTRY OF INTERNAL AFFAIRS MADE IN DISCIPLINARY PROCEEDINGS

Dragan B. CVETKOVIĆ, PhD

MB University, Faculty of Business and Law, Belgrade, Serbia
cvetkovicdragan76@gmail.com
https://orcid.org/ORCID/0009-0009-9473-9773

Although there are written sources on disciplinary responsibility and disciplinary proceedings, in scientific research work the judicial control of decisions of the Ministry of Internal Affairs made in disciplinary proceedings has rarely been studied, especially the content and form of judicial decisions of administrative courts from which the legality of decisions of the competent disciplinary bodies in the Ministry of Internal Affairs of the Republic of Serbia can only be seen. The subject of research in this doctoral dissertation is JUDICIAL CONTROL OF DECISIONS OF THE MINISTRY OF INTERNAL AFFAIRS MADE IN DISCIPLINARY PROCEEDINGS. In the continuation of this review, the scientific public is presented with a summary of the views of the author of the dissertation on this important topic.

In the modern legal system, disciplinary proceedings represent an important mechanism for maintaining order, discipline, and professionalism of individuals in public services and private institutions. This topic is not only essential for preserving the integrity of institutions, but also for protecting the rights and interests of individuals against whom proceedings are conducted. In this context, in addition to the second-level disciplinary procedure, the administrative dispute appears as a significant form of control of the disciplinary procedure, which provides mechanisms for the protection of the rights and legal security of individuals whose disciplinary responsibility has been decided.

Faced with various challenges, state administration bodies must have clearly defined procedures for dealing with violations of regulations, unprofessional behavior or improper actions of employees. The disciplinary procedure is a means through which these cases are reviewed, with the aim of preserving the integrity of the employer and sanctioning the irresponsible behavior of employees.

The doctoral dissertation researched the legal nature of disciplinary proceedings in the contemporary context, with special emphasis on the role of administrative litigation as a means of control over disciplinary proceedings. Through an interdisciplinary approach, we will explore the theoretical foundations of the disciplinary procedure, its practical application in different institutions and countries, as well as the challenges that authorities face in practice.

The subject of the doctoral dissertation is disciplinary proceedings and their control in a

judicial context.The focus will be on the analysis of the administrative dispute as a mechanism of legal protection in the context of disciplinary proceedings, exploring legal standards, procedure and court practice in relation to certain specific situations. The goal is to understand how the administrative dispute can ensure fairness, transparency and efficiency in disciplinary proceedings, but at the same time contribute to the improvement of the system of disciplinary responsibility.

Analyzing the relevant legislative basis, case law and international standards, the research examines the role of courts in the supervision of disciplinary proceedings. Special attention was paid to the issues of procedural fairness, protection of the rights of the parties and the achievement of correct decisions in disciplinary cases, identifying key challenges and possible improvements and efficiency in the implementation of disciplinary procedures.

Through the analysis of relevant legislation, precedents of court decisions and practice, as well as case studies, this paper aims to provide a comprehensive insight into the importance of judicial control of disciplinary proceedings, while highlighting the challenges, dilemmas, and perspectives of improving this key segment of the legal system, in order to ensure fairness, efficiency, and trust in this mechanism.

The significance of the research from a scientific aspect is reflected in the theoretical treatment of the importance of the disciplinary procedure and the administrative procedure, which is applied accordingly to this procedure, in line with the subject of the dissertation. Meanwhile, the societal significance is viewed through the research's contribution, considering the essentiality of the administrative system for the functioning of the executive power in general, as well as through the direct applicability of the research to the practice of regulating administrative procedure, including the disciplinary procedure within the system of public and state administration in the Republic of Serbia. The categorical conceptual system related to the subject of the research in the doctoral dissertation consists of the concepts: disciplinary procedure, administrative procedure, control of the disciplinary procedure, and administrative dispute, which are analyzed throughout the dissertation, explaining their role in the system of determining disciplinary liability.

A crucial structural factor is the time frame for presenting the disciplinary procedure within the Ministry of Internal Affairs (MIA) of the Republic of Serbia over a period longer than 30 years (1991–2023), with a focus on the description and scientific explanation of the first-instance and second-instance disciplinary procedures. Also, a very important structural factor is the presentation of the control of decisions made by the Ministries of Internal Affairs in disciplinary proceedings in the neighboring countries: Croatia, Montenegro, Bosnia and Herzegovina with the Federation of B and H and Republika Srpska, as well as in Greece, where a comparative analysis leads to significant conclusions that can be important for the further development and improvement of the entire process. However, the most important part of the dissertation is the processing of empirical data from a sample of 470 Administrative Court judgments rendered in legal protection proceedings against acts issued in the disciplinary procedure, from which analysis important synthetic conclusions were reached.

The system of hypotheses in the doctoral dissertation consists of a general hypothesis and five special (derived, specific) hypotheses, as well as two individual hypotheses. The basic methods of cognition were applied in this doctoral dissertation, primarily the combined method of analysis and synthesis, the methods of concretization, abstraction, generalization, and the inductive-deductive method. A special significance of the dissertation is the conclusion that directs the first-instance and second-instance disciplinary bodies to eliminate the identified deficiencies pointed out by the court, and on the other hand, for the Administrative Court, or its departments, to

harmonize their case law and issue the same decisions in the same legal situations.

The scientific objectives the candidate intends to achieve through the doctoral dissertation are the description of theoretical statements and views from scientific literature and legal norms related to the control of final disciplinary acts in an administrative dispute. The second level of the scientific objective is the classification of disciplinary procedures and disciplinary acts issued in an administrative dispute. The third and fourth levels of scientific objectives achieved through the doctoral dissertation were the scientific discovery and scientific explanation of the key shortcomings of the existing legal provisions regarding the control of the disciplinary procedure in an administrative dispute, with an emphasis on the control of the disciplinary procedure in an administrative dispute.

The societal goal of preparing the dissertation consists of providing scientific knowledge about the state of disciplinary liability in general and particularly in the field of internal affairs, in order to undertake corrective measures *de lege ferenda*, with the aim of improving the disciplinary procedure and judicial review in an administrative dispute, especially the provisions in the Law on General Administrative Procedure (LGAP) and subordinate legislation that further elaborate the disciplinary procedure, as well as the provisions on administrative disputes.

The research results have shown that it is necessary to improve the normative solutions related to the full jurisdiction dispute. Furthermore, it must be borne in mind as a notorious fact that the administration is a part of the executive power and is also bound by the constitution and law, but that it makes decisions in the public interest. In this sense, it is still necessary to retain the principle of separation of powers, otherwise, the court would turn into an administrator. Therefore, the research results confirmed that it is necessary to find the right balance when regulating the judicial review of decisions made in disciplinary proceedings, which is one of the most delicate issues in legal theory and practice.

Also, the research results in the doctoral dissertation confirmed that the lifelong professional development of police employees, leadership skills in the police, rewarding instead of punishing, and employee motivation are incentive mechanisms for employee responsibility. Nevertheless, disciplinary liability is an inevitable mechanism in the police and every other organization, enabling the maintenance of internal discipline in the police, from which everyone benefits, especially the citizens. Therefore, these mechanisms should be improved.

LEGAL SCIENCES
Presentation of the doctoral dissertation

doi: https://doi.org/10.61837/mbuir030225149i

PROPERTY RELATIONS IN EXTRAMARITAL UNIONS IN THE FAMILY LAW OF THE REPUBLIC OF SERBIA

Aleksandar V. IVANOVIĆ, PhD

MB University, Faculty of Business and Law, Belgrade, Serbia
aleks968ivanovic@gmaol.com

The subject of the doctoral dissertation of Dr Aleksandar Ivanović is "Property Relations in Extramarital Unions in the Family Law of the Republic of Serbia." The subject of the doctoral dissertation is very current, socially significant and scientifically justified, because the institution of marriage is understood flexibly everywhere in the world, except for some traditional regions, and there are more and more extramarital unions in different variants and legal relations. Although it is significant, we are witnesses that this topic has been insufficiently touched upon in scientific research and has rarely been scientifically processed. In particular, the legal foundations of establishing a common life of extramarital partners in various shades of their manifestation have rarely been touched upon.

The subject of research in the doctoral dissertation represents an original research idea, significant for the development of the narrow scientific field of civil law, mainly the scientific disciplines of family law, social law, international private and international family law, and partly the law of obligations. In the continuation of this presentation, we provide a summary of the author's views on the property of extramarital partners in the family law of the Republic of Serbia.

Although the new Family Law of the Republic of Serbia (FL) almost entirely equalizes marital and extramarital unions concerning family and property relations, the law does not contain provisions detailing these relations for extramarital partners. This lack of detailed provisions in practice results in extramarital partners having to fulfill certain conditions for their property rights based on extramarital unions to be recognized, unlike marital partners. This is particularly evident concerning the acquisition and division of extramarital property and the enforcement of maintenance rights.

Regarding property rights, FL stipulates that property acquired by extramarital partners during the duration of their cohabitation constitutes shared property. It also states that the legal provisions regulating property relations between spouses apply to property relations between extramarital partners. By prescribing the application of FL provisions regulating property relations to extramarital partners, the legislature introduces a legal property regime for extramarital partners, allowing them to modify this regime through the conclusion of an agreement regulating their property relations concerning existing or future property.

According to Family Law, a marital agreement is a written agreement between spouses

or future spouses regulating their property relations concerning existing or future property. Based on existing legal regulations, extramarital partners can conclude an agreement to divide property acquired through joint work during the duration of their cohabitation without court proceedings. If no agreement is reached, the division of property acquired during the extramarital cohabitation would be decided by the court in a property dispute filed by one of the extramarital partners or their legal successors if one of the partners dies before filing a lawsuit, as the right to division of extramarital property is inheritable.

In such a dispute, the duration of the cohabitation is a relevant preliminary issue for the court's decision regarding the recognition of rights to the acquisition and division of extramarital property. Since each cohabitation of a man and a woman does not necessarily constitute an extramarital union under the Family Law, it is essential to establish with certainty its beginning and end. If the starting moment of the extramarital union is disputed, proving it in such a dispute would be much more complex than in the case of a marital union, which has legal presumptions related to the moment of marriage.

However, in the event of the termination of the extramarital union, proving it may not be more complex than proving the termination of the union of marital partners, which does not necessarily coincide with the termination of marriage. In both cases, the moment of the termination of the cohabitation of two individuals is relevant for the court's decision on the extent of their contribution to the acquisition and division of shared property.

The Family Law provides a legal framework for the relationships of extramarital partners. Within this legal framework, a distinction is made between shared property and separate property. According to Article 15, paragraph 1 of the Family Law, property acquired by extramarital partners during the duration of their cohabitation constitutes their shared property. Shared property in the property regulations of extramarital partners is characterized by the fact that the shares of extramarital partners in it are not predetermined.

Extramarital partners' rights extend to all property acquired during the duration of their cohabitation. Although the Family Law allows spouses or future spouses to regulate their property relations through a marital agreement and thereby exclude the application of the legal regime to existing or future property, such a possibility is not explicitly provided for extramarital partners who live in a long-term cohabitation and do not intend to marry.

We believe that such a legal solution does not hinder extramarital partners from regulating their property relations differently through such an agreement and excluding the application of the legal regime to property acquired during the duration of their extramarital union. In support of this view, the fact is that property relations of extramarital partners are equalized with the property relations of spouses according to the existing legal regulations.

To determine the concept of shared property of extramarital partners, according to the legal definition, two conditions must be met: a long-term cohabitation and joint work of extramarital partners. A long-term cohabitation constitutes an economic and factual community of life in which extramarital partners maintain a common household that takes into account the needs of spouses, family members, and other individuals living in the household.

The Family Law does not specify what constitutes a long-term cohabitation. It is a legal standard whose precise meaning and scope are determined by judicial practice. In a considerable number of court decisions, it is expressed that an extramarital union is defined as a long-term cohabitation of a man and a woman without marital impediments, lasting several years, with the birth of children in the union, or when the partners express their intention to establish a long-term cohabitation.

Since there are no appropriate registers for non-marital partnerships in which they would be recorded, when determining the property owned by a non-marital partner before the commencement of the non-marital

partnership, its beginning must be reliably established. If there is no agreement on this, the court will determine that moment in a dispute arising from the property relations of non-marital partners.

In addition to the more lasting life partnership, another condition for recognizing the right to contribute to the acquisition of joint property is the work of non-marital partners. Apart from work resulting in earnings, the maintenance of existing property or contribution to its increase is significant for the acquisition of joint property. In the regime of joint property, non-marital partners jointly manage and dispose of it by mutual agreement.

Based on all of the above, it can be concluded that in the legal system of the Republic of Serbia, the non-marital partnership is equated with marriage, primarily based on the Constitution and the Family Law, which regulate marriage and family relations and personal status of citizens. Non-marital partners can also exercise rights from social security, such as the right to family pension and the right to compensation for non-material damage in the event of the death or severe disability of a close person.

Outside of these cases, a non-marital partner is not equated with a spouse in inheritance law and in certain rights related to employment. The current Law on Inheritance does not include the non-marital partner in the circle of legal heirs, but such current legal solution does not exclude the possibility that in the future, considering societal trends, there may be a change in the legal regulation of this issue in terms of equalizing their inheritance rights. The same applies to other areas of legal regulation where the non-marital partnership is not equated with marriage.

The entire presented research material in the doctoral dissertation confirms the complexity of the research on Property Relations in Extramarital Unions in the Family Law of the Republic of Serbia, and proves the justification of the applied scientific methods, techniques and instruments in the research of the subject topic of the doctoral dissertation, which was one of the significant scientific and social goals in the preparation of the doctoral dissertation.

CRITERIA AND RULES FOR SUBMISSION OF AUTHOR'S PAPERS IN THE PUBLISHING PLAN OF THE MAGAZINE MB UNIVERSITY INTERNATIONAL REVIEW (MBUIR)

Article 1.

"MB University International Review - MBUIR" (further: Journal) is the journal of "MB" University.

The journal provides open access (Open Access) and applies Creative Commons (CC BY) copyright provisions. The magazine is of open type and its content is freely available to users and their institutions. Users may read, download, copy, distribute, print, search, or access the full text of the articles, as well as use them for any other legally permitted purposes without seeking prior permission from the publisher or author, provided that they cite scientifically correctly to the sources, which is in accordance with the definition of open access according to BOAI.

According to the classification of the Ministry of Science, Technological Development and Innovation of the Republic of Serbia, the magazine is classified in category M54 - a scientific magazine that is being categorized for the first time. It is referenced in the national database of scientific journals of the National Index and meets all the requirements of the conditions for editing scientific journals that are categorized for the first time.

Article 2.

The journal publishes the results of analytical, experimental, basic and applied, diagnostic, prognostic and futurological research from various narrow scientific areas of the social studies and humanities:

- Management and business
- Economy
- Political and legal sciences
- Information society
- Theory of visual art.

Article 3.

The journal is available in printed and electronic open access versions. It is published in English: two times a year according to the following dynamics:

- number 1 (Januar-Juli),
- number 2 (August-December).

Article 4.

In the journal MB UNIVERSITY INTERNATIONAL REVIEW, the following author's papers (hereinafter referred to as works) are published:

1. Scientific works according to the categories of the Ministry of Science of the Republic of Serbia - original scientific work, review work, short or previous announcement, scientific criticism, i.e. polemic and work in the form of a monographic study, and a critical edition of scientific material previously unknown or insufficiently accessible for scientific research, which have not been published and have not been simultaneously submitted to other journals for publication;
2. Professional papers - professional papers, i.e. contributions in which experiences useful for the improvement of professional practice are offered, but which are not necessarily based on the scientific method; informational contribution (editorial, commentary, etc.); presentation (of books, scientific conferences, computer programs, case studies and other public scientific conferences), as expert criticism, that is, polemics and reviews.

Article 5.

Papers from Article 1 are submitted to the Editorial Board of the Journal, written in English and proofread by a qualified person. References are cited in the original language and numbered in order of first appearance in the text. It is preferable that the references are not older than ten years, which depends on the subject of the work.

The text and graphics are prepared according to the Technical Instructions, which form an integral part of these Criteria and Rules.

Article 6.

The following rules apply to the works listed in Article 1 under point 1.

Papers are submitted with an abstract at the beginning of the text, in the length of 100 to 250 words or 10-15 lines and with 5 to 8 keywords. The abstract is translated into Serbian and becomes a summary.

The volume of work should be up to one author's sheet (about 30,000 characters, with white spaces). Due to the peculiarities of the scientific field or discipline from which the paper is written, there may be deviations in the scope, provided that the number of letters with white spaces is not less than 20,000 nor more than 45,000, which is resolved in agreement with the Editorial Board of the Journal. For particularly justified reasons (social importance of the topic, co-authorship of internationally recognized scientists, scientific discovery, etc.), the editorial staff of the journal may exceptionally allow the publication of an article of a larger volume, but not larger than 2.5 pages (75,000 characters).

Papers of a theoretical nature should have one author, exceptionally two, and papers of an empirical nature a maximum of three.

Article 7.

Papers from Article 1 under item 2 are submitted to the Editorial Board of the journal written in English in the length of 60 to 150 lines, with a description in Serbian of 100-250 words or 15 to 20 lines. These works are signed by one author.

Article 8.

All works that are the subject of these Criteria and rules are submitted to the Editorial Board of the Journal electronically to the e-mail address: mbuir@ppf.edu.rs.

A brief biography of the author of up to 10 lines, a personal photo of the size for an identity card and the following information about the author (or authors) in English must be submitted with the paper:

1. first name, middle initial, last name,
2. academic title - in Serbian and English,
3. affiliation – name and address of the institution (company), and for pensioners the name and address of the previous workplace,
4. email address,
5. year and place of birth,
6. mobile and landline phone numbers,
7. residential address.

The data listed in Article 5, under serial numbers 1, 3 and 4, along with the photo, are printed in the Journal and represent an electronic database.

Article 9.

Papers listed in Article 1 under item 1 of these Criteria and Rules are subject to review by two blind reviewers for a given scientific discipline.

The work is reviewed by two independent reviewers, to whom the text is submitted electronically without indicating the author's name. The reviewers submit their opinion to the Editorial Board of the Journal also electronically. The names of the reviewers are known exclusively to the Editorial Board of the Journal.

If the review is positive, the author is informed that the paper has been accepted for publication.

If, in the opinion of the reviewers, an intervention is needed in the work, the author is obliged to carry it out or to give up the request for publication of the work. This conclusion applies to all authors if the work is a joint work of authorship.

In the event that the reviewers do not agree on the assessment of the work, the Editorial Board of the Journal appoints a third reviewer (possibly several), whose opinion is delivered to the previous reviewers and the author without mentioning the names of the authors and reviewers. The final position is taken by the Editorial Board of the Journal based on the opinions of all reviewers.

Reviewers of the work are informed about the performed intervention.

In all cases from the previous paragraphs, the Editorial Board of the Journal is included.

Article 10.

In the scientific presentation of the author's works, the Journal will act in relation to socially responsible behavior, which implies non-acceptance of:

- works that do not rely on recognized scientific methodologies, and which are used in research (improvisations of scientific thought),
- general information, political and scientifically unfounded announcements and other texts that are not based on scientific research and analysis and have a weak basis in science,
- texts that shock and amuse the public quasi-scientifically, speculations in science and the like,

- texts that encourage religious, national, racial intolerance and gender inequality,
- review texts of textbook and manual content,
- generally of all texts that cannot withstand scientific criticism,
- texts that contain plagiarism or auto-plagiarism,
- texts in which other authors are insulted or attacked.

The views presented in this article form the basis for the evaluation of papers by reviewers and the Editorial Board of the journal. They are also the basis for the actions of the Editorial Board and the Journal Council.

Article 11.

Under equal conditions, according to these Criteria and rules, authors of works who are members of the Publishing Council, editorial board and reviewers of works in the journal have priority.

In case the work is classified in the group of priority scientific information (rapid communication), the Editorial Board will act according to the opinion of the reviewers.

Article 12

In case of a dispute that is not resolved between the author - the Journal's Editorial Board - the Editorial Board, the decision is made by the Journal's Publishing Council on the basis of these Criteria and rules.

Article 13.

Papers accepted for print and electronic presentation become the property of the Journal and may not be reprinted without the consent of the Editorial Board of the Journal.

The Publishing Council and the Editorial Board of the Journal are interested in the works published in the Journal being used for further publication with the indication of the publisher, volume, number and year of publication of the Journal, for which the future publisher is given written consent.

Article 14.

The author is obliged to sign a declaration that the work is not plagiarized, or contains self-plagiarism. The works will be checked and the Editorial Board of the Journal will act in accordance with the Law on the Protection of Copyright and Related Rights ("Official Gazette" No. 104/2009, 99/2011 and 119/2012, 29/2016 - decision of the Constitutional court and 66/2019).

Article 15

These Criteria and rules are a public document, they are published at the end of each issue of the journal and are applied by the Editorial Board and Editorial Board of the Journal from the day of publication on the journal's website.

The editorial board of the journal is obliged to inform each author and reviewer of the papers with these Criteria and rules.

1. Manuscript of the paper

The manuscript of the paper is submitted in electronic form (MS Word) in A4 format, font Times New Roman, size 12 pt for the text, including the abstract, without spacing. The paper is sent to the e-mail address: mbuir@ppf.edu.rs. A written statement by the author stating that the paper is an original paper (signed and scanned statement) is submitted with the paper. The condition for the paper to enter the review procedure is that it fully meets the technical criteria prescribed by this instruction. The paper must be proofread, i.e. must meet the spelling language standards of the English language.

2. Number of authors

The number of authors on one paper is limited to a maximum of three authors. Papers of a theoretical nature should have one author, exceptionally two, and papers of an empirical nature a maximum of three. Preference is given to articles written by only one or two authors (single author and co-authored paper).

3. Read language

The manuscript is submitted in English. If it is accepted, it will be published in the language in which it was submitted, with the obligation that the title and content of the summary at the end of the paper be in Serbian. Also, if the language of the paper is one of the world languages that is used in domestic or international communication in a given scientific field, and which is not English, the title and abstract must be in English.

4. Scope of paper

The article should have approximately 30,000 characters, including white space (1 author's page). It can be shorter or longer, provided that the number of characters with white spaces is not less than 20,000 or more than 45,000. For particularly justified reasons (social importance of the topic, co-authorship of internationally recognized scientists, scientific discovery, etc.), the editors can exceptionally allow the publication of an article of a larger volume, but not larger than 2.5 pages (75,000 characters).

5. Tables and formulas

Create tables exclusively with the table tool in the MS Word program. Tables must have titles and be numbered in Arabic numerals. Paper with formulas using the formula editor in MS Word.

6. Graphics and photographs

Graphic representations (pictures, graphs, drawings, etc.) and their descriptions should be treated as a separate paragraph with an empty line above and below. Drawings and photographs must have signatures, and all illustrations must be numbered with Arabic numerals, according to the order of appearance in the text.

Graphics in electronic form should be in one of the following formats: EPS, AI, CDR, TIF or JPG. If the author does not know or uses a specific program, it is necessary to agree on the format of the record with the technical editor of the journal. Graphics should not be drawn in MS Word! Photographs must be clear, contrasting and undamaged. It is not recommended that the author scan the images himself, but to leave this sensitive paper to the editors. If drawings and photographs are not included in the electronic version, they must be clearly marked where they should be placed. Labels in the text must match those in the attached images (or files).

7. Organization of the manuscript

The paper must contain the following elements, in the following order:

7.1. The title of the paper should describe the content of the article as faithfully as possible. The title of the paper should use words suitable for indexing and searching. If there are no such words in the title of the paper, it is preferable to add a subtitle to the title.

The running title is printed in the header of each page of the article for easy identification, especially copies of articles in electronic form.

7.2. Information about the author(s) and affiliation are listed below the title of the paper with the full name and surname of (all) authors, without the function and title of the author, which are not listed. The names and surnames of local authors are always written in their original form (with Serbian diacritical marks, diacritical marks of letters of world languages or diacritical marks of letters of national minorities and ethnic groups), regardless of the language of the paper. Along with the author's first and last name, the full (official) name and headquarters of the institution where the author is employed, and possibly also the name of the institution where the author conducted the research, is indicated. In complex organizations, the overall hierarchy of that organization is indicated (from the full registered name to the internal organizational unit). If there are more than one author, and some of them come from the same institution, it must be indicated, with special marks or in another way, from which of the mentioned institutions each one comes from. The e-mail address of the author must be specified. If there are more than one author, as a rule, only the address of one author, responsible for communication on the occasion, is given. For example: Name and surname, name of the institution where the author is employed (affiliation), e-mail address of the author.

7.3. A summary or abstract is a short informative presentation of the content of the article, which contains the aim of the research, the methods used, the main results and the conclusion. It is in the interest of the author that the abstracts contain terms that are often used for indexing and searching articles.

The summary or abstract should be in English, the same language as the paper itself. In terms of length, it should be 100 to 250 words or 10-15 lines and should be between the title of the paper and the keywords, followed by the text of the article.

In the narrower scientific disciplines of the social sciences and humanities for which the main subject of the journal is the abstract, the summary traditionally contains other elements, in accordance with the scientific heritage that the journal nurtures (the scientific area(s) to which the paper belongs, the social meaning of the paper, the importance of the research itself, etc.)

7.4. Keywords, list the terms or phrases that best describe the content of the article. It is allowed to specify 5-8 words or phrases.

7.5. The text of the article is the central part of the paper and represents the elaboration of the article in which the author, with the use of appropriate scientific apparatus, deals with a certain problem and the subject of the scientific paper. For articles in English, it is necessary for the author to provide qualified proofreading, i.e. grammatical and spelling correctness.

7.6. References, i.e. the list of used literature, should contain all the necessary data and should be cited according to APA style. The literature is cited in the original language and numbered with Arabic numbers in square brackets, in the order of first appearance in the text, with the note that the year of publication is placed immediately after the author's name, and at the end of citing an article in a journal or paper in a collection, the pages on which finds the cited paper, according to the examples shown below for citing references.

In the instructions for authors, we provide several examples of citing sources according to the type of reference:

- Books: surname (comma), first name (period), year of publication in parentheses (period), title in italics (period), place of publication (colon), publisher (comma), page number if the author wishes to state (period).

  [1] Đorđević, S., Mitić, M. (2000). *Diplomatsko i konzularno pravo*. Beograd: Službeni list SRJ, 56-58.

  [2] Đurković, M. (ured.) (2007). *Srbija 2000-2006: država, društvo, privreda*. Beograd: Institut za evropske studije.

  [3] Lukić, R. (2010). *Revizija u bankama* (4. izd.). Beograd: Centar za izdavačku delatnost Ekonomskog fakulteta.

  [4] Danilović, N., et al. (2016). *Statistika u istraživanju društvenih pojava*. Beograd: Zavod za udžbenike (ako je u knjizi broj autora veći od tri).

Note: Papers by the same author are listed in chronological order, and if several papers by the same author published in the same year are listed, the letters "a", "b", "c" etc. are added to the year of publication.

- Articles: surname (comma), first name (period), year of publication in parentheses (period), title of the article (period), title of journal in italics (comma), volume number and journal number in parentheses (comma), pages on which it is found article (period).

[1] Kennedy, C., Michael, B., Stephen, B. (1970). Police in Disasters. *Survival*, 6(2), 58–68.

[2] Mišić, M. (1. feb. 2012). Ju-Es stil smanjio gubitke. *Politika*, 11.

[3] Kennedy, C., et al. (1970). Police in Disasters. *Survival*, 6(2), 58–68. (if the number of authors of the journal article is more than three)

- Articles from the anthology: last name (comma), first name initial (period), year of publication in parentheses (period), article title (period), U or In (colon), editor's last name (comma), editor's first name (period), in parentheses office. or ed. (dot), the title of the proceedings in italics and in parentheses the pages on which the article is located (dot), place of publication (colon), publisher (dot).

[1] Radović, Z. (2007). Donošenje ustava. U: Đurković, M. (ured.). *Srbija 2000–2006: država, društvo, privreda* (27-38). Beograd: Institut za evropske studije.

[2] Brubaker, R. (2006). Civic and Ethnic Nationalism. In: Brubaker, R. (ed.). *Ethnicity without Groups* (132-147). Cambridge: Harvard UP.

[3] Danilovic, N., et. al. (2016). The Role of General Scientific Statistical Method in Futurology Research. In: Termiz, Dž. et al. (eds.). *Nauka i budućnost* (199-217). Beograd: Međunarodno udruženje metodologa društvenih nauka (if the number of authors of the anthology article and the number of editors of the anthology is more than three).

- Internet sources: surname (comma), first name (period), year of publication in parentheses (period), article title (period), journal name in italics (comma), pages on which the article is located (period), Downloaded from or Then the http address and the download date in parentheses.

[1] Hall, S. (1992). Th e Question of Cultural Identity. *Modernity and Its Futures*, 274-316. On http://www.library.auckland.ac.nz/ereserves/1224039b.pdf (February 25, 2023).

It is recommended that the references not be older than 10 years, depending on the topic of the paper

7.7. The summary (Summary) is given at the very end of the paper in Serbian, which can be the same as the summary (abstract) at the beginning of the paper, and it can be somewhat longer, but no more than 1 page.

7.8. The titles in the paper have different levels depending on the specific text, with the following marking method being used:

1. The first level of the title (centered, regular, bold, Arabic numerals)

1.1. Second level heading (centered, regular, no bold, Arabic numerals)

1.1.1. Third level heading (above the beginning of the paragraph, right-aligned, italics, Arabic numerals).

In case of ambiguity in labeling, authors are advised to consult previous issues of the journal or to contact the secretary or technical editor of the journal. The editors reserve the right to, depending on the specifics of the text, and in order to make it more transparent, edit the titles in a slightly different way, staying within the basic framework of the presented division of titles.

7.9. Citing, self-citing and referring to parts of other authors' texts is done in such a way that at the end of the quoted text, the sequence number of the reference from the bibliography is indicated in square brackets with a comma and the page number on which the text to which the author refers is located. Example: [32, p. 58].

If quoting or referring to information from the same page of the same reference cited in the previous footnote, only the Latin abbreviation Ibidem is used in square brackets. Example: [Ibidem].

If information from the paper cited in the previous footnote is cited or referred to, but from a different page, Ibid is cited, followed by a comma and the page number. Example: [Ibid, 54].

7.10. Acknowledgments are listed in a separate note, after the conclusion, and before the literature. The thank you note presents: the name and number of the project financed from the budget, that is, the name of the program within which the article was created, as well as the name of the scientific research organization and the ministry that financed the project or program. The thank you note can also contain other elements.

7.11. Editorial office address. - Papers are sent in electronic form to the following

e-mail address: mbuir@ppf.edu.rs

"MB University International Review".

Editorial office: "MB" University,

Drajzerova 27, 11000 Belgrade.

Editorial office phone: +381 64 65 970 39.

LIST OF PEER REVIEWERS FOR THE MB UNIVERSITY INTERNATIONAL REVIEW - MBUIR, 2025

1. Assistant professor Aleksić-Glišović Marijana, PhD, Faculty of Business and Law, MB University
2. Full professor Damnjanović Aleksandar, PhD, Faculty of Business and Law, MB University
3. Akademician, full professor Danilović Nedjo, PhD, Faculty of Business and Law, MB University
4. Associate Professor Suad Suljević, PhD, Faculty of Business and Law, MB University
5. Associate professor Ivković Ratko, PhD, Faculty of Business and Law, MB University
6. Associate Professor Despotović Danijela, PhD, faculty of Law Slobomir P. University
7. Full professor Jerotijević Dušan, PhD, Faculty of Business and Law, MB University
8. Full professor Jerotijević Zoran, PhD, Faculty of Business and Law, MB University
9. Associete professor Kostić Marija, PhD, Faculty of Business and Law, MB University
10. Full professor Stanojević Nataša, PhD, Institute for International Politics and Economy
11. Academician, full professor Krivokapić Boris, PhD, Faculty of Business and Law, MB University
12. Associate Professor Lazić Dragana, PhD, Faculty of Business and Law, MB University
13. Associate Professor Maksimović Snežana, PhD, Faculty of Business and Law, MB University
14. Full Professor Miladinović Bogavac Živanka, PhD, Faculty of Business and Law, MB University
15. Full professor Milanović Vesna, PhD, Faculty of Business and Law, MB University
16. Full professor Miletić Vesna, PhD, Faculty of Business and Law, MB University
17. Assistant professor Miljković Ljubomir, PhD, Faculty of Business and Law, MB University
18. Assistant professor Mirosavić Borivoje, PhD, Faculty of Business and Law, MB University
19. Full Professor Petar Palević, PhD, Faculty of Technical Sciences, University of Kosovo Mitrovica
20. Associate Professor Pešić Aleksandar, PhD, Faculty of Business and Law, MB University
21. Assistant professor Petrović Slobodan, PhD, Faculty of Business and Law, MB University
22. Professor emeritus Regodić Dušan, PhD, Faculty of Business and Law, MB University
23. Full professor Ristić Kristijan, PhD, Faculty of Business and Law, MB University
24. Full professor Đorđević Srđan, PhD, Faculty of Law, University of Kragujevac
25. Full professor Simić Nataša, PhD, Faculty of Business and Law, MB University
26. Full professor Stamatović Milan, PhD, Faculty of Business and Law, MB University
27. Full professor Stanković Sanja, PhD, Faculty of Business and Law, MB University
28. Full professor Stojanović Snežana, PhD, Faculty of Business and Law, MB University
29. Associate Professor Škunca Dubravka, PhD, Faculty of Business and Law, MB University
30. Associate Professor Trnavac Dragana, PhD, Faculty of Business and Law, MB University
31. Assistant professor Vasilkov Zorančo, PhD, Faculty of Business and Law, MB University
32. Assistant professor Vuković Jelena, PhD, Faculty of Business and Law, MB University
33. Associate Professor Paunović Marija, PhD, Faculty of Hotel Management, University of Kragujevac
34. Professor emeritus Kulić Mirko, PhD, Faculty of Law for Economy and Justice of the University of Economics Novi Sad
35. Full professor Rapajić Milan, PhD, Faculty of Law, University of Kragujevac
36. Assistant professor Todirović Vladimir, PhD, Faculty of Business and Law, MB University
37. Full professor Živanović Dragica, PhD, Faculty of Law, University of Kragujevac
38. Akademician Termiz Dževad, Faculty of Political Science University of Sarajevo, B&H
39. Full professor Tančić Dragan, PhD, Institute for Serbian Culture Pristina - Leposavić

40. Full professor Blagojević Srđan, PhD, Military Academy of the University of Defense
41. Full professor Gordić Miodrag, PhD, Faculty of Law and Business, University Union „Nikola Tesla“
42. Full professor Milašinović Srđan, PhD, Criminal Police Academy
43. Assistant professor Andrejević Tatjana, PhD, Andrejević Endowment
44. Associete professor Kuka Ermin, PhD, Faculty of Public Administration, University of Sarajevo, B&H
45. Full professor Halmi Aleksandar, PhD, Universiti of Zadar, Croatia
46. Full professor Terzijev Venelin, PhD, Military Academy of Trnovo, Bulgaria
47. Full professor Siniša Zarić, faculty of Economiy, University of Belgrade
48. Associete professor Vlaškalić Vesela, PhD, faculty of Economiy and Manegement, Slobomir P. University, Bijeljina, B&H
49. Senior research associate Ivankovik Ivana, PhD, Institute for Public Opinion Research - TIM Institute Skopje, North Macedonia
50. Full professor Manojlović Dragan, PhD, Faculty of Business and Law, MB University
51. Full professor Miloš Stanković, PhD, Faculty of Business and Law, MB University
52. Full professor Snežana Mihajlov, PhD, Faculty of Business and Law, MB University
53. Asisstant professor Zorić Nebojša, PhD, Faculty of Business and Law, MB University
54. Full Professor Palević Milan, PhD, Faculty of Law, University of Kragujevac.
55. Associate Professor in the spring Borivoje Milošević, PhD, Niš
56. Associate Professor Vujević Vuk, PhD, Faculty of Business and Law, MB University.
57. Asisstent Professor Nikolić Dejan, PhD, Faculty of Business and Law, MB University.
58. Research Assistant Dabetić Marina, PhD, Vinča Institute of Nuclear Sciences - Institute of National Importance for the Republic of Serbia, University of Belgrade
59. Assistant professor, Jadranka Galeva, PhD, Faculty of Law, Goce Delcev University at Stip
60. Full Professor Stamenković Negovan, PhD, Faculty of Technical Sciences, University of Kosovo Mitrovica.

CIP - Каталогизација у публикацији
Народна библиотека Србије, Београд

347.7

MB University International Review : MBUIR : journal of Theory and Practice / editor in chief Živanka Miladinović Bogavac. - [Štampano izd.]. - Vol. 1, no. 1 (2023)-. - Belgrade : Faculty of Business and Law, University of MB, 2023- (Belgrade : Planeta print). - 30 cm

Polugodišnje. - Drugo izdanje na drugom medijumu: MBUIR. MB University International Review (Online) = ISSN 2956-249X
ISSN 2956-2406 = MBUIR. MB University International Review
COBISS.SR-ID 118970633