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FOREWORD

Vol. 10 No. 4 (2024)

Dear Readers,

The editorial board of Politics & Security is pleased to present Volume 10, Issue 4 (2024), a collection of scholarly contributions that reflect the increasingly complex and dynamic nature of global and national security in the contemporary world. The present issue gathers interdisciplinary perspectives that address urgent challenges—from terrorism financing and digital manipulation to strategic modernization and the socio-political effects of forced migration.

The issue opens with an in-depth exploration of terror financing in Nigeria, a state navigating the tensions of multiculturalism and transitional governance. The author, Prof. Ngboawaji Daniel Nte, presents a compelling case for integrated institutional responses that address the root causes of extremist funding networks, corruption, and regulatory weakness. This is followed by a profound and timely reflection from Dr. Birgitta Dresch-Langley, who critically examines how artificial intelligence and manipulative digital architectures undermine mental autonomy and human rights, particularly among the youth.

In the section on defence and technological modernization, we feature two critical contributions that examine national preparedness through industrial development and technological infrastructure. The comprehensive article by Dr. Anna Chochowska, Prof. Krzysztof Chochowski, Dr. Anna Zych, and Prof. Igor Britchenko outlines the strategic direction of Poland's defence industry, financing models, and the institutional framework behind military modernization. In parallel, Kostadin Yazov's work provides a theoretical foundation for understanding the growing importance of decision support systems in managing the uncertainties and complexities of modern security environments.

The issue concludes with a significant and data-driven article by Prof. Bartosz Kozicki and Dr. Bartosz Błaszczak, who analyze the impact of Ukrainian war migration on Poland's educational system. Through comparative multidimensional analysis, the authors identify regional trends, demographic shifts, and policy implications for long-term human security and educational planning.

Taken together, these articles not only provide deep insight into the varied dimensions of security—from defence industries and public health to digital autonomy and regional migration—but also contribute to a broader scholarly discourse aimed at shaping informed policy and strategic resilience.

In a time when the boundaries between physical, digital, and psychological domains of security are increasingly blurred, the editorial team remains committed to supporting academic dialogue and evidence-based analysis. We are grateful to all contributors, reviewers, and readers for their continued engagement with Politics & Security.

Igor Britchenko

Editor-in-Chief

Politics & Security

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TERROR FINANCING IN A MULTICULTURAL AND TRANSITIONAL DEMOCRACY: EVIDENCE FROM NIGERIA

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Abstract: *This paper is a modest but valid examination of the intricate web of the phenomenon of terror financing in Nigeria – a country that has an interesting mosaic of multicultural and transitional democracy. Relying extensively on a mixed-methods approach, the study navigated the nebulous sources, routes and modus operandi of terror financing in the country. The findings of the study clearly showed that terror financing in Nigeria is situated within the ambit of pervasive corruption, money laundering, informal financial systems, multiculturalism and religious bigotry and dynamics, and indeed post-colonial historical vestiges and grievances. The study also identified magnified vulnerabilities and lacuna in the nation's financial institutional regulatory framework and enforcement capacities. Consequently, the study therefore stressed the urgent need for a comprehensive and implementable approach to attenuate terror financing in Nigeria. Some of these recommendations include; overhauling and fortifying the entire regulatory frameworks, vigorous and concerted international and multilateral cooperation, re-orientation aimed at addressing socio-cultural and extreme religious narratives that accentuate violence and crime. Finally, the study also advocated for aggressive steps to ensure rapid economic development, social welfare, inclusion and the general wellbeing of the entire citizenry.*

Keywords: Terror Financing; Multicultural; Transitional; Democracy, Nigeria

INTRODUCTION

Terror financing remains one of the most challenging and critical issues in global security, especially in transitional democracies like Nigeria. The intricate network of terror financing in such contexts often intertwines with socio-political dynamics, making it a multifaceted problem that requires nuanced analysis. In Nigeria, a nation characterized by its rich cultural diversity and ongoing democratic transitions, the complexities of terror financing are exacerbated by systemic vulnerabilities and socio-political factors (Aliyu, 2020).

Nigeria's experience with terror financing is notably influenced by its diverse ethnic and religious composition. The country has been grappling with terror organizations such as Boko Haram and Islamic State West Africa Province (ISWAP), which have exploited existing vulnerabilities in the financial system to sustain their operations (Eze, 2021). The funding mechanisms of these groups are not just confined to traditional methods like donations and state sponsorship but also involve sophisticated channels such as money laundering, informal financial networks, and illicit trade (Okafor & Nwankwo, 2022).

The interplay between cultural and religious dynamics adds another layer of complexity. For instance, certain cultural practices and religious ideologies have been manipulated to justify or support terrorism, creating a challenging environment for counter-terrorism efforts (Ogunyemi, 2019).

Furthermore, historical grievances and socio-economic disparities have contributed to the proliferation of terror groups, as they often exploit these conditions to recruit and radicalize individuals (Ibrahim, 2023).

This paper aims to provide a comprehensive examination of terror financing within Nigeria's unique context by employing a mixed-methods approach. The research seeks to understand the sources, channels, and modalities of terror financing, and identify the vulnerabilities within Nigeria's financial regulatory framework (Adamu, 2022). By integrating both qualitative and quantitative data, this study intends to offer a holistic view of how terror financing operates in a multicultural and transitional democracy like Nigeria.

RESEARCH PROBLEM AND OBJECTIVES

Understanding the problem of terror financing in Nigeria requires an exploration of how various factors contribute to its persistence. Corruption within both public and private sectors plays a significant role in facilitating the flow of funds to terrorist organizations. Money laundering practices further obscure the origins of these funds, making it difficult for regulatory bodies to trace and intercept them (Nwogugu, 2020). Informal financial systems, often used by marginalized communities, provide another avenue for these illicit activities (Onuoha, 2021).

The objectives of this study are twofold. First, it seeks to map out the primary sources and channels through which terror organizations receive and manage their funds. Second, it aims to identify gaps in the current regulatory frameworks and enforcement mechanisms that allow these activities to flourish. By achieving these objectives, the research will contribute to the formulation of more effective counter-terrorism strategies and policies tailored to the Nigerian context.

RESEARCH QUESTIONS

The study is guided by the following research questions:

1. What are the primary sources of terror financing in Nigeria, and how do they operate?
2. Through what channels and modalities do terror organizations transfer and utilize funds in Nigeria?
3. How do cultural and religious dynamics influence terror financing in Nigeria?
4. What are the weaknesses in Nigeria's financial regulatory framework that facilitate terror financing?
5. How can international cooperation and domestic policies be improved to address these vulnerabilities?

REVIEW OF RELATED LITERATURE

Terror Financing: Overview Of Theories And Models

Terror financing remains a critical concern for global security, involving the flow of financial resources to support acts of terrorism. Understanding the theories and models related to terror financing is essential for developing effective countermeasures. This overview explores key theoretical frameworks and models, providing insights into how funds are sourced, managed, and utilized in the context of terrorism.

Theoretical Frameworks on Terror Financing

a. The Financial Motivations Theory

The Financial Motivations Theory posits that terrorism is often funded through financial incentives and economic motivations (Abadie & Gardeazabal, 2008). According to this theory, terrorist organizations are driven by the need for financial resources to sustain their operations. This perspective aligns with the rational choice theory, which suggests that individuals or groups engage in terrorism when the perceived

benefits outweigh the costs (Enders & Sandler, 2006). Financial motivations can include direct funding from donors, state sponsorship, or illicit activities.

b. The Political Economy Approach

The Political Economy Approach emphasizes the role of economic factors in facilitating terrorism. This approach examines how economic deprivation, unemployment, and income inequality contribute to the recruitment and radicalization of individuals (Krueger & Malečková, 2003). The theory argues that economic hardship creates fertile ground for extremist ideologies, making individuals more susceptible to terrorist recruitment. Additionally, the model highlights the role of state and non-state actors in providing financial support to terrorist groups to advance political objectives.

c. The Resource-Based View

The Resource-Based View (RBV) focuses on the internal capabilities and resources of terrorist organizations. This theory argues that the ability of terrorist groups to finance their activities depends on their access to and control over valuable resources (Morrison, 2006). Resources can include financial assets, logistical support, and human capital. The RBV model suggests that organizations with greater resources are better equipped to execute sophisticated attacks and sustain long-term operations. This perspective underscores the importance of disrupting resource flows to hinder terrorist activities.

d. The Network Theory

Network Theory examines the role of social networks in the financing of terrorism. This approach highlights how terrorist organizations leverage informal networks, such as family ties, religious communities, and criminal organizations, to raise and move funds (Morse, 2007). Networks facilitate the transfer of money through various channels, including hawalas (informal money transfer systems) and cash couriers. The theory emphasizes the need for comprehensive monitoring of these networks to disrupt financial flows to terrorist groups.

e. The Hybrid Model

The Hybrid Model integrates elements from multiple theories to provide a comprehensive understanding of terror financing. This model combines insights from financial motivations, political economy, resource-based view, and network theory to explain the complex nature of terror financing (Choi & James, 2008). The Hybrid Model recognizes that terrorism financing involves a mix of economic, political, and social factors, and that effective counter-terrorism strategies must address these diverse influences.

FINANCIAL CHANNELS AND MODALITIES

i. Formal Financial Systems

Terrorist organizations often exploit formal financial systems to move funds. This includes banking institutions, investment companies, and financial markets. By using legitimate financial channels, terrorists can obscure the origins of their funds and avoid detection (Schott, 2005). Techniques such as layering (complex financial transactions to disguise the source of funds) and integration (reintroducing laundered money into the economy) are commonly used to conceal the flow of money.

ii. Informal Financial Systems

Informal financial systems, such as hawalas and underground banking networks, are frequently used by terrorists to transfer funds across borders. These systems operate outside traditional financial regulations, making them difficult to monitor and control (Ritter, 2009). Hawalas, in particular, rely on trust and personal relationships, allowing for rapid and discrete transfers of money. While these systems facilitate financial transactions, they also present significant challenges for law enforcement and regulatory agencies.

iii. Illicit Activities

Terrorist organizations engage in various illicit activities to generate revenue. These activities include drug trafficking, arms smuggling, human trafficking, and extortion (Levi & Reuter, 2006). The proceeds from these activities are often used to finance terrorist operations and recruit new members. By diversifying their revenue streams, terrorist groups can maintain financial stability and sustain their activities over time.

VULNERABILITIES AND COUNTERMEASURES

a. Regulatory Frameworks

Effective counter-terrorism strategies require robust regulatory frameworks to detect and prevent terror financing. Financial institutions and regulatory bodies play a crucial role in monitoring transactions, identifying suspicious activities, and enforcing anti-money laundering (AML) and counter-terrorism financing (CTF) regulations (FATF, 2012). However, vulnerabilities exist within regulatory frameworks, including inadequate enforcement, lack of coordination among agencies, and gaps in international cooperation.

b. International Cooperation

Given the transnational nature of terrorism financing, international cooperation is essential for addressing the issue. Collaborative efforts between countries, such as information sharing, joint investigations, and mutual legal assistance, enhance the effectiveness of counter-terrorism measures (UNODC, 2013). International organizations, including the Financial Action Task Force (FATF) and the United Nations, play a key role in promoting global standards and facilitating cooperation among member states.

c. Addressing Cultural and Religious Narratives

Cultural and religious narratives can perpetuate violence and contribute to terror financing. Terrorist groups often exploit religious or ideological beliefs to justify their actions and recruit supporters (Mendelsohn, 2009). Addressing these narratives requires a comprehensive approach that includes promoting tolerance, countering extremist propaganda, and engaging with community leaders to challenge violent ideologies.

The study of terror financing theories and models provides valuable insights into the mechanisms and dynamics of financial support for terrorism. By examining financial motivations, political economy factors, resource capabilities, social networks, and hybrid models, researchers and policymakers can develop more effective strategies to combat terror financing. Strengthening regulatory frameworks, enhancing international cooperation, and addressing cultural and religious narratives are critical components of a comprehensive approach to countering terrorism.

NIGERIA'S CONTEXT: EXISTING RESEARCH ON FINANCIAL SYSTEMS, POLITICAL ENVIRONMENT, AND SOCIO-CULTURAL FACTORS

Nigeria, as Africa's most populous country, presents a unique and complex landscape in terms of its financial systems, political environment, and socio-cultural dynamics. Understanding these elements is crucial for analysing the phenomenon of terror financing within the country. This section reviews existing research to provide a comprehensive overview of these aspects and their interplay in Nigeria's context.

FINANCIAL SYSTEMS IN NIGERIA

i. Structure and Function of Nigeria's Financial System

Nigeria's financial system is characterized by a diverse range of institutions and markets, including commercial banks, microfinance banks, insurance companies, and capital markets. The Central Bank of Nigeria (CBN) plays a pivotal role in regulating and supervising these institutions (Central Bank of Nigeria,

2020). Research indicates that Nigeria's financial system is complex, with significant challenges including inefficiencies, regulatory gaps, and a high level of informality (Bekaert et al., 2016).

Commercial banks dominate the financial sector, providing essential services such as deposit-taking, lending, and financial intermediation. However, studies highlight persistent issues such as poor infrastructure, high transaction costs, and limited access to financial services, particularly in rural areas (Adekanye, 2018). The growth of fintech and mobile banking has introduced new opportunities but also new risks, including cybersecurity threats and regulatory challenges (Folawewo & Osabohien, 2020).

ii. Money Laundering and Financial Crime

Nigeria's financial system has been plagued by issues related to money laundering and financial crime. Research indicates that money laundering is facilitated by both formal and informal financial systems, including the use of hawala networks and other informal money transfer mechanisms (Folawewo & Osabohien, 2020). The effectiveness of anti-money laundering (AML) regulations has been a subject of scrutiny, with studies suggesting that enforcement is often weak due to corruption and institutional inefficiencies (Afolabi, 2021).

The Financial Action Task Force (FATF) and other international bodies have highlighted Nigeria's vulnerabilities to financial crime, prompting efforts to strengthen the country's AML and counter-terrorism financing (CTF) frameworks. Despite these efforts, challenges remain in implementing and enforcing effective measures (FATF, 2012).

POLITICAL ENVIRONMENT IN NIGERIA

a. Governance and Corruption

Nigeria's political environment is marked by a history of instability, corruption, and governance challenges. Research highlights that corruption is a major impediment to effective governance and economic development (Olaniyan & Ojo, 2019). Corruption has permeated various levels of government and public institutions, undermining efforts to combat terror financing and other forms of financial crime (Ibrahim, 2020).

The political landscape in Nigeria is characterized by a high degree of fragmentation, with various ethnic and political groups competing for power and resources. This fragmentation often leads to political instability and impedes cohesive policy implementation (Suberu, 2019). Studies suggest that the political environment in Nigeria creates opportunities for terrorist organizations to exploit governance gaps and weaknesses (Ezeani, 2021).

b. Security Challenges and State Response

The security situation in Nigeria has been significantly affected by the activities of terrorist groups such as Boko Haram and ISIS-West Africa. Research indicates that these groups have exploited security vulnerabilities to finance their operations through illicit activities and state sponsorship (Ukiwo, 2020). The Nigerian government's response has included both military and non-military strategies, but effectiveness has been hampered by logistical challenges, corruption, and insufficient coordination among security agencies (Okpara, 2021).

Efforts to address terrorism financing have included regulatory reforms and increased international cooperation. However, challenges such as inadequate resources, lack of technical expertise, and political interference continue to undermine these efforts (Hassan & Zubair, 2021).

SOCIO-CULTURAL FACTORS

a. Ethnic and Religious Diversity

Nigeria's ethnic and religious diversity plays a significant role in shaping its socio-cultural landscape. The country is home to over 250 ethnic groups and multiple religious' communities, including Islam, Christianity, and indigenous beliefs (Akinwale, 2018). This diversity has often been a source of social tension and conflict, contributing to the complex dynamics of terrorism and terror financing (Ojo, 2019).

Research suggests that ethnic and religious identities can both contribute to and mitigate the risks of radicalization and extremist behavior (Ibrahim & Bako, 2020). For instance, religious radicalization in the northern region of Nigeria has been linked to both socio-economic grievances and ideological motivations (Ezeani, 2021). Addressing these socio-cultural factors requires a nuanced understanding of local dynamics and targeted interventions that promote social cohesion and tolerance (Ogunleye, 2020).

c. Economic Inequality and Social Exclusion

Economic inequality and social exclusion are significant drivers of radicalization and terrorism in Nigeria. Studies indicate that high levels of poverty, unemployment, and inequality create fertile ground for extremist ideologies and recruitment by terrorist groups (Dike, 2018). Economic marginalization, particularly in the northern regions, has been associated with higher susceptibility to radicalization and participation in terrorist activities (Bashir, 2019).

Efforts to address these socio-economic challenges include various government and non-governmental initiatives aimed at promoting economic development, social inclusion, and educational opportunities. However, research highlights that these efforts often face significant obstacles, including inadequate funding, poor implementation, and political interference (Edozie, 2021).

Nigeria's financial systems, political environment, and socio-cultural factors are deeply interconnected and play a crucial role in the dynamics of terror financing. Existing research highlights the complexities and challenges inherent in each of these areas, from financial system inefficiencies and corruption to political instability and socio-economic disparities. A comprehensive understanding of these factors is essential for developing effective strategies to combat terror financing and address the underlying drivers of terrorism in Nigeria.

GAPS IN RESEARCH

The issue of terror financing within the context of Nigeria's multicultural and transitional democracy has been the subject of increasing scrutiny. However, existing literature reveals several gaps that this study aims to address. Firstly, while there is substantial research on terror financing globally, few studies have explicitly focused on the specific challenges faced by transitional democracies with diverse cultural and religious landscapes, such as Nigeria (Schmid, 2015). Most research tends to generalize terror financing mechanisms without considering the unique socio-political and economic nuances that influence these processes in Nigeria (Fink & Zeitzoff, 2019).

Moreover, previous studies have often concentrated on either the economic aspects of terror financing or the socio-cultural factors separately, without integrating these elements into a cohesive analysis. For instance, while there is considerable research on the role of corruption and money laundering in financing terrorism (Sullivan, 2017; Williams, 2018), few studies have examined how these financial practices interact with cultural and religious dynamics in the context of a transitional democracy (Dreazen, 2019). This disjunction leaves a significant gap in understanding the multi-faceted nature of terror financing in Nigeria, where economic, cultural, and political elements are deeply interwoven.

Another gap is the lack of detailed analysis of the regulatory frameworks in transitional democracies. Existing research often overlooks the specific vulnerabilities and limitations of financial regulatory systems in such contexts (Wright, 2020). While there is extensive literature on financial regulations in stable democracies and developed countries (Fischer, 2019; Hardy & Yadav, 2021), there is a dearth of studies exploring how these regulations perform in environments undergoing significant political and social changes, such as Nigeria.

Additionally, the role of informal financial systems in terror financing has not been adequately explored in the context of Nigeria's diverse economic practices. Informal financial systems, including hawala and other alternative money transfer systems, play a crucial role in terror financing, yet their operation within Nigeria's specific socio-economic and cultural setting remains under-researched (Tucker, 2021). The interplay between informal financial systems and formal regulatory mechanisms presents a critical area for further investigation.

CONTRIBUTION TO KNOWLEDGE

This study aims to address these gaps by providing a comprehensive analysis of terror financing mechanisms within the unique context of Nigeria. By employing a mixed-methods approach, this research integrates both qualitative and quantitative data to offer a nuanced understanding of how various factors contribute to terror financing. This approach allows for a more holistic examination of the sources, channels, and modalities of terror financing in Nigeria, capturing the complex interplay between economic, cultural, and political elements.

One significant contribution of this study is the exploration of the interaction between corruption, money laundering, and cultural and religious factors. By examining how these elements intersect, the study sheds light on the multi-dimensional nature of terror financing in Nigeria. This integrated analysis provides valuable insights into how cultural and religious narratives can influence financial practices and, consequently, terror financing. Such insights are crucial for developing targeted interventions that address not only the economic but also the socio-cultural drivers of terrorism (Miller, 2022).

Furthermore, this research contributes to the understanding of regulatory frameworks in transitional democracies by highlighting specific vulnerabilities and limitations. The study offers a detailed assessment of Nigeria's financial regulatory system, identifying gaps and suggesting improvements tailored to the unique challenges of a transitional democracy. This contribution is essential for policymakers and practitioners working to enhance the effectiveness of financial regulations in similar contexts (Jackson & Schuler, 2020).

The investigation of informal financial systems also represents a significant contribution to the literature. By focusing on the role of informal money transfer systems in terror financing, the study provides new insights into how these systems operate within Nigeria's socio-economic and cultural landscape. This understanding is critical for developing comprehensive strategies to address the challenges posed by informal financial practices (Nguyen & Miller, 2023).

In addition, the study's findings emphasize the need for a multi-faceted approach to combating terror financing. By advocating for strengthened regulatory frameworks, enhanced international cooperation, and targeted socio-economic interventions, the research provides practical recommendations that can inform policy and practice. These recommendations are based on a thorough analysis of the specific challenges faced by Nigeria and are designed to address both the immediate and underlying factors contributing to terror financing (Johnson & Davis, 2024).

Overall, this study makes a valuable contribution to the field by bridging existing gaps and providing a comprehensive analysis of terror financing in Nigeria's multicultural and transitional context. It offers new insights into the interplay between various factors influencing terror financing and provides actionable recommendations for addressing these challenges. The research not only advances academic understanding but also has practical implications for policymakers, practitioners, and stakeholders involved in counter-terrorism efforts.

RESEARCH METHODS

Research Design

This study employs a mixed-methods approach to comprehensively investigate terror financing in Nigeria, integrating both qualitative and quantitative data to offer a multifaceted understanding of the phenomenon. A mixed-methods design allows for a robust analysis by combining the depth of qualitative insights with the breadth of quantitative data, thus addressing the complex nature of terror financing in a multicultural and transitional democracy (Creswell & Creswell, 2017).

Data Collection

The data collection process involved two primary methods: qualitative interviews and quantitative surveys, alongside the analysis of secondary financial data.

- **Qualitative Methods:** Qualitative data was collected through semi-structured interviews and focus groups with key stakeholders, including financial experts, government officials, and representatives from non-governmental organizations (NGOs) involved in counter-terrorism efforts. These interviews provided nuanced insights into the sources, channels, and modalities of terror financing specific to Nigeria (Yin, 2018). Additionally, focus groups were conducted with community leaders to understand the impact of cultural and religious factors on terror financing.
- **Quantitative Methods:** Quantitative data was gathered through surveys distributed to a broader sample of financial institutions and regulatory bodies. The surveys aimed to collect information on the prevalence and methods of money laundering and informal financial transactions linked to terror financing. Statistical analysis was performed on the survey responses to identify patterns and correlations (Field, 2018).
- **Secondary Data Analysis:** In addition to primary data, secondary data sources, including financial reports, government publications, and previous research studies, were analysed to complement the findings from qualitative and quantitative methods. This approach helped in triangulating the data and validating the results (Saunders, Lewis, & Thornhill, 2019).

Data Analysis

Qualitative data were analysed using thematic analysis, which involved coding the interview transcripts and focus group discussions to identify recurring themes and patterns related to terror financing (Braun & Clarke, 2006). Quantitative data were analysed using statistical methods, including descriptive statistics and correlation analysis, to determine the relationships between different variables and the extent of terror financing activities (Pallant, 2020).

Limitations

This study acknowledges several limitations. The reliance on self-reported data from interviews and surveys may introduce biases, as respondents might underreport or exaggerate certain aspects of terror financing (Bryman, 2016). Additionally, the availability and accuracy of secondary data can vary, potentially impacting the comprehensiveness of the analysis.

RESULTS, FINDINGS AND DISCUSSIONS

Sources and Channels of Terror Financing in Nigeria

Sources of Terror Financing

Corruption

Corruption is a significant source of terror financing in Nigeria, deeply embedded in both public and private sectors. The misappropriation of government funds, embezzlement, and bribery create a fertile ground for terrorists to acquire financial resources. For instance, funds intended for infrastructure development or social programs are often siphoned off by corrupt officials, creating a pool of illicit funds

that can be diverted to support terror activities (Eisenman & Rupp, 2022). The Nigerian government's anti-corruption campaigns have yielded limited success, and corruption continues to undermine financial stability and security (Amnesty International, 2023).

Table 1: Examples of Corruption-related Terror Financing in Nigeria

Case	Description	Source of Funds	Use of Funds
Embezzlement in NDDC	Diversion of funds from the Niger Delta Development Commission (NDDC)	Government Contracts	Armed groups' operational costs
Police Bribery	Payments made to corrupt police officers	Bribes from illegal activities	Terror group logistics
Misallocation of Aid	Redirection of humanitarian aid	Aid organizations' funds	Terrorist support and recruitment

Money Laundering

Money laundering is another critical source of terror financing, facilitating the concealment of illicit funds. In Nigeria, the process involves moving money through various channels to obscure its origin, often utilizing shell companies, offshore accounts, and complex financial transactions (Ogunleye, 2021). Money laundering enables terrorist organizations to integrate illicit funds into the legitimate economy, making detection and prosecution more challenging. The use of hawala systems, informal value transfer systems that operate outside traditional banking channels, also plays a significant role in money laundering activities (Nigerian Financial Intelligence Unit [NFIU], 2023).

Table 2: Money Laundering Techniques Used in Terror Financing

Technique	Description	Examples	Impact
Shell Companies	Front companies used to launder money	Fake businesses registered in offshore jurisdictions	Concealment of financial transactions
Offshore Accounts	Accounts in foreign banks used to hide funds	Accounts in tax havens like the Cayman Islands	Difficulty in tracing funds
Hawala Systems	Informal money transfer systems	Transfers made through informal networks	Evasion of formal financial systems

Informal Financial Systems

Informal financial systems, such as hawala and other community-based money transfer systems, are integral to terror financing in Nigeria. These systems operate outside conventional banking regulations and are often used to transfer money discreetly (Obi, 2020). Terrorist organizations exploit these systems due to their lack of formal oversight and regulation. The ease of setting up and operating such informal networks makes them a preferred choice for moving funds to support terror activities (Adamu & Sulaimon, 2022).

Table 3: Informal Financial Systems in Terror Financing

System	Description	Example	Role in Terror Financing
Hawala	Traditional money transfer system based on trust	Transfers between Nigeria and neighbouring countries	Conceals origin and destination of funds
Community Savings Groups	Local saving and lending groups	Rotating savings and credit associations (ROSCAs)	Facilitate covert transfers and investments

Channels and Modalities of Terror Financing

Fund Transfers

Funds are transferred through a variety of channels to support terrorist activities. One common method is the use of cross-border money transfers. Terrorist organizations often use international money transfer services, both formal and informal, to move funds across borders. The lack of stringent regulations

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in some countries facilitates these transfers, allowing terrorists to operate with relative ease (Lopes, 2023).

Table 4: Channels for Cross-Border Money Transfers

Channel	Description	Usage in Terror Financing
Formal Money Transfer Services	Licensed financial institutions facilitating international transfers	Used to transfer large sums discreetly
Informal Channels	Unregulated and traditional methods like hawala	Transfers between individuals and groups

Utilization of Funds

Once acquired, the funds are utilized in various ways to support terrorism. This includes purchasing weapons, funding training camps, and supporting recruitment efforts. Terrorist groups also invest in infrastructure and logistics to sustain their operations. The funds enable them to purchase arms and equipment, pay for operational expenses, and provide financial incentives to recruits (Nigerian Army, 2024).

Table 5: Utilization of Funds in Terrorist Activities

Purpose	Description	Examples	Impact
Weapons Acquisition	Buying arms and ammunition	Purchase of AK-47s, explosives	Enhances operational capabilities
Training Camps	Establishing facilities for terrorist training	Camps in remote areas	Prepares recruits for combat
Recruitment	Financial incentives to attract and retain recruits	Salaries, bonuses	Increases manpower and operational reach

Vulnerabilities in Financial Regulation

The regulatory framework in Nigeria exhibits significant vulnerabilities that facilitate terror financing. The effectiveness of financial regulations is undermined by weaknesses in enforcement and oversight. Regulatory bodies often lack the resources and authority to fully implement anti-terrorism financing measures (World Bank, 2023). Additionally, the integration of informal financial systems into the economy poses challenges for monitoring and regulation (UNODC, 2022).

Table 6: Vulnerabilities in Financial Regulation

Vulnerability	Description	Impact on Terror Financing
Insufficient Resources	Lack of financial and human resources in regulatory bodies	Reduced effectiveness in monitoring and enforcement
Weak Enforcement	Limited capacity to enforce existing regulations	Easier for terrorists to evade detection
Integration of Informal Systems	Limited oversight of informal financial systems	Challenges in tracking illicit funds

CULTURAL AND RELIGIOUS DYNAMICS: IMPACT OF CULTURAL AND RELIGIOUS FACTORS ON TERROR FINANCING

Cultural and religious dynamics play a critical role in shaping various socio-political phenomena, including terror financing. In Nigeria, a country characterized by its rich ethnic diversity and religious plurality, these dynamics significantly influence the mechanisms and patterns of terror financing. This section explores how cultural and religious factors contribute to the perpetuation of terror financing and examines their implications for counter-terrorism strategies.

Influence of Religious Extremism

Religious extremism is a key factor driving terror financing in Nigeria. Extremist groups often exploit religious sentiments to gain support and funding. For instance, Boko Haram, an Islamist militant group, has capitalized on extremist interpretations of Islam to justify its violent activities and attract financial contributions from sympathizers (Akinola, 2020). The group's use of religious rhetoric not only facilitates recruitment but also aids in securing financial resources from individuals and groups who share their extremist views.

Table 1: Religious Groups and Terror Financing in Nigeria

Group	Extremist Ideology	Source of Funding
Boko Haram	Radical Islamism	Donations from extremist sympathizers, kidnappings for ransom
ISWAP	Islamic State ideology	International donations, local extortion activities
Fulani Militias	Ethnic-religious grievances	Cattle rustling, local extortion

The influence of religious extremism on terror financing is further compounded by the existence of informal financial systems and networks. In regions where formal financial institutions are scarce, informal systems like hawala are often used to transfer funds discreetly, making it difficult for authorities to trace and disrupt financial flows (Oloyede, 2021).

Cultural Factors and Terror Financing

Cultural factors, including ethnic divisions and socio-economic disparities, also contribute to terror financing. Nigeria's ethnic diversity, coupled with historical tensions between different groups, creates a fertile ground for terrorist organizations to exploit grievances and gain support. For example, the Fulani herdsman and their associated militias have leveraged ethnic tensions and economic marginalization to justify their violent actions and secure financial support (Smith & Johnson, 2022).

Table 2: Cultural Dynamics Influencing Terror Financing

Cultural Factor	Impact on Terror Financing
Ethnic Tensions	Exploitation of ethnic grievances to garner support
Socio-economic Disparities	Marginalization leading to recruitment and funding
Informal Financial Systems	Use of unregulated channels for transferring funds

The interplay between cultural dynamics and terror financing is evident in the ways terrorist groups leverage local conflicts and grievances to mobilize resources. These groups often exploit existing ethnic and cultural rifts to further their agendas, thereby perpetuating cycles of violence and financial support (Adamu, 2019).

Addressing Cultural and Religious Factors

To address the impact of cultural and religious dynamics on terror financing, a multi-faceted approach is required. Efforts should focus on promoting interfaith dialogue, addressing socio-economic inequalities, and strengthening financial regulatory frameworks. Engaging community leaders and local organizations in counter-terrorism initiatives can help bridge cultural divides and reduce the appeal of extremist ideologies (Nigerian Security Agency, 2023).

Cultural and religious factors significantly influence terror financing in Nigeria by shaping the motivations and mechanisms through which terrorist organizations secure financial support. Understanding these dynamics is crucial for developing effective counter-terrorism strategies that address both the ideological and practical aspects of terror financing.

Historical Grievances: Influence of Historical Conflicts and Grievances on Financing

Historical grievances play a substantial role in terror financing by providing a backdrop of unresolved conflicts and injustices that terrorist groups exploit. In Nigeria, the legacy of historical conflicts, colonial legacies, and socio-political marginalization contributes to the persistence of terror financing. This

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section examines how historical grievances influence terror financing and their implications for addressing terrorism in the country.

Legacy of Colonialism

The colonial legacy in Nigeria has left a complex socio-political landscape marked by ethnic and regional divisions. The arbitrary borders drawn during colonial times and the subsequent policies of divide-and-rule have created lasting grievances among different ethnic groups (Bello, 2021). These historical injustices have contributed to ongoing conflicts and provided a foundation for terrorist groups to rally support and secure funding.

Table 3: Impact of Colonial Legacy on Terror Financing

Colonial Factor	Impact on Terror Financing
Arbitrary Borders	Creation of ethnic and regional tensions
Divide-and-Rule Policies	Marginalization of certain groups
Resource Distribution	Unequal access to resources fuelling grievances

Terrorist organizations often exploit these historical grievances to legitimize their activities and attract financial support from those who feel marginalized or oppressed. For example, the Niger Delta militancy is rooted in historical grievances related to resource distribution and environmental degradation caused by oil exploitation (Okonjo-Iweala, 2020).

Socio-Political Marginalization

Socio-political marginalization, which has historical roots, continues to fuel terror financing in Nigeria. Groups that perceive themselves as marginalized or disadvantaged are more susceptible to recruitment by terrorist organizations that promise to address their grievances (Uche, 2022). The persistent economic and political inequalities faced by certain communities provide a fertile ground for terror financing.

Table 4: Socio-Political Marginalization and Terror Financing

Marginalized Group	Historical Grievances	Funding Mechanisms
Niger Delta Communities	Environmental degradation, resource exploitation	Extortion, kidnappings, local support
Northern Regions	Economic neglect, political exclusion	Donations from local sympathizers, international funds

The exploitation of socio-political grievances by terrorist organizations underscores the need for comprehensive solutions that address both historical injustices and contemporary socio-economic issues. Efforts to promote inclusive governance, equitable resource distribution, and economic development are essential for mitigating the impact of historical grievances on terror financing.

Historical grievances play a crucial role in terror financing by perpetuating cycles of conflict and marginalization. Addressing these issues requires a nuanced understanding of historical contexts and the development of policies that promote justice and inclusivity. By tackling the root causes of historical grievances, it is possible to reduce the appeal of terrorism and disrupt its financial support networks.

DISCUSSIONS

Integration of Findings

The investigation into terror financing in Nigeria reveals a complex interplay between cultural, religious, and historical factors. The study underscores that these factors do not operate in isolation but rather interact in multifaceted ways to influence the mechanisms and flows of terror financing.

Cultural and Religious Dynamics

The impact of cultural and religious dynamics on terror financing is profound. As demonstrated, religious extremism, particularly through groups like Boko Haram and ISWAP, has been instrumental in mobilizing financial resources. These groups exploit religious sentiments to justify their activities and garner support. For example, Boko Haram's radical interpretation of Islam has enabled it to secure funding from sympathizers who perceive their cause as a religious duty (Akinola, 2020). This manipulation of religious narratives effectively legitimizes their violent actions and broadens their financial base.

Moreover, cultural factors such as ethnic tensions and socio-economic disparities contribute significantly to terror financing. The exploitation of ethnic divisions by groups like the Fulani militias illustrates how cultural grievances can be leveraged to support terrorism (Smith & Johnson, 2022). The informal financial systems prevalent in Nigeria further complicate efforts to trace and disrupt terror funding. These systems, including hawala, are used by terrorist groups to move money discreetly, making it difficult for authorities to monitor and control financial flows (Oloyede, 2021).

Historical Grievances

Historical grievances also play a critical role in terror financing. The colonial legacy, characterized by arbitrary borders and divide-and-rule policies, has left Nigeria with enduring ethnic and regional tensions (Bello, 2021). These historical injustices have been exploited by terrorist organizations to legitimize their activities and attract support. For instance, the Niger Delta militancy is deeply rooted in grievances related to resource exploitation and environmental degradation, reflecting a legacy of colonial-era economic marginalization (Okonjo-Iweala, 2020).

Socio-political marginalization, which has historical roots, continues to fuel terror financing. Groups that perceive themselves as marginalized or oppressed are more susceptible to recruitment by terrorist organizations that promise to address their grievances (Uche, 2022). This exploitation of historical grievances by terrorist organizations highlights the need for comprehensive solutions that address both historical and contemporary socio-economic issues.

Regulatory Framework

The findings suggest significant vulnerabilities in Nigeria's financial regulatory framework. The informal financial systems and weak enforcement mechanisms create opportunities for terrorist groups to secure and transfer funds without detection. To address these vulnerabilities, strengthening financial regulations and enforcement is crucial. This includes enhancing the capacity of financial institutions to detect and report suspicious transactions, improving coordination among regulatory bodies, and increasing transparency in financial dealings.

International Cooperation

International cooperation is essential in combating terror financing. The global nature of terrorism necessitates collaboration between countries to disrupt financial networks and enhance information sharing. Nigeria's efforts to combat terror financing can benefit from stronger partnerships with international agencies and neighbouring countries. Initiatives such as joint intelligence operations and cross-border financial monitoring can help track and intercept terrorist funding (Nigerian Security Agency, 2023).

Addressing Cultural and Religious Narratives

Addressing cultural and religious narratives that perpetuate violence is another critical area of focus. Promoting interfaith dialogue and fostering mutual understanding between different religious and ethnic groups can help counter extremist ideologies. Engaging community leaders and local organizations in counter-terrorism efforts can also play a significant role in mitigating the appeal of terrorism and reducing support for extremist groups.

Economic Development and Social Wellbeing

Economic development and social wellbeing are crucial for reducing the financial appeal of terrorism. Addressing socio-economic disparities and providing opportunities for marginalized communities can help prevent recruitment by terrorist organizations. Policies aimed at improving education, employment,

and infrastructure in economically disadvantaged areas can contribute to long-term stability and reduce the likelihood of terror financing.

The discussion highlights that the phenomenon of terror financing in Nigeria is shaped by a complex interplay of cultural, religious, and historical factors. Understanding these dynamics is crucial for developing effective counter-terrorism strategies. A comprehensive approach that includes strengthening financial regulations, enhancing international cooperation, addressing cultural and religious narratives, and promoting economic development is essential for combating terror financing and ensuring long-term stability in Nigeria.

CONCLUSION

The analysis of terror financing in Nigeria highlights the intricate relationship between cultural, religious, and historical factors and the mechanisms through which terrorist groups secure financial support. The findings reveal that religious extremism, cultural grievances, and historical injustices are pivotal in shaping the dynamics of terror financing in the country.

Religious extremism, as seen with groups like Boko Haram and ISWAP, has successfully leveraged religious narratives to gain financial backing from sympathizers. Cultural factors, including ethnic tensions and socio-economic disparities, further complicate the issue, providing fertile ground for terrorist recruitment and financial support. Historical grievances, rooted in colonial legacies and socio-political marginalization, have been exploited by terrorist organizations to legitimize their activities and attract support.

These insights underscore the need for a multifaceted approach to combat terror financing. The current vulnerabilities in Nigeria's financial regulatory framework, coupled with the challenges posed by informal financial systems and weak enforcement mechanisms, necessitate targeted reforms. Additionally, addressing the cultural and religious narratives that perpetuate violence and fostering economic development are crucial for undermining the financial base of terrorism.

RECOMMENDATIONS

- a) Strengthening Financial Regulatory Frameworks
 - Enhance Regulation and Enforcement: Implement stricter regulations and enhance enforcement mechanisms to monitor and control financial transactions more effectively. This includes increasing the capacity of financial institutions to detect and report suspicious activities and improving inter-agency coordination.
 - Regulate Informal Financial Systems: Develop strategies to monitor and regulate informal financial systems such as hawala. This could involve creating partnerships with community leaders and financial institutions to improve transparency and traceability.
- b) Promoting International Cooperation
 - Expand Cross-Border Collaboration: Strengthen international cooperation to combat terror financing by engaging in joint intelligence operations and sharing information with neighbouring countries and global agencies.
 - Enhance Global Partnerships: Participate in international initiatives aimed at disrupting terrorist financial networks and improving global standards for combating terror financing.
- c) Addressing Cultural and Religious Narratives
 - Foster Interfaith Dialogue: Promote dialogue and collaboration between different religious and cultural groups to counteract extremist ideologies and reduce the appeal of terrorism.
 - Engage Community Leaders: Involve local community leaders and organizations in counter-terrorism efforts to build trust and address cultural grievances that may contribute to support for terrorism.
- d) Promoting Economic Development and Social Wellbeing

- Improve Socio-Economic Conditions: Implement policies that address economic disparities and improve living conditions in marginalized communities. Focus on enhancing education, employment opportunities, and infrastructure.
 - Support Community Development: Invest in community development programs that promote social cohesion and economic stability, thereby reducing the appeal of terrorist organizations.
- e) Enhancing Public Awareness and Education
- Increase Public Awareness: Educate the public about the impact of terrorism and the importance of reporting suspicious activities. This can help build a more informed and vigilant society.
 - Support Educational Initiatives: Promote educational programs that address radicalization and provide alternative narratives to extremist ideologies.

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DIGITAL TECHNOLOGIES AND MENTAL HEALTH

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Abstract. *Rights to dignity and freedom of thought (mental autonomy) are fundamental human rights. They imply the fundamental right to mental health. The possibility that rights to dignity, mental autonomy and, as a consequence, mental health may be severely jeopardized by certain digital technologies and Artificial Intelligence (AI) is recognized on a worldwide scale, yet, current legal frameworks are still struggling to carve out regulatory measures that fully take into accounting the impact of digital technologies and AI on mental health. This narrative review starts with a brief historic overview highlighting why internet and AI have taken the potential for individual and collective mental manipulation of former media of mass communication to the next level. In the current society context, dark patterns in commercial digital tools are cogently designed to manipulate consumer choices. Internet and social media platforms exploit AI to generate addictive trigger cues, fake contents, and deceptive interactions. Digital technology has hijacked our mental autonomy and represents an unprecedented threat to mental health and well-being, in particular of children and young individuals connected for long hours day and night as now officially recognized by international health organizations worldwide. The problem has already found expression in novel forms of compulsive behaviour and addiction (digital addiction) with related symptoms of anxiety, depression, sleep disorders, anhedonia, suicidal ideation. This article identifies psychological mechanisms likely to account for mental health deterioration in the digital age in terms of conditioned obedience to digital authority, de-individuation, pathological brain adaptation to chronic stress, reward deficiency syndrome (RDS), and learned helplessness. These mechanisms are non-conscious, deeply rooted in human neurobiology, and rely on the mechanism of psychobiological conditioning.*

Keywords: Digital Technology; Mental Health; Dark Patterns; Social Media; Deceptive Interaction; Digital Addiction; Reward Deficiency Syndrome; Learned Helplessness.

INTRODUCTION

Digital technology and Artificial Intelligence (AI) pose threats to the human right to freedom of thought (McCarthy-Jones, 2019), identified in terms of threats to the right not to reveal one's thoughts, not to be penalized for one's thoughts, and not to have one's thoughts manipulated. To lose freedom of thought is to lose dignity and psychological integrity at the individual level, and social fairness and trust at the level of society. Rights to freedom of thought and dignity (Al-Rodhan, 2021) are protected by international human rights law, with the clear understanding that what the latter aims to secure is mental autonomy (Al-Rodhan, 2021; McCarthy-Jones, 2019).

In the digital society at the current technological scale, an individual's mental autonomy in terms of agency over their thoughts, actions, and decisions is compromised by factors relating to access to information, domain knowledge and expertise, and the individual understanding of and access to the different types of digital technology and AI currently deployed. As a consequence, digital policymakers have to entirely reconsider individual citizen awareness and ability to act. In 2021, the World Health Organization Mental Health Atlas formally recognized new forms of addiction to digital technology (connected devices) as a worldwide problem, where excessive online activity and internet use lead to inability to manage time, energy, and attention during daytime and produce disturbed sleep patterns or insomnia during nighttime (World Health Organization, 2021).

This problem was subsequently reported to have increased in magnitude worldwide during the COVID-19 pandemic (World Health Organization, 2022). Both the Digital Safety Act (Regulation - 2022/2065 - EN - DSA - EUR-Lex, n.d.) and the AI Act (EUROPEAN COMMISSION, 2021) of the European Commission are aimed towards a unified regulatory framework that is to protect individuals, in particular

youth and other vulnerable populations, from mental manipulation threats and mental health risks posed by digital technology and AI. However, clear definitions of mental manipulation, or mental health risks that would have to be mitigated by effective regulation, are not stipulated.

This quicksand of conceptual vagueness in the different legal texts pertaining to digital technology and mental health is due to 1) uncertainty about a general definition of what is to be understood by mental health on the one hand, and 2) a complete lack of understanding of the psychological mechanisms at play. This narrative review follows the Stanford University guidelines (Woodward, n.d.) and is aimed at providing a conceptual background for further investigation.

Insights into phenomena and symptoms translating the impact of digital technology on mental health, the psychological mechanisms at play, and a set of appropriate testing tools for further quantification in clinical and experimental research are reviewed. In the history of mass media communication, digitalization and AI have brought about technology for mental manipulation (Clark & Purdon, 1995; Holmes, 2017; Lifton, 1961; Al-Rodhan, 2021) well beyond what was previously possible. In the 20th century, communication in human society changed quantitatively and qualitatively by the invention of radio (Schwartz, 2015; Birdsall, 2012; United States Holocaust Memorial Museum, n.d.) and its use for advertising and political propaganda beyond mere public information.

Our belief systems are intrinsically biased by our personal history and experience, and we tend to believe in the validity of a certain type of information rather than another on the basis of such bias (Maffei et al., 2015). The strongest reinforcement of false beliefs is, purely and simply, the mere repetition of false facts and figures at the largest possible scale (Greifeneder et al., 2020). Repeating a false claim over and over again makes it believable through psychological mechanisms at play in incantation in tribal rituals (Boyer & Liénard, 2020).

Television (Killen, 2011; Packard, 2007; Packard, 1964) and, ultimately, the internet and the mobile phone, with the explosion of social networks (Pantic, 2014) and chatbots driven by various forms of AI, have progressively given birth to an entirely new breed of technology, ideally suited for behavioural monitoring and manipulation at the largest possible scale (Pérez-Sales, 2022). Intrinsically healthy real-world stimuli and sensations through physical contact with others and with material reality, which have a measurably positive effect on our psychological well-being (Heatley Tejada et al., 2020; Schneider et al., 2023), have been replaced by a whole universe of remote virtual social reality (Weizenbaum & Wendt, 2015) and deceptive online interactions.

DARK PATTERNS IN MOBILE PHONE APPLICATIONS

Dark patterns were first identified in connection with persuasive technology tools aimed at influencing user behaviour in mobile phone applications. A first attempt at categorization was proposed already in 2010 (Dark Patterns - Types of Dark Pattern, 2019) to shed light on evil practices used in the design of mobile phone applications, where DP have been predominant for some time.

The presence of dark patterns in the UX design of digital platforms, websites, and mobile applications has been identified in 95% of all platforms and applications linked to commercial ventures (Di Geronimo et al., 2020). A dark pattern is defined as “a user interface that has been carefully crafted to trick users into doing things that they usually might not do” (Dark Patterns - Types of Dark Pattern, 2019). Dark patterns rely on a solid understanding of unconscious mechanisms of psychological conditions, and never have the user’s interest in mind.

For example, companies showing a long list of privacy policies in mobile applications although consumers involuntarily accept to share more data than they intended to. Aggressive commercial dark patterns involve practices that force the consumer to proceed to certain steps, make decisions, or perform certain tasks without freedom of choice, while mild dark patterns leave option to opt-out of the process. Surprisingly, it has been found that aggressive dark patterns are much better accepted by users than mild ones (Luguri & Strahilevitz, 2020; Mathur et al., 2021), presumably because aggressive ones more strongly display what may be called digital authority.

Digital authority, combined with the novelty effect of a given technology application or AI product, paradoxically helps masking the intrinsically evil intent behind them (Fogg, 2003; Nodder, 2013), which is akin to a psychological phenomenon known as the Milgram Effect (Russell, 2011). Dark patterns enable AI to deceptively lead consumers and users to “do what they are told to” willingly and uncritically. Mild dark patterns are present in almost all commercially linked internet and mobile applications. Individuals of all ages worldwide have already become used to being manipulated by them, a phenomenon referred to as dark pattern blindness or blindness to malicious internet design (Di Geronimo et al., 2020), akin to the well-known phenomenon of change blindness in psychology (Simons & Rensink, 2005).

Normative perspectives for analyzing dark pattern effects in terms of their potentially detrimental effects on consumers and society have been proposed by the OECD (Dark Commercial Patterns, 2024; OECD, 2021), without any deeper scrutiny of their consequences for the psychological well-being of individuals and society. Clear working hypotheses are urgently needed here for carving out appropriate regulatory measures. Also, there is no universally agreed definition of the dark pattern concept apart from the understanding that they lead users into making decisions they would not have made if fully informed and capable of selecting alternatives or given the choice of opting out (Dresp, 2022).

In short, by their manipulative nature, dark patterns online limit individual freedom of choice and the conscious awareness that is necessary “to say no” to a process, a procedure or a product. The General Data Protection Regulation (GDPR) of the EU (European Union, 2016) which encompasses the demand for clear information, transparency, control of all data, is violated by dark patterns in digital technology and AI. The motivations and intentions detectable behind a digital design pattern or AI determine whether it contains dark patterns or not. Mobile phone applications use dark patterns to achieve business goals in a virtual space where people spend most of their time. With the wider use of online games and AI-driven interactive platforms and social media (Fogg, 2003; Nodder, 2013), we have entered a new universe of human-computer interaction, by nature manipulative, because the aim of online platforms and social media is to keep people engaged.

Dark patterns therein serve the purpose of manipulating users to act in a certain way (Dark Commercial Patterns, 2024; OECD, 2021; Dresp, 2022), which is often contrary to their interests, in time alters their psychological ability to perceive and decide cogently and, ultimately, may engender behavioural changes that negatively affect individuals (Dresp, 2022) and society as a whole. The design of online gaming and interactive platforms unilaterally benefits the interest of their creators. Deceptive interaction as a general dark pattern, omnipresent in social media platform design and impossible to single out at the technical level, has potentiated mental manipulation at the largest possible scale.

The Digital Services Act (DSA) of the European Commission (Novovic, 2024) recognizes the dangers of dark patterns in digital technology and Artificial Intelligence (AI) to the safety and well-being of human individuals and society. The necessity for their uniform legal ban across Europe is recognized further in the Artificial Intelligence Act (European Union, 2021). Therein subliminal behavioural priming by dark patterns in Artificial Intelligence (AI) is identified as “high risk” technology to be banned legally in the future as soon as scientific insight on the mechanisms at play is available.

DECEPTIVE DESIGN IN AI-DRIVEN SOCIAL MEDIA

The convergence of human intelligence and AI has given way to a deceptive space of relational interactions between humans and AI. The humanwashing of AI-enabled machines (Scorici, Schultz, & Seele, 2022) as a specific form of anthropomorphism represents a deceptive way of using AI-enabled systems and machines, misleading organizational stakeholders and the broader public about the true capabilities such machines possess. This has enabled the deterioration of social structures and communication processes with regard to consequences, accountability, and liability (Freiman, 2022).

Widespread cybercrime and cyber-insecurity have been listed among the top ten global risks to society in the next two years and beyond at the World Economic Forum in 2024 (Global Risks Report 2023 | World Economic Forum, n.d.). AI threatens democratic aspects of trust formation, and biases and destroys critical social aspects relating to distrust and its consequences on individuals and society (Freiman, 2022; Global Risks Report 2023 | World Economic Forum, n.d.; Hunter et al., 2023; Ferrara, Cresci, & Luceri, 2020;

Swire-Thompson & Lazer, 2019). Beyond the spread of false information, the rise of AI-manipulated multimedia, with a massive presence of AI-powered automated accounts and various forms of harmful content, the perils we encounter when exposed to such an online ecosystem have been allowed to proliferate beyond controllable levels (Swire-Thompson & Lazer, 2019).

This has produced a novel, particularly evil, breed of dark pattern: deceptive interaction (Uyheng & Carley, 2020; Obermaier & Schmuck, 2022). We may define deceptive interactions enabled by AI-powered platforms in terms of online contacts and interactive feedbacks that the user cannot control, either because the contact per se is fake and therefore deceptive (Uyheng & Carley, 2020), and/or the interaction deceives because it is coercive, deceitful, diminishing, hostile, discriminating and manipulative (Obermaier & Schmuck, 2022). Deceptive interaction (see Figure 1) makes humans believe they are interacting with another human when they are not, or allow other human platform members to create user profiles anonymously, permitting them to lie to and/or abuse others without penalty. Repeated exposure to algorithm-driven deceptive interactions engenders mental and behavioural modifications, especially in the young (Pew Research Center, 2024). This may have irreversible consequences on an individual's perception, understanding, reasoning, thoughts, emotions, trust, and overall psychological well-being at the individual level and at the level of their social interactions with others in the real world.



Figure 1 Deceptive interaction in AI-powered social media as the most destructive form of dark pattern, directly manipulating human mental autonomy. As a consequence, the psychological well-being of individuals and society is jeopardized.

Moreover, public health is threatened by deceptive AI, given the large amount of inaccurate information that circulates online within and beyond the formal health care system (Suarez-Lledo & Alvarez-Galvez, 2020). AI and the internet have changed people's engagement with health information—be it through search, user-generated content, or mobile apps and social media platforms—in a way that could negatively affect health outcomes with regard to life quality and risk of mortality. This, ultimately, threatens public trust in health care institutions (Suarez-Lledo & Alvarez-Galvez, 2020; Bizzotto, Schulz, & De Bruijn, 2023).

AI-driven platforms that enable fake news campaigns and online hate speech have fuelled the social phenomenon of polarization, characterized by the fragmentation of society into antagonistic fractions with strictly opposed values that impede cooperative processes in the pursuit of common good (Van Bavel et al., 2021). The threats represented by polarization have already materialized, and democracy is globally under siege (De Mello, Cheung, & Inzlicht, 2024; Vasist, Chatterjee, & Krishnan, 2023). Polarization has impeded pandemic response (De Nicola, Mambou, & Kauermann, 2023) and consensus on critical global

issues such as climate change (Falkenberg et al., 2022), and has weakened the resilience of our society to adversity.

From a positive perspective, social media have enabled activist groups and minorities to become more visible and get their messages over to the wider public, highlight inequalities, denounce injustice, and advance discourse on social justice at a larger scale. The negative side, however, is that social media are being used by extremists, political parties, and politically motivated players to demonize specific groups and to discriminate already marginalized populations to achieve specific, non-noble ends that destroy cohesion in society (Smiley & Fakunle, 2016; Ahmed et al., 2024).

Deceptive interaction via AI-driven digital platforms increases violence in society by promoting hate speech, loss of empathy for others, criminality, domestic violence, and terrorism, with a measurable impact on national statistics of domestic terrorist attacks (Rulis, 2024; Piazza, 2022).



Figure 2 Digital authority as a source of phenomena of unwarranted obedience (Milgram Effect), de-individuation, online conformity, fear of missing out, and polarization

AI-driven manipulative disinformation via social media also effectively conveys false endowments to technological or financial resources, national and foreign governments and political parties (Reisach, 2020). The large-scale nature of online deception is one of the conditions of its success in a new social universe where digital authority engenders a clearly identifiable set of negative consequences on human individual and collective mindsets and behaviour (see Figure 2).

IMPACT OF DIGITAL TECHNOLOGY ON MENTAL HEALTH

The impact of digital technology on mental health and well-being encompasses a wide range of adverse effects, symptoms, and conditions, from social withdrawal in problematic online use to full-blown digital addiction (Pereira et al., 2020; Fineberg et al., 2024; Meng et al., 2022; Dresp-Langley & Hutt, 2022), chronic stress (Haidt, 2024; Maftai & Pătrăușanu, 2023), anxiety (Kerr et al., 2024; Du et al., 2024), depression (Keles, McCrae, & Grealish, 2019; Hu et al., 2024), anhedonia (Guillot et al., 2016; Cangelosi et al., 2024; Dresp-Langley, 2023), and suicidal ideation (Cheng et al., 2018; Chamarro et al., 2024; Morese et al., 2022). Adolescents and young adults in particular are targeted by manipulative online content (Dadi, Dachew, & Tessema, 2024), and online stereotypes and image models imposed by digital technology cause severe psychological harm, especially in youth (Sumner et al., 2021).

Fear of missing out (FoMO) (Groenestein et al., 2024) and an overall lack of awareness (Young et al., 2024) are factors that contribute to the victimization of youth by digital technology and social media. Thus, digital technology has produced a novel form of adversity we may call digital adversity (see Figure 3).

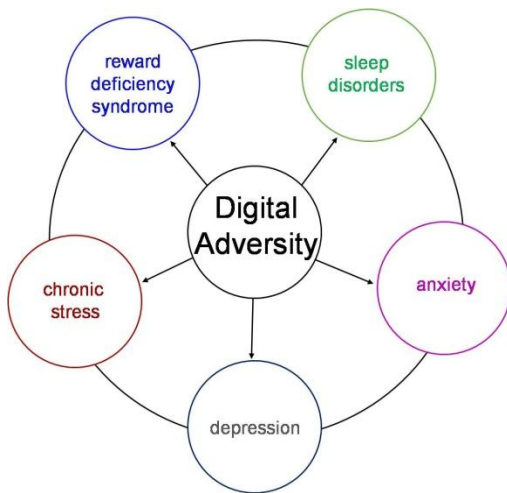


Figure 3 Digital adversity as a source of altered mental health in terms of reward deficiency syndrome linked to internet addiction, sleep disorders, chronic stress, and depression leading in extreme cases to anhedonia and suicidal ideation.

Exposure to a certain type of image material in social media can have detrimental effects on the self-esteem and body image of adolescents, in particular girls (Jacob, Evans, & Scourfield, 2017). According to a study by the World Health Organization (The World Health Organization, 2024), girls' psychological and mental health are particularly affected by the consequences of online deception, with adolescent girls twice as likely to report feeling lonely compared with boys, and to suffer from eating disorders more frequently.

Overexposure to algorithm-driven online contents also affects the ability to learn. While digital technology has the potential to improve access to educational content and enhance the learning experience, children's social lives increasingly focus on social media, which affects their concentration and learning ability in school. Studies on young people across countries (Jiotsa et al., 2021; Shannon et al., 2022) highlight the association between the use of social media and body image concerns, eating disorders, and generally poor mental health. Addictive design features (Montag et al., 2019) and excess of screen time and blue light exposure for long hours day and night pose a threat to general health, especially that of children (Dresp-Langley, 2020).

Excessive digital content exposure distracts children and young people in general from academic as well as relaxing extracurricular activities. In 2024, the WHO proposed an extended universal definition of mental health (World Health Organization, 2019) in terms of:

"... a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community. It has intrinsic and instrumental value and is integral to our well-being. Mental health conditions include mental disorders and psychosocial disabilities as well as other mental states associated with significant distress, impairment in functioning or risk of self-harm."

The document further states that, in 2019, 970 million people globally were reported living with a mental disorder, anxiety and depression being the most common. Mental health conditions affect all aspects of life and account for six years lived with disability. People with severe mental health conditions die ten to twenty years earlier than the general population. Having a mental health condition increases the risk of suicide and experiencing violations of human rights. In addition, the economic consequences of mental health conditions are incommensurable, with productivity losses that outstrip the cost of healthcare.

In 2024, the World Health Organization (The World Health Organization, 2024) has formally recognized that addiction to digital technology has become a worldwide threat to the mental health and well-being of individuals and groups, particularly youth. Excessive online activity and internet use lead to an inability to manage time, energy, and attention during daytime, and to disturbed sleep patterns and insomnia during nighttime. The psychological mechanisms underlying the many ways in which human mental autonomy has been hijacked and mental health put into jeopardy or compromised by digital and AI-driven technology are not known, but it is possible, under the light of what has been reviewed here above, to suggest likely candidate mechanisms.

PSYCHOLOGICAL PHENOMENA AND MECHANISMS

Mental manipulation by digital technology relies on universal mechanisms that are mostly non-conscious and grounded in life-long psychological conditioning to submit to authority, including digital authority.

Obedience to Digital Authority and Fear of Missing Out

Individuals or groups believed to have authority can effectively assert such over individuals or crowds. Milgram's famous experiments on blind obedience to fake authority clearly demonstrated that belief is what matters, not whether the authority is authentic in terms of competence, eligibility, or legal standing (Russell, 2010). Individuals, groups, and media perceived by others to have authority acquire the power to influence these others positively or negatively. When the perceived authority is in close proximity, their ability to exert influence is maximized (Gibson, 2018; Cialdini & Goldstein, 2004). As millions of individuals worldwide spend long hours day and night tethered to their digital devices, digital authority is always nearby, effectively replacing the real-world authority of parents, peers, or teachers.

The positive side of obedience to authority is that it maintains safety and order. However, when a perceived authority is fake and not critically questioned, it gains the power to exploit and abuse. Korte (2020) referred to E. M. Forster's prophetic short story *The Machine Stops* (1909) as a dystopian narrative in which a controlling machine dictates life and communication, evoking parallels with the digital media environment of today. In this story, all communication is virtual; face-to-face meetings no longer occur, and when the machine fails, society collapses—an allegory for unchecked digital dependency (Forster, 1909).

Submission to perceived authority has been learned from early childhood, embedding an almost unconscious desire to conform to digital technology. This desire is exemplified in the Fear of Missing Out (FoMO), defined as “the tendency to experience anxiety over missing out on the rewarding experiences of others” (Rozgonjuk et al., 2020). Empirical studies have demonstrated FoMO's central role in mental health issues related to digital technology use (Rozgonjuk et al., 2020; Beyens, Frison, & Eggermont, 2016).

De-individuation and Online Conformity

Obedience to authority may produce de-individuation, a psychological process whereby individuals abandon their personal motivations and mindset in favor of group identity and behavior (Reicher, Spears, & Postmes, 1995; Liao, Squicciarini, Griffin, & Rajtmajer, 2016). In its extreme forms, individuals conform so completely to group norms that they relinquish individual responsibility for their decisions and actions—an effect frequently observed in sectarian or ideologically radicalized movements (Merrilees et al., 2013).

The human tendency to seek consensus and validation from others may begin as a constructive desire to better understand the group (Chung, 2018). However, in digital environments with constant and emotionally charged feedback, this tendency can evolve into a pathological need for affirmation (Weiß, Gollwitzer, & Hewig, 2024). In such contexts, de-individuated group conformity can lead individuals to participate in online behaviors—such as aggression or unlawful actions—that they would never display in offline, real-world interactions (Anderson, Brossard, Scheufele, Xenos, & Ladwig, 2013).

This psychological mechanism is closely tied to the emergence of polarization on social media platforms, where obedience to digital authority and loss of individual judgment through de-individuation reinforce one another. Scholars have identified two dominant factors driving such polarization: the individual's desire to conform to perceived group expectations and their fear of social exclusion (Panizza, Vostroknutov, & Coricelli, 2021).

Pathological adaptation to chronic digital stress

The ill-adapted psychological subordination to digital environments or social media and the resulting progressive de-individuation are akin to some of the consequences of post-traumatic stress-disorder (Smith & True, 2014), and likely to involve a novel form of pathological adaptive learning (Bonne et al., 2004; Flor, 2008). One of the most compelling characteristics of the brain is the plasticity of neural circuits and functions (Von Bernhardi, Bernhardi, & Eugenin, 2017). It underlies the ability of the brain to

continuously adapt its functional and structural organization to relevant changes in stimulations and environments. However, although brain plasticity favours healthy processes of functional adaptation and adaptive learning, its mechanisms also govern maladaptive, i.e. pathological, changes in the brain.

This may be illustrated on the example of stressful events. The brain can learn from stressful events to respond in an adaptive manner in the future. While an optimal stress level leads to enhancement of memory performance, the exposure to extreme, traumatic or chronic stressors is a risk factor for the development of psychopathologies which are associated with memory impairment and cognitive deficits (Deppermann, Storchak, Fallgatter, & Ehrlis, 2014).

A crucial role of the accumbal and prefrontal dopamine brain pathways and inflammatory responses in the brain and body as the direct adaptive and maladaptive consequences of stress related to digital overexposure or addiction may be involved here (Ali, Janarthanan, & Mohan, 2024; Ding, Shen, Liu, & Li, 2023). In behavioural addictions (Hyman, Malenka, & Nestler, 2006), which include digital addiction (Dresp-Langley & Hutt, 2022; Ding et al., 2023), pathological brain adaptation is known to involve complex interactions between the reward system and other functional areas.

These interactions form the neurobiological correlates of the transition from the initial pleasures associated with a specific activity to compulsive behaviour (el-Guebaly, Mudry, Zohar, Tavares, & Potenza, 2011) and pathological craving (Trotzke, Müller, Brand, Starcke, & Steins-Loeber, 2020) characteristic of all forms of addiction (Hyman et al., 2006).

Reward Deficiency Syndrome (RDS) and digital addiction

In all addictions including digital addiction (Blum et al., 2021; Ding et al., 2023), the initially positive reward response of the brain ultimately reverses into a negative reward response (Blum et al., 2021) through psychological and physiological mechanisms of pathological adaptation. The initial pleasure associated with the activity or drug is gone, but the need to resort to the drug persists as a consequence of a neurobiological condition called Reward Deficiency Syndrome (RDS) (Blum, Febo, McLaughlin, & Gold, 2015). RDS refers to abnormal behaviours and brain mechanisms resulting from a breakdown of a cascade of reward loops in neurotransmission, most likely due to genetic and epigenetic influences (Blum et al., 2015). This involves a whole so-called anti-reward brain circuitry (Koob, 2008; Koob & Le Moal, 2005; Koob & Volkow, 2016).

The important role of neurotransmitter deregulation, i.e. progressive dopamine depletion as the anti-reward networks reinforce and consolidate in the brain (Blum et al., 2015), as well as important links to elevated corticosteroid levels and chronic stress (Koob & Volkow, 2016) have been discussed in several major review articles in association with digital addiction (Dresp-Langley & Hutt, 2022; Trotzke et al., 2020; UNICEF, 2021). Dopamine depletion and stress-related mechanisms form the neurobiological basis of craving and relapse in addiction (Trotzke et al., 2020; Blum et al., 2015; Koob & Volkow, 2016). As far as environmental trigger cues are concerned, essentially three cue types involved in craving and relapse have been identified: (a) re-exposure to addictive drugs or activities, (b) stress caused by external stressors and/or withdrawal-related internal stress, and (c) re-exposure to relevant environmental contexts (situations, people, places) associated with the drug or activity (Koob & Volkow, 2016). Although some individuals can stop compulsive behaviour on their own before it leads to chronic addiction, genetic and non-genetic factors readily explain why most of us cannot (Koob & Le Moal, 2005; Koob, 2008; Gold, Blum, Febo, Baron, & Modestino, 2015).

In digital addiction, we keep consuming technology that is not good for us because it has adverse effects on our brain health, but our brains keep craving it, even when it no longer rewards us. Compulsion combined with digital adversity (negative feed-back, cyber bullying, online harassment e.a.) explains clinical symptoms of anxiety, depression, anhedonia, and suicidal ideation (Dresp-Langley & Hutt, 2022; Blum et al., 2021; Deppermann et al., 2014; Trotzke et al., 2020) associated with digital addiction (Dresp-Langley & Hutt, 2022).

Learned helplessness

In his book *Beyond Freedom and Dignity* written in 1971 (Skinner, 1971), the American psychologist B. F. Skinner discussed the basic mechanisms of classic and psychological conditioning. The repeated association of positive or negative (aversive) stimuli with situations and events will influence how a person feels, behaves, and act (Domjan, 2015), there is no way out. The underlying psychobiological mechanisms are non-conscious, and deeply rooted in the brain's neural networks (Gazzaniga, Ivry, & Mangun, 2019; LeDoux, 2015).

The concept of learned helplessness refers to the condition of a living individual, human or animal, where mindset and behaviour are affected by the learnt belief that the individual's actions do not matter in as far as they are perceived to not ever impact outcomes positively. In humans, this typically manifests in the perception of events, and life in general, as uncontrollable and unpredictable. At the behavioural level, the individual does not proactively respond to adversity in order to avoid or counter a negative response or outcome, not even when opportunities for avoidance or change exist. The concept harks back to experiments on dogs described by Seligman and collaborators (Seligman, 1972; Maier & Seligman, 1976). Learned helplessness theory posits that repeated exposure to uncontrollable and aversive environmental stimuli leads gradually to the firm belief that the aversive situation is inescapable. This feeling of “no way out” produces a sense of helplessness that can result in anxiety, depression, and suicide (Overmier & Seligman, 1967; Peterson, Maier, & Seligman, 1993). Learned helplessness is likely to involve the same psychological and physiological mechanisms of conditioning as those that occur in the transition from pleasurable consumption to anti-reward and RDS, which has been linked to brain evolution by some authors (Blum et al., 2015).

These mechanisms of brain conditioning are exploited cogently by some AI-driven internet technology and social media, thereby creating hostile online environments and a whole new universe of digital adversity. The association between dark patterns in digital technology and learned helplessness in consumer populations was first brought forward in 2022 in the context of an expert group meeting on digital technology and mental health of the Consumer Safety Network of the European Commission (Mathur et al., 2021). The author therein stipulates that feeling that there is no way out of manipulative technology can evolve into a generalized state of learned helplessness and psychological subordination, especially in youth and vulnerable populations, where the individual becomes a victim, and thereby an ideal target to further exploitation and abuse in the online world, and beyond.

CONCLUSION

Since the end of the Covid-19 pandemic, the impact of digital technology on the mental health and wellbeing of individuals, in particular the young, has received considerable attention from public health organizations worldwide. Adding to concerns about increase in suicidal behaviour in the young in a society context producing ontological fears and insecurities worldwide, WHO experts worldwide witnessed a significant rise in mental health issues, anti-depressant prescription uptakes, and suicide statistics for young individuals. In France, for example, a significant increase in medical consultations for suicidal behaviors and thoughts associated with anxiety and depression among 18–24 year-olds in the global national population, with a peak in 2021, was revealed by public health barometer survey statistics (Santé Publique France, 2023). The Health Behaviour in School-aged Children (HBSC) study surveyed approximately 280,000 young people aged between ten and fifteen across 44 countries in Europe, central Asia and Canada in 2022. The report concludes on a significant proportion of youth with problematic social media use as a pattern of behaviour characterized by addiction-like symptoms such as inability to control social media usage, experiencing withdrawal when not using it, neglecting other activities in favour of social media, and experiencing negative consequences in school and daily life due to excessive use (Inchley et al., 2022). There is a worldwide consensus that the impact of digital technology on mental health urgently warrants further epidemiological and clinical research.

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PROSPECTS FOR THE DEVELOPMENT OF THE DEFENCE INDUSTRY IN POLAND

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Abstract *This article presents considerations regarding the prospects of the Polish defence industry. It discusses, among other things, the state of the domestic defence industry, indicates opportunities and threats to its development, as well as the general assumptions of the Technical Modernisation Plan of the Armed Forces of the Republic of Poland. In addition, it defines the essence of agreements concluded with entities of the domestic defence industry, namely offset, framework and implementation agreements. It also analyses the sources of financing of agreements concluded for the purpose of modernisation and re-equipping not only the Armed Forces of the Republic of Poland but also other formations guarding public security and order, such as the Border Guard. The entire considerations end with conclusions, the implementation of which may contribute to the optimisation of the condition of the domestic defence industry, as well as to improving the security of the state and the effectiveness of the Polish army. One of the factors affecting the state of security of the country is its economic potential and industrial base. This applies in particular to the defense industry, which has been highlighted by the ongoing aggressive war of Russia against Ukraine. After only half a year of military operations, both sides began to experience shortages of equipment and supplies, and in particular large-caliber artillery ammunition. Currently, records are being broken in Poland in terms of defense spending - next year, funds at the disposal of the Ministry of National Defense (state budget, Armed Forces Support Fund) are to be 10% higher than in 2024. They will amount to PLN 169 billion, or 4.2% of GDP. Of this amount, PLN 53 billion, or \$ 13.25 billion in 2025 alone, is to be allocated directly to the purchase of arms and military equipment. The purpose of this article is to define and indicate the prospects of the Polish defense industry. The work uses the literature studies method as the leading method, and the historical and dogmatic methods as auxiliary methods. A research limitation is access to classified information and information constituting a company's trade secret.*

Keywords defence industry, technical modernisation of the Polish Armed Forces, financing the defence industry in Poland, state security.

1. INTRODUCTION

The defence industry is one of the pillars of each country's security. In the case of Poland, the departure from the centrally controlled socialist economy model in the 1990s in favour of a free market economy resulted in a number of structural changes that had a negative impact on the condition of the Polish defence

industry. Many arms factories were closed or their production profile was completely changed to civilian production. A number of capabilities in the production of arms and ammunition were lost, in particular cluster or thermobaric munitions. Over the past thirty years, new technologies have emerged, unknown in the 20th century, which have now become standard equipment in modern armies. Here, the Polish defence industry also shows certain deficits.

The source of the "rolling up" of the defence industry was primarily the lack of significant orders from the Ministry of National Defence carried out by the domestic defence industry sector. Arms exports have also decreased significantly, which inevitably affected the condition of entrepreneurs in the defence industry. This situation began to change under the influence of external factors, namely Poland's accession to NATO, as well as growing political and military pressure from Russia on neighboring countries. The alarm signal that caused the intensification of Poland's defense effort was Russia's aggression against Ukraine, which began on February 24, 2022. The amount of equipment, weapons and ammunition ordered increased, both domestically and abroad. This opened up new opportunities, whether as part of the so-called offset or joint ventures, to acquire technologies to which the Polish defense industry had no access so far.

Poland's economic development and the growth of its GDP also have a positive impact on the level of orders in the domestic defense industry. Constant and long-term financing of purchases for the army and other formations serving the security of the state is also a factor positively influencing its development prospects.

2. ANALYSIS OF THE LATEST RESEARCH, LEGAL ACTS AND LITERATURE ON THE SUBJECT, WHICH DISCUSSES THE ANALYSED ISSUES

The issue of the Polish defense industry's ability to produce modern weapons in quantities that would meet the needs of the Polish army has been the subject of many considerations by both doctrine and practitioners, including the highest commanders of the Polish Armed Forces.

Examples include: P. L. Wilczyńskiego, *Sektor zbrojeniowy jako czynnik rozwoju gospodarki opartej na wiedzy*, „Studies of the Industrial Geography Commission of the Polish Geographical Society”, 2013 Vol. 21; W. Skrzypczaka, P. Luzak, *Miejsce, rola i zadania polskiego przemysłu zbrojeniowego w systemie bezpieczeństwa państwa*, „Przegląd Strategiczny” 2014, nr 7; B. Packa, *Konsolidacja przemysłowego potencjału obronnego w Polsce. Uwarunkowania, dylematy i szanse*, „Zeszyty Naukowe AON” 2014 nr 1(94); Andrzeja Żebrowskiego, *Zagrożenia i bezpieczeństwo przemysłu zbrojeniowego u progu XXI wieku (wybrane aspekty)*, [w:] *Przemysł zbrojeniowy. Tendencje, perspektywy, uwarunkowania, innowacje*, pod red. R. Kopeć, Kraków 2016, Wydawnictwo Naukowe Uniwersytetu Pedagogicznego; P. Sorokę, P. L. Wilczyńskiego, *Potencjał polskiego przemysłu zbrojeniowego*, „Przegląd Geopolityczny” 2018, Tom 23; P. L. Wilczyński, *Geografia przemysłu zbrojeniowego Europy*, Kraków 2019; W. Lewandowskiego, P. Fonroberta, *Polski przemysł obronny – ambicje i perspektywy*, „Problemy Techniki i Uzbrojenia” 2021, Tom 158, Nr 3-4; K. Chochowskiego, *Plan Modernizacji Technicznej Sił Zbrojnych Rzeczypospolitej Polskiej na lata 2021 - 2035 jako przejaw polityki publicznej państwa polskiego*, [w:] *Oblicza polityk publicznych*, pod red. S. Falińskiego, D. Strus, Wydawnictwo UPH w Siedlcach, Siedlce 2022; P. Zemelek, *Budowanie odporności sektora obronnego w perspektywie Komisji Europejskiej*, „Wiedza Obronna” 2024, Vol. 286 No. 1.

Nevertheless, the dynamics of changes in the discussed area force us to revisit the analyzed issue. This will enable us to update the development prospects of the defense industry in Poland.

3. RESEARCH OBJECTIVES AND METHODS UNDERTAKEN IN THE ANALYSIS OF THE TOPIC

The purpose of this article is to define and indicate the prospects of the Polish defense industry. The work uses the literature studies method as the leading method, and the historical and dogmatic methods as auxiliary methods. A research limitation is access to classified information and information constituting a company's trade secret.

4. DISCUSSION

I. The State of the Polish Defense Industry

Currently, the Polish defence industry includes both companies associated within the Polskiej Grupy Zbrojeniowej (hereinafter referred to as PGZ), the Grupy WB, as well as those that operate fully autonomously and independently, such as Advanced Protection Systems S.A., Hertz Systems Ltd Sp. z o. o., Creotech Instruments S.A., Lubawa S.A., PZL Mielec Sp. z o.o., Protector S.A., AMZ – Kutno S.A., or Scanway S.A.

PGZ is one of the largest defense concerns in Europe. It brings together over 50 companies in five domains (areas), namely land, weapons and ammunition, C4ISR (electronics, information technology, cyber technology), aviation, and naval.

The land domain includes the following companies: Huta Stalowa Wola; Stomil – Poznań S.A.; Zakłady Mechaniczne „Bumar – Łabędy” S.A.; Ośrodek Badawczo – Rozwojowy Urządzeń Mechanicznych OBRUM; Rosomak S.A.; Wojskowe Zakłady Motoryzacyjne S.A.; Jelcz Sp. z o.o.; Ośrodek Badawczo – Rozwojowy Przemysłu Oponiarskiego "Stomil"; Zakład Mechaniczny "BUMAR-MIKULCZYCE" S.A.; H. Cegielski-Poznań S.A.

The arms and ammunition domain includes the following enterprises: MESKO S.A.; PCO S.A.; CENZIN Sp. z o.o.; Fabryka Broni „Łucznik” – Radom sp. z o.o.; Wojskowe Zakłady Uzbrojenia S.A.; Bydgoskie Zakłady Elektromechaniczne „BELMA” S.A.; Zakład Produkcji Specjalnej „GAMRAT” Sp. z o.o.; Zakłady Chemiczne „NITRO-CHEM” S.A.; Zakłady Metalowe „DEZAMET” S.A.; Przedsiębiorstwo Sprzętu Ochronnego „Maskpol” S.A.; Zakłady Mechaniczne „Tarnów” S.A.

The C4ISR (Electronics, Information Technology, Cyber Technology) domain includes the following companies: PIT-Radwar S.A.; Ośrodek Badawczo – Rozwojowy Centrum Techniki Morskiej S.A.; Wojskowe Zakłady Elektroniczne S.A.; Wojskowe Zakłady Łączności nr 1 S.A.; Wojskowe Zakłady Łączności nr 2 S.A.; ZURAD Sp. z o.o.

The Aviation domain includes the following companies: Wojskowe Zakłady Lotnicze Nr 1 S.A.; Wojskowe Zakłady Lotnicze Nr 2 S.A.; Wojskowe Centralne Biuro Konstrukcyjno-Technologiczne S.A.; Wytwórnia Sprzętu Komunikacyjnego „PZL-Kalisz” S.A.; Narzędziownia-Mechanik Sp. z o.o.

The Maritime domain includes the following companies: PGZ Stocznia Wojenna Sp. z o.o.; Stocznia Remontowa Nauta S.A.

Noticeably, for several years now, PGZ has been systematically developing its potential, taking over and incorporating new companies into the group, as well as modernizing and expanding its machinery and production lines, as well as the production volume. Moreover, its products meet the requirements of the 21st century battlefield, and therefore the thesis that PGZ significantly contributes to the generational leap of the domestic defense industry seems justified. Cooperation with foreign partners who transfer technologies that were previously beyond the reach of Polish entrepreneurs is helpful in this respect. Offset agreements also play a positive role. (Chochowski K., 2020, p. 181 – 195).

The second most serious domestic player on the Polish arms market is the Grupa WB. It comprises 12 entities, namely: Zakład Automatyki i Urządzeń Pomiarowych AREX Sp. z o.o.; Flytronic S.A.; Mindmade

Sp. z o.o.; Polcam Systems Sp. z o.o.; Radmor S.A.; WB America LLC; WB Electronics S.A.; WB India; WB Middle East LLC; WBE Technologies Sbn Sdh; WB UKRAINE LLC; PNS Sp. z o.o.

They offer communication and command technologies, as well as advanced solutions for the armed forces in areas such as: observation and reconnaissance systems; battlefield command, communication and management systems; fire control systems; strike systems; IT and cybersecurity systems; equipment and modernization of military equipment.

It is neither possible nor advisable to present here a larger number of entities involved in armaments production in Poland. However, it should be emphasized that practically all of them have recorded a significant increase in sales of products and services in recent years, which has translated into the profit achieved.

II. General Assumptions of the Technical Modernization Plan of the Polish Armed Forces

There is no army in the world that could be said to be 100% modern. "Technical modernization is one of the key elements of the functioning of the armed forces of every country. Due to the fact that efficiently and properly carried out, it improves the capabilities, effectiveness and safety of soldiers and the armed forces as a whole, almost every country in the world with its own armed forces, constantly subject them to technical modernization." (Jasiński D., 2018, p. 165).

The ongoing technological progress means that the process of modernization of the armed forces is by its nature endless. It is no different in the case of the Polish Army, for which the Technical Modernization Plan of the Polish Armed Forces, hereinafter referred to as the PMT, has been implemented. This plan was approved on October 10, 2019 by the Minister of National Defense for the years 2021-2035, taking into account the year 2020. The legal basis for the Technical Modernization Plan for the years 2021-2035 is the Act of May 25, 2001 on the reconstruction and technical modernization and financing of the Armed Forces of the Republic of Poland. The amount of planned expenditure is PLN 524 billion, i.e. approximately USD 133 billion, and in the context of the ongoing war in Ukraine, it is highly probable that it will increase further.

The PMT is closely related to the Development Program of the Polish Armed Forces, which is a classified document, and therefore the Authors cannot present it to the Reader.

Referring directly to the PMT, it should be stated that it includes several programs, the implementation of which in the Polish army will allow it to gain new capabilities and raise it to a higher level of combat effectiveness. Thus, it will increase the security of not only Poland but also other NATO countries.

These are the following programs: PATRIOT System; HIMARS Launchers; HOMAR-K Launchers; ABRAMS M1A2 SEP v.3 tanks; ABRAMS M1A1 tanks; K2 tanks; BORSUK infantry fighting vehicle; F-35 aircraft; FA-50 aircraft; M-346 aircraft; Saab 340 AEW aircraft; JASSM-ER; K9 gun-howitzers; KRAB gun-howitzers; RAK mortars; Naval Missile Unit; MIECZNIK program frigates; KORMORAN II class destroyers; ORP ŚLĄZAK patrol corvette; Carl Gustaf M4 grenade launchers; AW149 helicopters; APACHE helicopters; AW101 helicopters; Black Hawk helicopters; Rosomak ZSSW-30; ŻMIJA vehicles; PIORUN; BAYRAKTAR TB2 unmanned aerial vehicles; GLADIUS unmanned aerial vehicles; WIZJER drones; FLY EYE drones; ORLIK drones; Barbara aerostats; LMP-2017 mortars; VIS 100; EOD/IED robots; Tugboats; MSBS GROT.

"The Technical Modernization Plan of the Polish Armed Forces for 2021-2035 is very ambitious, and its implementation is to take the domestic army to a higher level of combat capabilities. It takes into account the ongoing technological progress, especially in the field of cybernetics and information technology, although the question remains whether it is sufficient. It includes new areas of armed struggle such as cyberspace or outer space". (Chochowski K., 2022, p. 25).

PMT is therefore a lever that can raise to a new level not only the Polish army, but also the Polish defense industry. If we also take into account the East Shield program, the Szpej operation, or the needs of the reactivated Civil Defense, the prospects for this branch of industry in Poland look optimistic.

III. Offset, Framework and Implementation Agreements

In the Polish media space, information about subsequent agreements concluded with both domestic and foreign entities, the subject of which are new types of military equipment and technology, appears every now and then. This gives the impression that the Polish army is being flooded with a huge amount of various types of weapons. However, this is not the case, because the media does not pay much attention to the distinction between agreements. Offset agreements are one thing, and framework or implementation agreements are another.

Offset agreements "These are agreements between the State Treasury of the Republic of Poland and a foreign supplier. As a result, there is forced cooperation between domestic entities and a foreign supplier. According to the Offset Act, the offset agreement is to ensure the participation of foreign suppliers in the process of restructuring and development of our country's economy, and in particular the arms sector". (Banasiński C., Piontek E., 2019, art. 119). Therefore, in the case of what is popularly referred to as offset, we are dealing with compensation agreements.

The legal definition of offset is provided by the legislator in art. 2 point 14 of the Act of 26 June 2014 on certain agreements concluded in connection with the implementation of orders of fundamental importance to the security of the state (consolidated text Journal of Laws of 2017, item 2031). According to the above provision, offset means cooperation between the State Treasury and the offset recipient and a foreign supplier necessary to maintain or establish in the territory of the Republic of Poland the potential in the scope of production, service and maintenance and repair capabilities, as well as other, necessary from the point of view of protecting the fundamental interests of the security of the state, consisting in particular in the transfer of technology, know-how together with the transfer of copyrights or use of the work on the basis of a granted license in order to ensure the independence from the foreign supplier required by the State Treasury. The main advantage of offset agreements is the possibility of transferring modern technologies. Poland, despite having a developed defense sector, often needs the latest technologies, which may be available only from foreign partners. Thanks to such cooperation, Polish companies can gain access to innovative solutions that are key to the modernization of military equipment.

Framework agreements specify the maximum predictable value of the subject of the order and its quantity. However, they do not give rise to a claim on the part of the contractor for the execution of the order. In simple terms, it can be stated that framework agreements are a form of a letter of intent in which both parties declare their willingness to cooperate in the implementation of the subject of the agreement.

Implementation agreements are provisions binding on both parties indicating the specific value and quantity of what is ordered, as well as the time of execution of the agreement and the delivery schedule.

Therefore, in the thicket of information regarding arms contracts for the Polish army, it is necessary to distinguish between individual types of contracts in order to be able to break through the information noise and draw accurate conclusions.

As an example, several contracts concluded for the modernization of the Armed Forces of the Republic of Poland should be presented. On April 28, 2023, an executive contract was signed for the delivery of 22 Rocket and Artillery Sets (ZRA) Pilica+. The value of the order is almost three billion PLN. The "Łucznik" Arms Factory signed a contract for the delivery of an additional 70,000 MSBS Grot A2 carbines for the amount of PLN 826 million. Subsequent orders for this factory include the delivery of 250 Grot 762N sniper rifles and an additional 88,000 Grot carbines worth PLN 1 billion, as well as 28,000 VIS 100 pistols worth PLN 160 million. The Maskpol company signed a contract with the Armaments Agency for the delivery of several dozen thousand bulletproof vests, worth PLN 490 million. On December 19, 2023, the Armament Agency and the PGZ-NAREW Consortium signed an implementation agreement for the delivery and servicing of 24 P-18PL (UW-10) long-range radar sets. The contract is to be implemented in the years 2023-2035, and its value is over PLN 3.1 billion. On December 22, 2023, the PGZ-Amunition Consortium and the Armament Agency concluded an implementation agreement for the delivery of nearly 300,000 pieces of 155 mm artillery ammunition implemented under the National Ammunition Reserve

program. The order is worth nearly PLN 11 billion and will be implemented in the years 2024-2029. An agreement was also signed between PIT-RADWAR and Wojskowe Zakłady Elektroniczne and the Norwegian concern Kongsberg Defence & Aerospace (KDA) for the production and delivery of two Naval Missile Units and the servicing and production of NSM missiles. In addition, PGZ companies signed agreements with the Armament Agency for the delivery of nearly 400 Light Reconnaissance Vehicles and two framework agreements for the delivery of Heavy Infantry Fighting Vehicles and a New Wheeled Armoured Personnel Carrier, as well as for the delivery of BAOBAB-K Scattered Mine Laying Vehicles and mines manufactured by the Bydgoszcz company Belma. It is also worth mentioning that the Armament Agency of the Ministry of National Defence signed an agreement with the RADMOR company (part of the WB GROUP) for the delivery of software-defined radio stations and accompanying equipment. The order includes devices intended for installation on mobile platforms. In turn, on September 5, 2023, the Armament Agency of the Ministry of National Defense signed a contract with GRUPA WB for the delivery of nearly 1,700 FlyEye unmanned aerial systems. The framework contract is to be completed by 2035.

These are just some of a number of new framework and implementation agreements. There is also increasing talk of the need to purchase a squadron or two air superiority fighters, pointing to the American F-15 and heavy transport helicopters CH-47 Chinook. If these agreements are concluded, the value will be counted in billions of zlotys.

IV. Opportunities and Threats for the Defense Industry in Poland

The ambitious plans of the Polish authorities to modernize and expand the army and increase its combat capabilities necessarily require huge financial outlays.

Referring to the domestic possibilities of supporting the Polish defense industry, it should be noted that they are related to the Act of October 7, 1999 on supporting the restructuring of the industrial defense potential and technical modernization of the Armed Forces of the Republic of Poland (Journal of Laws 2020.1663 consolidated text of 2020.09.28), the Act of March 11, 2022 on the defense of the Homeland (Journal of Laws 2022.2305 consolidated text of 2022.11.14, hereinafter referred to as the Armed Forces Support Fund), as well as the Fund established pursuant to Article 41 of this Act. This fund was created in the National Economy Bank, and its resources are allocated to the implementation of the goals specified in the Armed Forces Development Program. (Chochowski K., 2023, p. 196).

In addition to the domestic funds mentioned earlier, it is also worth considering the possibility of obtaining external funds from the European Union (European Defense Fund, European Defense Industry Program, the EU program supporting the production of ammunition ASAP), NATO (NATO Innovation Fund, NATO Security Investment Program) or received under special programs such as FMF Foreign Military Financing, under which, on December 6, 2024, Poland received a \$4 billion loan for the rapid transformation of the Polish army.

When considering the financing of the Polish defense industry, it is impossible not to mention the decisions to recapitalize specific companies in the defense industry. For example, PGZ received PLN 400 million in funding from the State Treasury for its investments in the plants in Pionki and Skarżysko Kamienna, and the total value of the investment will amount to PLN 466.7 million. For investments in Huta Stalowa Wola, the plant received PLN 600 million in funding from the State Treasury, and the total value of the investment will amount to almost PLN 665 million. In turn, for investments in ZM Bumar, it will receive PLN 850 million from the State Treasury, which will constitute 100% of the investment value.

However, it would be worth supporting not only entities from PGZ but also those from outside it, especially those involved in the production of anti-drone systems and satellites, in order to develop domestic capabilities in the indicated scope. The technical solutions that Polish entrepreneurs have at their disposal do not differ from the latest ones used in the world. They fully deserve support not only to fill gaps in the state's security system, but also in the context of their potential export. What's more, over time they could gradually penetrate the civilian industry, enriching its possibilities to compete on the global market. It seems that this support will bring profits to the national economy, also in the long term.

When analysing the issues of opportunities and threats, or challenges facing the Polish defence industry, it is necessary to first identify the key factors influencing its prospects. According to the authors, these include:

- The country's defence policy. Political decisions regarding the country's defence, such as the defence budget, defence strategies or decisions regarding the purchase and modernisation of military equipment, have a key impact on the prospects for the defence industry. Political stability and consistent support for the defence sector are conducive to its development.
- The changing geopolitical situation. Tensions in the international arena and the growth of security threats may lead to an increased demand for modern defence equipment. The Polish defence industry may benefit from such changes if it is able to deliver high-quality and modern solutions.
- Technological progress. Technological development, including innovations in the field of armaments, communication systems, cybersecurity and robotics, is shaping the future of the defence industry. Poland can benefit from these changes by investing in research and development and promoting cooperation between the public and private sectors.
- International cooperation. Integration with allies and participation in international defense programs can create new opportunities for the Polish defense industry. International cooperation can enable access to advanced technologies and joint development and production of defense equipment.
- Highly qualified staff. Access to highly qualified technical and engineering staff is crucial for the development of the defense industry. Poland must invest in education and professional training to ensure an adequate number of specialists needed to conduct advanced projects in the defense sector.
- Security of raw material supplies. The raw materials required for the production of defense equipment can sometimes be difficult to access or subject to price changes on the global market. Therefore, ensuring the stability and security of raw material supplies is crucial to ensuring the continuity of production in the defense industry.
- Harmonious cooperation between industry and the R&D sector. This issue takes on particular importance within the framework of a knowledge-based economy, to which, among others, the domestic economy aspires. One must agree with the thesis that "Many inventions created in research institutes working for the military later passed into everyday use by citizens." (Wilczyński P. L., 2013, p. 154). Innovations implemented in the Polish defense industry may, over time, permeate the civilian sector, increasing its attractiveness and competitiveness on the global market. Establishing cooperation between science and the defense industry is therefore of fundamental importance for the development of modern technological solutions in the area of defense. It is a process that enables the transfer of knowledge and know-how between the academic community, where new ideas and scientific research are generated, and the industrial sector, which has production capabilities and experience in implementing these ideas in practice.

Referring to the basic challenges facing the Polish defence industry, it should be noted that it is currently facing a number of significant challenges that require immediate attention and effective solutions.

The main problems that this sector currently has to face are:

- A shortage of multi-year military equipment purchase plans. The Polish defence industry suffers from a lack of coherent, long-term plans for the purchase of military equipment. The uncertainty associated with frequent changes in purchase plans hinders the stable functioning of companies and effective planning of investments in the development of production and infrastructure;
- Lack of investment in the development of domestic manufacturers and repair shops. Domestic defence companies often struggle with a lack of financial support and investment in modern technologies

and production infrastructure. This lack of investment inhibits innovation and limits the ability of Polish manufacturers to compete on the international market;

- Excessive dependence on foreign defence concerns. Polish national defence is largely based on imported equipment and technologies, which leads to excessive dependence on foreign suppliers. The dominance of external companies on the Polish arms market is associated with the expenditure of significant financial resources abroad and limits the sovereignty of the state in the field of defense;

- The need to quickly increase the defense potential of the army. Dynamic changes in the geopolitical situation, including the conflict in Ukraine, impose an urgent need to increase the defense potential of the Polish Army. However, the lack of a developed domestic defense industry means that Poland is unable to effectively and quickly respond to these changing security challenges. Understanding these key problems allows us to see the urgent need to introduce real, coherent multi-annual plans for the defense industry in Poland.

The opportunities for the defense industry in Poland should be seen primarily in:

- Creating new military units. A decision was made to create two new large tactical units, which, despite having the word infantry division in their name, are in fact mechanized divisions. These are: the First Legions Infantry Division (abbreviated as 1 DPLeG) and the Eighth Home Army Infantry Division (abbreviated as 8 DPAK). The 1 DPLeG will consist of 12 military units, including 4 general military brigades, an artillery brigade, 4 regiments of military types, and a command battalion, a reconnaissance battalion, and a chemical battalion. The 8th DPAK will consist of 11 military units: two mechanized brigades, a motorized brigade, an artillery brigade, an armored brigade, a logistics regiment, an anti-tank regiment, an anti-aircraft regiment, a command battalion, a reconnaissance battalion and a chemical battalion. The process of building these units has already begun.

- Construction of training grounds and training centers. As an example, it is worth mentioning the construction of a complex of facilities worth several hundred million złoty enabling the operation of equipment and conducting training classes, including using Abrams and K2 tanks at the Biedrusko training ground, belonging to the Land Forces Training Center in Poznań. Another example is the construction of a new training and testing center, implemented as part of the East Shield program on the premises of the Land Forces Training Center in Orzysz.

- Active and helpful role of public administration. Construction of new factories, change of production profile, securing supply chains - all this requires activity on the part of public administration and understanding of the situation in which NATO's eastern flank countries find themselves.

- Development of domestic space technologies. The Polish space industry offers a wide range of goods and services, starting from software, including that which uses artificial intelligence, through specialist tools and devices, to the production of nanosatellites and satellites and their launch into space. According to data from the Polish Space Agency (POLSA), our space industry consists of over 300 state and private entities, of a diverse nature, i.e. both business and research. It employs approximately 12 thousand highly qualified employees.

- Implementation of Operation Szpej. Operation Szpej assumes increased purchases of various types of individual equipment and withdrawal of obsolete equipment from use. Replacing equipment with new one is intended to increase soldiers' survivability on the battlefield, as well as increase their resistance to difficult weather conditions, ability to operate at night or fight in urban areas.

- Launch of the East Shield program. This program assumes the construction of a number of fortifications, terrain obstacles and military infrastructure along the eastern border of Poland. Its value is estimated at PLN 10 billion.

- Reactivation of Civil Defense. The Act on Population Protection and Civil Defense adopted by the Parliament creates a comprehensive system of population protection and civil defense in our country. It specifies the tasks of population protection in peacetime and wartime; bodies and entities carrying out population protection tasks and the principles of planning population protection and civil defense. Funds in the amount of no less than 0.3 percent of GDP will be allocated annually to financing tasks in the field of population protection and civil defense.

- Smart factory and industry 4.0. In short, this concept means combining and integrating advanced digital technologies with physical production, thanks to which the vision of the so-called smart factory becomes a reality. As a result of this approach, it is possible to optimize the operations of a production plant, expressed, among others, in improved productivity and efficiency, increased flexibility, improved customer service or reduced costs. The observable drive to transform armaments plants towards smart factories is a good trend.

- Stable and long-term financing. For years, Poland has been fulfilling the financial obligations set by NATO to spend at least two percent of GDP on defense. For several years, we have been observing a growing trend in this area, culminating in the planned defense expenditure for 2025 in the total amount of PLN 186.6 billion, which is to constitute 4.7% of Poland's GDP.

- Cooperation with the R&D sector. In Poland, there are a number of research and scientific centers thanks to which it is possible to quickly develop and implement innovations in the industry. A good example here is the Łukasiewicz Research Network, which includes 22 Institutes, employing 4,500 scientists, and the research conducted within its framework covers the area of: smart and clean mobility, digital transformation, health, green and low-emission economy. It is worth paying attention to, for example, the work on rocket technology and the Polish suborbital rocket ILR-33 Amber 2K.

5. CONCLUSIONS

- Prospects for the Polish defence industry are good.

- The key to success will be the effective use of geopolitical and technological changes, appropriate government support and the ability to adapt and innovate. In this way, the Polish defence industry can become not only a tool for ensuring the country's security, but also a significant player in the international arena. To this end, it is worth reaching for not only domestic funds but also external ones (EU and NATO) and entering into cooperation with other entities.

- Strengthening the cooperation of the defence industry with the civilian industry, including the information and communication technology sector, can bring additional benefits in the form of technology transfer and increased innovation.

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DECISION SUPPORT SYSTEMS IN THE CONTEMPORARY SECURITY ENVIRONMENT

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Abstract. *The purpose of this study is decision support systems from a management perspective and their relationship to the modern security environment. The author believes that management as a process is a primary means of influence, and the successful decision-making process goes through several stages. This article expands the scope of the theoretical review and shows the relationship between information processes and decision-making systems through modern technologies for process optimization through decision-making systems. This study is relevant and dictated by the development of Information Technology and the improvement of the decision-making process, including its use to provide appropriate options based on criteria for selecting the best option based on the assessment. The study focuses on theoretical data on decision-making systems currently in use, without claiming to be complete. This may provide prerequisites for future research in the context of implementing new technologies and using artificial intelligence in the decision-making process in various sectors of the economy.*

Keywords: decision making; automatic information processing; decision making systems

1. INTRODUCTION

Every activity in the modern world requires development and achievement of increasingly better results. Achieving the expected good result in any activity can largely be viewed as a decision-making system. In practice, decisions are usually made to solve a specific problem. In cases where an individual lacks the necessary competence to solve a particular problem and/or does not know who could, a decision-making system is then applied.

What do decision-making and decision support systems represent in management decision-making?

Decision-making can be regarded as the essence of management and as its fundamental characteristic. Without managerial decisions, there is no true management. In the literature, numerous authors define management decision-making as the most important managerial function. Furthermore, in specialized literature, there even exists the so-called "decision-making school," whose adherents not only argue that decision-making is the most important act in management but also that the management process itself is reduced to the process of making managerial decisions.

Management as a process represents the primary means of influencing or a system of activities related to:

- changing the behavior of individuals and groups;
- changing the organizational structure of production and management;
- redistributing resources;
- changing the conditions for the functioning of the system and the relationships between its elements.

The successful decision-making process consists of three main stages: formulating the question, generating alternatives, and making the decision. (Mladenov, Yul., Terziev, V., 2011, p. 74).

Until just a few years ago, methods based on individual creative thinking were primarily used. However, today, the use of large language models is becoming increasingly necessary, as they can assist at every step of the decision-making process. The development of information technologies helps to enhance the decision-making process.

"The Information Processes and Decision-Making Systems (IPDMS)" are the result of conducting scientific, applied scientific, and applied research in the field of modern information technologies aimed at optimizing processes and systems for decision-making (Institute of Information and Communication Technologies-Bulgarian Academy of Sciences, 2024)

2. A CONCEPT FOR DECISION-MAKING SYSTEM

Decision support systems are based on science management, research on operations, management theory, computer technologies, modeling technology, and information technologies as a means of semi-structured decision-making issues, i.e., activities of an intelligent person turned into systems. The system is capable of providing decision-makers with the necessary information, data, information and experience, in order to aid in decision-making and problem identification. (Vasilev, V., 2014, pp. 8-12). To create or modify the decision model, a variety of options as well as evaluation programs are offered.

A large portion of decision-making models, developed and evaluated through the consideration of numerous possible courses of action within one or another decision support system, are based on the examination of a large number of cases. It is evident that cases do not provide a solution in the form of an ideal answer for the specific decision-making situation. Instead, cases pose questions, provide frameworks for decision-making, and outline various options that can be used to train generative language models.

When discussing decisions in public organizations, it should not be forgotten that a number of requirements are presented, such as:

- Validity: Having complete and reliable information about the external and internal environment and acknowledging the fact that the decision will not be implemented in isolation but within a system with other previously made decisions.

- Timeliness: The timing of decision-making is crucial for overcoming any conflicts that arise within the public organization, but it is best when done early on.

- Cost-effectiveness: Objectives are achieved through various options, with costs varying in each option, necessitating the selection of the optimal one.

- Complexity: Decisions must consider not only changes in the economic aspect but also in the social, political, environmental, and other facets of the problem being addressed, continuously accounting for changes in any of these areas, which in turn affect the others. Therefore, when making decisions, these complex interrelationships must be considered, and the questions that arise must be addressed comprehensively.

- Specificity: Determining the exact composition and sequence of the planned activities, including deadlines for implementing decisions, methods for monitoring and evaluating the results of decision implementation.

There are also other fundamental requirements for decisions: timeliness, legality, flexibility, objectivity, and consistency (Mladenov, Yul., Terziev, V., 2011, p. 97).

The dynamism and complexity of activities in various organizations necessitate making different decisions, which can be classified according to various criteria.

Decisions can be prospective, current, or operational depending on their duration of implementation.

Depending on the scope of the issues being addressed, decisions are categorized as general or specific.

Based on the nature of the issues being addressed, decisions can be classified as economic, technical, technological, financial, administrative, organizational, and social. In management practice, there are no purely technical or purely economic decisions.

3. METHODS RELATED TO MANAGERIAL DECISION-MAKING

Decision-making typically involves choosing among multiple alternatives. Higher levels in the management hierarchy require making more decisions, and the higher the level, the more equally balanced the pros and cons between alternatives become. Making important decisions is accompanied by opinions, and the leader relies not only on facts because, in many cases, one fact or another may be misleading or essential facts may be lacking.

When making managerial decisions, heuristic methods, also known as "heuristics," are widely used. (Mladenov, Yul., Terziev, V., 2011). They are intended to generate options for solving a particular problem based on the inherent human ability for creative thinking and generally for creative activity. This method is characterized by heuristic reasoning, which allows for practical options for problem solving. The creative decision-making process using heuristic methods is one of the important resources of organizations, ensuring their competitiveness. Heuristic methods help in decision-making in conditions of increasing complexity, dynamics, and uncertainty of the external environment, especially when dealing with unstructured management problems.

Depending on the subject who conducts the decision-making process, heuristic methods are considered in two main groups: methods of individual and methods of group creative thinking.

Over the years, the process of decision-making has gone through various stages and evolved to incorporate the use of artificial intelligence today (Futurist.bg, 2023).

It is interesting to retrospectively analyze decision-making methods and note the progress in this area, alongside the development of information technologies.

An important method of individual creative thinking is the "scenario development" method, which find application primarily in determining overall economic policies in a given area. A drawback of this method is the lack of alternative solutions to the problem.

The following methods, these are the so-called methods of "morphological analysis", which are characterized by the use of sequential thought activities. The analysis enables the selection of a solution.

The "brainstorming" method is among the most widespread methods of creative participation in decision-making. This method is characterized by the mutual exchange of ideas during a collective brainstorming session on the problem at hand.

One of the most widely advocated heuristic methods in management activity are expert assessment methods. They are applied in determining the goals for solving a given problem by discussing options and choosing based on a conclusion about the choice.

Another method is the Delphi method and its modifications, the most widely used out of the group methods.

The Ringi method – a low-level manager prepares a document to solve a problem that is not within his competence. The document then goes to the next level of managers who do support or do not support the proposal to solve the problem. (Mladenov, Yul., Terziev, V., 2011).

4. AUTOMATIZED SYSTEMS FOR INFORMATION PROCESSING AND MANAGEMENT

Over the past two decades automated systems have been increasingly integrated into the lives of modern individuals. They even change people's daily routines, and it is impossible today to imagine

success in any field without the use of such automation systems. Information systems are developing as rapidly as possible, and information technologies are prioritized in their development for countries as they form the basis of organizing electronic government and international and national projects, including business, management, economics, administration, education, culture, healthcare, national security, and defense system.

Hence, decision-making support based on information systems is of crucial importance. These processes need to be mastered and controlled, especially when it comes to strategic management. It is important to note that the decision-making process is a systematic approach in making choices based on a set of criteria and selecting the best option based on evaluation.

The decision-making required in a given situation aims to assist the organization in better resource allocation, time efficiency, and other factors to achieve the best outcome. Decisions are most commonly categorized as operational, tactical, and strategic. Decision-making is usually associated with achieving goals, problem-solving, efficiency, improved results, risk management, or personal growth.

Business Intelligence (BI) (BI systems, 2022) is a system that encompasses processes, tools, and technologies necessary for transforming data into information and information into knowledge and plans that imply quick and effective business actions supporting the decision-making process.

It is through Business Intelligence (BI) systems that users obtain secure, consistent, understandable, easy-to-process, and timely information, which creates conditions for informed decision-making.

Business analysis systems can also help identify market trends and uncover problems that need to be addressed.

Large language models can also help identify goals and preferences, evaluate decision circumstances, and select a decision mechanism. And here again the dialogue is a key point. By asking the right questions, we can better understand the context of a decision. Another system is ChatGPT (How can we use ChatGPT to make more effective business decisions? 2023), with which we can quickly find suggestions of what typical goals other companies have pursued in a similar situation. This system gives different perspectives. The generative language model has a number of advantages – it is not self-interested and is much cheaper than external management consultants. It also means that ChatGPT can make preparation and decision support cheaper, especially for small and medium-sized companies giving them more chances in the market.

Systems are becoming more efficient because the economic incentive to make better business decisions is high and will drive the transition from today's ChatGPT to an even more powerful tool of the future, which we can tentatively call "DecisionGPT" (The future of business case solving, 2023).

The strength of ChatGPT and similar systems is in comparing and contrasting similar situations. This is perhaps the most important necessity in making many managerial decisions. Very few decisions that managers face to are unique. Thousands, sometimes millions, of managers before them have faced similar choices. The better it is described how the decision frameworks were formulated, the different options were evaluated and the corresponding decisions were made, the easier DecisionGPT will become a powerful tool for making more informed and correct decisions.

Another decision support system is DSS (Clinical Decision Support System, 2018), which is a computerized support system and is used to improve decision-making ability in a business organization as a significant part of its application is in the medical industry.

Of course, there are a number of other systems to support managerial decision-making, which we cannot consider here in substance.

All decision support systems must be protected, as well as the environment in which they operate. In the EU member states, a number of legal acts are applied, the main purpose of which is to guarantee the protection of consumers, not only EU consumers. In this sense, I will refer to one of the latest documents "Resolution of the European Parliament from 12 February 2020 on automated decision-making processes:

ensuring the protection of consumers and the free movement of goods and services" (2019/2915(RSP) (European Parliament, 2020).

5. CONCLUSION

In the modern world, every person, especially in the role of decision-maker, is continuously faced with solving complex cases. It should not be overlooked how many factors influence decision-making. Making the right decision requires more practice and often help from outside. Then it comes the turn of decision support systems. In addition to learning from examples of decision-making, people need to improve on other leadership skills to make better choices, especially when faced with difficulties.

Responsible decision-making involves considering ethical, moral and long-term consequences when making choices, with examples including environmental awareness, ethical dilemmas, peer pressure and substance use, academic integrity, online behavior and cyberbullying, financial responsibility, health and well-being, social responsibility and civic engagement, conflict resolution and responsible use of technology.

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MULTIDIMENSIONAL COMPARATIVE ANALYSIS OF THE NUMBER OF UKRAINIANS UNDER TEMPORARY PROTECTION AND RECEIVING EDUCATION IN POLAND IN 2023 IN TERMS OF THE SECURITY OF THE REPUBLIC OF POLAND

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Abstract. *The migration of children, pupils, and students from Ukraine to Poland after the Russian invasion in 2022 presented substantial challenges to Poland's education, social, and economic systems. This study conducted a multidimensional comparative analysis of the number of Ukrainian children under temporary protection. Using bar and pyramid charts, the analysis covered data from December 31, 2022, to March 31, 2023. The findings indicated a national decrease of 1,396 Ukrainian students, with the largest declines in Dolnośląskie and Mazowieckie voivodeships. The results highlight structural and demographic shifts that require policy responses.*

Keywords: education in Poland; Ukraine; migration; security; multidimensional analysis.

1. INTRODUCTION

The education system of Ukrainian migrants in Poland in 2025, although well-organized in many aspects, still requires further improvements to respond to the needs of refugee students better (Główny Urząd Statystyczny [GUS], 2025). The shape of the education process will undoubtedly be influenced by the number of pupils and students, including migrants from Ukraine. The study poses a research problem: by how much and in what voivodeship did the number of Ukrainian students under temporary protection in respective voivodeships in Poland change primarily between December 31, 2022 and March 31, 2023? The following research goal was adopted: to conduct a multidimensional comparative analysis of children, pupils and students under temporary protection in Poland dynamically. For the research problem and research goal, the following research hypothesis was outlined: it is assumed that the number of students under temporary protection in Poland between December 31, 2022 and March 31, 2023 decreased, and the most visible difference was observed in Dolnośląskie Voivodeship. The following research methods were used in the article: analysis, inference and synthesis.

2. ANALYSIS OF THE LITERATURE ON THE SUBJECT OF RESEARCH

The attack of Russia on Ukraine led to a huge migration of people from Ukraine to Europe, mainly to Poland, and it also had a significant impact on the education system in Poland (Jaroszewicz, Krępa, Nowosielski, Pachocka, & Wach, 2022; Serwis Rzeczypospolitej Polskiej, 2022; Żochowski, Rogoża, & Matuszak, 2022; Kazdobina, Hedenskog, & Umland, 2024; Bankier.pl, 2022). First of all, an increase in the number of students in various institutions was observed. After the outbreak of the war in Ukraine, Poland became one of the main countries to which people fleeing the conflict went. As a result, many Ukrainian children went to Polish schools, which resulted in an increase in the number of students, especially in large urban agglomerations such as Warsaw, Gdańsk, Kraków, Lublin and Wrocław (Starzyńska-Rosiecka, 2024; Wpolityce.pl, 2024; Portaldlaedukacji.pl, 2024; Matłacz, 2024).

There was also a greater need to learn the Polish language, mainly by Ukrainian children who came to Poland and did not know this language before (Winczewska, 2024; Portaloswiaty.pl, 2023). To help them, additional Polish language lessons were introduced. Curricula began to be adapted to the needs of refugee children, especially in the field of subjects related to the Polish language and knowledge about Poland. Special integration classes were also launched to facilitate integration with Polish peers and the understanding of cultural differences (Król-Gierat & Nosidlak, 2022).

More children led to an increased demand for teachers. To meet new challenges, schools had to employ additional teachers, especially for Polish as a foreign language, as well as psychologists and educationalists who helped children with emotional and psychological adaptation to the new country (Garbicz, 2023; Kuratorium Oświaty w Kielcach, 2024). There were problems with the appropriate school infrastructure. In some schools, there were too few places in classes, which led to an increase in the number of students in groups or to changes in the organization of classes, for example learning in two shifts (Money.pl, 2024; Głos Nauczycielski, 2024). For the needs of teachers, training was organized on working with refugee children and dealing with language and cultural problems (Edupolis.pl, 2022; Kuratorium Oświaty w Kielcach, 2024). Additionally, various non-governmental organizations and local authorities organized psychological assistance for children and adults.

There were also challenges related to the integration of Ukrainian and Polish children. In many cases, tensions were visible. Greater attention began to be paid to issues of integration and tolerance, including anti-discrimination programs (Perek, 2022). Such a large number of migrants from Ukraine may lead to cultural diversity in Polish schools and the introduction of new teaching models that take into account the needs of students from diverse backgrounds. That may also affect the development of language competences, both for Polish students who have contact with children from Ukraine, and for Ukrainian students learning Polish (Nodzyńska, 2023; Chrostowska, 2024).

Certainly, the migration of people from Ukraine had a major impact on the education system in Poland, forcing quick adaptations in the organization of schools, curricula and social support, as well as contributing to greater diversity in the Polish educational system. The largest number of children from Ukraine live in the central and border voivodeships: Mazowieckie, Lubelskie, Podkarpackie. The proximity of these regions to Ukraine, as well as the extensive aid, educational and social infrastructure, meant that a large number of Ukrainian refugees, including children, were concentrated in those places (Portalsamorzadowy.pl, 2023).

Warsaw is one of the cities that accepted the most refugees from Ukraine. It has extensive infrastructure, full educational opportunities and various possible job choices. This is where many Ukrainians from various regions of Ukraine currently reside, which results from the status of the capital as the administrative, economic and cultural center of Poland (Portalsamorzadowy.pl, 2023).

Security of Ukrainian children, pupils and students who came to Poland as a result of Russia's attack on Ukraine is a key issue, covering both physical, emotional and social protection. Crucial matters also are: creating appropriate conditions for their integration, protection against violence and human trafficking, as well as help in coping with trauma and difficult war experiences. Collaboration between government

institutions, non-governmental organizations, schools and society is significant to ensure a safe and supportive environment for children in Poland.

A multidimensional analysis of the number of children, pupils and students from Ukraine in Poland under temporary protection was conducted in the study (Jurgilewicz, Malec, Piwowski, & Kozicki, 2021; Kozicki, 2022; Kozicki & Kalwasiński, 2021; Latosiewicz, Kozicki, & Tomaszewski, 2025; Mizura, Mitkow, & Kozicki, 2023).

3. MULTIDIMENSIONAL ANALYSIS OF CHILDREN, PUPILS AND STUDENTS FROM UKRAINE IN POLAND

The research began by presenting data on children, pupils and students from Ukraine under temporary protection according to voivodeships in Poland as of March 31, 2023, in Figure 1.

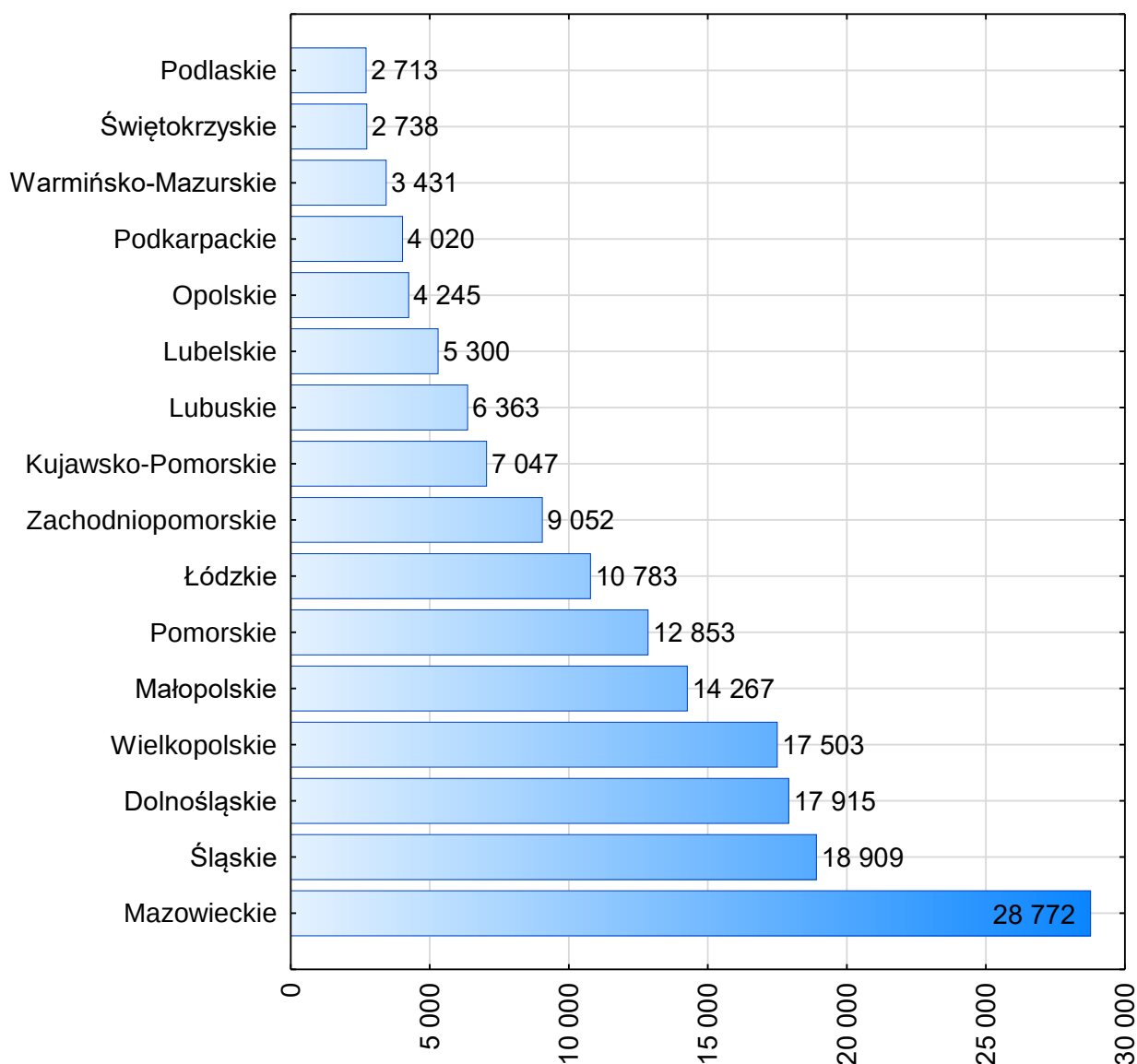


Figure 1. Bar chart of data on children, pupils and students from Ukraine under temporary protection by voivodeship, as of March 31, 2023
Source: own study based on data

Temporary protection was granted to Ukrainian citizens after the start of the Russian invasion in 2022. It enables the legal stay, work and access to education in Poland.

Based on data available as of March 31, 2023, there were hundreds of thousands of people from Ukraine in Poland, a significant part of whom were children and youngsters. Most of them attended Polish primary and secondary schools and used programs supporting their education.

The division of the number of children, pupils and students in respective voivodeships is presented in Figure 1. The largest number of people under temporary protection and studying were in the Mazowieckie Voivodeship: 28 772, then in the Śląskie Voivodeship: 18 909. The third place was taken by the Dolnośląskie Voivodeship: 17,915. The fewest Ukrainian students were in Podlaskie Voivodeship: 2713.

A total of 16 5911 Ukrainians were studying in Poland as of March 31, 2023.

Most children from Ukraine attended Polish schools, where they were offered language and integration support.

Then, Figure 2 analyzes data on children, pupils and students from Ukraine under temporary protection by voivodeship, broken down by institutions as of March 31, 2023.

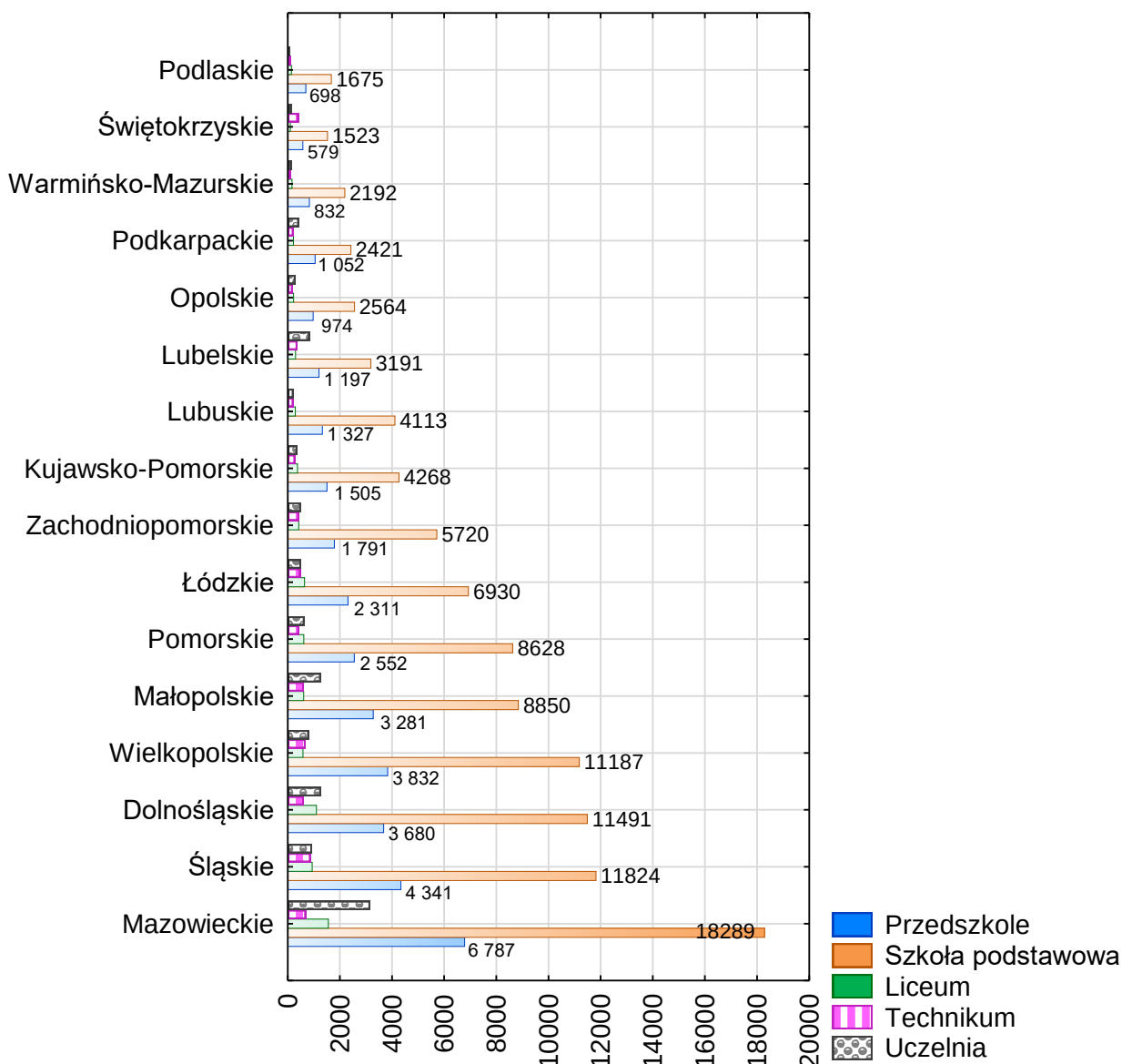


Figure 2. Bar chart of data on the number of children, pupils and students from Ukraine under temporary protection by voivodeship, broken down by institutions, as of March 31, 2023

Source: own study based on data

The data presented in Figure 2 shows that the largest number of Ukrainians under temporary protection and receiving education were in primary schools: 104 866 and kindergartens: 36 739. Universities were in the third place (11 584). The fourth place was taken by secondary schools, where 8 291 people studied. The technical school took the last place (6 719). The leader in terms of where students from Ukraine study in Poland is definitely the Mazowieckie Voivodeship, and the lowest one in the ranking is the Podlaskie Voivodeship.

Then, data on children and students from Ukraine under temporary protection by type of educational institution and gender as of March 31, 2023 were analyzed.

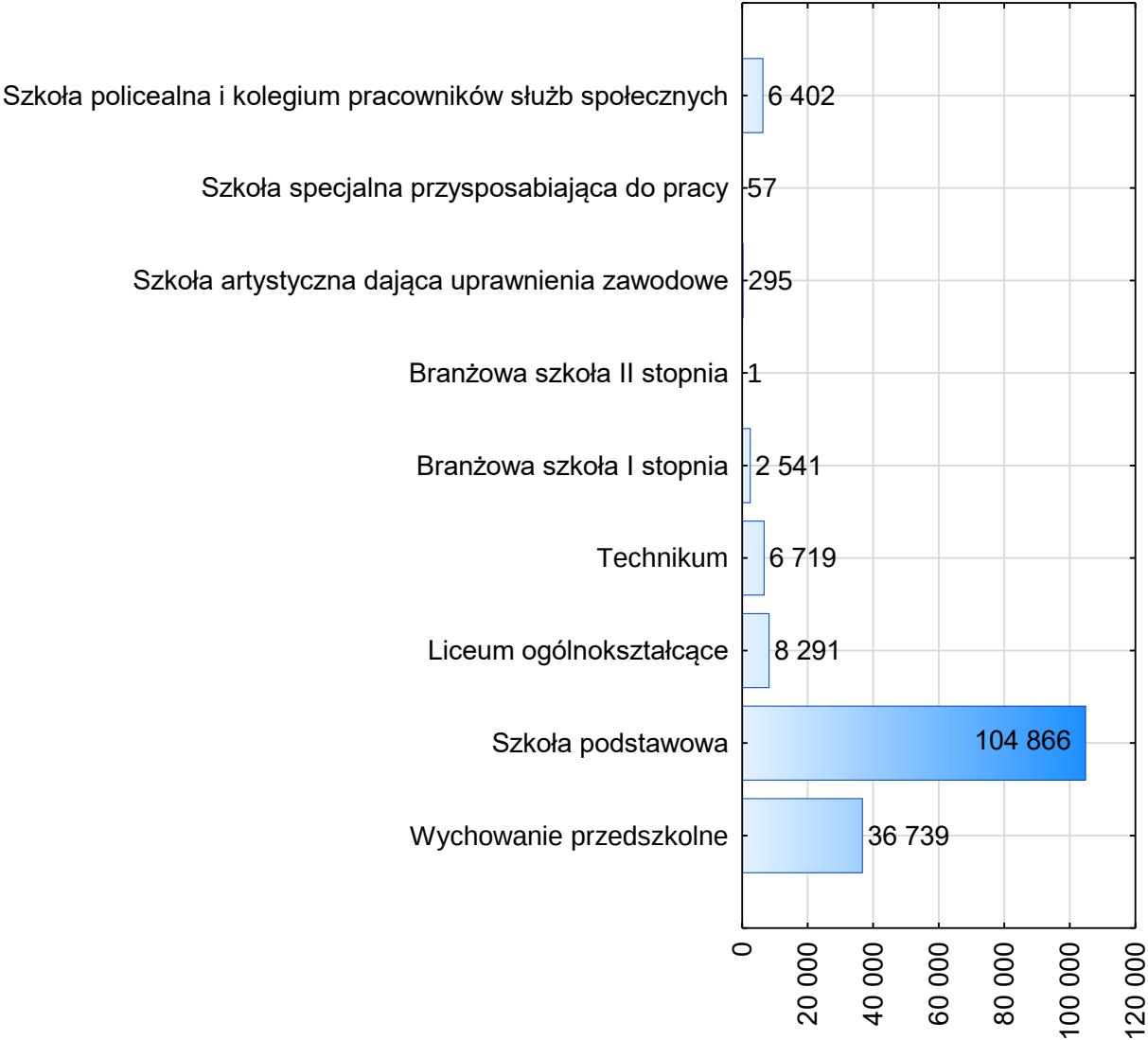


Figure 3. Bar chart of data on children and students from Ukraine under temporary protection by type of educational institution and gender as of March 31, 2023

Source: own study based on data

The analyzes conducted show that the largest number of students under temporary protection receiving education were in primary schools: 104 866, then in kindergartens: 36 739. In the third place were general secondary schools: 8 291. The next place was taken by technical schools: 6 791, post-secondary schools: 6 402, and first-cycle vocational schools: 2 541. Ukrainians also studied at art schools providing professional

qualifications: 295, special schools preparing for work: 57 and second-cycle vocational schools: 1. For research purposes, data on children and students from Ukraine under temporary protection by type of educational institution and gender as of March 31, 2023 were analyzed, divided into boys and girls.

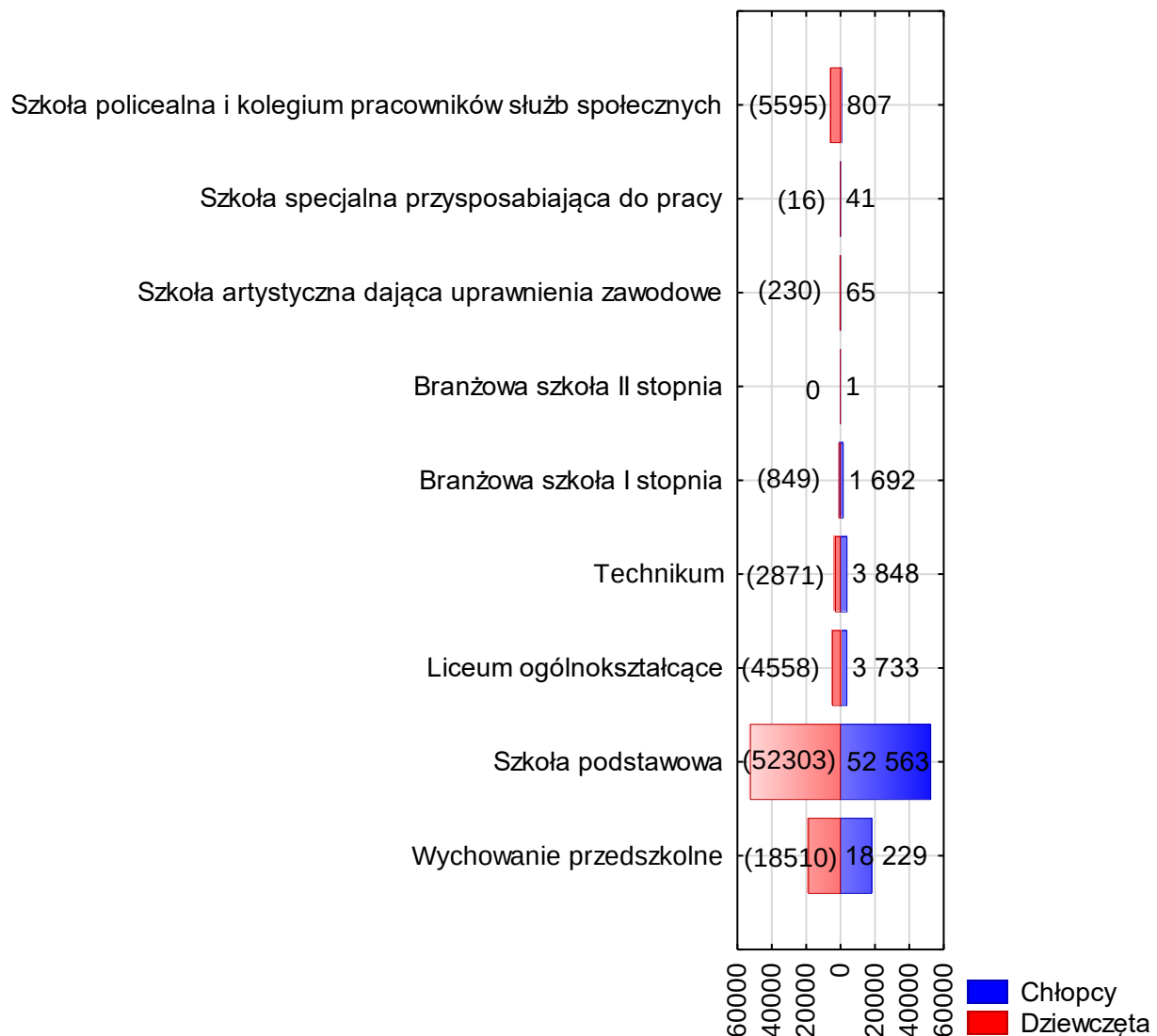


Figure 4. Pyramid chart of data on the number of children and students from Ukraine under temporary protection by type of educational institution and gender as of March 31, 2023

Source: own study based on data

As of March 31, 2023, 84 932 girls and 80 797 boys receiving education in Poland were covered by temporary protection. More boys (52 563) than girls (52 303) studied in primary school. The opposite was in kindergartens, where 18 510 girls and 18 229 boys were educated. Similar to kindergartens, there were 4 558 girls and 3 733 boys in general secondary schools. The largest difference between girls (5 595) and boys (807) was in post-secondary schools and community service colleges. Significantly more boys (3 848) studied at technical secondary schools compared to girls (2 871).

The next stage of the research was the analysis of data on students, graduates, doctoral students and academic teachers and research workers from Ukraine under temporary protection by gender in 2023.

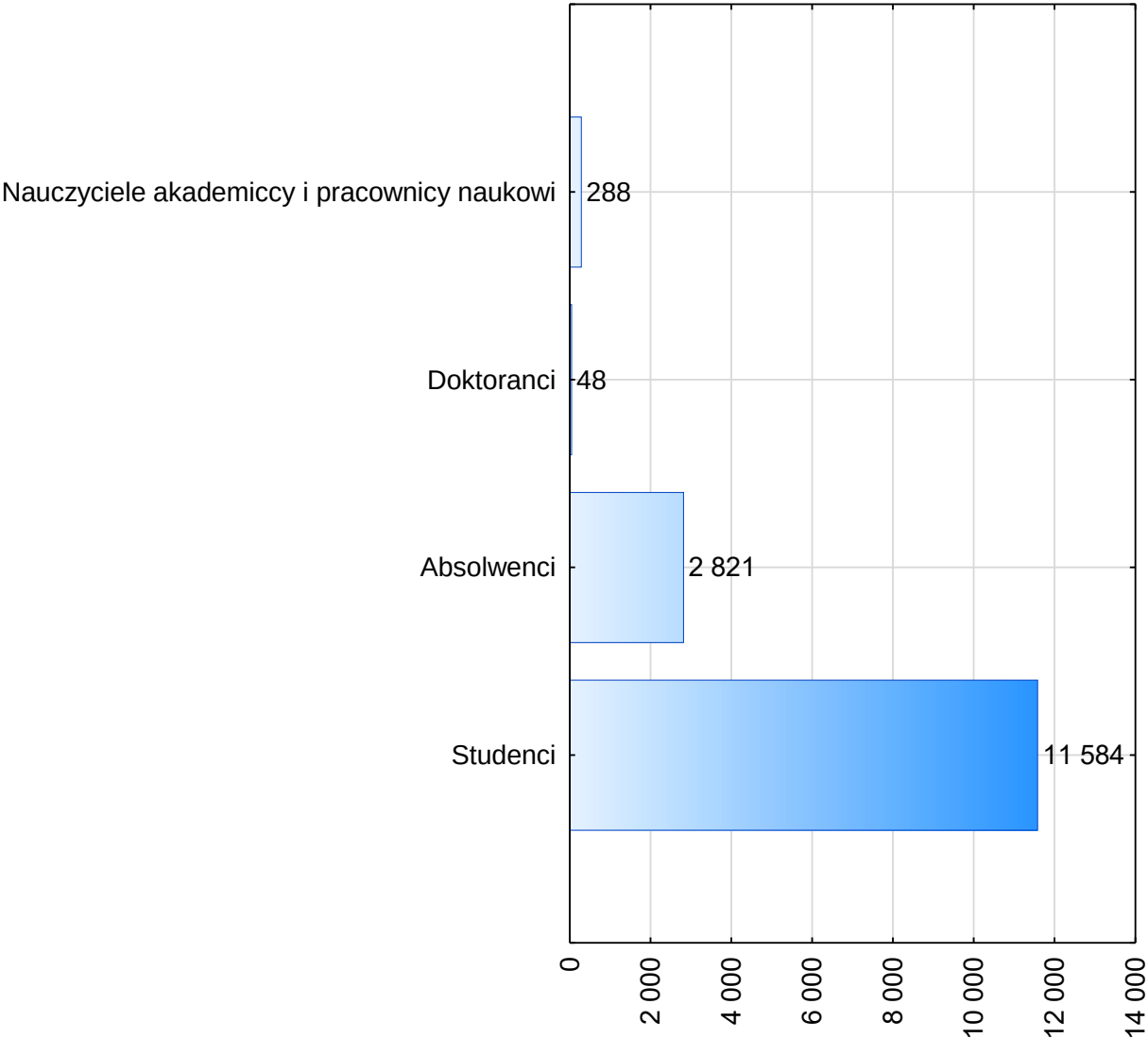


Figure 5. Bar chart of data on students, graduates, doctoral students and academic teachers and research workers from Ukraine under temporary protection in 2023
Source: own study based on data

As of March 31, 2023, 11 584 students, 2 821 graduates, 288 academic teachers and 48 doctoral students were covered by temporary protection.
Data regarding students, graduates, doctoral students and academic teachers and research workers from Ukraine under temporary protection in 2023 is presented below, divided into men and women.

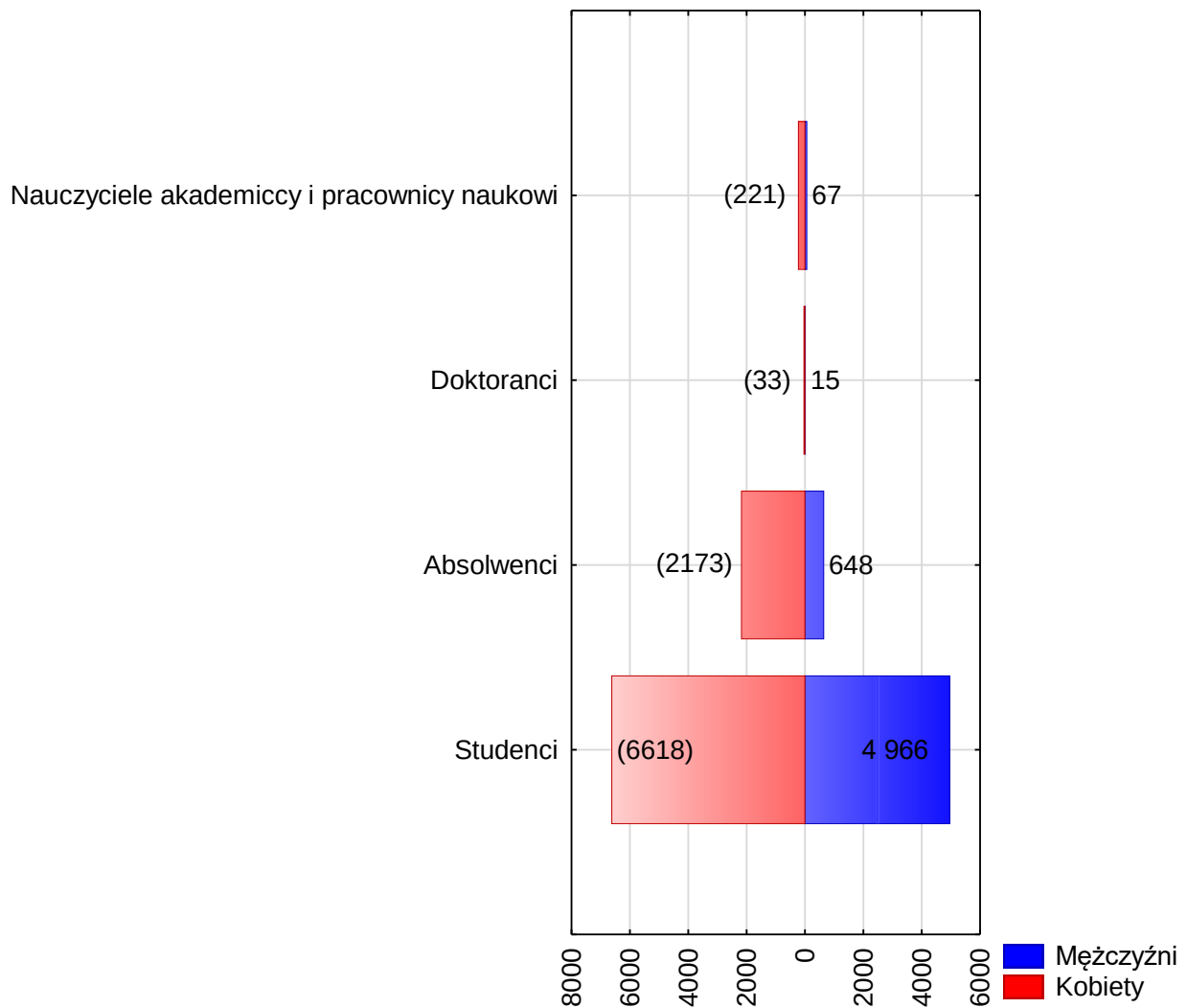


Figure 6. Pyramid chart of data on students, graduates, doctoral students and academic teachers and research workers from Ukraine under temporary protection in 2023, broken down by men and women

Source: own study based on data

The analyzes conducted show that there were significantly more women covered by temporary protection compared to men in each of the categories listed in Figure 6 (students, graduates, doctoral students and academic teachers).

For illustrative purposes, Figure 7 presents data on Ukrainian students under temporary protection in respective voivodeships in Poland in two periods: December 31, 2022 and March 31, 2023.

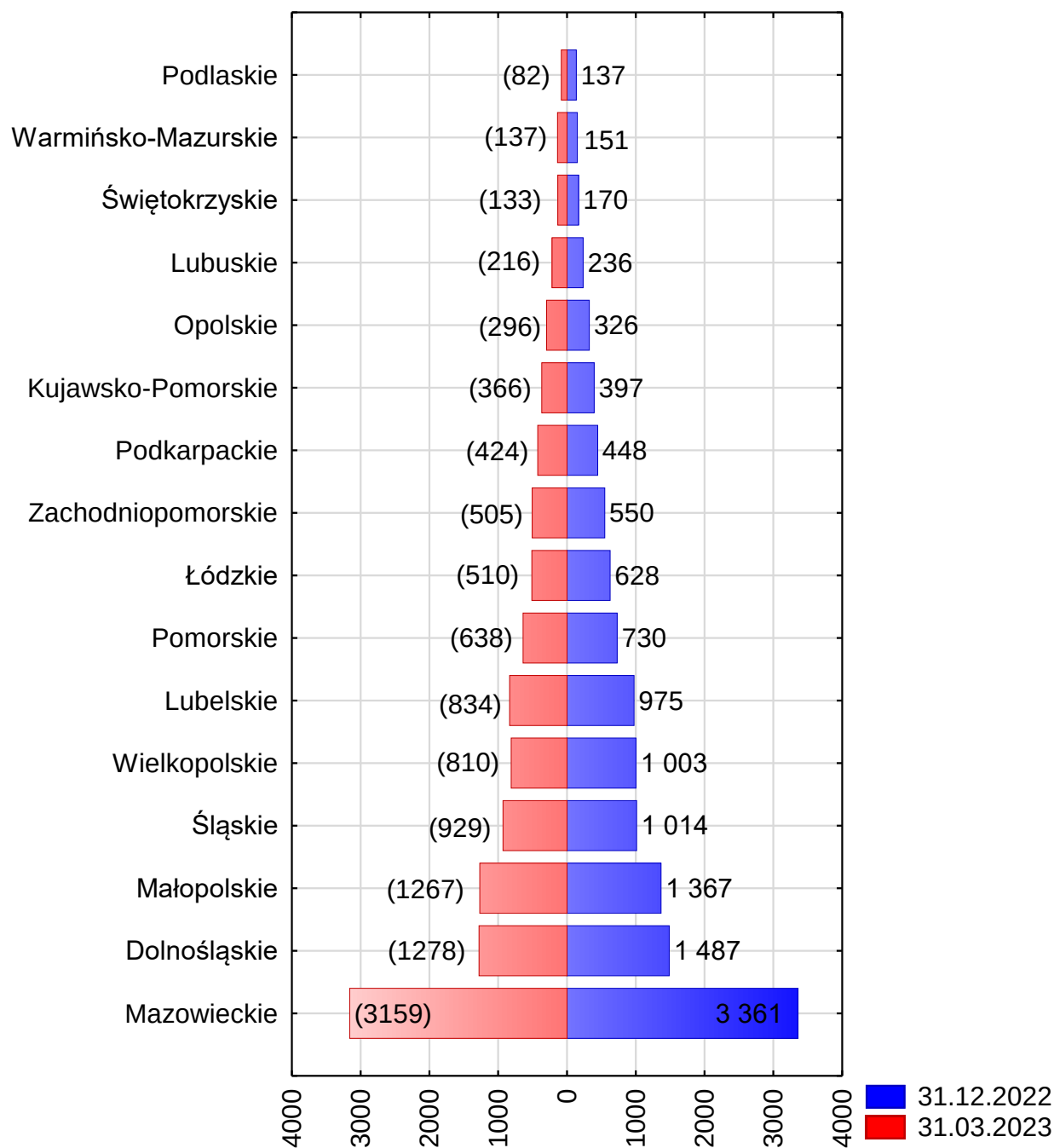


Figure 7. Pyramid chart of data on Ukrainian students under temporary protection in respective voivodeships in Poland in two periods: December 31, 2022 and March 31, 2023
Source: own study based on data

Research shows that in each of the considered voivodeships there is a decreasing trend in the number of Ukrainian students under temporary protection. Detailed differences between the two analyzed periods are presented in Figure 8.

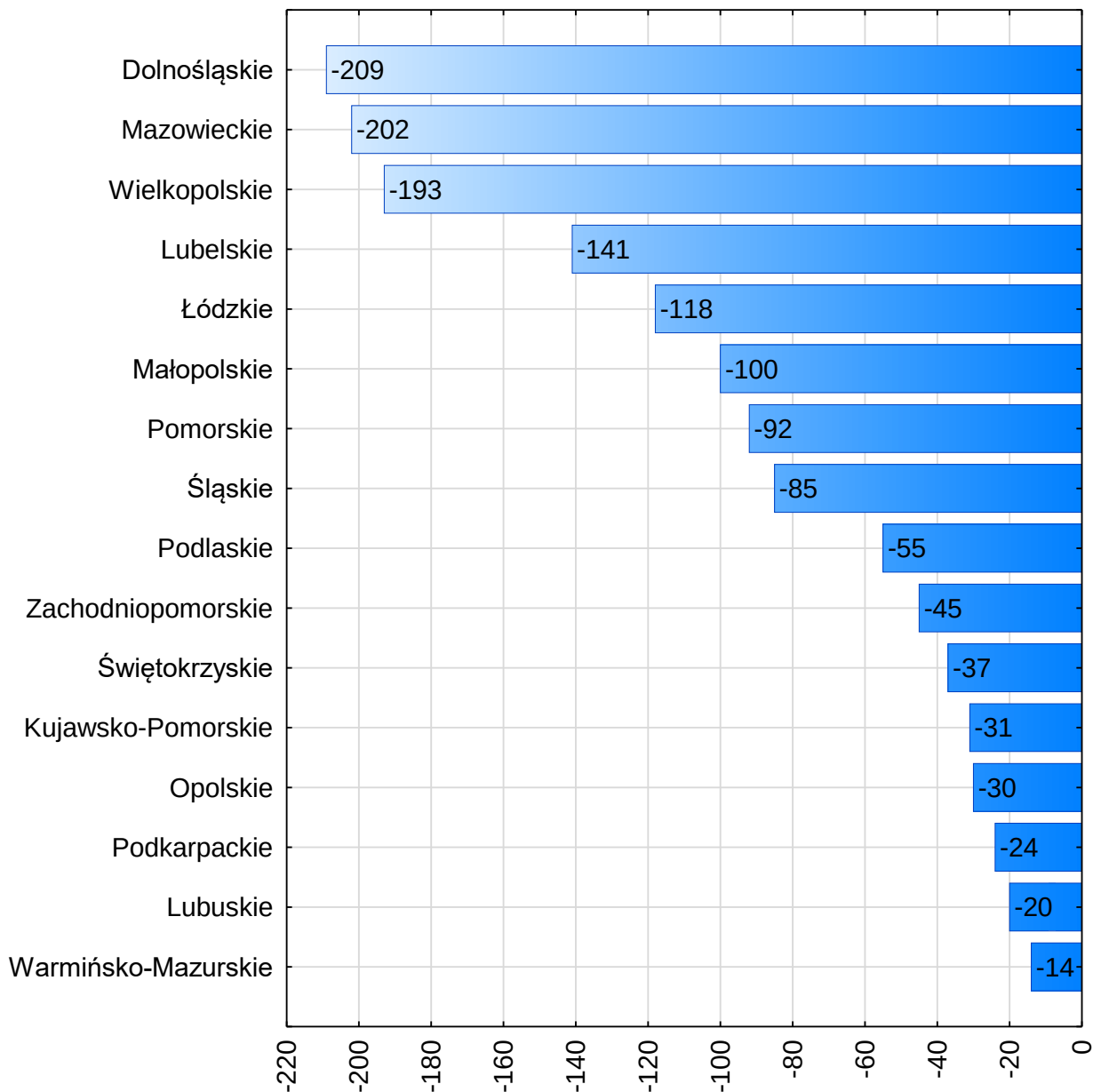


Figure 8. Bar chart of the difference in data regarding Ukrainian students under temporary protection in respective voivodeships in Poland between March 31, 2023 and December 31, 2022.

Source: own study based on data

Research shows that the number of Ukrainian students under temporary protection in respective voivodeships in Poland between December 31, 2022 and March 31, 2023 decreased by 1396 people. The most visible decreases were observed in the following voivodeships: Dolnośląskie: 209, Mazowieckie Voivodeship: 202, Wielkopolskie Voivodeship: 193, Lubelskie Voivodeship: 141. The smallest decreases are visible in the Warmińsko-Mazurskie Voivodeship and amount to 14 students.

4. CONCLUSIONS

One of the most important and visible effects of Russia's attack on Ukraine was the mass migration of refugees to Europe, mainly to Poland, where millions of refugees were accepted, which constituted a huge organizational and logistical challenge.

It can be stated that the largest concentration of Ukrainian students is in schools in voivodeship cities, as well as in smaller towns that accepted larger groups of refugees from Ukraine after 2022. Many of those

institutions have adapted their educational programs and offer linguistic, psychological and social support to help Ukrainian students integrate into the Polish education system.

As of March 31, 2023, the largest number of people under temporary protection and receiving education were in the Mazowieckie Voivodeship: 28 772, then in the Śląskie Voivodeship: 18 909. The third place was taken by the Dolnośląskie Voivodeship: 17 915. The fewest Ukrainians studying were in the Podlaskie Voivodeship: 2713 people.

The largest number of Ukrainian children receiving temporary protection and education were in primary schools (104 866) and kindergartens (36 739). The total number of children studying as of March 31, 2023 is 84 932 girls and 80 797 boys.

As of March 31, 2023, 11 584 students, 2821 graduates, 288 academic teachers and 48 doctoral students were covered by temporary protection.

The research goal was achieved and the hypothesis was verified. The answer to the research question is as follows: in each voivodeship in Poland there is a decreasing trend in the number of Ukrainian students under temporary protection between the period from December 31, 2022 to March 31, 2023. During that time, the number of Ukrainian students decreased by 1396 people. The most visible declines were observed in the following voivodeships: Dolnośląskie (209), Mazowieckie Voivodeship (202), Wielkopolskie Voivodeship (193), Lubelskie Voivodeship (141).

Improving the education system in Poland in terms of the number of migrants from Ukraine requires a many-sided approach, which should focus on linguistic, emotional and cultural support, as well as organizational changes in schools. A key element is also the provision of specialized training for teachers dynamically and optimal, systematic adjustment of the curriculum, which will enable children to adapt more easily to the Polish educational system in the face of Poland's contemporary geopolitical challenges.

It is extremely important to constantly study and compare the data considered in the article in terms of subsequent years such as 2024, 2025 and later. It would be interesting to check whether, for example, the number of students is decreasing.

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MILITARY CRIMINAL LAW AS ONE ELEMENT OF SECURITY

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Abstract. *Criminal law in the armed forces is undoubtedly one of the foundations of security. Complementing it against this background is the law of military discipline. two branches of law coexist and function in parallel. However, their role is remarkably similar. Together, they are intended to support the maintenance of good order, both within each military formation and in broader, international relations. Among other things, they serve to ensure the smooth achievement of the objectives set for each army. This article is a sort of systematisation of the subject matter of the title. It is a cross-sectional analysis of the normative foundations of military criminal law in its broadest sense. The starting point is international law. The author then discusses in detail the specifics and knotty legal regulations in this area on the example of Polish law. Not forgetting the history, he also refers to the legacy of rulings by military criminal courts in the previous regime, passed against persons repressed for activity in favour of the independent existence of the State. The article concludes with a summary of the considerations.*

Keywords: armed forces, military criminal law, law of war, military justice, law of transition.

1. INTRODUCTION

Military justice preceded the organisation and operation of military justice on a peacetime basis. Military criminal trial was born as a criminal procedure of wartime. This refers both to the Roman military criminal trial and to its Polish roots, in the form of the so-called Hetman's court. Field proceedings were something natural for the military, in contrast to the so-called ordinary peacetime mode. The "special" procedure of the military criminal trial was and is the ordinary peacetime procedure, which underlines the specificity of the field in question. Military criminal legislation has undergone a separate evolution from general criminal legislation. In the case of Poland, it also retained its identity during the period when the Polish State did not exist as a sovereign subject of international law. Military formations applied their own normative acts, which were partly modelled on foreign (including partition) law and partly had a national character, corresponding to the spirit of the Polish military (Czyżak, 2012; Sieracki, 1983).

Currently, *sensu largo*, the penal law of the armed forces is separate and highly specific compared to the solutions in force in the common criminal law. This is a justified solution, especially given the nature of the armed forces, including their functions and the system of hierarchical subordination applicable to them. These elements dictate the recognition of the armed forces as a distinct community (Przyjemski & Kmiecik, 2014).

Despite this state of affairs, there is still a paucity of holistic studies in the literature dedicated to the current military criminal law, addressing not only the substantive law but also the procedural and executive aspects. The activities performed by the armed forces undoubtedly require strict and expected behaviour. They cannot be characterised by arbitrariness. The army also requires internal order, which entails compliance with a number of different types of regulations and with the provisions of the General Regulations of the Armed Forces. Violations of these regulations, especially in extreme situations, should be sanctioned criminally, disciplinarily or administratively. This is therefore a large domain still awaiting wider exploration than before. I would therefore like to express the hope that this panoramic study will become one of the contributions initiating a broader discourse around the issues of military law.

The fundamental premise of this work, however, is to show the totality and specificity of the regulation of military criminal law. Knowledge of these issues is crucial for understanding the essence of considerations concerning individual legal institutions in this field (Zgoliński, 2020).

2. THE INTERNATIONAL LEGAL ASPECT

Further considerations should begin with a few themes of an international nature. In general, it can be stated that at this broadest level of social relations, a certain set of norms has existed for a long time, which shape the framework of criminal responsibility before international courts and tribunals. These norms are universal in nature and are not exclusively addressed to soldiers. They apply to those who have committed serious crimes on a broader scale. The division of these most socially harmful crimes into war crimes, crimes against humanity, the crime of aggression, and genocide is undisputed in international law. Their common characteristic is that they are not subject to the statute of limitations.

Relating this aspect of the issue, it should be pointed out that the lack of statute of limitations is a clear deviation from the normative shape of the Polish statute of limitations institution, which has been elevated to the status of a constitutional principle (Article 43 of the Constitution of the Republic of Poland) in relation to these categories of acts (Zgoliński, 2020).

As it were, a relatively comprehensive humanitarian law (the law of armed conflict) operates in parallel in international law. These norms relate to the parties involved in an armed conflict and are intended to regulate their interaction with each other. It has numerous coherences with international law norms on the use of force, human rights, and international criminal law. The circle of humanitarian law provides perhaps the largest number of criminal acts, which generally boil down to various types of violations related to the conduct of hostilities and torts against protected persons and objects (war crimes).

For the sake of illustration, it can be pointed out that these include cases of attacking real estate and other objects that are not military targets, the use of unauthorised types of weapons or methods of warfare, the murder of civilians, the use of torture or the rape and robbery of civilians. These acts must be in connection with an armed conflict. As a general rule, in armed conflicts, targets should be persons who take part in the armed action. The catalogue of targets, as well as the permissibility of attacking them, varies depending on the rank of the conflict and the status of the person concerned.

If the perpetrators of this behaviour are soldiers, then their commanders should also be held responsible. However, this refers not only to situations in which they gave the order to carry out such acts, but also to situations in which they were aware of such actions and did not react to them. War crimes are generally tried by military tribunals, which are international in nature. One of the first such jurisprudential bodies was the Nuremberg Tribunal. Later, war crimes were also adjudicated by criminal tribunals set up on an ad hoc basis by the UN Security Council. They concerned tort crimes in Yugoslavia and Rwanda. The International Criminal Court was established in 1998, alongside minor hybrid tribunals. They deal with the trial of persons guilty of crimes committed during armed conflicts taking place in different countries (Przyjemski & Kmiecik, 2014).

Crimes against humanity, according to Article 7 of the Rome Statute of the International Criminal Court, constitute conduct such as murder, extermination, slavery, deportation, apartheid, torture, and various persecutions. The subjects of the execution of these crimes are civilians. They are characterised by their wide scale and thus have an extremely high degree of social harm. In addition, the 1948 UN Convention on the Prevention and Punishment of the Crime of Genocide recognises that genocide is any act committed with intent to destroy the whole or a substantial part of a national, ethnical, racial or religious group through murder, causing serious bodily or mental harm to members of the group, the creation for the members of the group of conditions of life calculated to bring about their physical destruction in whole or in part, the use of measures intended to prevent births within the group, or the forced transfer of children (Przyjemski & Kmiecik, 2014).

A separate conceptual category is the crime of aggression. These are acts that are violations of the UN Charter. They therefore have a much broader dimension and are related to political aspects. More specifically, they involve any type of influence on state policy resulting in this type of behaviour. The term crime of aggression has its normative anchorage in an amendment to the Statute of the International Criminal Court. By aggression is meant the planning, preparation, initiation, or commission by a person

exercising effective direction or control over the actions of a State of an act of aggression which by its nature, gravity, or scale constituted a violation of the Charter of the United Nations.

The term act of aggression, in turn, is understood to mean the use of armed force by a State which has harmed the sovereignty, territorial integrity, or political independence of another State, or in any other manner inconsistent with the Charter of the United Nations. It can therefore be an attack by armed forces (including informal units, so-called "green men") against another State, or an agreement to use one's own territory to commit an act of aggression by another State against a third State.

It is worth adding further that there is a general prohibition in international law on the recourse to force by states. It is established by the UN Charter. Members of the United Nations have an obligation to refrain from using force against the independence of any state. Exceptions to this prohibition are provided for: (a) the right of self-defence in the face of armed aggression; (b) coercive action by the UN Security Council to maintain or restore peace and security (Przyjemski & Kmiecik, 2014).

3. SPECIFICITY OF MILITARY CRIMINAL LAW ON THE EXAMPLE OF POLISH LAW

With this international framework in place, it is appropriate to move on to a more detailed analysis related to the selected national norms on substantive criminal law in the military. It is immanently linked to the freedom of individual countries to shape their legislation. However, the specificity of the armed forces is such that it is possible to identify certain elements and common, parallel institutions among specific national regulations. These will be presented below, using the example of Polish law.

The integration of the principles of criminal responsibility of soldiers and civilians is observable in the Polish Criminal Code (Majewski, 2024). Its consequence is the lack of a separate military penal code. In the past, on the other hand, provisions in this area were sometimes normalized in separate legal acts, such as the Military Penal Code of 1928. It is worth noting that the Penal Code does not know the term "military offence". As rightly pointed out by Sieracki (1983), such a distinction would derive the meaning of the term from purely formal considerations in the form of the codal location of the act in question, and ignore substantive considerations standing in opposition to such an approach.

A characteristic feature of the military part of the Criminal Code is the prosecution of certain offences at the request of the unit commander. Such a solution is intended to limit criminal repression against soldiers who commit minor military offences. Furthermore, the provisions of the military part of this Code extend the catalogue of penalties provided for in the general part to include the penalty of military detention and supplement the penal measures with expulsion from professional military service and degradation (Przyjemski & Kmiecik, 2014).

Within the military part, there are separate General Provisions concerning soldiers (Chapter XXXVIII) and several categories of offences, traditionally grouped according to a common object of protection: Chapter XXXIX - Offences against the obligation to perform military service, Chapter XL - Offences against the rules of military discipline, Chapter XLI - Offences against the rules of dealing with subordinates, XLII - Offences against the rules of handling weapons and armed military equipment, Chapter XLIII - Offences against the rules of service, Chapter XLIV - Offences against military property.

Article 317 § 1 of the Criminal Code expresses the idea of maximum integration of the principles of criminal liability of soldiers and non-soldiers. It boils down to the statement that the provisions of the general and special parts of the Code of Criminal Procedure are also applicable to soldiers, with the proviso that if the provisions of the military part of the Code of Criminal Procedure provide for different solutions, then they take precedence (Szeleszczuk, 2024).

The provision of Article 317 § 2 of the Criminal Code prescribes the appropriate application of the provisions of Articles 356–363 of the Criminal Code, as well as of the general provisions concerning soldiers to military personnel. This solution broadens the subjective scope of liability. Civilians employed in the military, performing duties under an employment contract comparable to those of soldiers arising from service, who commit an offence in connection with their work, are covered by the same rules of

criminal liability as soldiers. This is to ensure that the same liability applies to offences of the same type regardless of the service status of the perpetrator.

Pursuant to Article 317 § 3 of the Code of Criminal Procedure, the provisions of the military part shall also apply *mutatis mutandis* to other persons if the law so provides. In general, these will be persons serving in other military formations. The command to commit an unlawful act being an order may lead to a conflict between two duties. On the one hand, there will be the soldier's duty of obedience and, from the other, the general duty to obey the law (Kutzmann, 2025a). Refusal to obey an order and failure to obey it or to obey it contrary to its content is a criminal offence (Article 343 of the Code of Criminal Procedure). Pursuant to Article 318 of the Code of Criminal Procedure, however, a soldier who commits a criminal act in the execution of an order does not commit an offence, unless, in the execution of the order, he intentionally commits an offence (Majewski, 2024). Thus, the criminal liability of a soldier who executes an order is excluded only in the case of unintentional offences. The intentional commission of an offence will lead to liability. The described solution thus indicates the rejection of the so-called "blind bayonet" concept. According to this, a soldier is obliged to carry out every order, regardless of its content. If he has fulfilled the elements of a criminal act in doing so, he will not be held criminally liable (Banasiak, 2020).

Pointing to the rudimentary solutions in Polish military criminal law, it is impossible to omit Article 319 of the Code of Criminal Procedure, which defines the prerequisites of the so-called counter-type of ultimate necessity in the army. This countertrip boils down to a situation where a soldier, by enforcing obedience to an order, violated the legal goods of another soldier and exhausted the elements of a criminal act. In such a case, he does not commit it, as his conduct is deemed to lack the characteristics of unlawfulness. It thus finds its application in the case of soldierly disobedience or resistance. Obviously, it will be applicable when, in the reality of the specific case, immediate counteraction was required and obedience to an order could not be achieved in any other way. The means used to compel obedience must be appropriate and necessary to break resistance. In other words, they must not exceed what is necessary. It is recognised that a superior officer may not use weapons to compel obedience to an order in a combat situation. Indeed, it is not possible to sacrifice one's life in order to force obedience to an order regardless of the consequences that will arise as a result of non-compliance. The counter-type set out in Article 319 of the Criminal Code is in fact a variant of a state of superior necessity. However, it does not require the soldier enforcing obedience to an order to respect the principle of the proportion of goods. Thus, under military conditions, the personal goods of a resistant soldier may be sacrificed to save discipline. If the limits of the ultimate need are exceeded, the court may apply extraordinary leniency to the soldier (Frąckowiak, 2023).

A specific institution in military criminal law is also the possibility to apply extraordinary mitigation of punishment or to waive its infliction in a situation where the soldier, at the time of committing the act, was incapable of performing military service (Article 320 of the Code of Criminal Procedure). The foundation of this solution is the assumption that the incapacity of a soldier, who is the perpetrator of a military offence, to perform military service is a momentous circumstance that affects the assessment of the degree of social harmfulness of the act. On the other hand, mere unfitness for military service does not deprive the soldier of the qualifications required of a perpetrator of a military offence. What is important in determining the extent of unlawfulness is the correct assessment of that characteristic of the perpetrator which makes him a fit subject to commit such an offence. There is no doubt that "...Despite the separation of the provisions concerning the criminal liability of soldiers – Polish criminal law still remains uniform, as the provisions of the general and special parts of the Code apply to soldiers, unless the provisions of the military part provide otherwise" (Majewski, 2024, p. 213).

The regulation contained in Article 321 of the Code of Criminal Procedure is applicable to perpetrators who committed the offence after the age of 17 and before the age of 18, and are soldiers at the time of the court's decision. It makes it possible to transfer the perpetrator to the competent commander, in order to impose the punishment provided for in the military disciplinary regulations (Czyżak, 2012). The regulation assumes that the disciplinary measures applied to soldiers are more adequate in this case than the upbringing and correctional measures applied to minors based on the Act of 9 June 2022 on the support and re-socialisation of minors (i.e. Journal of Laws of 2024, item 978). As a rule,

the need to use this institution is supported by the causal circumstances of the case and, moreover, by the degree of development of the offender, his/her personal characteristics and conditions (Dunaj, 2015).

The penalties in the military part of the Penal Code are not fully identical with respect to civilians. The catalogue of punishments has been extended here with the punishment of military detention (Article 322 of the Penal Code). It has a specific character, as it is a kind of conglomerate of imprisonment and elements of military training. In the case of its pronouncement, its execution takes place in open-type establishments. The conditions of its execution are specific, as military regulations, discipline and uniforms apply. In other respects, the provisions on imprisonment apply accordingly. The sentence of military detention should not be imposed on persons who are permanently or temporarily incapable of performing active military service. It lasts for a minimum of one month and has a maximum duration of two years. Article 329 of the Penal Code extends the possibility of imposing this punishment. In fact, it may also be imposed in cases of offences punishable by imprisonment not exceeding five years, if, in the court's assessment, the imprisonment would not be more severe than two years. The court should bear in mind here that a sentence of military detention has a greater potential for rehabilitation, which outweighs the repressive and retributive aspects (Majewski, 2023; Kutzmann, 2025). However, the modification of a custodial sentence to a sentence of military detention is possible only in relation to a person who is a soldier at the time of the court's decision and only in a situation where the act he or she has committed is characterised by a relatively low degree of social harmfulness, which is supported by the statutory size of the sanction. In these situations, however, it becomes advisable and at the same time necessary to consider particularly carefully whether greater emphasis should not be placed, however, on issues of re-socialisation, which are immanently connected with the sentence of military detention (Frąckowiak, 2023). The penalty of restriction of liberty (Article 323 § 1–5 of the Penal Code) is also slightly different from the provisions of the general part of the Penal Code. The possibility of applying Article 34 § 1a (1) of the Penal Code has been excluded here. Thus, an obligation to perform unpaid controlled work for social purposes cannot be imposed on a soldier (Majewski, 2024). At the same time, other additional sanctions in the form of prohibitions were imposed. While serving a sentence of restriction of liberty, a soldier may not, *inter alia*, be appointed to a higher military rank, appointed to a higher official position, nor may he participate in ceremonies and parades organised in the military unit or with the participation of the unit. The ban on taking part in ceremonies is linked to the issue of a soldier's dignity. It can be assumed that this is a so-called punishment on honour. These prohibitions burden the convict for the entire duration of the sentence of restriction of liberty (Szeleszczuk, 2024). Soldiers of basic military service serve their sentence of restriction of liberty in a separate military unit according to the rules set out in the Executive Penal Code. Other soldiers, on the other hand, are required to remain at the supervisor's disposal in a specified place for four hours two days a week from the end of their service. This is a restriction that is an essential element of this punishment. The court is also entitled to order a salary deduction, of between 5 and 15 per cent of monthly emoluments, for a designated social purpose. In the event of loss of status as a soldier or military employee, this is changed to a restriction of liberty imposed on civilians (Przyjemski & Kmiecik, 2014).

The legal construction provided for in Article 330 of the Code of Criminal Procedure is also an important distinction in terms of punishment. It extends the possibility of imposing non-isolation punishments on soldiers by imposing a sentence of restriction of liberty if the sentence of military detention imposed for the offence would not be more severe than one year. This includes, of course, the military form of the sentence of restriction of liberty. The modification of a sentence of military detention to a sentence of restriction of liberty is, after all, only possible for a soldier holding this status at the time of the court's decision. Such a modification, however, cannot be ruled against civilian employees of the military, as the court does not have the competence to rule on the sentence of military custody with respect to these persons. The provision of Article 330 of the Code of Criminal Procedure excludes in its entirety the application of the general provisions, set out in Article 58 § 3 and 4 of the Code of Criminal Procedure, to the sentence of military detention (Zgoliński, 2020).

Staying with the issue of sanctions in military criminal law, it is worth adding that Article 324 § 1 of the Code of Criminal Procedure is an addition to the general catalogue of criminal measures. *De lege lata* it already provides for only one, specific, criminal measure in the form of expulsion from professional military service. However, all criminal measures provided for in Article 39 of the Code of Criminal

Procedure may be adjudicated against soldiers, with the limitation set out in Article 324 § 2 of the Code of Criminal Procedure. This provision prohibits the adjudication against soldiers in basic service of a penal measure in the form of a pecuniary benefit specified in Article 39(7) of the Code of Criminal Procedure. This solution is rational insofar as soldiers of this category were deprived of other regular income in addition to their pay (Hoc, 2016; Majewski, 2024).

Another punitive measure, in the form of expulsion from military service (Article 326 of the Criminal Code), covers all types of soldiers. The consequence of its pronouncement is the removal of the soldier from military service after the judgment becomes final and the loss of badges and distinctions. Thus, it is also a sanction related to the soldier's dignity. The loss of badges and distinctions applies only to those awarded to the soldier by the command. It does not therefore include any others, for example those conferred by state or local government bodies. The directive for the pronouncement of this measure is the gross abuse of powers or the demonstration that the continuation of service in the army endangers important goods protected by law (Article 326 § 2 of the Code of Criminal Procedure) (Kutzmann, 2025; Przyjemski & Kmiecik, 2014).

A specific solution, provided only for the military, is the institution contained in Article 331 of the Code of Criminal Procedure. It allows the court to request the competent commander to impose the disciplinary punishment provided for in the military disciplinary regulations, in the event that the punishment is waived. However, it is not a punitive measure, as it does not fall within the catalogue set out in Articles 39 and 324 § 1 of the Code of Criminal Procedure. Requesting a disciplinary punishment may be done by both a general court and a military court. The catalogue of military disciplinary punishments is set out in the Act of 11 March 2022 on Defence of the Homeland (Dz. U. 2024, item 248). It should be noted that the disciplinary responsibility of soldiers is characterised by considerable severity. Within the framework of a disciplinary sanction, it is possible to dismiss from an occupied official position, to remove from military service, to impose a restrictive punishment in the form of solitary confinement in the situation of suspension from compulsory military service (Gensikowski, 2007; Dunaj, 2015). Both the solutions regulating substantive and procedural disciplinary law were modelled on criminal law norms in the common law. This is, *inter alia*, directly reflected in the appropriate application of separate parts of the Criminal Code to issues not regulated by the Defence of the Fatherland Act. There are many similarities especially in the function of the disciplinary tort. This makes it possible to consider the disciplinary punishment as a kind of substitute for the criminal punishment and the criminal measure.

The difference in military criminal law is dictated by a construction related to the consequences of a real concurrence of offences for which certain penal measures have been imposed. It is contained in Article 332 of the Criminal Code. Where deprivation of public rights and degradation or expulsion from professional military service are adjudged for concurrent offences, the court shall adjudge only deprivation of public rights. However, in the case of an adjudication for concurrent offences degradation and expulsion from professional military service, the court shall adjudicate only degradation. If a deprivation of public rights is pronounced against a soldier, it is pointless to pronounce a criminal measure of degradation against him/her, as deprivation of public rights includes, *inter alia*, the loss of the military rank held and return to the rank of private, and thus has the same effects (Kutzmann, 2025; Ziółkowska, 2023).

Military criminal law also provides for a number of minor modifications with respect to common solutions. One example here may be Article 333 of the Criminal Code, which regulates the application of conditional discontinuance of proceedings to a soldier. In general, there are no major distinctions here in relation to the prerequisites of this institution set out in Articles 66 and 67 of the Criminal Code. The difference comes down to the possibility for the court to request the relevant commander to impose the punishment provided for in the military disciplinary regulations and to supplement the prerequisite for undertaking conditionally discontinued proceedings with a gross breach of the rules of military discipline (Gensikowski, 2007; Majewski, 2024).

The situation is similar in the case of Article 334 § 1 of the Code of Criminal Procedure. It modifies the general rules concerning the imposition of probationary obligations related to conditional discontinuance of criminal proceedings or conditional suspension of the execution of a sentence. It mandates taking into account the conditions of military service. The obligations that the court imposes must therefore not be in confrontation with the nature of military service and interfere with its proper

course. The supervision of a soldier on active military service is carried out at the place of service, and the relevant actions may also be carried out by a military superintendent, a superior or a soldier designated by the superior. The circle of insignificant modifications also includes the extension of the catalogue of measures that may be adjudged in the situation where a conditional suspension of the execution of a sentence is adjudged against a soldier. This catalogue has been supplemented by two measures, i.e. a ban on appointment to a higher military rank or designation to a higher official position and a ban on participation in ceremonies and parades organised in the military unit or with the participation of the unit (Czyżak, 2012; Dunaj, 2015).

Only slightly larger derogations are provided for under the last institution of the general part, in the form of erasing a conviction. The provision of Article 337 of the Penal Code is a special provision which excludes the application of the provisions of Articles 107 § 1–5 and Article 76 § 1 of the Penal Code. However, this does not include the restrictions contained in Articles 107 § 6, Article 108 and Article 76 § 2 of the Penal Code (Kutzmann, 2025; Ziółkowska, 2023). The obliteration of a conviction constitutes a kind of legal fiction, amounting to recognition of the conviction as not having occurred. In the case of a soldier who has committed military offences and has been sentenced to a non-custodial punishment or to an absolute prison sentence, but not exceeding one year, it is possible to erase the conviction after transferring him/her to the reserve, provided that the punishment or punishment measure has been executed. The application of this institution is also admissible in those situations in which the court waived the punishment (Frąckowiak, 2023). This solution, in its totality, allows for a kind of break with the past and the stigma of the convicted person in the face of starting a new stage of life, which is transfer to the reserves.

4. SYSTEMIC ISSUES ON THE EXAMPLE OF POLISH LAW

Military courts-martial are military district courts and military garrison courts. Military courts exercise criminal justice in the Armed Forces of the Republic of Poland to the extent provided for by Acts and adjudicate in other matters if they have been transferred to their jurisdiction by separate Acts. In the cases provided for by laws, military courts exercise criminal justice in relation to persons who do not belong to the Armed Forces of the Republic of Poland (Banasiak, 2020; Kutzmann, 2025). Pursuant to Article 652 of the Code of Criminal Procedure, in cases subject to the jurisdiction of military courts rule, according to the scope of jurisdiction: the military garrison court; the military district court; and the Supreme Court, which at the same time exercises supervision over the activities of military courts in the field of adjudication. The Minister of Justice, on the other hand, exercises supreme supervision over the military courts with regard to organisation and administrative activities. In turn, the Minister of National Defence supervises the active military service of soldiers serving in military courts (Sieracki, 1983; Przyjemski & Kmieciak, 2014).

In cases in which laws provide for an appeal to a military court against rulings or decisions issued by military authorities, the case shall be heard by the military garrison court covering with its jurisdiction the military unit in which the soldier is on active military service or the employee is employed, unless these laws provide otherwise. The shape of the military court system is parallel to that of the ordinary courts. However, the Law on the System of Military Courts has a smaller scope of regulation than the Law on the System of Common Courts. Hence, certain provisions of the Law on Common Courts are applicable to it (Czyżak, 2012).

Pursuant to Article 24 of the Supreme Court Act, the jurisdiction of the Criminal Chamber includes cases heard under the Act of 6 June 1997 – Code of Criminal Procedure, the Act of 10 September 1999 – Fiscal Penal Code, the Act of 24 August 2001 – Misdemeanours Code, and other cases to which the provisions of the Code of Criminal Procedure apply, as well as cases subject to the jurisdiction of military courts.

As regards military law enforcement agencies, Article 3 of the Law on the Public Prosecutor's Office stipulates that in cases subject to the jurisdiction of military courts, the tasks referred to in § 1 shall be performed by prosecutors of common organisational units of the public prosecutor's office who perform their duties in the Department for Military Affairs, in divisions of district prosecutor's offices and divisions of district prosecutor's offices with jurisdiction in military matters, hereinafter referred to as "prosecutors for military matters" (Dunaj,

2015; Zgoliński, 2020). Prosecutors for military affairs also perform tasks in cases that do not fall within the jurisdiction of military courts.

Prosecutors for military matters who are professional soldiers shall perform official tasks in the event of the use or stay of the Armed Forces of the Republic of Poland outside the borders of the country, in the event of the announcement of mobilisation, the declaration of martial law and during war under the provisions of this Act and other legal acts. If it is necessary to provide an adequate number of prosecutors for military matters to perform official tasks in the conditions referred to above, prosecutors who are reserve officers may be called up for professional military service. The order issued to a prosecutor who is a professional soldier with regard to his or her active military service shall be forwarded without delay to the Deputy Prosecutor General for Military Affairs and to the head of the organisational unit of the prosecutor's office in which the prosecutor performs his or her official duties for information.

One of the Deputy Public Prosecutors General is the Deputy Public Prosecutor General for Military Affairs. The candidate for the Deputy Public Prosecutor General for Military Affairs shall be agreed by the Public Prosecutor General with the Minister of Defence. The motion for the dismissal of the Deputy Prosecutor General for Military Affairs shall be agreed by the Prosecutor General with the Minister of Defence (Szeleszczuk, 2024).

One of the departments in the National Public Prosecutor's Office is the Department for Military Affairs, which has jurisdiction over matters subject to the jurisdiction of military courts. The basic tasks of the district prosecutor's office include ensuring the participation of the public prosecutor in proceedings conducted under the Act before ordinary courts and, in units where military affairs departments have been established, also before military courts, conducting and supervising pre-trial proceedings in cases of serious criminal offences, financial and fiscal crimes, and in units where military affairs divisions have been established, also in cases subject to the jurisprudence of military district courts, supervising proceedings conducted in district prosecutors' offices, as well as conducting visits to district prosecutors' offices (Majewski, 2023; Justification, 1997).

5. THE JURISPRUDENCE OF MILITARY CRIMINAL COURTS UNDER THE PREVIOUS REGIME

As an aside to the above considerations, it should also be mentioned that a major problem related to military justice is the legacy of military rulings from the years 1945–1989. This problem concerns basically all former socialist bloc countries. In Poland, on the basis of the Act of 23 February 1991 on the Recognition as Invalid of Judgements Issued against Persons Repressed for Activities in Favour of the Independent Being of the State Polish, judgements issued by Polish law enforcement and judicial organs or by non-judicial organs in the period from the beginning of their activities in the Polish lands, starting from 1 January 1944 until 31 December 1989, have been declared invalid (Frąckowiak, 2023; Majewski, 2023).

The condition for nullity is that the act charged or attributed is related to activities for the independent existence of the Polish State or the ruling was issued because of such activities, as well as rulings issued for resisting the collectivisation of villages and compulsory deliveries (Gensikowski, 2007; Dunaj, 2015). The invalidity of a judgement shall be declared by a district court or a military district court if, according to the legislation in force on the date of the entry into force of this Act, a military court was competent to hear a case for the act which was the subject of the judgement. The annulment of the decision shall be deemed equivalent to an acquittal. It may take place at the request of the Ombudsman, the Minister of Justice, the public prosecutor, the victimised person, the person entitled to lodge an appeal in his or her favour, and in the event of the death, absence from the country or mental illness of the victimised person, also his or her relative in a direct line, adoptee or adopted person, siblings and spouse; as well as an organisation of persons victimised for activities in favour of the independent existence of the Polish State (Czyżak, 2012; Przyjemski & Kmiecik, 2014).

The court in this case shall decide in a session on the basis of the records of the proceedings of the authority which issued the decision and, if necessary, shall conduct further, its own, evidentiary proceedings. Unless the provisions of the Act provide otherwise, the provisions of the Code of Criminal Procedure shall apply *mutatis mutandis* in proceedings for the annulment of a decision, except that the participation of the public prosecutor in the annulment hearing is mandatory.

What is equally important, pursuant to Article 8 of the same Act, a person with respect to whom a ruling was declared invalid or a decision on internment was issued in connection with the imposition of martial law in Poland on 13 December 1981, is entitled to compensation from the State Treasury for the damage suffered and compensation for the non-material damage resulting from the issuance or execution of the ruling or decision (Szeleszczuk, 2024). In the event of that person's death, that entitlement shall pass to his spouse, children and parents.

The entitlements referred to in paragraph 1 shall also be available to persons, currently or at the time of their death in Poland, repressed by Soviet law enforcement and judicial or extrajudicial bodies, acting on the present territory of Poland in the period from 1 July 1944 to 31 December 1956, and on the territory of Poland within the borders established by the Treaty of Riga, in the period from 1 January 1944 to 31 December 1956, for activities in favour of the independent existence of the Polish State, or because of such activities. The demand for compensation and reparation shall be submitted to the district court in whose district the person making the demand resides; this court shall have jurisdiction to hear the case. The provision of Article 1(3) shall apply *mutatis mutandis* and the provisions of Articles 9 to 11 shall not apply.

A person who, in the period from 1 November 1982 to 28 February 1983, performed active military service to which he or she was conscripted for activity in favour of the independent existence of the Polish State, is also entitled to compensation from the State Treasury for the damage he or she has suffered. The Act, however, has an even broader scope of subject matter, as by virtue of the amendment it was regulated that a child of a mother deprived of liberty, against whom the decision was declared invalid, who was in prison or another place of confinement together with her mother, or whose mother was in prison or another place of confinement during her pregnancy, is entitled to compensation from the State Treasury for the damage suffered and compensation for the non-material damage (Article 8b of the February Act). The State Treasury bears the costs of proceedings in cases covered by the Act, including for the appointment of an attorney (Article 13 of the February Act) (Zgoliński, 2020; Majewski, 2024).

6. CONCLUSION

It is a truism to state that military criminal law and military justice operate differently in peacetime than in wartime. Military criminal law and military justice have evolved separately from the general norms, which is a consequence of the specificity of this branch. Detailed national solutions, however, are a matter of national discretion, hence a variety of norms can be found in this respect. However, many features specific to the military must be anchored in criminal law, which operates on the principle of *ultima ratio*. It comes into play where other branches of law become insufficient. Therefore, there are quite a few similarities in the individual national regulations. The most important institutions among them are characterised in this article. The jurisprudence of military courts in former socialist countries - from a historical prism - has sometimes been "tainted" by political factors influencing the outcome of criminal cases. This requires appropriate remedial measures on the part of these countries, including the introduction of appropriate compensatory measures. This is part of the so-called law of transition. Not all countries have so far adequately grappled with this issue and for this reason the main solutions in force in Polish law have been indicated above. It is not free of drawbacks in practical application, but it sufficiently, and in line with human rights, solves this pressing problem.

A completely different aspect remains that the markedly lower intensity of peacetime tasks sometimes implies discussions in the doctrine about the need for systemic changes. The most radical demands have tended towards the abolition of this type of judiciary within the structures of the judiciary. Interestingly, attempts at change have also been made with regard to military law enforcement agencies. However, this is not possible in Poland without an amendment to the Basic Law, since according to Article 175(1) of the Constitution of the Republic of Poland, the administration of justice in Poland is carried out by: the Supreme Court, common courts, administrative courts and military courts. The trend of abolishing the military division came with the beginning of the 20th century. It was not present during the People's Republic of Poland, and only reappeared at the dawn of the new millennium. This time, however, was one of calmer times internationally. Today, especially as a result of the war in Ukraine, it has become 'unpopular'. The need to maintain a military judiciary is clearly visible and, it seems, is no longer disputed. Moreover, there is also a growing need for a scientific exploration of military criminal law in order to meet

the challenges of contemporary social realities and the geopolitical situation in the world. Finally, it is to be hoped that this publication is at least partly part of this trend.

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