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Competency-based approach to building human resources for public administration in the security and defence sector

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Abstract. The article examined the competency-based approach to developing human resources in the security and defence sector in the context of global challenges and threats. The aim of the study was to outline a competency-based model for public administration in the defence and security sector, capable of adapting to an unpredictable, dynamic, and complex security environment. Methodologically, the research relied on a qualitative descriptive approach using content analysis of academic and practical sources from 2000-2025, which enabled the systematisation of key categories and the identification of leading trends in the selection, training, and development of personnel. It was substantiated that human resource management in the defence sphere went beyond a purely administrative function, becoming a key factor in ensuring national security, operational efficiency, and strategic development. The publication highlighted the role of the competency-based approach in personnel recruitment, training, and development within the public administration system of the defence sector. It identified the uniqueness of competencies required in the defence sector, in particular the need to combine technical, managerial, and soft skills, as well as the importance of a co-creation paradigm in talent management. The study emphasised the significance of strategic workforce planning, bridging gaps between existing and required competencies, and introducing innovative approaches to personnel policy. It analysed international experience from the USA, EU countries, and Australia in building competency frameworks, recruitment mechanisms, training, and

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retention systems in the field of national security. The practical value of the study lay in formulating recommendations for improving HRM processes in Ukraine's security and defence sector, taking into account international standards and national specifics, thereby enhancing the flexibility, resilience, and effectiveness of personnel structures

Keywords: human capital; national security; personnel management; competencies; skills; risks

Introduction

In light of the continuous transformations, inherent complexity, and pronounced dynamism characterising the contemporary landscape of national security and defence, there is a growing imperative to critically examine the discourse and strategic approaches to human resource management within organisations operating in these sectors. Strengthening the role of human resources in the defence sector requires a coordinated and systemic approach to the territorial governance of defence zones, the strategic allocation of national resources, and the institutional empowerment of defence infrastructures. The capacity of human capital to design, implement, and manage both human and material assets is a pivotal dimension of effective public administration in the field of national defence (Kurnia *et al.*, 2023).

The management and reorganisation of organisational systems and strategies in response to rapidly changing strategic environments involve collecting and utilising information so that it can be transformed into opportunities to improve performance through competitive activities and adaptive responses to environmental shifts. H. Liwang (2022) put emphasis on the role of co-creation in filling the gap between policy-makers and technology development. The author claimed that there is a gap between policymakers and technological advancement. This mismatch creates dangers for nontechnical system aspects and poor interactions between technical and social components. In this vein, the issue of competencies and HRM in security and defence sector acquires special attention. Ph. Sinaga et al. (2023), within Indonesian context, claimed that human resources are critical in the implementation of national security efforts since they serve as planners, implementers, developers, and resource managers. To be ready for any risks that may come up, it is crucial to build human resources' resilience and well-being. K. Kioskli et al. (2025) demonstrated a lack of research in the intersecting fields of risk management and HRM; the authors showed that managing risks associated with human resource management requires effective performance and compensation that is in line with corporate strategy and objectives. T. den Buijs & P. Olsthoorn (2024) examined the challenges military organisations face in terms of their HRM policies and the effect of the institutional environment and strategy on these policies. The authors believed that in order to keep up with new HR efforts in government and military organisations, the government needs modify its legislation on HRM systems.

Some scholars (Baporikar, 2021; Gillberg *et al.*, 2025) pay special attention to retention in the defence sector, claiming it to be critical, given the high stakes involved in maintaining operational readiness and expertise. According to the author, HRM practices in the military industry must

be flexible enough to adjust to quickly shifting conditions brought on by threats, geopolitical upheavals, or technical breakthroughs. Effective HRM in such a dynamic area is characterized by the capacity to change course and adapt.

N. Poliova et al. (2024) wrote that, given global changes, the development of human potential, and chances for personal development, managing human resources may be the most significant task facing the security industry in the years to come. Responsibilities in the national security sector range from operating highly advanced and lethal missile systems to commanding large naval assets and ensuring the safety of public spaces in urban centres. This diversity underscores the breadth of competencies required across military and civilian security domains. One of the biggest challenges of the twenty-first century will be recruiting, educating, inspiring, and rewarding the workforce. Therefore, an integrated human resource development policy is urgently needed in order to improve talent utilisation through incentive and enable the usage of lateral skills across the three domains of defence, paramilitary, police, and private security.

Naturally, HRM in the defence and national security sector is based on a competency approach and is not separate from the science of HRM in general. The term "competency" has evolved over time and been linked to other concepts in the general management literature, such as leadership competency, communication competency (Materac & Knecht, 2020), cross-cultural competency (Kubínyi, 2021), emotional and interpersonal competency (McDermott et al., 2020), and emotional, social, and cognitive intelligence competencies. Over time, this set of ideas has been reframed in management studies, where competency has been increasingly important, particularly in relation to social skills, emotional intelligence, and performance metrics in many contexts, as explained by M. Salman et al. (2020). As a result, competency is understood as a collection of traits based on an individual's personality and intelligence that are shown through knowledge, attitudes, and abilities that support excellent performance. Competencies are also resources that people might mobilise to relate to certain situations that are limited by their roles and the organisational environment. Nonetheless, the intricate defence environment highlights the significance of a thorough and coordinated effort in terms of competency development and suggests a particular, distinct matrix of competencies that ought to be used in the hiring procedures. At the same time, the complex defence environment highlights the need for coordinated efforts in competency development and calls for a specialised competency matrix to be applied in personnel selection processes within the security and defence sector. The study aimed to outline the model of competency-based approach for security and defence sector, within today's security environment, which is very unpredictable, dynamic and complex.

Materials and Methods

The method used in this study was a descriptive qualitative approach employing an iterative research design. The main tool for practical implementation was content analysis, preceded by inductive category development based on the grounded theory principles. This approach involved identifying key thematic categories through iterative examination of preliminary sources, which were then used to guide targeted searches in scientific databases such as Google Scholar, JSTOR, ScienceDirect, and Wiley. The empirical basis for the authors' assessments consists of the generalised results of secondary research. The inclusion criteria covered the years 2000-2025. The selected search categories included: "defence sector staffing", "HRM in security and defence", "competencies in security and defence", "organisational behaviour in security and defence", and "national security and defence challenges". Content analysis was performed manually by thematically coding materials using deductive categories. The study did not use quantitative coding software, but analytical frameworks were formed inductively to highlight recurring themes in HRM and competency modelling.

The theoretical foundation of the study integrated several frameworks relevant to public sector management. The methodological basis of the research was the theory of professional managers in the public sphere, which was developed by M. Weber, as well as the theory of political and public administration, formed by the complex scientific discipline "general theory of public service". The provisions of these theories became a basis for researching competencies in security and defence agencies within organisational behaviour patterns. The structural-functional approach is also applied, for analysis and synthesis of the elements within competency-based approach to building human resources. The choice of Weber's bureaucracy theory was determined by the specifics of defence and security sector organisations, with their predominantly bureaucratic organisational structures and HRM processes. However, it is the environment of Bureaucracy 2.0 - a new layer of regulations, actions, and processes that were previously under the complete discretion of the professional but are now being handed to management or the process owners. This shift in the location and ownership of professional information is a novel bureaucratic feature that is regarded as a component of bureaucracy 2.0. The analysis is made namely within the plane of this concept. The today' general theory of public service implies that the extent to which public service innovations contribute to the realisation of the publicness of public service provision can often be hard to determine in practice. But this gap was filled by drawing on practice theory and practice-theory-informed service management research in doing so, public services are conceptualised in terms of public value co-creation practices.

Results and Discussion

Staffing in defence and security domain: Concepts and vision

Staffing is vital in the defence sector due to the special requirements of national security. Maintaining a competent and capable workforce is critical for innovation, operational readiness, and timely reaction to changing threats. A strong staffing plan, including recruitment, training, and retention, is critical to the defence industry's success and the nation's security. A robust staffing strategy is more than just a human resources function in the defence industry; it is essential for national security, operational success, and technical innovation. Defence organisations may guarantee they have the staff needed to handle 21st-century problems by emphasising recruitment, training, and retention. The crucial importance of staffing in defence sector is determined, in particular, by the nature of defence management cycle (Fig. 1).



Figure 1. Defence management cycle Source: K. Akman (2020)

Staffing is integral element of the cycle, and its effectiveness, naturally, contributes to overall performance within the cycle. Accordingly, the competency approach to employment in the defence and security sectors becomes particular significance. Like other military or management leaders, defence managers must be able to think strategically, manage strategic problems, grasp complexity, envision the future, lead change, reach consensus, negotiate, provide the best military advice, and work well in multinational, interagency, and joint settings. The idea that defence management is essentially one form of applied strategic leadership may be supported by these factors. Context, not function, is the primary distinction between defence managers and principles on flag officer staffs. One might also add that defence managers will constantly need to use certain analytical techniques to comprehend the contextual reality because of the situations they are facing and handling.

Choosing the best candidates for a large-scale project is similar to recruitment in the defence industry. It is a tough process intended to find people who possess the character and resilience required for demanding circumstances in addition to the necessary talents. The military's hiring procedure, which frequently includes thorough tests and psychological exams, guarantees that only the most competent and flexible people are enlisted. According to T. den Buijs & P. Olsthoorn (2024), this translates into the need of a careful and sophisticated hiring procedure for civilian companies. Assessing technical proficiency is only one aspect of effective hiring; other factors to consider include long-term potential and alignment with company values. Businesses can develop a workforce that is not just competent but also resilient and in line with company objectives by taking a more comprehensive approach to hiring.

Training and skills development: Critical capabilities

Training in the military industry is a never-ending process meant to refine abilities and establish discipline. In addition to improving technical proficiency, military training programs aim to develop psychological toughness and leadership skills. The demanding nature of military training emphasises how crucial it is to prepare people for leadership responsibilities in the future as well as for unforeseen obstacles. Corporate education programs should put special emphasis on thorough training. In addition to updating technical skills, organisations should invest in opportunities for continuous learning to foster leadership and problem-solving skills. Instead of being a one-time event, training should be seen as a continuous process that is essential to both professional and personal development.

Furthermore, considering the high stakes associated with preserving operational readiness and expertise, retention in the defence industry is crucial. The military uses a variety of tactics, including as opportunities for career advancement, specialised tasks, and a strong feeling of purpose

and belonging, to keep its members motivated and dedicated. The retention principles apply equally to civilian groups. A diversified strategy that incorporates career growth, acknowledgment, and cultivating a favourable corporate culture is needed to retain top staff. Maintaining a motivated and competent staff requires establishing an atmosphere where workers feel appreciated and have clear career paths.

The RAND report highlighted critical defensive capabilities in the public sector and offers suggestions for maintaining them. This study aimed to identify skills gaps, establish Key Skills and Competencies (KSC) for defence in the governmental domain, and offer suggestions for skill maintenance. According to C. Bond *et al.* (2021), it consists of four primary parts: 1) creating a taxonomy of government-required talents for defence procurement and determining essential skills; 2) charting the supply and demand for these fundamental talents at the moment and the effects of any future changes; 3) creating a summary of current efforts to increase the availability of essential skills; 4) formulating evidence-based suggestions on how to maintain KSC for defence in the governmental sphere going forward.

The study team has created a taxonomy of skills and competencies, specifically for the governmental domain's defence requirements in relation to defence procurement. Three decreasing layers make up the structure of the taxonomy: 1) functional competency group: the broad professional field or overall function carried out by employees; 2) the technical, managerial, and engineering professions that comprise each functional competency group; 3) specialisation: the level of expertise in the defence industry as determined by a panel of experts. The taxonomy presumes the existence of multiple functional competence groups that are not specifically related to defence but that facilitate and assist defence acquisition overall. Major functional competence groups are indicated in the Figure 2 below and multiple functional competence groups are shown in Figure 3.

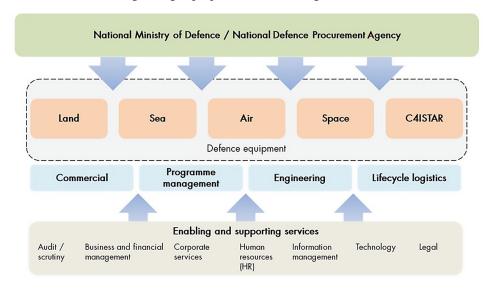


Figure 2. Overview of enabling, supporting and key functional groups in defence procurement Source: M. Brooks (2023)

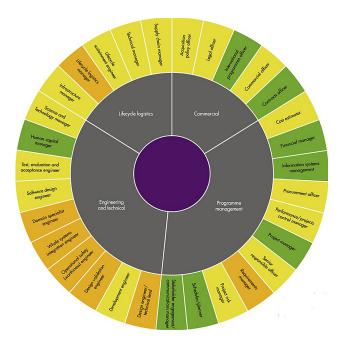


Figure 3. Key to the assessment of the uniqueness of skills and competences in defence sector

Source: M. Brooks (2023)

Thus, the defence sector necessitates a distinct set of skills and capabilities, owing to its distinctive operational environment, technological demands, and the requirement for national security. While some talents are transferable from other businesses, the defence sector frequently demands deeper experience, new applications, and a greater level of specialisation to meet its stringent criteria. Defence projects take place within a distinct framework of national security, international relations, and geopolitical considerations. This setting shapes the skills needed for strategic thinking, policy knowledge, and international collaboration. While some abilities, such as project management, leadership, and problem-solving, are useful across industries, they are applied and tailored to the special needs of the military industry. For example, project management in military may involve larger, more complicated, and frequently transnational projects that necessitate particular abilities in stakeholder management and regulatory framework navigation.

Bureaucracy 2.0 unites these skills and competencies in the HRM of new type within tough organisational hierarchy of security and defence organisations. These organisations, naturally, cannot adopt flat structures, Agile team work or, all the more so, holacracy. But they can provide shaping of such a set of staff competencies which is typical for holacracy – integrative knowledge, interchangeability of employees, "Lego" teams, proactive vision, and the like. While the professional was able to escape the machine or "iron cage" aspects of bureaucracy 1.0, now one can see that with bureaucracy 2.0 he or she is now embedded within these control systems. Holacracy represents the finest landscape for value co-creation in talent management.

It is a strategic approach in which employees, managers, and the company work together to create and implement talent management processes, ultimately increasing value for all stakeholders (Lin & Royston, 2022). This collaborative strategy shifts away from traditional top-down HR procedures and toward a more inclusive and participatory model, acknowledging that employee participation and shared ownership result in more successful and impactful personnel management.

Technological advances and new content of competence

The word "competence" is applicable in a variety of different research domains with a wide range of disciplinary origins, it should be noted. Because competence is sometimes mistaken with "skill", defining it presents a challenge. Furthermore, competency is a relational term that is recognised as a relationship between people's abilities or capacities and their successful completion of tasks that have been allocated to them (Ma *et al.*, 2023). Still up for debate, though, is the issue of "whether competence should be measured as separate or combined with skills, knowledge, and attitudes". Classifying competence into specific components has the benefit of being helpful for a particular work type, even though competence in general has the clear advantage of being applicable to various occupational situations.

According to L. De Rezende et al. (2021), managing complex defence projects requires key competencies. The priority and focus placed on competences are influenced by hierarchy, discipline, power, authority, and technology, according to the study. Furthermore, the results show that when one progresses from simple to complicated project management environments in the defence sector, 27 abilities are required. The defence industry is competing more and more with huge tech businesses for the best talent as it becomes more involved in creating new technologies and utilising big data, advanced analytics, artificial intelligence, quantum technologies, and other technologies. According to experts, the need for new skill sets will unavoidably grow as technology advances, and some of these abilities may not be readily available in the market at the moment (Parker & Momeny, 2021). Given the nature of the aerospace and defence industries, geopolitical factors also influence hiring and selection. Large corporations find it "impossible" to hire people from nations with highly skilled labour but lacking political and strategic partnerships (Pasichnyi et al., 2024). To address the issue, firms are investing in internal talent development, junior professional training, ongoing mentoring programs, and hands-on experience, to mention a few solutions. In particular, in EU countries, several recruitment tactics are being investigated, such as luring people from other EU countries willing to relocate and developing local teams in other regions with the requisite capabilities to support international initiatives.

Even the United States has hindered public officials by neglecting to provide opportunities for hands-on experience with new and developing technology. This inhibits the government's capacity to react to and capitalise on new technology while also making it more difficult to lure top technical talent into government. The first issue is a lack of opportunities for current national security officials to get additional expertise in emerging technology. Rotations and educational opportunities away from headquarters, while providing valuable experiences for well-rounded officers, frequently delay promotions. As a result, the incentive system discourages present government officials from taking time away to learn. However, in the USA, there are measures that can alter this dynamic (Liggans *et al.*, 2019; den Buijs & Olsthoorn, 2024):

1. Establishing information exchange between the United States government and the private sector in critical industries. It refers to formal externships, rotational opportunities, and other short-term learning experiences that enable civil servants to work directly in the private sector and gain hands-on experience with cutting-edge technologies like blockchain, artificial intelligence, and quantum computing. The national security community's entrepreneurial and innovation arms, such as In-Q-Tel, DIU, and AFWERX, can help with this effort by selecting promising US companies to embed government personnel. These opportunities may also help address civil service attrition by allowing more fluidity between the public and private sectors, rather than forcing people to "go private" if they want to gain outside experience.

2. Establishing advisory councils and encouraging working-level employees to meet with them on a regular basis to address policy concerns. It comprises giving agencies and departments the authority to organise advisory councils made up of industry stakeholders and empowering both senior officials and career staff to interact with these councils in order to inform and shape policy on emerging technology.

3. Increased interconnectedness between agencies and departments focused on defence and national security (the intelligence community and Department of Defence) and economy and trade (the Departments of Commerce, Treasury, and so on). Although the Office of the National Cyber Director advises the President on US cybersecurity policy and strategy, knowledge on a larger range of emerging technology concerns is spread among a number of government departments and agencies in many fields. Establishing informal and formal channels, such as working groups or a single umbrella organisation, would promote greater cross-pollination among interagency parties. The last thing the government needs is more bureaucracy, but other countries, such as Israel, Singapore, Ukraine, and the United Arab Emirates, have established dedicated bodies to coordinate policy on certain emergent technological trends, an approach that has paid off in a variety of ways.

According to K. Kuzminski et al. (2023), U.S. federal departments and agencies can enhance their talent

acquisition strategies by upskilling current personnel, forecasting future workforce needs with the help of agency-wide dashboards, improving career path management to nurture future leaders, and promoting awareness of federal service opportunities. The federal government must seek out, hire, and retain educated, experienced people with national security-specific skills, such as proficiency in foreign languages, local knowledge, legal expertise, or a background in engineering, computer science, or data analytics, in order to meet the challenge of safeguarding the nation and its national interests. Additionally, it requires leaders, managers, and communicators. However, obstacles including ambiguous hiring procedures, drawnout clearance procedures, and restricted access to professional networks make it difficult for people to find job with the federal government. Because of this, the government is unable to fill important national security positions, and those who have the requisite skill sets and a strong desire to serve are excluded from federal employment. Departments and agencies must comprehend the incentives of the next generation and the obstacles they encounter while pursuing government employment in national security in order to draw in, hire, and keep people with the necessary skills and interests. In order to determine the reasons, priorities, and skill sets of people interested in government service, as well as the difficulties, obstacles, and opportunities associated with pursuing this career path, CNAS researchers arranged focus groups and administered a survey as part of this project. It was determined that better access to talent outside of Washington, D.C., extension of initial paths into government service, and enhancements to the federal recruiting process and clearance timeframe could guarantee that the federal government has the workforce it needs to secure the nation. Congress and the executive branch must take action to achieve these changes.

Strategic planning in security and defence HR

Strategic workforce planning, as an important component of human capital management, assists businesses in having adequate workers with the appropriate skills and competences to fulfill strategic goals in defence planning. However, when competency mismatch comes into play, it can make the process difficult for many defence organisations. As the global strategic environment becomes more complicated, ambiguous, and uncertain, talent management is widely acknowledged as vital. Despite the growing strategic importance of people management, transformative reform has met with strong opposition from both internal and external parties. Furthermore, competence mismatches demand extra reinforcing change mechanisms (Liggans et al., 2019). Each defence domain has its own set of abilities, and RAND Corporation produced an outstanding study that highlights the ranking of relevant talents for each defence domain (Bond et al., 2021). Table 1 shows an example rating of management for air defence.

Table 1. Key skills and competences for air defence – management				
Functional competence group	Occupation	Skills coverage	Specialisation to defence	
Program management	Project manager	Performance management, risk management, contract management, cost management, requirements management, technical management, supply chain management	Low	
	Planning and production support engineer	Strategic planning, work flow management	Low	
	Cost estimator	Cost modelling, learner rates, three point estimating	Low	
	Procurement officer	Market research, financial management, market assessment	Medium	

Source: C. Bond et al. (2021)

Thus, critical skills and competencies for air defence management include strong leadership, situational awareness, communication, technical understanding in detection and weapon systems, and the ability to coordinate complicated operations. Adaptability, decision-making under pressure, and interoperability with joint forces are all important. To ensure mission success, air defence managers must be able to lead and encourage teams while under extreme pressure. This includes allocating duties, giving clear instructions, and encouraging collaboration. Maintaining a full grasp of the battlespace, including the locations and statuses of friendly and enemy units, is critical. This necessitates the capacity to rapidly evaluate and comprehend data from a variety of sources. Effective communication is vital for coordinating actions among many units, military branches, and potentially allied forces. Clear and unambiguous communication is critical to ensuring that everyone knows the issue and their part.

An example of a country where the issue of the effectiveness of the application of the competency-based approach in personnel management in the security and defence sector is relevant is Ukraine. As Ukrainian researchers S. Popov et al. (2023) pointed out, in the context of growing security challenges and the need to integrate with international standards, especially taking into account cooperation with NATO, it is a particularly important task for Ukraine to identify the key areas and challenges that the country faces in developing an effective personnel policy in this area. Researchers emphasised the need to improve the personnel management system so that it meets the requirements of the modern military environment. In their opinion, to improve the personnel management system, it is necessary to take the following measures: develop and implement a new concept of personnel management that would meet the requirements of the contemporary military environment, that is, determine the main goals and objectives of personnel management, as well as mechanisms for achieving them; introduce modern technologies and methods into the personnel management system, in particular, make the personnel management system more effective and productive. Also K. Kussainov et al. (2023) emphasised the expediency of ensuring transparency in personnel decisions in order to avoid corruption and abuse, for which the following measures should be taken: introduce a system of open competitions for vacant positions, which will ensure equal access to vacant positions for all interested parties; publish information on the requirements for candidates for vacant positions, which will allow candidates to understand what requirements are made of them; create a system of monitoring and control over the implementation of personnel decisions, which will enable identifying possible corruption schemes and preventing them.

While all these steps suggested by Ukrainian scientists are in fact expedient, they are of declarative nature, which is characteristic also for the majority of studies and developed concepts and strategies. This situation necessitates thorough investigation, adaptation, and adoption of experience and best practices of the USA and EU, some of which were described above. Moreover, it seems expedient to pay special attention to the Australian experience. In the country, it is considered that the Australian Defence Force (ADF) needs new approaches to recruitment and retention (Kustiawan & Ghazalie, 2025). It should look at sharing people with industry and consider reducing induction training, while also getting people into limited service before their long security clearances are complete. As things are, slow processes, an inability to retain experienced personnel, and difficulty attracting essential technical skill sets are impeding the ADF's capacity to prepare for a more serious strategic threat scenario. Industry analysts believe that previous conflicts abroad can teach a lot about rapidly increasing military personnel and harnessing specialised industry skill sets for adaptive campaigns. Critical technologies, including as cyber, artificial intelligence, and autonomous systems, have proven transformative in the modern adaptive warfare, as demonstrated by the Russo-Ukraine conflict. Applying those lessons to new developing technologies like quantum computing, robots, and space-domain, geographic long-range strike and influence campaigns will be critical for ADF transformation and deterrence. A shift in thinking is required to attract and keep those skill sets in the ADF without competing with the organisations where they were developed. Personnel working on ADF projects not only contribute to their businesses' continued defence connections, but they also carry those experiences and learning back into their main organisational job. This impact can be amplified by ADF possibilities for courses, upskilling, and cross-discipline collaboration across technologies. The intangible benefits of opportunities to use vital skill sets in new domains and upskill in areas outside the scope of their civilian organisations will entice those individuals and garner the support of their

employers. Established entry paths for recruits between industry and the ADF can provide additional prospects for individuals who participate. For example, a cybersecurity company that provides prospective employees the opportunity to work in the private sector while simultaneously providing access to unique and exclusive ADF initiatives. Potential members can next investigate a type of national service in their skill area that is unlikely to fall into the traditional definition of a military career or require lengthy days in the field. Such creative interaction with industry can be made possible by utilising the ADF Total Workforce System. To guarantee that important skill sets are maintained wherever possible, whether through regular service patterns, short-notice calls for duty, irregular service, or fulltime service for limited periods, the current service category system (SERCAT) must be used for optimum flexibility.

Although the scope of the current article did not imply formulating detailed recommendations for building human resources for public administration in the security and defence sector based on a competency approach, still one can emphasise that there is an evident need for broader borrowing of talent management best practices in this field and, in particular, co-creation paradigm introduction, since the current staffing policy in defence and security sector of Ukraine is carried out either in methods of common-sense management and merits paradigm, or based on NATO standards of predominantly US patterns, without proper consideration of national specifics.

Conclusions

The defence and national security industries' HRM methods, which were developed in extremely demanding and high-stakes settings, provide valuable insights for civilian businesses. Businesses can improve organisational efficacy and resilience by taking a strict and comprehensive approach to hiring, training, retention, and morale. The tenets of military human resource management emphasise the value of strategic vision, flexibility, and a dedication to quality qualities that are essential for negotiating the modern corporate environment. At the same time, as the

conducted study demonstrates, even highly developed nations with strong defence paradigms, well-equipped and experienced armed forces, today face challenges in shaping effective staffing in security and defence sectors, due to reliance on old approaches of narrow specialisation, lack of soft and technical skills combination and constant renewing of knowledge. The roots of this, in turn, lie in linking of HRM and competence management to rigid bureaucratic structures of bureaucracy 1.0 type.

Analysis of approaches to competency in defence and security sector in different countries allowed claiming that a growing skills gap is a challenge facing the military industry, which is essential to both national security and international stability. The gap is especially evident within co-creation paradigm, since the lack of technological or social competence impede implementation of co-creation, which, at the same time, represents a foundation of high organisation performance, capability, agility, and resilience of security and defence bodies, their abilities to react quickly and function effectively in today ever-changing dynamic security landscape. A highly qualified, flexible workforce is becoming more and more important as geopolitical conditions change and technology breakthroughs quicken. Innovative approaches are needed to address this talent gap in order to draw in, nurture, and keep elite experts. Within co-creation organisational paradigm, key functional groups of tasks should be aligned with uniqueness of skills and competences in defence. The prospects of further research should include investigations in the domain of new KPIs for defence and security sector employees, with taking into account today' realities, roughly considered in this article.

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Conflict of Interest

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References

- [1] Akman, K. (2020). Defence management and Pestle analysis. *Ante Portas Security Studies*, 14(1), 93-102. doi: 10.33674/3201910.
- [2] Baporikar, N. (2021). Talent retention for succession planning in the defence forces. *International Journal of Applied Management Sciences and Engineering*, 8(2), 52-71. doi: 10.4018/IJAMSE.2021070104.
- [3] Bond, C., Pint, E., Seabrook, S., & Panis, Ch. (2021). *Soldier preferences and retention effects of changes in Army reserve training requirements: An exploration of revealed and stated behavior*. Santa Monica: RAND.
- [4] Brooks, M. (2023). <u>Master the art of effective military communication</u>: <u>Unlock the secrets to seamless military communication</u> <u>and enhance your strategic edge</u>. Munich: Grin Verlag.
- [5] den Buijs, T., & Olsthoorn, P. (2024). Human resource management for military organizations: Challenges and trends. In A.M. Sookermany (Ed.), *Handbook of military sciences* (pp. 1-26). Cham: Springer. doi: 10.1007/978-3-030-02866-4 68-1.
- [6] De Rezende, L., Blackwell, P., Denical, J., & Guillaman, S. (2021). Main competencies to manage complex defence projects. *Project Leadership and Society*, 2, article number 100014. doi: 10.1016/j.plas.2021.100014.
- [7] Gillberg, G., Holmer, J., & Kadefors, R. (2025). Factors affecting recruitment and retention of specialist officers in the Swedish Armed Forces: A longitudinal cohort study. *Journal of Military Studies*, 1(1), 1-15. doi: 10.2478/jms-2025-0004.

- [8] Kioskli, K., Seralidou, E., & Polemi, N. (2025). A practical human-centric risk management (HRM) methodology. *Electronics*, 14, article number 486. doi: 10.3390/electronics14030486.
- [9] Kubínyi, L. (2021). Learning competencies and possibilities of their development in military professionals. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 69(2), 221-229. doi: 10.11118/actaun.2021.019.
- [10] Kurnia, R., Saputro, G., & Murtiana, S. (2023). Management of human resources in national defence depend on defence economics point of view. *International Journal on Social Science Economics and Art*, 13(1), 1-11. doi: 10.35335/josea.v13i1.201.
- [11] Kussainov, K., Goncharuk, N., Prokopenko, L., Pershko, L., Vyshnivska, B., & Akimov, O. (2023). Anti-corruption management mechanisms and the construction of a security landscape in the financial sector of the EU economic system against the background of challenges to European integration: Implications for artificial intelligence technologies. *Economic Affairs (New Delhi)*, 68(1), 509-521. doi: 10.46852/0424-2513.1.2023.20.
- [12] Kustiawan, B., & Ghazalie, G. (2025). The role of leadership in increasing effectiveness national defence human resource management. *Annals of Human Resource Management Research*, 5(1), 137-147. doi: 10.35912/ahrmr. v5i1.2865.
- [13] Kuzminski, K., Grogan, N., & Pouchet, C. (2023). *The future of civilians in national security*. Washington: Center for a New American Security.
- [14] Liggans, G., Attoh, P.A., Gong, T., Chase, T., Russell, M.B., & Clark, P.W. (2019). Military veterans in federal agencies: Organizational inclusion, human resource practices, and trust in leadership as predictors of organizational commitment. *Public Personnel Management*, 48(3), 413-437. doi: 10.1177/0091026018819025.
- [15] Lin, N., & Royston, R.P. (2022). <u>Officer's talent development: Communicator, social skills and insider knowledge</u>. In *Stand up presentation at 90th military operations research society symposium Jun 13-16*. Quantico: MORS.
- [16] Liwang, H. (2022). Defence development: The role of co-creation in filling the gap between policy-makers and technology development. *Technology in Society*, 68, article number 101913. doi: 10.1016/j.techsoc.2022.101913.
- [17] Ma, X., Yao, J., & Guo, Y. (2023). Exploration of military talent training modes based on data application ability. In *Proceedings of the 3rd international conference on Internet, education and information technology (IEIT 2023*). Dordrecht: Atlantis Press. doi: 10.2991/978-94-6463-230-9 129.
- [18] Materac, J., & Knecht, Z. (2020). Soldiers' competencies in the civilian labor market. *Research Papers of Wroclaw University of Economics and Business*, 64(2), 146-161. doi: 10.15611/pn.2020.2.12.
- [19] McDermott, V., Hinojosa Hernández, L., & May, A.R. (Eds.). (2020). <u>Supporting the military-affiliated learner:</u> <u>Communication approaches to military pedagogy and education</u>. Lanham: Lexington Books.
- [20] Parker, Ch., & Momeny, L. (2021). <u>Army training and talent management: Finding developmental leverage in the rediscovery of the instructional system specialist</u>. In *Interservice/industry training, simulation and education conference (I/ITSEC)*. Orlando: NTSA.
- [21] Pasichnyi, R., Bykova, A., Nekhai, V., Vychivskyi, P., Mosora, L., & Akimova, L. (2024). International migration of human resources in the conditions of geo-economic transformations as the main influence on the components of sustainable development of Ukraine in the context of national security. *Edelweiss Applied Science and Technology*, 8(6), 1354-1365. doi: 10.55214/25768484.v8i6.2252.
- [22] Poliova, N., Polova, L., Akimov, O., Stepanenko, S., Izmailov, Y., & Varenyk, V. (2024). Organizational and economic principles of financial monitoring of national business entities in the context of national security. *Edelweiss Applied Science and Technology*, 8(6), 1455-1466. doi: 10.55214/25768484.v8i6.2262.
- [23] Popov, S., Stoyanova-Koval, S., Socur, N., Rozmaznin, A., & Yefimenko, A. (2023). <u>Modern approaches and challenges in the management of defence sphere of Ukraine</u>. *Bulletin of National Academy of State Border Service of Ukraine*, 93(4), 66-75.
- [24] Salman, M., Ganie, S.A., & Saleem, I. (2020). The concept of competence: a thematic review and discussion. *European Journal of Training and Development*, 44(6/7), 717-742. doi: 10.1108/EJTD-10-2019-0171.
- [25] Sinaga, Ph., Almubaroq, H., & Sudarya, A. (2023). <u>Human resources management in the posture development of the Indonesian National Armed Forces for national defence</u>. *International Journal of Humanities Education and Social Sciences*, 3(1), 177-184.

Компетентнісний підхід у формуванні кадрового потенціалу для публічного управління в секторі безпеки і оборони

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Анотація. У статті розглянуто компетентнісний підхід до формування кадрового потенціалу в секторі безпеки й оборони в умовах сучасних глобальних викликів і загроз. Метою дослідження було окреслення моделі компетентнісного підходу для публічного управління в секторі оборони та безпеки, здатної адаптуватися до непередбачуваного, динамічного й складного безпекового середовища. Методично дослідження спиралося на якісний описовий підхід із використанням контент-аналізу наукових і практичних джерел за 2000-2025 рр., що дало змогу систематизувати ключові категорії та виявити провідні тенденції у відборі, підготовці та розвитку персоналу. Обґрунтовано, що управління людськими ресурсами в оборонній сфері виходить за межі суто адміністративної функції, перетворюючись на ключовий чинник забезпечення національної безпеки, операційної ефективності та стратегічного розвитку. У публікації висвітлено роль компетентнісного підходу у відборі, навчанні та розвитку персоналу в системі державного управління оборонним сектором. Визначено унікальність компетенцій для оборонного сектору, зокрема потребу поєднання технічних, управлінських і «м'яких» навичок, а також важливість ко-креаційної парадигми управління талантами. Підкреслено значення стратегічного планування персоналу, подолання розриву між наявними та потрібними компетенціями й впровадження інноваційних підходів до кадрової політики. Проаналізовано досвід США, країн ЄС та Австралії щодо побудови системи компетенцій, механізмів рекрутингу, навчання та утримання кадрів у сфері національної безпеки. Практична цінність роботи полягає у формуванні рекомендацій щодо удосконалення НRМ-процесів у секторі безпеки та оборони України з урахуванням міжнародних стандартів і національної специфіки, що сприятиме підвищенню гнучкості, стійкості та ефективності кадрових структур

Ключові слова: людський капітал; національна безпека; управління персоналом; компетенції; навички; ризики

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