Marek GROCHOWSKI

SPECIFIC NATURE OF EMPLOYEE RECRUITMENT IN COMPANIES OF THE ARMS INDUSTRY

Abstract. The article presents selected problems of recruitment of employees on the labour market, where Zakłady Mechaniczne "Bumar-Łabędy" S.A. and OBRUM operate. The local environment is described, the Gliwice labour market including, among others, companies operating in the Special Economic Zone (SEZ). An attempt was made to carry out a sociological analysis of the recruitment taking the examples of the companies mentioned. The considerations of employment level resulting from the necessary changes in organizational structures are presented. The methods of staff selection applied in practice are synthetically discussed. The summary refers to the role of management boards in employment policy and the requirement of cooperation on a partnership basis with the HR department and raising it to the rank of a strategic department, as well as implementing all available forms of employment into practice.

Keywords: human resources, human resources acquisition, recruitment, screening, personnel management, forms of employment.

1. INTRODUCTION

Among the main tasks of the company management, which include managing business, managing managers and managing worker and work, the lattermost is particularly important. The work must be done, and the means by which it is performed are the workers. This means such a work organization that will be the right one for human beings and one that will make their work the most productive and effective. This means treating the human being as a resource - as something that has special physical characteristics, abilities and limitations. This, at the same time, means treating human resources as human beings who, unlike other resources, have personality, civic rights and control over whether they work at all, how much they work and how well they work. Employees should be able to derive satisfaction from their work. Employees also require motivation, incentives and rewards, leadership, appropriate status and function. Work must always be a challenge for the employee. There is nothing more contrary to the nature of human resources than the common tendency to determine the "average burden" for the "average worker". Therefore, work must encourage the individual to grow and give him orientation, otherwise the full benefits of the specific properties of human resources will not be gained [1], [2].

2. SELECTION OF PERSONNEL

One of the most important elements of the development and existence of each company is the acquisition of appropriate staff for individual positions. Selection may be defined as a set of activities aimed at acquiring the right people for the organization and filling the vacant job positions with proper people. The selection process should ensure an adequate number of employees (quantitative aspect) with appropriate qualifications (qualitative aspect) for a defined time at the right positions (strategic aspect). The selection procedure must be a set of harmonized actions forming a whole. Because of this, the basic stages of selection should include recruitment, screening and induction [3].

Searching for and hiring employees is a difficult process that organizations have to deal with at every stage of their development. The starting point for this process, regardless of

the method chosen for acquiring job candidates, should be the company's strategy and objectives set by that strategy. Recruitment and screening of job candidates is one of the basic tasks and challenges facing HR departments. An important element of the required efficiency of employee selection is market research in terms of workforce demand and supply. When determining the workforce demand, expenditures of resources necessary to achieve the assumed goals are determined, bearing in mind the necessary qualifications. On the other hand, the supply of workforce is determined by the specificity of labour markets, by demographic, educational, social factors, fashion, dominant trends regarding a particular type of employee, as well as the level of remuneration [3], [4]. Fig. 1 presents in the form of a diagram an example of the personnel selection procedure [3].

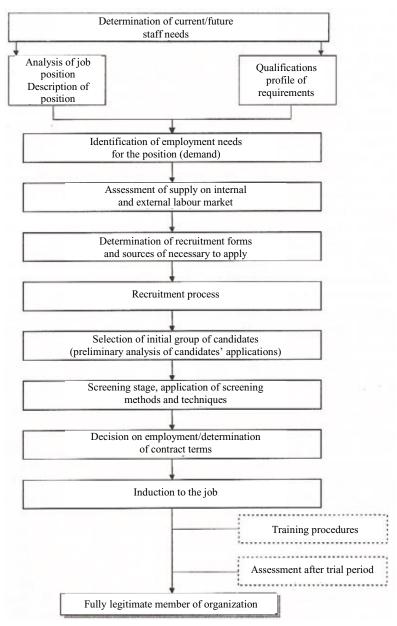


Fig. 1. Procedure of personnel selection for an organization

3. LOCAL LABOUR MARKET

One of the many companies that are struggling with the problem of the appropriate number of employees (in various occupational groups) are the companies of the industrial

defence potential: Bumar-Łabędy S.A. (hereinafter referred to as BUMAR) and the Research and Development Centre for Mechanical Devices "OBRUM" Ltd. (referred to as OBRUM). These companies are not only important and significant members of the state's industrial defence potential but also part of the local community of the city of Gliwice and of the Silesian region. Technical and organizational links between OBRUM and BUMAR, companies which participate in the technological modernization of the Polish Armed Forces, have direct impact on the phenomena occurring in both companies. These companies run their businesses in a difficult, specific labour market with a very high demand for employees, which results, among others, from the existence of the OPEL car factory in Gliwice and of the local special economic zone.

3.1. Unemployment rate

One of the factors that hamper the recruitment of staff for the companies (BUMAR and OBRUM) is the relatively low unemployment in the Silesian province which is the result, among others, of:

- relatively low unemployment throughout the country;
- > favourable economic situation in industry;
- retirement of post-war baby boomers;
- ➤ high concentration of heavy industry (mining, power industry) in the region;
- ➤ a large number of development projects carried out (road construction, housing);
- economic emigration.

In the last case, the easier access to the German labour market of the inhabitants of Upper Silesia, manifested by intensive, temporary economic emigration (including citizens with dual citizenship - Polish and German) is the factor that limits the possibilities of hiring employees. Also in the city of Gliwice, the unemployment rate is low (almost twice lower than the national average) - at the level of 3.5%. A comparison of unemployment rate indicators is shown in Table 1.

Table 1. Unemployment rate in Gliwice and Gliwice district against the background of the Silesian Province and all of Poland [5]

Rate [%]	12.2017	01.2018	02.2018	03.2018	04.2018	05.2018	06.2018	07.2018
Gliwice district	5.8	6.0	6.0	5.6	5.5	5.2	5.1	5.2
Gliwice city	3.6	3.7	3.7	3.5	3.5	3.4	3.3	3.3
Silesian Province	5.2	5.3	5.3	5.1	4.9	4.7	4.5	4.5
Poland	6.6	6.9	6.8	6.6	6.3	6.1	5.9	5.9

Although unemployment rates are decreasing, the problem of migration and the lack of qualified staff still remain. "An extremely important aspect of changes in the creation of jobs will also be the slowdown of migration processes, so that highly qualified specialists could be professionally involved in the Silesian labour market, without having to leave their families and relatives, seeking appropriate jobs." [6].

3.2. Special Economic Zone (SEZ)

The Katowice Special Economic Zone (KSEZ) was established on June 18, 1996. Currently, it is the leader among the special economic zones in Poland. The KSEZ includes

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350 enterprises, which have jointly invested around PLN 32 billion and created over 75,000 jobs [7], [8]. The KSEZ covers four Subzones: Gliwice, Jastrzębie-Żory, Sosnowiec-Dąbrowa and Tychy. The entire province of Silesia and six districts of the Opole Province (Strzelecki, Kędzierzyńsko-Kozielski, Głubczycki, Krapkowicki, Oleski, and Prudnicki) together form the Katowice Economic Zone. The purpose of creating the Zone is to promote the region's economy, attract new strategic investors, create new jobs and restructure existing industry.

3.2.1. Gliwice Subzone

This subzone is qualified as the largest of the four subzones of KSEZ and covers a total area of over 1008 ha, of that 378 ha in the city of Gliwice. The attractiveness of the area of the Gliwice Subzone is best demonstrated by the presence of companies that located their factories here. These are mainly automotive industry facilities:

- > GM Manufacturing Poland Sp. z o.o. General Motors project, manufacture of OPEL brand cars;
- > NGK Ceramics Polska Japanese manufacturer of particulate filters for diesel engines;
- > HP Polska project by the German HP Chemic Pelzer, manufacture of sound damping elements;
- Autorobot Strefa project by Lodans Holding, manufacture of car body welding lines;
- > Sils Centre Gliwice German company, part of the Opel manufacturing line;
- > TRW Braking Systems Polska project by TRW, manufacture of brake pump components;
- > Tenneco Automotive Eastern Europe manufacture of shock absorbers for cars;
- ➤ Hirschvogel Components Poland German manufacturer of forged parts for vehicles;
- ➤ Kirchoff Polska German manufacturer of car parts [8].

In addition to the automotive industry, other industrial sectors are also present in KSEZ (Fig. 2).

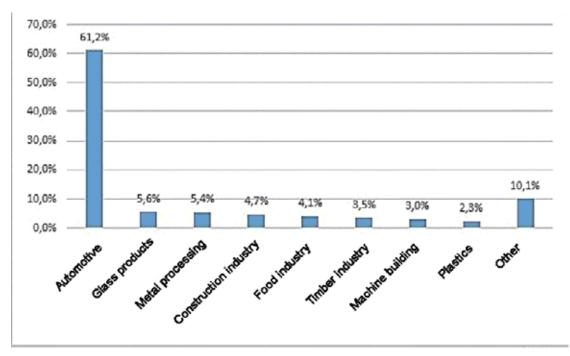


Fig. 2. Breakdown of businesses in the Katowice Economic Zone according to industry sectors [8]

Such a diversity of foreign investors clearly leads to the mixing of employee value systems, which translates into interpersonal relations at work. Although most companies are of German descent, it must be remembered that capital in the era of global economy has no nationality and the owner can change at any moment. Work culture in German companies is similar to the phenomenon known in sociology as the Silesian work ethos. Urszula Swadźba conducted sociological research on this phenomenon, which she described as "the whole of values and norms as well as actions and behaviours relating to professional and nonprofessional work performed by Silesians. The indispensable attributes of this ethos included: diligence, reliability, conscientiousness, honesty, discipline, obedience, respect for superiors, good organization. These features developed a specific type of social mentality (social personality) and were genetically related to the profession of an industrial worker (most often a miner or steelworker). They were transferred by the family to the next generation members who practised different professions. Important in this ethos was the association between the job and the spheres of family and religion" [9]. Undoubtedly, the Silesian work ethos is a conducive factor, especially in the aspect of obedience to superiors, when it comes to introducing diverse elements into the culture of the organization. Considering this issue in the context of hiring employees, one must be aware that those employees carry specific values with them. A lot in this aspect depends on the employer. The problem of determining the rules of co-existence of different cultures within a single enterprise community is of particular importance.

3.3. The Silesian University of Technology

Gliwice is an important research centre, especially in the field of technical sciences related to industrial applications. One of the largest technical higher education institutions in Poland, the Silesian University of Technology in Gliwice [10] is a source of highly qualified staff of many specialties, which facilitates the hiring of specialists in various fields not only

by local companies, but by those of the entire Silesian Province. In the case of OBRUM, this greatly facilitates the hiring of specialists of key sectors that determine OBRUM's activities, such as mechanical, automation, electrical and IT engineers.

In 2018, OBRUM embarked on the project "Implementation Doctorate", organized and financed from funds raised by the Silesian University of Technology in Gliwice. As part of this project, five OBRUM employees became PhD students. These are research and development employees working as a project manager, design engineer and program developer. Employees within the project carry out work related to solving OBRUM's current technical problems. The topics of their thesis works are strictly connected with OBRUM's commercial activities and are performed as part of their normal work duties. OBRUM supports PhD students in the implementation of their scientific activities; PhD students were assigned advisors, OBRUM employees with extensive professional experience. The results of the PhD students' work are to improve OBRUM's operations, find new structural or technological solutions. In the future, these results should also be used in other projects.

Both OBRUM and BUMAR have concluded agreements with the University of Technology for providing student internships. The topics of the students' theses are proposed by OBRUM.

4. LIMITATIONS AND REDUCTION OF EMPLOYMENT

Both Gliwice companies, BUMAR and OBRUM, have undergone a number of organizational and restructuring changes over the last ten years.

At BUMAR, these changes mainly involved ownership transformations. The implementation of the ownership transformation process in the BUMAR-ŁABĘDY Capital Group was aimed at providing the Parent Company, "BUMAR-ŁABĘDY" Zakłady Mechaniczne S.A., and other companies of the group with business balance and at rebuilding relations with the market environment.

The transformations have influenced the improvement of the efficiency of the company operations, and in consequence have increased its market value and competitiveness. As part of the processes of ownership transformation, new forms of management were implemented and restructuring activities of the Capital Group were carried out. The macroeconomic conditions created a relatively favourable environment for the implementation of these plans.

In 2009-2010, the incorporation of selected subsidiaries and the creation of departments corresponding to their existing competences took place. Some of the companies of the Group or majority shareholdings were sold and they now operate in the open market or outside the BUMAR - ŁABĘDY Group. The undertaken initiatives favoured the provision of competencies important due to the leading subject of the conducted activity in the field of production for the army, and disposing of those companies whose business profile was not so important for the parent company.

In turn, OBRUM functioned for many years as a state-owned research and development unit based on the binding act on research and development units. On the basis of the commercialization act (a notarial deed), the Minister of Treasury commercialized the research and development unit called the Research and Development Centre for Mechanical Devices OBRUM with its registered office in Gliwice, transforming it into a limited liability company, with the State Treasury being its sole partner. The commercialization day was April

1, 2008. OBRUM was transformed into a limited liability company operating under the name of: Ośrodek Badawczo-Rozwojowy Urządzeń Mechanicznych (Research and Development Centre for Mechanical Devices) "OBRUM" spółka z ograniczoną odpowiedzialnością (limited liability company). On that day OBRUM also obtained the status of the Research and Development Centre, on the basis of the Act of July 29, 2005, on some forms of supporting innovative activities (Journal of Laws No. 179, item 1448, as amended), allowing for the continuation of scientific and R&D activities.

In the next stage, on the basis of the Agreement for bringing in shares of OBRUM sp. z o.o. on December 30, 2009, the Company was incorporated into the BUMAR Capital Group and from that day, ownership supervision over the activities of OBRUM was exercised by BUMAR sp. o.o., which on July 4, 2013, pursuant to the entry into the National Court Register, BUMAR sp. o.o. changed its name to Polski Holding Obronny sp. z o.o. (PHO sp. z o.o.). On the day when the State Treasury ceased to be the sole shareholder of the Company, the privatization process of OBRUM sp. z o.o. began, which meant that eligible employees had the right to acquire free of charge up to 15% of shares owned by the State Treasury. Currently, owner supervision over the activities of OBRUM sp. o.o. is exercised by Polska Grupa Zbrojeniowa SA, which on October 17, 2014 acquired the shares of the Company from Polski Holding Obronny sp. z o.o.

In the face of ownership changes, the companies were forced to fundamentally modify their ways of functioning. "Shaping new patterns of behaviours, beliefs, procedures and structures is associated with appropriate planning of change. Often during the change, the introduction of a "change agent", a human or group of people, usually a president or board members, is used to promote new patterns with their authority and activity. On the path of psychological mechanisms of influence - social submission, identification and internalization - these patterns are accepted. The change, however, needs to be worked on, it must be supported and strengthened enough to become part of the organization system, so that new patterns of behaviour will be consolidated. It consists in the use of psychological mechanisms of positive reinforcement and negative suppression of undesirable behaviours" [11].

4.1. Employment fluctuations

The effect of these changes resulting, inter alia, also from the shrinking arms markets abroad (a sharp decline in exports) and the lack of orders from the Polish Ministry of Defence were voluntary leave programs (VLP), i.e. the transition of a significant number of employees to early retirement, bridge pensions and dismissals. The described changes had a huge impact both on the level of employment and on its structure. Table 2 illustrates changes in the employment level over the course of fifteen years.

Employment Company 2018 2013 2008 2003 749 **BUMAR** 818 588 897 **OBRUM** 176 178 181 310

Table 2. Changes in employment level

Source: BUMAR and OBRUM HR Departments – as of 30.10.2018

The consequence of the described changes is now a shortage of workers in technical professions such as: welder, machining specialist, machinery and equipment mechanic,

electrician, both at BUMAR and OBRUM (support in prototype manufacturing processes) and design and process engineers to carry out R&D work.

The liquidation of vocational education, which created shortages in technical professions, also had added to the difficulties in recruiting workers.

As can be seen from Table 2, OBRUM suffered more. Table 3 presents changes in the employment level at OBRUM. Over the years, the largest drop in employment has occurred in OBRUM's key departments/organizational units.

Table 3. Changes in employment level at OBRUM

#	Organizational unit	Year 2003	Year 2018
1.	Prototype Preparation and Fabrication Office	98	33
2.	Design Office	54	36
3.	Infrastructure Management Dept.	34	11
4.	Logistics Dept.	27	12
5.	Technological Dept.	13	7

Source: OBRUM HR Dept. – as of 30.10.2018

5. SELECTION OF PERSONNEL

Acquiring new resources and proper selection of staff requires employing various forms of recruitment that do not always allow to achieve the intended effect. The limited scope of the article does not allow for a detailed discussion of all of the forms used. Only the most characteristic forms used in most cases will be discussed.

Depending on the various criteria, one can distinguish several basic types of methods of acquiring human resources for an organization [3], [12].

Two groups of methods can be distinguished:

- > closed selection method;
- internal selection method.

Another criterion for the classification of selection methods is the place of acquiring the necessary human resources - types of labour markets. Here we have:

- > external selection;
- internal selection.

Another important criterion is the type of the labour market segment on which the company wants to achieve its goals and objectives regarding the acquisition of human resources:

- segmental selection methods;
- > narrow selection methods.

The type and method of conducting the selection procedure as well as the applied techniques and tools are influenced by such elements as: stage of organization development, type of company, values, standards, management style, business sector, the importance of a given position for the company's strategy and location of the workplace in the organizational

structure of the company, and also the development of service markets, personnel consulting companies, and finally the level and specialist knowledge of human resources management entities in the company [3].

Table 4 presents a short description of the recruitment forms used.

Table 4. Employee recruitment forms

Engineers/technical	Manual workers		
Internal recruitment: publication of an offer in the company media, i.e. advertisements on the Company's website, publicizing the offer through a radio studio.			
Database searching – building a database of candidates (who consent to the use of personal data for current and future recruitment) based on CVs submitted in response to various job offers.	Database searching		
Networking - searching for candidates by a recommendation - for example from employees already employed by the company.	Networking		
Advertisements on free websites, such as lento.pl indded.com	Advertisements on free websites		
Advertisements on paid websites, e.g. pracuj.pl	Advertisements on paid websites		
	Cooperation with the Labour Office in Gliwice in the field of consultancy and promotion of "Bumar-Łabędy" S.A. and OBRUM as a reliable and trustworthy employer.		
Promotion of job offers and employers on job fairs, events, etc.	Promotion of job offers and employers on job fairs, events, etc.		
	Field activities (posters, leaflets), information campaigns		

In the process of acquiring employees in the discussed defence industry companies, in principle, all available forms of recruitment are used. At the preparatory stage, the qualification requirements (education, years of service, language skills), personality traits (teamwork, ability to work under stress, leadership qualities, etc.) are defined. The additional criteria, especially for managerial positions, are: professional experience (years of service) in the defence industry (in the area of manufacture or design and research) and education with specialization related to the subject of production (e.g. graduate of a military academy or a higher technical military school).

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The recruitment process itself is formalized to minimize the risk of violating the rights and freedoms of candidates and to comply with all the GDPR guidelines regarding their personal data. The procedures take into account, first and foremost, the personal rights of the candidates, the rules for the processing of personal data and the guidelines of the Labour Code. Only the candidate's experience, knowledge and skills influence the decision to employ him or her. It is absolutely unacceptable for factors such as age, race, gender, sexual orientation, religion or political beliefs to influence that decision.

In the process of recruitment of manual workers, forms of external recruitment are used, including:

- > notification of the demand for an employee at the Regional Labour Office;
- > announcement on the company website;
- advertisements on other websites, e.g. www.pracuj.pl.

In the case of middle managerial positions, forms of internal recruitment are used primarily.

The lack of trained new staff, combined with the demographic phenomenon of the aging of the staff, caused a significant gap in the possibilities of supplementing and developing the next generations of employees. A generational gap is a difficult phenomenon to eliminate, particularly severe due to specific production profiles in both plants requiring both engineering workers as well as manual workers with relevant, long time experience in manufacturing for the army.

Both BUMAR and OBRUM are enterprises belonging to the industrial defence potential. The increasingly frequent employment of manual workers from abroad may not be applicable in the discussed case. Although the Act of 20 April 2004 on the promotion of employment and labour market institutions in the current version does not exclude the possibility of employing foreigners in the armaments sector, it is significantly impeded (and even not recommended) to employ foreign workers on positions directly related to the manufacture and trade in weapons.

One of the forms of employing engineering employees at OBRUM is cooperation with the Silesian University of Technology in Gliwice. OBRUM uses the recruitment possibilities and acquaints students with the specificity and nature of OBRUM's activities by organizing internships. It enables the implementation of engineering and master's theses based on the projects carried out at OBRUM. The above cooperation aims, among other things, to involve students in new projects and innovative concepts implemented by OBRUM, as well as to prepare students for work in industry.

This activity is of great importance as students often sign contracts of employment before they receive their first degree.

Innovative projects of the Silesian University of Technology, launched in recent years, and supported by European funds or the Ministry of Science and Higher Education, provide additional opportunities for acquiring specialists, especially research and engineering staff, to work for OBRUM. The creation of job positions for PhD students and the provision of care in the aspect of business needs to solve the problem within the framework of design, construction, technology or implementation work is an added value for both the employee and the employer.

The process of gaining management staff is definitely a more challenging problem. In this case, due to the very high professional (usually interdisciplinary) requirements, the search for employees is often done with the help of specialized recruitment agencies.

The description of requirements in the recruitment process does not take into account all aspects of a given position, hence in each case the newly recruited employee on the managerial position is employed for a definite period. This is the most effective form of verification: the employee's suitability for a given position is confirmed under real conditions.

6. SUMMARY

Planning in an organization is a process of setting goals and choosing the means to achieve them. Without plans, managers would not know how to organize people and resources effectively.

For a company with a stable production profile or contracts guaranteed by multiannual development programs, it is possible to anticipate the conditions under which it will operate and prepare for these conditions in terms of shaping and adjusting to them the appropriate human resources potential. Planning skills are one of the basic skills required of managers, including members of the company management board. Personnel planning is a process that should lead to a situation in which an organization provides an adequate number of employees with appropriate qualifications, enabling the best use of them, prepares employees to function in conditions of high uncertainty of the environment, and at the same time enables them to develop and stabilize [13]. These activities must be within the framework of the personnel strategy adopted and their goal must be the implementation of the objectives of the company's overall strategy.

In the companies described in the article, the planning process, as well as the acquisition of human resources, with frequent and extensive organizational changes and unfavourable environment, is strongly disrupted. In this case, the process of acquiring human resources is difficult and requires close cooperation between the management board and the HR department, raising the rank of the latter to the role of a strategic department [12]. This requires the HR staff to continuously monitor the local labour market and to apply all of the available forms of recruitment, ranging from announcements to the employment of specialized recruitment agencies or the so-called headhunters.

At the same time, in order to provide the necessary human resources within a certain time interval to complete the required tasks, all available forms of employment must be used: commission contract, contract for specific work, fixed-term contract, indefinite contract (full-time), using the available resources: full-time employees, former full-time and temporary employees, interns, apprentices, consultants/advisers and employees of cooperating companies [4].

However, it is important to remember about additional requirements for some of the personnel employed in the defence industry - the requirement to have or to obtain a personal security clearance or an authorization for access to classified information. This is related to the protection of classified information [14] and access to such information only by authorized personnel. In this area, close cooperation of HR teams with the Plenipotentiaries of the Management Boards for the Protection of Classified Information is indispensable.

Also in the companies discussed here (BUMAR and OBRUM), which directly deal with the manufacture and trade in weapons, only persons who meet the criteria defined in the Act [15], Article 22 can be employed.

- *Art.* 22. [Requirements for the employee employed directly in the production]
- 1. An employee employed directly in the manufacture of explosives, weapons, ammunition and products for military or police purposes should:
 - 1) meet the requirements referred to in art. 8 para. 1 item 1, e-g;
 - 2) be at least 21 years of age;
 - 3) have adequate professional background;
 - 4) have an impeccable opinion issued by the district (city) chief of police competent for the place of residence, and in the case of a citizen of a foreign country, by the authority of appropriate level and competence in that country, competent for the place of residence.
- 2. The professional background referred to in para. 1 item 3) above shall be verified and confirmed by the employer.
- 3. The requirement referred to in para. 1 item 2) above does not apply to gunsmiths.

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