

Українсько-американський університет Конкордія
Центр європейської та євроатлантичної інтеграції
(Центр Україна-НАТО)

Ukrainian-American Concordia University
Center for European and Euro-Atlantic Integration
(Ukraine NATO Center)

МІЖНАРОДНА НАУКОВО-ПРАКТИЧНА КОНФЕРЕНЦІЯ

«Роль євроатлантичної інтеграції, високих технологій
та освіти в обороні та безпеці України»

*в рамках Міжнародного форуму з питань оборони, безпеки,
нових технологій та освіти*

INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE

“The role of Euro-Atlantic Integration, High Technologies
and Education in the Defence and Security of Ukraine”

*within the framework of the International Forum
on Defence, Security, New Technologies and Education*

Київ, 07 березня 2024
Kyiv, March 07, 2024



УДК 327.51:339.922:355.233:378(06)

*Рекомендовано до друку рішенням Вченої ради Українсько-американського університету Конкордія.
Протокол № 3 від 27 березня 2024 р.*

Євроатлантична інтеграція, нові технології, військова та управлінська освіта в рамках міжнародного форуму з питань оборони, безпеки, нових технологій та освіти [Текст] : Матеріали Міжнародної конференції для осіб, які приймають рішення, дослідників і студентів у сфері державного управління, сектору оборони та безпеки, високих технологій та економіки (Київ, 07 березня 2024 року) / за заг. ред. проф. Олександра Романовського, Сергія Вакаріна, Ольги Глазової — К. ; Українсько-американський університет Конкордія; Вінниця : Нова Книга, 2024 — 84 с.

Euro-Atlantic integration, new technologies, military and management education within the framework of the international forum on defence, security, new technologies and education [Text]: Proceedings of the International Conference for decision-makers, researchers and students in the field of public administration, defence and security sector, high technology and economics (Kyiv, March 07, 2024) / edited by Prof. Oleksandr Romanovskiy, Sergii Vakarin, Olha Hlazova — K. ; Ukrainian-American Concordia University; Vinnytsia: Nova Knyha, 2024 — 84 p.

Збірник матеріалів Міжнародного форуму з питань оборони, безпеки, нових технологій та освіти містить статті та тези доповідей учасників конференції, які характеризують військове співробітництво України з союзниками, нові технології, управління персоналом та освіту в оборонному секторі з особливим акцентом на перспективи співпраці України з оборонними програмами НАТО та ЄС, подальшу допомогу (в тому числі військову) з боку партнерів, включаючи відновлення американської допомоги Україні, науково-технічне співробітництво, а також стан ключових реформ, необхідних для прискорення цих процесів.

Для осіб, які приймають рішення, дослідників та студентів у сфері державного управління, оборони та безпеки, високих технологій та економіки.

Proceedings of the International Forum on Defence, Security, New Technologies and Education include articles and abstracts of the Conference participants, which characterize Ukraine's military cooperation with allies, new technologies, HR management and education in the defence sector with a special focus on Ukraine's cooperation perspectives with NATO and EU defence programs, further aid (including military) from the partners including restoration of American aid to Ukraine, R&D cooperation, and the state of key reforms necessary to speed up these processes.

For decision-makers, researchers and students in public administration, defence and security sector, high technologies and economics.

УДК 327.51:339.922:355.233:378(06)

Contents / Зміст

The International Forum on Defence, Security, New Technologies and Education	6
<i>Sergii Vakarin</i>	
High-Level Discussion at the International Forum on Defence, Security, New Technologies and Education	9
<i>Sergii Vakarin</i>	

PLENARY SESSION

Is American support for Ukraine in doubt?	13
<i>John Herbst</i>	
Ukraine Battlefield Assessment, Needs and Western Response	15
<i>Ben Hodges</i>	
Norms Transfer and Military Education Reform in Ukraine : Notes from a Presentation made at GDIP	16
<i>Frederic Labarre</i>	
Military Education in Ukraine — a Time for Transformation	19
<i>Glen Grant</i>	
Army Recruitment for Ukraine.	22
<i>Glen Grant</i>	
Security Agreement Between Norway and Ukraine and Training of Ukrainian Soldiers.	22
<i>Palle Ydstebo</i>	
GDIP Media Center’s Activities Towards Ukraine’s European Integration.	23
<i>Eduard Kuzmenko, Inna Khomenska</i>	

SECTION 1. EURO-ATLANTIC INTEGRATION

UK and Ukraine Strategic Partnership: Looking Ahead.	26
<i>Sergii Vakarin</i>	
Norway-Ukraine Defence Cooperation: Military Aid, Training and Development of Professionalism in the Defence Sector.	27
<i>Sergii Vakarin</i>	
Canada-Ukraine Relations in the Defence Area	28
<i>Dmytro Gorbenko</i>	
The Role of International Cooperation in Strengthening Cybersecurity and Cyber Defence Capabilities in the Context of Euro-Atlantic Integration.	29
<i>Kateryna Fadieieva</i>	
The Impact of the Ukrainian-Polish Relationship on the Ukrainian EU and NATO Integration . . .	30
<i>Anna Faiura</i>	
The Impact of US Elections on the russo-Ukrainian War and Ukrainian Euroatlantic Integration. . .	32
<i>Maksym Maliuta</i>	
Consulting Practices and Strategic Partnerships: Examining Ukrainian-German Cooperation in Leadership and High Technologies	33
<i>Iryna Omelaienko</i>	
The Relationship between Risk-Based Quality Management in Weapon Provision and NATO Support for Ukraine.	34
<i>Milana Poliakova, Tetiana Gordiienko</i>	

Leveraging Collaborative Education and Strategic Partnerships for Euro-Atlantic Integration: A Focus on Modern Military and Managerial Education	36
<i>Maksym Bidenko</i>	

SECTION 2. MILITARY EDUCATION AND TRAINING. MANAGEMENT EDUCATION

Organization of Military Field Medicine Training for Company Employees	37
<i>Anna Bohdan, Lesya Leshchii</i>	
Modern Curriculum in Military Education and Training: International Experience.....	38
<i>Yaryna Dobrianska</i>	
Lessons From the Past: Leveraging Military History Education to Counter Russian Aggression...	39
<i>Ivan Fechko</i>	
Modern Military and Managerial Education Within the Framework of Euro-Atlantic Integration, Introduction and Use of Up-To-Date Technologies.....	41
<i>Sofiia Lievina</i>	
Modern Trends in Management: Interaction between Military and Civilian Education	42
<i>Maksym Netecha</i>	
Modern Military and Management Education	43
Сучасна військова та управлінська освіта.....	43
<i>Олексій Бистров</i>	
Development of Education Via International Cooperation and Consulting Initiatives	44
Розвиток освіти через міжнародну співпрацю та консультативні ініціативи	44
<i>Анна Гуменюк</i>	
International Military Camps: Cooperation and Military-Patriotic Education of Military Cadets... 46	
Міжнародні військові табори: співробітництво та військово-патріотичне виховання військових ліцеїстів	46
<i>Дмитро Єрмоленко</i>	
The Role of Modern Military and Management Education in the Context of Euro-Atlantic Integration and New Technologies.....	48
Роль сучасної військової та управлінської освіти в контексті євроатлантичної інтеграції та новітніх технологій.....	48
<i>Іван Марина</i>	
Modern Military and Management Education in Developed Western Countries	49
Сучасна військова та управлінська освіта в високорозвинених країнах західного світу ...	49
<i>Паскуале Терешкін</i>	

SECTION 3. NEW TECHNOLOGIES AND MODERN WARFARE

Promotion of Ukraine's Military, Scientific and Technological Excellence in the Context of NATO and EU Membership Aspirations of Ukraine	51
<i>Sergii Vakarin</i>	
Mobile Medical Mission: An Innovative, International Solution to a Healthcare Emergency in Ukraine	52
<i>Kerry M. Gibson</i>	
Forecasting of Geomagnetic Storms Based on Incomplete Data From Nasa: a Solution and its Defence Applications.....	53
<i>Yevhen Tatarynov, Maksym Kopystko, Konstantin Kuzmichev, Vadym Lozovski, Anastasiia Lukianenko, Andrii Solovienko</i>	
The Role of Big Data and Analytics in Optimizing Quality Management for Multinational Military Procurement	56
<i>Polina Denesiuk, Tetiana Gordiienko</i>	

Cloud Technology For Strategic Management in the Military and Administrative Fields.	57
<i>Oleksandra Koval</i>	
Nato and Public-Private Collaboration in the Era of Artificial Intelligence	58
<i>Ivan Milinchuk</i>	
Integration of IT Management in Military and Strategic Operations	59
<i>Vladyslav Syvolozhskyi</i>	
Applications of AI in Military Decision-Making and Strategic Planning	61
<i>Oleksandr Yatsyk, Liubov Zharova</i>	

SECTION 4. RESILIENCE OF THE ECONOMY AND THE ENVIRONMENT IN TIMES OF WAR

Market of Audit Services in Ukraine During the War	63
<i>Yan Aidinian, Lesya Leshchii</i>	
Euro-Atlantic Integration and Its Influence on the Development of International Investment in Ukraine	65
<i>Alina Goldfarb</i>	
Optimizing Operational Management Strategies in the Digital Era	67
<i>Mykyta Kruchan, Glib Buriak</i>	
Integrating Managerial and Military Strategies in Sustainable Development of the Fashion Industry on the Example of the Brand "Kseniaschnaider"	68
<i>Mariia Riabchenko, Lesya Leshchii</i>	
The role of high technologies in reducing the impact of the automotive industry on the environment	70
<i>Anastasiia Sarana, Nataliia Amalian</i>	
Expansion of International Production in Ukraine	71
<i>Olha Shelestiuk</i>	
Strategic Collaboration and Innovative Technologies: A Way to Optimize Resource Consumption	72
<i>Vladyslava Shpytal</i>	
The Impact of War in Ukraine on Managerial Accounting	74
<i>Anastasiia Skorokhod, Lesya Leshchii</i>	
International Hotel Chains Leaving Russia: an Ethical Aspect.	75
Вихід міжнародних готельних мереж з Росії: етичний аспект	75
<i>Анастасія Ющенко, Леся Лещій</i>	

SECTION 5. STUDENT REFLECTIONS UPON THE CONFERENCE

Euro-Atlantic Integration, New Technologies, Military and Management Awareness.	77
<i>Oleksandra Herasymenko</i>	
Euro-Atlantic Integration, Military and Management Education: Reflections	78
<i>Vlada Nikolaienko</i>	
Current Trends of the Development of the Military Sphere	79
<i>Anastasiia Sarana, Nataliia Amalian</i>	
Aspects of European Integration	81
<i>Sofii Stanzhytska, Liudmyla Serova</i>	
Finding Policies and Trends That Can Further Ukraine's European Integration	82
<i>Andrii Zbrodskyi</i>	

JEL: F52, F55, H56, I20, M12, M15, C80, O32
УДК 327.51:355.233:378

The International Forum on Defence, Security, New Technologies and Education

*Dr Sergii Vakarin, Director,
Center for European and Euro-Atlantic Integration*

Outcomes, Conclusions and Recommendations

The Center for European and Euro-Atlantic Integration (Ukraine-NATO Center) was established at the Ukrainian-American Concordia University in Kyiv (UACU). The Center's mission is to prepare Ukraine for membership in NATO and EU, to involve Ukrainian and international researchers, diplomats, military and political leaders and experts in discussions of the fundamental prerequisites of Euro-Atlantic integration, exchange information and expand international cooperation.

The Center for European and Euro-Atlantic Integration of Ukraine, the Ukrainian-American Concordia University, representatives of the Ministry of Defence of Ukraine and the AFU General Staff, Western diplomats and experts have started a series of discussions on key topics of the development of the security and Defence sector of Ukraine at the Main Directorate of Foreign Missions in Kyiv. Discussion topics include Ukraine's military cooperation with allies, new technologies, Defence HR management and education. The International Forum on Defence, Security, High Technologies and Education, the first of these dis-

cussions, has been a unique event in terms of the scope and integrated discussion of the sector's problems and possible solutions.

Best military and diplomatic experts from **Ukraine, the EU, the USA, the UK, Canada, Norway** and other countries took part in the Conference. They talked about their current assessment of Ukraine's cooperation perspectives with NATO and EU Defence programs, further aid (including military) from the partners, military-industrial and scientific cooperation, and the state of key reforms necessary to speed up these processes. This conference report has been finalized after consultations with aid donors, embassies and other stakeholders.

Representatives of the embassies in Ukraine, including the EU Delegation, embassies of the USA, the Czech Republic and Slovenia attended the Conference. The participation of high-ranking representatives of the USA was important in the context of the current work on restoration of American aid to Ukraine.

As **the US Ambassador to Ukraine 2003–2006 and director of the Eurasia Center of the**

Euro-Atlantic Council, Honorary President of the University John Herbst stressed, he and his colleagues are constantly working to speed up the decision of the Congress on the restoration of US aid to Ukraine, but its adoption may still take months.

Ex-commander of US forces in Europe, General Ben Hodges and other experts are also constantly pushing the US and the West to take more decisive action in support of Ukraine.

In general, allies must allocate a sufficient percentage of their income to defence (this is also a stimulus for economic growth).

Also, **EU** Defence projects mentioned by Deputy Ambassador of the EU to Ukraine **Remi Dufлот** can become a supplement (and at this stage, in fact, an alternative) **to NATO membership** for Ukraine. The war has «awakened» Europe, and EU programs in the field of collective defence are gaining strength. Ukraine can and should take advantage of this chance, as well as **the support from Canada and Norway**.

For their part, our allies expect steps from Ukraine to ensure effective use of their support, which would be a positive signal for a wide range of supporters of Ukraine, in particular, during the Washington NATO summit.

The very fact of holding a representative conference with the involvement of diplomats, representatives of the military leadership, professors/researchers of military and management programs of Ukraine and key partner countries is a positive signal for high-level negotiations, including those conducted by Ambassador Herbst and General Hodges (**USA**), Deputy Ambassador Dufлот (EU), Dr **Frederic Labarre** and Director **Anthony Seaboyer (Canada)**, Lt.Col. **Glen Grant** (UK) and Lt.Col. **Palle Ydstebo** (Norway). Vakarin also had separate conversations with ambassadors and military attachés (EU, USA, Great Britain, Norway, Czech Republic and other countries).

Implementation of the conference recommendations by Ukraine will help convince its Western partners to expand the amounts of aid. Some reform efforts are believed by the partners to be ineffective while Ukraine has its own «score» regarding the non-fulfillment or delay of promised aid from the partners. Therefore, it is important to find practical ways to restore trust and effective cooperation, in particular via the efforts of our experts.

NATO is celebrating 75 years in 2024. It has been quite successful as a peace guarantor. How strong will it be in the future? The answer depends on how it will support Ukraine.

It is also 30 years since Ukraine joined NATO Partnership for Peace, and one of our speakers Frederic Labarre set a record: as the **NATO DEEP International Program Manager**, he managed 105 projects at the **Partnership for Peace Consortium**. His recommendations are based on this experience.

Ukraine is actively implementing NATO standards, which is important for interoperability. The issue is that incompatibility of standards would lead to difficulties with interoperability at various levels, especially if the situation escalates. There are 1,135 standards in the Alliance, and more than 315 NATO standards have been already implemented by the Ministry of Defence, Armed Forces and other parts of the security and defence sector of Ukraine, mostly within the framework of the Ukraine-NATO Partnership Goals. On the other hand, the war has shown that some of the standards may be not very relevant now. Brute force can break down many theories.

As for the EU, a new position of the Commissioner for Defence may be created. As Josep Borrell, top EU diplomat and the chief of the EDA had mentioned, an office in Ukraine would also be established and partnership strengthened with non-EU NATO countries (in particular, Canada, Norway, the UK and the US). EU and NATO interoperability is important if troops are moving across Europe.

New challenges in **army recruitment, education and training** require new solutions. In response to unique challenges, Ukraine began to use distance learning much more extensively, however there is often a lack of (translated) materials for it, and Ukraine also needs information on effective ways to create systems similar to NATO Total Learning Architecture. Even though some of NATO's capabilities are not available for non-Alliance members, there are centers and experts in NATO countries that are ready to provide extensive assistance, but the Ukrainian side is often unaware of them. In particular, our experts are ready to hold focused events and discussions and implement aid projects. The Western educational institutions that participated in the conference are ready for partnership with Ukrainian military universities.

The discussions in the sections included some proposals for immediate and longer-term reforms and actions aimed at **business sustainability**, resilience of Ukrainian **defence industry** and the economy in general, as well as the natural environment.

Ukraine has world-class talent in high technology. Recently **our cybersecurity team scored a global victory at the NATO hackathon.** Examples of **successful modern technological cooperation projects** were presented at the conference. For instance, as **Kerry Gibson (Canada)** mentioned, cooperation in **medical technology** and saving the lives of the wounded, including in frontline areas, is already widely promoted thanks to projects such as the one led by **Ziphycare**. And the new **winner of the NASA hackathon** is the Storm Prophet team, which taught artificial intelligence to predict magnetic storms based on NASA data, **which has significant military applications.** Big data, cloud technologies, IT management for strategic operations were also discussed. We are ready to discuss uses of these and other technologies with the potential partners.

Still, high technologies on their own may not be a panacea. Blackouts may make AI useless and large-scale EW may deviate your rockets from their trajectories. There are solutions but we need much more mutual trust to work together on them.

Among other issues discussed at/after the conference were the **image** of the Armed Forces, **financial incentives** for military personnel and the military industry, the creation of Ukrainian **military police**, training in **war crimes** in the context of the Russian aggression (all stages from registration to accountability), training and employment of veterans, development of professionalism on the basis of integrity (in particular in the framework of Norwegian aid), the future of **British-Ukrainian relations** etc.

Noteworthy, **Norway** (in particular CIDS) has already provided substantial assistance to the Ministry of Defence of Ukraine and other authorities in **development of professionalism in the defence sector on the basis of integrity.** Recently Vakarín visited the National Anti-Corruption Agency of Ukraine that implemented a project with CIDS in this area. The recent renewal of cooperation in this direction provides additional opportunities for effective reforms.

Sergii Vakarín presented his books about the future of Ukraine, technology and education and the Legacy Ukraine edition to the keynote speakers. **Legacy Ukraine is one of the main publications distributed by the First Lady of Ukraine and Ukrainian embassies** as part of the «Ukrainian Bookshelf» project (it was disseminated in about 50 countries of the world, at the Davos Forum, UNESCO, etc).

We also thank **Defence Intelligence Norway (DIN)** — our Main Media Partner, and UACU student Kateryna Dombrovska who is doing a practical research into Ukrainian-Norwegian relations.

As the discussion in the Sections suggests, Ukraine should strengthen its partnerships with European countries.

The **United Kingdom** has been Ukraine's most faithful ally, and Ukraine should continue wide cooperation with the British defence and security sector. This includes defence industry partnerships, training of Ukrainian soldiers (in cooperation with **Canada**) and much more.

Strategic partnership with **Germany** would (1) significantly contribute to Ukraine's ability of advanced military technology implementation and (2) help Ukrainian leaders develop enhanced strategic decision-making skills and crisis management expertise.

Poland remains determined to support Ukraine's political and military aspirations. Poland is one of the most important strategic partners in Ukraine's bid to membership in the EU and NATO. Solving the problems that arise in the Ukrainian-Polish relationship is critical to Ukraine's success.

Ukraine would also benefit from expanded cooperation with **Switzerland.** In particular, this country offers a number of student exchange opportunities, some of which are supported by Zurich Foundation and other funds.

There were also many useful discussions on the sidelines of the conference. We started a dialogue with many participants, including representatives of **France, Netherlands** and **Spain.** This dialogue is important for all participants and must continue in order to discover both the problematic issues and possible solutions.

The conference has been an important part of this dialogue, and we are grateful to the participants, in particular from the **Ministry of Defence of Ukraine, the General Staff of the**

Armed Forces, the Military Institute of KNU, the Kyiv Bohun Military Lyceum.

As Deputy Commandant of the Kyiv Bohun Military Lyceum Colonel Yermolenko stressed, international cooperation can play an important role in the future of Ukraine's defence, in particular Ukrainian cadets would highly benefit from wider participation in international military camps.

The organizers especially thank the General Directorate of Foreign Missions known as GDIP. For more than 30 years, GDIP has been rendering services to diplomatic missions, organized meetings, forums and other events involving the diplomatic corps. In 2016, the Media Center Directorate was spun off as a separate entity of GDIP tasked with establishing multilateral com-

munication with the foreign diplomatic corps to improve understanding and promote a positive image of Ukraine. GDIP Media Center has been organizing a number of important roundtables, book presentations, meetings, etc.

The speakers thanked Sergii Vakarin for the organization and activities in support of the Defence of Ukraine and international cooperation with allies. According to the outcomes, the Ukrainian World Congress also sent a letter of gratitude to Vakarin for this activity.

In conclusion, there is significant progress in the reform of Ukraine's Defence sector as a whole. At the same time, important reforms must continue and expand. We are ready to support reform efforts in each of the mentioned topics.

JEL: F52, F55, H56, I20, M12, M15, C80, O32
УДК 327.51:355.233:378

High-Level Discussion at the International Forum on Defence, Security, New Technologies and Education

Keynote speakers summarized by Sergii Vakarin

Military Aid to Ukraine From Allies and Ukraine's Participation in EU Defence Programs

The conference discussed the issue of further assistance from partners (including military), military-industrial and scientific cooperation. The most acute issue of Ukraine's security is the situation at the front, in particular the shortage of ammunition in the Armed Forces, and the Center's experts are constantly discussing ways to overcome it with partners.

Among the diplomats, military, and scientists who addressed our participants, there are the most loyal friends of Ukraine, who are constantly working on restoring US aid, and after the conference, the first results were obtained, in particular, a new package of military aid.

In his greeting to the participants of the conference, **the US ambassador to Ukraine (2003–2006), the honorary president of the UACU, John Herbst**, noted that he was constantly

working to speed up the decision of the Congress on the restoration of US aid, however, according to realistic estimates, its adoption may take another couple of months.

Deputy Ambassador of the European Union to Ukraine Remi Duflot emphasized the importance of support of Ukraine by a broad coalition of countries and assured of further support from the EU. Growth in EU-Ukraine defence cooperation is encouraging. The European Union has provided an unprecedented amount of aid to Ukraine (around EUR 88 billion), including military aid, and has pledged to provide further substantial aid in the years to come. More cooperation opportunities arise within the framework of new European defence agencies and programs, such as the recently adopted European Defence Industry Strategy as well as the European Defence Agency (in particular, opportunities for the purchase of weapons for Ukraine) and EUMAM (in-

cluding training of tens of thousands of Ukrainian soldiers and new training strategies) etc.

A large number of contracts have already been concluded with Ukraine's defence industry, but it is only the beginning. On the eve of the Conference, the EU has adopted the first European Defence Industry Strategy (EDIS) that promotes the defence readiness culture across EU policies and provides opportunities for cooperation with Ukraine. It envisages investment from member states and partners and was warmly welcomed by Ukrainian Minister of Strategic Industries Kamyshin.

European defence cooperation with Ukraine is conducted in many ways. In addition to direct support, the EU provides funding for Ukraine's budget support, which helps Ukraine's war effort indirectly.

The event was also attended by representatives of the **Embassy of the Czech Republic**, which, as is known, launched a pan-European initiative to **purchase 800,000 shells for Ukraine**, which should be delivered to Ukraine in the coming weeks.

Dr. Sergii Vakarin, Director of the Center for European and Euro-Atlantic Integration of the UACU and co-organizer of the conference outlined the most important issues of defence and security cooperation and the current state of their resolution. He noted the interest in the discussion in Ukraine and in the West, which turned out to be very high both offline and online.

The Path to NATO and the Role of Security Agreements Signed by Ukraine With Partner Countries

As noted by **the retired commander of US forces in Europe, General Ben Hodges**, Ukraine is NATO's best and most important ally in deterring the Russian Federation, and therefore our country should be accepted into NATO as soon as possible. He also noted that although the situation in Ukraine is not easy, despite some assessments, Ukraine turned out to be very strong, and the Russian Federation still has no opportunities to take advantage of its temporary success. And right now, the West must make the necessary strategic decisions regarding support for Ukraine.

Canada, the UK and Denmark, are among the first that have signed security agreements with

Ukraine, in particular because these countries have realized Russia's Arctic expansion plans.

Dr. Frederic Labarre (Royal Military College of Canada) believes that the number and content of security Ukraine's agreements with the G7 countries and the EU became a clear signal for the Russian Federation that any aggressive actions against Ukraine will continue to receive a strong response from its allies, in particular, they expressed their intention to continue providing arms and other military aid to Ukraine. However, these agreements do not replace NATO membership, but are a temporary measure until Ukraine is accepted into the Alliance.

Colonel Palle Ydstebo (Norwegian Military Academy) noted that the new security agreements provide additional opportunities for expanding aid programs to Ukraine, from arms supplies to training.

Human Resource Management, Leadership And Recruiting in the Armed Forces

In his message to the Conference, **General Ben Hodges** indicated that the volume of further assistance to Ukraine depends on the efficiency of Ukraine's Defence sector in terms of human resources (however, he added, they also depend on the determination and understanding of the situation on the part of Western countries).

A strong army is a guarantee of peace. And for successful recruiting, sufficient motivation and reputation of individual units and the Army in general, as well as the country's veteran and other relevant policies, are important.

For successful recruiting in the army, money is only one of the factors, according to the well-known **British military expert, Lecturer in Strategic Management at the Riga Business School Lt. Col. Glen Grant**. The army should become a new home and a new family in a positive sense for military personnel. Respect for the military, adequate training, perspectives of merit-based promotion, medical care and family support are crucial. Volunteers employed by a specific unit should not be transferred to another unit without their consent. And skillful and experienced commanders are needed to ensure proper management.

As a British expert, Grant is proud of the role Britain is playing in helping Ukraine, but the British military has limited resources and it is neces-

sary that the US first resumes aid to Ukraine. Vakarín also recalled Grant's previously expressed position that the newly appointed Commander-in-Chief Syrskyi has a chance to prove himself in this role, and it is important that he has independence in his decisions, and that Ukraine's military strategy should be formed not on the basis of political influence, but on the basis of the need for non-trivial solutions that will make it possible to pass the period of insufficient resources.

Military and Management Education

In 2023 the Ministry of Defence of Ukraine has formulated an initiative to get patronage of NATO countries in the military education field.

Dr Frederic Labarre, Project Manager of the NATO DEEP Program in the Partnership for Peace Consortium gave an in-depth analysis of the reform of military education. He implemented these projects in various countries, including Ukraine. As he noted, the reform of military education is one of the important elements for ensuring the compatibility of the armed forces of NATO countries and partners (in this case, Ukraine) and the ability to effectively conduct joint operations. Norms and approaches to operations are transformed by education. Moreover, since Ukraine has a huge experience of combat operations, this is a process of mutual education with NATO countries, and on its basis, Ukraine should formulate its needs for further education. Significant changes have already taken place in the professional military education of Ukraine, further reforms are also necessary (including the introduction of active learning, critical thinking, leadership), but in many respects the word rests with the parliament and the government.

As Mike Lewis, a successful US Marine veteran and businessman emphasized, the supply of weapons is not enough for victory. Education and training are also extremely important. For the military, these are both basic skills that need to be constantly polished (for example, US Marines take a shooting exam every year, and there are important areas of education that were not part of the Soviet curriculum (for example, application of best business management practices in the army). Wilson also trains Ukrainian Marines and veterans (subjects include shooting and English language).

Representatives of key arms supplying countries to Ukraine highly appreciate the level of skill of the Armed Forces of Ukraine. Many of them, including Norway, plan to further expand training programs for the Ukrainian military. One of Norway's best military experts, **Lt.Col. Palle Ydstebo (Norwegian Military Academy)**, noted in particular that the Norwegian military is impressed by the Ukrainians' skills in using NA-SAMS.

In a separate paper, Glen Grant also provided his vision of the military education reform in Ukraine that should take account of the new technologies, leadership lessons and battles of the past.

The participants of the conference were greeted by **Julia Romanovska, Vice Rector of the UACU University. The University's** management and foreign economic relations study programs are well-known. She reiterated the military experts' view of the importance of applying best business practices to the military education and recruiting.

Modern Technologies and Their Role in the War

Anthony Seaboyer, Director of the Center for the Study of Security, Armed Forces and Society (RMC — Royal Military College of Canada), spoke about the weaponization of information and use of artificial intelligence in modern warfare. He studies and tells his students about a huge number of examples of the use of information and disinformation as a weapon, psy-ops, deepfakes etc in the Russian-Ukrainian war. We witness expansion of such tools used by adversarial states to increase their sphere of influence, disrupt diplomacy and threaten a rules-based world order. These players are increasingly using information and communication technologies to advance their geopolitical objectives. Currently, artificial intelligence is a new battlefield, and modern war outcome may depend on which side is more advanced in this area. At the same time, developers of modern artificial intelligence systems with combat applications have to solve many unique problems. In particular, in which cases should humans retain control over decisions and actions of these systems? When can a machine be trusted to make a decision, and when should it ask a human operator before acting? What use of these systems can be considered ethical/justified? The answers

are often not too obvious and may vary from developer to developer.

Technology often saves lives. Vice President of **ZiphyCare** Kerry Gibson spoke about the work of **the company, which helps save the lives of Ukrainians, including those in the front-line areas**. A group of first-class surgeons and therapists of the company provide assistance simultaneously in many geographical locations (including war zones) of Ukraine and beyond by using an online consultation technology. This is a vivid example of how the world's best professionals help Ukraine.

For its part, Ukraine has many brilliant teams that continue to impress the world. Recently, **the Ukrainian team has won (for the third time) the global NASA Space Challenge hackathon**, and the team representatives told how to forecast geomagnetic storms with the use of artificial intelligence and analysis of the NASA data. This can give an advantage to the Army during combat.

Technologies also help combat the spread of Russian propaganda, and this must be done across different audiences. For example, users of video games are an audience that is unlikely to see the news about the Oscar for the "20 days in Mariupol" film. Serhii Khramov talked about how "**Ukrainians. Our Battle**" game will help players experience the situation from the point of view of a Ukrainian who was in the war zone on 02/24/22.

Among **other issues discussed** were the image of the Armed Forces, financial incentives for military personnel and the military indus-

try, the creation of a military police, training of military personnel on war crimes during aggression (issues ranging from proper recording to accountability), training and employment of veterans, development of professionalism of the Defence sector on the basis of integrity (in particular within the framework of Norwegian assistance).

Representatives of the Ministry of Defence and the General Staff of the Armed Forces of Ukraine took part in the conference. The discussion was attended by the UACU and the KNU Military Institute, who, together with the speakers, submitted their articles for the Conference Proceedings. The conference was also attended by administration and students of the Kyiv Bohun Military Lyceum and representatives of the Department of Education and the students of the Shevchenko District of Kyiv, who participate in the events of the Ministry of Foreign Affairs, the embassies and NATO Office in Ukraine.

In conclusion, **Director of the Center for European and Euro-Atlantic Integration Sergii Vakarin** thanked the ambassadors, other distinguished speakers and participants, the General Directorate of Foreign Missions, the UACU and other co-organizers of the Conference and offered to start practical implementation of the Conference conclusions and recommendations and to conduct further discussions of important issues of defence and security of Ukraine. These issues should be considered by Ukrainian and Western diplomats, military officials and experts.

JEL: F01

УДК 327(73+477)

Is American support for Ukraine in doubt?

Dr. John Herbst, Honorary President of the Ukrainian-American Concordia University, Ambassador of the United States in Ukraine (2003–2006), Director of the Atlantic Council's Eurasia Center

Since the big invasion began two years ago, it has been clear: as long as Ukraine has strong American support, it will win this war. And that support for Ukraine is currently in doubt. I am running from one event to another here in Washington, all the events relating to American policy towards Ukraine. We are in a difficult spot at the moment. I attended an event where I heard Senator Blumenthal, a democrat from Connecticut, the close ally of President Biden, talk about the stalling of the American Aid package in the House of Representatives because of a small number of naive Republicans. And he made the point about this aid package being absolutely essential to Ukraine's successful defence against Russian aggression.

We have been paying a great deal of attention to this problem and I will describe my bottom line assessment as well as how I think this will play out.

My bottom line assessment is that the house is going to pass an aid package to Ukraine. It may not be the \$60 billion package, which the administration wants, but it will be a substantial package, at least 48 or 49 billion, may be more than that. The economic assistance will be reduced. I believe though the military assistance will not be reduced.

I wish I could tell you this is going to happen tomorrow. And there are some people who think it will certainly happen this month. They are saying it will happen in the next 26 days, 25 days.

I believe it is going to take two months, maybe even a little bit more to sort this out. And let me explain why. As I think you know, under the current procedures in the House of Representatives, the Speaker of the House, Mike Johnson has to submit a bill (a package) for a vote. Johnson has told many people multiple times that he would like to do that. He said that to the parliamentary leaders of the Baltic parliaments a few weeks ago. He said that to my Republican friends. But he does not want to lose his job. As you know, Kevin McCarthy, the former speaker of the house, lost his job because he was pushing an aid package to Ukraine back in September. Johnson wants to avoid that. So he is being very cautious. He believes that he can find some type of compromise that will put the aid to a vote. And if it goes to a vote, a large majority in the house will pass it without losing his job. All of my Republican contacts tell me that is not possible, but Johnson thinks it is and he is looking to do that. We will see if that works.

So Johnson is trying to find a compromise. But he will not find it and at some point he will have to decide between putting aid bill on the floor and face opposition from those small members of the Freedom Caucus who do not support putting aid on the floor. I think this will happen because there is a second, much more complicated way to put that aid bill on the floor. There is a process called a discharge petition. If a majority of members of the House of Representatives sign this petition, a bill can go to the floor for a vote. This process has been used only very rarely and often not successfully.

But there are Republicans who are so determined to get this aid bill done that they have said they will sign a discharge petition that includes the Chairman of the House Foreign Affairs Committee, Congressman McCall from Texas.

If you have five or six Republicans, and there are probably more who are willing to do that than a discharge petition can get that aid package to the floor. Johnson knows this, so I suspect at the end of the day he realizes if he cannot find a compromise, it will satisfy the opponents of aid to Ukraine while putting the aid bill to a vote. He will either go along and put it on the floor himself because if there is a use of a discharge petition, that means that the Speaker of the house has little authority and that also destroys his ability to stay on a Speaker. But I think it is going to take Johnson several weeks to figure this out. He has also said publicly that it is necessary to finish the current budget for the US government before putting the aid bill to a vote.

And it is going to take certainly 2, 3, 4 weeks to take care of that. That is why I believe this is going to drag on for two or even more months. But I think the ultimate result will be positive. That is the most important issue of the moment and that is how I think it will play out. But a second very important issue has been the reluctance of the Biden administration to send

Ukraine all the weapons it needs for successful military operations. This remains

a problem, although the administration has told some people and has hinted publicly that once the aid package is voted in the house, they will send the attackers, the longer range missiles to Ukraine. I think it is a good sign that they are saying it, but of course, um, they have to do it.

And even if they decide to send some of the longer range attackers to Ukraine, the question is

how many will they send? Will they do what they did with the Abrams tanks where they sent only 31, or they send dozens or scores of attackers? We will be working on this problem in the weeks ahead. And in fact, we are hoping to take up this effort with a very strong new public campaign when the house does pass the aid package for Ukraine. Because then they have no excuse for not sending the more advanced weapons. That is largely the picture in Washington as relates to Moscow's war against you.

But let me mention one other thing for the future. There is a great deal of concern that former President Trump, who now looks like a cinch to become the Republican candidate for the presidency, will win the election. And many people fear that he will end our support for Ukraine. And it is true that Trump's strongest supporters in Congress like Marjorie Taylor Greene and Chip Roy and Matt Gaetz in the House of Representatives or JD Vance in the Senate talk about ending aid to Ukraine. So does Donald Trump's son Donald Trump Jr. But the interesting thing is that Trump has not said that. He has said some interesting (and even not so easy to understand) things like he can end the war in 24 hours or 36 hours after he becomes President. But he has talked about doing that by insisting that Ukraine compromise or if he is not cutting off aid and also insisting that Putin compromise. And if Putin does not do that, then arm Ukraine. Now Biden has been unwilling to do so. I do not know what President Trump would do on Moscow's war against you. I do know that some of his advisors have spoken about cutting off aid to Ukraine, like Rick Grinnell, former intelligence chief under Trump. But it is also true that Pompeo, his former Secretary of State, understands how critical Ukraine winning this war is for the United States. And he thinks that if Trump were to win his policies would be similar to the policies he followed when he was first President. And while of course we had that very unfortunate incident with Trump trying to push Zelensky to get involved in American politics and threatening US aid as part of that process, it is also true that Trump was the one who sent Ukraine the Javelins, which Obama refused to do. So Pompeo was saying he thinks the policy might be very similar to the first term.

My only observation here is we do not know, of course, is who he chooses to be his national security. It will be the key indicator of what

Trump would do. If he chooses people like Pompeo, like Robert O'Brien, who is telling his colleagues in Washington that he will have a senior job in a Trump administration, then I think the policies he follows on Ukraine will not be a problem. But if they are people like Rick Grinnell, then his policies may well be a problem. So that is the Washington angle.

I was in Ukraine two weeks ago. I had a chance to meet with senior officials including military. I do not believe that the current American failure and the fact we have not provided aid now since, or rather we have not voted for new aid since almost six months is your failure. I believe while that is making Ukraine's position on the battlefield more difficult, I do not think we are

at a calamitous moment. Yes, Ukraine gave up Avdiivka because they did not have the weapons. But that is only a small, small local victory for the Russians. My sense is Ukraine will be able to prevent big gains over the next several months. And so if we get that aid package done in two, even three months, again, it is not a good thing, but it is not a calamity. It is also true that the arms on the international market the Czech President Pavel talked about two weeks ago are now being bought and being prepared for delivery to Ukraine, which will make your immediate circumstances easier. I think you will hold on. And again, I do expect (but I cannot guarantee) that the American Aid package will be coming to you later this year.

JEL D60, D62
УДК 355.42/.46(477)

Ukraine Battlefield Assessment, Needs and Western Response

*LTG (Retd) Ben Hodges,
Former Commanding General US Forces Europe*

Current Battlefield Assessment

The situation is difficult but narrative at Munich Security Conference was way too gloomy and defeatist (except for the nations closest to Russia).

During 10 years of war, Russia has had every advantage, yet it still only controls one-fifth of Ukrainian territory. In addition to 500K land force casualties, the Russian navy and air force are suffering a lot of losses. We should not overreact because it appears that the RF does not have the capability, yet, to exploit the situation in the battlefield if one puts Avdiivka into a proper geographical and operational context. But it does reflect that the shortage of ammunition, not a shortage of drones, was a key part of UAF forces having to withdraw.

2024 is Year of Industrial Competition, Ukraine and the West can and must win this competition vs Russia. There is currently no knockout capability for either side. The new Ukrainian Commander, General Syrski, will have to stabilize the

situation this year to buy time for fixing problems and building combat power. UAF should not rush to get F16's into the fight until everyone is confident in the concept of employment where UAF can get best value from that over the coming months.

Ukraine must fix its personnel system, including draft age and tens of thousands of military age males and females in Europe. This is a problem for the political leadership to solve as it risks undermining Western support otherwise.

UAF must use this year to reconstitute worn out units and build new units, train people and units, get better at countering Russian advantage in electronic warfare and drones.

What does Ukraine need?

- clear declaration of the US and German commitment to help Ukraine win. It is in our own strategic interest;

- capability to make Crimea untenable for Russian Navy, Air Force, Logistics. Every square meter of Crimea is within HIMARS/ ATACMS range;
- capability to neutralize Russian mass by destroying headquarters, artillery, logistics;
- counter-drone capability: kinetic and non-kinetic;
- air/missile defence;
- Black Sea denial to Russia: Maritime Unmanned Systems (naval drones) and Anti-ship missiles. Ukraine has changed character of naval warfare.

Can the West Organize Itself For Global Challenges and Protect International Rules-Based Order?

Do we, the West, have the combined political will, industrial capacity, military capabilities to address the global challenges to our strategic interests and the international rules-based order by Russia and its allies? They are linked and we have to look at them as parts of a strategic whole and decide that we must help Ukraine defeat "Russia First".

Following are some historical parallels and examples of how to get organized:

- 1942 Arcadia Conference. Churchill comes to Washington DC to meet FDR. They make two huge strategic decisions: "Germany first" and creation of combined Chiefs of Staff;

- 1943 Casablanca Conference. Churchill and FDR meet in Casablanca and make a huge strategic decision about war aims: "Unconditional surrender" of Nazi Germany and the Empire of Japan. No negotiated conclusion but crush the enemy.

Regarding ammunition production in Europe and the USA, we need clear assessments:

What are the requirements for Ukraine, for ourselves? We don't have visibility on actual inventories or production across the EU. Nations are reluctant to share this information as are ammunition producers for security reasons or proprietary reasons. About 70% of what EU nations produce goes to customers outside of Europe, eg UAE and Uganda.

So EU nations need to reprioritize ammunition that is currently heading to customers outside of Europe. There is a lot of ammunition already out there. President Pavel just announced that he had found sources for 800K rounds. We just need to find it and push the money to it. We need a tracking mechanism to look at known requirements, production, inventories, and future production potential. And NATO OPLANS generate requirements, e.g. mobility, ammo, interoperability.

Finally, economic power of the West vs Russia et al shows that we should be dwarfing Russia's economic output, even without the USA.

355.233 УДК (477)

JEL E02, M20

Norms Transfer and Military Education Reform in Ukraine : Notes from a Presentation made at GDIP

Frederic Labarre, PhD
Royal Military College of Canada

Introduction

The Euro-Atlantic powers want their strategic partners to produce normative and operational defence transformation. However, there is no doubt that the agenda for defence reform is heavily conditioned which represents a major fac-

tor of discomfort in Ukrainian structures. People and institutions are naturally fearful of change; will people keep their jobs? Their pensions and privileges? Mostly, one hopes, people are also asking themselves questions as; is this best for the Army? For the country? For the people?

This note attempts to reframe the debate around the need for security and efficacy. It uses NATO's Defence Education Enhancement Programme (DEEP) as a basis for international co-operation and norms transfer. However, this presentation argues that normative transformation should be *mutual*. The sources material for this talk comes from the text "Shaping and Measuring Military Culture Development: A Case Study of the Defence Education Enhancement Programme" published in the Canadian Foreign Policy Journal in 2016. Other sources come from the 2014 and 2015 annual reports on the DEEP program produced by Dr. Al Stolberg, who also initiated the program in 2008. Finally, much of what is being discussed here is the fruit of a long experience in norms transfer, starting from when this author was a defence advisor for the Ministry of Defence of Estonia, up to the time that he managed the DEEP program at the Partnership for Peace Consortium of Defence Academies and Security Studies Institutes (PFP Consortium) between 2014 and 2018.

This paper first discusses the basic conditions for running the Ukraine DEEP program, and how the program is rooted in Euro-Atlantic strategic culture and beliefs about the evolving security environment. It discusses how a DEEP initiative starts, but what sort of defence and diplomacy tool the DEEP program can be for Ukraine. It then argues for a transformation and upscaling of the DEEP program to ensure longer-lasting contact between educators, and the imbrication of the DEEP program in the increased NATO and EU efforts to support Ukraine, yet as an effort distinct from the bilateral security agreements that are being signed at time of writing between Ukraine and many other countries.

The DEEP Program in Brief

At basis of the desire for normative and operational transformation of Ukraine stand two primary motives. First; the belief that the "Western Way" is best, and second, the need to "produce" partner institutions that are recognizable in their practices and structures by Western powers. This "recognition" itself is the basis for normative and operation trust, what can be summarized as "interoperability."

When the DEEP program was created, it was an answer to the need for lead nations engaged in the Global War on Terror (GWOT) to be able to

count on a variety of actors and partners, many of whom were never considered for NATO membership. It seems to me that the DEEP program helped those countries — such as Ukraine — to navigate two apparently contradictory stances. The first stance is that of disarmament and demobilization, aimed at alleviating the post-Cold War security dilemma. The second stance which stands in contradiction to the former, is the need for newly independent countries to develop niche capabilities interoperable with major partners in the GWOT and counter-insurgencies in Afghanistan and Iraq. Many countries readily applied to benefit from the DEEP program, from Afghanistan itself in the later years, to Ukraine. Thus, the program is "form fitting"; tailor made for each country, for each structure and for each set of forces. For example, Ukraine's nascent non-commissioned officer (NCO) structures based in Desna have benefited from a dedicated DEEP effort somewhat different from what other Ukrainian military institutions have enjoyed.

The DEEP program implementation starts first and foremost with the receiving country. Ukraine has had to make its case for a DEEP program, and it is Ukraine which must outline what it needs, and how it would like to proceed. In effect, the Ukraine DEEP initiative has been carried out through periodic visits by NATO country educators (often from the United States). These visits were usually short, rarely more than three days in country. These visits would be the basis for professional exchanges with Ukrainian faculty among Ukraine's many military training institutions. On average, there would be four or five visits per year (at least among those carried out through the PFP Consortium) for Ukraine. All of those visits were made at Ukraine's request. What this has eventually created is a better appreciation by Western educators of Ukraine's special conditions. This has generally meant that the otherwise "imperative" nature of the DEEP program becomes more "co-dependent" when Ukrainian faculty and officers bestow their teachings upon us as well. On the whole, however, the aim of the Ukraine DEEP was to inculcate knowledge creation and delivery methods which that *individual* initiative — *not* institutional habit.

The Ukraine DEEP is not noly a tool of transformation. It is also a tool of defence diplomacy. It provides first of all a ready-made structure for exchanges between Ukrainian and non-Ukrainian

faculty. Naturally, those ties should extend between institutions as well. What is created is an epistemic community — what other presenters in this conference have called “like-mindedness.” However, those exchanges also help to direct Ukrainian national policy westward, thereby providing a counterweight to other regional influences. In that regard, therefore, the risk is that an asymmetry of ambition will develop between the political decision-makers who authorize a DEEP program to take place, and the administrators and civil servants most closely aligned with non-Ukrainian educators who have the task to carry out the reforms. That is; the policy makers may judge that mere participation in the DEEP program is sufficient, and that reform might be unwelcome at the very moment when the structures’ faculty are hard at work transforming their institutions. One may wish to believe that the Russian aggression has put everyone on the same footing. The notes provided by LCOL (Ret.) Glen Grant, in this volume, might contradict this conclusion. In any case, this is the way that Ukraine used the DEEP during the Yanukovich and Poroshenko years.

We may rightly fear that those years of “reform ambition asymmetry” may have enabled legacy habits to endure in the Ukrainian training and education structures. By legacy practices, we mean here those practices made familiar by several decades of Soviet habituation. On the other hand, one must also admit that Western methods and doctrine has not been really tested against the Russians — the very proponents of a teaching and training method that rewards blind obedience and rote memorization.

The rhythm and intensity of the Ukraine DEEP before the war made for limited reach. For example, at 6 events per year through the PfP Consortium, Ukrainian faculty would meet only two to three educators per school, meeting only a few dozen faculty. One may claim that the current war might sound the death knell for the DEEP program but it hasn’t. On the contrary this author would argue for a reinvigoration of the Ukraine DEEP.

The New Use of DEEP

The Ukraine DEEP could be a vehicle to support the new bilateral agreements signed between Ukraine and Canada, Denmark, France, and the United Kingdom, to name just a few. By

enabling the longer-term presence of DEEP educators *in Ukraine*, this would enable the Ukrainian institutions to release some of their own trainers to effect front- or second-line training. The non-combatant DEEP instructors and educators sympathetic to Ukraine’s cause and willing to deploy in Ukraine would therefore save time and costs to the whole training and education effort in times of war. Naturally, Ukrainian faculty or trainers (or their cadets and students) would not need to exit Ukraine (which is currently very time consuming) to benefit from a dedicated DEEP program for Ukraine.

This new Ukraine DEEP model would support Ukraine’s overall education reform efforts. Most importantly, it would support the development of critical thinking skills, evidence-based analysis, participative and active learning methods of knowledge absorption. With any DEEP endeavour, however, it is up to Ukraine to make the first step and request such a DEEP program upgrade. Ukraine must identify its own gaps in teaching and training capability, it must define what it wants to achieve, and how it conceives of success (which suggests that indicators of performance of Ukraine’s choosing must also be developed) for the whole program. Eventually, one would hope that more Ukrainian faculty would take over the task of master instructor and develop genuinely Ukrainian learning tools and methods to deliver knowledge among their institutions.

A renewed Ukraine DEEP would factor well into the bilateral support efforts ratified by many NATO countries for the benefit of Ukraine. The bilateral security agreements are part of a collective attempt to push back against Russia’s red lines in a graduated manner. As this is designed to test Russia’s resolve and response, this does not change the fact that effective succour can be rendered to Ukraine in her time of need.

Under intense pressure from allies, Canada has belatedly decided to augment its support of Ukraine. Nevertheless, the agreement linking Canada and Ukraine remains vague. It is aimed at helping Ukraine mostly in case of “re-invasion” by Russia, in which case Canada will provide “rapid” support. It is regrettable that either of the two signatory may put an end to this agreement unilaterally. Thus the new DEEP could help turn words into deeds. However, a renewed Ukraine DEEP must not substitute for more substantial bilateral aid to Ukraine.

Conclusion

It would happen this way; voluntary nations would identify faculty willing to deploy to Ukraine as educators and master instructors for a set period (say one to two years). Ukraine may provide — within reason — certain facilities, such as lodging, while NATO covers other accessory costs alongside volunteer nations. For example, Canada could authorize the deployment of a faculty from Royal Military College of Canada to deploy to Ukraine under his or her regular salary. Some deployment costs (travel, etc.) may be covered by NATO. Meanwhile Ukraine would provide lodging and facilitate work visa permits, etc. to carry out the plan. The voluntary national contribution (the deployed educator) would then have freedom to move between the Ukrainian defence training and education institutions between Lviv and Kharkiv (including Odessa) to meet with faculty there on a more dedicated basis. This would provide greater contact between the institutions' deployed personnel and Ukraine's military institutions faculty, and thereby accelerate operational and normative transformation.

References

1. Frederic Labarre and Pierre Jolicoeur. « Shaping and Measuring Military Culture Development : A Case Study of the Defence Education Enhancement Program. » *Canadian Foreign Policy Journal* 22, No. 2 (2016), 135–146.
2. For more information on the DEEP events which the PfP Consortium oversees, please consult www.pfp-consortium.org.
3. This epithet stems from early presentations about the DEEP program which the author has been privy to. Those presentations made the case of telling DEEP requesting countries «what» and «how» to teach. This author has generally advocated a somewhat softer approach to norms transfer.
4. For a discussion of how the Russian way of war has remained mostly unchanged since Soviet days, see Frederic Labarre. «Sustainable Armor for Small Powers : The Case of the Russia-Georgia War of 2008.» *Baltic Security and Defence Review* 11, No. 2 (2009), 93–123.

УДК 355.233(477)

JEL M20, P41

Military Education in Ukraine — a Time for Transformation

Lt. Col. (Retd) Glen Grant, UK Army

The expansion of the war by Russia has thrown a stark spotlight upon the education system of the defence forces. The old ways need changing as they are no longer fit for modern warfare. This includes the educational programmes at the Ukraine's military schools of higher and secondary education. This war could last for many more years so the value of the military schools for development, and the potential value and possible achievements of the students in the military sphere has risen accordingly. But to gain the maximum value from this potential resource the military education, starting from the Lyceums, needs to become much more fo-

cussed on youth leadership and individual skills and character.

There is overwhelming evidence that the younger that people start to learn a subject or skill the greater is the later potential for world class performance. Young apprentice soldiers have often been the backbone of armies through their careers. Great Britain has an Army Foundation College to train in technical trades. You can apply at 15 years and 7 months. Formerly Britain had Junior leader regiments (Where I started service) but these were disbanded in the 90s. But they were quickly reformed as the college a few years later as the

significance of their loss to the army was realised. Even further back in history, Johnny Clem of the United States was just 9 years of age when he ran off to fight in the American Civil war. Troops from Michigan adopted him as their drummer boy. During a life of service, Clem was described as a fierce fighter. He finally left the army as a Brigadier General. Thus, students in the Lyceums should be looked at as a huge untapped military potential and their time used to the maximum to give them a strong military apprenticeship. This will both prepare them for greater challenges and careers and give the armed forces a potential pool of trained leaders so far underutilised.

The key suggested areas of educational development for the Lyceums are:

- Leadership and junior command.
- Military skills, tactics and battlefield awareness.
- A greater educational focus in military history and military technology.

Leadership

Leadership is arguably the most important skill that can be imparted and developed in students. It cannot be taught in the classroom. In many youth educational establishments, especially military, students often suffer from a serious problem of “adulthood” where the staff view the students as less capable than they are, or too young and junior to understand things and do not give them the full chance to develop their individual characters. Control and imposed discipline have a greater role than individual development.

There are few real theories world-wide of what constitutes a leadership programme but there are several key pointers in the academic literature and from the experiences of good leaders that should not be ignored. These are:

- Students need real experiences from highly structured to quite informal, to help them develop the competencies necessary to lead others.
- Any programme (s) should be very practical and give “young people decision making power or responsibility for consequences”.
- Where possible (and most powerful) there should be involvement in leading social change projects. (outside in society).

- The programme should last at least a year.
- There should be a requirement for conversations or interaction with peers in classroom or co-curricular settings (but student to student activity is good but alone is insufficient).

I would recommend that the Journal of Leadership Education article at reference provides a good basis for understanding the core leadership competencies required for students.

What is clear from research is that developing youth leadership actually requires as much from the instructors and tutors as it does from the students. There is the requirement to identify the programmes to be used but not so much control as to stifle student initiative. There is thus a need to give up control in order to let the students take adult responsibility for success and failure. There is a need to both accept student mistakes as a normal part of the development but also to devise ways of positive student feedback rather than to censure and blame. There must be regular and formal opportunities for students to self-criticise and to identify how their teams can perform better. These last requirements are closely linked to the time required for the programme. Too short a programme and there is no time for students (and staff) to learn. If the programme is too long, other priorities may dominate, or boredom and laziness can develop. One year is about right for most students.

The command aspects of leadership need careful teaching from skilled military. They include the military aspects of leadership in the field, how to train people, problem solving and the social aspects of dealing with people at all stages of military life. Most of these are not natural subjects to add to the curricula during school hours so will likely have to be additions. Learning to command also overlaps in many aspects with the requirement to learn military skills and tactics. But it cannot be taught without practice.

Tactics and Battlefield Awareness

The Lyceum in Kyiv has already started this training. I would recommend that the Lyceum contacts one of the NATO army attachés to make sure that the full programme of skills and tactical requirements for a young officer are fully understood. The programme of these subjects

then needs to build steadily from first individual skills like shooting, map reading etc, then after basics followed by team tactical skills such as attack and withdrawal, and dealing with all enemy challenges, and then by stages move into leadership practice by students who self-develop programmes and battle scenarios for others, undertake ground appreciations both rural and urban and from these give orders and lead tactical actions.

All possibilities for lectures on lessons learned for the final year students should be taken.

Education – Specifically Military History and Military Technology

Soldiering demands both an understanding of the lessons of the past through the study of the lessons from military history and of the military technology that will shape the innovations and methods of battle of the future. Some of these things can be included into the current curricula simply by a change of emphasis. Others like military history can also be included into the English programme both for reading and for discussion. The study and use of drones has already started. Other technology improvements can be gained by asking defence industry to provide lectures. Organising these lectures and visits provides students with good projects.

This work should be as active as possible and students should be tasked to learn about and deliver presentations to their fellow students and staff, and even to visitors or outside organisations on key subjects from artillery to drones, from the battle of Alma to El Alamein. Forcing them to deal with the outside world to learn, will be a major development and confidence building factor for them.

Conclusions

Developing world class young leaders for the future military is not just possible, but for Ukraine today it is both urgent and vital. The students may well have to lead and fight Russia soon after leaving the Lyceum. The earlier and better prepared they are today, the better and more useful they will be tomorrow. They will have better chances of survival as well. Those who do not become soldiers will still have a wider skill set that fits them better for a leadership role in society.

How to measure that this programme is working? It really is simple. When the Lyceum students are no longer marching round in groups like children but are all hurrying purposefully and individually in the corridors with bright eyes because they have a project or presentation to fix or finish, then you know you are going the right way. When they are leading their own programmes and development, then you know you have won.

References

1. https://en.wikipedia.org/wiki/Junior_Leaders
2. https://www.washingtonpost.com/lifestyle/kidspost/drummer-boys-played-important-roles-in-the-civil-war-and-some-became-soldiers/2012/01/31/gIQA3cKzRR_story.html
3. Seemiller, Corey, Journal of leadership Education, 2018, Vol17, Issue 1, https://journalofleadershiped.org/jole_articles/a-competency-based-model-for-youth-leadership-development/
4. Anderson & Kim, Youth leadership development: perceptions and preferences of urban students enrolled in a comprehensive agriculture program., 2009, p. 9, <https://eric.ed.gov/?id=EJ867379>
5. https://journalofleadershiped.org/jole_articles/a-competency-based-model-for-youth-leadership-development/

Army Recruitment for Ukraine

Lt. Col. (Retd) Glen Grant, UK Army

Recruitment of volunteers is easy — if you have the right policies and incentives in place. Only one of the incentives is money. Joining the services is more complex than this.

First — provide a home (this includes the whole concept of belonging to a positive and joyful military family). This home should always be linked geographically in a positive fashion to somewhere.

Second — volunteers expect to be treated professionally from the outset. They bring value to the country and they want that value appreciated and properly used

Third — volunteers of all ranks expect quality leadership from skilled and experienced people.

Fourth — the insurance of volunteers must be obvious, realistic and truthful. This includes all medical support both during and after injury. No volunteer must ever be abandoned.

Fifth — families must be supported in peace and war and doubly so with lifetime support if the partner is killed.

Sixth — there must be clear career and promotion prospects that bring greater reward for performance.

Seventh — when a volunteer is recruited by unit for that unit he must NEVER be sent elsewhere without his personal approval.

Eighth — a volunteer expects to be properly and professionally trained for the new work he has joined for.

УДК 327.51:355.5](477+481)

JEL F02

Security Agreement Between Norway and Ukraine and Training of Ukrainian Soldiers

Lt. Col. (Retd) Dr Palle Ydstebo, Norwegian Defence Academy

Norway-Ukraine Security Agreement

Cooperation with Ukraine is perceived positively by the Norwegian population. The recently signed Norway-Ukraine Security Agreement makes it easier to channel aid that Norway may provide to Ukraine, including experience, expertise, technology, etc.

The Security Agreement provides a basis not only for direct support of Ukraine's defence but also for the civil society's ability to sustain the AFU with everything, from military logistics to volunteer service, that will improve the chance of Ukrainian victory.

Training of Ukrainian Soldiers

I have met some of the training teams after they have returned from training Ukrainian soldiers. The training emphasises basic combat drills at platoon and section/squad level. The background and experience of the Ukrainian soldiers varies very much, and there are a lot of different ways of doing both defensive and offensive actions. The training aims to provide single drills and procedures that are the same in all units, safe and secure handling of weapons and equipment, combat medical procedures, mine awareness, etc.

Often old and non-standard practices by some Ukrainian veterans have to be overcome

and then standard drills and practices are starting. The Norwegian trainers told that the aim is to teach the soldiers so well they will survive their first combat and then learn and adapt when they are at the front.

The training is very intense and demanding, but the Norwegian instructors are impressed with their Ukrainian students, but notice also that they only are able to provide basic combat drills. Still, standard drills are important as the basic level for more advanced training and building companies and battalions later on. Finally, the way Ukrainians use NASAMS is admired by Norwegian professionals.

УДК 316.774:339.924

JEL F02, M21

GDIP Media Center's Activities Towards Ukraine's European Integration

Eduard Kuzmenko,

*Directorate-General for Rendering Services to Diplomatic Missions,
Taras Shevchenko National University of Ukraine,
National Academy of Internal Affairs,
ORCID: 0000-0003-0207-9325*

Inna Khomenska,

*Head of the Media Center Directorate of the State Enterprise
"Directorate-General for Rendering Services to Diplomatic Missions",
National Pedagogical Dragomanov University,
ORCID: 0000-0003-1555-1879*

For more than 30 years, the State Enterprise "Directorate-General for Rendering Services to Diplomatic Missions" has been conducting diplomatic, communication, cultural, educational and scientific work through the organization of meetings, forums and other events involving the diplomatic corps. In 2016, the Media Center Directorate was spun off as a separate entity within the enterprise to facilitate better communication between civil society representatives, civil servants, diplomats, foreign audiences and youth. The Media Center staff was also tasked with establishing multilateral communication with the foreign diplomatic corps to improve understanding and promote a positive image of Ukraine.

GDIP Media Center has been organizing a number of important roundtables, book presentations, meetings, etc. Moreover, the Media Center systematically publishes the scientific journal "Ukraine Diplomatic" (a scientific journal is classified as a category B scientific publication of Ukraine), which, in addition to the scientific aspect, represents the key messages, ideas, experience of the Ukrainian diplomatic missions abroad and the diplomatic missions of foreign states and international organizations in Ukraine. Moreover, the journal actively publishes works written by veterans of Ukraine's diplomatic service and current Ambassadors, which often provide practical recommendations that should

be considered for practical implementation in the strategy, tactics and tools of Ukraine's foreign policy.

One of the most important vectors of work is to promote and support Ukraine's EU integration course.

Back in March 2021, the Ministry of Foreign Affairs of Ukraine published the first ever Public Diplomacy Strategy of Ukraine for 2021–2025. The strategic goals in this vector of activity are: 1) increasing the level of recognition and better understanding of Ukraine among foreign audiences; 2) perception of Ukraine as a democratic state moving towards full membership in the EU and NATO in the face of external aggression.

Iryna Borovets, acting Director General of the Directorate of Public Diplomacy and Communications of the Ministry of Foreign Affairs of Ukraine, pointed out that the document is based on the realization that Ukraine's brand in the world should be perceived through the prism of its tourism potential and rich and diverse cultural heritage, innovations and inventions, outstanding personalities from various fields of activity, etc. It is this brand, the unified voice of the state that will attract investment and talent to Ukraine, promote tourism, interest in the history and culture of Ukraine, promote the interests of the state at the international level and develop trade.

As the political situation crystallized and the hybrid war turned into a full-scale Russian invasion of Ukraine on 24 February 2022, the process of Ukraine's European integration aspirations (an aspect included in the Constitution of Ukraine in 2019) began to peak up steam.

Today, the key document to strategic communications on Ukraine's accession to the EU is the Cabinet of Ministers of Ukraine's Decree No. 1155-p of 9 December 2022 "On Approval of the Communication Strategy on Ukraine's EU Integration for the Period Up to 2026".

The purpose of this strategy is to establish conscious support in Ukrainian and European society for Ukraine's full membership in the European Union, integration into the European economic, cultural and political space, implementation of internal reforms and transformations aimed at a free, fair, democratic, successful society based on European values: dignity, equality, human rights, the rule of law, freedom and democracy.

To achieve this goal, it is necessary to fulfil 4 strategic objectives:

- conscious support for the implementation of the state's strategic course towards full EU membership;
- understanding of the key stages of Ukraine's integration into the EU by the Ukrainian public;
- understanding and support of the strategic course of the state by the external audience;
- effective interaction and coordination of efforts by government agencies, institutions and organizations to communicate Ukraine's European integration.

Taking into account a number of problems related to the duration of the European integration process, GDIP Media Center, with the support of the Hanns Seidel Foundation in Ukraine, the Ministry of Foreign Affairs of Ukraine and Hennadii Udovenko Diplomatic Academy of Ukraine, has started to conduct active training activities for higher education institutions, government agencies, regional state administrations and other entities. For example, the problem of building strategic communications on European integration is acute and relevant in Ukraine. Sectoral ministries and other state bodies, institutions, and organizations should include communication as one of the important vectors of work at the planning stage, including aspects of European integration in their action plans.

In 2023 3 training programmes were conducted, including "Public Diplomacy in the Activities of Universities", "Advanced Training of Employees of Governmental Structures of Ukraine", "European Integration Policy and Communication Strategies of Ukraine", roundtables "Global War of Narratives and Information Resilience of States" and "Public Diplomacy in Action". On 8 April 2024, a new one-month training course "European Integration Policy of Ukraine" on the management system in regional state and military administrations will begin, opening up opportunities for cooperation and development, helping civil servants to prepare for Ukraine's future membership in the European Union. The speakers are experienced lecturers with extensive practical experience in the field: diplomats, advisers, civil servants, representatives of the public and media.

The level of positive feedback and interest in the issues is high, so the project is planned to be actively developed and improved in the future.

In general, the tendency to actively discuss issues related to Ukraine's EU integration vector in academic and expert circles, as well as awareness of the issues at the state, political and civil levels, are important for improving the communication component and actual work towards EU integration. GDIP Media Center as an effective tool and public diplomacy platform may be actively used by state actors to implement the outlined public diplomacy strategy towards EU integration.

References

1. Directorate-General for Rendering Services to Diplomatic Missions. Retrieved from: <https://gdip.com.ua/?lang=eng> [In English].
2. Ukraine Diplomatic. Retrieved from: <http://ud.gdip.com.ua/en/home> [In English].
3. Stratehiiia publichnoi dyplomatii 2021–2025 MZS Ukrainy. Ministry of Foreign Affairs of Ukraine. Retrieved from: <https://mfa.gov.ua/storage/app/sites/1/Стратегія/public-diplomacy-strategy.pdf> [In Ukrainian].
4. Borovets I. (2021) Public Diplomacy Activities of the MFA. Public Diplomacy Strategy-2021. Public Diplomacy Handbook [under the General Editorship of Iryna Matiash]. Kyiv-Ostroh. Gorobets. 29–40. Retrieved from: <https://sshdir.org.ua/publiczna-dyplomatiya-navch-posibnyk-za-za-gal-red-iryny-matyash-natsionalnyj-universytet-ostrozka-akademiya-naukove-tovarystvo-istoriyi-dyplomatiyi-ta-mizhnarodnyh-vidnosyn-kyiv-gorobets-2021-22/> [In Ukrainian].
5. Zakon pro zminy do Konstytutsii shchodo kursu na vstup v YeS i NATO nabuv chynnosti (2019). European integration portal. Retrieved from: <https://eu-ua.kmu.gov.ua/en/news/zakon-pro-zminy-do-konstytutsiyi-shchodo-kursu-na-vstup-v-yes-i-nato-nabuv-chynnosti/> [In Ukrainian].
6. Rozporiadzhennia № 1155-p Kabinetu ministriv Ukrainy vid 9 hrudnia 2022 roku «Pro skhvalennia Stratehii komunikatsii z pytan yevropeiskoi intehratsii Ukrainy na period do 2026 roku» (2022). Retrieved from: <https://zakon.rada.gov.ua/laws/show/1155-2022-%D1%80#Text> [In Ukrainian].
7. Let's become better together. Creating a network of skilled and proactive people for state-building. Training program. Retrieved from: https://seidel-training-portal.webflow.io/?fbclid=IwAR3B-JiCPGgCQW65AIYJ_TgepeB9ilDSi45m5Q46B8AdX-EIWKpX-X3voyPjE_aem_Aag8YNEjDwg_saa8xo_UBB1vvqPefys6aKGNUr4h0RsWXSDjhdgbQsxeZ-685PDjX0pC1FhxHOJBBscxmFILv3N1t [In English].

УДК 327.51(477+410)

JEL F52, M21

UK and Ukraine Strategic Partnership: Looking Ahead

*Dr Sergii Vakarin, UK Chevening Fellow and Director,
Centre for European and Euro-Atlantic Integration*

New Ukraine's Ambassador to the UK is expected to be appointed soon. Our Conference is a good opportunity to discuss the primary areas the future Ukraine-UK cooperation. Based on the current needs and previous experience, several areas could be named.

- The UK has been Ukraine's most faithful ally and the former Ukrainian top commander can use his experience to continue wide cooperation with the UK defence and security sector, including military support and facilitation of Ukraine's Defence sector reforms in various areas. This includes sustainable provision of arms to Ukraine (including coordination of international efforts in this area), education and training support of the AFU (including knowledge exchange as the AFU can share a lot of battle experience with NATO counterparts), facilitation of safe Ukrainian exports via the Black Sea etc.
- UK has been the first country that concluded a security agreement with Ukraine during the full-scale war and could help with other security agreements and wider consolidation of international support

of Ukraine, including long-term European security and coordinated international support of Ukraine's economic recovery.

The UK has also been active in bringing opportunities of multilateral cooperation to Ukraine including with the EU and NATO. Recently, a UK-Norway coalition has been formed to support Ukraine in the Black sea.

- London may be a useful point of contact with the Commonwealth embassies and missions to help expand and improve Ukraine's relations with the Global South (possibly with relevant FCDO support).
- The UK also supports Ukrainian Government's Reconstruction and Development Plan and hosts Ukraine Recovery Conference.
- British experts and Ukrainian Chevening Fellows can and should be more extensively used in expanding the bilateral relations.

Overall, the UK and Ukraine should use all diplomatic, informational, cultural, military and economic instruments to further expand their close relations.

Norway-Ukraine Defence Cooperation: Military Aid, Training and Development of Professionalism in the Defence Sector

*Dr Sergii Vakarin, Director, UACU
Center for European and Euro-Atlantic Integration
Kateryna Dombrovska, student, UACU*

Norway-Ukraine defence cooperation was one of the issues at the International Forum on Defence, Security, New Technologies and Education in the context of Euro-Atlantic integration of Ukraine.

Norway is one of the key partners of Ukraine. In addition to defence assistance to Ukraine Norway provides financial support of its critical public functions. Norway has recently committed to provide military and civilian support totalling NOK 75 billion over the next five years. Norway has donated artillery, armoured vehicles, tanks and mine clearance equipment to Ukraine. Additionally, air defence support by Norway has been substantial both for the Ukrainian military forces and for protection of the civilian population and critical infrastructure.

Norway has also provided substantial support to Ukraine in training of Ukrainian soldiers, and instructors from the Norwegian Armed Forces are currently providing training in the UK, Germany and Lithuania as well as in Norway.

Among other issues discussed was development of professionalism in the defence sector on a basis of integrity. For this purpose, Norway's CIDS (the Centre for the Integrity in the Defence Sector) has already provided substantial assistance to the Ministry of Defence of Ukraine and other authorities. Cooperation with CIDS started in 2015 with the aim to improve Human resources management, which is central to the quality of performance of defence sector institutions and military units.

The 4-year project was carried out by CIDS on behalf of the Norwegian Ministry of Defence and Ministry of Foreign Affairs. As part of the

implementation, CIDS has established a project office in Kyiv and engaged local experts to support the project.

The project had three specific objectives:

- Enhancing the levels of competence among MoD officials in order to make them more conducive to professionalism based on merit and integrity.
- Strengthening legal frameworks, administrative procedures and practices to achieve a higher degree of professionalism.
- Systematisation of project related experience that may highlight the need for reforms in other parts of the Ukrainian public administration.

During his recent meeting with the management of the National Anti-Corruption Agency of Ukraine, Sergii Vakarin discussed a project implemented by CIDS on professionalism development in the defence sector based on enhancement of integrity standards. Renewal of Norway-Ukraine cooperation in this area provides additional opportunities for effective reforms, which should be followed up.

The UACU and the Center for European and Euro-Atlantic Integration of Ukraine are also conducting other activities to support cooperation between Norway and Ukraine, including visits to the Parliament and the Ministry of Defence of Norway, negotiations on efficient defence of Ukraine and interviews with Norwegian experts in Oslo.

Support by the Defence Intelligence Norway (DIN) has also been invaluable, in particular as a media partner of the conference.

Canada-Ukraine Relations in the Defence Area

Dmytro Gorbenko,
student Ukrainian-American Concordia University

With the beginning of Russian invasion of Ukraine, the lives of all Ukrainians have become drastically different and, in some aspects, even unrecognizable when compared to their lives before. Many people could not imagine that it would be possible to hear air raid sirens and withstand rocket attacks in a middle of Europe in 21st century, but it still happened and continues to happen.

The war has influenced the lives and behavior of people even outside Ukraine. Majority of politics continue to express their concern about the situation and even the citizens keep on wondering how this event will eventually affect the world economics and, therefore, their lives as well. Because of these concerns and fears that countries neighboring Russia are next on the list, many nations have put more emphasis on straightening and improving their armies as well as seeking protection from organizations like NATO. As the time shows, Europe has become more aware and anxious about the dangers of the conflict escalation and is slowly getting more active in the issue, while the United States have shown to be less worried and more focused on their internal problems. This is relevant to our recent conference about Euro-Atlantic integration which was held by the university and featured Frederic Labarre, the professor of Royal Military College in Canada.

A large portion of Labarre's speech was dedicated to the current developments in military technologies in Ukraine and the world. Canada has long been a supportive country to Ukraine and has helped in training new troops for many years even before the invasion. Due to Canada being a part of NATO, it has access to advanced military technologies, tactics, strategies and resources which makes it a valuable ally in politics. They have one of the most advanced marine and navy troops on the international scale. Canadi-

an government is therefore committed to supporting Ukraine in whichever ways possible and keeping up the military with skilled training. One of Labarre's key statements was that Russia does not have the capabilities of a continuous conflict with Ukraine and that their tactics are outdated compared to NATO, which could be an advantage to Ukraine's side.

While the scale of development in Canadian armed forces and aviation is impressive and their allied relationships with Ukraine is admirable, the reality still shows that Canada's apparent actions are not as global as people would like them to be. The conference discussed the possibility of NATO intervention and Canada sending their actual troops to fight in Ukraine, but the possibility of such actions from Canada are minimal. Labarre mentioned that the government does not intend to send their armed forces unless the situation is definitely leaning to Ukraine's victory. In that case, their forces will be used to secure the victory in shorter terms. Additionally, the government of Canada is concerned about the presence of their troops becoming the reason for Russia to announce war on NATO, which could lead to devastating consequences that Canada does not want. Furthermore, Canada does not have nearly the level of influence in NATO like the US or Europe have, so their aspirations may not change the organization's course of action.

To conclude what we learned from the conference, Canada is possibly one of the most supportive NATO nations in ideologic sense. It has a long history of relationships with Ukraine and has aided greatly in education of their army. However, what diminishes their spiritual support is the lack of major activities on the battlefield. Canada follows the United States in the way of making inspirational promises of support in fighting Russia before the invasion and the lack of presence on the crime scene after the begin-

ning of invasion. Hopefully, the arising concern among European members of NATO like France and the Poland will encourage Canada to participate more in the resolution of this severe crime, and that the justice will be served.

References

1. O'Brien, P. P. (2023, September 5). The U.S. and Europe are splitting over Ukraine. *The Atlantic*. <https://www.theatlantic.com/ideas/archive/2023/09/europe-united-states-international-relations-decoupling/675211/>
2. Izri, T. (2024, March 5). "non-combat" military trainers could return to Ukraine — but not yet: Blair. *Global News*. <https://globalnews.ca/news/10333884/canada-ukraine-military-training-troops/#:~:text=Canada%20has%20trained%20more%20than,your%20email%2C%20as%20it%20happens.>
3. Segura, C. (2024, March 18). NATO personnel already in Ukraine for arms control, intelligence operations and military training. *EL PAÍS English*. <https://english.elpais.com/international/2024-03-18/nato-personnel-already-in-ukraine-for-arms-control-intelligence-operations-and-military-training.html>

УДК 327.51:004.056.5

JEL K24, M21

The Role of International Cooperation in Strengthening Cybersecurity and Cyber Defence Capabilities in the Context of Euro-Atlantic Integration

*Kateryna Fadieieva, student
Ukrainian-American Concordia University*

In today's world, where information technologies play a crucial role in all spheres of life, cybersecurity has become an integral component of national and international security. Growing threats of cyberattacks, including cyber espionage, cyber terrorism, and cyber sabotage, emphasize the necessity of effective international cooperation in the field of cybersecurity. In this context, Euro-Atlantic integration is identified as a key factor in enhancing countries' cyber defence capabilities and protecting them from cyber threats.

To begin, it is crucial to utilize the analysis of official documents from international organizations, notably NATO and the European Union, as well as research findings on cybersecurity and international cooperation in this area.

The analysis has shown that the existence of an effective system of international cooperation is critical for the successful implementation of cybersecurity measures and ensuring the cyber defence capabilities of countries.

A crucial component of such a system is the exchange of information on cyber threats and incidents among partner countries. Initiatives such as NATO's Cyber Incident Response Center create mechanisms for rapid information exchange and coordination of responses to cyberattacks.

Additionally, joint educational programs and training in the field of cybersecurity can contribute to the development of common standards and the enhancement of professional training for experts in this area.

International cooperation in cybersecurity plays a pivotal role in strengthening the cyber defence capabilities of countries in the context of Euro-Atlantic integration. The development of common strategies, information exchange, and joint educational initiatives are essential elements of such cooperation. Achieving these goals requires efforts and solidarity from participating countries and international organizations.

References

1. Hitchens, T., & Goren, N. (2017). International Cybersecurity Information Sharing Agreements. Center for International & Security Studies, U. Maryland. <http://www.jstor.org/stable/resrep20426>
2. Ülgen, S. (2016). CYBERSECURITY. In GOVERNING CYBERSPACE: A Road Map for Transatlantic Leadership (pp. 51–60). Carnegie Endowment for International Peace. <http://www.jstor.org/stable/resrep26924.11>
3. Chamas, H. (2017). CYBERSECURITY: A GOOD DEFENSE IS A COOPERATIVE INTERNATIONAL INTELLIGENT DETERRENCE CAPABILITY. In T. Saadawi & J. D. Colwell (Eds.), CYBER INFRASTRUCTURE PROTECTION VOLUME III (pp. 3–34). Strategic Studies Institute, US Army War College. <http://www.jstor.org/stable/resrep11978.5>
4. Van Epps, G. (2013). Common Ground: U.S. and NATO Engagement with Russia in the Cyber Domain. *Connections*, 12(4), 15–50. <http://www.jstor.org/stable/26326340>
5. Dill, K. J. (2018). Cybersecurity for the Nation: Workforce Development. *The Cyber Defence Review*, 3(2), 55–64. <http://www.jstor.org/stable/26491223>

УДК 339.92:341.3](477+438)

JEL M21, F55

The Impact of the Ukrainian-Polish Relationship on the Ukrainian EU and NATO Integration

Anna Faiura, student
Ukrainian-American Concordia University

Integration into the European Union (EU) and the North Atlantic Treaty Organisation (NATO) are top priorities in Ukraine's international politics, as these steps are necessary to ensure the sustainable political, economic, and military security of the Ukrainian state. Poland is a key ally of Ukraine, a member of NATO and the European Union, and the most economically and militarily advanced country among those that border Ukraine directly (Excluding russia) (Statista, 2023; Global Firepower, 2024). All of those factors make the Ukrainian-Polish relationship critical to the success of Ukrainian integration into the EU and NATO, especially considering that both structures require the unanimous agreement of current members to accept a new one.

Ever since the beginning of the full-scale russian invasion of Ukraine on February 24th, 2022, Poland has been playing a central role in the ongoing war and the related military assistance and humanitarian relief effort. Its proximity to Ukraine and the vast land communications networks established between the countries made it an irreplaceable logistic intermediary in the shipments of aid and arms. At the same time,

the sociocultural similarities between the countries made Poland one of the most popular destinations among Ukrainian refugees and a vital transit hub for those who chose to travel further.

Two years on, the current relationship between Ukraine and Poland is tense: As Ukraine continues to suffer from the ongoing total war, a segment of the Polish population is growing concerned with the economic effect of the suspension of import duties and quotas on Ukrainian exports to the EU—an EU trade measure passed in June 2022 that has since been extended and is still ongoing—on the Polish market (European Commission, 2024). Some Polish politicians and activists claim that the measure has triggered an influx of Ukrainian goods to the Polish market, severely affecting prices and domestic demand (Krzysztozek & Mandilara, 2024). As the EU keeps extending the measures and Ukraine keeps relying on them as one of the primary mechanisms to stabilize a struggling wartime economy, this issue continues to strain the relationship between Poland and Ukraine and between Poland and the EU, making the situation even more complex. This has strong ramifica-

tions for Ukraine's future accession to the EU, as there is a possibility that some political forces in Poland will at least partially resist a full membership for Ukraine on the grounds of protecting the Polish domestic economy: accession to the EU will effectively make the import duty suspension permanent, as all EU countries have no import/export duties between each other. It would be in the best interest of Ukraine's EU ambitions to solve this critical issue before it becomes a roadblock on the country's way into the Union.

On the other hand, the military relationship between the countries has been going much more smoothly (PolskieRadio.pl, 2024). Except for inconsequential political posturing in the run-up to the 2023 Polish parliamentary election, Ukraine and Poland have enjoyed strong military cooperation, as Poland became NATO's primary logistical hub when it came to bolstering Ukraine's fight for national and physical survival as well as European security. In addition to providing vast amounts of weaponry to Ukraine and serving as the logistical intermediary for virtually all NATO aid provided to the country since 2022, Poland has been working on improving its military position and capability by dramatically increasing its arsenal, mainly in purchasing US equipment such as Abrams tanks and HIMARS tactical missile systems (Morris, 2023). Poland also has an undeniable strategical interest in NATO membership for Ukraine, as it would drastically reduce the possibility of Russian aggression against Poland in the long term. All of these factors favor a potential positive impact of the military cooperation between Ukraine and Poland on Ukraine's NATO membership, as they stress the necessity of a strong and unified eastern flank for the alliance to resist any future Russian aggression.

While the true impact of the relationship between Ukraine and Poland on Ukraine's future

memberships in the European Union and NATO is currently hard to assess, there is no doubt that Poland will be one of the most important strategic partners in Ukraine's bid to membership in both structures. Despite differences and conflicts, Poland remains determined to support Ukraine's political and military aspirations. This does not mean that problems do not need to be solved—on the contrary—solving the problems that arise in the Ukrainian-Polish relationship and finding common ground is critical to Ukraine's success.

References

1. European Military Strength (2024). Global Firepower. <https://www.globalfirepower.com/countries-listing-europe.php>
2. Statista (2023). Gross domestic product at current market prices of selected European countries in 2022. <https://www.statista.com/statistics/685925/gdp-of-european-countries/>
3. European Commission (2024). EU reaffirms trade support for Ukraine and Moldova https://ec.europa.eu/commission/presscorner/detail/en/ip_24_562
4. Krzysztozek, A., & Mandilara, S. (2024, February 5). Poland launches import controls at Ukrainian border to protect domestic market. [www.euractiv.com. https://www.euractiv.com/section/politics/news/poland-launches-import-controls-at-ukrainian-border-to-protect-domestic-market/](https://www.euractiv.com/section/politics/news/poland-launches-import-controls-at-ukrainian-border-to-protect-domestic-market/)
5. PolskieRadio.pl. (2024, January 23). Poland and Ukraine to strengthen defence ties with new cooperation and support initiatives. <https://www.polskie-radio.pl/395/9766/Artykul/3322347.poland-and-ukraine-to-strengthen-defense-ties-with-new-cooperation-and-support-initiatives>
6. Morris, L. (2023, February 22). Poland is on a quest to have Europe's strongest military — with U.S. arms. [Washington Post. https://www.washingtonpost.com/world/2023/02/22/poland-us-weapons-ukraine-russia/](https://www.washingtonpost.com/world/2023/02/22/poland-us-weapons-ukraine-russia/)

The Impact of US Elections on the russo-Ukrainian War and Ukrainian Euroatlantic Integration

Maksym Maliuta, student
Ukrainian-American Concordia University

The election of Donald Trump as US President, should it happen, has the potential to become a disaster for Ukraine and its supporters. The US is the most powerful ally of Ukraine and has been providing the most military aid to the country in the past two years of its fight for sovereignty and the right to cultural, social, and physical existence. Since the beginning of the full-scale russian invasion of 2022, the US has allocated over \$113 billion of aid to Ukraine, including \$61.8 billion in defence assistance and \$36.5 billion of economic and humanitarian assistance via USAID (Center for Strategic and International Studies, 2023). This aid was invaluable to Ukrainian military capability, economic stability, and the welfare of the population. However, polling for the upcoming 2024 US presidential election indicates a probable victory of the apparent republican candidate, Donald J. Trump (FiveThirtyEight, 2024). This is a critical issue due to Trump's extreme political views, as, in addition to his generally pro-russian position, he has multiple times reaffirmed his intentions to completely cut off any aid to Ukraine if he is elected president (Bennetts & Dawber, 2024). This real and present threat is already severely impacting Ukraine and the Euroatlantic integration landscape, but it is important to explore its further potential impacts.

Trump's victory would likely lead to the US completely ceasing to provide military support to Ukraine, which would be a significant problem for Ukraine's capability to continue critical military operations. It is also likely to lead to a significant destabilization of the Western coalition and elevated internal tensions in NATO, although such a turn of events is unlikely to directly affect Ukraine's EU prospects as the US has no direct formal influence on the Union. If this occurs, in

order for Ukraine to retain combat capacity and secure victory in the war, EU countries such as Germany and France, as well as the ex-EU United Kingdom, would need to significantly boost their military and economic contributions to Ukraine and deepen the scope of their involvement. Some EU leaders are already realizing this, as President of France Emmanuel Macron has recently shifted to much more aggressive stance on supporting Ukraine than in 2022 and 2023, even going as far as stating that sending military personnel to Ukraine is "not ruled out," in a stark deviation from the previous stance of all EU and NATO members on this issue (Crisp, 2024). However, it is yet to be seen if President Macron's statements will lead to real effects in political, economic, and military dimensions.

If the US abandons Ukraine, analysts project that Europe will have to at least double its contributions. While such a measure will be difficult, it is very achievable as the EU has only spent an amount equaling less than 1% of its 2021 GDP to support Ukraine (Kiel Institute, 2024). In a situation where the EU will have to support Ukraine without the US, production, and logistics bottlenecks will also become a problem, as European military capabilities have been degraded by decades of neglect and carelessness. However, many experts agree that if Europe has the political will and determination to support Ukraine and help it achieve victory, it will be able to reach the necessary economic and military thresholds for this objective.

Trump's victory would also create an obstacle to the integration of Ukraine into NATO, at least during his tenure as president, as Trump has voiced a strong anti-NATO sentiment and even stated he will let russia "do whatever the hell they want" to NATO countries that will fail

to meet budget requirements (Trump, 2024). An inverse scenario where weak US support would galvanize European leaders and lead to a stronger European alliance is also possible, although difficult to achieve considering a severe lack of political will and decisiveness in modern European leadership.

It is now unlikely that Trump's candidacy will be impeded by criminal proceedings against him, as he will retain the ability to run for presidency even if he is convicted and imprisoned (Kestler-D'Amours, 2024). Furthermore, a recent decision by the Supreme Court of the United States has denied individual states the authority to disqualify him for insurrection under Section 3 of the Fourteenth Amendment to the US Constitution (Trump v Anderson, 2024). With this in mind, while Trump's victory is not guaranteed, it is definitely possible, and its potential consequences must be seriously considered and taken into account. Even if Trump loses the election, it is critical for Europe to strengthen aid to Ukraine in order to protect freedom, democracy, and, most importantly, the lives of the Ukrainian people.

References

1. Center for Strategic and International Studies (September 26, 2023) The Past, Present, and Future of U.S. Assistance to Ukraine: A Deep Dive into the Data <https://www.csis.org/analysis/past-present-and-future-us-assistance-ukraine-deep-dive-data>
2. FiveThirtyEight (2024, March 17). National : President: general election : 2024 Polls. <https://projects.fivethirtyeight.com/polls/president-general/2024/national/>
3. Bennetts, M., & Dawber, A. (2024, March 12). Donald Trump 'will stop aid to Ukraine if he wins US election.' The Times. <https://www.thetimes.co.uk/article/donald-trump-ukraine-aid-war-wins-us-president-election-2024-7z6j23ld9>
4. Kestler-D'Amours, J. (2024, February 5). How will Donald Trump's criminal trials affect his re-election bid? Al Jazeera. <https://www.aljazeera.com/news/2024/2/5/how-will-donald-trumps-criminal-trials-affect-his-re-election-bid>
5. Trump v Anderson, 23 US 719 (2024) https://www.supremecourt.gov/opinions/23pdf/23-719_19m2.pdf
6. Crisp, J. (2024, March 16). The real reasons Macron turned from dove to hawk on Ukraine. The Telegraph. <https://www.telegraph.co.uk/world-news/2024/03/16/real-reason-macron-turned-from-a-dove-to-a-hawk-on-ukraine/>
7. Kiel Institute (2024). Ukraine Support Tracker: Europe has a long way to go to replace US aid — large gap between commitments and allocations. <https://www.ifw-kiel.de/publications/news/europe-has-a-long-way-to-go-to-replace-us-aid-large-gap-between-commitments-and-allocations/>
8. Donald J. Trump (2024). <https://edition.cnn.com/2024/02/10/politics/trump-russia-nato/index.html>

УДК 659.231:339.94(477+430)

JEL F50

Consulting Practices and Strategic Partnerships: Examining Ukrainian-German Cooperation in Leadership and High Technologies

*Iryna Omelaienko, student
Ukrainian-American Concordia University*

In Ukraine's current war, strong leadership and technological progress have become critical needs. Germany, Ukraine's trusted ally, presents an exceptional opportunity for partnership in these important areas. Now is more than ever im-

portant to take a look at how consulting practices could facilitate strategic collaborations between Ukrainian and German leadership regarding high-tech implementation, with a focus on applications relevant to the current military situation.

Leadership development: for Ukrainian leaders, enhanced strategic decision-making skills and crisis management expertise are essential. German consulting can play a crucial role in developing these capabilities, since it has an experience of fostering effective leadership practices. This collaboration could be built upon existing programs like the “Skills4Recovery” offered by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). They generate ideas for political, social and economic change, then develop these into concrete plans and implement them. And also, it’s important to note, that European values are central to their work, which means Ukraine can be one step closer to joining EU, by implementing their practices².

Technological advancement: modernising Ukrainian military demands access to cutting edge innovations. Germany excels in high-tech sectors like cyber defence and military tech. Bridging gaps through training, consulting fosters knowledge sharing, collaborative research, and joint production ventures between Ukraine and Germany. According to the Federal Government’s Press and Information Office, at least 10 000 soldiers were trained in Germany. This could significantly contribute to Ukraine’s ability to utilise advanced military technology, potentially developing cyber resilience and military knowledge.

In conclusion, Germany’s expertise in leadership development and advanced technology implementation can help Ukraine address critical issues exposed by the war. Collaborations can build on existing programs and facilitate knowledge sharing, leading to technological proficiency and management enhancement. Overall, this strategic partnership offers an opportunity to strengthen Ukrainian leadership, improve military skills, and bring Ukraine closer to European values.

References

1. Deutsche Gesellschaft für Internationale Zusammenarbeit. Published 13.09.2023. Відкриття проєкту Skills4Recovery: Навчання кваліфікованої робочої сили для відновлення України <https://www.giz.de/en/worldwide/132119.html>
2. Deutsche Gesellschaft für Internationale Zusammenarbeit. GIZ Profile: sustainable development for a liveable future
3. <https://www.giz.de/en/aboutgiz/profile.html>
4. Federal Government’s Press and Information Office. Published on 24.02.2024. Deutsche Unterstützungsleistungen für die Ukraine nach Ressorts p.5 <https://www.bundesregierung.de/resource/blob/975226/2201464/e7f4dcb0766a5675c0e-c8a86513371a1/liste-ukr-bilaterale-hilfe-data.pdf?download=1>

УДК 338.245:355]:327.51

JEL M21, F59

The Relationship between Risk-Based Quality Management in Weapon Provision and NATO Support for Ukraine

Milana Poliakova, student

Scientific supervisor: Tetiana Gordiienko — Ph.D. in Economics, Associate Professor Ukrainian-American Concordia University

The lecture on NATO’s assistance to Ukraine shed light on the crucial role played by the alliance in bolstering the defence capabilities of the nation amidst ongoing geopolitical challenges. Amidst expressions of gratitude, it became evi-

dent that NATO’s support extends beyond mere military aid; it embodies a strategic partnership aimed at enhancing security and stability in the region. However, juxtaposing this support with the principles of Risk-Based Quality Manage-

ment (RBQM) unveils a complex interplay of factors that necessitate careful consideration. This paper explores the risks inherent in NATO's provision of weapons to Ukraine through the lens of RBQM, delving into potential pitfalls and strategies for mitigating them.

NATO's commitment to strengthening Ukraine's military capabilities against external threats is demonstrated by the arms sent to the country. But there are hazards associated with this attempt, especially with regard to the quality control of these weapons. A methodical approach to identifying, evaluating, and mitigating the risks connected to the provision of weapons is provided by risk-based quality management (RBQM), which guarantees that the weapons fulfill operational needs and conform to safety regulations. In doing so, this article seeks to clarify the complex nature of the problem and offer practical approaches to risk management by analyzing the possible risks associated with NATO's assistance to Ukraine within the context of risk-based quality management.

The quality and dependability of the arms that NATO is supplying to Ukraine is one of the main hazards involved in this arrangement. When weapons malfunction or break down during a battle, it can have disastrous effects that jeopardize military operations and put soldiers in risk. Furthermore, because it undermines Ukraine's military capabilities, the market's growth of shoddy or counterfeit weapons presents a serious concern. Furthermore, the possibility of unforeseen outcomes, such weapons ending up in the wrong hands or being used against civilian populations, emphasizes how crucial it is for RBQM to have strong risk identification procedures.

Analyzing the dangers associated with NATO's support for Ukraine necessitates a thorough examination of a number of variables, such as the geopolitical environment, operational concerns, and technological complexity. A sophisticated approach to risk assessment is required due to the region's volatility and the existence of non-state entities, which further exacerbate the risk environment. This process is made easier by RBQM, which ranks risks according to likelihood and possible impact. This enables stakeholders to deploy resources wisely and put focused

mitigation plans in place. To further lessen the chance of operational failures, comprehensive quality inspections of weapons should be carried out before they are deployed in order to find any weaknesses or vulnerabilities.

Sustaining the RBQM principles and guaranteeing the effectiveness of NATO's assistance to Ukraine need the implementation of effective risk mitigation techniques. In order to effectively handle shared concerns and execute strong quality control procedures across the supply chain, cooperation between NATO and Ukrainian authorities is essential. To reduce the possibility of sabotage or abuse and to prevent unwanted access, this calls for strict monitoring of the processes involved in the acquisition, storage, and maintenance of weapons. Additionally, funding technical support and training initiatives can improve the Ukrainian forces' ability to maintain and operate cutting-edge weaponry in a safe and efficient manner. NATO can reduce any weaknesses and bolster Ukraine's military capabilities over time by taking a proactive approach to risk reduction.

One of the most important ways that NATO is assisting Ukraine in strengthening its defenses is by arming the country with weaponry. This project is not without danger, though, since it calls for a careful balancing act between quality management standards and strategic objectives. Protecting the efficacy and dependability of delivered weapons necessitates a methodical approach to risk identification, evaluation, and mitigation, as seen through the prism of risk-based quality management. NATO may reduce possible risks and strengthen Ukraine's ability to withstand changing security threats by incorporating RBQM into its support systems.

References

1. NATO — Topic: Відповідь НАТО на вторгнення Росії в Україну
2. What are the risks and benefits of US/NATO military options in Ukraine? Our strategic risk calculator has answers. — Atlantic Council
3. <https://infopost.media/en/report-no-one-in-ukraine-questions-the-eu-and-nato-accession-and-this-also-creates-risks/>
4. <https://www.stimson.org/2022/the-risks-of-u-s-military-assistance-to-ukraine/>

УДК 378:355.233

JEL: F52, H56

Leveraging Collaborative Education and Strategic Partnerships for Euro-Atlantic Integration: A Focus on Modern Military and Managerial Education

Maksym Bidenko, student
Ukrainian-American Concordia University

A crucial element in the quest for Euro-Atlantic integration is the convergence of contemporary military and management education. This essay explores the complex world of cooperative learning and strategic alliances, explaining how important they are to achieving the goals of transatlantic integration.

First, it looks at the modern conceptions of managerial and military education, examining the ways in which these domains interact to foster an integrated perspective on innovation, security, and governance. The paper examines ways to bridge the gap between the military and civilian sectors, promote cross-disciplinary collaboration, and develop a cadre of leaders capable of navigating the complexities of the geopolitical landscape of the twenty-first century through the lens of collaborative educational programs and professional development initiatives.

Additionally, the paper explores consultation and collaboration, clarifying the revolutionary possibilities of strategic partnerships in areas like strategy creation, organizational management,

leadership enhancement, and the incorporation of state-of-the-art technologies. It emphasizes the necessity of proactive stakeholder engagement and knowledge-sharing, highlighting the criticality of cross-border collaboration in tackling common difficulties and utilizing group strengths.

This article provides actionable suggestions for strengthening institutional ties, fostering international cooperation, and maximizing synergies across various stakeholders and sectors by utilizing case studies and empirical observations. Through the promotion of a collaborative and innovative culture, the aim is to accelerate the development of a more robust and united Euro-Atlantic community.

To sum up, the pursuit of Euro-Atlantic integration is based on the combination of contemporary military and managerial education. We have the chance to overcome disciplinary gaps, develop adaptable leaders, and encourage creative responses to common problems through cooperative learning initiatives, joint programs, and strategic alliances.

Organization of Military Field Medicine Training for Company Employees

Anna Bohdan, student

*Scientific supervisor: Lesya Leshchii — Ph.D. in Economics,
Associate Professor Ukrainian-American Concordia University*

Field medicine skills go beyond the combat zone and can be life-saving. Knowledge of bleeding control, first aid, and stabilization of victims can help save lives during road accidents, animal attacks, natural disasters, or even domestic incidents. Therefore, the organization of military field medicine training for company personnel is becoming increasingly important.

Companies can get a lot out of military field health training. First, it makes workers safer, especially those who work for foreign companies that do business in other countries. Second, this kind of training makes workers more motivated because it shows that the company cares about their health and safety. Another benefit is that the training is easy to get to and the duration of such training is not too long. These classes don't cost too much and only last one to three days, so they don't get in the way of work.

Training in military field medicine is good for the company and the people working there. First, it makes things safer and better prepared for emergencies. The second benefit is that it makes people more loyal to the company that cares about their health.

The modern world, unfortunately, is not free of risks. Emergencies, accidents, natural disasters — all this can happen suddenly, without leaving time for reflection. And it is in such moments knowledge and skills of first aid can be crucial, in saving lives.

Keeps things from getting worse. It costs more to treat major injuries that get worse because someone doesn't know how to give first aid. Accidents can be avoided by teaching workers how to give first aid. Giving people basic first

aid training can help make sure that mistakes don't happen at work.

This makes mistakes less likely to happen at work. Giving people the right first aid training goes hand in hand with teaching them about safety at work. With this kind of training, workers can easily avoid having crashes or getting hurt at work. Working conditions are safer and mistakes happen much less often when people are properly trained [First Aid Darwin, 2023] [1].

The best thing about a business is having employees who are properly certified in first aid. If an accident happens at work, employees who are trained and certified in first aid can do the right thing [Busy Bees. Education and training, 2022] [2].

Shows how to use a first aid kit correctly in an emergency. When first aid kits are used correctly after an accident, they are meant to keep people safe until they can get medical help. Staff can only fully use a basic first aid kit if they have been properly trained.

A lot of places of work are required by law to teach their workers how to give first aid. By giving first aid training, businesses can make sure they follow these rules and escape possible fines from the law. Because accidents and emergencies are more likely to happen at work, people who work in buildings or healthcare need first aid training more than others [Mihir Sing, 2024] [3].

For companies that want to ensure the safety and well-being of their staff, investing in such training is not just desirable, but a necessary step. Training in military-field medicine can be a decisive factor in a critical situation, saving the life of an employee. The value of human life is the highest priority.

References

1. Mihir Sing (2024) Why does Every Organization need to do Advanced First Aid Training?//<https://www.linkedin.com/pulse/why-does-every-organization-need-do-advanced-first-aid-mihir-sing>
2. Busy Bees. Education and training (2022) Why is a workplace first aid course important for your organization?// <https://busybeestraining.co.uk/blog/workplace-first-aid-important-for-organisations>
3. First Aid Darwin (2023) The Workplace Benefits Of First Aid Training//<https://firstaidcoursesdarwin.com.au/blog/how-first-aid-training-can-prepare-you-for-emergencies-in-the-workplace/#:~:text=In%20conclusion%2C%20first%20aid%20training,injury%2C%20and%20reduce%20recovery%20time.>

УДК 355.233.1

JEL I20

Modern Curriculum in Military Education and Training: International Experience

*Yaryna Dobrianska, student
Ukrainian-American Concordia University*

The conference “Euro-Atlantic Integration, New Technologies, Military and Management Education” gathers experts from around the world to discuss key aspects of military and management education, as well as the application of advanced technologies in these fields. In the modern world, military and management education play a critical role in ensuring security and effective resource management.

It is noteworthy that the combination of strategic management and innovative technologies can significantly enhance the effectiveness of defence and management structures. Modern technologies, such as artificial intelligence, cybersecurity, and data analysis, open new opportunities for optimizing management processes and making strategic decisions. Collaboration between countries in the field of military and management education can lead to the exchange of best practices and the implementation of joint training programs.

Furthermore, the consolidation of efforts in the development of modern management strategies and military technologies will contribute to improving military operations and ensuring national and international security. It is also important to note that the development of international cooperation in these areas is crucial for addressing contemporary threats and challeng-

es facing the world, such as infectious diseases. Military and management education must meet the demands of the modern world and the challenges of global security, and this conference is a significant step in that direction.

Modernizing management and military education has garnered a lot of attention in recent years. The use of modern teaching techniques and approaches adapted to the changing demands of leadership and defence is one of the ways to adopt military experience in the business world. Another important feature is the use of cutting-edge technologies into courses in education. Artificial intelligence, cybersecurity, and data analysis are just a few of the technologies being used to provide aspiring military personnel and managers the know-how they need to successfully negotiate challenging security environments. Furthermore, there is an increasing focus on the creation of cooperative training programs and projects meant to promote worldwide collaboration. These programs promote a deeper understanding of different points of view to security and management concerns in along with supporting the exchange of best practices.

Partnerships and consulting services in the fields of high technology, strategy, management, and leadership are likewise becoming more and

more popular. Organizations have noticed advantages of bringing in outside specialists to enhance their strategic planning methods as well as implementing innovative technologies to increase organizational efficacy and efficiency.

To handle the risks and obstacles to global security, expanding international collaboration is necessary. Through collaboration, organizations might contribute shared information, resources, and tactics to help global peace and stability, as well as the general protection of security frameworks.

In conclusion, there are many of ways to improve military and management education, like using the latest technologies, creating training programs and creating greater global cooperation. These programs aim to provide professionals the abilities, experience, and strategic perspectives they need to successfully negotiate challenging security contexts and promote world peace and stability.

References

1. Краснокутська, Н. С. (2017). Стратегічне управління: Навчальний посібник для студентів економічних спеціальностей. НТУ «ХПІ».
2. Chretien, J.-P., Blazes, D. L., Coldren, R. L., Lewis, M. D., Gaywee, J., Kana, K., Sirisopana, N., Vallejos, V., Munda, C. M., Montano, S., Martin, G. J., & Gaydos, J. C. (2007). The importance of militaries from developing countries in global infectious disease surveillance. *Bulletin of the World Health Organization*, 85(3), 174–180. <https://doi.org/10.2471/BLT.06.037101>
3. Sacharn, B. S. (2003). Cooperation in military training as a tool of peacetime military diplomacy. *Strategic Analysis: A Monthly Journal of the IDSA*, 27(3).
4. Trust the Process. (2023, March 8). Bringing military mindset to the business world. <https://ttp-outsourcing.com/blog/bringing-military-mindset-to-the-business-world>
5. Gaspar, V., Hagan, S., & Obstfeld, M. (2018, September 6). Steering the world toward more cooperation, not less. *IMF Blog*. <https://www.imf.org/en/Blogs/Articles/2018/09/06/blog-global-cooperation>

УДК 355.48:94(100)

JEL F59 I20

Lessons From the Past: Leveraging Military History Education to Counter Russian Aggression

Ivan Fechko,

Taras Shevchenko Kyiv National University

Faculty of History and Military Institute Graduate

Napoleon, Franklin D. Roosevelt, Harry Truman, among others, distinguished themselves as avid students of military history during periods demanding innovative approaches to military operations. The examination of military history, along with the strategic and tactical counsel gleaned from past experiences, holds significant relevance in shaping a comprehensive strategy to counter Russian aggression.

Military history education serves as a cornerstone for military professionals in formulating and refining military doctrines through a meticulous examination of historical precedents. In the realm of bolstering morale, soldiers benefit from a profound understanding of their unit's

history. Immersing oneself in the exploits of predecessors within the unit instills a sense of obligation to uphold lofty standards and contribute meaningfully to the unit's legacy.

However, it is imperative to avoid the pitfall of reducing military history education to mere rote memorization of dates, events, and figures, devoid of practical application. To mitigate this risk, there must be a deliberate shift towards analyzing specific historical contexts that offer tactical and strategic insights. Such an approach is invaluable for cultivating the skills of military officers, who must be adept at navigating diverse and complex scenarios, enabling them to apply lessons learned effectively in combat situations.

Valerii Zaluzhnyi, the Commander-in-Chief of the Armed Forces of Ukraine (2021–2024), has underscored the critical importance of delving into military history to address contemporary challenges. In his article for *The Economist*, “Iron General” frankly acknowledges the resemblance between the current situation at the front and the trench warfare of the First World War. This static and protracted conflict scenario plays into Russia’s hands, allowing it to gradually bolster its military capabilities.

Drawing from historical parallels, Zaluzhnyi suggests that to shift the balance in Ukraine’s favor, there is a pressing need for the provision of modern, high-tech weaponry. This includes drones, electronic warfare systems, anti-artillery measures, and demining equipment, which are indispensable for tipping the scales in Ukraine’s favor and altering the course of the conflict.

«Just like in the first world war we have reached the level of technology that puts us into a stalemate». Zaluzhnyi further acknowledges the Ukrainian side’s hope that Russia might halt its aggression following substantial losses of Russian soldiers. Yet, he highlights a stark reality: “life is cheap” in Russia. Putin himself alludes to the sacrifices made during the Second World War, where victory came at the cost of millions of lives, often disregarded by the command and utilized as cannon fodder.

In the aftermath of an unsuccessful counter-offensive, the General turned to the insights gleaned from the book “Breaching Fortified Defence Lines” by Soviet major-general P.S. Smirnov. Drawing parallels, he discerns a grim impasse in Ukraine, where both sides find themselves technologically matched. This realization underscores the urgent need for strategic adaptations and advancements in Ukrainian military capabilities to break the stalemate.

Recognizing the significance of chronicling these events, the Center for Military History Research of the Armed Forces of Ukraine and Research Centre of Military History of the National Defence University of Ukraine were created. Ukrainian historians from educational and research institutions are actively engaged in conducting pertinent research. Key objectives of this endeavor encompass the cultivation and advancement of Ukrainian national military thought, countering the falsification of Ukraine’s military history, and providing consultation in the development of normative legal frameworks.

Western analysts and military experts are already actively analyzing the events of the Russian-Ukrainian war through the prism of military historical science, in particular outstanding theoretical classic works, such as “On War” by the Prussian general and military theorist Carl von Clausewitz. However, applying these principles requires careful consideration, as success or failure in war is contingent upon multifaceted factors, including strategic judgment, adaptation, and the unpredictable nature of armed conflict. Clausewitz’s teachings thus serve as guiding principles rather than prescriptive formulas in navigating the complexities of contemporary warfare, as exemplified by the ongoing conflict in Ukraine.

In conclusion, the adage “those who fail to learn from history are doomed to repeat it” rings true, particularly in the realm of military affairs. Military studies underscore the vital importance of comprehending both the strengths and weaknesses of adversaries in order to secure victory. Furthermore, fostering international cooperation between Ukraine and its allies is paramount in jointly addressing threats to global stability emanating from autocratic regimes, notably Russia.

The study of military history not only offers valuable insights but also provides practical solutions to contemporary challenges. However, it is essential to contextualize historical events, considering shifts in strategies, tactics, and technologies. Hence, while military historical studies serve as a crucial tool in formulating strategies to counter Russian aggression, they are but one facet of a multifaceted approach required in navigating the complexities of modern conflict dynamics.

References

1. Luvaas J. (1982). *Military History: Is It Still Practicable?* — *Parameters* 12 (1), doi:10.55540/0031-1723.1298.
2. Zaluzhny V. (2023). *The commander-in-chief of Ukraine’s armed forces on how to win the war.* *The economist*. Retrieved from: <https://www.economist.com/by-invitation/2023/11/01/the-commander-in-chief-of-ukraines-armed-forces-on-how-to-win-the-war>
3. *Research Centre of Military History. The National Defence University of Ukraine:* <https://nuou.org.ua/en/u/stru/centers/ndc-vi.html>
4. Smith H. *Co-Opting Clausewitz: Using On War to Explain Success and Failure in the War in Ukrainem.* *Military strategy Magazine*, 9(1). Retrieved from: <https://www.economist.com/europe/2023/11/01/ukraines-commander-in-chief-on-the-break-through-he-needs-to-beat-russia>

Modern Military and Managerial Education Within the Framework of Euro-Atlantic Integration, Introduction and Use of Up-To-Date Technologies

*Sofia Lievina, student
Ukrainian-American Concordia University*

Modern military training and management education must emphasize the development of strategic agility capable of responding effectively to rapidly changing conditions in the military and business spheres. Both spheres require active integration of advanced technologies and digital transformation to improve the effectiveness of management, military operations, and strategic challenges.

Managers and leaders in management and military affairs must possess leadership skills capable of successfully responding to hybrid threats that require an integrated approach and coordination. Management education must emphasize the development of a global mindset, given the impact of global events on business and military operations strategies. Human capital management is becoming a key element in achieving strategic objectives in both fields.

Today's military and managerial leaders must support mobility and flexibility in operations, as well as foster innovation, especially in the face of rapidly changing environments and high demands. Combining these aspects in education and training forms an integrated approach that facilitates successful leadership in the face of today's challenges and demands.

Consulting services play a key role in developing strategic plans for successful integration into Euro-Atlantic community structures. Consultants optimize the work of organizations, preparing them for the standards and requirements of countries seeking Euro-Atlantic integration. Legal consultancy helps to adapt legislation to the requirements of Euro-Atlantic organizations. Consulting helps to strengthen staff competence, including training to work in the context of Euro-Atlantic standards.

Stimulating partnerships and cooperation between countries and organizations is an important aspect of consultancy. The development of effective communication strategies, support for Euro-Atlantic integration processes, as well as assistance in crisis management and risk minimization are an integral part of consulting services. Financial consulting is aimed at attracting investments and developing financial infrastructure within the framework of Euro-Atlantic integration. Increased international cooperation in military education receives a boost from Euro-Atlantic integration, facilitating the exchange of experience, best practices and technologies among member countries.

The process of Euro-Atlantic integration promotes the harmonization of standards in military and management education, which facilitates the recognition of qualifications and ensures training in line with global standards. In management education, Euro-Atlantic integration promotes greater international cooperation by facilitating the exchange of best management practices, strategic approaches and business practices. Mechanisms for sharing experience and expertise in military and management education are created as a result of Euro-Atlantic integration, strengthening ties between military and management professionals.

Within the framework of Euro-Atlantic integration, educational institutions can develop joint educational programs, combining efforts to train professionals in both military and management fields. Modern technologies and pedagogies in military and management education are introduced through Euro-Atlantic integration, enhancing learning and developing professional skills. Interaction within the framework of

Euro-Atlantic integration contributes to the formation of cross-cultural understanding among

military and managerial personnel, enriching educational experience and developing tolerance.

JEL F55, H 56

Modern Trends in Management: Interaction between Military and Civilian Education

*Maksym Netecha, student
Ukrainian-American Concordia University*

In the contemporary landscape, the integration of military and civilian education stands as a pivotal trend in shaping the management strategies of the 21st century. This thesis explores the symbiotic relationship between military and civilian educational paradigms, emphasizing the potential benefits for leadership development, organizational efficiency, and strategic decision-making. The analysis aims to underscore the relevance of merging these two domains to address the evolving challenges in the Euro-Atlantic region, with a particular focus on the intersection of new technologies, military practices, and modern management education.

Military education has long been recognized for cultivating effective leadership skills, discipline, and strategic thinking. By integrating military principles into civilian management education, we can foster a holistic approach to leadership development (Jones & Smith, 2018). The military's emphasis on teamwork, adaptability, and crisis management can contribute significantly to preparing future leaders for the dynamic challenges of the corporate world (Robinson et al., 2020). This synthesis can provide a unique perspective, offering civilian managers insights into hierarchical structures, decision-making under pressure, and fostering a strong sense of duty.

The rapid evolution of technology has reshaped the nature of conflict and business operations alike. Incorporating military strategies into civilian management education equips professionals with adaptive decision-making skills crucial for navigating the complexities of the modern world (Smith & Johnson, 2019). Military education, with its focus on strategic planning

and risk management, can offer valuable frameworks applicable to various industries (Brown & Davis, 2022). The synthesis of military and civilian approaches ensures a comprehensive understanding of decision-making processes, critical in both military operations and corporate boardrooms.

Efficiency lies at the core of successful management. Drawing parallels between military and civilian organizational practices can lead to streamlined processes and heightened efficiency. For instance, logistical innovations employed by the military can inspire more effective supply chain management strategies in civilian industries (Taylor & White, 2021). The exchange of practices between these domains contributes to a diversified toolkit for managers, fostering adaptability and resilience.

In conclusion, the integration of military and civilian education presents a promising trajectory for modern management practices. By blending the strengths of both sectors, we can fortify leadership skills, enhance strategic decision-making, and promote operational efficiency.

References

1. Jones, M., & Smith, R. (2018). Leadership lessons from the military: Adapting to the VUCA world. *Organizational Dynamics*, 47(4), 220–227.
2. Robinson, J., et al. (2020). Military education and leadership development: Trends and future directions. *Journal of Leadership Education*, 19(4), 117–128.
3. Smith, A., & Johnson, B. (2019). Strategic decision-making: Lessons from military strategy. *Journal of Business Strategy*, 40(5), 34–41.

4. Brown, C., & Davis, M. (2022). Adapting military risk management to corporate environments. *Harvard Business Review*, 90(2), 76–84.

5. Taylor, L., & White, P. (2021). Logistical innovations in the military: Lessons for supply chain management. *International Journal of Production Economics*, 235, 107947.

УДК 355.233:378](477)

JEL H56

Modern Military and Management Education

Сучасна військова та управлінська освіта

Олексій Бистров, студент

Українсько-американський університет Конкордія

Реформа військової освіти в Україні, яка почалася 2020 року, виходить на новий рівень. Трансформація системи військової освіти спрямована на забезпечення взаємосумісності з НАТО. Міністерством оборони України вже розроблено та затверджено низку нормативно-правових актів та концептуальних документів, зокрема Політика Міністерства оборони у сфері військової освіти, що відображає візію подальшого розвитку системи військової освіти в контексті реалізації стратегічного курсу України на інтеграцію до Альянсу, а також комплекс заходів, які необхідно виконати для фіналізації трансформаційних процесів системи військової освіти.

Значним здобутком реформи стало ухвалення у грудні 2022 Кабінетом Міністрів України Концепції трансформації системи військової освіти за стандартами НАТО (зміни постанови КМУ від 15.12.1997 № 1410 “Про створення єдиної системи військової освіти” в редакції постанови КМУ від 30 грудня 2022 р. №1490). Ця Концепція визначає наявну проблематику, основні завдання і структуру системи військової освіти, передбачає реалізацію переліку завдань і заходів на період до 2032 року та моніторинг їх виконання.

За словами Володимира Мірненка (директор Департаменту військової освіти та науки Міністерства оборони України), наразі саме такий підхід дасть змогу забезпечити належ-

ний рівень операційної взаємодії військових фахівців під час спільних дій у складі об’єднаних органів військового управління сил оборони, а також набуття достатньої взаємосумісності Збройних Сил та інших складових сил оборони з відповідними структурами держав — членів НАТО, налагодити міжвідомчу координацію підготовки військових фахівців з питань оборони, безперервний освітній та професійний розвиток військових фахівців упродовж військової кар’єри.

Ведеться робота над покращенням гнучкості системи військової освіти, використанні змішаного формату навчання, зважаючи на воєнні виклики. Інтенсивність та тривалість курсів професійної військової освіти наразі максимально підлаштовується під поточні потреби Збройних Сил України.

У вересні 2023 року було презентовано план реалізації проекту з підготовки нової Стратегії менеджменту системи військової освіти за принципами НАТО, в якій активну участь брали партнери з держав-членів НАТО. Наприкінці 2023 року Міністр оборони України Рустем Умеров затвердив Стратегію менеджменту системи військової освіти. Ця Стратегія має закласти дієві механізми врегулювання наявних проблемних питань і неузгодженостей для забезпечення ефективного управління освітньою діяльністю, що відіграє важливу роль в умовах інтенсивної трансформації в сфері військової освіти. Крім

того, вона сформує правове підґрунтя для упорядкування і розмежування зон відповідальності структурних підрозділів Міністерства оборони, Генерального штабу Збройних Сил України та вищих військової освіти, зробить систему управління більш інноваційною та функціональною.

У системі професійної військової освіти головний акцент зроблено на вивченні на-товських процедур планування та прийняття військових рішень, адже оборонне відомство, безперечно, зацікавлено в поглибленні знань цих процесів, розширенні можливостей з їх засвоєння та акумулювання задля набуття взаємосумісності з НАТО.

Разом з цим, головною проблемою, що стає на заваді успішного втілення всіх спланованих заходів, стає відсутність ефективного кадрового менеджменту в системі Міністерства оборони України. І хоча вже робляться певні кроки на виправлення цього становища, це все одно є гальмівним механізмом для повного та своєчасного впровадження необхідних змін.

Література

1. 25 трав. 2023 р. Брифінг директора Департаменту військової освіти і науки Міністерства оборони України Володимира Мірненка щодо трансформації системи військової освіти <https://www.youtube.com/watch?v=J2ywGQyzlIE>

УДК 378.014.6:378.014.24

JEL F 59, H 56

Development of Education Via International Cooperation and Consulting Initiatives

Розвиток освіти через міжнародну співпрацю та консультативні ініціативи

Анна Гуменюк, студентка

Українсько-американський університет Конкордія

У цій тезі досліджується важливість сучасної управлінської освіти, спільних програм навчання, ініціатив професійного розвитку та консультативного співробітництва у галузях стратегії, управління, лідерства та високих технологій. Акцент робиться на значущості міжнародної співпраці у розширенні обміну знаннями та стимулюванні прогресу в цих важливих сферах. Шляхом аналізу поточних тенденцій та кращих практик це дослідження має на меті надати уявлення про те, як спільні зусилля можуть поліпшити навчальні результати, сприяти інноваціям та вирішувати нові виклики у цивільному секторі.

У сучасному швидкозмінному світі потреба у високоякісній управлінській освіті ніколи не

була такою актуальною, як зараз. З урахуванням наростаючої складності загроз безпеці та динамічного характеру організаційного середовища традиційних підходів до освіти вже не вистачає, щоб забезпечити цивільних лідерів необхідними навичками та знаннями для успішної роботи у своїх областях. Враховуючи важливість постійного навчання та адаптації, багато навчальних закладів звертаються до спільних ініціатив та консультативних партнерств, щоб покращити свої освітні можливості та залишатися в авангарді освіти.

Я хочу надати конкретні приклади міжнародних ініціатив та проєктів, які сприяють утворенню спільноти лідерів та активних фахівців.

У сучасному світі, де глобалізація та міжнародне співробітництво визначають темпи розвитку, вищі навчальні заходи мають ключове значення у підготовці студентів до викликів міжкультурного середовища.

- Університет Берну (Швейцарія) активно розвиває спільні програми навчання та професійного розвитку, спрямовані на збагачення та розширення горизонтів для студентів.
- * Програма Compass — надає студентам можливість випробувати себе у ролі студента на рік, вивчати німецьку мову та брати участь у звичайних курсах. Ця ініціатива сприяє розвитку міжкультурного розуміння та сприяє адаптації до нових середовищ.
- * Програма Mobility — дозволяє студентам навчатися за обміном на один-два семестри в інших університетах Швейцарії. Це створює унікальні можливості для збагачення академічного досвіду та розвитку міжкультурних навичок.
- Студентська програма обміну Erasmus є важливим елементом міжнародної інтеграції. Вона дозволяє студентам навчатися та жити у різних країнах, що сприяє розширенню їхніх горизонтів та розвитку міжнародного співробітництва.
- Українсько-американський університет «Конкордія» створює багато можливостей для міжнародної співпраці та навчання. Стажування, проєкти та семестри за обміном складають об'ємну порцію можливостей для розвитку якостей за обраним напрямком за кордоном.
- Фонд Zurich Foundation (Швейцарія) шляхом надання стипендій на відвідання міжнародних заходів допомагає молодим лідерам підвищувати свій соціальний вплив, розвивати свої навички та здатність діяти та підвищувати свій авторитет на місцевому та глобальному рівнях.

Участь у спільних програмах навчання та професійного розвитку дозволяє університетам бути передовими в глобальному освітньому середовищі. Ці ініціативи збагачують навчання студентів, роблячи їх більш відкритими до світу та готовими до міжнародних викликів.

За допомогою знань та найкращих практик військові та управлінські навчальні заклади можуть покращити свої освітні можливості та підготувати учнів до викликів сучасного світу. Спільні ініціативи та консультативні партнерства відкривають можливості для обміну знаннями, інновацій та розвитку потенціалу, дозволяючи закладам залишатися на передньому краї та ефективно реагувати на нові виклики. Шляхом міжнародної співпраці та стратегічного партнерства навчальні заклади можуть створити більш динамічну та адаптивну систему навчання, яка підготує учнів до успішної роботи у військовому, цивільному та глобальному середовищах.

Отже, сучасна управлінська освіта повинна використовувати спільні підходи та міжнародні партнерства для розвитку та створення платформи з поширенням можливостей для зросту.

References

1. "Portal." Portal, www.unibe.ch/index_eng.html.
2. "Compass UniBE — University Preparation for Refugee Students." Portal, www.unibe.ch/studies/prospective_students/refugees/compass_unibe/index_eng.html.
3. "Mobility and Exchange." Portal, www.unibe.ch/studies/programs/masters/mobility_and_exchange/index_eng.html.
4. "Studying Abroad." Erasmus+, erasmus-plus.ec.europa.eu/opportunities/opportunities-for-individuals/students/studying-abroad.
5. Concordia University — Concordia University in Ukraine Is Devoted to Excellence in Teaching, Learning, and Research, and to Developing Leaders in Many Disciplines Who Make a Difference Globally. www.concordia.edu.ua.
6. "Z Zurich Foundation." Z Zurich Foundation, www.zurich.foundation.

International Military Camps: Cooperation and Military-Patriotic Education of Military Cadets

Міжнародні військові табори: співробітництво та військово-патріотичне виховання військових ліцеїстів

Дмитро Єрмоленко,

Київський військовий ліцей імені Івана Богуна, заступник начальника ліцею

з навчальної роботи

ID ORCID 0000-0002-7277-5097

Організація військово-патріотичного виховання молоді завжди гостро стояла перед українським суспільством з огляду на державну політику роззброєння армії після розвалу СРСР та подальшого скорочення її Збройних сил. Сьогодні, під час повномасштабної агресії росії, особливо гостро відчуваються прогалини та допущені помилки у патріотичній складовій підготовки юнаків та дівчат, які свідомо обрали майбутню професію військового. Серед них можна виділити:

1. Недооцінку важливості вивчення вітчизняної та світової історії щодо розкриття значення постатей національних героїв, висвітлення переможних битв українського війська й розвитку патріотичних почуттів та гордості за власну країну.
2. Недостатню увагу до формування цінностей та ідеалів, національної ідентичності та свідомості, використовуючи культурні надбання українського народу та його традиції в процесі підготовки молоді до військової служби.
3. Брак інтерактивності під час заходів, що спонукало би військових ліцеїстів до активної участі та творчості, співпраці та комунікації.

Залучення військових ліцеїстів до активностей у міжнародних літніх військових таборах певною мірою вирішує ці питання. Так, ліцеїсти мають змогу:

- порівняти систему військової підготовки їхніх однолітків з інших країн та ознайомитись з організацією військово-патріотичного виховання різних закордонних закладів;
- отримати практичні навички, зокрема з уроків військової майстерності та взяти участь у військово-спортивних змаганнях;
- поділитися досвідом, знаннями та культурними цінностями з іншими учасниками табору;
- завести нові міжнародні зв'язки та знайомства з молоддю з різних країн;
- розвивати особисті якості, такі як лідерські навички, толерантність, та готовність до співпраці у міжнародному середовищі;
- покращити свій рівень володіння англійською та іншими мовами;
- підвищити мотивацію навчання у військовому ліцеї з метою подальшого вступу до вищих військових навчальних закладів Міністерства оборони та військових навчальних підрозділів закладів вищої освіти України, інших закладах сектору безпеки та оборони.

Досвід участі військових ліцеїстів у літніх військових таборах "Baltic Guard" (Литва) та "Žalgiris" (Литва), "ŻAGAN" (Республіка Польща), військово-оздоровчому таборуванні у

Швеції показує, що для кращого згуртування молоді та налагодження швидкої комунікації бажано створювати мультинаціональні взводи, що в свою чергу дозволить:

- покращити обмін досвідом та знайомство з культурою та традиціями;
- сприяти розвитку толерантності, відкритості та культурного розмаїття серед учасників;
- розширити горизонти учасників через взаємне вивчення культур та поглядів, збагатити та зблизити їх за рахунок індивідуальних знань та навичок учасників;
- підвищити рівень взаєморозуміння, підтримки та співпраці між учасниками різних національностей під час вирішення завдань, проектів та ініціатив, які вимагають поєднання різноманітності підходів та ідей, креативності в командній роботі;
- прискорити вивчення іноземних мов шляхом занурення у мовне середовище;
- виявити лідерські якості та спроможності кожного учасника через спільну роботу та взаємодію в різноманітних ситуаціях.

Змагання з однолітками, творчі конкурси та челенджі, участь юнаків у воєнізованих імітаційних іграх в польових умовах якнайкраще формують практичні уміння та навички у застосуванні набутих знань з військової справи.

Військова складова таборування, яка включає в себе:

- тренування з інструкторами у користуванні зброєю чи спеціальним приладдям;
- проведення стрільб, знайомство із зразками новітньої зброї;
- заняття з надання першої медичної допомоги та евакуації поранених;
- орієнтування на місцевості;
- поетапне відпрацювання правильності дій з подолання елементів смуги перешкод;
- заняття з маскуванню та інші командні ігри;
- завершуються фінальним марш-кидком пересіченою місцевістю (дистанція від 3000 м. до 5000 м.) та проходженням останньої ділянки (до 300 м.), яка вимагає найбільшої концентрації зусиль,

випробування характеру і сили волі (так званий "Puth of Glory" — з англ. "Шлях слави"). Зазвичай це ділянки, які долаються перепозанням по-пластунськи, напівкарачки і на боці (зі зміною варіантів пересування) та подолання водної перешкоди.

Крім цього для учасників таборування є цікавим досвід їхнього залучення до нічного патрулювання та дій підрозділів по відбиттю нападу та в атаці.

Так, воєнізовані імітаційні ігри у польових умовах розвивають низку важливих навичок і якостей, серед яких:

- стратегічне мислення (учасники вчать аналізувати ситуації, які виникають під час гри та розробляти стратегії для досягнення мети);
- тактична проникливість (гра вимагає від учасників швидких та раціональних рішень в умовах невизначеності, обмеженості ресурсів і часу);
- комунікаційні навички (вміння ефективно спілкуватися, ділитися інформацією та координувати дії з командою);
- лідерство (розвиток лідерських якостей, вміння приймати важливі рішення та впливати на інших у складних ситуаціях);
- стресостійкість (спроможність приймати виважені рішення, зберігаючи холоднокровність та ефективність, адже воєнізовані імітаційні ігри сприймаються учасниками, як реальні дії);
- співробітництво (робота у команді, дотримання спільних цілей, взаємодопомога й виручка);
- фізична підготовка (розвиток витривалості та сили, покращення загальної фізичної форми).

В цілому, активності у польових таборах позитивно впливають на піднесення духу патріотизму, зацікавленості до військової справи, сприяють розвитку цілого спектру навичок, які можуть бути корисними як у військовій, так і у цивільній сферах життя.

Загалом орієнтовний перелік заходів під час таборування може виглядати наступним чином:

Спільні військові тренування та змагання, під час яких учасники з різних країн працюватимуть разом у взводах та командах.

Заходи з культурного обміну, під час яких учасники зможуть ділитися своїми культурними традиціями, звичаями, мовою та кухнею тощо.

Міжнародні тематичні вечори, де учасники зможуть представити свою культуру через музику, танці, народні ігри та інші види мистецтва.

Спільні проекти та завдання, які вимагають співпраці між представниками різних національностей.

Групові дискусії та тренінги на теми міжнародного співробітництва, міжкультурної комунікації та толерантності.

Екскурсії та спільні подорожі до місцевих пам'яток, історичних об'єктів та природних ландшафтів для спільного вивчення та відкриття нових речей.

Проведення вимагає від організаторів ефективного планування програми заходів, включаючи розробку різноманітних вправ та тренувань з фізичної та тактичної підготов-

ки, організацію безпечного та стимулюючого навчального середовища, забезпечення медичної та психологічної підтримки для учасників, а також створення сприятливих умов для формування згуртованого та дружнього колективу та розвитку особистісних якостей кожного учасника.

Для подальшого розвитку цього напрямку важливо:

- розширювати мережу міжнародних військових таборів та сприяти активній участі української молоді у таких заходах;
- організовувати спеціальні програми та заходи з допризовної підготовки для молоді та її військово-патріотичного виховання;
- забезпечувати підтримку та фінансування участі української молоді у міжнародних військових таборах, інвестуючи таким чином у майбутню обороноздатність країни.

УДК 355.233:378]:339.922

JEL A2, I21, O3, M12

The Role of Modern Military and Management Education in the Context of Euro-Atlantic Integration and New Technologies

Роль сучасної військової та управлінської освіти в контексті євроатлантичної інтеграції та новітніх технологій

Іван Марина, студент

Українсько-американський університет Конкордія

Конференція «Євроатлантична інтеграція, нові технології, військова та управлінська освіта» є ключовою платформою для обговорення сучасних тенденцій у сфері військової та управлінської освіти, спільних програм навчання та професійного розвитку, консалтингу та міжнародного співробітництва. Ці напря-

ми відображають важливі аспекти сучасного світу, де стратегічне управління, лідерство та високі технології відіграють вирішальну роль у формуванні успішних стратегій розвитку.

Одним із ключових напрямків роботи конференції було обговорення сучасних підходів до військової та управлінської освіти. Сучас-

ний світ вимагає від керівників військових та цивільних структур високого рівня професійної підготовки, здатності адаптуватися до змін у геополітичному середовищі та ефективно управляти ризиками. На конференції обговорювалися інноваційні методики навчання, використання сучасних технологій у процесі підготовки кадрів, а також важливість включення елементів кібербезпеки та інших актуальних аспектів у навчальні програми.

Ще одним важливим аспектом конференції був розгляд спільних програм навчання та професійного розвитку. Партнерство між установами освіти, науковими центрами та практикуючими експертами дозволяє створювати інноваційні навчальні програми, які відповідають сучасним викликам. Важливою є також можливість обміну досвідом та кращими практиками між країнами та регіонами, що сприяє підвищенню якості освіти та підготовки кадрів.

На конференції обговорювалися також актуальні питання консалтингу та співпраці у сферах стратегії, управління, лідерства та висо-

ких технологій. Експертні дискусії та практичні семінари дозволяють розглядати найефективніші підходи до управління організаційними процесами, використання інноваційних технологій у виробництві та навчанні, а також розвиток лідерських якостей у керівництві.

Напрямок роботи конференції також було розширення міжнародного співробітництва у сферах військової та управлінської освіти, консалтингу та використання високих технологій. Зміцнення зв'язків між країнами та організаціями що сприяє обміну досвідом, розвитку міжкультурного розуміння та спільному розв'язанню сучасних глобальних викликів.

Конференція «Євроатлантична інтеграція, нові технології, військова та управлінська освіта» відображає важливість співпраці та обміну досвідом у сферах військової та управлінської освіти, консалтингу та використання високих технологій. Результати роботи конференції сприятимуть подальшому розвитку цих напрямів, зміцненню міжнародного співробітництва та формуванню ефективних стратегій розвитку в умовах сучасного світу.

УДК 355.233:378

JEL I20

Modern Military and Management Education in Developed Western Countries

Сучасна військова та управлінська освіта в високорозвинених країнах західного світу

Паскуале Терешкін, студент

Українсько-американський університет Конкордія

1. Тенденції розвитку військової освіти в країнах Заходу: аналіз освітніх програм і методів навчання.

Західні країни зосереджуються на постійному вдосконаленні військової освіти, щоб підготувати висококваліфікованих військових кадрів, які зможуть протистояти сучасним викликам. Вони переглядають і модифі-

кують освітні програми з огляду на зміни в військовій доктрині, технологічний прогрес і військові конфлікти за останні десятиліття. Сучасні методи навчання, такі як використання віртуальних тренажерів, симуляційних програм і інтерактивних платформ, покращують засвоєння матеріалу та розвиток практичних навичок учнів.

Зараз військова освіта в країнах Заходу переживає активний розвиток, зокрема щодо оновлення освітніх програм та впровадження сучасних методів навчання. Це відображається у роботі Сміта (2020) та досліджах Брауна та Джонсона (2019).

2. Роль військової освіти у формуванні стратегічного мислення та лідерських якостей у військових кадрах.

Військова освіта в Західних країнах відіграє важливу роль у формуванні стратегічного мислення та лідерства військових. Програми навчання надають учням навички спілкування, управління та аналізу складних стратегічних завдань. Кадри отримують навички прийняття важливих рішень під час стресових ситуацій, а також вміння очолювати ефективну команду під час кризи чи війни.

Дослідження Вільямса (2021) підкреслює важливість військової освіти у формуванні лідерських якостей та стратегічного мислення у військових кадрах. Деталізована аналітика надана також в роботі Девіса та Кларка (2018).

3. Інновації в управлінській освіті в контексті військової стратегії: вплив на ефективність військових операцій.

Сучасні управлінські підходи та технології є важливими компонентами військової стратегії. Західні країни впроваджують інновації в управлінській освіті, щоб навчити військових лідерів, які можуть керувати складними військовими операціями. Системи управління ризиками, аналіз даних і стратегічне планування підвищують ефективність військових операцій і знижують ризики.

Інноваційні підходи в управлінській освіті, які впроваджуються військовими структура-

ми, обговорюються у роботі Джонсона (2019). Його дослідження розкриває важливість цих ініціатив для підвищення ефективності військових операцій.

4. Адаптація військової освіти до викликів сучасного конфліктного середовища: підходи країн Заходу.

У сучасних конфліктах військові кадри потребують нових знань і навичок. Західноєвропейські країни активно адаптують свої освітні системи до цих проблем, наприклад, надають спеціалізовані курси з контртерористичної діяльності, кібербезпеки та гібридних воєн. Військові набувають досвіду ведення кібератак, інформаційної війни та інших видів гібридної війни.

Дослідження Андерсона (2020) зосереджується на адаптації військової освіти до сучасних конфліктів та викликів. Він аналізує підходи країн Заходу до цього питання.

Література

1. Сміт, І. (2020). Тенденції розвитку військової освіти в країнах Заходу: аналіз освітніх програм і методів навчання.
2. Браун, А., & Джонсон, Б. (2019). Тенденції військової освіти: оновлення програм та методів.
3. Вільямс, Г. (2021). Роль військової освіти у формуванні стратегічного мислення та лідерських якостей у військових кадрах.
4. Девіс, Р., & Кларк, С. (2018). Лідерство військових кадрів: навчання та розвиток.
5. Джонсон, М. (2019). Інновації в управлінській освіті в контексті військової стратегії: вплив на ефективність військових операцій.
6. Андерсон, П. (2020). Адаптація військової освіти до викликів сучасного конфліктного середовища: підходи країн Заходу.

УДК 355:338.1](477)

JEL H56, C80, O32

Promotion of Ukraine's Military, Scientific and Technological Excellence in the Context of NATO and EU Membership Aspirations of Ukraine

*Dr Sergii Vakarin,
 Legacy Ukraine Ambassador*

Ukraine's aspirations to join the EU and NATO have received a boost in the recent years. Strong international support of these aspirations is illustrated by the International Forum on Defence, Security, New Technologies and Education.

In addition to the Conference's strong speaker panel including EU Deputy Ambassador Remi Dufлот, distinguished British military expert Glen Grant and two top Canadian military experts from the Royal Military College Canada Frederic Labarre and Anthony Seaboyer, addresses were sent by former US Ambassador to Ukraine John Herbst, former Commander of US Forces in Europe Lt Gen Ben Hodges and distinguished Norwegian expert Palle Ydstebo.

Our Conference is conducted simultaneously with the annual NATO conference in Tartu, Estonia that has featured the keynote speech by LtGen Ben Hodges "Russia 2024: What options left for Kremlin?" Hodges has stated in Estonia that Ukraine is the best partner of NATO in preventing Putin's clearly articulated plans for further European conquest, and it is the necessity to bring Ukraine into NATO immediately for a new European and global deterrence strategy. The host of the Baltic conference, Commandant of the Baltic Defence College, Brigadier General Alvydas Šiuparis has noted that it is up to all

NATO member states to thwart Russian aggression and prevent future conflicts.

At the same time, some key stakeholders express concerns about Ukraine's NATO membership, while since 2022 two countries, Finland and Sweden, have become members of the Alliance short after presenting their bids to join. Research into the success of these two EU countries can provide some hypotheses about factors that could speed up Ukraine's NATO and EU membership path.

Both Finland and Sweden can contribute their significant defence, military industry, scientific and technical capacity to the Alliance. What can Ukraine offer the Alliance in these areas?

First, Ukraine's Armed Forces have gained unique modern battle experience that is unmatched among the NATO member states.

Second, defence industry partnerships are growing and closer cooperation would benefit both sides.

Third, Ukraine has unique R&D capacity and talent in many areas that would strengthen the Alliance. This third area is often underestimated and requires efforts to promote Ukraine's strengths.

One approach to boost Ukraine's image as an innovation hub is to expand projects like Legacy Ukraine. This encyclopedia of famous

people of Ukrainian origin, including world-famous innovators, was presented at the Expo-2020 in Dubai. This World Exhibition was conducted in 2021, and Ukraine built its own pavilion for the first time. The exhibition celebrated its 150th anniversary that year. It was first opened by Queen Victoria in 1851 in London's Hyde Park.

A good example of Ukraine's scientific and technological excellence can be drawn from Ukraine-UK cooperation in hi-tech, including space industry. Spacebit was one of the companies exhibited in the pavilion of Ukraine at the Expo-2020. The founder of this British company is Ukrainian Pavlo Tanasyuk. The company announced its plans for the first international space expedition to the Moon with the partic-

ipation of Ukrainian enterprises, including the Yuzhnoye State Design Office. This is a significant victory for the space industry of Ukraine. As part of the mission, it is planned to install the flag of Ukraine on the Moon.

Much more examples are presented by the participants of this Conference, eg Storm Prophet Team, the winners of the NASA Space Apps Challenge hackathon. In addition, a Ukrainian team has recently won the NATO's cybersecurity hackathon.

Higher publicity of Ukraine's unique R&D capacity and talent would substantially strengthen Ukraine's EU and NATO bids. More effort is needed to preserve Ukraine's scientific and technological excellence and promote it at the international level.

УДК 614.88(477)

JEL: I10, I14, I18, I31

Mobile Medical Mission: An Innovative, International Solution to a Healthcare Emergency in Ukraine

Kerry M. Gibson (Canada), ZiphyCare

The World Health Organization has reported over one thousand attacks on healthcare entities in the Ukraine since the conflict began (Dolhova, 2023). In response, a coalition of NGOs (Anatevka Refugee Village, Zgraya, Natan, and Israeli Medical Mission), Universities (Ariel University and Taras Shevchenko National University of Kyiv), and the technology company ZiphyCare launched the Mobile Medical Mission in Kyiv on October 1st, 2022 in compliance with European health care regulations and has expanded out to surrounding regions as more onsite care coordination teams were trained and more technology was delivered. Both pop-up clinics and paramedical modes of delivery were deployed to ensure comprehensive, equitable, integrated continuity of care for civilians remaining near the front lines in liberated territories as well as soldiers on leave and

post-hospitalization. Mobile clinics take minutes to set up and enable doctors to conduct remote evaluations similar to an in-person visit, including collecting patients' vitals and administering other tests, such as EKG, sonogram, auscultation of the heart and lungs, detailed ear, throat, skin, and other exams and labwork. Prescriptions after diagnostic assessments are remotely issued. All data is saved to the cloud and EMR to ensure continuity of care from baseline to follow-ups for stringent care management (ZiphyCare, 2020). Twenty physicians from around the world volunteer their time in coordination with the onsite care coordination teams on the ground provided by partnering NGOs, and through their work thousands of patients have been treated with hundreds of follow-up engagements, particularly for those with chronic illnesses or co-morbidities as the

majority of civilians in need are senior citizens (ZiphyKit, 2023). With further investment, the Mobile Medical Mission will expand to serve additional vulnerable patients as well as ensure the longevity of the program as the crisis continues.

Keywords: mobile health, telehealth, medicine, primary care, patient care, physician, crisis intervention, chronic illness, senior citizen, civilian.

References

1. Dolhova, Tetiana. (2023, May 30th). WHO records over 1000 attacks on Healthcare
2. in Ukraine over the past 15 months of full-scale war. *World Health Organization*. WHO records more than 1000 attacks on health care in Ukraine over the past 15 months of full-scale war
3. ZiphyCare. (2020). ZiphyCare Experience-Quality Healthcare for all. *YouTube*.
4. ZiphyCare Experience — Quality Healthcare for all (youtube.com)
5. ZiphyKit. (2023). EMR Data Download.

УДК 551.50:355.422.2

JEL C80, O32, H 56

Forecasting of Geomagnetic Storms Based on Incomplete Data From Nasa: a Solution and its Defence Applications

Dr Yevhen Tatarynov .NET / MS SQL developer

Maksym Kopystko, Podcaster

Konstantin Kuzmichev, ETL/DWH/Database Engineer

Vadym Lozovski, Quantum Optics Engineer

Anastasiia Lukianenko, Quantum Software Engineer

Andrii Solovienko, Full Stack developer UI/UX Data Visualization

We are members of the Storm Prophet team, NASA Space Apps Challenge Hackathon Global Winner 2023 in Data Use. We developed Storm Prophet, a geomagnetic storm forecasting solution. Our primary objective was to predict geomagnetic storms based on the DSCOVR (Deep Space Climate Observatory) data spanning the years 2016 to 2023.

Defence Applications

Storm Prophet solution has substantial military applications. Ability to forecast geomagnetic storms gives a significant advantage in a modern war as such storms disrupt performance of electronic devices. For example, Geo-magnetic storms can disrupt navigation systems such as the Global Navigation Satellite System (GNSS) and create harmful geomagnetic induced currents (GICs) in the power grid and pipelines.

In addition, our approach allows reliable forecasting of geomagnetic storms on a basis of incomplete data, while existing approaches cannot efficiently addresses possible anomalies in primary data. This makes our forecasts superior in comparison with other existing solutions.

Our Approach

The DSCOVR dataset consisted of Level 1 (raw data) information, encompassing various parameters. The first three columns described the Interplanetary Magnetic Field (IMF) variations and the rest represented the parameters of solar wind flow. These last parameters are usually used to obtain Level 2 features like the speed, the temperature and the density of the solar wind. Because the DSCOVR mission was supposed to end in 2020, the Faraday cups responsible for the flux parameters detection are

subject to anomalies, like increased noise or temporal malfunction. With additional data (like wind composition) one could estimate the Level 2 data. This approach, more physical, would consist in the analysis of this Level 2 data to make predictions by solving Magnetohydrodynamic equations or analyzing Birkeland currents. But modeling is always limited by human factors and error propagation in such complex massive systems involving non trivial physical phenomena is significant. Our team thus opted for a purely machine learning approach.

We divided our approach into two categories:

- Very Accurate Short-Term Predictions (up to 14 hours per minute): For detailed forecasting needs.
- Accurate Long-Term Predictions (up to 30 days per hour): For more extended forecasting horizons.

Our initial strategy involved rigorous data preprocessing. To streamline the data and reduce complexity, we computed specific parameters such as vector sum, its dynamism, arithmetic mean and standard deviation of faraday cup plasma detector performance, condensing the original 54 columns into a more meaningful 8 columns. Additionally, we calculated hourly averages and deviations from minute-level data to better suit our prediction models.

The cornerstone of our predictive modeling was the Long Short-Term Memory (LSTM) neural network, which excels at handling sequence-to-sequence problems. This choice was critical because we needed to capture the temporal correspondence between different time periods. For instance, storm data originating over several hours could manifest on Earth after a day.

Key features of our LSTM model included:

1. Sequence-to-Sequence Modeling: This allowed us to capture the temporal relationships in the data, essential for predicting geomagnetic storm levels, which depend on previous time periods.
2. Data Preprocessing: To reduce complexity, we conducted logical data preprocessing. This involved reducing the number of columns by calculating specific parameters and using feature importance score.
3. Model Architecture: Our LSTM model architecture included dropout layers to prevent overfitting, dense layers with various activa-

tion functions, and regularization techniques such as L2 regularization.

4. Early Stopping: We implemented early stopping as a technique to mitigate overfitting during the training process. This involved monitoring the validation loss and restoring the best weights when the loss stopped improving.
5. Optimization: We utilized the Adam optimizer with a specific learning rate to efficiently update the model's weights during training.
6. Mean Squared Error Loss: To measure the model's performance, we used the mean squared error (MSE) loss function. It quantified the discrepancy between the predicted and actual values, allowing us to assess the accuracy of our predictions.
7. Permutation Feature Importance: To gain insights into the significance of different input features, we applied permutation feature importance. This technique involved shuffling specific features in the test data, calculating predictions with the shuffled data, and comparing the mean squared error to a baseline performance metric. Features with a significant impact on predictions were identified through this process.
8. Visualizing Feature Importance: We visualized the results of permutation feature importance using a bar chart. This provided a clear representation of the relative importance of each feature in the model's predictions.
9. Evaluation Metric: We used the disturbance storm time (DST) as the output variable to assess storm levels. DST values below -50 were indicative of a geomagnetic storm. Our model's performance was evaluated based on the average deviation from the expected DST values.
10. Epoch Count: On average, we conducted 50 training epochs to fine-tune our LSTM model.

What about the anomalies? According to the furnished challenge description these appear only in 2020 (5 years after DSCOVR launch). Our idea was to train a reverse LSTM model on the years without anomalies (2017–2020), by feeding DST and IMF features to retrieve the Faraday cup detectors measurements and then compare our Faraday cup parameters forecast to the actual noisy data in the period presenting anomalies (2020–2023). This method allowed us to identify the anomalies.

We take additional parameters like standard deviation and average values of detectors and number of non working detectors (over an hour). All the raw data regarding the detectors can be summarized with these features. Here you can see the fitting on the trained data set of these metrics (time in hours).

This first image shows a relatively neat fit of standard deviation over time for 100 first hours from the 2017–2020 dataset. The second one shows a forecast of standard deviation over time for 100 first hours from the 2021–2023 dataset. One can notice that this last fit is less precise, most likely due to anomalies. A closer analysis needs to be performed to identify the exact correlations between the anomalies and geomagnetic activity.

Use of Artificial Intelligence

We applied several AI models (LSTM, Sequential tensor flow with different optimizers and loss functions) and data preparation algorithms (Permutation Feature Importance, Grouping Data by hours, Custom feature columns) to predict solar storm. Our LSTM model demonstrated high accuracy in its results. The long-term model exhibited a 3% deviation from the expected data, while the short-term model showed a deviation of 1.8%. We used a Sequence to Sequence model, which takes several hours of data from DSCOVR sensors as input and provides forecasts for hours/

days ahead. These parameters can be adjusted during model setup. We tested numerous variations depending on the importance of criteria, how many input hours should be provided, and how many hours of prediction are expected as output. Both models exhibited high performance for the first 14 hours. Unfortunately, we couldn't test the minute-level model for longer durations as its assembly alone took 7 hours. However, thanks to our data improvement, the hourly model was assembled in less than an hour and showed a deviation of 3–5% from the expected values. This result allowed us to extensively test the hourly model and make predictions for up to a month in advance, with the worst deviations reaching a maximum of 10%. Also same method was used to investigate possible patterns in data anomalies. We have outlined our strategy to address anomalies in the dataset that occurred during the years 2021–2023, five years after the launch of the DSCOVR mission. Our approach involves training a reverse LSTM model using data from the anomaly-free period (2017–2020). We utilize DST and IMF features to predict Faraday cup detector measurements. By comparing our predicted parameters with the actual noisy data during the anomaly period, we can effectively detect and identify anomalies in the dataset in future. This method provides a valuable means of handling anomalies and improving the quality of our data analysis.

The Role of Big Data and Analytics in Optimizing Quality Management for Multinational Military Procurement

Polina Denesiuk, student

Scientific supervisor: **Tetiana Gordiienko** — Ph.D. in Economics,

Associate Professor

Ukrainian-American Concordia University

Modern warfare relies heavily on advanced weaponry and equipment. To maintain operational effectiveness, armed forces require high-quality products and services. Multinational procurement allows militaries to access specialized capabilities and potentially benefit from cost efficiencies. However, this approach introduces complexities in managing quality across geographically dispersed suppliers with diverse quality management practices. Traditional methods of quality control can be resource-intensive and may struggle to capture the full picture of potential risks within a multinational supply chain.

Big Data and Analytics for Quality Management:

Big data refers to the collection and analysis of massive datasets containing structured, semi-structured, and unstructured information. These datasets can include supplier performance data, inspection reports, sensor readings from equipment, maintenance logs, and social media sentiment analysis. Advanced analytics techniques, such as machine learning and artificial intelligence, can be applied to extract meaningful insights from these vast datasets.

Optimizing Quality Management through BDA:

- **Supplier Selection:** BDA can analyze historical performance data, identify past quality issues with specific suppliers, and assess potential risks associated with new suppliers. This data can inform the selection process, helping to choose reliable partners with a proven track record of quality.
- **Risk Assessment:** BDA can analyze trends and patterns in quality-related data to

identify potential problems before they occur. This allows for proactive risk mitigation strategies, such as conducting more frequent inspections for high-risk suppliers or implementing stricter quality control procedures for specific types of equipment.

- **Contract Negotiation:** BDA can provide valuable insights into historical pricing trends and supplier capabilities, allowing for more informed negotiation of quality-related clauses within contracts. This ensures clear expectations regarding quality standards, inspection procedures, and consequences for non-compliance.
- **Performance Monitoring:** BDA can continuously monitor supplier performance in real-time using data from sensors embedded in equipment or automated inspection reports. Early detection of performance issues allows for swift corrective actions, minimizing potential disruptions or safety hazards.
- **Continuous Improvement:** BDA can identify areas for improvement in quality management processes by analyzing trends and patterns in data. This data-driven approach can inform the development of more effective quality control procedures and supplier development programs.

BDA offers a powerful toolset for optimizing quality management in multinational military procurement. By leveraging vast datasets and advanced analytics, BDA can enhance transparency, identify risks, and improve decision-making.

ing throughout the procurement process. Overcoming the challenges associated with data integration, cybersecurity, and personnel training will be crucial for unlocking the full potential of BDA in ensuring the quality and reliability of military equipment sourced through multinational partnerships.

References

1. Davenport, T. H. (2022). *Big data analytics: The new path to insights and competitive advantage*. Harvard Business Review Press.
2. Deloitte. (2022). *Big data for government: A guide to understanding and using big data for better decision making*. Deloitte University Press.
3. Hendricks, K. B., & Vickery, S. K. (2023). Big data analytics for defense procurement: A capability maturity model. *International Journal of Production Economics*, 187, 192–204.
4. Ngai, E. W., Xiu, L., & Chau, D. C. (2019). Application of data mining techniques in customer relationship management: A literature review and framework development. *Expert Systems with Applications*, 39(10), 9782–9792.
5. Standing Committee on Public Accounts. (2018). *Big data in government: Transforming the way we work*. National Audit Office.

УДК 004.77:351.86

JEL F55, I20

Cloud Technology For Strategic Management in the Military and Administrative Fields

Oleksandra Koval, student
Ukrainian-American Concordia University

Nowadays technological advances, especially in the field of cloud computing, provide new opportunities to improve strategic management and leadership in various fields, including military and government organizations. Cloud technologies offer effective tools for optimizing decision-making processes, managing resources, and developing high technologies. This topic is relevant because the digitalization process has affected all areas of business management, especially in such an important government area as military and business management. According to Gartner's *Devising an Effective Cloud Strategy* report, it's stated that almost every organization is using Cloud computing. Moreover, there's an evident Cloud shift as companies move from traditional on-premise IT to Cloud services. In particular, the cloud shift accelerates with a 17% compound annual growth to 2025. [1]

First, it should be noted that military and government organizations are currently faced with several complex challenges, such as cybersecurity threats, rapid technological developments,

unstable economic and political situations, etc. In this case, it is important to have effective strategic planning, identification of potential risks, and tools to adapt to internal and external changes. Examples of the use of cloud systems in military affairs and their benefits:

- Management and processing of information from heterogeneous sources.
- Tactical cloud infrastructure for Command, Control, Communications, Computers (C4) Intelligence, Surveillance and Reconnaissance (ISR) — or C4ISR — systems.
- Information-process enhancement by using AI and big data.
- Joint strategic, operational, and tactical level simulators.
- Simulation as a Service (SaaS) for computer simulations of theatres of war (synthetic environments) and rapid scenario generation. [2]

Furthermore, collecting and analyzing large volumes of data is one of the important func-

tions of cloud services, including security and privacy. They are used for forecasting, assessing the efficiency of resource use, improving and developing new strategies, and tracking external and internal changes that affect the areas of the organization's activities.

Secondly, another important advantage of cloud technologies is the flexibility of planning and multifunctionality of systems. Resources that are involved in military operations and crisis management are easily adjusted and redirected depending on the needs of the organization. They are used to coordinate military operations, collect and exchange data, manage resources, and ensure secure use.

Cloud technologies ensure continuous work in all areas of business management and are the most important tool in recent years. Developing and maintaining their efficient operation ensures continuous growth and development of the business.

References

1. Sergii Sosna. December 26, 2022. Developing a winning cloud strategy for your business. URL: <https://www.n-ix.com/cloud-strategy/>
2. EDA. January 24, 2024. 'Combat cloud': EDA study shows benefits of cloud computing for EU militaries URL: <https://eda.europa.eu/news-and-events/news/2024/01/25/combat-cloud-eda-study-shows-benefits-of-cloud-computing-for-eu-militaries>

УДК 327.51:35]:004.8

JEL H56, I 20

Nato and Public-Private Collaboration in the Era of Artificial Intelligence

*Ivan Milinchuk, student
Ukrainian-American Concordia University*

The possible use of artificial intelligence (AI) in military and security operations has attracted a lot of interest lately, which has led NATO and its member nations to look into how they may use AI for defence [3]. However, one major issue that NATO has in this attempt is the dominance of commercial companies in AI development, which is completely different to the Cold War era, when governments supported and fostered technological advancement. My thesis explores the implications of public-private sector collaboration in AI for NATO, reviewing member states' plans and giving policy suggestions to overcome the problems provided by the commercially driven AI innovation environment [1].

The strategies used by NATO member states, notably the United States, France, and Germany, shed light on how countries are negotiating the challenges of public-private sector partnership in AI. The United States has chosen a pro-

active approach in cooperation with commercial technology companies, implementing initiatives such as the Defence Innovation Unit to assist the US Department of Defence adopt commercial technology [2]. France has also developed a separate AI strategy and emphasized the value of collaboration while raising worries about dependence on foreign AI companies [3]. In contrast, Germany lags behind in strategic planning for military AI, but it has taken attempts to work with companies through the Bundeswehr's Cyber Innovation Hub (CIHBw) [4].

In order to deal with the challenges associated with commercial AI domination, NATO should explore several policy recommendations. First, the development of NATO-AI Industry Partnerships can facilitate the exchange of information and handle issues related to governance. Second, fostering direct exchanges between NATO bodies and AI businesses can help to improve institutional knowledge and close the gap be-

tween sectors. Lastly, supporting collaborative initiatives across member nations' innovation units and using the AI ecosystem across NATO may strengthen collaboration inside the alliance and overcome bureaucratic barriers [1].

To summarize, effective collaboration in public-private sector is crucial for NATO to harness the full potential of AI in military and defence while tackling the corresponding challenges. By understanding member states' objectives and implementing proactive policy suggestions, NATO may navigate the complexity of the AI innovation and assure its continued relevance in an age of rapid technological advancement.

References

1. Horowitz, Michael C. (2018). "Artificial Intelligence, International Competition and the Balance of Power". In Texas National Security Review, Vol. 1, No. 3
2. Artificial Intelligence: DOD Should Improve Strategies, Inventory Process, and Collaboration Guidance. GAO-22-104516SU. Washington, D.C.: February 16, 2022.
3. Tonin, Matej (2019). "Artificial Intelligence: Implications for NATO's Armed Forces". In NATO Parliamentary Assembly, Science and Technology Committee, Sub-Committee on Technology Trends and Security
4. Weizenegger, Sven & Stephanie Khadjavi (2020). "Bundeswehr Cyber Innovation Hub". In European Security & Defence.

УДК 355:[004.77:005]

JEL F52, H56

Integration of IT Management in Military and Strategic Operations

*Vladyslav Syvolozhskyi, student
Ukrainian-American Concordia University*

In the contemporary landscape, military and strategic education faces a transformative demand: the seamless integration of Information Technology (IT) management. This imperative arises from the evolving nature of warfare, where technology plays a central role in decision-making, operational efficiency, and strategic success. The Armed Forces recognize the benefit of sharing information [1], collaboration[2], and coordination[3] instead of constraining and stove-piping the data.

Traditionally rooted in strategic and tactical training, military education programs are undergoing a necessary recalibration. The ubiquity of data, the omnipresent threat of cyber attacks, and the interconnectivity of modern warfare necessitate the incorporation of IT management principles.

However, despite the evident advantages, this integration has its challenges. Institutional resistance, budget constraints, and cultural adaptation to technology pose significant hurdles,

as well as security, data migration, and trust, among other issues. Addressing these challenges is pivotal for successful integration.

Yet, embracing IT management offers numerous opportunities for innovation. Advancements in data analytics, artificial intelligence, and cybersecurity present transformative possibilities. Moreover, the most prominent warfare additions to 21st-century warfare, as we can note from the Ukrainian war, are drones[4], as well as smaller data centers that have a more tactical incline[5], rather than having one large base of control. Educational initiatives that incorporate these innovations prepare military leaders for the digital battlefield and foster a culture of adaptability and continuous improvement.

Examining successful case studies illuminates the practical implementation of IT management in military settings. The Israeli Defense Forces' utilization of AI for threat analysis and the U.S. Department of Defense's cybersecurity initiatives exem-

plify the tangible benefits of integrating IT management strategies. Also, the experience of the Armed Forces of Ukraine shows how the implementation of high-end, high-tech weaponry like HIMARS systems, as well as smaller, easier-to-produce weapons like attack drones, can shift warfare to a more tactical perspective. Reports from the soldiers on the frontlines[6] show how important drones are in the new realities of war.

Collaborative learning initiatives that bridge IT management with military and strategic studies offer a promising avenue. Programs encouraging interdisciplinary skills and knowledge exchange empower military professionals to navigate the complexities of the modern battlefield, fostering a holistic understanding of the symbiotic relationship between technology and strategy.

To address challenges and maximize opportunities, proactive measures are recommended. Institutions should invest in updating curricula, fostering partnerships with industry experts, and prioritizing developing IT management skills. Interdisciplinary collaboration should be encouraged to ensure a holistic approach to military education.

In conclusion, the integration of IT management in military and strategic operations represents a fundamental evolution in preparing military leaders for the complexities of the contemporary geopolitical landscape. The connections drawn to the realm of non-IT industries underscore the universal relevance of IT management principles, emphasizing their cross-sector importance.

References

1. McChrystal, Stanley, et. al. (2015): Team of teams. New rules of engagement for a complex world. Penguin Random House. New York. ISBN 978-1-59184-748-9 Pp. 118-124.
2. NIT (2013): NATO unveils Afghan Mission Network Operations Center at Kabul airport. Retrieved from <http://northiowatoday.com/2013/07/15/nato-unveils-afghan-missionnetwork-operations-center-at-kabul-airport/>.
3. Mattis, James (2013): 19 Unforgettable quotes from retiring General James 'Mad Dog' Mattis. Business Insider. Retrieved from: <http://www.businessinsider.com/generalmaddog-mattis-best-quotes-2013-1?IR=T&r=US&IR=T#in-this-age-i-dont-care-howtactically-or-operationally-brilliant-you-are-if-you-cannot-create-harmonyeven-viciousharmonyon-the-battlefield-based-on-trust-across-service-lines-across-coalition-andnational-lines-and-across-civilianmilitary-lines-you-need-to-go-home-because-yourleadership-is-obsolete-we-have-got-to-have-officers-who-can-create-harmony-across-allthose-lines-13>.
4. How Military Drones are Revolutionizing Warfare: <https://www.zenadrone.com/military-drones/>
5. How the military uses computer technologies to their advantage: <https://techdayhq.com/blog/2023/08/15/how-the-military-uses-computer-technologies-to-their-advantage#:~:text=Computer%20technology%20is%20helping%20create,noticeable%20trends%20in%20soldier%20tech>
6. "The Eyes" of Ukrainian Defence Forces. How Ukraine's drone usage gave them a new attacking purpose: <https://www.holosameryky.com/a/drones-ukraine-russia-war/7259775.html>

Applications of AI in Military Decision-Making and Strategic Planning

Oleksandr Yatsyk, student

*Scientific supervisor: Liubov Zharova — D.Sc. in Economics, Senior Researcher
Ukrainian-American Concordia University*

AI use in warfare has become a critical area of interest as modern warfare becomes increasingly complex and data-driven. AI technologies offer the potential to enhance situational awareness, support course of action development, and improve the overall effectiveness of military operations. However, the application of AI in the military context also presents unique challenges, such as the need for human-AI collaboration, ethical considerations, and the adaptation of existing decision-making processes.

One of the key applications of AI in military decision-making is in situation assessment and understanding. AI algorithms can process vast amounts of data from various sources to provide a comprehensive picture of the operational environment[4]. AI can also support the development and analysis of courses of action (COAs) in military decision-making. By leveraging machine learning algorithms and optimization techniques, AI systems can generate and evaluate a wide range of potential COAs based on objectives, constraints, and available resources.

Wargaming and simulations play a crucial role in military decision-making and strategic planning. AI can enhance these processes by enabling more realistic and dynamic simulations of military operations. AI-powered wargaming systems can model complex interactions between friendly, enemy, and neutral forces, as well as the impact of various environmental and operational factors.

The ongoing Russo-Ukrainian war has emerged as a proving ground for the extensive use of AI technologies in modern warfare. Both Ukraine and Russia have employed AI to gain strategic and tactical advantages, with Ukraine

in particular leveraging AI capabilities to offset Russia's numerical and resource superiority. AI-powered solutions provided by companies such as Palantir have been instrumental in enabling Ukrainian forces to identify Russian troop positions, track enemy movements, and pinpoint vulnerabilities in Russian defenses. Ukraine has also employed AI in a more controversial capacity through the use of facial recognition technology provided by Clearview AI.

While AI can provide significant benefits in military decision-making and strategic planning, it is crucial to emphasize the importance of human-AI collaboration. AI should be considered a tool to augment and support human decision-makers, rather than replacing them entirely. Effective human-AI collaboration requires the development of trust, transparency, and accountability in AI systems.

The integration of AI in military decision-making and strategic planning offers significant potential benefits, but it also presents several challenges and risks that must be carefully considered and addressed. One of the key challenges is ensuring that its use is consistent with ethical and legal principles, particularly in the context of lethal autonomous weapons systems (LAWS). Another challenge is the potential for adversarial actors to exploit or manipulate AI systems.

To fully realize the potential of AI in military decision-making and strategic planning, continued research and development efforts are necessary. Future research should focus on advancing AI technologies, developing more effective human-AI interfaces and collaboration methodologies, and exploring the ethical, legal, and societal implications of AI in the military context.

In conclusion, artificial intelligence can be used to improve military operations effectiveness, efficiency, and adaptability. However, the successful application of AI in the military context also requires careful consideration of the associated challenges and risks. By harnessing the potential of AI while addressing the associated challenges, military organizations can improve their decision-making and strategic planning capabilities, ultimately enhancing their ability to respond to the complex and evolving challenges of modern warfare.

References

1. Schwartz, P. J., O'Neill, D. V., Bentz, M. E., Brown, A., Doyle, B. S., Liepa, O. C., Lawrence, R., & Hull, R. D. (2020). AI-enabled wargaming in the Military Decision Making Process. In T. Pham, L. Solomon, & K. Rainey (Eds.), *Artificial Intelligence and Machine Learning for Multi-Domain Operations Applications II* (Vol. 11413, pp. 114130H1–114130H17). SPIE. <https://doi.org/10.1117/12.2560494>
2. Sentient Digital, Inc. (2024, February 28). Military Applications of AI in 2023- Sentient Digital, Inc. <https://sdi.ai/blog/the-most-useful-military-applications-of-ai/>
3. Kase, S. E., Hung, C. P., Krayzman, T., Hare, J. Z., Rinderspacher, B. C., & Su, S. M. (2022). The future of collaborative human-artificial intelligence decision-making for mission planning. *Frontiers in Psychology*, 13, Article 850628. <https://doi.org/10.3389/fpsyg.2022.850628>
4. Leveraging Decision Support in the Russo-Ukrainian war: the role of Artificial Intelligence the role of Artificial Intelligence on JSTOR. (n.d.). www.jstor.org. <https://www.jstor.org/stable/48732413>
5. Bergengruen, V. (2023, November 14). Ukraine's 'Secret weapon' against Russia is a controversial U.S. tech company. *TIME*. <https://time.com/6334176/ukraine-clearview-ai-russia/>
6. Kerbusch, P., Keijser, B., & Smit, S. (2018). Roles of AI and simulation for military decision making. NATO Science and Technology Organization
7. Can AI plan military operations? (2024, February 20). Hudson. <https://www.hudson.org/defense-strategy/can-ai-plan-military-operations>
8. Hodicky, J., & Kucuk, V. (2022, October). Modelling and Simulation and Artificial Intelligence for Strategic Political-Military Decision-Making Process: Case Study. In *International Conference on Modelling and Simulation for Autonomous Systems* (pp. 269–281). Cham: Springer International Publishing

Market of Audit Services in Ukraine During the War

Yan Aidinian, student

*Scientific supervisor: Lesya Leshchii — Ph.D. in Economics,
Associate Professor
Ukrainian-American Concordia University*

In the context of the increasing complexity of the modern economic sector all over the world, audit is an important element of control that ensures accountability, trust, and efficiency of entities' economic activities in the country. The impact of the war on the audit services market is an interesting matter to consider, taken into account the conditions in which the Ukrainian economy finds itself due to the full-scale Russian invasion. The consequences of the invasion of Ukraine touched all areas and significantly affected the business environment and the audit industry too, which was divided into before and after 24 February 2022.

In accordance with the Law of Ukraine "On Accounting and Financial Reporting", there are enterprises that are subject to mandatory audit. This list includes: enterprises of public interest, public joint stock companies, natural monopolies in the national market and business entities operating in the extractive industries, large enterprises and medium-sized enterprises, financial institutions, and parent companies of large groups. Until March 2022, article 163–16 of the Code of administrative offenses of Ukraine provided administrative liability for violation of the procedure for publishing financial statements or consolidated financial statements together with the auditor's report, which implied a penalty of

one thousand to two thousand tax-free minimum incomes. For example, the amount of such a fine as of 2022 would be from UAH 1 240 500 to UAH 2 481 000, which is a significant amount for any enterprise. Based on the Law of Ukraine "On protection of interests of subjects of submission of reports and other documents during martial law or state of war" of March 2022, no administrative liability for non-submission or late submission of reports is applied during martial law or state of war, as well as within three months after its termination. As a result, the demand for audit services had fallen and the price of such services had decreased, which was quite noticeable. This leads to increased competition in the market, which, in the absence of a regulatory minimum price threshold for audit services, means dumping of prices.

A significant share of companies that continue to have their financial statements audited have changed from international and/or well-known audit firms to lesser-known ones to reduce costs. In general, this has a negative impact on the market, as prices for services are dumped and the quality of services is decreased. Today, auditing entities have to compete for every client, but as the practice of tenders shows, the tendency to prefer lower prices over the quality of services is becoming more and more prom-

inent. This trend not only compromises the integrity and reliability of financial statements, but also raises concerns about the effectiveness of regulatory oversight. Since audit firms are forced to prioritize price-cutting measures over adherence to strict standards in order to continue operating, the decline in confidence in financial information poses a systemic risk to the economy.

Due to the occupation of a sizeable part of our country and related reasons, large and medium-sized businesses go bankrupt, change the type of activity, and reduce the volume of economic activity. This leads to their reclassification in compliance with the legislation of Ukraine to small/micro enterprises, that are not obliged to audit financial statements. Accordingly, audit companies lose potential or/and existing customers and are forced to reduce personnel and prices for services, look for new customers, expand the range of consulting services.

The military actions have a negative impact on the audit services market in Ukraine. As companies prioritize short-term profitability and adaptation to unstable conditions, the fundamental principles of accuracy, transparency and integrity of financial statements are being put into the background. Struggling with client outflows and financial difficulties, audit firms are adopting extreme measures such as staff cuts, price dumping and, most disturbingly, unethical practices to stay in business. This does not only threaten the quality of audit services, but also undermines confidence in financial information, increasing the risk of fraud and reducing the attractiveness of the Ukrainian market to foreign investors.

At the same time, it should be noted that the government has proposed a number of measures to support the audit activity, in particular:

- to improve ethical and social responsibility standards: a prohibition on participation in audit firms with russian capital, a ban on membership in russian organizations;

- to reduce contributions: partial exemption from membership fees, exemption from percentage contributions from statutory audit engagements;
- to ease regulation: reduction of qualification criteria for employees, postponement of reporting and submission of changes to the audit report.

This will allow specialists to stay in the profession and continue working after Ukraine's victory and the end of the war. A certain decline in the quality of audit services can be compensated by acquiring new skills and competencies — a more complete understanding of "going concern" and its assessment; audit of revaluation of company assets after losses caused by the war. The audit activity and the audit services market will also be significantly affected by the duration of martial law and the war in general. In case of short-term impact, the quality of audit services will not have time to deteriorate significantly, and in case of long-term impact, it will correlate with the overall economic situation in Ukraine.

References

1. Дмитро Сушко. (2022). Головні зміни запропоновані Урядом для аудиторів під час війни та у післявоєнний час. *Liga.Net*. <https://blog.liga.net/user/dsushko/profile>
2. Закон України про бухгалтерський облік та фінансову звітність в Україні. (1999). Витяг з веб-сайту Верховної Ради України. <https://zakon.rada.gov.ua/laws/show/996-14>
3. Закон України про захист інтересів суб'єктів подання звітності та інших документів у період дії воєнного стану або стану війни. (2022). Витяг з веб-сайту Верховної Ради України. <https://zakon.rada.gov.ua/laws/show/2115-20>
4. Кодекс України про адміністративні правопорушення. (1984). Витяг з веб-сайту Верховної Ради України. <https://zakon.rada.gov.ua/laws/show/80731-10>

Euro-Atlantic Integration and Its Influence on the Development of International Investment in Ukraine

*Alina Goldfarb, student
Ukrainian-American Concordia University*

In the conditions of global politics and economics, Ukraine's path to integration into the Euro-Atlantic community is one of the most important tasks of its foreign policy. This complex, multi-level process has far-reaching implications across sectors. From technological progress to military modernization, from the transformation of management education to the influx of international investment, the impact of this integration is far-reaching and profound. The purpose of this comprehensive essay is to delve into the complex nature of the Euro-Atlantic integration process and its profound impact on these sectors. [1]

In the modern digital era, when technology is the basis of economic growth, Euro-Atlantic integration has significantly accelerated Ukraine's technological progress. This integration has opened channels for cooperation and knowledge sharing between countries, contributing to the creation of an environment conducive to innovation and rapid adoption of the latest technologies.

In the rapidly growing sectors of information technology, agriculture and manufacturing, Ukraine has benefited significantly from this international cooperation. The knowledge transfer achieved through these joint efforts has allowed Ukraine to incorporate advanced technologies into its industrial practices. The introduction and adaptation of modern technologies led to an increase in the level of productivity and strengthening of Ukraine's competitiveness on the world stage.

In addition, the integration process facilitated the exchange of best practices and innovative solutions, creating a ripple effect of tech-

nological innovation in various sectors of the country. This wave of technological evolution not only revolutionized the way of doing business in Ukraine, but also increased the country's position in the world market. Through the prism of technology, Euro-Atlantic integration played a decisive role in positioning Ukraine as a promising player on the global technological arena. [2]

In addition to technology, Euro-Atlantic integration has deeply affected two of the most important areas in Ukraine, namely: military and management education. In the military sphere, Ukraine is making concerted efforts to bring its armed forces into compliance with NATO standards. This alignment led to a significant modernization of models of military education and training, which contributed to the creation of a stronger, more stable and advanced military structure. [3]

At the same time, the field of management education in Ukraine has undergone significant paradigmatic changes. The influence of Euro-Atlantic practices and principles is becoming more and more evident in the curricula of business schools and universities. This shift in focus towards a more global, integrated approach plays an important role in shaping future leaders who possess the necessary skills to solve the problems that arise in a dynamic and changing business environment.

A new approach to management education, formed under the influence of Euro-Atlantic principles, played a vital role in the education of a new generation of leaders. Armed with a global perspective and a solid foundation of management principles, these leaders are ready to lead

their organizations to success in the increasingly competitive world market.

Euro-Atlantic integration also had a significant impact on the development of international investments in Ukraine. The country's unwavering commitment to reforms, adherence to global standards and compliance with Euro-Atlantic principles have created confidence among global investors.

Numerous initiatives aimed at improving the business environment have been launched. These include regulatory reforms, strengthening the rule of law, fighting corruption and creating a transparent, accountable business environment. These efforts contributed to the creation of a favorable investment climate and the attraction of a significant amount of foreign investment.

A direct result of these initiatives has been a sharp increase in international investment in sectors such as energy, infrastructure and agribusiness. These investments not only contributed to the country's economic growth and development, but also played a key role in diversifying its economy, reducing dependence on traditional sectors and paving the way for a more balanced and sustainable economic model. [4]

Euro-Atlantic integration is more than a geopolitical shift for Ukraine; it is a comprehensive, transformational process that affects many sectors of the country's economy. As Ukraine continues its path to integration, the benefits, including technological advances, improved military and management education, and increased international investment, are expected to become more visible and widespread.

Embracing Euro-Atlantic integration, Ukraine is paving the way to a future characterized by

economic prosperity, technological innovation and social progress. This path, although it requires a lot of effort, promises to bring significant fruits for the country and its people.

Thanks to this process, Ukraine seeks to establish itself as an important player on the world stage, which will contribute to its overall growth and development. In a broader context, the success of this integration process will not only transform Ukraine, but also contribute to the stability and progress of the Euro-Atlantic community as a whole.

References

1. The conference "Euro-Atlantic Integration, new technologies, military and management education" was held. (2024, March 7). Ukrainian-American Concordia University. <https://www.concordia.edu.ua/uk/2024/03/vidbulas-konferencziya-yevroatlantychna-integracziya-novi-tehnologiyi-vijskova-ta-upravlinska-osvita/>
2. Education in times of war: challenges and prospects for Ukraine. (2023, April 14). Association of Innovative and Digital Education. <https://iaa.org.ua/articles/education-in-times-of-war-challenges-and-prospects-for-ukraine/>
3. Support of the Armed Forces and Euro-Atlantic Integration: Stefanchuk named priority tasks for the BP. (2023, February 23). Ukrinform. <https://www.ukrinform.ua/rubric-politics/3814614-pidtrimka-zsu-ta-evroatlanticna-integracia-stefancuk-nazvav-prioritetni-zavdanna-dla-vr.html>
4. War and education: how a year of a full-scale invasion affected Ukrainian schools. (2023, February 24). Center for the study of society. <https://cedos.org.ua/researches/vijna-ta-osvita-yak-rik-povnomashtabnogo-vtorgnennya-vplynuv-na-ukrayinski-shkoly/>

Optimizing Operational Management Strategies in the Digital Era

Mykyta Kruchan, student

*Scientific supervisor: Glib Buriak — Ph.D. in Economics,
Associate Professor
Ukrainian-American Concordia University*

I decided to write a thesis about the topic “Optimizing Operational Management Strategies in the Digital Era”, because of my internship experience working in the digital advertising company MGID. During my work, I’ve noticed many interesting cases of how the company is optimizing its operational management strategies, and would like to share some of the insights. I believe that such practices could be useful to enhance the efficiency of other Ukrainian companies in the digital marketing field. It’s worth mentioning that all of the information that I will share is in open sources, so I will not disclose any of the company’s corporate private information.

MGID operates in a complex environment, managing various operations including campaign management, ad serving, data analysis, and client relationships. Optimizing these interconnected functionalities is crucial for delivering effective advertising solutions and maintaining a competitive advantage.

MGID’s approach to operational excellence hinges on the strategic use of technology. One key example lies in the **automation of repetitive tasks**. The company automates processes like ad placement, bidding strategies, and reporting by employing software tools, freeing up human resources to focus on higher-level tasks like client strategy and campaign optimization.

Furthermore, MGID utilizes **data analytics** extensively. By collecting and analyzing data on campaign performance, user behavior, and market trends, the company gains valuable insights to inform decision-making. This data-driven approach allows for **real-time optimization** of campaigns and resource allocation, maximizing efficiency and effectiveness.

Moreover, MGID has embraced automation and process optimization to streamline its operations. By automating repetitive tasks and standardizing processes, the company has reduced the potential for human error, increased productivity, and freed up valuable resources for more strategic endeavors. This approach has not only enhanced operational efficiency but also contributed to cost savings and improved customer satisfaction.

Beyond technology, fostering a culture of continuous improvement is paramount to MGID’s success. This involves encouraging **employee engagement** and **knowledge sharing** across departments. Through open communication and collaboration, diverse perspectives and expertise can be harnessed to identify areas for improvement and implement innovative solutions. Additionally, MGID emphasizes **performance measurement** and **regular evaluation** of operational strategies. By establishing clear metrics and conducting frequent assessments, the company ensures its efforts are aligned with its goals and identifies areas requiring further optimization.

Another notable strategy employed by MGID is the leveraging of data-driven decision-making. The digital advertising industry generates vast amounts of data, and MGID has recognized the immense value in harnessing this information. Through the implementation of robust data analytics tools and techniques, the company gains valuable insights into customer behavior, campaign performance, and market trends. These insights inform strategic decisions, enabling MGID to optimize its operations, refine its targeting strategies, and deliver more effective advertising solutions to its clients.

The insights gleaned from MGID's approach to operational management hold significant relevance for other Ukrainian companies in the digital marketing landscape. By adopting similar strategies, businesses can:

- **Increase efficiency:** Automation and data-driven decision-making can streamline processes, reduce manual workload, and optimize resource allocation.
- **Enhance decision-making:** Data analytics can provide valuable insights to support informed strategic choices and campaign optimization.
- **Promote innovation:** A culture of continuous improvement encourages creativity and the exploration of new technologies, allowing companies to stay ahead of the curve in a rapidly evolving digital landscape.

In conclusion, in the fast-evolving digital era, optimizing operational management strategies is crucial for businesses to compete efficiently. By embracing technology, fostering a culture of continuous improvement, and prioritizing data-driven decision-making, companies like MGID can achieve operational excellence and maintain a competitive edge. The insights from this case

study offer valuable lessons for other Ukrainian digital marketing companies seeking to enhance their efficiency and effectiveness in the dynamic digital advertising landscape.

References

1. Castro, G. (2024, January 15). *Four ways machine learning will change mobile advertising in 2024*. Performance Marketing World. Retrieved March 7, 2024, from <https://www.performancemarketing-world.com/article/1857441/four-ways-machine-learning-will-change-mobile-advertising-2024>
2. Chaban, A. (2023, December 13). *Future of Advertising: Emerging Trends and Predictions*. MGID. Retrieved March 7, 2024, from <https://www.mgid.com/blog/the-future-of-advertising-uncharted-horizons>
3. Dilmegani, C. (2023, December 4). *What is data-driven decision making? Step-by-step guide in 2023*. Research AIMultiple. Retrieved March 7, 2024, from <https://research.aimultiple.com/data-driven-decision-making/>
4. *The Power of Data Driven Advertising: How Adtech Startups Are Leading the Way*. (2023, December 22). FasterCapital. Retrieved March 7, 2024, from <https://fastercapital.com/content/The-Power-of-Data-Driven-Advertising--How-Adtech-Startups-Are-Leading-the-Way.html>

УДК 338.45:67
JEL H56, M 10, E 20

Integrating Managerial and Military Strategies in Sustainable Development of the Fashion Industry on the Example of the Brand “Kseniaschnaider”

Mariia Riabchenko, student

*Scientific supervisor: Lesya Leshchii — Ph.D. in Economics,
Associate Professor
Ukrainian-American Concordia University*

The modern world of fashion requires from brands not only creativity and design innovation, but also the application of various management strategies, in our realities it can be taken from the military sphere. The example of KSENIASCHNAIDER demonstrates how

modern fashion brands can successfully integrate elements of military and management education into their strategy, apply advanced technologies and develop international cooperation to achieve the necessary brand development.

The full-scale war that started on February 24, 2022 demonstrated to the whole world, and especially to the citizens of Ukraine, the importance of knowledge about the political situation in the military structure. This day had an impact not only on people's everyday lives, but also on all spheres of business, including the fashion industry. With such instability in Ukraine and around the world, companies are faced with the need to adapt their strategies and anti-crisis plans to the new realities, where war and transition to working in wartime conditions can become determining factors for business survival.

Since 2022, global geopolitical conflicts have significantly impacted economies and supply chains, affecting trade worldwide by \$543 and up to 600 billion [1]. The fashion industry, adapting to the new realities, has stepped up sustainability investments. Based on McKinsey & Company data, more than 60% of fashion companies are increasing their focus on production localization and eco-technologies, minimizing risks and promoting responsible business [2].

The KSENIASCHNAIDER brand, which faced serious challenges against the full-scale war in Ukraine, demonstrated an example of successful adaptation and development even in such difficult times, based on its proper management and strategic planning. The failures and tiredness of the founders, Ksenia and Anton, in the face of the war became an impetus to rethink business strategies and find new ways to preserve and develop the brand [3]. Collaboration in the areas of strategy and high technology proved essential to continue their work during the war. Interaction with international companies and partners and the introduction of innovative technologies contributed not only to the retention of the company, but also to the development of KSENIASCHNAIDER internationally.

In the face of a full-scale war, the KSENIASCHNAIDER brand, which had already faced instability in 2014, applied anti-crisis strategies on a large scale to protect their business. The "Support Card" program launched on the official website raised funds from customers and partners, becoming a symbol of trust and solidarity [3]. Thanks to this, as well as reduced workloads for employees and the rapid search for new wholesale partners willing to cooperate despite logistical difficulties, KSENIASCHNAIDER was able to maintain its position on the global market, demonstrating flexibility and resilience in crisis conditions.

Rapid adaptation, risk management and strategic planning in the current realities of war, combined with proper brand management, open up new opportunities for the development and strengthening of the brand and its position in the international and domestic market. The example of the KSENIASCHNAIDER brand shows that incorporating elements of military strategy into the model of company management contributes not only to the successful overcoming of crisis situations, but also to the achievement of sustainable development in the future.

References

1. Kyiv School of Economics, 2022. "Damages to Ukraine's Infrastructure during the War Total Nearly \$63 Billion." <https://kse.ua/about-the-school/news/zbitki-naneseni-infrastrukturi-ukrayini-v-hodi-viyni-skladayut-mayzhe-63-mlrd/>
2. McKinsey & Company, 2022. "What is Fast Fashion?" <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-fast-fashion>
3. Vctr Media, 2022. "Kseniya Schnaider and Merge Academy". <https://vctr.media/ua/kseniya-shnayder-i-merge-academy-151013/>

The role of high technologies in reducing the impact of the automotive industry on the environment

Anastasiia Sarana, student

*Scientific supervisor: Nataliia Amalian — Ph.D. in Economics,
Associate Professor
Ukrainian-American Concordia University*

In the modern world, where automobiles have become not only a convenient but also a necessary means of transportation, the issue of their impact on the environment is becoming increasingly relevant. The growth of the automotive fleet, emissions from vehicles, as well as the exploitation of oil resources leading to air pollution, climate change, and depletion of natural resources, requires immediate measures to reduce the negative impact of the automotive industry.

One of the key solutions to this problem is the implementation of high technologies in automobile manufacturing and operation. Technological innovations can contribute to improving the energy efficiency of vehicles, reducing emissions of harmful substances, and resource intensiveness of production.

Among the key technologies that help reduce the impact of the automotive industry on the environment are electric and hybrid technology. Electric vehicles do not emit harmful gases during operation, making them more environmentally friendly. With the continuous development of battery technologies, increased production volumes, and reduced battery costs, electric vehicles are becoming increasingly accessible to the mass consumer.

Additionally, high technologies in materials science allow for the creation of automobiles using lightweight and strong materials such as carbon fibers or aluminum. This helps reduce the weight of vehicles, which in turn decreases fuel consumption and CO₂ emissions during operation.

The application of high technologies can also facilitate the implementation of traffic manage-

ment systems, which contribute to route optimization and congestion reduction. This not only reduces emissions of pollutants but also promotes fuel savings and resource consumption reduction.

Furthermore, the development and implementation of high technologies in the automotive industry contribute to the integration of transportation systems with other sectors such as energy and information technologies. For example, modern electric vehicles can be used as backup energy sources for households or even for storing energy from renewable sources such as solar panels or wind energy. This contributes to a balanced and stable energy supply system, which is crucial for reducing environmental impact.

Moreover, the advancement of autonomous and connected vehicles opens up new opportunities for optimizing traffic flows, reducing accidents, and efficiently utilizing the vehicle fleet. Artificial intelligence, sensors, and communication systems enable vehicles to communicate with each other and with road infrastructure, which can reduce congestion and promote resource-efficient usage.

For example, one of the promising areas of research is the development of more efficient energy systems for electric vehicles, which will increase their range and reduce the need for charging stations. Additionally, integrating renewable energy sources into the infrastructure of charging stations will help reduce carbon emissions during electric vehicle charging.

It is also important to continue developing and improving traffic management and emissions monitoring systems, which will help effec-

tively coordinate vehicle movement and minimize congestion. Smart traffic management systems can also contribute to more efficient use of road infrastructure, reducing environmental burdens and shortening travel times.

For the successful implementation of these measures, cooperation is needed among governments, industrial companies, research institutions, and society as a whole. Only through joint efforts can significant improvements be achieved in reducing the impact of the automotive industry on the environment and creating a more sustainable and environmentally friendly transportation system for future generations.

It is also crucial to consider the social aspect of implementing high technologies in the automotive industry. The development of new technologies requires retraining of workers and the creation of new jobs in the research and development sector. Additionally, ensuring the accessibility of new technologies for all segments of the population is necessary to ensure their widespread use and maximum impact on reducing the ecological footprint of the automotive industry.

Overall, high technologies play a critical role in reducing the impact of the automotive industry on the environment. They contribute to the creation of cleaner vehicles, optimization of production processes, and more efficient management of transportation flows. To achieve significant improvements in this area, further support for research and innovation in the field of high technologies is necessary.

References

1. Llopis-Albert, C., Rubio, F., & Valero, F. (2021). Impact of digital transformation on the automotive industry. *Technological forecasting and social change*, 162, 120343.
2. Giampieri, A., Ling-Chin, J., Ma, Z., Smallbone, A., & Roskilly, A. P. (2020). A review of the current automotive manufacturing practice from an energy perspective. *Applied Energy*, 261, 114074.
3. Jiang, C., & Liu, D. (2024). Effects of venture capital on green technology innovation in new energy vehicle industry in China. *Energy & Environment*, 35(1), 418–437.
4. Zhang, R., & Fujimori, S. (2020). The role of transport electrification in global climate change mitigation scenarios. *Environmental Research Letters*, 15(3), 034019.

УДК 339.92:338.4(477)

JEL M10

Expansion of International Production in Ukraine

*Olha Shelestiuk, student
Ukrainian-American Concordia University*

The expansion of international production in Ukraine is a very important topic that can definitely have many advantages for our economy and trade. Here I have highlighted 5 main points how it can improve the situation in various areas: Low labor costs: Ukraine is known for its low labor costs compared to many developed countries. This makes the country an attractive place for the production of goods with a high level of manual labor or a large volume of industrial production.

Strategic location: Ukraine has an advantageous geographical location that facilitates easy

access to the markets of Europe, Asia and other parts of the world. This makes it an ideal point for the production of goods that are intended for export.

Technological potential: Ukraine has significant potential in the field of information technology and innovation. This can create a favorable environment for the development of high-tech production and research projects in cooperation with international partners.

Developed logistics infrastructure: Ukraine has a well-developed transport and logistics in-

frastructure, which facilitates fast and efficient delivery of goods to both domestic and foreign markets.

Potential for export development: An increase in international production in Ukraine can contribute to the development of the export sector, which in turn will stimulate the economic development and growth of the country's GDP.

What exactly should be done in this direction:

Stimulation of investments: Involvement of foreign investors contributes to the development of international production in Ukraine through the introduction of new technologies and an increase in production volumes.

Strengthening competitiveness: The expansion of international production allows Ukrainian companies to take a stronger position in the world market through access to new technologies and resources.

Creation of new jobs: The development of international production in Ukraine helps to increase the number of jobs and increase the level of employment in the country.

Dependence on foreign markets: The expansion of international production may also increase the dependence of the Ukrainian economy on foreign markets and factors.

The need for risk management: Due to the increase in international activity, it is essential to develop effective risk management strategies to ensure stability and avoid possible negative consequences.

In conclusion, we can note that such actions will definitely bring success to Ukrainian production, namely: The expansion of international production in Ukraine opens up new opportunities for economic development but requires careful risk analysis and the development of management strategies to ensure sustainability and success.

Reference

1. <https://www.kmu.gov.ua/news/novi-mozhlyvosti-dlia-ukrainskykh-vyrobnykiv-pohodzheno-shche-dvi-formy-mizhnarodnykh-sertyfikativ-dlia-eksportu>
2. <https://mil.in.ua/uk/news/mizhnarodni-oboronni-kompaniyi-rozglyadayut-spilne-vyrobnytstvo-ozbroyen-v-ukrayini/>
3. https://osvita.ua/vnz/reports/econom_theory/22182/
4. <https://moodle.znu.edu.ua/mod/resource/view.php?id=352646&forceview=1>
5. http://www.market-infr.od.ua/journals/2019/37_2019_ukr/7.pdf

УДК 339.92
JEL O10, O32

Strategic Collaboration and Innovative Technologies: A Way to Optimize Resource Consumption

*Vladyslava Shpytal, student
Ukrainian-American Concordia University*

Cooperation and the use of innovative technologies of partners is a very powerful strategy for the development of both businesses and the country as a whole.

What does cooperation mean in the context of the conference we attended? It is working with partners to achieve their goals and benefit from each other's strengths. Such a powerful result is achieved by combining the resources and experience of all parties and then using

them effectively to achieve a more advanced result.

Innovative technologies play a particularly important role in optimizing resource consumption, as well as enabling the application of more efficient practices and the latest ideas. The list of such ideas is quite extensive, such as artificial intelligence, complex data analysis, the use of renewable energy sources, and the development and successful application of advanced produc-

tion methods that help to use resources more efficiently.

I would like to elaborate on the topic of artificial intelligence, which can help optimize (reduce) the use of various types of energy in residential buildings and in the production of various enterprises by predicting maintenance needs. Obviously, using resources on demand, rather than by default, significantly minimizes the waste of resources.

Artificial intelligence can currently be rightfully considered one of the newest inventions that can be used in various fields and for various purposes. For example, AI has many applications for business, and its use has already proven to be highly advantageous in the field of energy optimization.

The analysis of a large amount of complex data obtained and analyzed by artificial intelligence allows us to predict further trends regarding the use, coordination, and management of the supply of certain resources. In addition, so-called "smart" tools that analyze consumption based on AI are also transforming the way consumers use and save energy. We have the chance to balance incoming and outgoing resource flows using pre-collected data.

Furthermore, investments in the development of various types of renewable energy and cooperation with companies that have already started using this type of energy will encourage the spread of this methodology, thereby reducing resource consumption. Alternative energy sources include solar, wind, and hydroelectric power. Their use, even in small amounts, can significantly reduce dependence on fossil and harmful fuels, as well as reduce emissions of chemicals and greenhouse gases.

Not to forget the definition of a circular economy and the process of transition to this type of economy. The concepts of resource efficiency and circular economy have emerged in recent years, and they represent a fundamental and radical change in the economic tactics currently used. Resource efficiency goes beyond simply cutting costs; rather, it is a strategic ne-

cessity that must be met to optimize resource use while reducing waste. The circular economy, a concept aimed at reducing waste and maximizing resource consumption, is gaining considerable attention. According to Hawken's book "Circular Economy: The Wealth of Flows" (2019), businesses that adopt a circular economy have the potential to realize economic benefits of \$4.5 trillion by 2030, while reducing carbon emissions by 45%. In brief, this is the practice of reusing resources, converting waste into energy transforming all resources at the end of their life cycle, recovering the materials used, etc.

An equally important aspect is the combination of strategic cooperation with innovative technologies, which can enhance the benefits of all the resource optimization methods I mentioned above. As Prof. Frédéric Labarre further pointed out, collaboration in general can facilitate the adoption and scaling of selected technologies, and integrated solutions made with the experience of both parties to the collaboration will increase the effectiveness of joint efforts.

Thus, strategic collaboration and innovative technologies offer synergistic opportunities to optimize resource consumption across industries. By leveraging the potential of partnerships and the power of modern technology, companies can contribute to sustainable development, reduce negative environmental impacts, and increase stakeholder engagement.

References

1. Boiko, O. (2022, 12 вересня). Artificial intelligence in energy: Use cases and solutions. Software Development Company — N-iX. <https://www.n-ix.com/artificial-intelligence-in-energy/>
2. Hawken, P. (2013). Natural capitalism: Creating the next industrial revolution. Little, Brown and Co.
3. How do you leverage AI or automation to optimize resources and improve efficiency? (2023, 9 березня). LinkedIn: Log In or Sign Up. <https://www.linkedin.com/advice/3/how-do-you-leverage-ai-automation-optimize-1e>

The Impact of War in Ukraine on Managerial Accounting

Anastasiia Skorokhod, student

Ukrainian-American Concordia University

Scientific supervisor: **Lesya Leshchii** — Ph.D. in Economics

The ongoing war in Ukraine has contributed to many industries, affecting businesses around the world. Management accounting in the context of the global crisis is becoming a powerful tool for influencing the activities of an enterprise, and the decisions made in advance and based on it play a key role not only in the context of supporting business activity, but also in preserving the business entity as a participant in market relations. In this crisis situation, management accounting faces many challenges. Let's talk about some of them.

Impact on Cost Management:

The conflict in Ukraine has disrupted global logistics, leading to significant changes in raw material prices and transportation costs. Consequently, management accountants must closely monitor these fluctuations to accurately estimate costs, create financial strategies, and effectively manage budgets. In addition, the uncertainty about the duration of the war requires flexible approaches to cost management to adapt to market conditions that can change very quickly.

Disruption of Logistics Routes:

Supply chain disruptions caused by the war in Ukraine pose significant challenges for management accountants. These disruptions affect industries that depend on Ukrainian inputs, forcing accountants to look for alternative suppliers, optimize inventory levels, and reduce transportation costs that have increased. Managing these logistics disruptions requires very rapid risk assessment and flexible contingency planning to ensure at least some stability.

Risk Management and Contingency Planning:

It is clear that a full-scale invasion contributes to geopolitical and operational risks for

businesses, which requires management accountants to have robust risk management and contingency planning in place. Accountants play a key role in identifying, analyzing, and dealing with risks, ensuring the resilience of the organization. Through scenario analysis, accountants develop strategic responses to help overcome uncertainty and protect the company's interests.

Impact on Performance Measurement:

The war in Ukraine may affect business performance due to changing market dynamics and operational challenges. Management accountants must adapt performance measurement systems to account for these changes more accurately and quickly. This entails revising goals, incentives and resource allocation to align with revised strategic objectives and market realities.

Conclusion:

The situation with the war in Ukraine presents management accountants with complex challenges that require flexible responses. By closely monitoring costs, managing supplies, mitigating risks, and adapting performance measurement methods, accountants can help companies overcome the challenges posed by the conflict in Ukraine and emerge from it with new knowledge and strength.

Sources

1. Page 1- Skrypnyk, S., Kostenko, Y., & Kurey, O. (2023). MANAGEMENT ACCOUNTING AT UKRAINIAN ENTERPRISES IN THE CONDITIONS OF CRISIS. *Economy and Society*, (49). <https://doi.org/10.32782/2524-0072/2023-49-32>

International Hotel Chains Leaving Russia: an Ethical Aspect

Вихід міжнародних готельних мереж з росії: етичний аспект

Анастасія Ющенко, студентка

*Науковий керівник: Леся Лецій — к. е. н., доцент,
Українсько-американський університет Конкордія*

На сьогодні ведення бізнесу в росії викликає етичну дилему, яка є вагомішою, ніж питання заробітку. Адже працювати з країною, «руки» якої по лікті в крові як мінімум непринятно, навіть огидно. Саме причиною «огидності» і керується низка міжнародних готелів, які припинили свою діяльність з країною-окупантом і назавжди покинули її ринок. Ми живемо в світі з високими моральними цінностями, повагою до людей, їх свободи, що зовсім не асоціюється з росією і її діями в Україні. Саме питання моралі та етичності постає одним із найважливіших при обдуманні рішення щодо співпраці з росією та ведення бізнесу на її території.

Отож, пропонуємо дослідити готельні мережі, які назавжди покинули російський ринок (рис. 1).

Перечисленні готельні мережі одними з перших покинули росію та засудили її антилюдські та незаконні дії проти України. На жаль, залишаються ще десятки великих і сотні малих мереж, які продовжують працювати в росії, та шляхом фінансування країни-терориста завдяки сплаті податків, забезпечення робочих мість, вкладення інвестицій і т.п., допомагають вбивати мирне українське населення.

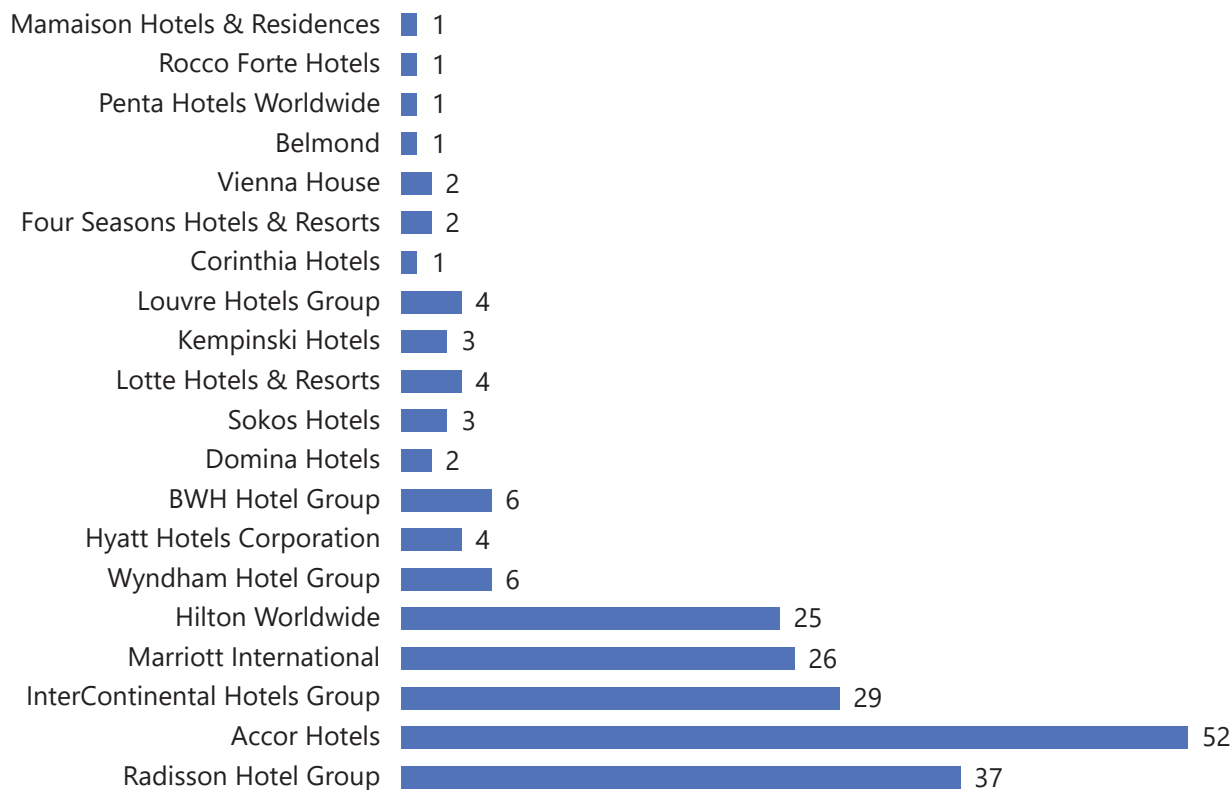
Ось список відомих світових готельних мереж та кількість їх готелів на території окупанта, які станом на 2024 рік продовжують вести «кровавий» бізнес з росією (рис. 2).

Станом на 2024 рік попри щоденні обстріли мирного населення в Україні в росії працює 210 світових готелів, які не мають намір виходити та планують розширювати свою діяльність.



■ Рис. 1. Готельні мережі, які покинули російський ринок
Джерело: складено автором на основі [1]

Готельні мережі та й весь бізнесовий світ повинен діяти не тільки обіцянками щодо повного бойкоту російському ринку, але і реальними вчинками. Звернемо увагу, що в цьому місяці відбулись суттєві події, які, на нашу думку, будуть сприяти в т.ч. і виходу іноземних готелів з росії. Так, Європейський парламент більшістю голосів підтримав тематичну доповідь на підтримку пропозицій Єврокомісії до Директиви із визначення кримінальної відповідальності та покарання за порушення



■ Рис. 2. Готельні мережі, які працюють в росії та їх кількість станом на 2024 рік
Джерело: складено автором на основі [2]

обмежувальних заходів ЄС [3]. Адже не секрет, що компанії, які працюють в країні-окупанті змушені оминати санкції, зокрема, щодо міжнародних розрахунків, імпорту продукції та багато інших. Після введення кримінальної відповідальності кількість таких порушень, як ми сподіваємось, зменшиться. Однак, ще чимало роботи попереду. Бойкот подібних компаній і їхньої продукції, розголошення інформації про їхню неетичну поведінку — засоби, які можуть бути дієвими.

Невже, живучи в 21 столітті та пропагандуючи сталий розвиток компанії не можуть відмовитись від роботи з росією, яка є повним антиподом етичності та соціальної відповідальності? Ми закликаємо світові готельні мережі та відомі корпорації нарешті почати діяти злагоджено та прийняти правильні рішення, адже ціна бізнесу з РФ — це людське життя, яке є в рази ціннішим за гроші!!!

Література

1. Leave Russia (2024) <https://leave-russia.org/uk/companies-that-exited?flt%5B147%5D%5Be-q%5D%5B0%5D=9061&flt%5B108%5D%5Be-q%5D%5B%5D=54045>
2. A number of hotel chains that have not left the Russian market have been identified (2024) <https://boycotrussianhotels.com/en/all-articles/article-radisson-louvre-accor-work-in-russia>
3. Європарламенти підтримав кримінальну відповідальність за обхід санкцій ЄС (2024) <https://www.unian.ua/politics/sankciji-pro-ti-rf-v-yes-viznali-kriminalnu-vidpovidalnist-za-obhid-sankcij-12571071.html>

УДК 327.51
 JEL F59, H56, M10

Euro-Atlantic Integration, New Technologies, Military and Management Awareness

*Oleksandra Herasymenko, student
 Ukrainian-American Concordia University*

Euro-Atlantic integration plays a critical role in shaping modern military and leadership training through the introduction of new technologies and improved global cooperation. This includes political, economic and security cooperation between European countries and Ukraine. Collaboration with institutions and professionals from various countries involved in efforts to improve the quality of military education. These integration ambitions aim to promote stability, security, and prosperity through the development of cooperation on various fronts, in the fields of defense, technology and education.

For educational purposes, Ukraine has signed agreements with a number of countries to expand military education both within Ukraine and abroad. These agreements facilitate the exchange of knowledge, experience and best practices in military education and training. By collaborating with various countries, Ukraine seeks to strengthen its military capabilities, improve training programs and promote international cooperation in the defense sector. Such partnerships help create skilled and knowledgeable military forces that are better prepared to address today's security challenges and contribute to regional stability.

Cooperation with Switzerland and Norway can help Ukraine implement reforms, improve

governance structures and strengthen oversight mechanisms in the defense sector. By aligning with international standards and practices, Ukraine can strengthen its defense capabilities, combat corruption, and support the principles of accountability and transparency in defense management.

Focusing on improving current military and management education through joint educational packages, education and training of trainers too, professional development initiatives, and joint efforts in strategic military, medical and high technology implementation areas.

We need a well-developed system, which does not exist yet. Because military people and volunteers will continue to die as soldiers, due to the lack of a system and rules. Therefore, it is necessary to create medical support before, during and after the battle. We need qualified trainers. Training must be at the highest level. There must be a working system and the ability to control their quality. Conveying military and management training taking into account the complexities and changing world and issues. The combination of new technologies such as artificial intelligence, the use of artificial intelligence, cybersecurity, educational applications, all have implications for equipping and training military soldiers and specialists to effectively counter ad-

vanced defensive threats. Through collaboration among stakeholders, these projects promote breakthrough solutions to effectively address security and governance challenges.

The economic and military assistance to Ukraine during the war with Russia is an important aspect in the conflict in the minds of the region. This assistance may include financial support, supply of military equipment and equipment, provision of advisory support, and training for the Ukrainian military forces. A wide range of assistance can help Ukraine improve

its defense capacity, and protect the sovereignty and territorial integrity of the country in the minds of the conflict with Russia.

References

1. NATO: <https://www.nato.int/>
2. European Defense Agency: <https://eda.europa.eu/>
3. The Atlantic Council: <https://www.atlanticcouncil.org/>
4. EU Military Assistance Mission in support of Ukraine: https://www.eeas.europa.eu/eu-mam-ukraine_en?s=410260

УДК 327.51:355.233

JEL F52, H 56, M 10

Euro-Atlantic Integration, Military and Management Education: Reflections

Vlada Nikolaienko, student
Ukrainian-American Concordia University

Even in the preamble of the Constitution of Ukraine the course towards the European and Euro-Atlantic course of Ukraine is indicated.

“The Verkhovna Rada of Ukraine on behalf of the Ukrainian people — citizens of Ukraine of all nationalities... taking care of strengthening civil harmony in the land of Ukraine and confirming the European identity of the Ukrainian people and the irreversibility of the European and Euro-Atlantic course of Ukraine”.

Therefore, questions about the importance of cooperation North Atlantic Alliance with Ukraine can not arise. It should be noted that European and Euro-Atlantic integration is a legal process of introducing European norms into Ukrainian legislation in order to improve the quality of life of citizens in the countries participating in this process. Such process increases the opportunity to create a stable economy, a state of law, eliminate corruption, preserve the environment and open up new opportunities for entrepreneurs.

Military education is an integral part of the national education system. It should be noted that the system of military education consists of government bodies.

Comparing these two types of education — military and administrative, they both provide for the acquisition of similar skills and knowledge. For example, such skill as strategic thinking helps not only military leaders to analyze difficult situations and make the most advantageous decisions, but also simplifies the work of a managers for planning various events and projects. Moreover, military education obliges students to learn leadership and command as one of the main skills of an educated leader. Similarly, management education involves training each student to be able to effectively manage teams. Also, the ability to effectively manage human, material and financial resources to achieve the tasks set is not only a skill of a professional project manager, but also a military leader.

Modern military management education requires constant development of cooperation skills, so this field of education has international cooperation in the form of interaction with international partners and alliances in the field of security and defense.

The development of a unified and integrated military education system that operates within

three verticals — higher education, professional military education and advanced training is an important factor in the formation of a solid foundation for interoperability with the armed forces of NATO member states and Alliance structures, professionalization of the defense forces and the transformation of the personnel management system.

The current situation in Ukraine is terrible and is a violation of many international legal norms. But with the help of the community behind the international parties, in the face of the European Union and the North Atlantic Treaty Organization, the Ukrainian people successfully provokes resistance to the enemy and purposefully goes to victory.

Conflict management is not only an important topic in the field of management, but also an important process in overcoming and resolv-

ing conflicts in international law and economic relations. In international relations such methods are diplomatic efforts — negotiations and mediations. There are also such tools as arbitration, litigation and peacekeeping. When these tools aren't effective, countries can use economic and military measures, which happens in Ukrainian-russian war.

References

1. Constitution of Ukraine, <https://www.president.gov.ua/documents/constitution>
2. (2024, February 27) Article on the topic of "Military education and training" https://en.wikipedia.org/wiki/Military_education_and_training
3. (2023, January 24) Article on the topic of Methods of conflict resolution in international relations
4. <https://diplomacynetwork.com/methods-of-conflict-resolution-in-international-relations/>

JEL Q01
УДК 355

Current Trends of the Development of the Military Sphere

Anastasiia Sarana, student

Scientific supervisor: **Nataliia Amalian** — Ph.D. in Economics,
Associate Professor
Ukrainian-American Concordia University

Introduction

In today's world, military training, equipment and bases play an important role in ensuring national security and a country's ability to defend its territorial integrity. Taking into account the fact that wars have become quite frequent in the modern world and they cause great economic and environmental losses, preparing for them and supporting military forces in peacetime is an integral part of the strategic planning of countries; this is especially relevant in the context of Russian-Ukrainian war that combines the trends of traditional artillery and unmanned forces. In new conditions, international military organizations and various states are constant-

ly looking for ways to modernize their armed forces, but the question arises of reducing the impact on the environment, ensuring economic efficiency and observing ethical standards in their activities.

Research Results

Military training is the process of preparing military forces for a possible conflict or martial law. In peacetime, this training focuses on training soldiers in combat skills, tactics, strategy, and equipment.

First of all, an important component of military training is learning the basics of military science. This includes such aspects as military

strategy, tactics, logistics, communications, etc. Military personnel must be familiar with these aspects in order to effectively perform their duties when required.

The second component is combat training. This may include military exercises, combat simulations, shooting exercises, tactical training, etc. These trainings help maintain and improve the skills of the military, ensuring they are ready for a potential conflict.

The third component is support for the physical readiness of the military. Physical strength and endurance are important aspects, especially in active combat situations. Therefore, regular physical training, medical examinations and a healthy lifestyle are an integral part of military training in peacetime. A spectacular example of the successful implementation of these principles is the structural troops of NATO, which constantly conduct training. And in Ukraine, during the war, young and motivated brigades and battalions "Azov", "3rd OShBr", special unit "Kraken" and others were created, which are now successfully performing combat tasks.

An important aspect in the military sphere is the preservation of natural resources and minimizing the impact on the environment, because everyone claims that the third world war will be the last for our civilization. To achieve the goal of preserving nature and civilization as a whole, military organizations are implementing new technologies and strategies aimed at reducing the use of nuclear weapons, limiting emissions of harmful substances, and protecting biodiversity. After all, war destroys all living things around. A vivid example is the Russian-Ukrainian war, where the Russians occupy and destroy cities, burn fields, forests, and the explosion of the Kakhovskaya HPP completely changed the biodiversity of southern Ukraine.

Another important development in the military sphere is the provision of military economic efficiency in the construction of military bases. Only eight countries in the world have permanent military bases abroad. The largest number of them has the USA — 587 objects. Therefore, military organizations are looking for ways to rationally use resources, equipment and optimize costs in order to ensure financial stability and effective use of public funds. The equipment of the military forces includes a wide range of weapons, equipment, means of

communication and other material resources used to perform military tasks. In peacetime, the equipment has a number of functions and tasks.

The issue of integration and development of unmanned systems is especially relevant. Quite popular air and sea drones allow to reduce the risks to the lives of military personnel. For example, in combat operations in the east of Ukraine, Ukrainian drones can monitor and collect information at a long distance without the need to send a person to potentially dangerous areas under the control of the enemy. A second important advantage of drones is their ability to deliver pinpoint damage, which allows to destroy the enemy while reducing harm to innocent bystanders. For example, drones equipped with precision systems can hit targets with great precision, avoiding unnecessary destruction and civilian casualties. This contributes to the reduction of humanitarian crises and increases the level of confidence in military operations.

Accordingly, countries are investing in the development of high-precision and high-quality equipment for radio-electronic warfare against enemy systems, which is a cheap and maneuverable alternative to expensive high-precision rackets for combat use.

The use of the latest technologies in the field of logistics allows military organizations to reduce delivery time and the amount of costs for transporting materials and equipment. For example, the introduction of automated warehouse management systems and the use of remote control technologies allows to effectively monitor the movement of goods and ensure their timely delivery without unnecessary costs.

Many countries in 1993 signed the Convention on the prohibition of the development, production, stockpiling, use of chemical weapons and on their destruction. Adherence to these agreements is an important aspect of the ethical behavior of military organizations and contributes to the preservation of the life and health of the civilian population.

Conclusion

In modern conditions, the military sphere is undergoing significant transformations, therefore, the strategies of military training and man-

agement are actively adapting to new challenges, in particular through the modernization of equipment, the development of unmanned systems, the use of the latest technologies in logistics and the preservation of natural resources. Maintaining the physical readiness of the military, compliance with international agreements on the prohibition of chemical weapons, as well as the rational use of resources and economic efficiency are becoming key priorities of military organizations. The implementation of innovative approaches in the military sphere allows to ensure greater security for the civilian population, more effectively perform military tasks and contribute to the overall stable development of

society. However, it is important to continue research and innovation to continuously improve military strategies and technologies, which will ensure maximum readiness for possible challenges in the future.

References

1. Environmental damage from the war. URL: <https://mepr.gov.ua/topics/novyny/zbytky-dovkillyu-vid-vijny/>
2. The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction. URL: https://zakon.rada.gov.ua/laws/show/995_182#Text

УДК 339.922
JEL H46, M10

Aspects of European Integration

Sofia Stanzhytska, student

*Scientific supervisor: Liudmyla Serova — Ph.D. in Economics,
Associate Professor*

Ukrainian-American Concordia University

The process of European integration, which led to the creation of the European Union, is in fact, on the one hand, an objective result of the development of Western civilization, but on the other hand, it is a response to modern challenges, in particular globalization. For European countries, integration policies are the key to unification for political and economic reasons. The countries of Europe are characterized by centuries-old culture, traditions and history. This training covers not only the entire social sphere, national defense, external energy relations, justice and internal affairs, immigration policy.

Integration occurs at several levels: global, regional and state. European integration dates back several decades, during which the founders and builders of a united Europe made continuous efforts to find the optimal path of development. In fact, integration is based on a long

history of development of ideological areas that were a prerequisite for the creation of the EU. The system that emerged over several years was born after centuries of ideological intellectual preparation and public debate about the possibility and necessity of uniting European countries for the purposes of security and further development.

References

1. The historical development of European integration. [2018]. European Parliament. [https://www.europarl.europa.eu/RegData/etudes/PERI/2018/618969/IPOL_PERI\(2018\)618969_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/PERI/2018/618969/IPOL_PERI(2018)618969_EN.pdf)
2. WHAT IS EUROPEAN INTEGRATION REALLY ABOUT? A POLITICAL GUIDE FOR ECONOMISTS. Enrico Spolaore. [2013] https://www.nber.org/system/files/working_papers/w19122/w19122.pdf

Finding Policies and Trends That Can Further Ukraine's European Integration

Andrii Zbrodskyi, student
Ukrainian-American Concordia University

The last years have proven to be a pivotal point in Ukraine's history, marking its aspirations for closer economic, political and cultural ties with the European Union (EU) and the broader international community clear. This paper delves into the complex implications of Ukraine's Euro integration efforts and on identifying policies that can help the expansion of international cooperation using successful example of other countries that has successfully joined the EU.

As Ukraine navigates its Euro integration path, this paper explores the implications of these efforts, encompassing various dimensions of governance, trade, diplomacy, and societal change. By examining Ukraine's ever-changing relationship with the EU and drawing parallels with the experiences of neighboring countries that successfully integrated, such as Poland, Hungary, and Romania, the paper seeks to provide a comprehensive analysis of the challenges inherent in the Euro integration process and provide solutions that has been already tested by successfully integrated EU countries.

Understanding implications of Ukraine's Euro integration is of utmost importance in finding and implementing useful strategies. This paper's insights hold relevance for policymakers, scholars, and practitioners, offering valuable perspectives on fostering international cooperation in industrial spheres, enhancing stability of the re-

gion, and advancing shared interests of Europe and Ukraine. Moreover, given Ukraine's strategic position at the crossroads of East and West, and Ukraine's close proximity to Russia its Euro integration journey carries implications not only for the country itself but also for broader geopolitical dynamics in the region.

To achieve its objectives, the paper adopts approach of combining qualitative and quantitative analysis with comparative assessments of Euro integration journey of Ukraine's regional counterparts. Drawing on a diverse array of sources, policy documents, and scholarly literature, the paper examines key determinants of Euro integration, including economic reforms, institutional dynamics, societal transformations, and geopolitical considerations. By synthesizing these insights, the paper offers a comprehensive view of the factors that can help in shaping Ukraine's integration path and identifies strategic imperatives for fostering sustainable cooperation with the EU and beyond.

The paper's findings and recommendations are poised to offer practical utility and provide actionable guidance for policymakers, civil society actors, and international partners seeking to support Ukraine's transformative agenda. Ultimately this paper serves as a catalyst for informed decision-making and constructive engagement aimed at advancing Ukraine's Euro integration efforts.



Наукове видання

**Міжнародна науково-практична конференція
«Роль євроатлантичної інтеграції, високих технологій та освіти
в обороні та безпеці України»**

**в рамках Міжнародного форуму з питань оборони,
безпеки, нових технологій та освіти**

Матеріали Міжнародної конференції
(Київ, 07 березня 2024 року)

**International Scientific and Practical Conference
“The role of Euro-Atlantic Integration, High Technologies and Education
in the Defence and Security of Ukraine”**

**within the framework of the International Forum
on Defence, Security, New Technologies and Education**

Proceedings of the International Conference
(Kyiv, March 07, 2024)

*Відповідальність за достовірність фактів, цитат, власних імен та інших
даних несуть автори статей. Думки, положення і висновки, висловлені
авторами, не обов'язково відображають позицію редакції.
Матеріали надруковано в авторській редакції.*

Редактор: *Сергій Вакарін*
Комп'ютерна верстка: *Парфенюк О. С.*

Формат 60×84/8. Гарнітура *Segoe UI*.
Ум. друк. арк. 9,57.

ПП “Нова Книга”,
21029, м. Вінниця, вул. М. Ващука, 20.
Свідоцтво про внесення суб'єкта видавничої справи
до Державного реєстру видавців, виготівників
і розповсюджувачів видавничої продукції
ДК № 2646 від 11.10.2006 р.
Тел.: (067) 656-26-50
E-mail: novaknyha@gmail.com
www.nk.in.ua
www.nkland.org.ua