

DEVELOPING COMPETENCES OF THE MILITARY LOGISTICIAN OF THE FUTURE

Tomasz JAŁOWIEC¹, Marzena WALASIK^{2*}

¹ War Studies University; tjalowiec5@wp.pl, ORCID: 0000-0002-6974-090X

² Łukasiewicz – Institute for Sustainable Technologies; marzena.walasik@itee.lukasiewicz.gov.pl,
ORCID: 0000-0002-0153-4464

* Correspondence author

Purpose: This paper aims to identify and evaluate factors determining the development of future competences of a military logistician. The problem is more precisely formulated as a question: what competences should the personnel responsible for the logistical support of the armed forces have and how should they be developed effectively?

Design/methodology/approach: A range of methods are employed, led by analysis and synthesis, literature research, abstract thinking, and inference. Diagnostic polling serves as the empirical method.

Findings: The obtained research results allowed for the identification of the five key competences necessary at present to realise logistical support of the army: decision-making and problem-solving; cooperation and communication in a team; ability to adapt; linguistic competences; modelling and optimisation of logistical processes.

Research limitations/implications: The future competences of the military logistician should be considered in three principal areas: cognitive, digital and technical, and social. In order to develop the future competences of military logisticians, a wide-ranging cooperation of military universities and educational centres with civil institutions. There is an urgent need to start work on the development of and continuous improvement to a model for developing military logisticians competences.

Practical implications: The results of the research make it possible to focus efforts in the process of preparing the logistics personnel of the armed forces on the competences of the future, which determine the effective implementation of the tasks of securing and supporting the logistics of troops.

Social implications: The results of the research are crucial for the military logistics community by delineating key competencies for military logisticians.

Originality/value: The review and analyses performed enrich the existing literature on the future competences of military logisticians, while the findings presented can serve as a starting point for further research.

Category of the paper: Research paper.

Keywords: competences, resources, logistics, the military, future.

1. Introduction

A normal discharge of military functions is determined by a variety of factors, with the competences of personnel charged with the particular areas playing a vital role. The necessary competences of soldiers and military personnel are acquiring a special significance in the present conditions where military units and institutions discharge their duties and must be developed properly. The military community is attaching a growing importance to this field, as it has a particular significance due to the highly dynamic development processes of the armed forces and changes in their social, economic, and political environments. Experience shows the development of required competences is a substantial challenge. It must be faced, however, as the effect will to a large extent shape the future of the armed forces. In line with the research assumptions, this discussion focuses on developing competences of the military logistician of the future. This is a particularly sensitive area, since approximately 30% of the entire headcount of the SZ RP is constituted by the logistics corps and their performance determines the realisation of tasks by the remaining fields of armed operations in all the conditions of state functioning, i.e., peace, crisis, and war.

This paper aims to identify and evaluate future competences of a military logistician. The problem is more precisely formulated as a question: what competences should the personnel responsible for the logistical support of the armed forces have and how should they be developed effectively? A range of methods are employed, led by analysis and synthesis, literature research, abstract thinking, and inference. Diagnostic polling serves as the empirical method. This approach adds an interdisciplinary dimension to this study, providing foundations for further, more extensive research into this highly topical issue.

2. The role and significance of logistical staff competences for the armed forces

Any tasks of the armed forces require an adequate logistical support, seen as all and any undertakings realised by the logistical potential of the state and all or part of its armed forces for the armed forces of another state or another section of the armed forces (Norma, 2016). The broad range of these tasks requires not only the necessary numbers of personnel charged with the particular undertakings, but is first of all determined by their proper knowledge, competences, and skills.

Much attention is devoted to competences in literature, yet a single, generally accepted view of their essence and possible classifications is not available yet. One definition, combining the key elements of the concept advanced by the pioneers of the competences theory,

D. McClelland, R. Boyatzis, L. Spencer, and R. Spencer, regards competences as expectations of workers' behaviour, skills, and other characteristics conducive to success at work. Another perspective, somehow opposed to the behavioural concept, points to the key position of task measurement by reviewing performance as its relationship to outlays, or effort invested into an action (Jurek, 2012, p. 11), which underlines the crucial role of work process efficiency. It should also be noted competences had for years been treated as the formal right of someone in a given position to make decisions and represent the interests of an organisation. The quality and effectiveness of job performance were taken for qualifications at the time, not competences, as they are now (Balcerzyk, Zapała, 2020, p. 66). The evolving approach to key competences in the European education system is illustrated in Table 1.

Table 1.

The evolving approach to key competences in the European education system

Competences as per the 'old' system	Competences as per the 'new system
Communication in the native language	Competences of information understanding and creation. Multi-language competences
Communication in foreign languages	
Mathematical and basic engineering science competences	Mathematical competences and competences in natural sciences, technology, and engineering,
IT competences	Digital competences
Skill of learning	Personal, social, and learning competences. Civic competences
Social and civic competences	
Initiative-taking and entrepreneurship	Entrepreneurial competences
Cultural awareness and expression	Cultural awareness and expression competences

Source: Rachwał, 2019, p. 25.

The above shift in the perception and development of competences is also quite true of the military community, where competences are addressed from a range of dimensions, with a special focus on the significance of the soldier's competences as a factor of intangible advantage in military operations. It is stressed the creation of intangible advantage in the field of competences consists in (Majewski, 2012, p. 98):

- the choice of qualified professional soldiers with close to required competences or with a development potential allowing to acquire new competences relatively fast;
- creating conditions for competence improvement;
- taking a full advantage of the commanding staff's competences at the time of operations.

When filling, creating and improving competence models for soldiers and military personnel, special attention is paid by the armed forces to the formal requirements of necessary qualifications and thus competences for the particular professional positions (Figure 1).

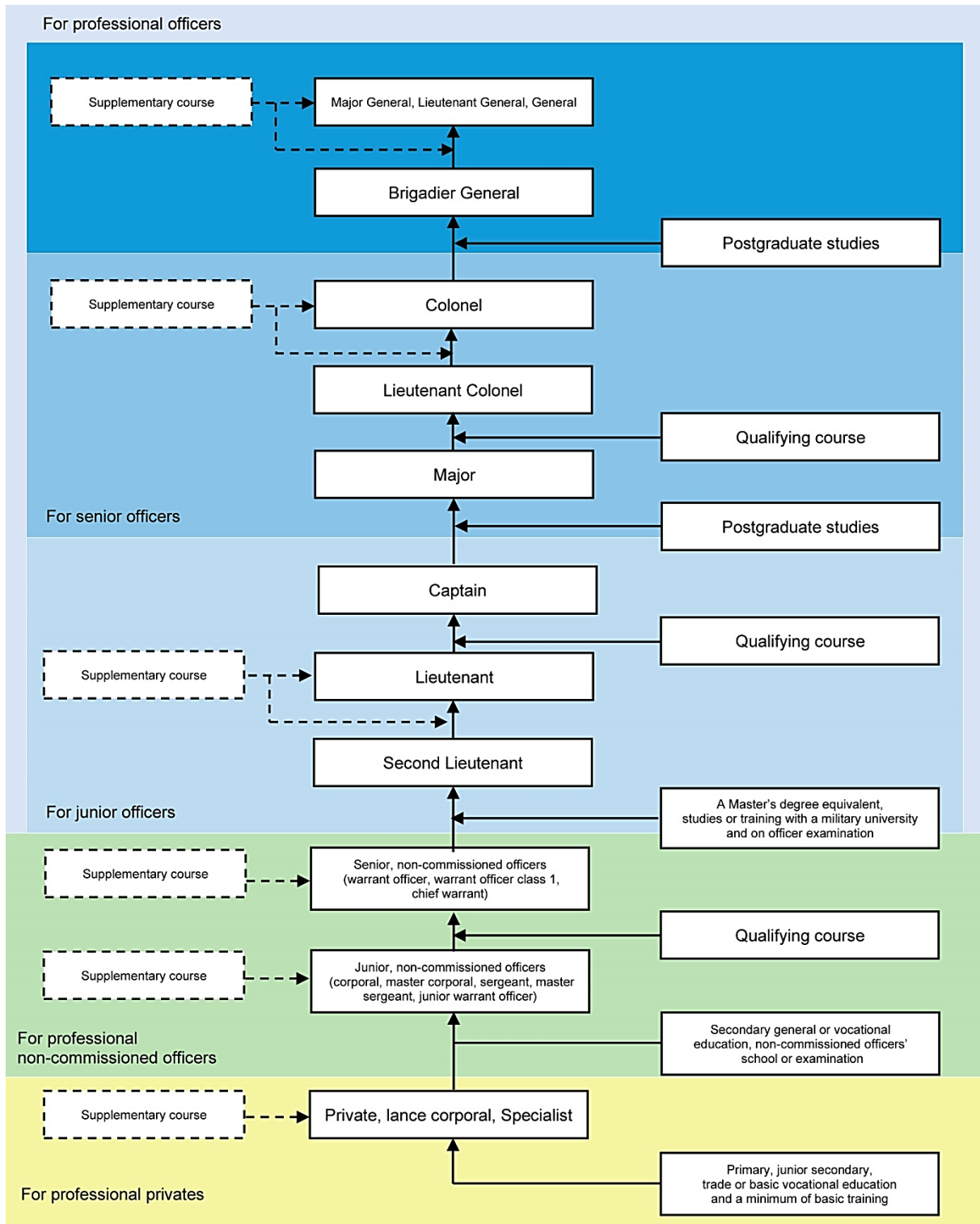


Figure 1. Qualifications required for professional soldiers to be assigned to particular positions.

Sources: Compiled on the basis of the National Defence Minister's Ruling on the Assignment of Soldiers to Professional Positions and Their Dismissal of 20 February 2023, the OJ of 2023, item 413, § 3.

As far as the problem under discussion is concerned, it needs to be noted the logistics corps accounts for more than 30% of the SZ RP's total headcount (Figure 2). Regarding the competences, meanwhile, the distribution of logistics positions across the officer, junior officer, and private corps is of paramount importance (Figure 3).

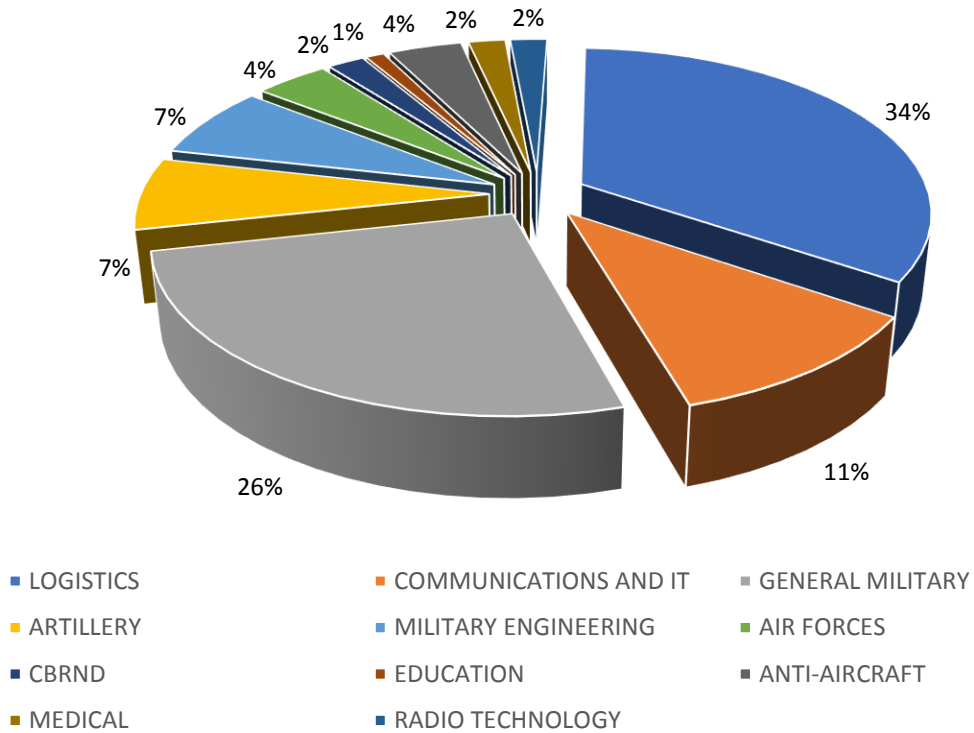


Figure 2. An illustrative headcount of the logistics corps compared to other corps in the PAF.
 Source: Based on MD HR Department’s materials.

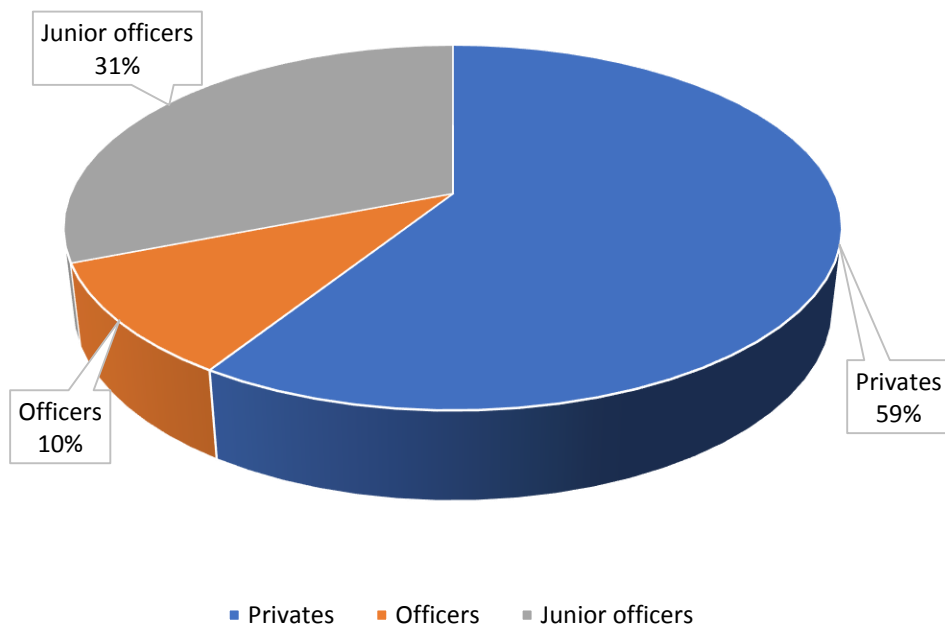


Figure 3. An estimated percentage distribution of particular logistics positions in the PAF.
 Source: Based on the materials of P-4 SZ RP Logistics Administration.

The space constraints don't allow for a comprehensive identification of the role and significance of the logistics staff's competences to the armed forces, however, it needs to be emphasised the increasingly wide gamut of tasks posed to military units and institutions in the time of peace, crises, and war could not be realised without an adequate logistical support. Given the evolution of the security environment, the dynamic changes of national and allied requirements, as well as the ongoing changes of organisational structures, weapons, and equipment of the armed forces, the development of military logistical competences is a key condition for assuring national security.

3. The identification of key future competences of a military logistics manager - methodological part

The awareness of changes taking place in the area of logistical support forces the military sector to redefine its approach to developing the competences of the military logistics personnel. Some ministerial regulations have inter alia been prepared to specify the rules of training, educating, and acquiring logistics human resources' competences and to define the path for their professional development. The following need to be pointed out in the field of logistics: the Model of Professional Soldiers' Service Path in the Logistics Corps (Model, 2020) and the National Minister's Decision 88/MON of 30 June 2020 on the Military Education Standard for officer candidates – minimum curricular requirements (Decyzja, 2020). The provisions of these documents formally lay out directions for the military education system and HR authorities so as to make sure PAF logistics managers, when taking their posts, have the required competences to discharge a broad range of duties during their military service.

In order to solve the problem set in this paper, beside the theoretical methods, an empirical query is undertaken into the development of competences to be held by the personnel charged with the logistical support of the armed forces. The method of diagnostic polling using the technique of a survey into a representative sample of 159 military logisticians from a variety of functional areas in the military logistics system serves this purpose. The competences included in the model set of military logistics manager's competences, developed by the War Studies University (Figure 4), are the starting point. The study identifies a limited set and prioritises the key competences in the light of the prevailing and forecast environment of military logistical support duties. The survey questionnaire consists of three questions related to the subject matter under examination.

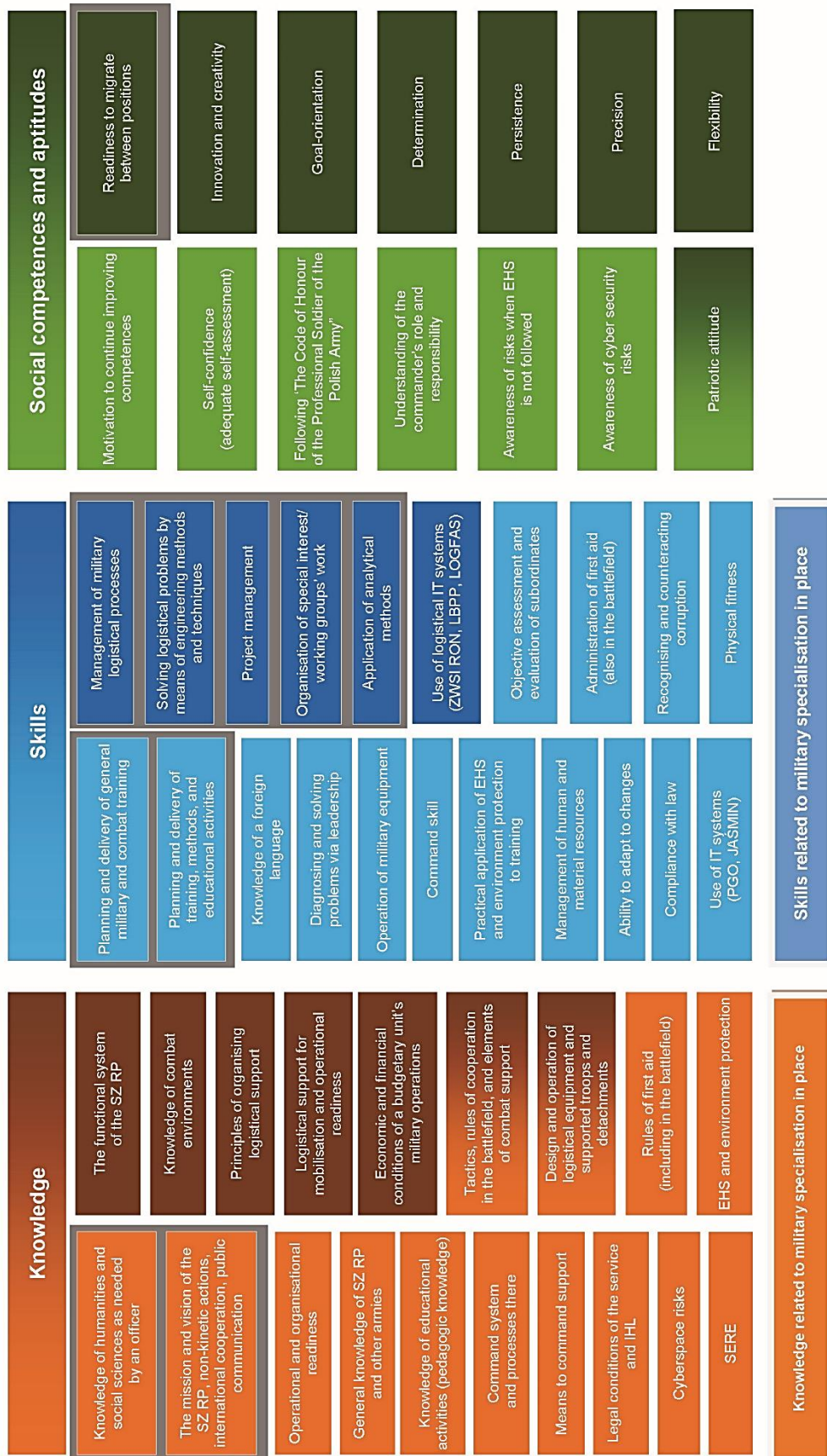


Figure 4. A model set of military logistics manager's competences.

Source: Gromek, 2023, p. 58.

Key

- Competences under the National Minister's Decision 88/MON of 30 June 2020 on the Military Education Standard for officer candidates – minimum curricular requirements.
- Competences under the Model of Professional Soldiers' Service Path in the Logistics Corps.
- Competences of particular importance to officers.

4. Results of empirical studies

The first question of the survey questionnaire asked the respondents to define their understanding of logistical competences required of modern-day military logisticians. The suggestion that logistical competences are in particular real abilities that can serve to solve problems, gather and process logistical data, find areas for improvement in military logistical chains, assure the smooth progress/ optimisation of logistical processes at their particular stages in all the subsystems of the military logistical system, and make prompt, apposite decisions in this area prevailed in the research material collected and developed. At the next stage of the study, those surveyed were requested to indicate five competences necessary at present to realise logistical support of the army. In this instance, the respondents pointed to: decision-making and problem-solving (109 choices – 69%); cooperation and communication in a team (104 choices – 65%); ability to adapt (96 choices – 60%); linguistic competences (88 choices – 55%); modelling and optimisation of logistical processes (86 choices – 54%). Some other competences often named by those surveyed included: readiness to take reasonable risk (79 choices – 50%), tolerance of crises (68 choices – 43%), and capacity for tolerating uncertainty (64 choices – 40%). The detailed distribution of the responses is shown in Figure 5.

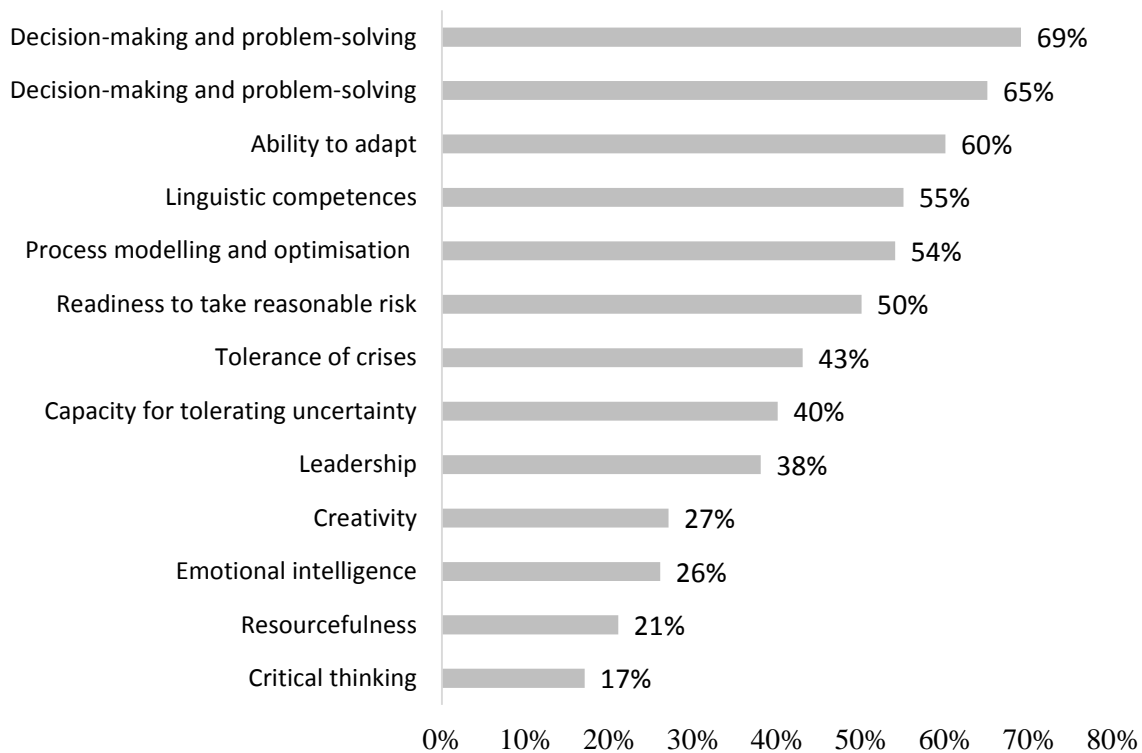


Figure 5. The percentage distribution of responses concerning key competences necessary at present when providing logistical support to the army.

Source: The author's compilation.

The need for a continuing improvement of the particular skills should be pointed out when analysing the results, since international research shows the useful life of the individual skills is 5 years (Douglas, Brown, 2011). This will certainly be a great challenge to educational centres charged with training military logisticians, too, as the military sector can be expected to share with the civil community its huge gap between higher education workers' conviction and employers' opinion about the levels of graduates' competences: 72% of the former and 39% of the latter see these competences as sufficient (Bughin et al., 2024).

The final, open question was intended to explore the respondents' opinions about required future competences of military logisticians and the ways of developing them. To summarise the views expressed, a great majority of those queried indicated the skills that allow for accepting and realising tasks in the national and international military logistics environment, unique in its high flexibility, geographical dispersion, extraordinary exposure to frequent and rapid changes, and the assumed increasing necessity of operating digital technologies and working with automated command systems that take a growing advantage of artificial intelligence. Many of the views pointed out special attention must be paid to the formation of certain attitudes, ways of thinking, learning and acting which dynamically adapt to the breakthrough changes in the armed forces themselves and their immediate and more distant environments. Some valuable material was furnished by views suggesting this type of skills cannot be created via the military education community alone and opportunities need to be provided for their

acquisition as part of a wide-ranging collaboration of military research and education centres and educational institutions from the civil community.

To summarise the discussion about developing the competences of the military logistician of the future, the crucial role of the so-called soft competences should be pointed out. The changing conditions of providing logistical support to the military compel the personnel involved to continue acquiring new competences that decide the standard of the armed forces' performance in all conditions of the state functioning, namely, peace, crisis, and war. Their perception and development will certainly be impossible without in-depth and wide-ranging, interdisciplinary research, largely focussed around the science of management and quality. Actions undertaken may be guided by useful reports on the future competences of civil workers (The Future, 2020) since, in spite of the obvious differences, uniformed and civil logisticians share a lot.

5. Conclusion

The results generated in the process of research offer the following general conclusions:

1. The future competences of the military logistician should be considered in three principal areas: cognitive, digital and technical, and social.
2. In order to develop the future competences of military logisticians, a wide-ranging cooperation of military universities and educational centres with civil institutions is necessary to build an innovative, civil and military educational system for the logistics of the future.
3. Challenges to the contemporary armed forces, including their logistical system, enforce some thorough-going organisational and functional changes in the approach to developing the future competences of logistics personnel as part of the military education system.
4. There is an urgent need to start work on the development of and continuous improvement to a model for developing military logisticians' competences based on state-of-the-art trends emerging in the national and international educational space.
5. Innovative technologies are gaining popularity in the logistical support of the military, changing not only the operation of the military logistics system but, first of all, setting new requirements of the military logistics personnel's competences.

In conclusion, it should be emphasised that the problem of shaping the competencies of the military logistician of the future is extremely extensive and multifaceted. The introduced research limitations resulting primarily from the overt nature of the present material and being a consequence of the dynamic changes taking place in the processes of military logistics security and support enforce the constant need for further research in the area in question.

However, we are convinced that the materials collected in this article may constitute the basis for further improvement of this area, which is extremely important for the entire Armed Forces of the Republic of Poland and national security. As a priority direction for further research, we should indicate the search for competence differences of military logisticians in individual personnel corps, i.e. officers, non-commissioned officers and privates.

References

1. Balcerzyk, D., Zapała, M. (2020). Kompetencje lidera w organizacji wojskowej. *Zarządzanie Zasobami Ludzkimi*, no. 1(132).
2. Bughin, J. et al. (2018). *Skill Shift: Automation and the Future of the Workforce, Discussion Paper* (McKinsey Global Institute), <https://www.mckinsey.com/~media/mckinsey/industries/public%20and%20social%20sector/our%20insights/skill%20shift%20automation%20and%20the%20future%20of%20the%20workforce/mgi-skill-shift-automation-and-future-of-the-workforce-may-2018.pdf>, 12.02.2024.
3. Decyzja Nr 88/MON Ministra Obrony Narodowej z dnia 30 czerwca 2020 r. w sprawie Standardu Kształcenia Wojskowego dla kandydatów na oficerów – minimalne wymagania programowe oraz Modelu przebiegu służby żołnierzy zawodowych w korpusie osobowym logistyki.
4. Douglas, T., Brown, J.S. (2011). *A New Culture of Learning: Cultivating the Imagination for a World of Constant Change*. CreateSpace Independent Publishing Platform.
5. Gromek, M. (2023). Identyfikacja wymaganych kompetencji menedżera logistyki Sił Zbrojnych Rzeczypospolitej Polskiej. In: D. Grala, *Przygotowanie kadry logistycznej na potrzeby współczesnych sił zbrojnych*. Warszawa: ASzWoj.
6. Jurek, P. (2012). Metody pomiaru kompetencji zawodowych. *Zeszyt Informacyjno-Metodyczny Doradcy Zawodowego*, no. 54.
7. Majewski, T. (2012). *Zarządzanie kompetencjami*. Warszawa: AON.
8. *Model przebiegu służby żołnierzy zawodowych w korpusie osobowym logistyki* (2021). Warszawa: SGWP.
9. Norma Obronna NO-04-A008:2016 – Zabezpieczenie logistyczne – Terminologia.
10. Rachwał, T. (2019). Przedsiębiorczość jako kompetencja kluczowa w systemie edukacji. In: T. Rachwał, *Kształtowanie kompetencji przedsiębiorczych*. Warszawa: FRSE.
11. *The Future of Jobs Report 2020, World Economic Forum 2020*, <https://www.weforum.org/reports/the-future-of-jobs-report-2020>, 20.01.2024.