
Military Units as Elements of Development Potential of Small and Medium-Sized Cities

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Abstract:

Purpose: The aim of this article is to show how the inhabitants and owners of small and medium-sized cities located in different regions of Poland perceive a military unit located on their territory in the context of its participation in building local development potential.

Design/Methodology/Approach: In this research a qualitative and quantitative approach was applied. The research was carried out by means of a diagnostic survey, using the survey and the interview methods. The survey-based research included 1200 respondents from 12 cities with military units. There were also 12 interviews with persons holding managerial positions in the governing bodies of the cities. To analyse the collected material Statistica v.13.3 computer program was used, as well as R v.4.0.0 and RStudio editor.

Findings: Military units, being part of the armed forces, located in the cities, are one of the elements creating local development potential. As employers, tax payers, contracting entities, "contractors" and as space users, they participate in social and economic processes occurring in the cities.

Practical Implications: Understanding how local authorities and small and medium-sized city inhabitants perceive the military is helpful in preparing development plans and programs considering the military's impact on social and economic development, especially in the context of the labour market and the income situation of a particular city. Moreover, the presence of the military in a given location is seen as a distinguishing feature of this place in space, which can also be a source of new ideas and development impulses.

Originality/Value: The research shows that the location and size of cities in which military units are located are primarily significant in social and economic terms. The smaller the cities, the more often the respondents notice that the presence of the unit is connected with the local budget, promotes development of local companies and the formation of attitudes of children and youth. At the same time, the influence of units on the course of local processes is connected with their size, the number of soldiers and military employees.

Keywords: Self-government, local societies, military units, connections, cooperation.

JEL classification: J18, J53, R11, R58.

Paper type: Research article.

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1. Introduction

Military units are the organisational elements of the Polish Armed Forces. They function on the basis of a post assigned by the Minister of National Defence, which determines their structure, professional positions and equipment. They include combat units, back-up units and military institutions with legal personality, separated in terms of administration and economy (Piotrowska-Trybull, 2013; Chrobak, 2011). Deployment of military units in particular places in Poland, including cities of different sizes (settlement units with predominantly compact buildings and non-agricultural functions having urban rights or a city status granted under separate regulations – Act of 29.08.2003 on official names of localities and physiographic objects (Journal of Laws 2003, No. 166, item 1612) results from operational conditions. Regardless of whether the units are located in certain places permanently or temporarily, their presence is connected with the existence of connections between them and the entities in their close surroundings. Drawing resources from their environment, they carry out the tasks assigned to them, while providing the public good in the form of national defence.

As a result of the military's use of human, material, financial and informational resources, direct, indirect and induced effects arise in the environment (Dardia, McCarthy, Malkin, and Vernez, 1996; Kriesel and Gilbreath, 1994). Military units operating in a particular environment, to a greater or lesser extent, are involved in local community affairs. Their cooperation with local entities is regulated by legal acts of various status (Constitution of the Republic of Poland, Journal of Laws of 1997, No. 78, item 483; Act on government administration departments, Journal of Laws of 2020, item 1220, 1087; Act on the organization and mode of work of the Council of Ministers and on the scope of ministers' activities, Journal of Laws of 1996, No. 106, item 492 as amended; Decisions of the Minister of National Defence concerning cooperation with non-governmental organisations and other social partners) and is based on: providing assistance, openness and transparency, effectiveness, equal treatment and respect for autonomy of the parties (Sirko and Piotrowska-Trybull, 2013).

Publications devoted to the presence of military units in a given territory present issues related to: the impact of the military on development on a micro-, meso- and macro-economic scale, defence spendings and their impact on the economy (Hirst, 1915; 1944; Smith, 1954; Say, 1960; Wahid 2008; Coulomb and Bellais, 2008), consequences of the liquidation of the unit for the local community, processes of

transferring property and post-military areas to other users and their revitalisation, as well as programs of rebuilding the local economy after the unit leaves the territory (<https://www.politico.eu/interactive/ghost-town-angst-how-the-us-pentagon-is-shaking-up-a-german-bavarian-vilseck-community>, Paloyo, Vance, and Vorell, 2010; Andersson, Lundberg, and Sjöström, 2007; Stenberg, 1998; Dardia, McCarthy, Malkin, and Vernez, 1996; Stenberg and Rowley, 1993; Sirko and Piotrowska-Trybull, 2013; Ignasiak-Szulc and Piotrowska-Trybull, 2019).

The studies also indicate that the forms and intensity of interaction between military units and the environment are not homogeneous. They depend on the level of integration of the military unit with the local environment (<https://www.politico.eu/interactive/ghost-town-angst-how-the-us-pentagon-is-shaking-up-a-german-bavarian-vilseck-community>; Paloyo, Vance, and Vorell, 2010), the nature of the military unit and the tasks it performs, and the socio-economic situation in the place where it is stationed (Sirko and Piotrowska-Trybull, 2013).

Development is defined as *"a directional process driven by endogenous factors in which the level of certain essential variables is constantly increasing"* (Sztompka, 2012). This process is understood as a sequence of consecutive and causally conditioned system changes that take place over time and may affect: the components of the system and their structure, the functions they perform, the limits of the system, as well as its surroundings. In publications, development is defined as the process of diversification and enrichment of economic and social activities in a specific territory, consisting in the mobilisation and coordination of one's own resources and energy (Jewtuchowicz, 2005; Johannisson and Nilsson, 1989; Trigilia, 2001; Bessiere, 1998; Coffey and Polese, 1985). By identifying changes on a local or regional scale, three basic dimensions can be distinguished: social, economic, environmental. Each of them can be described by means of indicators reflecting the changes taking place within it. Due to the consequences of human activity on the surrounding world, the environmental dimension gains traction (United Nations Millennium Declaration; A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development).

Development is perceived by the local community through the prism of quality and availability of services, educational, health, social, cultural, environmental and diverse labour market, where the demand for employees with different qualifications is reported, as well as conditions necessary for the development of enterprises (i.e. the competence of managers and employees, the business environment, the level of prices and availability of land for investment, availability and quality of technical infrastructure), which determine the effectiveness of their activities. The factors of local and regional development include: knowledge and innovation, diversified economic structure, investments, technical infrastructure, business environment institutions, social capital (Glaeser and Gottlieb, 2006), activity of local authorities and natural environment resources. Particular attention is paid to knowledge

(education system) and innovations that arise from its application. However, the impact of knowledge on development depends not only on improved access to education, but also on its effectiveness and the ability of the economy to use the competencies of employees in the workplace (Perry, 2010), as conditioned by the strategy of companies, their competitiveness and innovation, and their ability to finance further development. The increase in the level of innovativeness of the territory is connected with the cooperation of many entities – universities, enterprises, research and development institutions, local authorities (responsible for creating an entrepreneurial environment), which leads to the synergy effect. It promotes concentration of knowledge, experience and expenditure in development areas, lowering costs of conducting separate projects, spreading the prominence of new solutions and building social capital.

Military units stationed on the specified territory act as an employer, tax payer, the entity ordering products and services. Offering national defence services (aimed at effective performance of public functions, which are addressed not only to the local community, but to the general public) they cooperate with the local population in social and technical matters (participation in the creation of infrastructure). They also participate in shaping the development of space (protection zones, adjacent areas).

2. Materials and Methods

The authors of the article have been analysing how military units influence the development of municipalities where they are stationed since 2010 (Sirko and Piotrowska-Trybull, 2013; 2018). The results presented in the article are the result of research conducted in 2019. In order to obtain the image how the military unit influenced the development of small and medium-sized cities the research covered the residents and representatives of local governments of cities located in different parts of Poland. The research began withdrawing of twelve cities (Table 1) in which the military units were located. The Ordinance of the Minister of National Defence (Journal of Laws No. 206, item 1592) containing the list of garrisons was helpful in this respect. Basic information on cities is presented in Table 1. On their basis, it can be seen that they were differentiated by the number and movement of the population, situation on the labour market, level of entrepreneurship and income situation. According to the typology presented by R. Brol, M. May, D. Strahl, these were small and medium-sized cities (Brol, May, Strahl, 1990). According to the forecast of the Polish Academy of Sciences, many cities of this size in Poland will face a number of technological, climatic, social and economic challenges, such as: depopulation, disintegration of social ties, intensified migration for work, weakening of the economic tissue, lack of capital for investments (<https://samorzad.pap.pl/kategoria/praca/122-miast-srednich-tracacych-funkcje-spoleczno-gospodarcze>). For the authors it was an additional impulse to conduct research in these centres. Military units belonging to different types of armed forces were stationed in the selected cities.



Table 1. Basic information about the cities where the research was conducted (data from 2019)

City	Size of the city*	Migration balance per 1000 people	Employed per 1000 of the population	Participation of the registered unemployed among the population at working age [%]	Total entities per 10 thousand inhabitants at working age	Total income per 1 inhabitant [PLN]
Bolesławiec	semi-medium	0.8	333	2.3	2211.6	4900.69
Brodnica	semi-medium	-0.7	410	4.5	1715.2	4962.45
Inowrocław	medium	-4.3	257	6.6	1544.4	5403.89
Jarosław	semi-medium	-5.5	400	7.2	1962.6	4831.65
Lubliniec	semi-medium	1.9	352	3.0	1748.4	5116.88
Łask	small	-6.7	238	4.4	1987.9	4446.84**
Orzysz	very small	-6.7	122	4.7	1069.7	5289.18**
Przasnysz	small	-4.2	285	5.8	1654.5	5042.08
Sandomierz	semi-medium	-8.0	406	5.3	2248.5	5025.48
Świdwin	small	-5.3	197	4.9	1912.5	4661.85
Wąlczyk	semi-medium	-1.0	236	3.4	2214.6	4489.97
Żagań	semi-medium	-2.8	188	2.6	2047.9	4810.71

Legend:

*) As cited in: Brol R., Maj M., Strahl D., *Metody typologii miast*, Wyd. AE, Wrocław 1990, p. 35.

***) for an urban-rural municipality

 cities located in the western part of the country;  cities located in the central part of the country;  cities located in the eastern part of the country.

Source: Local Data Bank (<https://bdl.stat.gov.pl/BDL/dane/podgrup/tablica>).

Next, the same number of survey participants were drawn in each of the cities, taking into account their gender and age. As a result, 1200 people were included. Among the respondents were 52.2% women and 48.8% men. The respondents included people just starting their professional careers, those at the working age and the retired. The survey was conducted using Computer Assisted Telephone Interview (CATI). The inhabitants answering the interviewer's questions expressed their opinion about the presence of a military unit in their city, its impact on the safety of the inhabitants and its impact on the economy and quality of life in their city.

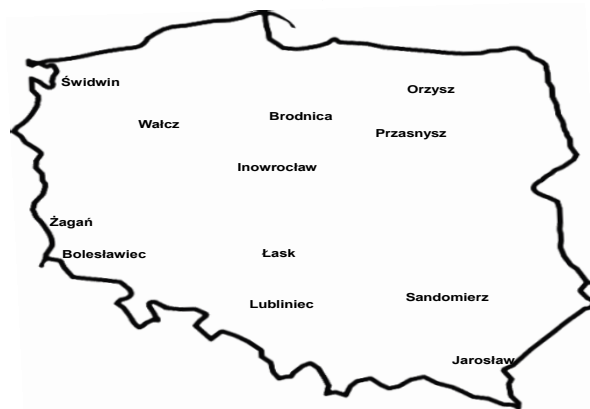
Each city also included an interview (structured, in-depth) with the governing body of the local government or its representative. The interviews were carried out according to the prepared questions, which were asked in a fixed order each time. During the interviews, issues concerning the general assessment of the presence of the military unit in the town, its influence on the social and economic situation, cooperation of the military unit with the inhabitants and local authorities, and the

general situation in the town were raised. The interviewer asked detailed questions, if needed.

In order to obtain a broader perspective, especially in the economic dimension, on the influence of military units on the situation in the cities, it was checked what were the revenues to the budgets of these cities, paid for by the military units located on their territory. Information on taxes, transferred in the years 2007-2018 to the budgets of local governments where the research was conducted, was obtained from the Regional Infrastructure Management Boards (RIMB – organizational units of the Ministry of National Defence, responsible for investor activity, real estate management, maintenance and use of real estate and other tasks performed for the benefit of military units). They were supplemented with data from the Local Data Bank (LDB) of the Central Statistical Office (CSO).

It was assumed that the geographical location of the city and its size influence the opinions of its inhabitants and representatives of local governments, which concern the influence of the military unit on the social and economic situation in these cities. Therefore, for the purposes of the conducted analyses, taking into account the location of cities in Poland (Figure 1), they were divided into three groups. The first group (group A) included cities located in the western part of the country (Bolesławiec, Świdwin, Wałcz, Żagań). The second group (group B) included Brodnica, Inowrocław, Lubliniec, and Łask. The third group (group C) included Jarosław, Orzysz, Przasnysz, Sandomierz, located in the eastern part of the country. The analysis also took into account the division of these cities according to their size (Table 1).

Figure 1. Cities in which the survey was conducted, divided into three groups A, B, C, depending on their location in the country



Source: Own study.

Statistica v.13.3 computer program was used to analyse the statistical material collected during the survey and the data from RIMB and CSO. Information on the conducted statistical analyses, the results of which are presented in the article, can be found in the works of (Aczel, Sounderpandian, 2018; Weiss, 2012; Stanimir, 2005).

The interviews were recorded, which allowed for their later transcription. A separate text file was created from each of the interviews. Text analysis, which included: initial processing, word frequency matrix creation, followed by counting the frequency of words in individual interviews, n-gram analysis, counting word correlations, mood analysis during interviews, and determining similarity between interviews, was conducted using R v.4.0.0 and the RStudio editor. These issues are presented in several works (Ross, 2019; Wickham and Grolemund, 2018; Lula, 2018; Silge and Robinson, 2017; Kwartler, 2017; Gągolewski, 2016; Provost and Fawcett, 2015; Schutt and O'Neil, 2015). For texts analyses (the results are shown in Figures 4, 5, 6) the solutions presented in the studies of Silge and Robinson, (2017), Kwartler (2017), Wickham and Grolemund, (2018) and on the Internet <https://quanteda.io/articles/pkgdown/replication/digital-humanities.html#r-basics>; <https://quanteda.io/articles/pkgdown/examples/plotting.html>; <https://datascienceplus.com/parsing-text-for-emotion-terms-analysis-visualization-using-r/> were used.

Taking into account the fact that the duration of the interviews, and, consequently, the number of words in the individual documents, were not the same, for better perception of the results, they were presented in a standardised dimension (Figure 4).

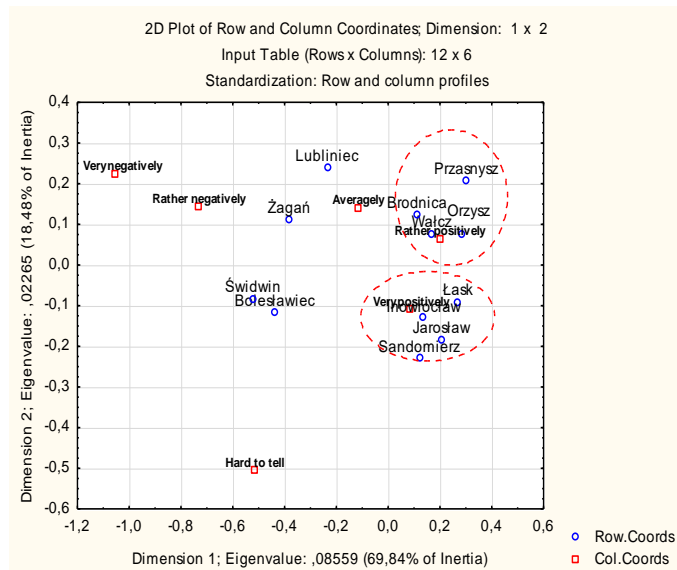
3. Results

3.1 Impact of the Military Unit on the Socio-Economic Status of the City

Most of the inhabitants (72.1%), both younger and older, perceived the presence of a military unit in their cities well and very well. Such answers were given mainly by respondents from the cities located in central and eastern Poland (Figure 2). Most such responses were obtained in Łask (84.2%), Przasnysz (82.0%), Orzysz (81.4%), Inowrocław (80.6%) and Jarosław (80.0%). In cities located in the western part of the country there were fewer such answers: Świdwin (53.9%), Bolesławiec (57.0%) and Żagań (58.0%) (statistically significant correlation, $p = 0.000$). The presence of a military unit was generally well received by respondents from small towns (75.8% of this group).

The reasons for this state of affairs can be seen, for example, in the investments that have taken place in recent years, which are related to the presence of the army (information on the RIMB websites, which concerns tenders related to the implementation of projects such as construction, renovation), the intensity of relations and military traditions in these cities.

Figure 2. Distribution of responses of residents to the presence of a military unit in their city



Source: Own study.

It should not be forgotten that for most of the respondents, 64.0%, regardless of their age, the military unit is the element which positively influences their sense of security. Responses indicating such dependence were most often provided by residents of cities located in the eastern part of the country: Orzysz (86,6% of the respondents), Przasnysz (83,0%) and Jarosław (76,0%). These results corresponded with those obtained at earlier stages of the research, where residents of cities in eastern Poland – Braniewo and Hrubieszów – also stressed the importance of military presence for their sense of security (Sirko, Kozuba, and Piotrowska-Trybull, 2019). The lowest percentage of responses indicating such an impact was found among residents of cities located in central (Lubliniec 51.5%, Łask 58.4%) and western Poland (Świdwin 53.4%, Żagań 55.0%) (statistically significant correlation, $p = 0.000$). The fears of those respondents who believed that the presence of a military unit in their city lowers the level of security (Bolesławiec 20.0%, Lubliniec 19.8%, Żagań 19.0%, Świdwin 14.7%, Łask 10.9%, Brodnica 9.0%, Inowrocław 7.1%, Wałcz 4.9%, Sandomierz 2.0%, Orzysz 1.0%, Przasnysz 1.0%) may result from the belief that in a situation of potential armed conflict their city may become the object of an enemy attack.

In the course of the survey, the interviewers exchanged statements referring to the influence of the military unit on the socio-economic situation in their town. The respondents pointed to one of these statements, as far as they knew, corresponded most closely to reality. Here, too, the responses of those participating in the survey were varied depending on the location of their city in Poland. Respondents from cities located in the western part of the country most often pointed to issues related

to population migration and stabilisation of demand in their city. For the respondents from the cities of central Poland the most important were the issues related to the development of local companies, limiting the outflow of population and maintaining jobs. In turn, the inhabitants of the cities closest to the eastern border, most often pointed out the formation of patriotic attitudes, new jobs and income to the city budget. These responses to some extent reflect the situation in individual cities (see Table 1). Taking into account the typology of cities based on their size, in medium-sized cities the respondents most often indicated the answer that an individual is conducive to the maintenance of jobs and the development of local companies, in semi-medium cities their participation in strengthening patriotic attitudes and creating new jobs was stressed. In small towns, the importance of an individual in the context of tax revenues to the local budget, strengthening attitudes, encouraging the influx of residents, as well as the development of local businesses were most often noticed.

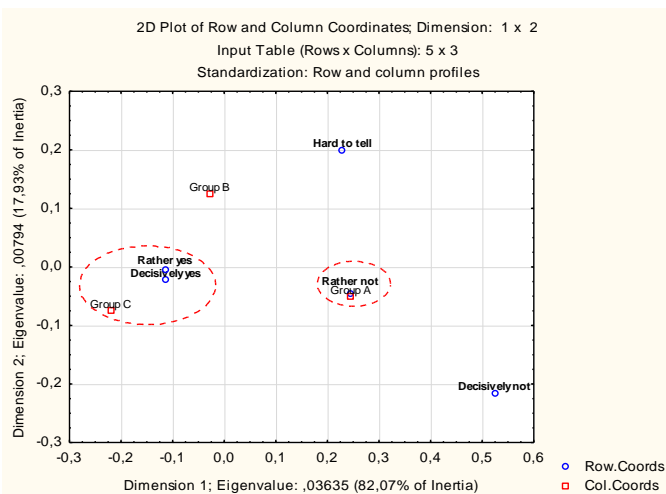
The indicator of the military unit's influence on the social and economic situation in the town where it is located is its role as an employer on the local labour market. In some cities, the unit is one of many employers and not necessarily the most attractive, in others, it plays the role of the main one. In this situation the respondents were asked to assess the situation on the labour market in their cities and to evaluate the impact of a possible liquidation of the unit on the situation on the respective market. Most answers indicating problems with obtaining employment were found in cities located in the eastern part of Poland: Orzysz (61.9%), Jarosław (61.0%), Sandomierz (49.0%), Przasnysz (47.0%). Taking into account one of the indicators referring to the labour market – the number of workers per 1000 population – in Jarosław and Sandomierz, as compared to other cities where the research was conducted, the situation was not bad. In the remaining cities of central and western Poland where the survey was conducted difficulties in this respect were noticed by a smaller number of respondents (from 22.5% to 28.4%). It was found that the bigger the city the greater the percentage of those who claimed that it was easy to find a job in their city (small 47.9%, semi-medium 52.6%, medium 62.2%), and at the same time the number of those who indicated problems in this respect decreased (small 43.9%, semi-medium 33.6%, medium 22.5%). A statistically significant correlation ($p = 0.000$).

Respondents' assessments of the situation on the labour market in their cities corresponded with their opinions on the difficulties on this market as a result of a possible liquidation of a military unit (statistically significant correlation with $p = 0.000$). The obtained data show that 71.9% of the respondents, mainly from cities located in the eastern and central part of the country, saw problems as a result of such an action (Figure 3): Orzysz (93.8% of respondents), Przasnysz (83.0%), Jarosław (79.0%), Łask (78.2%). A smaller percentage of such responses was found in cities belonging to group A: Świdwin (55.9%), Bolesławiec (57.0%), Żagań (59.0%) (statistically significant correlation with $p = 0.000$). It was found that the

opinion in this respect was influenced by the size of the city from which the respondent came from.

In order to provide a more complete picture of the role of the military unit as an employer in a particular town, additional analyses are necessary, e.g., comparing the number of jobs in the military unit with the number of jobs outside the unit, the amount of salaries, working conditions in particular entities, as well as the needs resulting from the situation on the labour market. Obtaining such data, especially in the case of the military, is difficult.

Figure 3. Assessment of the impact of liquidation of a military unit on the local labour market by respondents from groups A, B, C, located in different parts of the country



Source: Own study.

Soldiers and military employees working in military units make individual purchases of goods and services. At the same time, certain goods are delivered to the units and various construction or repair works are performed on their premises. In this situation some economic entities may benefit from the presence of the army. The analyses showed that the respondents participating in the survey from the cities of western and eastern Poland assessed similarly the degree of use of the military presence by particular economic entities. However, taking into account the size of towns, in the semi-medium cities the largest number of respondents indicated the benefits of the military presence enjoyed by different types of business entities. For the respondents in small cities the benefits obtained by the food salesmen were particularly visible.

Among the respondents, a large group (43.0%) declared that they run a business (42.7% in group A, 39.5% in group B, 46.9% in group C). When making business decisions, nearly half of them (47.9%) take into account the functioning of the

military unit in their city. In the opinion of this group, these are mainly bakeries and grocery stores that benefit from the military presence.

Military units are located in areas more or less accessible to people, some of which may be attractive for tourists or investors. The respondents were not of the same mind regarding the issue of influence of the military unit on the use of areas in its immediate vicinity. While a large group (41.4%) did not see such a dependence (40.3% from small cities, 48.5% from semi-medium, 45.9% from medium ones), according to a slightly smaller group (40.9%), a military unit is not a good neighbour if the issue of land use in its vicinity is considered. The others did not take a clear stance on this issue. The highest number of responses indicating difficulties related to the use of areas located in the immediate vicinity of the military unit was found in cities located in the central part of the country (Lubliniec 60.4% of respondents, Inowrocław 58.2%, Łask 55.5%). Among them were respondents from small cities (33.6%), semi-medium (37.3%) and medium ones (42.9%). Statistically significant correlation ($p = 0.000$).

The lowest number of such responses was recorded in the eastern Polish cities (Sandomierz 12.0%, Jarosław 18.0%, Orzysz 25.6%). The opinion in this case may be influenced by the location of the military unit in the city and the related restrictions on land management, including those located in its vicinity. These restrictions are related to the necessity of taking into account the defensive needs in spatial planning and development. The military, using its scope of powers, participates in the process of issuing opinions and agreeing on planning documents, defining: boundaries of closed areas and their protection zones; restrictions on the development and residence of people resulting from the functioning of the current and planned use of the land, facilities, equipment; directions of development of communication systems and technical infrastructure; conditions for the protection of facilities important for national defence and security.

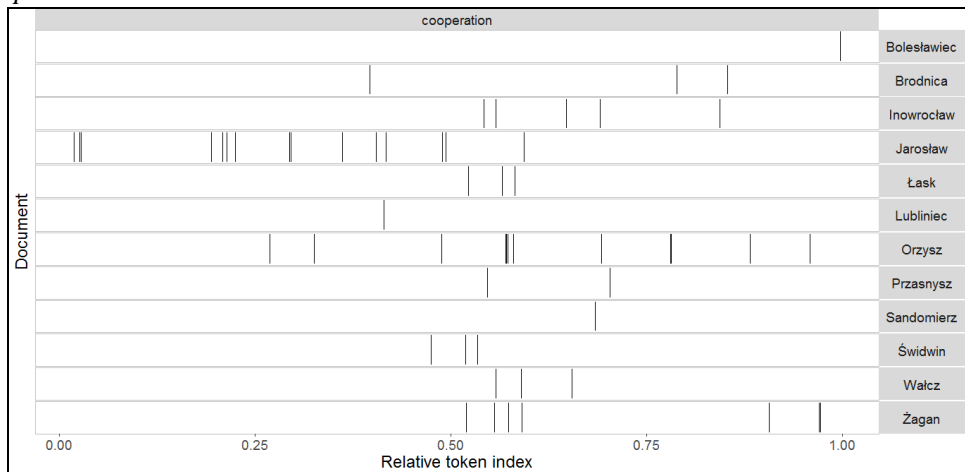
The presence of a military unit may contribute to the creation of annoying noise resulting from the use of military technology, e.g., an airport, a training ground. In the opinion of one in five (20.8%) of those participating in the study, such situations take place. This was noted mainly by respondents from cities located in the western (Żagań 30.0%, Bolesławiec 29.0%, Świdwin 26.5%) and the central part of the country (Lubliniec 35.6%, Łask 23.8%). The lowest number of such responses was found in the cities of eastern Poland (Jarosław 1.0%, Sandomierz 2.0%).

Differentiation, due to their location in the country, was also visible in the statements made by city officials. Those who came from cities located in the west of the country, more often than those representing cities located in the central part, used such words as: entrepreneurs, employer, training, influence, develop. Whereas, the latter more often uttered the words: earn, budget, employees. One can see in these statements the perspective of the employer and the employee, used to describe the situation in the city's economy. At the same time, in the statements of people

representing cities located in the west of the country, as compared to the statements of representatives of local governments of cities from eastern Poland, included more such phrases as: American troops, planes, forests, training, planning, industry, construction, accidents, difficulties – exposing the specificity and conditions of the functioning of military units. Persons representing cities located in the east used the following words more often: ceremonies, associations, commander, access, additionally emphasizing the symbolic dimension of the functioning of the army in society.

The statements of the representatives of individual cities, which referred to the place of the military units in their cities, indicated both their understanding of its role of ensuring security and building trust in the state institutions, as well as their importance as an employer, tax payer, service provider, and contracting entity. The positive perception of the military in their respective cities was expressed in the lexicon used by the respondents. The most frequently used words in the speeches of the city authorities included: *unit*, *city*, *cooperation*. Not all of them used them equally often, some of them systematically and others sporadically. Frequency of the word cooperation in interviews (Figure 4).

Figure 4. Occurrence of the word cooperation, in the statements of city representatives



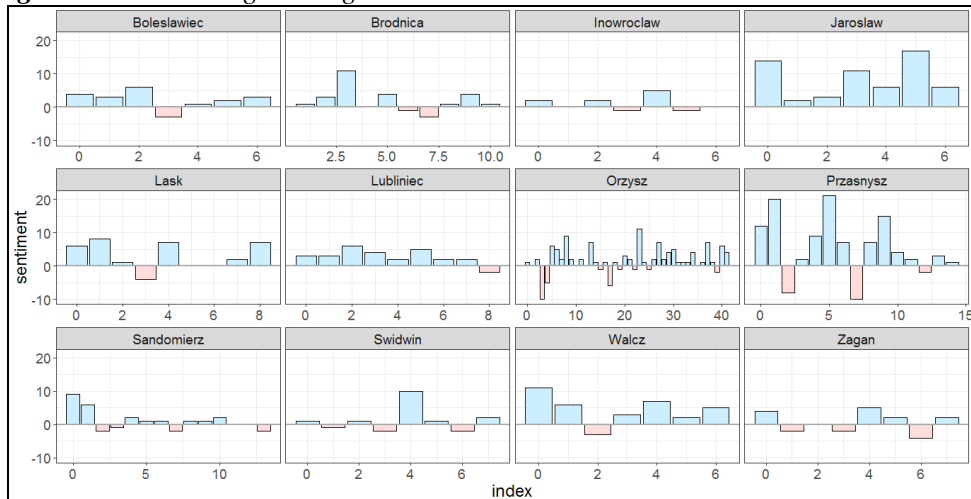
Note : The vertical line represents the use of the word in the interviewer's statement.

Source: Own study.

The words unit, city, cooperation were often used in conjunction with others. The word unit was most often used together with the words: employer, city, individual, the word city was combined with employer, largest, unit, and the word cooperation with the words celebrations, day, army.

During all interviews a good mood prevailed (Figure 5). The positive overtones of statements (blue) of local government representatives, referring to the presence of military units and relations between them, are the result of their use of words such as: *work, support, patriotic*.

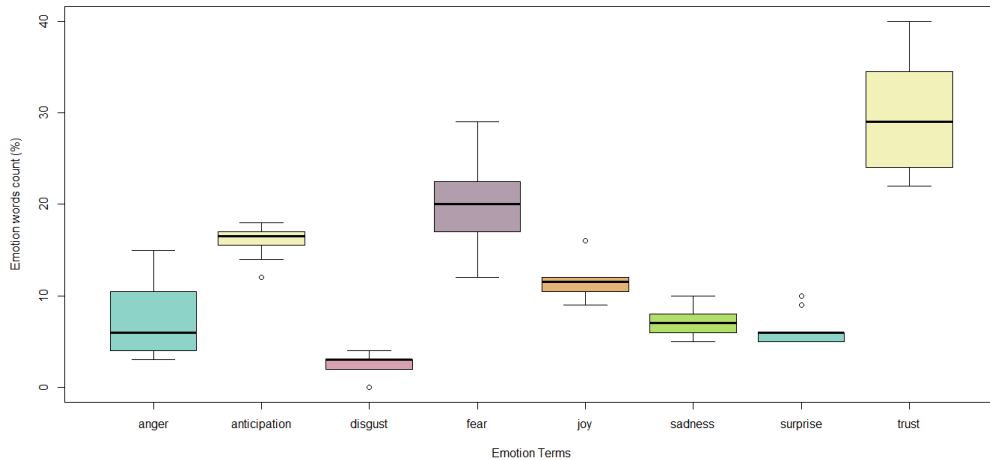
Figure 5. Mood change during the interview in individual cities



Source: Own study.

Good mood also resulted from the use of words that described the positive influence of a military unit on the economy of cities and cooperation with their inhabitants in various fields: *significant, important, great, good*. At the same time, the representatives of local governments, characterising the situation in the cities, pointed out the following: problems related to the restructuring of the local economy during the transformation period, difficulties in finding new development paths, limited opportunities to compete with larger centres, challenges they had to face. Words such as: *problem, difficult, hard, limit, crisis*, created a negative mood in this case (in red).

In the statements of the respondents the words expressing emotions constituted 22%-29% of all words. They were related to all kinds of emotions. The respondents most often uttered words related to trust (which corresponds to the relatively high level of social trust enjoyed by the military in society), the least numerous were the words related to repulsion (Figure 6). In the course of further analyses it was noticed that in the statements of the representatives of some cities the distribution of emotions and change of mood were different (e.g. Bolesławiec, Orzysz), in others, some similarities were noticed (e.g. Łask, Świdwin). In the situation of the former, positive emotions and trust prevailed. The importance of the military unit for the local economy and the quality of life of the inhabitants was emphasised.

Figure 6. Distribution of words related to emotions in interviews

Source: Own study.

The interviews with representatives of Łask and Świdwin were accompanied by positive emotions and the expressed trust. The emotions of expectation, signalled in the context of positive changes in their cities, also related to the presence of the army in their territory were less frequent. The words that essentially contributed to the positive mood included: like, work, good, important, great, well, patriotic, support, significant.

3.2 City Budget Inflows from Taxes Paid by Military Units

The inflows feeding the budgets of individual towns coming from taxes paid by military units were different. In the period from 2007 to 2018, the most money went to Orzysz (PLN 47.9 million), Świdwin (PLN 23.2 million) and Żagań (PLN 16.5 million), the least to Sandomierz (PLN 2.17 million), Przasnysz (PLN 3.03 million), and Łask (PLN 3.35 million). The constantly growing real estate taxes had the largest share in this amount. In some cities, significant growth was recorded: in Orzysz – by 305.7% since 2012, in Łask – by 146.0% since 2015, in Inowrocław – by 140.0% since 2015, in Brodnica – by 139.0% since 2015, in Przasnysz – by 71.4% since 2015. The other changes were not so clear. Taking Orzysz's budget inflows as a point of reference, it was checked how the real estate taxes transferred to other cities developed in comparison with this city. The difference between the amount received by Orzysz and the amount transferred to Świdwin was over 51%.

The differences between the amount received by Orzysz and the amounts transferred to other towns were even greater. It is worth noting, however, that apart from Orzysz, the next four highest average real estate tax averages for 2007-2018 belonged to cities located in the western part of the country (Świdwin, Żagań, Wałcz, Bolesławiec).

According to the RIMB data, in the years 2007-2018, the budget of all cities was systematically credited with the real estate tax paid by military units. In the case of other taxes, the amounts were paid to the towns' budgets in certain years. The forest complexes used by military units as a natural camouflage element were connected with the payment of the forestry tax. The largest amount of money was transferred to Orzysz – PLN 641.9 thousand. In the case of other towns, the amounts were much lower or none at all. The situation was similar in the case of other taxes.

Taking into account the income from taxes to the city budgets paid by military units for the years 2007-2018, the truthfulness of the hypothesis was checked, according to which the average income to the budgets – cities located in the western, central and eastern part of the country – was the same. For this purpose a single-factor analysis of variance was used, where it is required that the compared groups have normal and equal distributions of variances. The Shapiro-Wilk test was used to assess the normal distribution of the analysed variable in groups (group A, group B, group C). After the analysis of its results it was found that the assumption of normality of its distribution, in particular groups, was not fulfilled. This resulted in the use of the non-parametric Kruskal-Wallis test in further course of actions. Taking into account the value of the test probability ($p = 0.000$), the hypothesis assuming equality of the average amount of real estate tax in individual groups was rejected. Similar results were obtained by testing the hypothesis assuming that the average receipts to the budgets of small, semi-medium and medium-sized towns were the same.

4. Discussion

The diversity of cities and military units, which perform different tasks using different equipment, makes not all elements resulting from the influence of intermediary variables easy to grasp. Limitations that appear in the conducted analyses concern among others: requirements of personal data protection of soldiers participating in surveys; mobility of soldiers where the place of service is not the same as their place of residence, availability of some statistical data at the communal level, making it difficult to estimate the influence of a military unit on local development. In this context it is reasonable to use in the research a qualitative and quantitative approach to prepare an in-depth description of the impact of military units on development processes, in particular locations, in social, economic and environmental dimensions.

It is worth emphasising that the influence of units in particular locations depends on the diversity of economic structure, number of economic entities, population, professional activity of the population, existing environmental resources, geographical location of the city and others. Nevertheless, in the light of the results obtained, it can be stated that military units in some cities, especially small and very small ones (Przasnysz, Orzysz), have a significant impact on their socio-economic situation and development potential.

5. Conclusions

The military, as an employer, as a tax payer, as a service provider and contractor, and as a space user, influences a number of social and economic processes in the city, strengthening its development potential to varying degrees.

The cooperation of military units with the environment is carried out on the basis of a number of legal acts, which define its framework. Cooperation between the military and local authorities, NGOs and social partners leads to the emergence of new initiatives that provide development impulses and mutual benefits for the parties. The presence of a military unit in the city provides jobs for residents (Orzys, Przasnysz, Jarosław), as well as benefits for some companies due to certain renovation and construction works or other activities carried out by local companies as a result of announced tenders. The budget of individual cities is significantly strengthened by the taxes paid by some military units (Orzys, Świdwin, Żagań).

Determining the place and importance of a military unit is also crucial in the context of planning local development, especially the proper use of the assets resulting from the presence of the army in the city and possible counteraction of negative phenomena.

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