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## ADAPTATION OF HUMAN RESOURCES IN MOLÉTAI DISTRICT MUNICIPALITY

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*Keywords: adaptation, human resources, employee turnover, mentoring, communication.*

### Abstract

Adaptation of human resources is an important part of the organization's activities, which helps to welcome new employees and improve the organization's performance. In this article, we discuss several types of HR adaptation and link to recent research articles on these topics: Actualities, importance of adaptation of human resources, selection stages and process of adaptation, research results, opportunities for improvement of adaptation and conclusions.

### Introduction

**Relevance of the topic.** Adaptation of employees is extremely relevant, because hiring new employees is an expensive process for the organization. A new employee must be trained, integrated into the work team and adapted to the organizational environment. Adequate and effective employee adaptation can help reduce these costs and ensure long-term employee loyalty to the organization, employee motivation and loyalty depends on their adaptation to the organization. J. Gajda (2019) also substantiates the benefits of human resources adaptation, stating that the correct implementation of the adaptation process in the organization determines the efficiency of subsequent activities in the workplace, while its absence can lead to an undesirable attitude of the employee and the employee may leave the job. Also, poorly adapted new employees can create conditions for employee turnover, which is not beneficial for the organization in order to maintain its image. All this shows that it is necessary to evaluate the adaptation of human resources of a certain organization and to identify the problems of adaptation and predict the ways of solving those problems. The success and competitiveness of the organization is related to the competences, excellence and job satisfaction of the employees. Effective employee adaptation can help ensure that new employees quickly integrate into the organization and become productive, which has a positive impact on the organization's success and competitiveness. A new employee who understands the organization's culture and is able to adapt to it tends to have long-term cooperation and greater job satisfaction. If an employee does not have this opportunity or is oppressed by the organizational culture and environment, he may feel discomfort, which can destroy his motivation and job satisfaction.

**The problem of the research** - In the municipality of Molėtai district, employee adaptation is carried out simply by introducing employees to other employees and explaining to them how to work in a new workplace, but no person is assigned to their adaptation, who would familiarize them with the specifics of the job, responsibilities, or train them to work at the workplace. In addition, employee turnover occurs in the organization because the employee's expectations do not match the organization's expectations.

**The object of the article** - is adaptation of human resources in Molėtai district municipality.

**The purpose of the article** - is to investigate the process of adaptation of human resources employees in the municipality of Molėtai district.

#### **Article tasks:**

1. To examine the theoretical aspects of human resources adaptation.
2. To carry out a study of adaptation of human resources in the municipality of Molėtai district.
3. To foresee the possibilities of improving the adaptation of human resources in the X organization.

**Research method** – review of scientific literature, examination of online sources, quantitative research (questionnaire), data processed with Excel program.

### **The concept and importance of human resource adaptation**

The adaptation of new employees is an important part of the success of the organization. It is the process by which new employees understand and accept aspects of the organization's culture and structure, along with their new work environment and colleagues, and what they learn becomes their everyday work skills. Adequate

and effective employee adaptation is important to retain employees and improve their work performance, which is critical to achieving organizational goals and success. Adaptation of human resources is an important part of the activities of organizations, which is intended to protect and strengthen their most important asset - employees. Due to its importance in optimizing costs and improving productivity and quality, human resources are recognized as an essential resource of organizations (Mohiuddin, Hosseini, Faradonbeh, Sabokro, 2022).

Analyzing the concept of adaptation, J. Gadja (2019) points out that the main goal of the adaptation process is to acquaint the employee with the organization as quickly and efficiently as possible, mainly by informing about the behavior patterns that the employee will need in the future (Gadja, 2019).

M. Zakrizevska - Belogradova and R. Linuza (2022) state that theoretical knowledge shows that adaptation is a process in which a living thing changes over time in order to continue to exist in a certain environment. In the corporate context, this process can be seen as the adaptation of the new employee to the new role and environment by integrating him into the company's processes, procedures and culture. Various measures are taken to make the socialization process of the new employee as fast as possible. It is also known as the learning and adaptation process in which new employees are accepted into their role in the organization by meeting the specific individual and their needs in the organization. Effective onboarding not only reduces the benefits of absorbing a talented and trained employee, but also increases the likelihood that the hard work spent integrating the new employee will be wasted (Zakrizevska-Belogradova and Linuza, 2022).

Analyzing the process of employee adaptation, the concept of employee adaptation is presented by the following researchers: Jakubiak and M. Kondas (2017), J. Gadja (2019), I. Chernysh and M. Kozyk (2021), M. Zakrizevska - Belogradova, and R. Linuza, (2022).

Table 1 presents the concepts of employee adaptation compiled by the aforementioned authors, which allow us to understand what employee adaptation is.

Table 1

### Concepts of employee adaptation

Author	Presentation of the concept of adaptation
M. Jakubiak ir M. Kondas (2017)	Employee adaptation is an element of human resource management. It follows the recruitment and selection process, which is narrowly defined when an employment contract is signed, setting out the terms of employment.
J. Gadja (2019)	Professional adaptation is the process of adaptation of a newly hired employee to the new conditions of his work environment. This is a consequence of the recruitment phase of new people who have successfully passed the selection procedures.
I. Chernysh ir M. Kozyk (2021)	Adaptation is a protective reaction to changes that allows you to evaluate them and determine the direction of further actions. The adaptation process is also important, as it not only introduces the company and work standards, but also allows shaping the behavior and culture of the future employee. This allows you to assess the strengths and weaknesses of the employee.
M. Zakrizevska - Belogradova, ir R. Linuza (2022)	Adaptation is the process by which a living thing changes over time in order to continue to exist in a particular environment. In the corporate context, this process can be seen as the adaptation of the new employee to the new role and environment by integrating him into the company's processes, procedures and culture.

*\*Source: made by author*

M. Jakubiak and M. Kondas (2017) analyzing the concept of adaptation, state that recruitment and selection are completed only after the end of the adaptation process. Adaptation is intended to facilitate the adaptation of newcomers (or those transferred to other positions in the organization) to new working conditions. Adaptation revolves around the induction of new employees into the company, providing them with the basics of the company's operations, introducing them to the work environment and new colleagues. Adaptation can be analyzed in terms of two areas: (1) professional adaptation, and (2) social adaptation. As for the professional field, the employee must quickly adapt to working conditions and duties-related requirements, familiarize himself with the organizational structure, distribution of duties, organization of tasks. On the other hand, social adaptation is related to familiarization and acceptance of norms, mission, values, and rules that are followed in the organization and in a specific team (Jakubiak, Kondas, 2017).

Analyzing the concept of adaptation, J. Gadja (2019) points out that the main goal of the adaptation process is to acquaint the employee with the organization as quickly and efficiently as possible, mainly by informing about the behavior patterns that will be required from the employee in the future (Gadja, 2019). As

I. Chernysh and M. Kozyk (2021) point out, adaptation in organizations has become significant, due to the continuous intensification of company management and globalization processes in recent decades, which led to changes in the paradigm of human resources management, the increasing role of information and the need to form continuous adaptation. At the same time, adaptation is a protective reaction to changes that allows us to evaluate them and determine the direction of further actions. The adaptation process is also important, as it not only introduces the company and work standards, but also allows shaping the behavior and culture of the future employee. This allows you to assess the strengths and weaknesses of the employee. Implementing an adaptation management system in a company is a rather complex task, which the solution requires: initial costs, employee turnover, workforce productivity, company culture. For new employees, this aspect is particularly important, as it affects their perception of new values, work rules and the sense of belonging to a certain social group. For managers, adaptation allows not only to form a positive attitude to work, but also to save time when organizing their activities (Chernysh, Kozyk, 2021). M. Zakrizevska - Belogradova and R. Linuza (2022) state that theoretical knowledge shows that adaptation is a process in which a living thing changes over time in order to continue to exist in a certain environment. In the context of companies, this process can be seen as the adaptation of a new employee to the new role and environment by integrating him into the company's processes, procedures, and culture. It is also known as the learning and adaptation process in which new employees are accepted into their role in the organization by meeting the specific individual and their needs in the organization. Effective onboarding not only reduces the benefits of absorbing a talented and trained employee, but also increases the likelihood that the hard work spent integrating the new employee will be wasted (Zakrizevska-Belogradova and Linuza, 2022).

### **Stages and processes of human resources adaptation**

Human resource adaptation is a process that aims to ensure that newly hired employees integrate into the organization and their work as quickly and efficiently as possible. These processes may vary depending on the size, complexity, specialty, and culture of the organization.

I. Odynets, Y. Briskin, V. Todorova (2019) indicate that the process of creating adaptation begins with understanding which management and human resources model is suitable for all participants. A family business works well with 10-100 employees, a small company with 100-150 employees has its advantages and disadvantages. Larger companies with 200-500 employees must be well versed in the flexibility and processes of human resources. Companies with 1,000 employees simply must have good procedures and policies in place. However, all companies need to properly adapt their employees in order for the company to function effectively. This is helped by properly selecting the stages of the adaptation process.

Analyzing the stages of adaptation of employees, it was noticed that different stages of adaptation are distinguished in different works of scientists. Some researchers associate the stages of adaptation of new employees with communication (Žukaite, 2016), other researchers with psychological adaptation (Kulyniak, Cherkis, 2018), others distinguish the stages of adaptation according to the working period (Odynets, 2019; Velumyan, 2021), and still others analyze the employee important elements of adaptation (Gadja, 2019, Al-Tarawneh, Al-Sarayreh, Alhowas, 2022; Liu et al., 2019; Baumann et al., 2019). After reviewing these stages of adaptation, it was noticed that each organization chooses which stages are suitable for adapting new employees. It can be assumed that it also depends on the new employee and his attitude towards the organization itself and his colleagues.

J. Gadja (2019) distinguished the following stages of adaptation, which are presented in 1 fig.

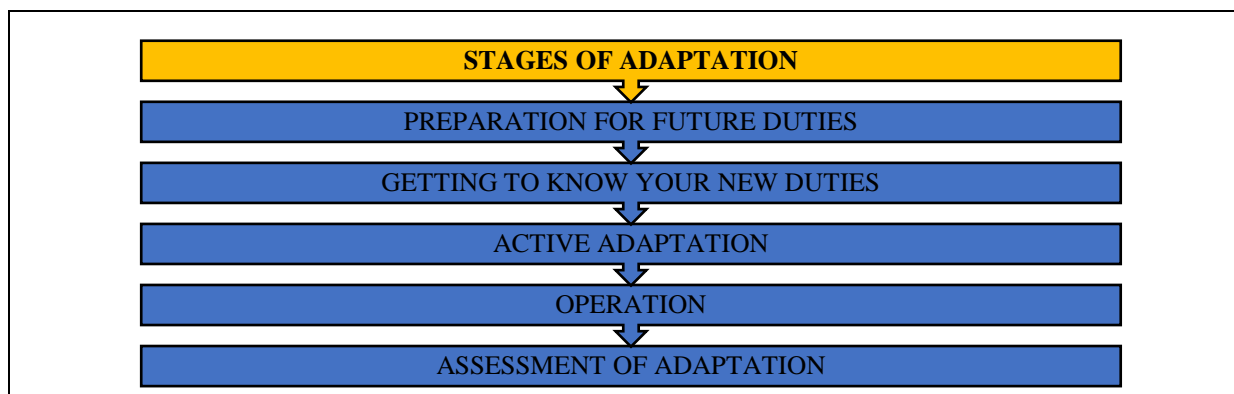


Fig 1. Stages of adaptation

*\*Source: made by author*

It can be asserted that in this case, the first stage of adaptation assesses the knowledge and skills of the employee and his preparation for future duties. In the second stage, when the employee is introduced to his new duties, he is introduced to what he will have to do while performing his duties and what regulations and rules to follow. In the following stages, active adaptation and operation are carried out, when the employee, while working in new positions, is adapted to the nature of work, the organization and other employees working in it. In the last stage of adaptation, the employee evaluates whether he has properly adapted to the duties and the organization.

Summarizing the stages of adaptation, it can be assumed that the adaptation of employees can be divided into two stages. The first stage is socialization, which is the process in which a new employee learns to understand the culture, norms and rules of the organization. The second stage is the process in which the new employee acquires the skills necessary to perform his duties.

### **Presentation of Molėtai district municipality**

Molėtai district municipality is a budgetary institution performing public administration functions. Molėtai district municipality is a legal entity, has bank accounts and a seal with the municipal coat of arms. In its activities, the municipality is guided by the Constitution of the Republic of Lithuania, local self-government, public administration, civil service laws, legal acts adopted by the Seimas of the Republic of Lithuania, decrees of the President of the Republic of Lithuania, government resolutions, other legal acts, municipal regulations, municipal council decisions, mayor's ordinances, orders of the director of administration and municipal regulations, Molėtai district municipality is a non-profit institution, established, reorganized and liquidated in accordance with the laws of the Republic of Lithuania and government resolutions. The institution is a recipient of charity and support. The activities of the municipality are based on the principles of supremacy of laws, objectivity, proportionality, non-abuse of power, official cooperation, subsidiarity of efficiency, "one-stop shop". The main goals of Molėtai district municipality: together with the Council, promote and develop local self-government as the basis for the development of a democratic state; create the necessary legal prerequisites to implement the provision of the Constitution that all government institutions serve the people.

The mission is to efficiently and qualitatively manage the municipality's resources, to provide the highest level of services to residents - to ensure sustainable development, reduce social exclusion, increase the attractiveness of the district as a place of residence and improve the quality of life. This means that the municipality will create comfortable conditions for those who live, work, study or come to spend the weekend, live with dignity, realize their ideas and spend their free time actively using the opportunities created by the municipality.

The main task of the municipality to improve the quality of life of residents is to create full-fledged living conditions that would ensure quality education, integration into society, active leisure time and dignified old age.

The *mission* of Molėtai district municipality: together with the community to create a region where it is comfortable to live, to look for partners and together to create a common result for the region, together with the guests to responsibly enjoy the natural resources of the region.

*Vision.* Molėtai district is one of the most attractive resort areas in Lithuania with its unique natural and cultural landscape and sustainable tourism. It is a land of great opportunities for a safe life, learning, work that preserves the environment, fair business development, creative initiatives and even getting to know the stars. It is the home of a civic, learning and healthy community.



## Methodology of investigation

In order to conduct a study on the adaptation of human resources in the municipality of Molėtai district, it was chosen to conduct a quantitative survey using a questionnaire.

**Questionnaire.** As K. Kardelis (2017) points out, those studies are carried out with the quantitative research method, the final results of which are expressed in numbers. In order to obtain new knowledge, a set of different methods, actions and methods of description is used. For this study, such a research method as an online questionnaire survey was chosen. This type of research was chosen because it is easier to collect a large amount of data using an online questionnaire survey, it does not take time for the respondents to fill in the data, and it is cheap because it does not cost anything. This survey is anonymous. It aims to obtain the most accurate and objective results possible, closed questions are used in the questionnaire. This method of research does not require a lot of time, so it is possible to interview a considerable number of respondents.

**Instrument.** After analyzing the scientific literature, a questionnaire was drawn up (Appendix 2). The questionnaire contains 19 questions that reveal how employee adaptation is carried out in organization, what tools and methods are used to adapt new employees, and what adaptation problems are encountered and what can be improved.

**The survey sample.** The sample size is the number of respondents who need to be interviewed during the research in order for the results of the survey to reflect the opinion of all subjects (population) with the selected probability and margin of error. General set - 139 employees of the organization. 130 questionnaires were sent, 104 were returned.

At the beginning of the questionnaire, the respondents were introduced to the research topic and its purpose. The survey is anonymous and the data is used only for the analysis of the research being conducted. The questionnaire survey will be conducted from March 20 to April 5, 2023, after placing the questionnaire on the Google form website and sending its link to the municipal employees.

**Research ethics.** As I. Gaižauskaitė and S. Mikėnė (2014) point out, all the most general ethical principles apply in studies where data are collected by the survey method. The authors single out some of the most important principles determining the well-being of research subjects: "informed and voluntary consent to participate in research; ensuring anonymity and confidentiality of received information; equivalence".

Before conducting the research, the interviewed research participants were informed about the purpose of the research and were assured that their answers would be confidential and used only for the purposes of the thesis. This is how the principle of confidentiality is implemented.

## Research results and analysis

In order to analyze the study of the adaptation of newly hired employees of the organization, it was chosen to conduct a questionnaire survey by interviewing municipal employees. The respondents' answers are analyzed starting from the demographic data of the respondents. 83 percent of people work in the municipality. women and 17 percent men. The largest share of all people who took part in the survey is made up of respondents aged 36 to 45 (41%). 24 percent respondents are 46-55 years old, 18 percent. respondents are 56 years old and older, and 16 percent - 26-35 years old. This distribution of respondents reveals that the municipality employs more middle-aged persons who have experience in the field of work.

Analyzing the education of employees, it can be stated that most of them (61%) have a university education, 28% non-university higher education, 9 percent. the higher one. A very small proportion of the respondents are employees of the organization with secondary education (2%). It can be concluded that the interviewed employees are educated and competent to assess the adaptation of employees.

In order to analyze the study of the adaptation of the newly hired employees of the X organization, it was chosen to conduct a questionnaire survey by interviewing the company's employees. Figure 2 shows how employees in Molėtai district municipality understand what adaptation is.

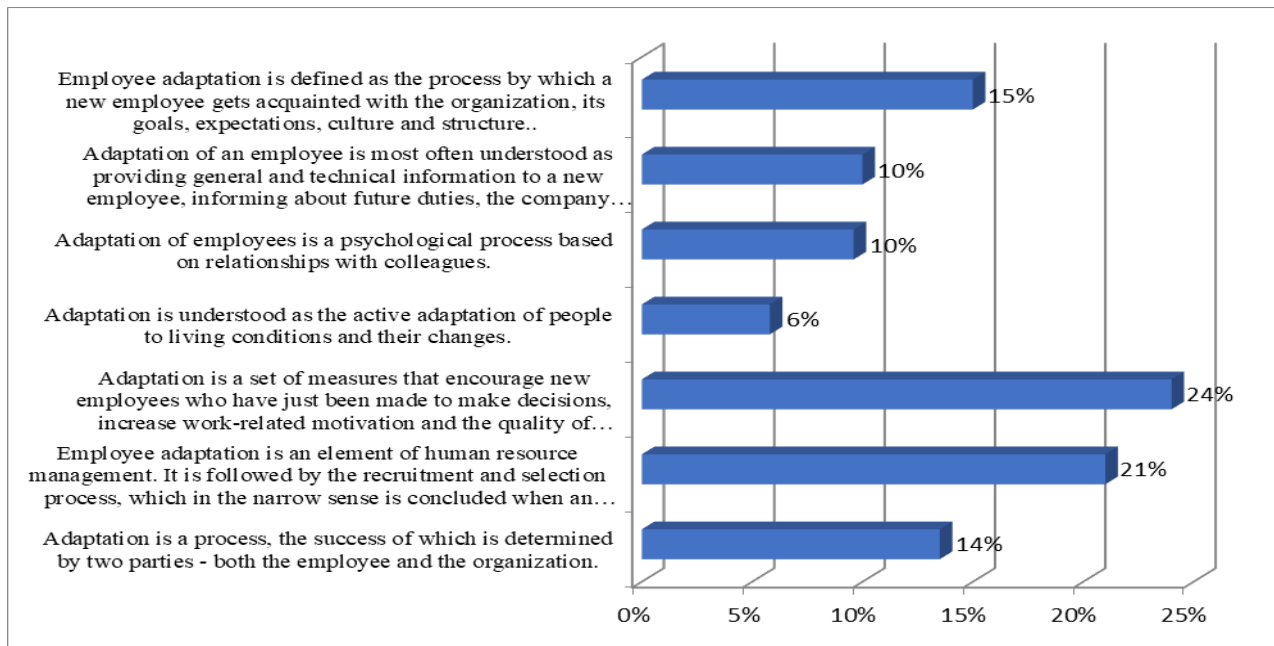


Fig 2. Understanding the concept of adaptation from the perspective of employees

*\*Source: made by author*

As can be seen in Figure 1, the majority of employees of the organization who took part in the survey understand adaptation as a set of tools that encourages newly hired new employees to make decisions, increase work-related motivation and the quality of working life (24%) and as an element of human resources management in which followed by the recruitment and selection process, which in the narrow sense is concluded when an employment contract is signed, which sets the terms of employment (21%). This allows us to say that employee adaptation is understood as a human resource measure that helps a new employee successfully adapt to the organization from the moment the employment contract is signed. A slightly smaller part of the research participants considers the onboarding as a process during which a new employee gets to know the organization, its goals, expectations, culture and structure (15%) and the success of which is determined by two parties - both the employee and the organization (14%). 10 percent interviewees understand adaptation as providing general and technical information to a new employee, informing them about future duties, the company providing the workplace, introducing them to the administration and the team, and the other 10% research participants indicate that employee adaptation is a psychological process based on relationships with colleagues. A very small part of the respondents understand adaptation as the active adaptation of people to living conditions and their changes (6%).

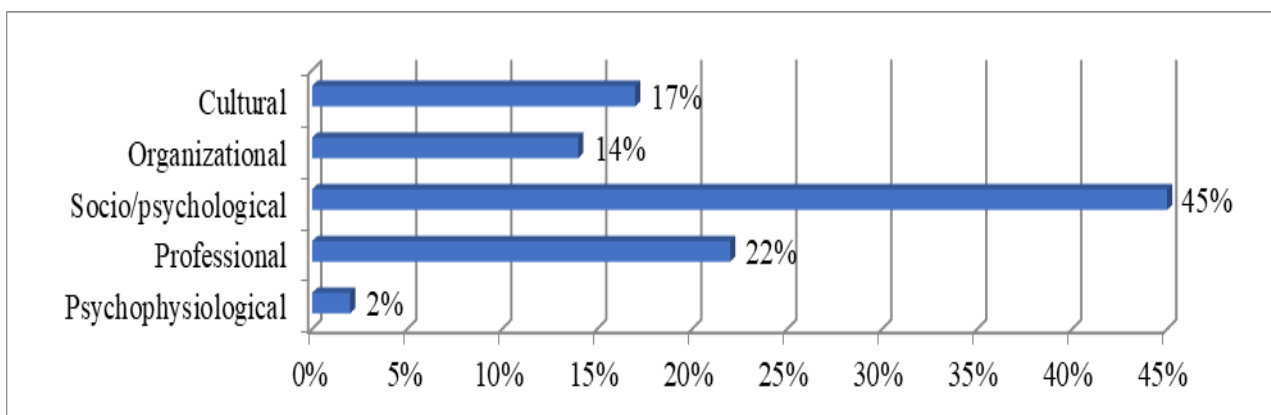


Fig 3. Types of adaptation known to workers

*\*Source: made by author*

Figure 3 shows that the majority of research participants know social/psychological adaptation (45%), professional adaptation (22%). Based on this, it can be assumed that social/psychological adaptation is mostly

applied, how the employee is given the opportunity to adapt to other colleagues and feel good, and when the opportunity to adapt to the duties performed and the tools necessary for work are provided. Fewer research participants know the cultural (17%) and organizational (14%) types of adaptation. 2 percent study participants know psychophysiological adaptation.

Figure 4 reveals the results of the study, which shows whose contribution during the adaptation process of the new employee is more important for the successful adaptation of the employee.

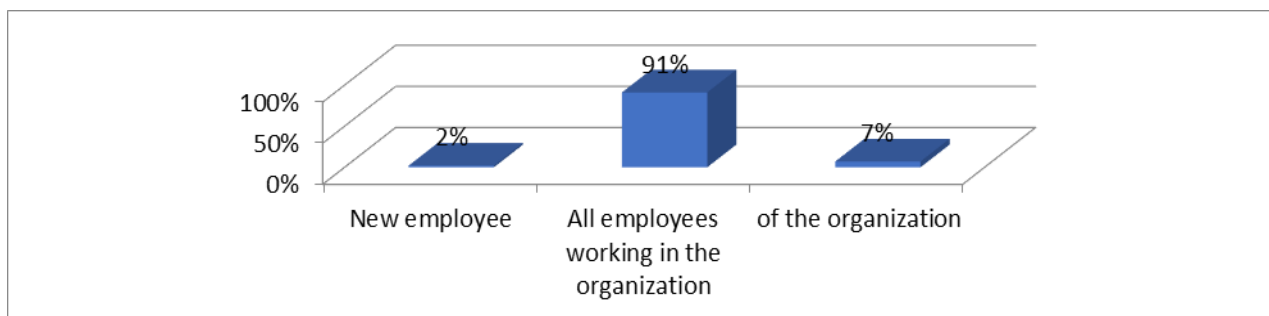


Fig 4. Contribution during the adaptation of the new employee is more important for the successful adaptation of the

*\*Source: made by author*

As can be seen in Figure 4, almost all research participants indicate that the contribution of all employees working in the organization is important during the adaptation of a new employee (91%). This shows that when adapting a new employee, all the employees of the organization try to help him. 7 percent of the research participants indicate that in order to achieve successful adaptation of the employee, the contribution of the head of the organization is more important for the adaptation of the employee, and 2 percent. - that of the new employee himself.

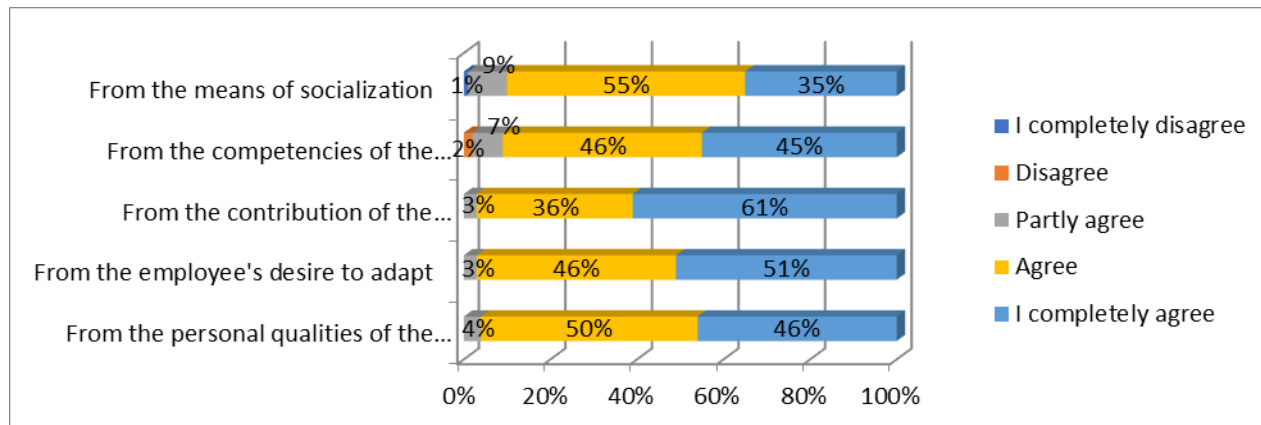


Fig 5. Successful adaptation of the new employee

*\*Source: made by author*

Figure 5 shows what depends on the successful adaptation of a new employee. More than half of the surveyed employees fully agree that the successful adaptation of a new employee depends on the organization's contribution to adapting the new employee (61%) and on the employee's willingness to adapt (51%). This allows us to say that in order to successfully adapt a new employee, it is very important that the organization provides opportunities for the employee to adapt and motivates him. A greater part of the interviewed employees of the organization agree that the successful adaptation of a new employee depends on the means of socialization (55%), on the personal characteristics of the employees (50%) and on the competencies possessed by the employee (46%). This shows that all these factors are also important in order to successfully adapt a new employee.

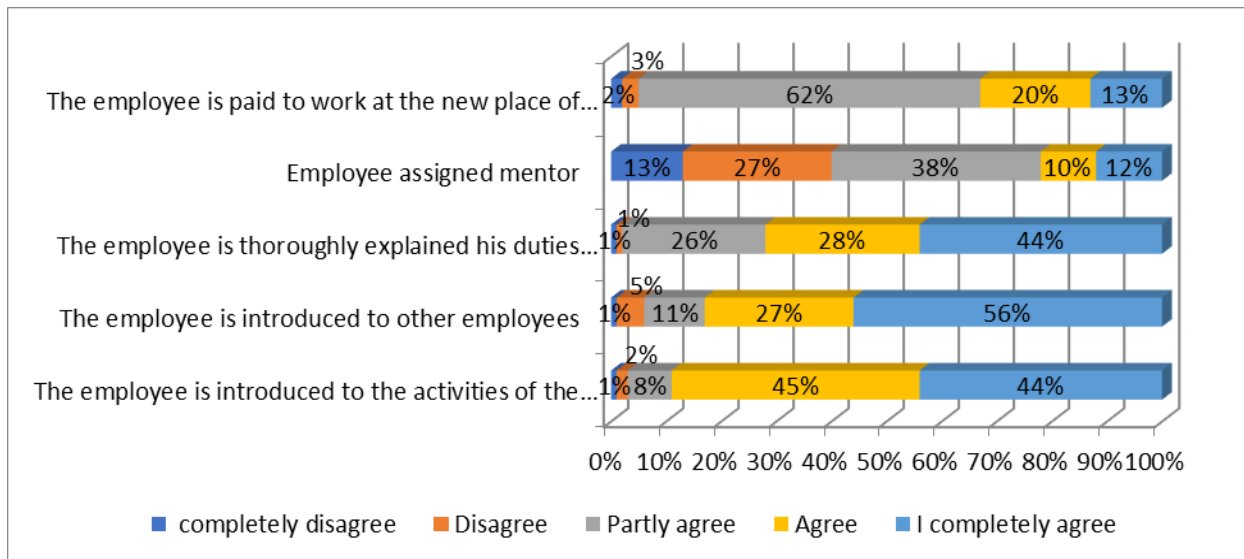


Fig 6. Actions for employee adaptation  
\*Source: made by author

Figure 6 reveals how employee adaptation is carried out in Molétai district municipality. The conducted research shows that more than half of the employees completely agree that a new employee is introduced to other employees during the adaptation (56%). A slightly smaller part of the research participants indicate that during the adaptation of new employees, employees are thoroughly explained their duties and tasks (44%). 45 percent research participants agree that during employee adaptation, the employee gets to know the organization's activities, documents and environment. More than half of the surveyed employees only partially agree that the employee is trained to work in a new workplace (62%). A somewhat smaller part of the research participants only partially agrees that new employees are assigned a mentor (38%). This shows that although new employees are introduced to the organization, duties and other employees during adaptation, not all new employees are trained to work in a new place and not all employees are given a mentor to help them adapt to a new workplace faster.

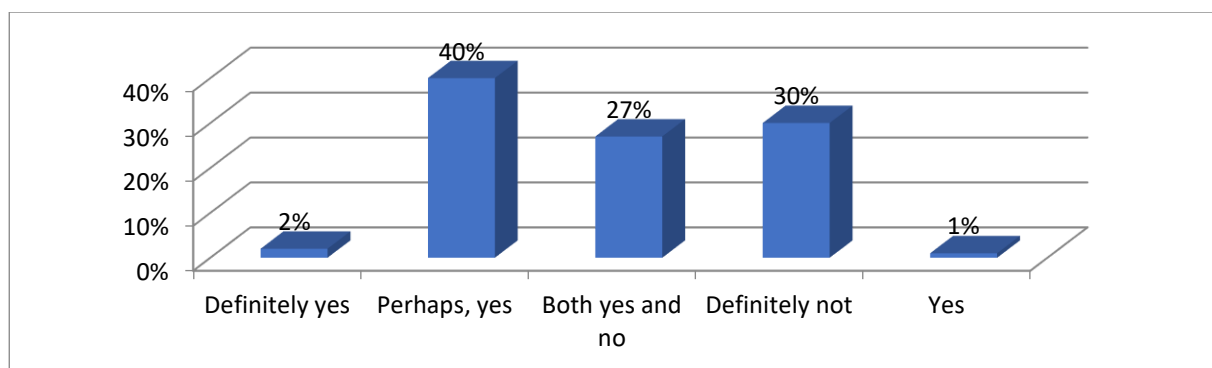


Fig 7. The ongoing process of employee adaptation is successful  
\*Source: made by author

The results of the study presented in Figure 7 reveal that a greater part of the surveyed municipal employees indicate that the ongoing employee adaptation process is perhaps successful (40%). 30 percent research participants indicate that the ongoing adaptation process of employees is not successful. A slightly smaller part of the research participants indicates that the adaptation process is both successful and not (27%). Only 3 percent research participants agree that the ongoing process of employee adaptation is successful. This shows that new employees are being adapted, but that adaptation is not always successful. Therefore, it can be assumed that the municipality needs to improve the adaptation process of new employees. Figure 8 shows that employees evaluate the implementation of the goals of the adaptation process in the municipality of Molétai district.

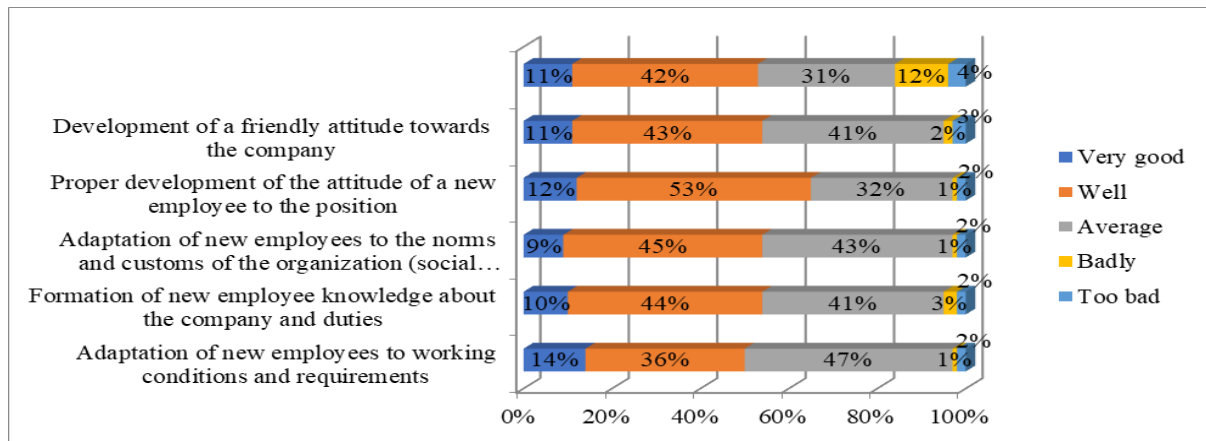


Fig 8. Evaluation of the implementation of the goals of the adaptation process in the municipality of Molėtai district  
\*Source: made by author

As can be seen in Figure 8, the majority of employees have a good opinion of the objectives of the implementation of the adaptation process, such as the proper development of new employees' attitudes towards duties (53%), adaptation of new employees to the organization's norms and customs (45%), new employees' knowledge of the company and duties formation (44%), development of a friendly attitude towards the organization (43%) and promotion of employee engagement in order to reduce the risk of new employees leaving the job (42%). Most of the research participants also rate the implementation of these goals as average. Also, a larger part of the research participants on average evaluates the adaptation of new employees to working conditions and requirements (47%). This shows that when adapting new employees, more attention should be paid to adapting them to the requirements of the working conditions, providing them with better working conditions and indicating the importance of the requirements.

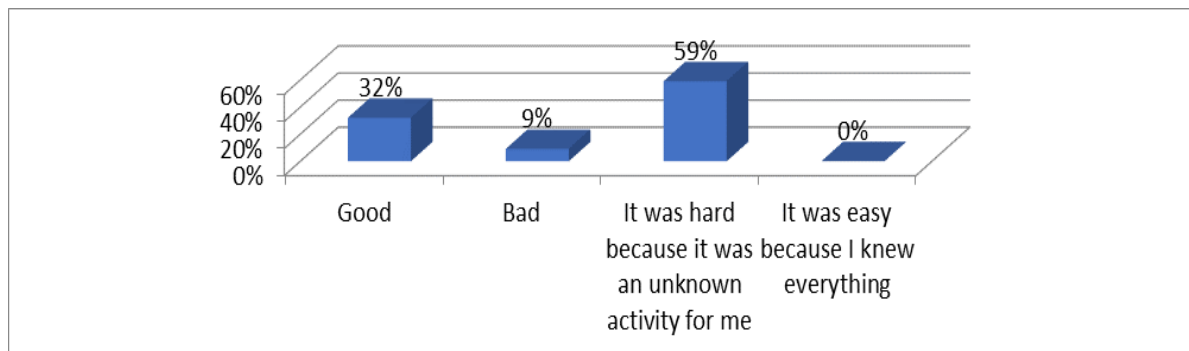


Fig 9. Adaptation experiences of the organization's employees  
\* Source: made by author

As can be seen in the presented figure, more than half of the respondents indicated that it was difficult for them to adapt because it was an unknown activity (59%). 32 percent of the respondents indicate that their adaptation was good, and 9 percent - that's bad. This distribution of respondents' answers allows us to say that more attention needs to be paid to the adaptation process.

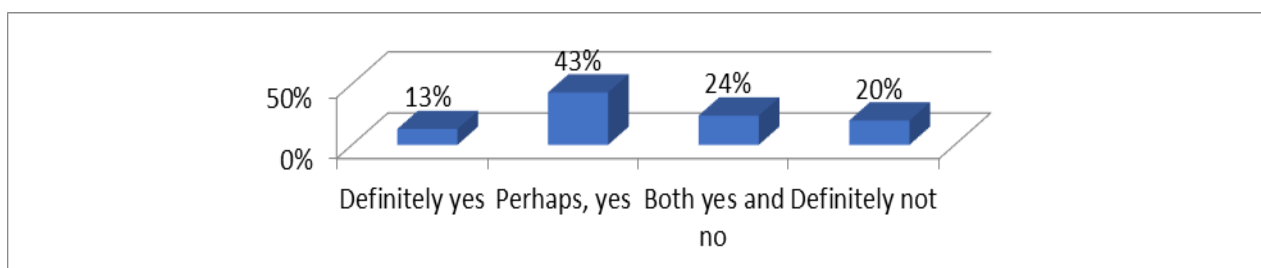


Fig 10. Encouraging the willingness of new municipal employees of Molėtai district to adaptation  
\* Source: made by author

The results of the survey presented in Figure 10 reveal that a greater part of the respondents indicate that perhaps the willingness of new employees to adapt is encouraged (43%). 24 percent of the research participants indicate that the willingness of new employees to adapt is encouraged and not encouraged, and 20 percent. study participants indicate that it is not encouraged. This shows that they should pay more attention and motivate new employees to want to adapt themselves to work in the organization. 13 percent research participants indicate that employees' willingness to adapt is encouraged.

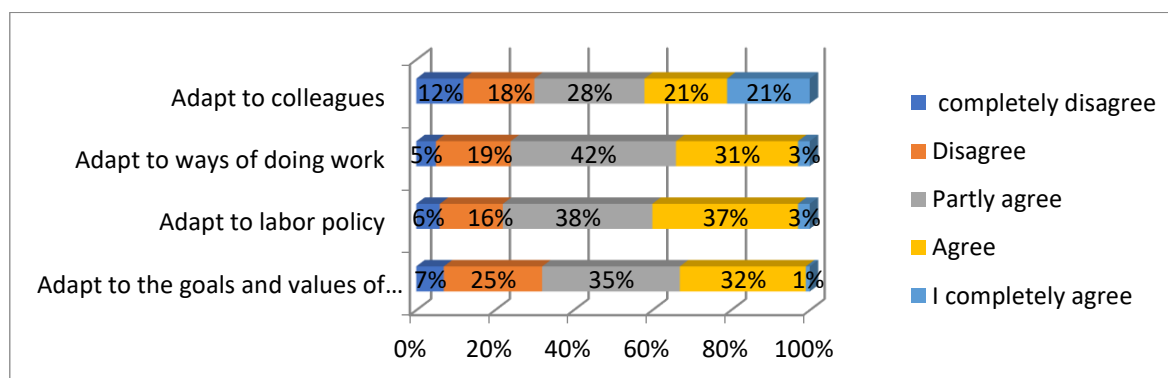


Fig 11. The most difficult factors during the entire adaptation process

\*Source: made by author

Figure 11 shows that 21 percent survey participants completely agree, another 21 percent. - agree, 28 percent. - partly agree, 18 percent. - do not agree, and 12 percent - completely disagree that it is the most difficult for them to adapt to their colleagues. This shows that when improving the adaptation process of the analysed municipality, it is necessary to create a favourable atmosphere between new and old employees, giving them opportunities to communicate outside of work hours and get to know each other better. A larger part of the research participants only partially agree that it is most difficult to adapt to work performance methods during adaptation (42 percent), 3 percent. completely agree with that, 31 percent. - agree, 19 percent. - do not agree, and 5 percent - completely disagrees. 38% partially agree that it is the most difficult for new employees to adapt to the work policy. research participants, 3 percent - completely agree, 37 percent. - agree, 16 percent. - do not agree, and 6 percent - completely disagrees. 35 percent of research participants partially agree that it is difficult for them to adapt to work goals and values, 32 percent. - agree, 25 percent. - do not agree, and 7 percent - completely disagrees.

The most difficult factors during the entire adaptation process:

It should be noted that the majority of respondents completely agree that the analysed organization conducts an employee familiarization phase (46%), 44%. - agree with it, and 10 percent - partly. Most of the research participants agree that the stage of presentation of the company's documents and activities is carried out in the municipality (61%), 22%. - fully agree, and 16 percent partially agree. 42 percent agree with the job duties presented to new employees. 41 percent of those surveyed completely agree, and 17 percent partially agree. Most of the respondents only partially agree that when adapting new employees, attention is paid to new employees during the entire adaptation process (58%), 7% completely agree with this. - 17% of the survey participants agree, 17% disagree. 39 percent agree that there is partial agreement with the training of employees during adaptation. of those interviewed, 28 percent - completely agree, 26 percent. - agree, and 7 percent - do not agree or do not agree at all. This shows that not all employees are trained to work in a new workplace and during adaptation, too little attention is paid to the new employee, which, it is believed, will encourage them to adapt faster in the organization.

*Summarizing the study of the adaptation of the newly hired employees of the organization, it can be stated that the adaptation of employees is understood as a human resources tool that helps a new employee to successfully adapt to the organization from the moment of signing the employment contract, and the best-known types of adaptation are social/psychological and professional. Almost all research participants indicate that the contribution of all employees working in the organization is important during the adaptation of a new employee. The conducted research shows that it is possible to say that in order to successfully adapt a new employee, it is very important that the organization provides opportunities for the employee to adapt and motivates him. Although new employees are introduced to the organization, duties and other employees during*

*the adaptation process in the organization, not all new employees are paid to work in a new place and not all employees are given a mentor to help them adapt to the new workplace faster. The conducted research shows that the adaptation process needs to be improved and given more attention. The organization should pay more attention and motivate new employees to want to adapt themselves to work in the organization. Also, when adapting new employees, more attention should be paid to their adaptation to working conditions and requirements, providing them with better working conditions and indicating the importance of requirements. In the organization, it is necessary to give new employees more time to adapt and create a good atmosphere for them, this could be done by paying more attention to them. The adaptation of new employees in the organization would be facilitated by greater opportunities to adapt to the work environment, training of employees to perform assigned tasks, and greater opportunities to join the team. Also, while improving the adaptation of new employees, it would be possible to provide new employees with a mentor to whom they could turn in case of uncertainty or when trying to figure out new things.*

### **Possibilities of improving the application of human resources in Molėtai district municipality**

Based on the results of the study, it can be concluded that the adaptation of human resources in Molėtai district municipality is not carried out efficiently enough. The induction of new employees is superficial and insufficiently focused on their job duties and skill development. Also, employee turnover occurs due to a mismatch between employee expectations and organizational expectations. In order to improve the human resources adaptation process in the municipality of Molėtai district, several options can be distinguished:

Develop a more structured and comprehensive adjustment process that includes job duties and skills training. Appointment of a mentor or manager for new employees to help and advice in the adaptation process; Regularly evaluate the adaptation process and make the necessary adjustments based on the feedback of new employees. Improving communication between the organization and new hires to ensure expectations are aligned from the start.

In conclusion, it can be said that the effective application of human resources is a critical component of organizational success, as it helps to retain employees and improve their performance. The study conducted in the municipality of Molėtai district highlighted the need to improve the adaptation process, which can be achieved by developing a more structured and comprehensive approach, appointing a mentor or supervisor, conducting regular assessments, and improving communication. Implementing these improvements can help ensure that new employees quickly integrate into the organization and become productive, which has a positive impact on the organization's success and competitiveness.

### **Conclusion**

Effective adaptation of human resources is a critical component of organizational success, as it helps to retain employees and improve their work performance. The study conducted in the municipality of Molėtai district highlighted the need for improvements in the adaptation process, which can be achieved through developing a more structured and comprehensive approach, assigning a mentor or supervisor, conducting regular evaluations, and improving communication. Implementing these improvements can help ensure that new employees quickly integrate into the organization and become productive, which has a positive impact on the organization's success and competitiveness.

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## THE NEED AND OPPORTUNITIES FOR STAFF TRAINING IN A PERSONAL HEALTH CARE FACILITY

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Keywords: *personal health care institution, staff training, medicine.*

### Abstract

This article examines the fact that for the medical community, learning is an integral part of the activity, since they are entrusted with the greatest value of humanity – health: its preservation, strengthening and protection. Medical specialists constantly improving their qualifications who have a strong base of knowledge, able to use acquired high-quality and properly selected knowledge, providing high-quality and safe health care services is the aspiration of every private health care institution, especially in the face of today's crisis and mistrust in the public health sector.

### Introduction

Professional and high-quality health care services, disease prevention and health care are the right of every citizen, provided for in the Constitution of the Republic of Lithuania. This basic legal act, which regulates the rights of a citizen as a patient, is also the foundational basis for the entire medical community. The rapidly developing medical science, the speed of the latest technologies oblige the medical staff to pursue extensive basic education, to constantly develop the acquired competences, thus creating a stronger professional identity and during the learning process allowing not only their own potential, but also the health care institution's potential to fully unfold.

**State of research.** The need and opportunities for staff training are widely studied in the scientific literature. Lithuanian authors A. Sakalas, (2012); V. Peleckienė, (2014); R. Česnyienė, (2014); J. Raudonienė, (2016) and others examine the importance of training in the institution in theoretical aspects. Representatives of medical science V. Janušonis (2017, 2018) examine the importance of learning in the medical field. Foreign authors E. D. Hess, (2020) et. al analyze the benefits created by staff training opportunities at a practical level. There is a unanimous opinion that staff training is associated with future prospects, thus giving the institution a competitive advantage.

**Problem.** Continuous reforms in the field of health care, the public's disappointment with the services and servicing provided by state health care institutions, form ever greater demands and project ever higher personal expectations for the private medical sphere. A private personal health care institution, in pursuit of the highest level of quality, in an effort to create and maintain uniqueness, uses the development of medical staff evolution and thus improves the results of its operation.

**Research object** – the need and opportunities for staff training in a personal health care facility.

**The aim of the research** is to examine the need and opportunities for staff training in a personal health care facility.

#### **Objectives of the research:**

1. To examine the need and possibilities for staff training from a theoretical point of view.
2. To conduct a survey on the need and possibilities for staff training in a personal health care institution.

**Research methods:** review of scientific literature, examination of online sources, questionnaire survey, graphic representation.

### The concept and essence of staff training and learning

The modern environment is extremely dynamic: what we know and understood yesterday becomes irrelevant today. The abundance of information, the constant introduction of the latest technologies encourages the staff to use their mental, physical, social, mental abilities and, through their interaction, to constantly update the existing knowledge. Learning becomes an integral and continuous part of every person's daily life, determining all aspects of not only professional, but also personal life. For institutions, this is one of the essential operational goals and aspirations, which can prepare staff for work in modern conditions of transformations.

According to A. Sakalas (2012), the idea of lifelong learning is becoming more and more established in society. The author claims that the modern goal of teaching and learning is to create a modern system that would help a person understand not only the modern world, but also professional, cultural and social competence and become an independent, responsible person who is willing and able to constantly learn. It is observed that the learning process is associated with continuity and personality transformation.

V. Pranulis, A. Pajuodis, S. Urbonavičius and R. Virvilaitė (2012) emphasize that human activity and knowledge of reality are always based on learning. It is believed that learning is an activity that allows a person to get to know the surrounding external and internal environment better and be properly oriented in it.

### **The need and benefits of staff training**

As the factors determining competitiveness change more and more rapidly, the only way for the institution to successfully carry out its activities and remain in the market is to constantly improve the knowledge of all employees, empower their abilities and comprehensively develop them. In order to implement the concept of the mentioned successful institution, it is necessary to properly determine the training needs of the staff and to see their importance collegially. It is necessary to find out: whether the staff needs to be given new knowledge or to update their existing knowledge; whether to improve existing abilities or develop new ones; whether the available knowledge and information is adapted to the institution's policies and existing culture or not. It is important to analyze whether the staff face social, psychological or other problems, or whether they are able to solve them independently.

In order to survive and compete in the modern labor market, knowledge and the ability to apply it in practical activities are required. E. Hess (2014) describes knowledge as the key to the successful operation of any institution. A. Sakalas (2012) treats knowledge as specific resources of the institution. J. Raudeliūnaitė (2016) defines knowledge as the cognitive content of the learning process. It can be stated that it is knowledge enabled to act that provides the much-desired competitive advantage, allows to stand out from other institutions performing the same activity.

Different types of knowledge are mentioned in various literature: theoretical, practical, scientific, social and psychological, analytical, technological. This list is not exhaustive, the nature of knowledge is rapidly renewed and changing, interacting with the development and expansion dictated by the specifics of the activity. It can be said that knowledge is a changing and unstable matter, therefore, in order to achieve maximum results in the institution, it is necessary to periodically study the need for staff training. After determining the nature of the missing knowledge, it is extremely important to develop it, thereby creating opportunities for the professional and personal competence of the staff to grow.

Education is extremely important in the medical field. According to the World Health Organization [2022], a health system consists of institutions, people and actions whose main objective is to promote, restore and maintain human health through the provision of safe and consistent health care services. It can be assumed that for this reason, the need for learning in the medical field is constantly felt and it only increases, as people's health problems deepen, and public expectations for the responsibility of the medical community grow.

Representatives of medical science L. Skrickienė, D. Čepuraitė and K. Štaras (2018) point out that the quality of services and the successful operation of the institution depend on the qualifications, knowledge and competence of the employees. According to the authors, in order to remain in demand, a medical institution must constantly improve and learn. It is observed that this is extremely relevant for the private medical sector, which is more interested in identifying its activities with innovation. The private medical sector, in carrying out its activities, more often uses rapidly developing technologies, applies the latest theoretical and practical knowledge and follows the principles of an impeccable reputation, the highest quality, which must respond to the needs of society, which are increasing for the private medical sphere, due to the constant crises faced by the state-supported health care institutions.

### **Methods and forms of staff training**

According to J. Raudeliūnienė (2016), in order to determine the appropriate learning method for an employee, it is first necessary to assess the competences already acquired by the employee. The author names the following, in her opinion, the most important competences:

- Personal competence;
- Social competence;
- Professional competence;
- Methodological – analytical competence;
- Managerial competence;
- Intercultural competence.

The list can be supplemented with the newly mentioned psychological or psychosocial competence, which has only recently started to be talked about, but it is very important to ensure the emotional and mental health of staff members. It can be affirmed that the assessment of competence helps to understand which competences the employee has already developed and which ones are lacking. Taking this into account, it is possible to determine the real need for training, and to create prerequisites for developing learning opportunities.

The staff of today's institution is unique. It consists of representatives of various age groups, who have different views, beliefs, values, who brought with them different learning and work experiences, who are able to absorb new information in their own way, apply and adapt it in their activities, who have developed their competences in a variety of ways, and are still developing them. The staff can be motivated or passive, striving for career heights or still looking for their place in the institution. This proves that the staff members of the institution are different and this is a great strength of the institution. Accepting this essential fact, different training methods and forms are chosen for training staff, taking into account their discussed uniqueness and already acquired competences, thus creating positive learning conditions, which make the learning process itself more effective, and the acquired knowledge becomes valuable and useful.

### **Professional qualification of medical staff and its legal regulation**

Professional qualification in medicine is perhaps the most strictly regulated activity in the legislation of the Republic of Lithuania. It ensures proper preparation of medical professionals and lays the foundation for successful and efficient work, ensuring the main goal of the entire health system – professional assistance to the patient, providing quality and safe health care services.

In implementing this goal, the medical field is strongly influenced by the external political-legal environment and is subordinate and accountable to a large number of controlling and coordinating state institutions. Analyzing the provided managerial and legal information, the importance and legal definition of the competence of medical staff is observed. The competence of the medical staff begins to be formed already in the educational institution, in the further process the competence of the medical staff is coordinated by the laws and orders of the Republic of Lithuania. However, this does not mean that the concept of competence of medical staff valid today is unchanging, on the contrary, it is dynamic and periodically updated, taking into account the current era and responding to the needs of society.

### **Possibilities for developing competencies of medical staff**

Constant social and economic changes, increasing patient expectations and demands directed at the health care system oblige health care institutions to pay more attention to the continuous training of medical staff competencies, thereby ensuring better opportunities for survival and development. Constant and systematic learning and development of the members of the personal health care institution becomes an integral part of the activity.

R. Česynienė, A. Marčinskas and A. Stankevičienė (2014) emphasize that successful learning within the institution helps to attract and retain talents, motivate them to generate and share knowledge. It is observed that learning within the institution creates conditions for greater staff involvement in the institution's activities and promotion of loyalty.

V. Janušonis (2017) claims that doctors often have a strong motivation to seek to improve their competence. The author indicates that their motivational factors can be divided into two groups:

- Personal: the desire to realize oneself, to be recognized by patients and colleagues;
- Professional: pursuit of career, salary, job retention.

It is observed that medical staff have a greater motivation to learn than representatives of other spheres, because they are motivated by even several groups of factors directly related not only to their activities, but also to self-realization.

## Survey on the need and possibilities for staff training in a personal health care institution

### Methodology of the research

The empirical research was conducted from 2022-11-01 to 2022-11-30. The aim of the research was to examine the need and opportunities for staff training in a health care institution. The method of quantitative data collection was chosen for the research – a survey, the chosen instrument was a questionnaire. The research site is a private personal health care institution located in the city of Klaipėda. Printed questionnaires were distributed to the respondents at the workplace. Convenient random sampling was used to conduct the questionnaire survey. It was conducted avoiding possible violation of the anonymity and confidentiality of the respondents who participated in the survey. The research sample was set based on Paniotto's formula (Kardelis, 2016).

### Research results and analysis

The research involved 71 respondents. The age of the respondents was from 25 to 66 years. Six age groups were formed. Four age groups were dominant in the conducted research: 25–32 years old; 33–40 years old; 41–48 years old and 49–56 years old. The average age of the respondents was 41 years. The legal regulation of the education of medical staff discussed in the theory stated that medical staff start their professional path a little later than representatives of other specialties, because their basic and specialized education lasts longer and is more complicated. The indicated average age is quite high, but given the fact that only experienced medical professionals work in private personal health care institutions, this average is not surprising.

The distribution of the surveyed respondents according to their positions is presented in Figure 1. Seven main specialties prevalent in the institution were distinguished.

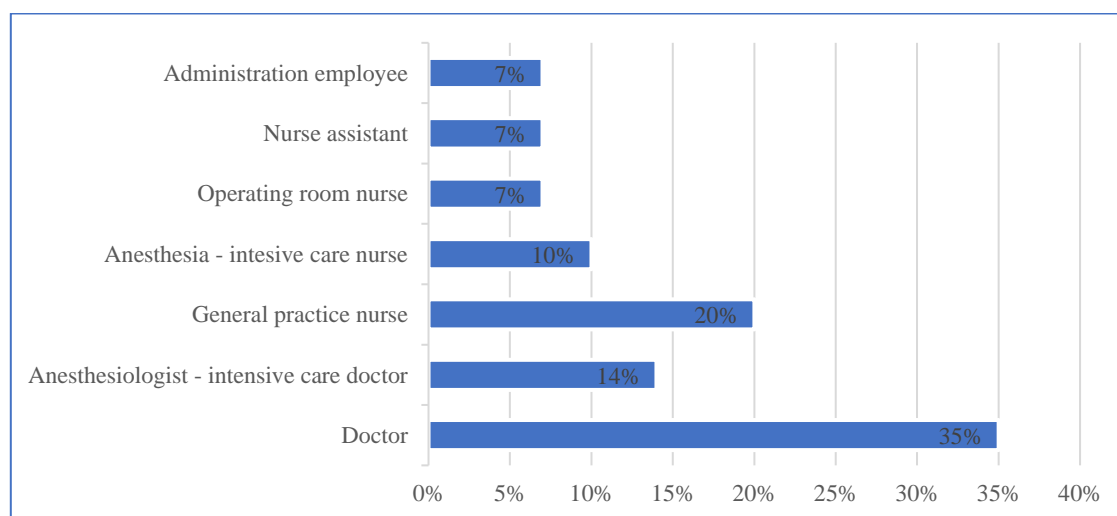


Fig. 1. Distribution of respondents according to their positions.

*\*Source: Compiled by the author, based on research data*

In the data presented in Figure 1, it is observed that the dominant specialties in the company are doctors (35%), anesthesiologists – intensive care doctors (14%) and general practice nurses (20%). These specialties are the basis of the medical community, while all the others are created specifically in order to support these core groups in carrying out their tasks and achieving their goals. It can be seen that there are essential connections between specialties: anesthesia – intensive care doctor and anesthesia – intensive care nurse; doctor (a) surgeon and operating room nurse; general practice nurse and nurse's assistant. It can be stated that these specialties cannot work without each other, therefore there are elastic team relations between these specialties, which must be constantly strengthened in order to create the foundations of effective work in the field of medicine.

Respondents were asked what they think is the main goal of learning. Four objectives were presented for selection. The results are presented in Figure 2.

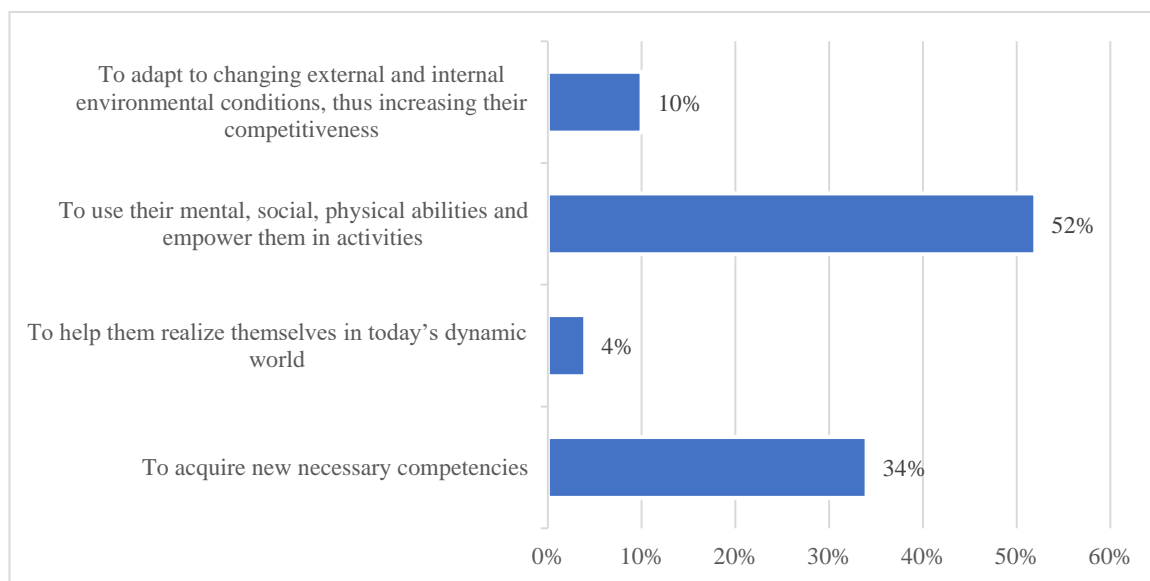


Fig. 2. The main goal of learning.

*\*Source: Compiled by the author, based on research data.*

From the data presented in Figure 2, the dominance of this main learning goal is clearly visible – using and empowering one's mental, social, physical abilities in activities, it was chosen by 52 % of the respondents. 34 % of respondents consider the acquisition of new necessary competencies as the most important goal of learning. When evaluating the data presented, the link between the concept of learning and the goal of learning is observed. It can be stated that it is important for the respondents not only to have the opportunity to acquire new knowledge or to develop the abilities they already have, but also to enable them in practical activities.

Respondents were asked to indicate what kind of knowledge they currently lack. Seven dominant characteristics of knowledge were presented for selection. The selection data is shown in Figure 4.

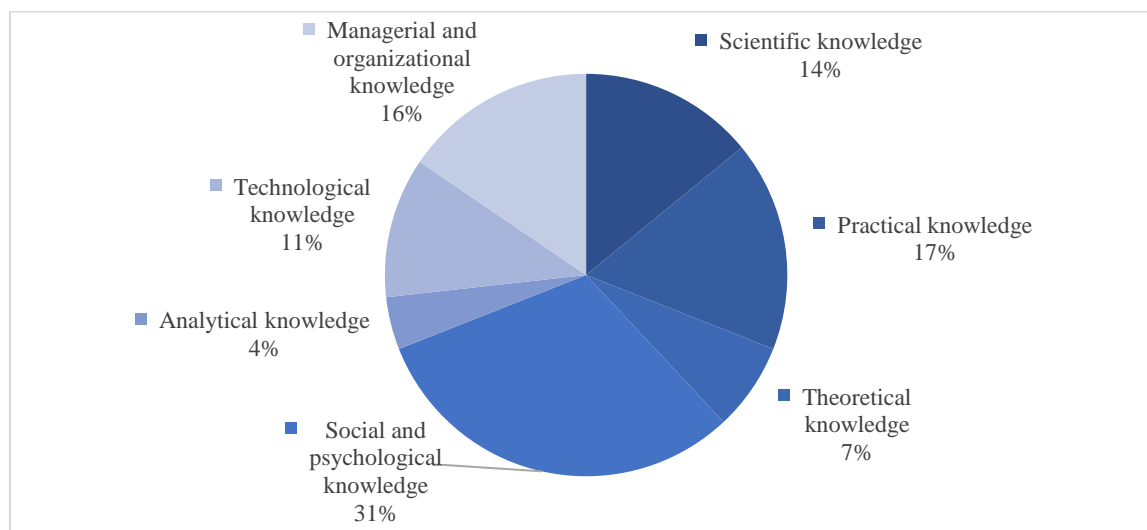


Fig. 3. The nature of the missing knowledge.

*\*Source: Compiled by the author, based on research data.*

The distribution according to the nature of the missing knowledge is observed: 31 % of the respondents stated that they lack social and psychological knowledge; 17 % – knowledge of a practical nature; 16 % – managerial and organizational knowledge; 14 % – knowledge of a scientific nature; 11 % – technical knowledge, 7 % – theoretical knowledge and 4 percent – analytical knowledge. According to the presented distribution, it can be seen that when the respondents evaluate their knowledge, the most lacking knowledge is: social and psychological, practical and managerial and organizational. It can be stated that the main missing knowledge is not directly related to the basic and specialized education of staff, their lack is

manifested in the performance of activities and in the performance of their direct work. This knowledge is extremely important for the respondents' emotional health and teamwork, and therefore, practical trainings focused on this type of knowledge would be relevant for the respondents.

The research aimed to determine the respondents' motivation to improve their competence, by asking whether the respondents would study independently in the absence of strict legal regulation. The obtained results are presented in Figure 5.

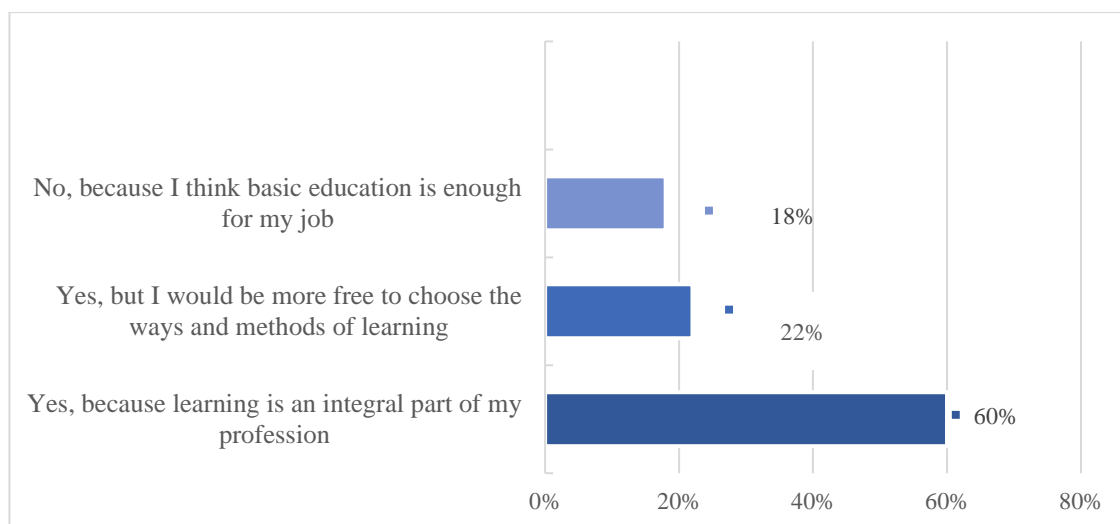


Fig. 4. Determination of motivation.

*\*Source: Compiled by the author, based on the data received.*

Analyzing the data presented in Figure 5, the visible distribution is encouraging: as many as 60% of respondents indicate that they would study independently in the absence of strict legal regulation, because it is an integral part of their profession, 22% of respondents say that they would study independently, but would be more free to choose the ways and methods of learning, and not to follow the educational procedure regulated by law. It can be assumed that the respondents associate learning with their activities and legal regulation is not the only reason for learning. The respondents who took part in the research were interested and motivated to raise their level of knowledge, thus ensuring a continuous learning process throughout their professional journey.

## Conclusions

Summarizing the results of the research, it can be assumed that learning is extremely important for the medical community, where a lifelong learning model exists. Thanks to learning, conditions are created for the provision of safe and high-quality health care services. The knowledge acquired during training forms and strengthens the competences of the staff and opens up opportunities to feel confident in their activities, especially when faced with the applied higher moral and emotional expectations of society and strict legal regulations.

Summarizing the research conducted to determine the need for staff training and evaluating the obtained data, it can be stated that the need for training is constantly felt in the medical field. This need is most observed in private personal health care institutions, where they try to meet the expectations of patients who are often disappointed in public healthcare institutions. For this reason, the staff working in private medical centers try to stand out more: with their knowledge, experience, applied innovative treatment methods, communication skills, etc.

The research data showed that the medical staff perfectly understands the learning opportunities and objectively evaluates the knowledge they have and the areas in which they need to improve, naming even the smallest aspects that are important to them. After analyzing the research data, it is stated that the medical staff prefers practical training, which is characterized by the organizational characteristics of the traditional method and form, thanks to which a positive learning environment is created and the desired learning results are achieved.

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## RESEARCH OF ORDER PROCESSING IN "PROFMARIS" COMPANY

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### Abstract

The article examines one of the main logistics activities - order processing activities. Although the costs of order processing activities are low enough compared to other logistics costs - transportation, storage, inventory management, but the customer's order is the start for the whole logistics system working. The speed and accuracy of customer order acceptance determines the level of customer logistics service.

### Introduction

Order management is the process of receiving, tracking and fulfilling customer orders. The process begins when the customer places an order and does not end until the order is delivered. This often involves many moving parts and various objects, so it is important that all parts work together to make the process streamlined and efficient. Order processing can be automated and highly technological using automated order processing software linked to an online sales platform, or it can be a manual process such as writing orders by hand in an order log. Order management systems and processes can ensure that orders are managed as needed and nothing is missed. An automated order management system can improve the customer experience because it also improves the speed and accuracy of order processing, and innovations in logistics information systems determine the level of customer service. Order processing activities are one of the most important parts of the logistics system. The topic of the work is relevant, because the improvement of the company's order processing activity is necessary for the successful operation of the company. Order processing activities are an important part of the smooth operation of a company. A large number of errors when accepting orders or during their execution causes customer dissatisfaction and loss of loyal customers. Since the major part of the company's work is the order processing activity, it is very important to find out the factors that promote the inaccuracies in the order processing activity in order to eliminate them and improve the company's work.

**Object** – order processing activities at "PROFMARIS" company.

**The purpose of the article** is to analyze the activity of processing orders in the "PROFMARIS" company.

**Article tasks:**

1. To analyze the activity of order processing in a theoretical aspect.
2. Conduct a survey of order processing activities in the "PROFMARIS" company.

Applied research methods – analysis of scientific literature, analysis of scientific online sources, analysis of statistical data, expert survey - interview.

### Theoretical frame

#### Concept and features of order processing activity

Logistics is a means of transporting goods from a company to intermediaries or to the end user. But logistics does not only mean transport. There are many different logistics activities and functions that companies use. All logistics operations, regardless of the size of the organization they serve, play roles that support the movement of goods or services. The logistics system consists of several components that can be divided into the main activities: management of the level of service offered to customers, transportation, management of inventory and information flows, and order processing. Also to support activities, which are: warehousing, material handling, procurement management, packaging design and information maintenance [Martins, 2019]. Authors: I. Meidutė (2012), R. Palšaitis (2010) and V. Zinkevičiūtė (2013) also unanimously agree that all logistic activities can be divided into main and auxiliary according to their functions. According to the authors, the main functions are order processing; user service policies and standards; Inventory Management; transport and transportation; warehousing and storage. According to R. Palšaitis (2010), one of the most important components of logistic processes is to ensure the movement of products from production



sites to consumption sites and return them to the seller. According to L. Pecheny (2020), transport logistics specializes in the transportation of goods in the transport network. This type of logistics represents an important part of logistics. The role of transport logistics is to coordinate all shipments from the moment they are received from the carrier to the moment of delivery to the recipient. Order processing is the process of identifying, sorting, picking, packing, moving and delivering packaged goods to the carrier after the customer has successfully placed the order. This is usually done in distribution centers. Order processing consists of all the steps that must be taken from the moment the customer places the order to the moment the customer receives it. Order processing software stores and shares order data, checks inventory availability, and tracks order delivery, all of which can help ensure orders are fulfilled accurately and on time. This is important because accuracy and reliability increase customer satisfaction, and customer satisfaction leads to more sales. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. Lore ipsum. The main steps of order processing are: receiving the customer's order, fulfilling the customer's order and handling all the after-sales processes. Logistics companies must ensure every aspect of customer service, whether it includes receiving orders, fulfilling them, or solving problems. The client of a logistics company must be sure that the chosen company understands his needs [Kavaliauskienė, 2014]. According to W. Wei (2016), the author of the scientific resource, logistics safety stock is also important for order fulfillment activities. This is an important part of the company that cannot be ignored and it is necessary to improve the utilization of safety stock to realize the consumer demand for their products. In this way, companies can improve the level of service, increase profitability and achieve their goals. According to J. T. Maier (2021), the order processing strategy has direct and indirect effects on various economic and logistical objectives and can therefore help to increase the flexibility of manufacturing companies. Examples of goals that influence the order processing strategy are deadline compliance, lead time, inventory costs in the finished goods store, and production costs (production lot size, setup costs, etc.). The literature mainly distinguishes order processing strategies according to: engineer-to-order (ETO), make-to-order (MTO), assemble-to-order (ATO) and make-to-stock (MTS). The choice of order processing strategy is usually based on qualitative criteria or experience, as a lump sum payment for certain products and order types, or on a case-by-case basis for individual orders. Changing from one strategy to another requires changing the customer order decoupling point (CODP). Such a change is usually effort- and time-consuming, given the many factors that influence order processing strategies, and order fulfillment requires flexibility. In addition to the order processing strategy, flexible mass customization also benefits from continuous technological improvement and continued globalization. The flexibility created in this way allows for a variety of hybrid order processing strategies.

## Information systems for order processing

In the 21st century, the information revolution changes people's lifestyles, changes the company's business process, further promotes the development of economic information and the globalization of the economy. Especially in the new Internet era, the rapid development of electronic business continues to "heat up". In computerization of e-business companies, the circulation of goods, logistics, capital flows and information flows are specially combined. An important part of the development of e-business companies cannot be separated from the effective management and control of logistics costs, especially the costs of self-logistics system management. A logistics information system is nothing but a part of a management information system for managing, controlling and measuring logistics activities. These activities are carried out within the organization or more generally throughout the supply chain. Logistics information systems are important for logistics efficiency. The order management system supports all stages of the company's sales process, from order creation to delivery and returns. Order management system platforms provide one centralized system for managing orders from multiple sales channels, including brick-and-mortar locations, websites, call centers, mobile ordering, and more. It simplifies the purchasing process for customers and makes it easier for businesses to manage orders, inventory, fulfillment and returns. According to L. Appiah (2021), logistics includes all information and material flows throughout the organization. This includes everything from the movement of the product or service to be provided, to the management of incoming raw materials, manufacturing, warehousing of finished goods, delivery to the customer and after sales service. Information technology has a profound and far-reaching impact on the structure of industries and the competitive advantage of companies. They have increased the density of the information value chain, enriched the information content of the product, changed the industry structure, and become important factors of competitive advantage in reducing costs, widening differences, and changing the competitive range [Yu Gu, 2016]. Logistics order

information system - a set of tools, procedures and people working in this system, which allows to improve, process and use information for order management purposes. According to S. Yu Gu (2016), as consumers increasingly demand the efficiency of logistics services, larger and sufficiently financed e-business companies, in order to better meet customer needs and improve the competitiveness of companies, have begun to develop their own business logistics system that provides higher quality logistics services. For example, Jingdong Mall (in China) is one of the representatives of the self-developed logistics system of e-business enterprises. The company can save more logistics costs than third party logistics costs. Its logistics is independent from other businesses and can fully control the power of logistics and maintain strong competitiveness. Their in-house staff provide logistics services and help manage and maintain the company. The company uses a real-time response system, barcode technology and EDI network technologies that reduce human error, improve efficiency and save money. The author X. Ying (2017) describes in the article the development of a logistics information system based on rapid response. According to him, the logistics information system developed for the fruit farm was based on an integrated logistics, warehousing and distribution cooperation platform, which aims to achieve three goals. The first is the fulfillment of e-commerce online orders; the second goal is to help respond quickly to logistics offline marketing channels. The third is to develop business in the international market. All business management is serviced for quick response from sellers. It also highlights the benefits of a quick response logistics information system: online and offline information and data can be integrated, implementation of the entire industrial chain traceability system, which can help collect various information and data produced at each stage of the entire industrial chain, improved integration of digital technologies. Based on the original technology, this information system has been increased and added many new information services for customers, such as product traceability system based on QR codes, delivery service instant inquiry system. After placing an order, customers can inquire about the transportation route, product arrival time, which is useful for tracking express shipments and constantly informing about the dynamics of logistics. With the rapid development of the Internet of Things (IoT), logistics and supply chain operations have been digitally transformed. Physical objects are interconnected for real-time monitoring and decision-making through cyber-physical systems. In addition to machine-to-machine communication, humans play a critical role in IoT-enabled supply chain operations, monitoring and configuring IoT devices and interacting with IoT systems to industrial intelligence would be improved. Augmented reality (XR) technologies are used for immersive visualization to enhance the connection between human and cybernetic physical systems [Y.P.Tsang, 2022]. The Internet of Things represents the next technological revolution, providing solutions for computing, analytics, etc., relying on cloud systems. The main task of the Internet of Things is to connect the Internet by collecting data from physical objects. When collecting data, computers or higher-level devices make decisions about operations [Rahmani, 2022]. With the Internet of Things, business operations become more agile and integrated, and gain a competitive advantage. Therefore, the possibilities of the Internet of Things for companies would be extremely important in the future, which would be mainly related to operational agility and effective decision-making. In summary, it can be said that logistics information systems provide information about goods and track their delivery path, their progress and condition, and the impact of changes on purchasing, production, storage, financial and accounting systems. Logistics systems rely on external information and international standards to comply with regulations and use standardized ways to exchange logistics information with other systems and institutions. Another important difference between these systems is whether the emphasis is on the content of the goods or the use of transport equipment or vehicles. Manufacturers and retailers want to track real-world products and products so they know they will arrive at delivery locations on time and in the right condition, so they can act quickly when incidents occur. Carriers focus on the progress and condition of vehicles and their transport equipment. If incidents or delays occur, carriers can notify their customers. Analyzing scientific sources on the topic of order processing activities, it can be said that in the digital world it is becoming common that e-commerce is one of the fastest growing industries. Order processing activities are an important part of the smooth operation of a company. Also, the authors mentioned in the text agree - order management is an important part of the logistics system, which starts from the order submitted by the customer to the fast and accurate processing and fulfillment of the order. In order for order processing activities to run smoothly, it is necessary that all types of logistics activities and functions work in a unified and uninterrupted manner. Logistics refers to the managerial aspects related to the acquisition, maintenance and transportation of materials, people and equipment. It corresponds to the process of planning, implementing and managing the optimized flow of goods, services and information from origin to destination to meet customer needs. All types of logistic activities can be divided into main and auxiliary according to their functions. Logistics activities are strategic for companies and are critical to business success.

Logistics planning is inseparable from business competitiveness, so it is necessary to improve performance, integrate company sectors and provide high-quality logistics services. It is very important to analyze the level of services offered to customers by the logistics system. Optimized use of resources to satisfactorily meet needs should be considered as part of the level of service offered to customers. Logistics activities are very important for the logistics system. Each type of activity has a different function that is dependent on each other as it works as a connected chain. Order cycle time refers to the average time an order is shipped from the time it is placed, excluding actual delivery time. Calculating the cycle time of customer orders provides companies with valuable information about the quality of their supply chain process. This allows companies to determine if they need to make any process improvements, including software upgrades or troubleshooting processes in the automated order management system. Many companies may also use customer order cycle time as a key performance indicator, as it can directly affect customer satisfaction rates. The logistics information system is designed to manage, control and measure logistics activities. These activities are carried out within the organization or more generally throughout the supply chain. Logistics information systems are important for logistics efficiency. Logistics order information system - a set of tools, procedures and people working in this system, which allows to improve, process and use information for order management purposes. Also, logistics information systems are important because they provide information about goods and track their delivery path, their progress and condition, as well as the impact of changes on purchasing, production, storage, financial and accounting systems. Efficient order processing can save a lot of time and resources. The authors distinguish these information systems as Electronic Data Interchange (EDI) and Point of Sale (POS) systems. The increased competition in the world markets led to the increase in demand for supply chain management (SCM) and information systems (IS) activities in companies. Better supply chain performance is about integrating and coordinating companies through an information system.

## **Results**

### **Methodology of "PROFMARIS" company's order processing research**

In order to find out the factors that promote the inaccuracies of order processing activities in "PROFMARIS" company, and to find ways to eliminate them, the following research methods were chosen: analysis of scientific literature, analysis of statistical data, expert survey method - partially structured qualitative interview. In an interview, questions are prepared in advance without pre-answer options. A semi-structured questionnaire, also called interview guidelines (questionnaire-guidelines), is mostly used for qualitative interviews. The main topics to be discussed in such a questionnaire interview and the most important questions for each topic are considered in advance. However, the structure of the questionnaire is flexible and responds to the flow of a real interview. According to it, the order of the questions asked, their wording may change, additional questions may arise, etc. (Inga Gaižausaitė, 2016) Since the analyzed company is not large, it was decided that three employees who have been working in the company for the longest time, i.e. since 2018 - the beginning of the company's existence, and has a good knowledge of the company's activities. The research participants were the director and two logistics specialists. Two other employees working for less than two years were not included in the expert survey. The interview was conducted in writing by sending e-mail. by mail, to save time during work. The interview participants were given information about the university the person conducting the research is from, the topic of his thesis, and the object and purpose of the research. Qualitative research - interview with the director and logistics specialists of the company. Research object: "PROFMARIS" company order processing activities. The purpose of the study: to present possibilities for improving the order processing activities of "PROFMARIS" company.

#### **Research tasks:**

1. To find out the attitude of the director and the logistics specialists of the company towards the order processing activities of "PROFMARIS" company and its improvement.
2. After summarizing the research results, submit proposals for improving the order processing activities of the "PROFMARIS" company

The interview took place by submitting questions to the director and employees of the "PROFMARIS" company by e-mail. The interview consisted of 10 questions.

1. What is the main type of logistics activity engaged in by the "PROFMARIS" company?

2. In what ways are your company's potential logistics service users, clients, partners sought and attracted?
  3. In your opinion, which factors are the most important in order processing activities at "PROFMARIS" company?
  4. What is the order fulfillment time and how often do you encounter order delays?
  5. How does the order management activity system used in the "PROFMARIS" company work?
  6. Do you encounter problems using the order management system? If so, what are the most common problems?
  7. Does your company plan to use an information system for order processing operations in the future? Why?
  8. What are the pluses and minuses of order processing activity information systems?
  9. How do you think that the use of an order management system in the company would help to eliminate the inaccuracies or errors related to order management?
  10. Do you think that the costs allocated to the order processing activity system correspond to its benefits?
- The interview was conducted in 2023. March 27

### **"PROFMARIS" company order processing research**

To find out what factors determine the inaccuracies of order processing in the "PROFMARIS" company, an expert survey - a semi-structured interview - was carried out. With this research method, 3 employees working in the company were interviewed - experts who have been working in the company since its foundation. The results of the survey were analyzed. The first question of the expert survey was to find out what kind of logistics activity the company is engaged in. According to the answers given, the main type of logistics activity of the company is the international transportation of full and oversized cargo by road in Europe and by sea, as well as the transportation of partial cargo in European countries. Thus, from the answers received, it can be concluded that the company carries out a wide range of international activities, but mainly specializes in the transportation of oversized and sea cargo. The following question was asked to find out in what ways the customers, partners and users of logistics services of the company "PROFMARIS" are searched for and attracted. "PROFMARIS" company is looking for customers, partners and users of logistics services by distributing advertising about its services on the Internet. Also, various databases and certain websites use keywords to select companies that are engaged in international trade. We are looking for individuals and legal entities who are interested in purchasing oversized equipment. Selected potential customers are contacted by phone or e-mail. Some customers who are interested in the transportation of oversized or partial loads contact the company personally. In summary, it can be said that the company spends a lot of time searching for customers and service users, as it is the main source of the company's profit. The aim of the study was to find out the opinion of experts about which factors, according to them, are the most important in order processing activities at the company. When performing order processing activities at the company, the most important factors are such as the correct acceptance of the order, promptness, clarification and analysis of details. Also, the accuracy of the order execution, not making mistakes, cooperation with the customer, providing all the information he needs and related to the order, in case of any problems - a high-quality way of solving them. From the answers received, it can be concluded that it is very important in the company to correctly, promptly and qualitatively perform all the factors related to order processing activities, and the company looks at it very responsibly, because after successfully fulfilled orders, the circle of loyal customers increases. The following research question wanted to find out what the order fulfillment time is and how often the company encounters order delays. According to the answers given in the interviews, it can be said that the duration of order fulfillment at the company is very individual for each order and depends on many factors. The preparation of the contract itself takes a few minutes, but sometimes you also have to deal with customs documents, which takes a lot of time. It also takes time to receive all the necessary documents from the client. Shipments are often delayed because there are many factors beyond the company's control in the logistics chain, such as vehicle breakdowns, traffic disruptions, ship, loading or transshipment delays, etc. In conclusion, it can be said that the company often faces delays in orders, which can lead to customer dissatisfaction, even if it is not dependent on the company itself. The aim of another research question was to analyze how the order processing activities used in the "PROFMARIS" company take place. The main methods of order processing used in the company are taking orders by phone, e-mail, by mail or respective servers and their manual recording. All customer orders are registered in the computer system and excel program, which are further divided into orders for carriers, order documents are created and sent. The manager sees the status of the orders in real time and,

as a result, makes decisions about where and when to look for new cargo. In summary, it can be said that the company invests little in modern methods of accepting orders and informational order processing systems, which facilitate the work of managers and reduce the number of errors. As more and more things in the world become computerized, it is easier and more convenient to use information systems. So, in order to eliminate the inaccuracies of order processing activities and improve the company's work, you should start with the installation of these systems. The following question was asked to find out if the employees have to face problems using the order management system and if so, they were asked to name the most common problems. According to the answers received, it can be said that the employees of the "PROFMARIS" company quite often have to face similar problems of the order management system, such as receiving too little information the amount of options, too much unnecessary or useless information, various technical problems, and errors that occur when consolidating order data, as a result of which further errors are made in the course of the entire order. Another question was asked about whether the company plans to use an information system for order processing activities in the future. Expert opinions differ slightly. Two experts believe that the use of an operational information system for order processing would be beneficial in the future, as it can speed up work and improve its productivity, which in turn improves the quality of customer service. However, according to another expert, the company is too small and managers can manage on their own without using information order management systems. In summary, it can be said that informational order management systems are useful and speed up work, but in the case of a small company, one should take into account the flow of orders and assess whether the system is really necessary. The next question was asked in order to analyze what are the advantages and disadvantages of the information system for order processing activities in terms of employees. In this question, experts were asked to evaluate and present the advantages and disadvantages of the information system for order processing activities. Experts identified the advantages as convenience when information is in one place, activity analysis, automatically recorded processing of sales order data, since there is no need to constantly enter the same information about the customer or order, data about customers is collected and errors and inaccuracies are eliminated. Disadvantages were identified as leakage of information to third parties, various technical problems that can lead to the loss of order information, and in the case of an unclear system, possible loss of time when merging data. Summarizing the obtained results, it can be seen that information systems for order processing activities have more pluses than minuses, from which it can be concluded that information systems are useful for the company and to ensure faster work with orders. The following interview question aimed to find out whether the use of an order management system in the company would help to eliminate the inaccuracies and errors related to order management. Analyzing the received answers, it can be seen that the experts' opinions are slightly different. Two experts agree that the use of an order management system in the company would help eliminate inaccuracies and errors related to order management, as the entire chain from order acceptance to invoicing, payment and all order information from submission to delivery to the customer is visible in one place. One expert disagrees that the system helps reduce errors, as the systems are often not adapted to different situations and show errors when entering information other than usual or uploading a document. In conclusion, it can be said that the use of an order management system in a company can help eliminate inaccuracies and errors related to order management. The last question aimed to analyze whether the costs allocated to the order processing activity system correspond to its benefits. In the last question, the opinions of the experts agreed and everyone unanimously said that the costs allocated to the order processing activity system correspond to its benefits, taking into account the amount of orders received by the company. From this, it can be said that with a large number of orders, it is worthwhile for the company to invest in an order processing system, as it will facilitate work and improve the level of customer service.

Based on the results of the research, the employees of the "PROFMARIS" company quite often have to face problems with the order management system, such as receiving too little information, too much unnecessary or useless information, various technical problems, and errors that occur when consolidating order data, resulting in further errors throughout the order. According to the answers provided by the experts, it can be said that the use of the order management system in the company can help to eliminate the inaccuracies and errors related to the order management and its use would be beneficial for the company.

## Conclusions

"PROFMARIS" company provides logistics and forwarding services, the main specialization of which is the transportation of full, partial and oversized cargo by road in Europe and by sea all over the world. The

company has been successfully operating since 2018. In order to find out the factors that promote the inaccuracies of order processing activities in company, and to find ways to eliminate them, the expert survey method was chosen - a partially structured qualitative interview, with pre-prepared questions without pre-answer options. The questions were submitted to three employees of the company - experts, i.e. company director and two logistics specialists. "PROFMARIS" company's order processing activity research revealed that the most important order processing factors in the company are promptness, communication and information provision to the customer and correct order fulfillment. The main order processing methods used in the "PROFMARIS" company are the acceptance of orders by e-mail, by mail and phone, recording of received information manually, excel program or servers. The most common problems with the order management system in the company were identified as insufficient selection of information, various technical problems, as well as mistakes made due to inaccurate information. Based on the experts' answers about reducing errors using an order management system, it can be said that using an order management system in a company can help eliminate inaccuracies and errors related to order activity, because the system would help eliminate information inaccuracies, since the entire chain from order acceptance to invoicing is visible, and payment, which is very convenient for employees and makes their work easier. Although the experts' opinions differ on some issues, in general it can be said that if the factors that promote inaccuracies in the order processing activities are eliminated in the "PROFMARIS" company, it will improve the company's work and the level of customer service.

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## UNDERSTANDING EMPLOYEE MOTIVATION: AN ANALYSIS OF MOTIVATIONAL FACTORS AND THEIR IMPACT ON GENERATIONAL DIFFERENCES IN WORK MOTIVATION

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Keywords: *Differences between generations, employee motivation, intrinsic motivation, and extrinsic rewards, Gen Z, Millennials, and Generation X Introduction.*

### Abstract

Employee motivation is essential for businesses to achieve their goals and maintain a competitive edge in today's dynamic business environment. Despite the fact that a variety of theories and models have been proposed to explain what motivates employees, the impact that generational differences have on work motivation has received little attention in the literature. This paper aims to investigate the key motivational factors that drive employee engagement and productivity as well as generational differences in work motivation.

In the preceding section of this paper, the hypotheses on representative inspiration such as the Self-Assurance Hypothesis, Herzberg's Two-Component Hypothesis, and Maslow's Progressive system of Requirements are examined. In spite of extraneous prizes, the writing survey emphasizes the significance of inherent inspirations like independence, authority, and reason. According to the review, a variety of motivational factors are reflected in generational differences in values, expectations, and life experiences.

The results of a review that was done with people of three different ages to find out how generational differences affect workplace inspiration are presented in this paper. The purpose of the survey was to compare motivation levels between generations and identify the most significant motivational factors for each generation. According to the survey, intrinsic motivational factors such as meaningful work, career advancement, and work-life balance are highly valued by all generations, but their relative importance varies significantly from generation to generation. Between the middle of the 1990s and the beginning of the 2010s, the generations of Z, Millennials, and Gen X were born. While Gen Z places a greater emphasis on financial benefits and job security, Millennials and Gen X place a higher value on opportunities for learning and development and work flexibility. Additionally, the survey revealed that Gen Z workers generally have higher levels of motivation than Millennials and Gen X workers. This may be because Gen Z workers want a better work-life balance and have higher expectations for the workplace's culture and values.

The paper concludes with a discussion of the review's recommendations for associations and chiefs. According to the findings, businesses should tailor their motivational strategies to meet the needs and expectations of various generations, in addition to offering competitive compensation and benefits and a work environment that encourages autonomy, mastery, and a sense of purpose. Chiefs ought to likewise energize cross-generational coordinated effort and coaching and recognize the irrefutable benefits and points of view that each age brings to the work environment.

### Introduction

Any company's success depends on its employees' enthusiasm. Motivated workers are more involved, productive, and dedicated to the company's objectives. It can be challenging to comprehend what motivates employees because of the numerous factors that influence their behavior and attitudes. Also, despite the fact that people of different ages bring a variety of characteristics, beliefs, and educational experiences to the workplace, generational differences in work inspiration have received little research attention.

This paper aims to add to the body of knowledge on employee motivation by examining the key motivational factors that drive employee engagement and productivity as well as how generational differences affect work motivation. The following is the structure of the paper: The first section provides a summary of the existing research on employee motivation, including theoretical frameworks and empirical studies. In the second section, the research methodology of the study, including the survey design and data analysis, is discussed.



## Examining the Literature

Employee motivation is crucial to an organization's success. Self-Determination Theory (SDT), Herzberg's Two-Factor Theory, and Maslow's Hierarchy of Needs are among the models and theories proposed to explain what motivates employees. According to Maslow's Hierarchy of Needs, people are motivated by a hierarchy of needs that includes physiological needs, safety needs, needs for belonging and love, needs for esteem, and needs for self-actualization. According to Herzberg's Two-Factor Theory, job dissatisfaction is influenced by extrinsic factors like pay and working conditions, whereas job satisfaction is influenced by intrinsic factors like recognition and accomplishment. To be characteristically spurred, individuals should fulfill three crucial mental requirements, as per SDT. Competence, autonomy, and relatedness are the three requirements.

In addition, despite these hypothetical structures, observational research has identified a variety of persuasive variables that influence representative behavior and perspectives. Extrinsic rewards, on the other hand, have the potential to undermine intrinsic motivation if they are perceived as controlling, according to Deci, Koestner, and Ryan (1999). For instance, Ryan and Deci (2000) discovered a positive correlation between autonomy, competence, and relatedness and intrinsic motivation. Meaningful work, career advancement opportunities, work-life balance, and supportive leadership have all been identified as important motivators in other studies (Saks, 2006; 2000, Spear and Vanderberg; 2000, Wright and Cropanzano).

Despite the extensive research into the various motivational factors that influence employee behavior and attitudes, generational differences in work motivation have received relatively little attention. According to Kupperschmidt (2000), generational differences are the distinct values, expectations, and life experiences of individuals who were born at different times. Generation X (born between 1965 and 1980), Generation Millennial (born between 1981 and 1996), and Generation Z (born between the middle of the 1990s and the beginning of the 2010s) are the three generations that are currently employed. According to the literature, these generations have distinct values, expectations, and life experiences, which may influence their work motivation.

According to Schawbel (2019), Generation Z workers, for instance, are said to be more entrepreneurial, technologically savvy, and global-minded than previous generations. They also value variety, civil rights, and striking a good balance between activities that are serious and ones that are fun. On the other hand, people who just graduated from college are frequently portrayed as rigid, aggressive, and focused on the group. They also place a high value on achieving a balance between activities that are both entertaining and serious, as well as valuable opportunities for personal and professional development. However, Gen X professionals are frequently depicted as free, self-assured, and incredulous of power, and they place a high value on balancing fun and serious activities, employer stability, and retirement benefits (Kupperschmidt, 2000).

Regardless of these qualifications, minimal experimental exploration has been finished on what generational contrasts mean for working environment inspiration. Our comprehension of the intricate connection between generational differences and work motivation is limited because the existing literature has primarily relied on anecdotal evidence or qualitative studies. As a consequence of this, additional empirical research is required to investigate the impact of generational differences on motivational factors and the ways in which businesses can adapt their motivational strategies to meet the requirements and expectations of various generations.

Worker inspiration has all the earmarks of being an intricate and complex peculiarity impacted by various inborn and extraneous variables, as per most of the exploration. In spite of the fact that individuals of various ages might have obvious qualities, suspicions, and important encounters that impact their work motivation, more observational exploration is supposed to completely appreciate the effect of generational contrasts on enticing elements and how associations can really manage these distinctions.

## Results

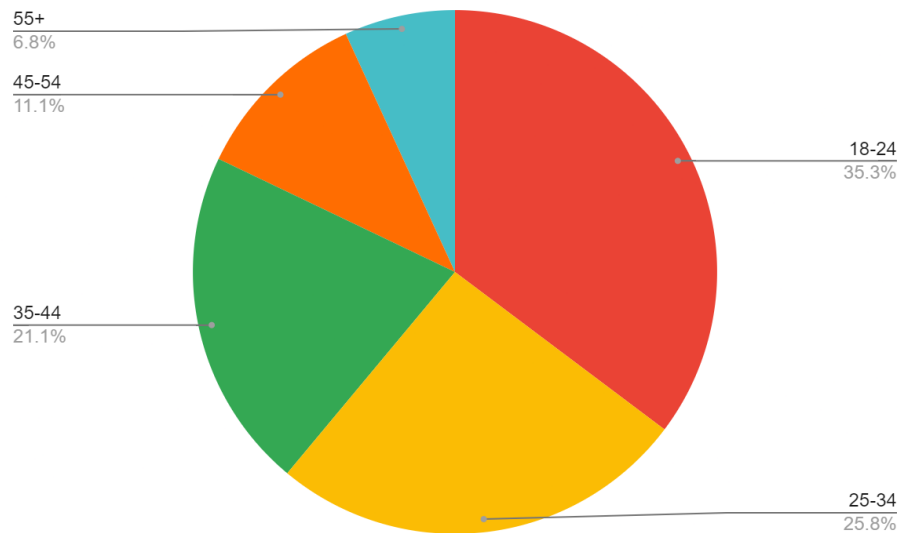
According to the survey's findings, intrinsic motivational factors like meaningful work, career advancement, and work-life balance are highly valued by all generations. Nonetheless, the overall significance of these elements shifts fundamentally between ages. Flexibility at work and opportunities for learning and growth are more important to workers in Generation Z than job security and financial benefits.

In addition, the survey revealed that Generation Z workers are generally more motivated than Millennials and Generation X workers. This could be because workers in the Age Z generation have higher standards for how they want to live their lives and what benefits they get from working, as well as a desire for a better balance between fun and serious activities.

Here are some answers from participants age 18-55+ about motivational factors at workplace:

### What is your age?

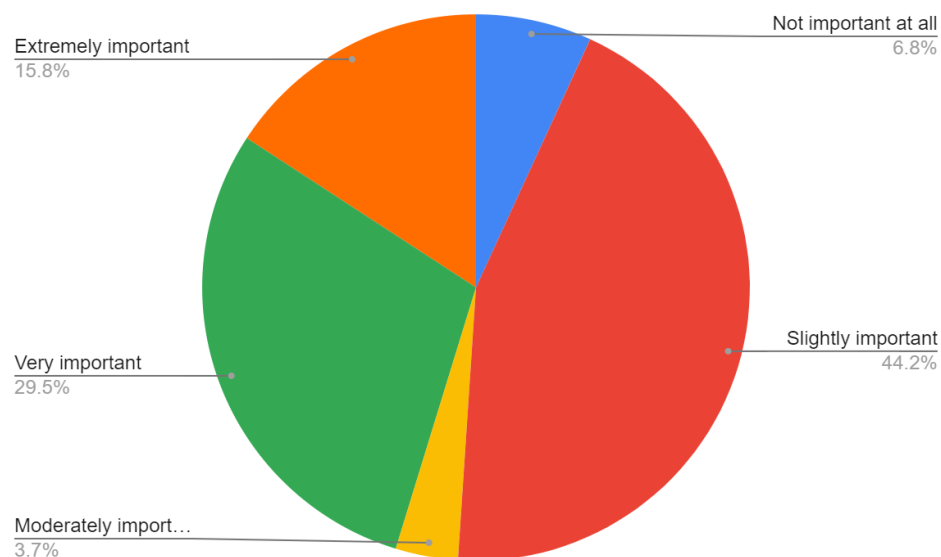
Table 1



Source: made by authors

### How important do you believe it is for employers to understand the generational differences in employee motivation.

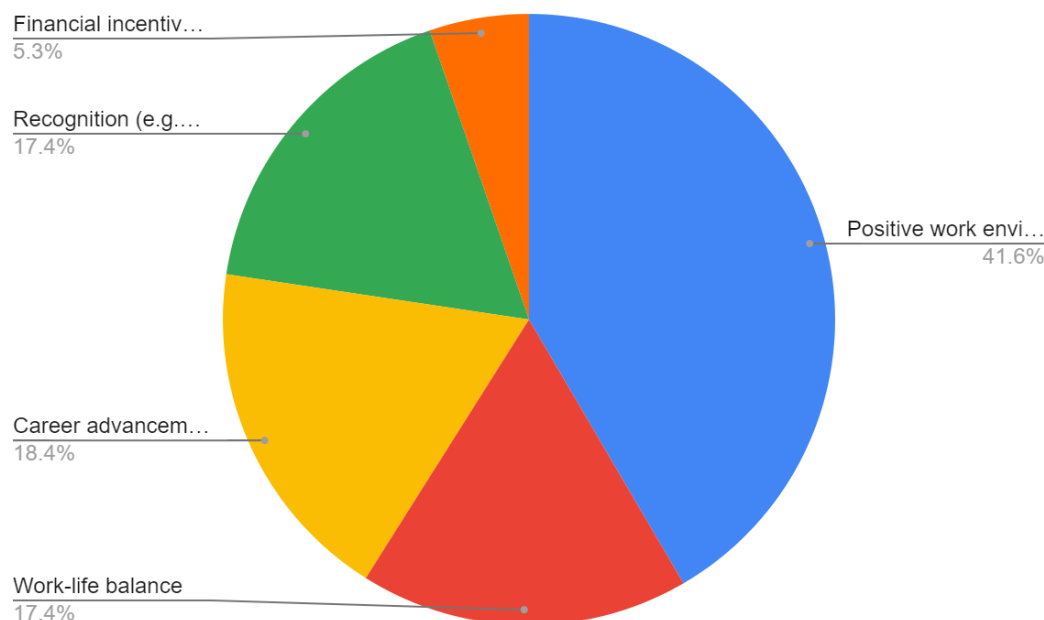
Table 2



Source: made by authors

**What do you believe are the most important motivational factors for you in the workplace, rank the following in order of importance (1 being the most important, 5 being the least important):**

Table 3



*Source: made by authors*

The findings of the review provide supervisors and associations with a wealth of knowledge. Organizations ought to, most importantly, offer cutthroat remuneration and advantages while likewise uplifting a feeling of independence, dominance, and reason in the work environment. This can be accomplished by focusing on important work and providing opportunities for learning and advancement.

Second, bosses ought to fit their motivational methodology to various ages' necessities and assumptions. Financial incentives may motivate Millennials, whereas opportunities for learning and development and work flexibility may motivate Generation Z.

Last but not least, managers ought to provide mentoring and collaboration opportunities across generations. By recognizing the unmistakable advantages and perspectives that people of all ages bring to the workplace, directors can help create a workplace that is more inclusive and cooperative.

## Conclusions

Even though all generations place a high value on intrinsic motivational factors, their relative importance varies significantly between generations, according to the study's findings. Additionally, workers in the Age Z generation typically have higher levels of inspiration than workers in the Age X generation and those born after World War II. These findings have a number of implications for managers and organizations, such as providing opportunities for cross-generational collaboration and mentoring, tailoring motivational strategies to meet the requirements and expectations of various generations, and creating a work environment that offers competitive compensation and benefits while also encouraging autonomy, mastery, and a sense of purpose.

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## CREATING EMPLOYER BRANDING: THE CASE STUDY OF HOSPITALITY COMPANY

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Keywords: *employer brand, employer branding, hospitality company*

### Abstract

Employer branding makes organizations attractive and different from competitors on the labor market, and also influences the public's perception or association with the company. Employees' financial and emotional values are in balance, as reflected by data. Most of the respondents pointed out that they associate the hospitality company with stability, large business, and responsive colleagues but analysing the company's plans, goals, and core values, and by clarifying employees' assessment of available information about the new offers by the company, the results of the survey also show that most respondents do not have a common view on this issue. The article summarizes theoretical aspects of the employer branding and results of a study conducted reveal the values of employees and which factors of influence should be considered when creating employer branding in the hospitality company.

### Introduction

At a time when it is becoming more and more difficult to be different in the business world, today's society and competitive employee marketplace are forcing organizations to think more about increasing their intangible value and focus on the issue of reputation, branding, corporate identity, and employer branding because they are important elements of competitiveness in attracting talent (Lubecka, 2013) and use of well thought-through image and good reputation to create company's value can be as important as indicators of economic success (Berzins, Nebels, 2006). The relevance of the employer brand is confirmed by a study by *Glassdoor* where 92% of respondents would consider changing jobs if they were offered a job at a company that has an excellent corporate reputation and 86% of employees and job seekers research company reviews and ratings to decide on where to apply for a job (Glassdoor, 2021).

**Aim of the research:** Based on the conclusions of the theoretical aspects of employer branding and the results of the research, proposals were developed for a hospitality company to improve employer branding.

**The problem of the research:** The hospitality company does not connect employer brand building with other corporate image management tools.

**The object of the article:** employer branding.

#### Tasks:

1. To describe and analyse theoretical aspects of employer branding: associated concepts and their meaning.

2. To describe and analyse the employer branding of the hospitality group.

3. To identify factors that create a level of employee satisfaction with the company's brand.

**Research methods:** analysis and synthesis of theoretical and scientific literature; qualitative method: expert interviews; quantitative method: a survey; statistical analysis of the data to summarise the findings.

### Theoretical aspects of the employer branding

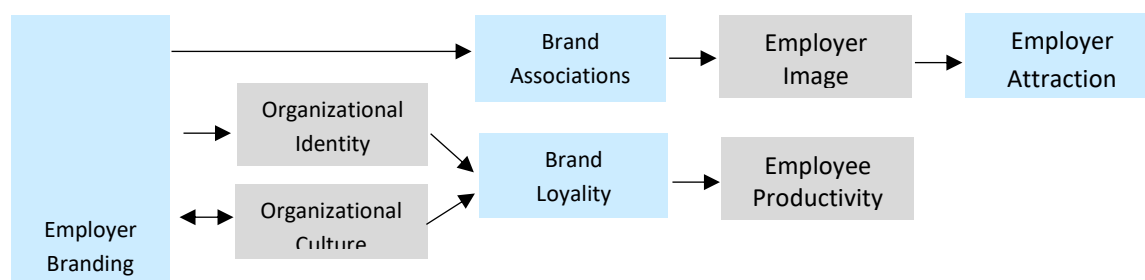
"Brands represent much more than a factual, rational connection to the product or service. They go beyond the boundaries of reason and extend into *emotion*" (Hammonds, 2008). It can be concluded that the company's brand creates not only awareness, but also a personal and emotional connection with the audience, creates specific associations, and builds business values.

It is considered that the company also has a second brand - employer branding - how the company is viewed as an employer and it can be concluded that the employer branding is synchronized with the company's primary branding and highlights the importance of understanding what existing and potential employees think about the company (Lybrand, 2018), also they can be conceptualised as communication, relationship building, and interdisciplinary processes, with a view of creating and promoting long-term relationships between employees and the employer (Aggerholm et al., 2011). It can be concluded that a brand can be tangible, it can be an experience, it can be an associative and emotion-based item.

The subject of employer branding has been discussed by academics Tim Ambler and Simon Barrow in their article in the brand management journal in 1996 and according to them employer branding is based on value and strategic activity, resulting in making certain associations with the company in the eyes of the public and creating a competitive image in the labour market, thus having a positive impact on financial indicators as well (Ambler, Barrow, 1996), also it is said that to impact the public opinion and associations of a specific company, a long-term action plan should be established by focusing on creating an organisation identification mark based on marketing principles and needs of human resources (Sullivan, 2004; Edwards, 2010; Davies, 2008). It can be considered that creating and managing employer branding, creates the company's corporate identity, attracts new talent, and keeps the most competent employees in the organization; also, employer branding may influence the company's financial indicators and introduce significant adjustments to the company's development and long-term success.

In order to achieve the objectives of the employer branding, everything is based on compliance and implementation of values (financial/nonfinancial) and fundamental principles established by the company as well as an interactive communication process to achieve the stated objectives to influence the perception of the workplace. It is important to introduce and evaluate (through audits) which strategies or actions to develop employer branding will be able to deliver the best results in the long term to find out and influence employees' assessment of the company brand and how the company is viewed as an employer (Biswas, 2013).

It can be considered that to a great extent company's success strongly depends on the views and opinions of the public on the company, its values, as well as the satisfaction of its employees and clients. And as a rule, it depends on the company's reputation or brand-related associations (*see Fig. 1*).



1. Fig. Employer Branding Framework.

*\*Source: Pawar, 2016.*

By identifying theoretical guidelines, it can be concluded that employer branding can be defined as an organisation's efforts to implement processes by adapting to the labour market and the specific performance of the company, in order to build an assessed reputation, market competitiveness, and enterprise value supply, with a view to developing and improving the necessary activities, which lead to retaining existing employees and attracting new talents.

### **The importance of employer branding in relation to the company's competitiveness in the labour market**

Reputation is important for every business and a good reputation greatly defines future opportunities, attracts more favourable customers and more talented employees, creates an inclusive and positive atmosphere of the working environment, provides opportunities for growth, and makes progress more easily achievable (Line, 2021; Chartered Institute of Public Relations, *n.d.*). It can be considered that a good reputation reflects the company's achievements; it is the experience of the people involved, those are associations and initiated emotions based on promises kept by the company thus creating trust, building corporative identity, as well as employer branding, which is a valuable competitive advantage.

Creating intangible value aspects is an important element in building employer branding as stated in the theory. Results of the study conducted by the global leader in the human resources services industry "Randstad" show that existing and potential employees highly value intangible values which means companies must take those into account as seriously as competitive pay.

"Share of survey respondents who said work-life balance is important (93.7%) was just slightly lower than those who consider pay important (93.8%). And it is clear that talent today wants the whole package: secure,

flexible, inclusive, and financially stable employment in a place they feel they belong” (Randstad Workmonitor, 2023).

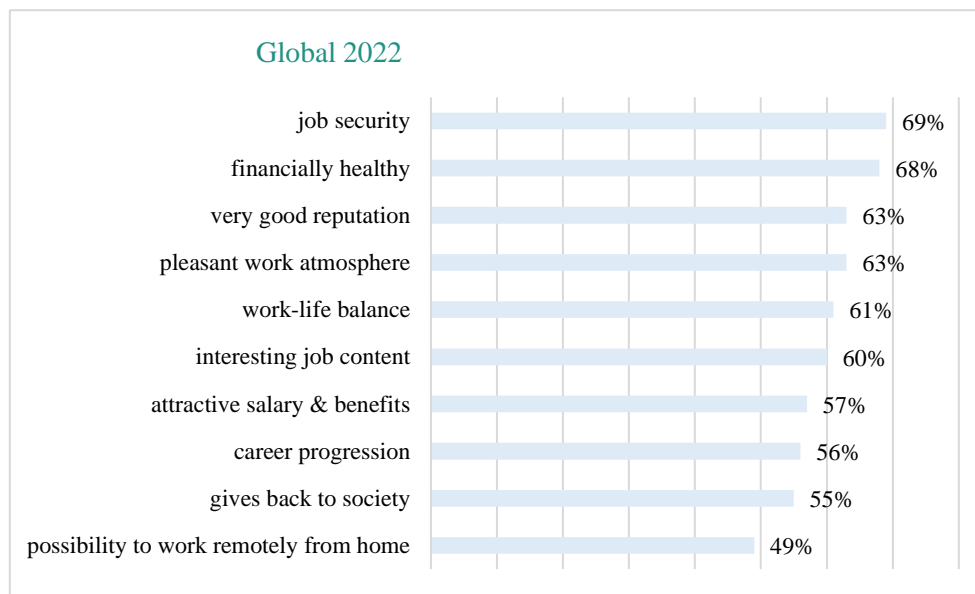
The results of a study conducted by consulting firm Randstad reveal the values of employees globally - what working-age adults want and what are the most important criteria when choosing an employer. Worldwide, the following three elements make up an employee value proposition: attractive salary and benefits (61%) shows to be the most important driver across, but the second most important is work-life balance (57%) and then follows job security (55%) (*see Fig. 2*).



2. Fig. Values of employees in Global.

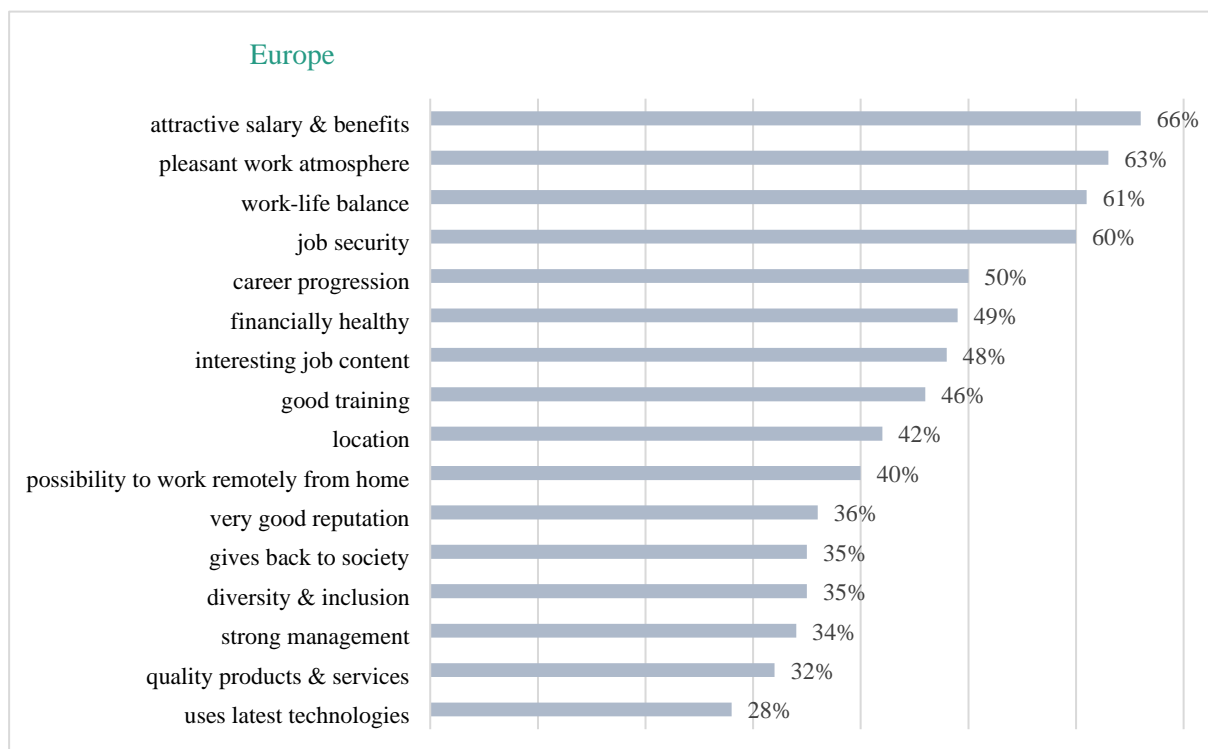
*\*Source: Randstad, 2022.*

The study also reveals the respondents’ assessment of current employer’s ability to realize the top desires of the employees: employer's think about and provides intangible values to their employees because a job security (69%) is specified at the highest, the next two lines occupied by financially healthy (68%) and good reputation/pleasant work atmosphere (63%) but attractive salary and benefits only 57% of respondents indicated- which are the most important driver across and element, creating an employee value proposition. It may be concluded the companies should consider attractive salary and benefits as seriously as intangible values to become a competitive employer and create a successful employer brand (*see Fig. 3*).



3. Fig. Respondents' assessment of current employer's ability to realize the top desires of workers in Global.  
\*Source: Randstad, 2022.

The study also reveals the values of employees in Europe and which factors of influence should be considered when creating employer branding. In Europe the following three elements make up an employee value proposition: salary and benefits (66%) shows to be the most important driver across, while a pleasant work atmosphere (63%) is the second most important in Europe and then follows work-life balance (61%) (see Fig. 4).



4. Fig. Values of employees in Europe.  
\*Source: Randstad, 2022.



A survey made by Randstat shows that younger generations strive for greater work satisfaction. 41% of Gen-Z employees and 40% of Millennials responded that they'd quit a job if it didn't fit their personal life (Randstad Workmonitor, 2022) and job flexibility is more important than ever, with 83% of all employees agreeing on the importance of flexible hours (Randstad Workmonitor, 2022). It can be concluded that talent today wants a financially stable and secure workplace with shared values, and a work-life balance and wants to belong to an organization whose values align with theirs.

In the context of Latvia, the labour market is dynamic and it is moving, as evidenced by the fact that, on average, 4800 unemployed people entered the labour market last year and by the fact that, on average, 11 thousand vacancies were announced per month on the employers' side. (Labklajibas ministrija, 2022). Labour force supply has declined, and job seekers have ample job opportunities in different professions and sectors, consequently, companies must effectively capitalise on their advantages in their fight for the best young talent, taking care of the company's reputation, brand, and employer branding.

Companies must also focus on developing an employer branding strategy to make an employee choose a company as an employer, to meet the expectations, needs, or desires of employees, and to obtain competitive advantages to boost the influx of talent (Forsey, 2020).

Companies with successful employer branding strategy coordinates with their own branding, monitors the company's image as an employer both inside and outside, develops a common theme so that current workers tell others a similar story about their experience at company, builds and reinforces the public image of the company as an employer, attracts the best potential candidates for their vacancies (Biswas, 2013).

Looking at the potential benefits of an employer branding strategy, it can be assumed that employer branding will gain increasing popularity among companies in different industries and it can be concluded that the employees must be motivated and informed about the company's operations, the company must carefully establish the company's corporate identity and identify the factors affecting it in time so that the employer branding strategy is successful. Also, they need to conduct regular surveys or studies to clarify the opinions of employees and the public about the company, such as news on business development or activities introduced. Essentially, the successful establishment of a strategy reflects an action plan to achieve the stated objective.

"Companies should also consider that employee voice is three times more credible than the CEO's when it comes to talking about working conditions in that company" (Glassdoor, 2021).

Global studies consisting of interviews with managers, human resources recruitment specialists, and agencies have revealed what challenges companies face today when attracting young talent, and it has been concluded that the majority (75%) of job seekers assess the employer branding before applying for employment (Sajwani, 2022). Glassdoor Employer Branding statistics show that 86% of employees and job seekers research company reviews and ratings when deciding where to apply for a job and 75% of active job seekers are more likely to apply for work if the employer actively manages its employer branding. Meanwhile, 92% of people would consider changing jobs if offered a role with a company with an excellent corporate reputation (Glassdoor, 2021).

By creating employer branding, an organization can become attractive and distinct from rivals in the labour market, influence public perception, create personal and emotional links with audiences, create specific associations and build business values.

The study also reveals trends about things to consider for companies who are thinking about employer branding. The high cost of living, economic uncertainty, and geopolitical instability are all occupying the psyche of workers. At the same time, they still want to belong to an organization whose values align with theirs. Clearly, companies will have to assess how they lead and support their people in the year ahead. Where possible, organizations can help mitigate inflation through monetary and non-financial initiatives to offset higher costs (Glassdoor, 2021).

Employer branding can establish future opportunities, and companies working on it and judging it to be an integral element in achieving the objectives being positioned as a reliable ally for all stakeholders in the company's activities, thereby promoting business development, but it should be noted that the image of the company in the environment is created and composed of employees who participate in establishing reputations and maintaining values (Lapsa, 2002).

### **The case study: employer branding at the hospitality company**

Regular recruitment of employees is relevant in hospitality companies (e.g.intensity in season, employee turnover). The company selected for study is a hospitality company that is the biggest in Kurzeme and one of the biggest catering companies in Latvia. The company was established in 2003 and is one of the TOP 20

biggest taxpayers (1.02 million euros) in Kurzeme (region of Latvia). The survey was sent to all 46 employees of administration and 39 replies were received and the marketing manager and HR manager were also interviewed, to investigate the factor of employer branding hospitality company.

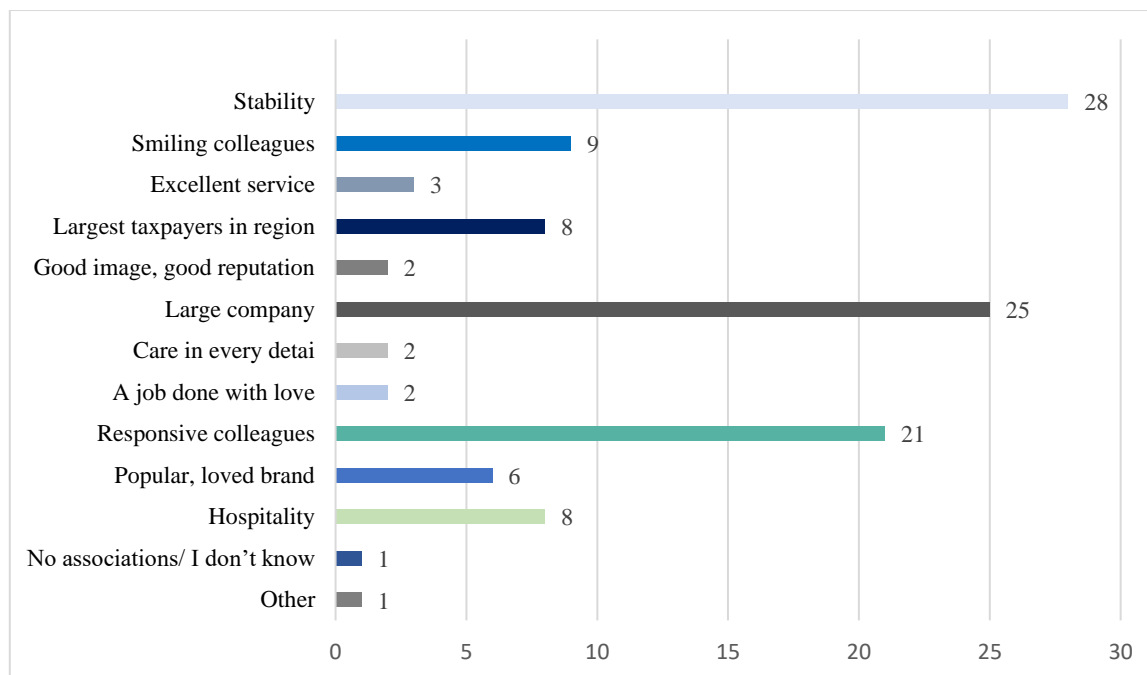
The hospitality company builds its corporate identity by means of communication tools and channels, forming a relationship with the public by mainly focusing on the services provided. The theory stated and it was also concluded that the company must develop and think about its second brand, the employer branding, thereby providing competitive advantages, talent influx, employee engagement, a stronger corporate culture, and support for the company.

A study of theoretical literature concluded that the development of employer branding uses marketing principles of human resources. This means that cooperation between marketing and human resources management is important. In summarising the responses of the interview, the views of the management of the hospitality were clarified: cooperation between human resources and the marketing department in building employer branding is vitally important and should focus on long-term results.

The marketing manager admits: "Knowing the employees' opinion about the company and considering the needs and objectives of the human resource department, it is possible to make communication more targeted. The marketing department helps the human resources department to formulate advertisements and create materials for recruitment."

Employees in the administration of the hospitality company's are prepared to engage in the activities of the company to advance the company's reputation and build employer branding, and management representatives have a wide range of opportunities to execute original ideas by involving employees and using the most effective communication tools and channels.

The company must convey stories and messages to the public about the company to build the company's reputation and employer branding. As established by the theory, to have a successful employer branding strategy, it is necessary to ensure that the company and employees communicate to the public a common theme and common values. Looking at different types of digital platforms that provide the latest news about the hospitality company, it can be concluded that primarily the company's achievements, information updates, news on provided services, and various changes (e.g., business hours) are reflected, yet the success stories or feedback of employees are not available. The study identified the first three things respondents associated with the hospitality company (*see Fig. 5*).



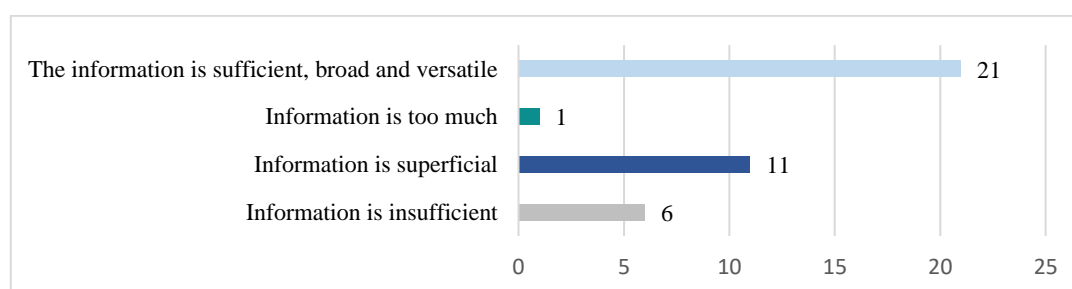
5. Fig. Company values specified by respondents (in administration) of the hospitality group.

\*Source: made by author

Most of the respondents pointed out that they associate the hospitality company's with stability, large business, and responsive colleagues. Also, the marketing manager said in an interview: "We are frank and open." It can be concluded that the management representative and the respondents tell a common story and these are important values to employer branding, as they in some way create a sense of safety in the workplace.

By analysing the results of the survey, where respondents had to indicate their satisfaction with the various work-influencing factors in the hospitality, it can be concluded, that the majority of respondents were satisfied with their colleagues, corporate reputation, and popularity, job assessment, and recognition, flexible work schedules, career development opportunities, the opportunity to generate new ideas, being involved in decision-making, and the latest technology used by the company. It can be established that these factors are valuable and attractive enough for them to be included in the messages that affect public perception, the reputation of the company, the brand of the company, and the employer branding.

By analysing the company's plans, goals, and core values, and by clarifying employees' assessment of available information about the new offers by the company, the results of the interviews show that for management representatives it is clear and comprehensible, but the results of the survey also show that most respondents do not have a common view on this issue (*see Fig.6*).



6. Fig. employees' (administration) assessment of available information about the new offers by the company.

*\*Source: made by author*

The results of the survey show that the majority are aware of the company's news (21 respondents), but some indicate that they don't actually receive enough information (11 respondents indicate that the information is superficial and six that the information is insufficient). The lack of information may have some consequences which have a negative impact on both internal and external communication and the business environment, so there is a risk that the company's management and employees do not form a common story, thereby affecting both the company's reputation and the employer branding. The company should share information with employees and be reminded of current goals and fundamental values from time to time because motivation and job efficiency are increased if there is knowledge and understanding of the goal.

After compiling the interview replies, it can be concluded that the members of the hospitality management think that the key factors for lacking effective communication with employees are the lack of time and human resources.

The head of the human resources department of the hospitality company points out that: "The biggest disadvantage for us is the lack of time. We have ideas about what and how to do things but lack the human resources to implement them. The hospitality company employs more than 600 employees. I would like to spend more time addressing the needs and motivating and inspiring people. "

By sharing experience about the role of employer branding in a company's operations, the marketing manager points out that: "Internal communication, transparency, feedback: the exchange of information between employees and management is one of the key conditions for a successful image. If the employee does not have a vacuum of information and finds answers to questions that are important to them, the employee also treats their company and their place in it in a more positive way. This in turn helps to communicate the company's values to the outside world — satisfied employees are like magnets that attract new employees with the same or similar values."

The results of the survey show that nearly all respondents are satisfied with their cooperation with management and direct leaders. The assessment of employees is reflected in the interest of managers in ensuring the well-being of employees, which undeniably forms associations related to the company and its image in society.

In order to promote and measure the development process and progress, there must be an opportunity for assessment, and this also applies to employer branding.

Indicators for evaluating employer branding were obtained for a hospitality company summarizing the answers collected at the interviews:

1. Calculation of employee turnover rate for specified periods (e.g., seasonal).
2. Regular (e.g., annual) implementation of the survey of employee satisfaction.
3. Public assessment of the employer branding (e.g., results in the competition TOP Latvian employer).

The results of the study show that employees who joined the company (administration) over the past six months, pointed out that the key factors in selecting the hospitality company as a workplace were the large size and stability of the company, flexible working hours, work that can be combined with studies, remuneration, and health insurance. It can be considered that it highlights the factors that need to be focused on and highlighted directly when recruiting young talent.

## Conclusions

Organisations are increasingly focused on issues of establishing a reputation, brand, corporate identity, and employer branding, as they are essential and important elements of competitiveness in the business and employer branding creates the company's corporate identity and provides a competitive advantage in the labour market, creates the company's values, and influences its financial performance. Employer branding is an influencing factor in employee attraction in today's labour market; this is supported by data that 75% of job seekers assess employer branding before applying for employment. Meanwhile, 92% of people would consider changing jobs if offered a role with a company with an excellent corporate reputation. The image of the employer is composed of both tangible and intangible values, which the employer provides to their employees and employer branding, the corporate identity of the company, and its public image are created and composed by employees as well. The companies should consider intangible values as seriously as competitive pay and employees today wants financially stable, secure, pleasant and flexible employment place. Employees' financial and emotional values are in balance, as reflected by data that for 66% of employment in Europe the most important driver across value proposition is salary and benefits, while 63% say they want a pleasant work atmosphere and 61% want to have a good work-life balance. It can be concluded that, when building employer branding regular surveys should be conducted to understand the value of employer branding and to identify factors that create employee satisfaction with the business. Respondents in the hospitality company point to a lack of awareness about the company's activities, targets, and plans of the hospitality company, thereby creating a risk that can affect the reputation and employer branding. For the employer branding strategy's success, the employees must be motivated and informed about the company's operations and for company needs to be establish stories and messages about the company and should focus on long-term results.

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## CONTEMPORARY LEADERSHIP STYLES IN THE CHANGING “ABP FOOD GROUP”

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### Abstract

The concept of contemporary leadership styles is increasingly used in research today. The main motivation for this work is the management needs associated with agile management and production in complex process industries. This paper analyses contemporary leadership styles in the changing operations of ABP Food Group. ABP Food Group is part of Anglo Beef Processors, one of the world's leading beef processors in Ireland. The company supplies high quality beef to a wide range of international markets and works closely with over 3,000 local Polish farmers, all of whom are located close to the abattoirs. This approach helps ABP Food Group to establish exclusive supplier relationships and reduce stress on animals during transport. The paper explores the topic of contemporary differences in leadership styles, analysed by the following authors: ST. Hunter, L. Cushenbery, J. Fairchild, J. Boatman (2012), J. Antonakis, D. V. Day, B. Schyns (2012), Alissa Parr, T. Stephanie Lanza, and Paul Bernthal (2016), amongst others. The results of the study can be used by companies to survive in a competitive market and to achieve operational efficiency.

### Introduction

The pandemic of recent years has fundamentally changed the way most companies and organisations work. This shared experience has been extremely difficult for everyone, but for managers it has been the most challenging, and often decisions had to be made and responsibilities had to be taken here and now. In emergencies, it is possible to observe changes in managers' leadership style, in the functioning of the team, and in the way the organisation as a whole holds together. At ABP Food Group, leadership styles also changed during the pandemic. In the company, the management makes a lot of detailed plans on various logistical issues, but this is not enough to achieve the objectives. The objectives set in the planning process require the organisation of logistical activities in such a way that it is determined who will carry out the plans and by what means. ABP Food Group establishes a division of responsibilities for certain tasks and processes. Each identified process has a person who is fully responsible for the execution and results of that activity. The operator thus organises their own activities in order to achieve the intended result, making optimal use of the available resources and complying with the company's requirements. The organisational structure of the company shall be drawn up and approved by the Director. The company has a functional organisational structure. It groups identical tasks into separate departments. This specialisation increases efficiency, improves evaluation capabilities and enables the company to achieve particular expertise in functional areas (ABP Food Group documentation, 2023).

**Scientific problem of the paper.** Leadership is the most important part of a company. The manager is responsible for performing four important functions: planning, organising, directing and controlling. Management saves resources, reduces costs and makes more efficient use of its machinery and employees. Control helps to manage employees. Leadership requires three elements: the leader, the follower and the environmental conditions or context. Therefore, the paper analyses the identification of contemporary leadership styles in a company.

As the frequency and scale of institutional change increases, it makes sense to examine the processes that can help respond to change. Therefore, according to L. Marcinkevičiūtė (2010), every manager, when designing a work environment and striving for effective leadership, must examine the leadership style and classification and determine which characteristics are dominant in the company they manage: the traditional or the modern manager.

**The subject of this paper** is contemporary leadership styles.

**The aim of this thesis** - Investigate leadership styles in the changing operations of ABP Food Group.

### Objectives:

1. Analyse leadership styles from a theoretical perspective.
2. To conduct a study on contemporary leadership styles in the changing ABP Food Group.

*The method of the research* is analysis of scientific literature, quantitative research, data processing in Excel.

### Theoretical features of leadership

Analysing the content and purpose of the phenomenon of leadership, it can be said that leadership is not an end goal in itself. As part of the company's human resources management function, leadership seeks to achieve specific positive results. The provision of the various management tasks requires managers to direct and coordinate the efforts of subordinates, to give instructions and to check compliance with them. Managers help people to develop as individuals. An analysis of the concepts of leadership is given in Table 1:

Table 1

**Leadership Concept Table**

Author	Definition
V. Šilingienė (2012, p. 11)	Leadership is the process of directing and influencing the members of a given group.
B. Zulch (2014)	Leadership is the act of directing a group of people or an organization.
G. T. Fairhurst, S. L. Connaughton (2014)	Leadership is best understood as a balance between power and influence in directing employees, although the meaning of these words are still being refined
M. Alexander (2015)	Leadership is the process by which a person influences others to achieve a goal and steer an organization towards greater coherence and consistency.
A. Petrulis (2016)	Leadership - the act of clearly distinguishing a person from a group of others, directing the actions and efforts of others in the pursuit of an objective(s), using all available resources to achieve it.
D. Patel (2017)	Leadership is the creative and spiritual power of obeying a leader not because you have to, but because you want to. It is the art of influencing people by personal example, inspiring visions and change, and bringing others along.

*\*Source: compiled by the authors from scientific literature*

To summarise the analysis of the concept of leadership, there is no single, universal definition that can answer the question of what leadership is. An analysis of the authors' definitions suggests that leadership is a process by which a person is able to influence others in order to achieve specific goals or to accomplish a given task. D. Patel (2017) defines leadership very nicely - as the art of influencing people, who, according to the author, are inspired by visions and changes to go along with the leader. The author A. Petrulis (2016) expressed the idea that society has a kind of preconceived notion that leadership is a very simple and completely effortless activity, or at least one that does not require much effort. At the same time, it highlights that good leadership is becoming an important factor for business, government and many groups whose activities affect our lives, work and leisure.

A. Petrulis (2017) perceives that over-management is a persistent problem for many companies and organisations. According to him, dependence on power, direct managerial intervention and excessive use of power can be inappropriate management approaches that need to change. He argues that there is a growing focus on managers and how to improve their leadership. He identifies this as a problem and points out that as countries change their level of development, new organisations are being created where leadership styles are changing, making the choice of leaders an increasingly important issue.

D. Patel (2017) identified two types of ideal leadership: traditional and contemporary. Elements of the new leadership theory are analysed. Table 2 presents the features and characteristics of traditional and contemporary leadership, which have been compared by V. Šilingienė (2012), B. Zulch (2014), G. T. Fairhurst, S. L. Connaughton (2014), M. Alexander (2015), A. Petrulis (2016), D. Patel (2017). According to this researcher (Patel, 2017), leadership is a collective and not an individual trait, and this trait depends on the political culture of the organization and operates in organizational processes:

Table 2

**Types and characteristics of leadership**

<b>Traditional Guide</b>	<b>A modern, social leader</b>
Expert, wary of innovation	Open to innovation
Coalition builder	Consensus builder
Controlling	Helping
Referring to	Sharing information
Manipulating	Empowering
Impatient	Patient/tolerant
Goal-oriented	Flexible in terms of objectives
Limited availability	Available
Motivated, committed	Motivating, engaging
Categorical / aggressive	Flexible/forgiving
Filtering information	Disseminating information

*\*Source: compiled by the authors from scientific literature*

*What Are the Characteristics of a Good Leader?* (2019) Identifies the characteristics of a leader as:

- **Personality:** a pleasant personality that attracts people. The leader should also be friendly and authoritative so that he or she inspires people to work like them.
- **Knowledge:** a good leader has the knowledge and expertise to influence subordinates.
- **Honesty:** the leader must have a high level of integrity. They should have an honest perspective and base their decision on facts and logic. They should be objective and impartial.
- **Initiative:** a good leader takes the initiative to seize opportunities, rather than waiting for them and using them to the benefit of the organisation.
- **Communication skills:** the manager must be able to explain his/her ideas, policies and procedures clearly. In addition to being a good communicator, they must be a good listener, advisor and persuader.
- **Motivational skills:** a manager must be an effective motivator, understanding people's needs and motivating them to meet those needs.
- **Self-confidence and willpower:** a leader must have a high level of self-confidence and a huge amount of willpower.
- **Analytical thinking:** a manager can analyse the pros and cons of a situation and make a decision accordingly. He or she must also have the vision and foresight to anticipate the future impact of the decisions they make.
- **Decision completeness:** the leader must be firm about the decisions he or she makes.
- **Social skills:** a leader must have empathy towards others. He or she should also be a humanist who helps people solve personal problems. He or she should also have a sense of responsibility and accountability, because with big mandate comes great responsibility.

Antonakis, Day, Schyns (2012) identify 10 other key characteristics of leadership, as shown in Figure 1:



Fig. 1 Leadership characteristics

*\*Source: Antonakis, J., Day, D. V., Schyns, B. (2012). Leadership and individual differences: At the cusp of a renaissance. The Leadership Quarterly. 23:643-650.*



M. Alexander (2015) identifies 11 traits of effective leaders: credibility, transparency, focus and stability, objectivity and honesty, trust, leading by example, energy and motivation, consistency and flexibility, accessibility, clarity and respect. She argues that such managers lead by example, foster a vibrant environment and manage the expectations of key stakeholders well.

A wide range of management tasks requires leadership, coordinating the efforts of subordinates, giving instructions and checking compliance. Managers help people to develop as individuals. Every manager needs to study management styles, classify and identify the characteristics that dominate his/her management in order to create a working environment and achieve effective management. The 11 qualities of an effective manager that distinguish real-world managers are reliability, transparency, focus and stability, objectivity and honesty, trust as an example, energy and motivation, consistency and flexibility, approachability and clarity. Modern managers are objective, credible, focused and confident. Modern managers lead by example, foster a vibrant environment and manage the expectations of key stakeholders well.

## Leadership styles

With constant change and the pace of life predicted to increase, the success of an organisation depends in many cases on the effectiveness of its leader and his or her leadership. According to A. D. Parr, S. T. Lanza and P. Bernthal (2016), many organisations face a number of challenges related to the changing nature of work. They stress that in today's dynamic work environment, it is recognised that talented leaders can help overcome these challenges and pave the way to achieving this goal. Also, according to the authors, talented leaders can guide and help employees, teams and organisations succeed and overcome these obstacles.

A. Petrulis (2017) notes that leadership styles can have positive and negative traits, which in one way or another are reflected in the leader's personality, as it depends on his or her personal abilities. He sees that the main leadership styles presented in modern leadership theories are: charismatic, transactional, transformational, servant.

*Charismatic (attractive, charming) leadership.* Petrulis (2017), in his analysis of this style, highlights the ideas expressed by other scholars that leaders who have mastered the charismatic style become an inspiration to others because they are confident in themselves, have the ability to convey their vision convincingly, and believe in what they are doing in order to achieve their goal. He shares other insights to point out that charisma can also be disruptive. For example, when leaders manipulate to covertly exploit others, or use repression - there can be unbridled use of leadership power, or simply self-aggrandisement.

*Transactional leadership (exchange).* Cherry (2022) identifies the key assumptions of transactional leadership:

- People work best when the chain of command is defined and clear.
- Rewards and punishments motivate staff.
- Obeying the leader's instructions and orders is the ultimate goal of followers.
- Subordinates need to be closely monitored to ensure expectations are met.

According to the author, this theory takes a behavioural approach to leadership based on a reward and punishment system. She observes that a leader views the relationship between managers and subordinates as an exchange - you give me something in return for something. When subordinates perform well, they are rewarded, but if they perform poorly, they are punished in some way. She believes this theory is most effective in crisis situations, when the focus needs to be on completing certain tasks. By assigning clearly defined responsibilities to specific individuals, she argues, such managers can ensure that the job gets done. However, Petrulis (2017) highlights the idea expressed by researchers that this type of leadership may be acceptable in an organisation when there are no significant changes (shocks, crises) and when the organisation is content with a low level of growth.

*Transformational (change) leadership.* A. Petrulis (2017), based on research and insights from various scholars, identifies four characteristics of a transformational leader:

- The leader acts as a role model with whom employees identify.
- A leader's communication is encouraging, inspiring and motivating.
- A leader who innovates and encourages creativity.
- The manager takes care of the needs of employees.

*A servant leadership style.* Kenton (2022) defines servant leadership as a leadership style and philosophy whereby an individual interacts with others, both supervisor and colleague, to gain authority but not power. Petrulis (2017), in his further examination and analysis of the leadership styles of various scholars, also sees

servant leadership as manifested in the manager's mentoring, coaching or indirectly providing support to employees, and points to the ethical and transparent nature of such leadership.

When describing leadership styles, researchers identify certain leadership traits. Charismatic leadership - inspires others because the leader believes in what he or she is doing to achieve a goal. Transactional leadership - obeying the leader's instructions and orders is the main goal of followers. Transformational leadership style - inspires, encourages, empowers, supports and cares for employees. The leader is a role model with whom employees identify. Servant leadership - seeks to gain authority but not power. This type of leader is caring, ethical and transparent.

Many studies have concluded that any leadership style has its advantages and disadvantages, and that some styles are more suited to certain circumstances.

To summarise the theoretical aspects of leadership in the article, it can be said that by performing the human resource management functions of the company and applying the chosen leadership style, the management achieves specific positive results.

### Study method and results

The research method used was a quantitative written questionnaire survey of 26 respondents in a business enterprise aged between 20 and 60. The aim of the survey was to investigate leadership styles in a changing organization. It also aimed to find out what leadership styles are known, what qualities of a leader are most needed, and how employees describe successful leadership in the company. The study was carried out at ABP Food Group, one of Europe's leading food processors, which provides quality beef products worldwide. ABP Food Group is proud to contribute to Poland's thriving agricultural sector. Poland is the second largest beef exporter in Europe after Ireland. ABP Food Group prides itself on the quality of its products, from the farmer's field to the consumer's fork. ABP Food Group's closed-loop system means that you can trust the traceability of our products, and a single point of contact will be on hand to deal directly with any consumer queries. But supply is only one aspect of the service. Recognizing mutual benefits of understanding customers' individual needs, ABP Food Group is committed to delivering value.

The survey instrument consisted of 7 questions, divided into blocks: the first block consisted of demographic data, the second block consisted of questions about the concept of leadership, and the third block consisted of questions about the application of leadership styles in the company.

The demographic characteristics of the respondents show that men are more active (62%) while women are less active (38%). Those who have worked for 10 years or more are more active (38%).

The participants came from different sectors of the company: finance, HR, quality, commercial, food production and logistics. The survey data shows that responses were received from all departments in the work sector, with the Quality department (27%) standing out the most in Figure 2:

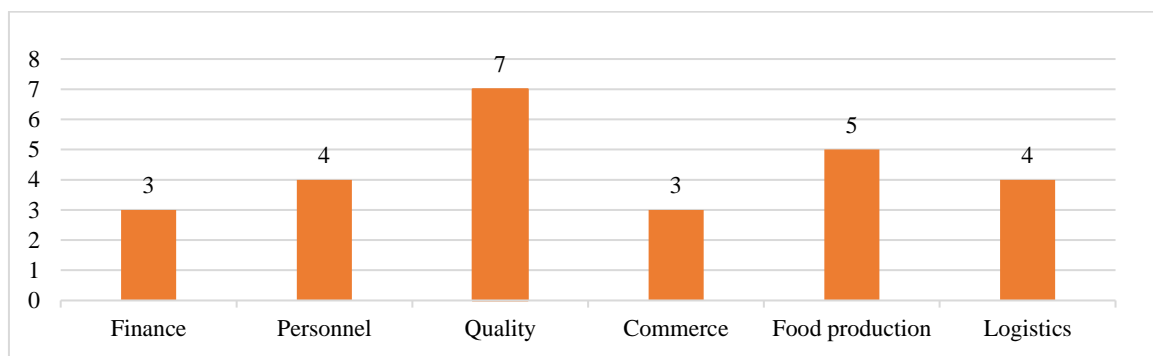


Fig. 2 Distribution of respondents by sector of work  
\*Source: compiled by the authors, based on survey data

The analysis of the survey results shows that the opinion of the respondents is divided between two definitions of leadership. In this context, it can be said that more respondents understand leadership as the act of directing a group of people or an organization (77%), while fewer (73%) say that leadership is the process of directing and influencing the members of a group. The results of the survey are presented in Figure 3:

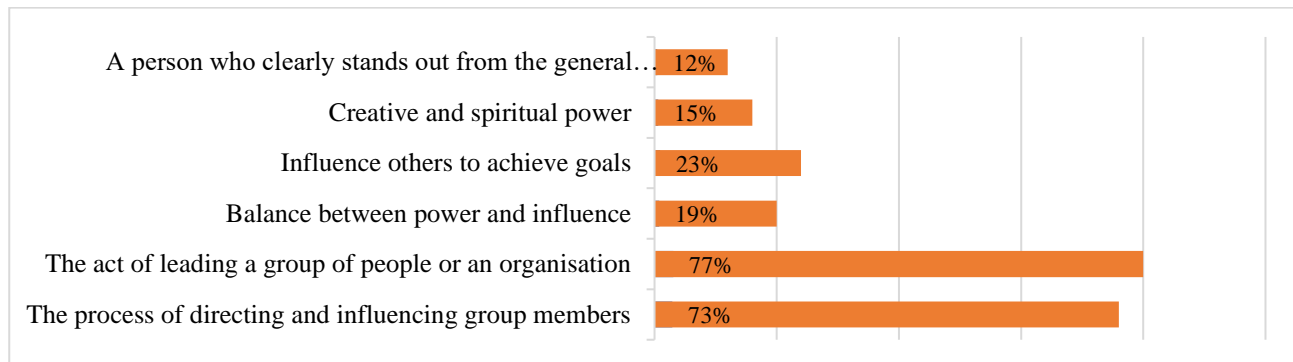


Fig. 3 Concept of leadership  
*\*Source: compiled by the authors, based on survey data*

The survey showed which leadership styles the respondents are familiar with - the majority of respondents (85%) chose a contemporary leadership style. In this context, it can be said that the respondents are more exposed to contemporary leadership styles in the company under study. The results are presented in Figure 4.

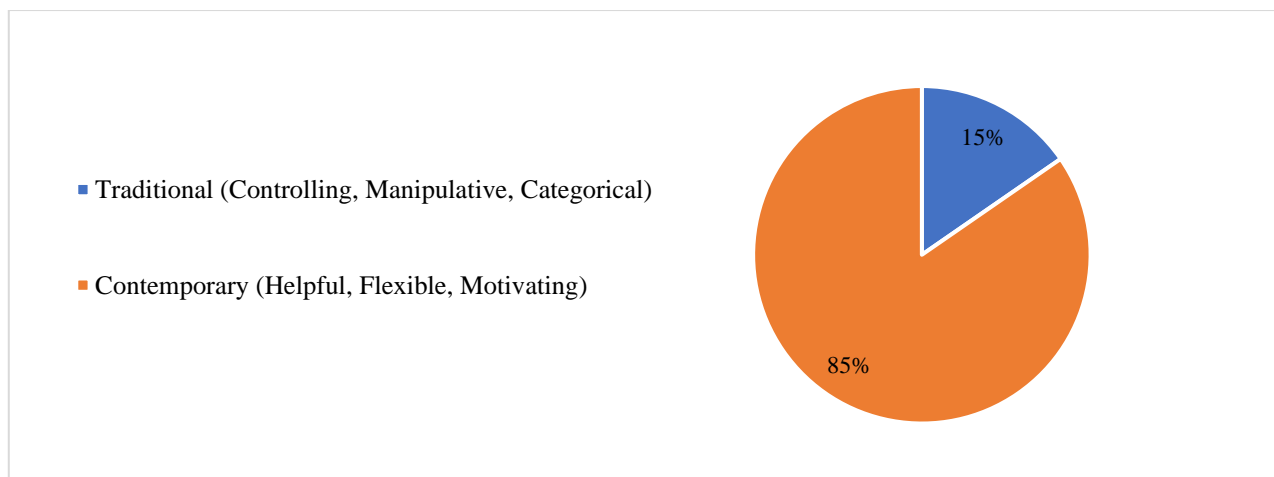


Fig. 4 Prevalence of leadership style in the company  
*\*Source: compiled by the authors from survey data*

Further analyzing the results of the survey, there was an even split in the participants' views on the definition of successful leadership. Slightly more participants associate successful leadership with a productive and high-achieving team (92%). In this context, it can be said that the participants in the survey associate team productivity and merit with good, effective leadership. The results of the survey are shown in Figure 5:

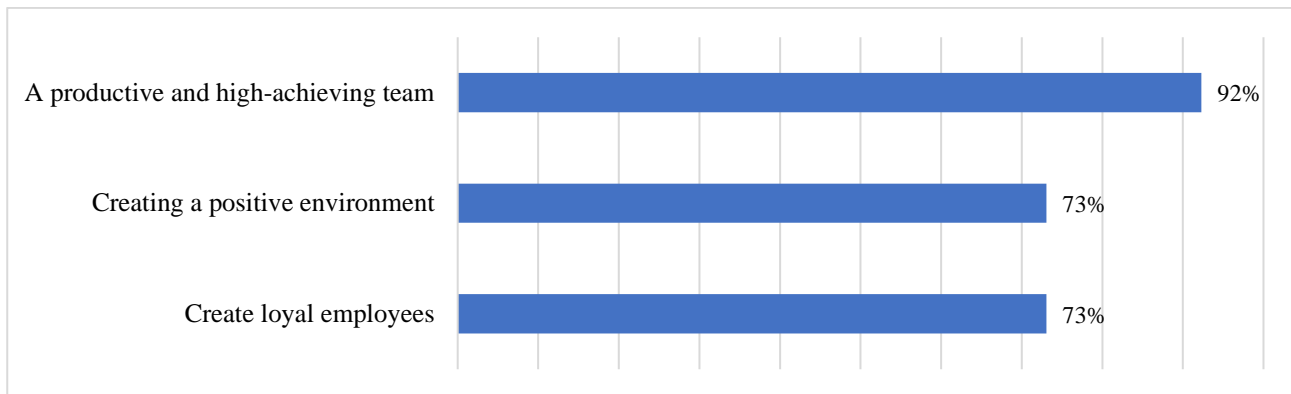


Fig. 5 Defining successful leadership

*\*Source: compiled by the authors from survey data*

In order to find out what are the most important qualities of a manager, it can be noted that all respondents (100%) answered that - personality, knowledge, integrity, initiative, communication skills, motivation skills, implementation of decisions - are the most important qualities for a manager. Therefore, it can be said that there is no single quality that makes a manager successful. The results of the study are presented in Figure 6-

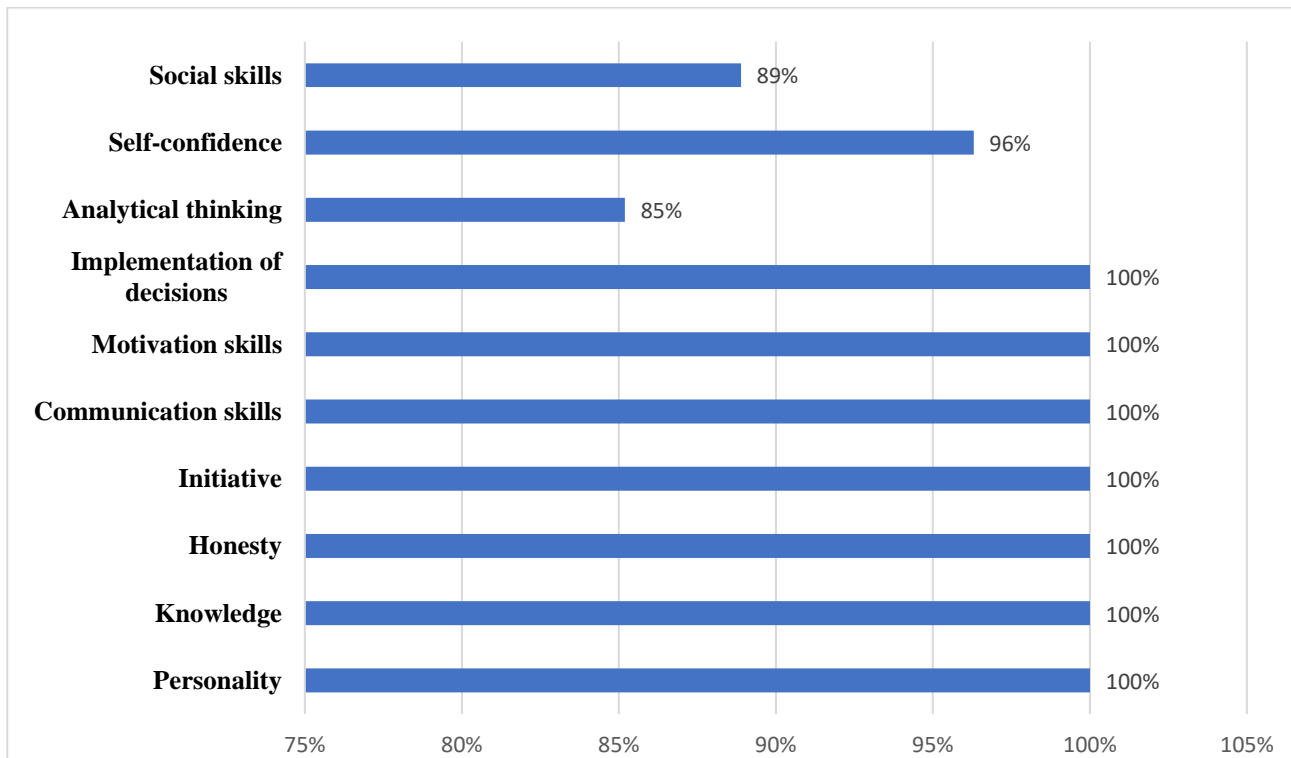


Fig. 6 Key attributes needed by managers

*\*Source: compiled by the authors from survey data*

One of the most important tasks of the survey was to find out which leadership style prevails in the surveyed company. According to the survey results, the vast majority of the respondents (88%) say that transformational leadership prevails in the company under study. The results of the survey are presented in Figure 7.

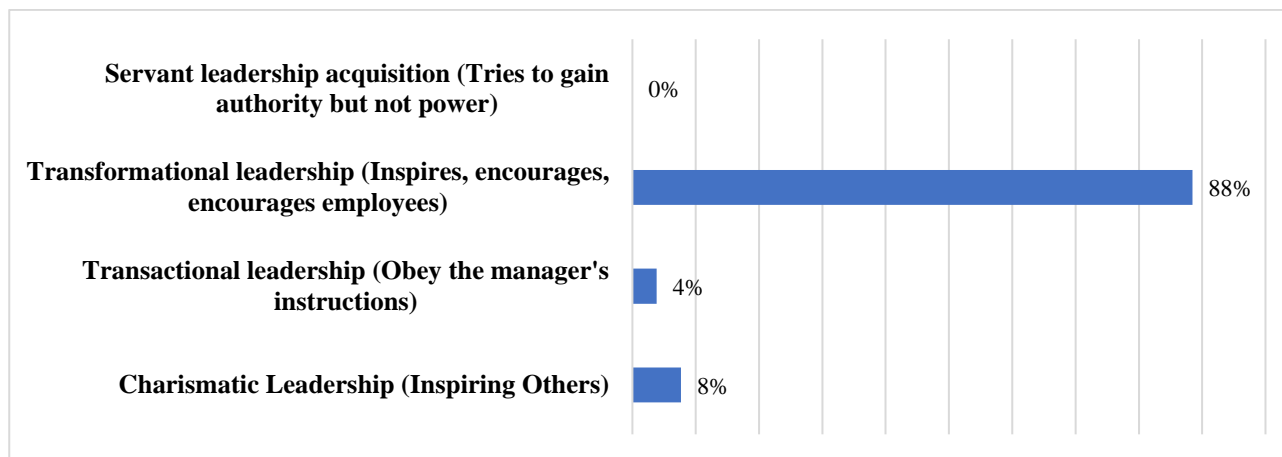


Fig. 7 Leadership style at ABP FOOD GROUP

*\*Source: compiled by the authors from survey data*

Analysis of the survey results shows that the respondents come from different departments of the company's labour sector, with a higher proportion having been with the company for 10 years or more. The participants in this survey have a stronger perception of leadership as an action that leads a group of people or an organisation. Looking further at the results, we can say that the respondents are aware of leadership styles. The responses showed that the majority of respondents chose the modern leadership style, where the leader is supportive, flexible and motivating. When defining successful leadership, respondents were evenly divided. Slightly more participants associate successful leadership with a productive and high-achieving team. Taking into account the other data from the survey, it can be seen that all the respondents, when asked what qualities of a leader are the most necessary, understand that personality, knowledge, integrity, initiative, communication skills, motivation skills, and implementation of decisions are the most important traits and qualities of a leader. After analysing and taking into account the answers given by the respondents, we can see that the majority of the respondents identify a transformational leadership style in their company.

Thus, it can be said that the company under study, ABP Food Group, has a modern leadership style - the leader inspires, encourages and empowers employees.

## Conclusions

In scientific literature, each author's definition of leadership is based on their own observations or current perceptions. It can therefore be argued that there is no single, universal definition that can answer the question of what leadership is. At the same time, it is possible to observe links between words and similarities in the meaning of the concept itself. Thus, it can be said with certainty that leadership is about exerting influence over a group of people, whether it is good or bad. In presenting traditional and contemporary leadership styles, researchers have identified various types and characteristics which, when juxtaposed, show the differences and suggest that contemporary leadership styles are more attractive and, at the same time, more effective and useful. In distinguishing successful leadership, many authors show this through the qualities of the leader, certain traits, emphasising honesty, trust, reliability, transparency, competence and many other positive qualities that help the leader to create a vibrant environment and to manage well the expectations of key stakeholders.

The success of a company depends in many cases on the effectiveness of the manager's role and leadership style, which are reflected in his or her personal skills. By presenting the main leadership styles described by scholars: charismatic, transactional, transformational, servant, it is possible to see the positive features of all leadership styles. The transformational leadership style, where the leader inspires, encourages, empowers, supports and cares for employees, is the most positive leadership style. This type of leader is a role model with whom employees identify.

The research has revealed the main objectives of this paper. When describing the perception of leadership styles, we can say that more respondents are aware of contemporary leadership styles. Respondents clearly identified the most important attributes of successful leadership, most of which are associated with a productive and high performing team. The survey has helped to identify the characteristics of leaders and it is clear that there is no single characteristic that makes a leader successful. The dominant qualities are personality,

knowledge, integrity, initiative, communication skills, motivational skills, and implementation of decisions. In presenting the contemporary leadership styles reviewed by the researchers - charismatic, transactional, transformational, servant - the respondents clearly identified the transformational leadership style of the case study company.

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## HARNESSING THE POWER OF SOCIAL MEDIA FOR BUSINESS GROWTH

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**Keywords:** *Media; Fostering Engagement; Monitoring; Marketing.*

### Abstract

The advent of social media has radically transformed the business landscape, presenting an array of opportunities for organizations to engage with their target audience, boost brand visibility, and drive growth. This article delves into the science behind effectively utilizing social media for business purposes, drawing on empirical evidence and recent studies to substantiate claims and provide practical guidance. Key topics include choosing the right platforms, creating a robust content strategy, fostering engagement, and monitoring performance. By implementing the strategies outlined herein, businesses can maximize the potential of social media to achieve sustainable growth and success.

### Introduction

In the digital era, social media has become an integral component of the modern business toolkit, offering a powerful medium through which organizations can connect with their audience and cultivate brand loyalty. As of 2021, approximately 4.2 billion people – over 50% of the global population – actively use social media platforms, highlighting the immense potential for businesses to expand their reach and enhance their online presence (Kemp, 2021). This article provides an in-depth analysis of how businesses can leverage social media to drive growth.

### Choosing the Right Platforms

With a plethora of social media platforms available, businesses must carefully select those that align with their target audience and marketing objectives. Research suggests that businesses should prioritize platforms that are most popular among their target demographic and facilitate the desired mode of communication (Beukeboom, Kerkhof, & de Vries, 2015). For instance, Facebook and Instagram are ideal for consumer-oriented businesses seeking to engage with a wide audience through visual content (Castronovo & Huang, 2012). Meanwhile, LinkedIn is more suited for B2B companies and professional networking (Oyza & Edwin, 2015).

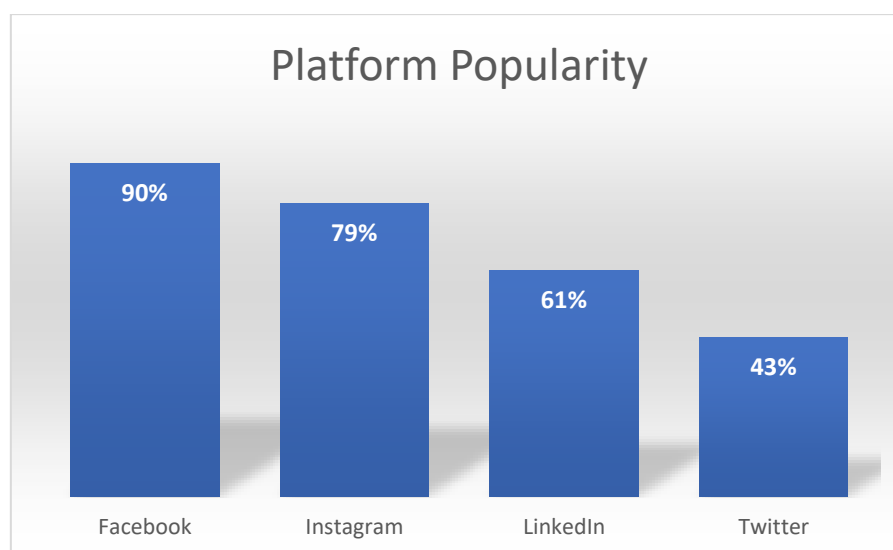


Fig.1 Platform Popularity

*\*Source: Statista, 2022*

## Fostering Engagement

- ✓ Engagement is a key metric for gauging the effectiveness of social media efforts, as it reflects the degree of audience interaction with a brand's content (Lipsman et al., 2012). The following strategies can help businesses foster engagement on social media:
- ✓ Encouraging User-Generated Content (UGC): UGC, such as reviews, testimonials, and social media posts, is a powerful tool for cultivating trust and fostering a sense of community among followers (Smith, Fischer, & Yongjian, 2012). Businesses can encourage UGC by hosting contests, asking questions, or featuring user-generated content on their own channels (Akar & Topçu, 2011)
- ✓ Personalization and Segmentation: Personalizing content and targeting specific audience segments can significantly boost engagement rates and improve overall social media performance (Li & Kannan, 2014). Businesses can utilize tools such as Facebook Custom Audiences and Twitter Tailored Audiences to refine their targeting efforts (Rust & Huang, 2014).
- ✓ Responding to Comments and Messages: Prompt and thoughtful responses to user comments and messages can foster a sense of brand accessibility, encouraging further engagement and enhancing customer satisfaction (Kumar et al., 2010). Research indicates that responding to customer inquiries on social media can lead to increased purchase intent and brand loyalty (Hudson et al., 2015).
- ✓ Collaborating with Influencers: Partnering with social media influencers can amplify a brand's message, extend its reach, and boost engagement levels (Freberg, Graham, McGaughey, & Freberg, 2011). When selecting influencers, businesses should consider factors such as audience fit, niche relevance, and engagement rates (De Veirman, Cauberghe, & Hudders, 2017).
- ✓

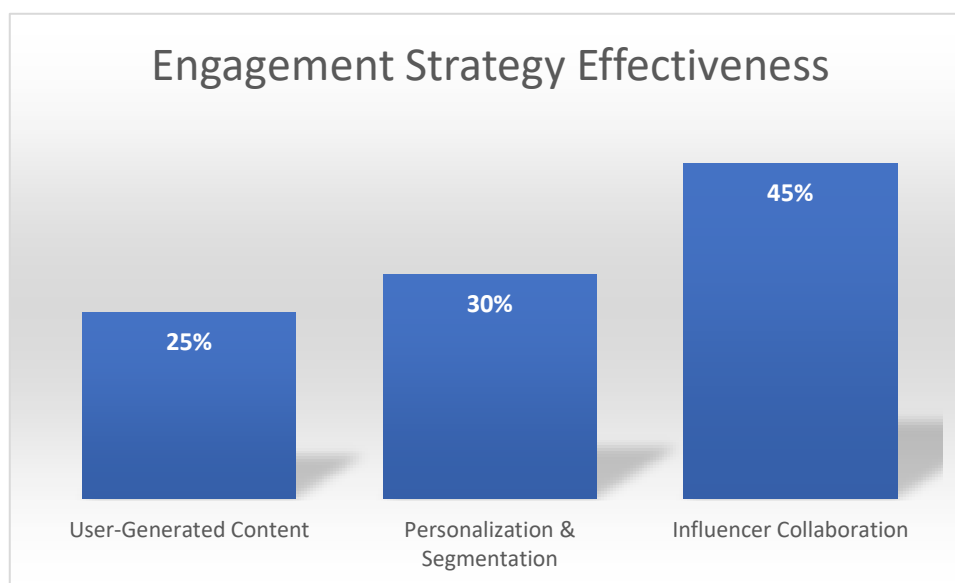


Fig.2 Engagement Strategy Effectiveness

*\*Source: Compiled by authors*

## Monitoring performance

Measuring the impact of social media efforts is essential to refining strategies, optimizing resource allocation, and demonstrating ROI. Key performance indicators (KPIs) to monitor include reach, engagement, conversion, and customer satisfaction (Peters, Chen, Kaplan, Ognibeni, & Pauwels, 2013). Businesses can utilize social media analytics tools, such as Google Analytics, Sprout Social, and Hootsuite, to track performance and gather insights (Fan & Gordon, 2014).

Implementing a data-driven approach to social media management can facilitate continuous improvement, enabling businesses to respond to emerging trends, capitalize on opportunities, and mitigate challenges (Eisenhardt & Martin, 2000). Additionally, benchmarking against industry standards and competitors can provide valuable context for performance assessment and strategic decision-making (Kumar & Reinartz, 2016).



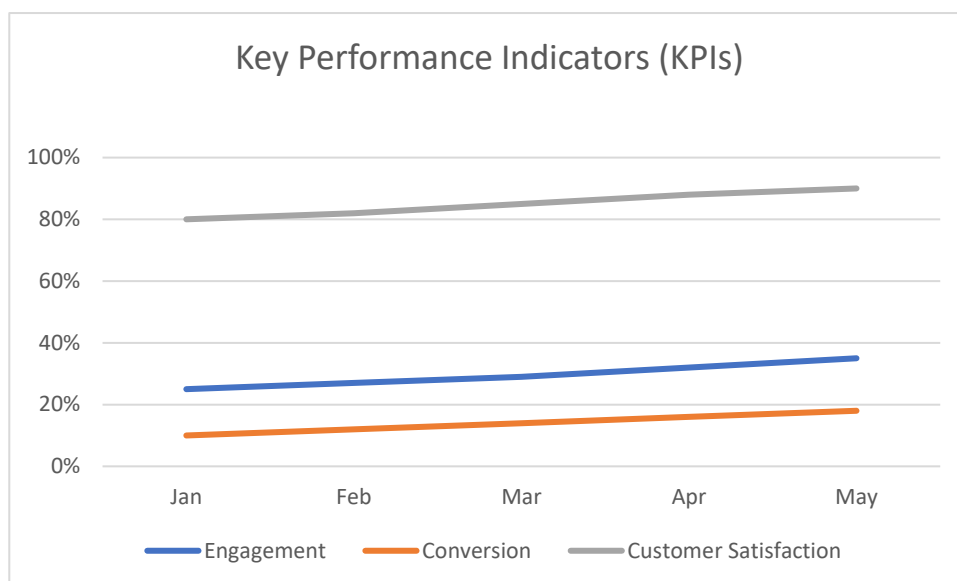


Fig.3 Key Performance Indicators (KPIs)

*\*Source: Compiled by authors*

## Conclusions

In light of the evidence presented in this article, it is clear that social media plays a crucial role in modern business success. The strategic selection of platforms (Beukeboom et al., 2015) allows organizations to effectively reach their target audience and align their marketing objectives with the platform's user base. Furthermore, fostering engagement through tactics such as user-generated content (Smith et al., 2012), personalization and segmentation (Li & Kannan, 2014), prompt responses to comments and messages (Kumar et al., 2010), and collaboration with influencers (De Veirman et al., 2017) has been shown to significantly enhance brand visibility and drive growth.

Monitoring performance using key performance indicators (Peters et al., 2013) and employing social media analytics tools (Fan & Gordon, 2014) further enable businesses to optimize their strategies based on data-driven insights. The continuous improvement facilitated by a data-driven approach (Eisenhardt & Martin, 2000) and benchmarking against industry standards and competitors (Kumar & Reinartz, 2016) ensures that businesses can stay ahead in the rapidly evolving digital landscape.

In conclusion, businesses that effectively leverage the evidence-based strategies and best practices discussed in this article will be better equipped to harness the transformative power of social media, fostering strong connections with their audience and achieving long-term growth. As consumer preferences and technological advancements continue to shape the digital environment, it is essential for businesses to remain adaptable and responsive, continually refining their social media strategies to capitalize on emerging opportunities.

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## THE IMPACT OF FOUR WORKING DAYS ON WORK-LIFE BALANCE

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### **Abstract**

There is now a growing interest in the four-day workweek in various countries, including Latvia, as one of the activities to promote work-life balance. As a result of the restrictions imposed by the Covid-19 pandemic, companies have introduced remote or hybrid working arrangements, which have had an impact on employee well-being, raising the issue of introducing flexible working arrangements in the future. The study highlights the work-life balance activities currently offered in Latvian workplaces.

Keywords: four-day workweek; work-life balance; flexibility in the workplace; employee well-being.

### **Introduction**

Work-life balance is a key factor in employee well-being. Its relevance is reflected in a 2017 study by the Organisation for Economic Co-operation and Development (further in the text – OECD), which found that Latvia ranks fourth out of 38 countries where employees work very long working weeks, in fact, more than the mandated eight hours a day. At the same time, employees in Latvia have very little time for leisure and personal care, resulting in one of the lowest work-life balances among OECD countries (Vanadzins, 2022).

There is now a growing interest in the four-day workweek in various countries, including Latvia, as one of the activities to promote work-life balance. Due to the constraints imposed by the Covid-19 pandemic, companies have introduced remote or hybrid working arrangements which have had an impact on employee well-being, raising the issue of flexible working arrangements in the future.

**The aim of the study:** Based on the theoretical literature and the findings of the study, identify activities that are implemented in the Latvian labour market to promote work-life balance.

**The object of the study:** Activities to promote work-life balance.

#### **Objectives of the study:**

1. To analyse and summarise the theoretical aspects of the topic.
2. To analyse the job advertisements in the Latvian labour market.
3. To summarise and analyse the data obtained in the study.

#### **Research methodology:**

1. Analysis and synthesis of theoretical and scientific literature.
2. Collection, compilation, and analysis of research data.
3. Statistical analysis of the data to summarise the findings.

### **The importance of work-life balance**

Most employees have faced the challenge of finding a work-life balance at some point. Work-life balance means having the flexibility to develop professionally while still having time and energy to devote to your personal life. Balance is created when a person has the same priority requirements for both career and personal life. The most common reasons for imbalance are greater responsibility for work or, conversely, for housework, caring for children, and long working hours. Work-life balance boosts well-being and reduces stress. A successful balance of work, family responsibilities, and personal life is important not only for employees but also for their employers and family members. More broadly, it also has a positive impact on social and economic sustainability. Improving work-life balance is linked to higher-level objectives: increasing employment, ensuring equal gender opportunities, and tackling demographic challenges.

While earlier studies often focused on work-life balance, the concept of work-life balance is now more commonly used to emphasize the need for balance not only in work and family life (Lonska et al., 2021) but also in other life activities, such as religious activities, community, or voluntary work, caring for the elderly, learning and personal development, travel, sport, etc. It is important to understand that work-life balance does not mean spending equal amounts of time on paid work and other unpaid roles in life. In the broadest sense, it is defined as a satisfactory level of involvement or adequacy in a number of roles in a person's life. Although definitions may vary, work-life balance is usually associated with the balance between the time and effort one devotes to work and personal activities in order to maintain an overall sense of harmony in life (Lazar et al., 2010).

During the Covid-19 emergency, a large number of staff were forced to work from home. Initially, this was seen as a positive factor that would contribute to work-life balance, but over time there were also negative

aspects – employees were only a phone call or message away from their employer, so employees were expected to work and be available outside working hours. When working remotely, employees tended not to follow the work schedule because it was difficult to distinguish between working time and free time (Lonska et al., 2021). Studies have shown that employees spend an average of six hours per day on email, check their inbox an average of 74 times per day, and touch their smartphones an average of 2,617 times per day. This means that employees are constantly distracted and hyper-responsive (Glaveski, 2018). Giving up work emails has been shown to reduce stress, improve concentration, and employees are less likely to multitask (UCI News, 2012).

Not separating work and private life can lead to burnout – a state of physical and mental exhaustion when a person's working capacity is exhausted. The study found that the negative impact of work on work-life balance is most common among employees with pre-school children in the household. It is important for employers to support employees both by organising remote working (e.g. by giving them the freedom to plan their working hours, by introducing changes to their work schedule that allow them to combine work and home responsibilities) and by providing psychological support. This results in greater efficiency and productivity for employers increased motivation and loyalty, and better health for employees (Lonska et al., 2021).

Shortly before the pandemic, the world idealised 24/7 working, but the Covid-19 pandemic provided valuable lessons. After almost two years spent mostly at home, employees want to spend more time with family, friends, and hobbies. The public was offered the opportunity to reflect on how to improve cooperation between companies and employees (Rozentals, 2022).

### **Activities for work-life balance**

Companies can help promote work-life balance for their employees through practices aimed at helping employees better manage their time at work and outside work. These practices increase female staff participation and motivation, improve performance, make the organisation more attractive to employees, and enhance corporate social responsibility (Lazar et al., 2010). A survey of 830 workers in Latvia in 2022 found that 41% of workers believe that work-life balance is a shared responsibility between employer and employee. On average, this was more often emphasised by workers with a family of four or more. However, an equally high proportion of respondents (40%) believe that striking a balance is primarily the responsibility of the employees themselves. Human resource managers also believe that the issue should be addressed through balanced cooperation, the involvement and responsibility of both parties, without shifting it to one side or the other (Kantar, 2022).

**Flexible working** means that the employee can set (or take part in setting) the start and end times of the working day, provided that a certain number of hours are worked. This allows other necessary family or private activities to be carried out during the working day, as well as responding to unpredictable situations. For example, employees can reduce the time they spend travelling by starting and finishing work before or after rush hour (Lazar et al., 2010). According to Kantar (2018), a survey of 1,000 respondents in 2018 found that 65% of people in Latvia who do not currently have access to flexible working would like to be able to adjust their start and end times. Also, in the 2021 survey in Latvia, 39% of 700 respondents say that flexible working is the employer support that employees need most (Kantar, 2021).

**Remote working** means that the employees perform at least part of their duties at home, rather than in the office. This allows them to organise their working day around their personal and family needs, reducing work-related expenses and time spent travelling. When employees work at their peak productivity during a period that is individual to each person, this can have a positive impact on the company's bottom line. Teleworking provides an opportunity to include people with disabilities or other impairments that limit their ability to go outside the home, but not all occupations are suitable for teleworking. Employers may be concerned about initial implementation costs, remote performance monitoring and appraisal, and remote working leading to more isolation, less job security, and fewer opportunities for promotion (Lazar et al., 2010). According to Kantar (2020), a study of 800 workers in Latvia in 2020 found that during the Covid-19 emergency, workers experienced changes in their working patterns that had an impact on overall job satisfaction. Workers who have switched to teleworking in whole or in part are significantly more satisfied with their jobs. This has raised the question of the possibility for some workers to continue to work remotely after the emergency restrictions have been lifted.

**The hybrid working model** involves working both in the office and at home. In 2021, a survey of around 700 Latvian citizens found that 53% of respondents would like to work for a company that offers flexible working arrangements and allows both on-site and remote working after the pandemic is over. The pandemic

has shown that this working model can be effective, but it poses challenges for companies to maintain consistently high levels of employee engagement, awareness, and collaboration, as some colleagues are in the office and others work from home (BiSMART, 2021). A survey of 830 workers in 2022 found that 24% of the Latvian population works in a hybrid mode. Although organisations follow up and promote the well-being of employees in this mode of work, overall, the sense of belonging and awareness of what is happening in working life has deteriorated (Kantar, 2022).

**Part-time work** allows people with health problems, disabilities, or limited time to work, such as students, to develop their skills and gain work experience. It facilitates the return to work of those who have temporarily stopped working, such as mothers or fathers with children, and provides a gradual exit from work for people approaching retirement age. From an employer's point of view, the use of part-time staff, where possible, can help to maximise human resources and increase operational flexibility by providing additional resources during peak periods. Part-time work offers a work-life balance, but at a lower salary, which is most often not enough to support a family (Lazar et al., 2010). According to the 2018 survey, one in ten or 12% of the 1,000 Latvian citizens aged 15 and over surveyed would like to work part-time (Kantar, 2018).

**Job sharing** is a form of employment in which two or more employees work together on a specific task, each working part-time. Job-sharing contributes to a better quality of tasks because the employer is able to hire employees with different backgrounds, but problems can arise due to shared responsibilities and miscommunication. Currently, this working arrangement can be disadvantageous for employers, as it leads to double costs, for example for training or compulsory health checks. But it gives workers the opportunity to develop their skills and spend some time with their families or studying (National labour inspectorate, 2017). United Kingdom (further in the text – UK) statistics show that the use of job-sharing arrangements in companies is decreasing: in 2013, 185,000 employees in the UK job-shared, compared to 101,000 employees in 2022 (Lavri, 2023).

**Shortened working weeks** are agreements that workers work longer shifts in exchange for a reduction in the number of working days in the work cycle, for example, once a week or every two weeks. Employees get long weekends, which allow them to take smaller vacations. This is particularly suitable for employees who want to reduce the number of days they work but cannot financially afford to reduce their working hours. It can also be beneficial for employers to introduce shorter working weeks to improve operational efficiency, maximise production which will reduce day-to-day costs, and improve customer satisfaction through longer service hours (Lazar et al., 2010). In 2022, a UK technology company conducted a survey of 1,000 office workers. 72% of employees said they would be willing to work the same number of hours for the same pay, but four days a week instead of five (Cholteeva, 2022).

For companies with large numbers of administrative, maintenance, or customer-facing staff, offering flexible working arrangements can be problematic. Where working hours are set by customers, organisations face constraints on employee flexibility (Lazar et al., 2010). There are advantages and disadvantages to each activity, both from the employee's and the employer's point of view. For example, job sharing is advantageous for employees, who want to develop their skills, but do not have much time for work. They accordingly receive a salary for half-time work and might have misunderstandings because of the shared responsibilities. It is advantageous for employers because it contributes to a better quality of tasks, but it leads to double costs. Each company's field of activity or an employee's personal preferences and abilities determine which activity to choose for a work-life balance.

Interest in the four-day week has increased worldwide in the wake of the pandemic. In Latvia, the initiative "For a four-day and 32-hour working week" was published on the initiative platform ManaBalss.lv in May 2022 and was supported by 13,284 signatures (Melehovs, 2022). In 2020, the citizens' initiative already received more than 10,000 signatures, but the proposal was rejected in Saeima. The initiative has been reintroduced in the Saeima and, although the national economy is not benefiting from the proposal, it has been decided to continue the discussion on the greatest possible flexibility for employees (LSM, 2023).

### **Four-day working week**

Interest in the four-day week has grown worldwide, especially as it could help to tackle the societal challenges caused by the Covid-19 pandemic, such as the increase in gender and social inequalities, the deterioration in workers' mental health, and the need to revitalise the tourism, hospitality, and creative industries, which suffered the most during the pandemic. The aim of the four-day week is to reduce the working time of full-time workers, currently around 36–40 hours in most countries, to a standard four-day or 30–32-hour week, without any reduction in pay. This does not mean that workers must necessarily work four days; it is the general idea of reducing the number of working hours equivalent to full-time work.

The difference between a four-day week and part-time work is that part-time work is accompanied by a proportional reduction in the hours worked and the pay received. This is also different from a shortened work week, where the full-time equivalent (e.g., 40 hours) is worked in fewer days (e.g. four days), where, although the number of days worked is reduced, they are still full-time equivalent hours.

One of the reasons why the four-day working pattern has gained popularity is the increase in employee productivity, as short and concentrated working hours can prove to be more efficient. The 8-hour working day is also most often spent on non-work activities – making coffee, reading the news, talking to colleagues, etc. It also hinders the recovery time needed to maintain well-being and increase engagement, which subsequently affects performance (Chung, 2022). An extra day off is not only a chance to rest and rejuvenate longer but also to do things you do not have time or energy for doing after work, like visiting your parents, helping your children with their schoolwork, etc. When these tasks do not take over your mind during working hours, it is possible to concentrate better and do a better job (Rozentals, 2022).

Long working hours without sufficient rest can have a negative impact on health, increasing sickness, absenteeism, and staff turnover, which increases costs for companies (Chung, 2022). More than 60% of absenteeism is caused by stress and burnout, which weaken immunity. Four-day working experiments show that giving employees one extra day off a week reduces sick days by a third. Burnout is one of the most common reasons for job hopping. A four-day working week promotes employee loyalty and reduces staff turnover by 25%, allowing the company to make significant savings on finding and integrating new employees into the team (Rozentals, 2022).

Giving employees the capacity to spend more time with others can also affect the well-being of others, such as children and other family members. People would be more involved in social activities, cultural development, and healthy leisure activities. Shorter working hours also encourage men, fathers, who are more likely to work long hours, to be more involved in childcare and housework, thus achieving a fairer distribution of domestic tasks (Chung, 2022).

Gender inequalities in the workplace have been the subject of increasing debate recently. In the European Union (further in the text – EU) in 2021, women were on average paid 12.7% less per hour than men. Latvia has the highest rate among EU Member States – 22.3%. Women work more hours per week than men, but spend more hours in unpaid work. The EU, therefore, promotes equal sharing of parental leave, adequate public provision of childcare, and appropriate company policies on flexible working arrangements (European Commission, n.d.). Women are significantly more likely to work part-time and take holidays, which has a negative impact on their careers and pay (Mercer, n.d.).

The study shows that reducing working time is a multifaceted policy that can bring social, economic, and environmental benefits. Social benefits include reduced stress and burnout for workers and more time for family, community, and self. The economic benefits depend on the type of reduction. If this is achieved without loss or even with an increase in productivity, it is good for companies' bottom lines. If it increases employment, it can reduce unemployment. The environmental benefits include a reduction in energy consumption associated with commuting to work, especially in the case of a four-day week (Kelly et al., 2022).

However, fewer working days do not mean less work. The introduction of a four-day week requires optimising work, automating tasks, delegating, or outsourcing. This working pattern is certainly not suitable for all companies, such as manufacturing companies, where a 20% reduction in working hours means 20% fewer goods produced, and efforts to maintain production at current levels can lead to a deterioration in the quality of goods. If the shorter working week initiative is supported, these companies need to think of other ways to support and improve employee well-being to compete with companies offering a four-day week (Rozentals, 2022).

### **Country examples**

**In Iceland**, a trial of a 35-36 hour working week (instead of the usual 40 hours) was implemented in 2015 and 2017, with no proportional pay cut. The trial involved 2,500 public sector employees and was deemed a success. Staff stress levels and burnout risk were reduced, while productivity and service delivery either remained the same or even improved. In Iceland in 2021, a total of 86% of the national workforce either has a shorter working week or has the right to request shorter working hours (Euronews, 2022).

**In Ireland**, a six-month trial was carried out in 2022, involving 12 organizations of different sizes with an average of 14 employees. The companies were satisfied with performance, productivity, and experience. At the end of the trial, employees felt much better than before – they were less anxious and burnt out. Their satisfaction with life improved overall and in different areas of their lives. Their self-assessment of their work performance improved significantly, but it was not because they worked faster or harder. The researchers hope that these findings will send a strong signal to employers in different sectors to introduce the four-day, 32-hour working week (Kelly et al., 2022).

**In New Zealand**, in 2018, Perpetual Guardian, a company with 240 employees, introduced an eight-hour, four-day week for two months with no pay cuts. Before the trial, 54% of employees said they were able to effectively balance work and home responsibilities, but after the trial, the number of employees experiencing work-life balance had climbed to 78%. The founder of the company and the author of the pilot idea said he would present the results to the Board to start a discussion on the long-term implementation of the four-day week (The Guardian, 2018).

**In Japan**, Microsoft introduced a four-day week for one month in 2019, resulting in a 40% increase in productivity. All 2,300 employees were given five consecutive Fridays off without a pay cut. The company found that shorter working weeks led to more efficient meetings and more satisfied employees. The President and CEO of Microsoft Japan want his employees to see that they can achieve the same results with 20% shorter working hours (The Guardian, 2019).

**In the UK** was carried out the world's largest ever four-day working week study. In 2022, 61 companies with around 2,900 employees tried a 32-hour week for six months. At the end of the trial, 56 companies plan to continue with the four-day week and 18 of them announced that the switch will be permanent. At the end of the experiment, employees reported various benefits in terms of sleep, stress levels, mental health, etc. During the experiment, pay remained unchanged and 15% of employees say that no amount of money would persuade them to return to a five-day week (Autonomy, 2023). Employees follow the 100:80:100 model, which means 100% return 80% of the time in return for a commitment to maintaining at least 100% productivity.

**In Belgium**, a regulation came into force in November 2022 allowing workers to choose to work four or five days a week without a change in pay, but without a reduction in working hours (Euronews, 2023). Belgian workers, whether in the public or private sector, can choose to work nine-and-a-half hours a day for four days or eight hours a day for five days. This is designed to give people and companies more freedom to organise their working time and to create a more dynamic economy after two difficult years. However, the public is not very supportive - companies fear that the new working week could cause organisational problems, while trade unions believe it will mean more work for employees during the rest of the week (Euronews, 2022).

**The United Arab Emirates** has introduced a 4.5 working day week, reducing working hours on Fridays, and shifting holidays from Friday-Saturday to Saturday-Sunday to better align with global markets. The Government believes that this will promote work-life balance and improve social well-being, while increasing capacity, which in turn will contribute to the country's economic competitiveness. Under the new timetable, public sector weekends start at 12 noon on Fridays and end on Sundays (The Guardian, 2021).

**In Sweden**, in 2015, 80 nurses in a retirement home switched from an eight-hour day to a six-hour day for the same pay for two years. 15 new staff were recruited to provide the same number of hours of care to the elderly as before during the experiment. This cost the centre €600,000 a year. The results show that the number of sick leaves decreased by 10% and the health status of carers improved by 50% compared to workers working normal hours. The city administration's spokesperson believes that the experiment is not a failure, but it remains unclear whether the costs outweigh the benefits. Although there are no plans to introduce a national six-hour working day, the City Council has earmarked SEK 20 million for trials in other sectors (The Guardian,

2017). However, some companies, such as the car manufacturer Toyota, decided to give their employees reduced working hours more than 10 years ago, and have stuck to this decision ever since (Euronews, 2023).

As in Sweden, a separate company has introduced such a policy in Latvia. “Scoro,” a work management software company based in Estonia and also operating in Latvia, has already introduced a four-day week. This helps to attract employees and does not lose the company money as efficiency is not lost. The talent acquisition specialist mentions work-life balance and productivity as the main benefits (LSM, 2023).

Trials will also start in Spain and Scotland. In Germany, which has one of the shortest average working weeks in the EU (34.2 hours), some small companies are experimenting with shorter working weeks. Wales, Canada, and the United States have also expressed interest in trials (Euronews, 2023). It is clear that countries around the world are interested in implementing, or at least piloting the four-day week.

## Research on vacancies

In order to find out what work-life balance measures are provided in Latvian workplaces; a survey of current vacancies was carried out on the CV–Online Latvia portal ([www.cv.lv](http://www.cv.lv)). The research was based on advertisements in three different fields: human resources, marketing/advertising, and banking/insurance. In each area, 50 vacancies were randomly selected.

Human resources offers the most remote working opportunities, but the results are similar across the board, with only one difference (see Figure 1). Hybrid working is more common than remote working in banking/insurance and human resources, and as common as remote working in marketing (see Figure 2). There was a tendency in all areas (24 out of 30 vacancies) to specify “remote working opportunities” without explaining whether the work was to be done fully or only partly remotely. These vacancies were thus counted as remote working data. Two vacancies offer the choice of working on-site, fully, or partially remotely, and a further three vacancies offer the choice of working fully or partially remotely.

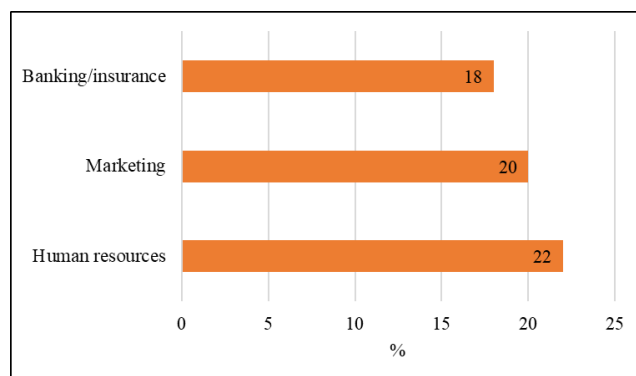


Figure 1. Remote working

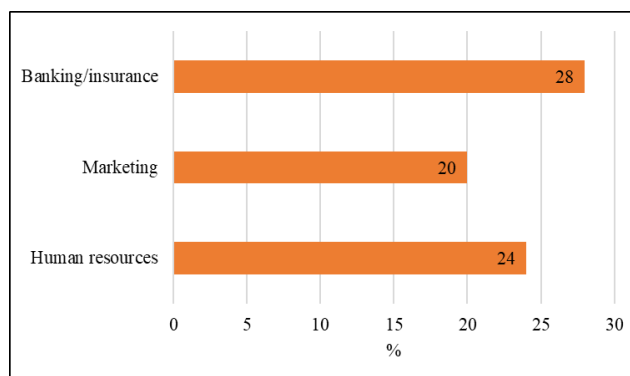


Figure 2. Hybrid work

*\*Sources: compiled by the author*

Short-time work is offered less often and in equal numbers in all areas – 6% (see Figure 3). Five advertisements offer shortened Fridays, one offers shortened Fridays in summer, and three offer shortened working hours in summer, which is not specified. The four-day working week was not mentioned in any of the vacancies. Flexible working is the most common option in human resources, at 30%, the highest of all work-life balance measures (see Figure 4). Six vacancies specify that a flexible start to the working day is offered, one vacancy specifies that flexibility is provided as required, and another vacancy specifies that working hours are not fixed. Interestingly, two marketing vacancies in the same company differ in what is offered – only one of them specifies flexible working hours.



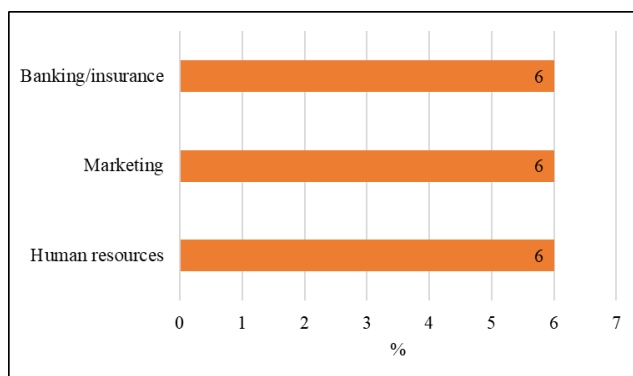


Figure 3. Shortened working hours

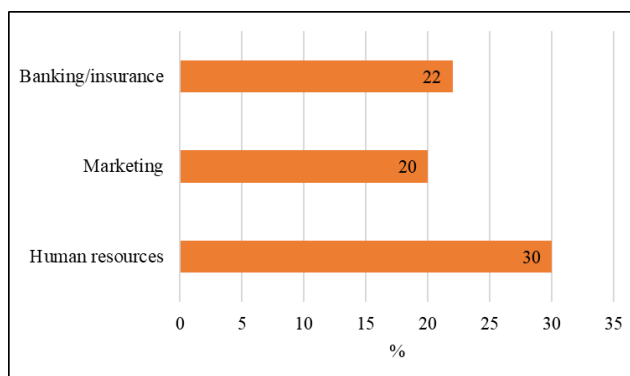


Figure 4. Flexible working hours

*\*Sources: compiled by the author*

Overall, half (51%) of all vacancies offer at least one measure to promote work-life balance. Flexible working hours and hybrid working arrangements are the most common.

## Conclusions

Work-life balance is an important factor in employee well-being, as it reduces the risk of burnout and stress, gives employees the opportunity to spend more time with their families, and to fulfil their potential in other areas of their lives. While there are many benefits of a four-day week, such as reduced absenteeism, turnover, and gender inequality in the workplace, increased productivity, improved motivation, etc., it is not feasible in all workplaces and requires work optimisation, task automation, and other adjustments. However, work-life balance can also be promoted through other measures, such as remote or semi-remote working arrangements and flexible working hours. It is evident that various countries around the world are interested in improving the well-being of their employees through flexible working arrangements, including Latvia. Based on the vacancy analysis, the four-day working week for administrative positions is not offered on the Latvian labour market. The most frequently offered measures to promote work-life balance on the Latvian labour market are remote working (banking/insurance – 18%; marketing/advertising – 20%; human resources – 22%), hybrid work (banking/insurance – 28%; marketing/advertising – 20%; human resources – 24%), shortened working hours (all areas – 6%), flexible working hours (banking/insurance – 22%; marketing/advertising – 20%; human resources – 30%).

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## ORGANIZATIONAL MICROCLIMATE AT „RADMENA“

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Keywords: *organization, microclimate, mobbing.*

### Abstract

This article analyses the concepts of organizational microclimate, the factors shaping the organizational climate, job satisfaction and the factors influencing it, the concept and types of mobbing. The study showed that the company has a rather favorable, positive and safe microclimate. The manager, together with the employees, ensures that everyone in the company feels comfortable, safe, satisfied and motivated at work.

### Introduction

The relevance of this topic is underlined by the fact that it is not easy for companies to create and maintain a good organizational microclimate. Managers need to ensure operational efficiency, a safe and orderly workplace, and excellent communication between employees, so that the microclimate of the organization contributes to the well-being of employees. Employees will feel safer in an environment that has a good organizational climate, good working conditions, no mobbing or other problems that prevent the organization from improving. Therefore, managers should take this situation into account and look at what measures can be taken to improve the organization and to create a favourable working environment for employees so that they feel needed and safe at work. In today's society, the need to invest in the microclimate of an organization is quite high, because otherwise companies will not achieve good results, have loyal and committed employees or operate efficiently. It is therefore necessary to improve the microclimate of the organization, the well-being of employees, their job satisfaction and to find the most beneficial measures for the well-being of the company. It is also necessary to discover the most useful factors that create a favourable organizational climate.

**The subject of this article** is the microclimate of an organisation.

**The aim of the article** is to assess the organisational microclimate of IĮ "Radmena".

#### **Objectives of the article:**

1. To analyze the microclimate of the organization from a theoretical point of view;
2. To conduct a study of the organizational microclimate in IĮ "Radmena";
3. To present the possibilities of improvement of the organizational microclimate in IĮ "Radmena".

Research methods. Analysis of scientific literature, quantitative research using questionnaire survey. The research data will be processed in Excel.

### Theoretical aspects of organisational climate

Many scholars in the management literature have analysed the microclimate of an organisation, and they have taken a wide variety of approaches to the concept. Organisational microclimate is mentioned in different contexts and different authors give different definitions of the concept. The term organisational microclimate was first mentioned in 1939 by authors such as K. Lewin, R. Lippitt and R. K. White. These authors define the concept as the relationship between an individual's needs and the social space in which he or she can act to meet those needs. Table 1 gives an overview of the concept of organisational microclimate, organisational culture.

Table 1

**Concept of organisational climate**

Author	Concept
Vveinhardt, J. (2009)	Organisational climate is the product of the relationships between members of an organisation, including managers, and the sum of the reactions to those relationships
Schneider, B., Ehrhart, G. M., Macey, H. W. (2012)	<i>Organisational climate - the meaning that gives people an extraordinary working experience.</i>
Schneider, B., Ehrhart, G. M., Macey, H. W. (2012)	<i>Organisational culture - the underlying assumptions about the world and the values that guide organisations.</i>
Kokina, I., Ostrovska, I. (2013)	<i>The organisational climate acts as a key component of culture, which is shaped by the influence of the objective characteristics of the organisation and is characterised by an important psychological environment.</i>
Kavaliauskienė, Ž. (2013)	<i>The microclimate of an organisation, which influences human resources, is seen as a characteristic that employees inevitably feel on a daily basis.</i>
Krivienė, I., Mackelienė, D., Fedosejevaitė, R. (2015)	<i>Organisational climate is behaviour-oriented - an organisation can have a creative, innovative, safe climate that is created by supporting creativity, innovation or safety in employee actions.</i>
Berberoglu, A. (2018)	<i>Organisational climate is one of the most important aspects of an organisation's environment and has a direct link to employee behaviour.</i>
Stankevičiūtė, I., Ganusauskaitė, A. (2018)	<i>Organisational climate is the atmosphere that employees feel in their workplace.</i>

*\*Source: (compiled by the author based on Vveinhardt, 2009, Schneider, Ehrhart, Macey, 2012, Kokina, Ostrovska, 2013 Kavaliauskienė, 2013, Krivienė, Mackelienė, Fedosejevaitė, 2015, Berberoglu, 2018, Stankevičiūtė, Ganusauskaitė, 2018).*

The analysis of Table 1 shows that the authors give different definitions of the concept and allow us to choose the one that is closest to us and that makes the most sense. There is no single precise definition of the concept, and there are many different, but at the same time similar, definitions of organisational microclimate in scientific sources. To summarise Table 1, organisational climate is one of the most important aspects of an organisation's environment, which has a direct link to employee behaviour. It is the set of factors that influence the performance of an organisation, its productivity, employees' job satisfaction, well-being, motivation, etc. A positive and healthy organisational climate will help to prevent conflict, mobbing, job dissatisfaction, disloyalty and similar factors that undermine the organisation. It is more important for employees to work in a favourable organisational climate, with good relations with colleagues, than to be paid a salary. A positive climate will make employees more responsible, motivated and improve the image of the organisation. Managers must notice in time if their company has an unfavourable climate for employees, as this can lead to conflicts, resignations or even mobbing. By spotting the climate in time, the manager can change the factors that influence it, which in turn lead to employee job satisfaction and motivation.

### Factors shaping the microclimate of an organization

The effectiveness and efficiency of an organization is largely determined by its staff, which is why it is so important to equip staff properly, to allow them to develop, and to create the right organizational climate. Employees can be helped to develop and perform effectively by the efforts of their manager and by a safe, comfortable workplace environment. Factors that contribute to the microclimate of an organization may include the leadership of the manager, the atmosphere of communication, the relationship between staff, the management of conflicts, mobbing, access to professional development, training, and the ability to help solve company problems. J. Jyoti (2013) argues that the factors that motivate employees and shape the microclimate of the organization and prevent employees from leaving are: autonomy, high level of tasks, variety of skills and work challenges, meaningful work activities, good leadership. According to D. Šetkienė (2021), the results of the study show that the main factors are cordial relations with colleagues, good working conditions, safety, a comfortable personal work area, adequate provision of work tools, and a good relationship with the manager. The manager must therefore try to spend as much time as possible with the employees, to listen to their values and expectations and to create a favorable and safe climate for them in the organization.

## Job satisfaction and the factors that influence it

Job satisfaction is a person's emotional reaction to his or her job (Viningienė, 2012). According to E. Vaidelytė and E. Sodaitytė (2017), job satisfaction is determined by a variety of motivational factors that reflect the quantitative and qualitative characteristics of the organisational environment and work. D. Valiūnas and R. Drejeris (2019) point out that job satisfaction is associated with positive emotional states, which are determined by the work performed and the surrounding environment. It can be argued that the concept of job satisfaction is a broad one and is defined differently by different authors, but in general, it is still a generalization that it is the employee's emotions, state of mind towards the job, its quality and environment. A. Tilindė, V. B. Fominienė (2020) argue that job satisfaction is not only important for employers, but also for the individual, as it affects not only his/her career, but also his/her personal life. The emotions an employee has experienced at work are emotions that he or she can take home with him or her. It is therefore important that only good emotions, emotions that raise spirits and lead to job satisfaction are present at work. It is crucial for the manager that employees are satisfied with their work, otherwise they may be in a poor emotional state, unmotivated to work for the company or even want to change jobs. According to M. Gujytė and J. Kudinovienė (2020), an employee who enjoys his or her job, is stress-free and has a sense of job satisfaction is more active, creative and performs better. According to the authors' article, employees who feel satisfied with their work will demonstrate a positive attitude towards work, perform their tasks more efficiently and productively, which will have a direct impact on organisational performance (Šinkūnas, Fominienė, 2017). Employers should increasingly pay attention to employees' needs, expectations, motivation and job satisfaction.

## Concept and types of mobbing

Professor H. Leymann was the first to use the concept of mobbing to describe workplace relations (Vveinhardt, 2010). Vveinhardt (2012) was one of the first to study mobbing in employment relations in Lithuania. There are many different definitions of mobbing in the scientific literature, but there is no single, precise definition. Some authors equate mobbing with bullying, others with violence. V. Janušonis (2020) argues that bullying is aggressive behaviour, insults and ridicule in workplace interactions. Table 2 shows the definitions of Lithuanian and foreign authors.

Table 2

Concept of mobbing	
Vveinhardt, J., Žukauskas, P. (2010)	<i>Mobbing - psychological terror, discrimination in employee relations, oppression, harassment or intimidation.</i>
Vveinhardt, J. (2013)	<i>Mobbing is an attack based on constant teasing, harassment and weakening of social ties - separating the victim from the group, isolation.</i>
Vveinhardt, J. (2014)	<i>Mobbing - bullying, psychological terror, harassment in the workplace.</i>
Bartnikaitė, M., Fominienė, V. B. (2016)	<i>Mobbing is a conflict situation that develops in the work environment.</i>
Erdogan, V., Yildirim, A. (2017)	<i>Mobbing - when a worker or group is emotionally harassed, insulted and ultimately rendered incapable by co-workers or even superiors.</i>
Laskienė, S., Treinienė, J. (2019)	<i>Mobbing is a set of influences designed to humiliate, belittle or exclude a person from an organisation.</i>
Munro, C.E., Phillips, A.W. (2020)	<i>Mobbing is a type of bullying or passive harassment in the workplace, perpetrated by an individual or an entire team, that leaves victims feeling unable to speak up and, if they do, may lose the support of their colleagues.</i>

\*Source: (made by author based on Vveinhardt, Žukauskas, 2010, Vveinhardt, 2013, Vveinhardt, 2014, Bartnikaitė, Fominienė, 2016, Erdogan, Yildirim, 2017, Laskienė, Treinienė, 2019, Munro, Phillips, 2020).

Table 2 shows the most clearly described and understood concepts of mobbing. Vveinhardt and Žukauskas (2010) define mobbing as psychological terror, discrimination in employee relations, oppression, harassment or intimidation. Later, Vveinhardt (2013), expanding on her knowledge, describes mobbing as an attack based on constant teasing, harassment and weakening of social ties, i.e. exclusion from the group. As this author has analysed many cases of mobbing and sought preventive measures, she further defines mobbing as bullying, workplace harassment and psychological terror. In comparison with other authors, M. Bartnikaitė and V. B. Fominienė (2016) argue that mobbing is a conflict situation that develops in the work environment. A. Bortnikas (2017) argues that it is necessary to develop and implement conflict resolution measures in the

workplace, to hold meetings and discussions about the problems that arise for employees, and to encourage employees to find the source of the problems themselves and to eliminate them.

A theoretical analysis of the literature by foreign and Lithuanian authors shows that the microclimate of an organisation is referred to in different contexts, with different authors giving different definitions of the concept. There are many different definitions and concepts available, but we can choose which one to apply to ourselves or to our organisation. Different authors give different definitions, but they still have links and similarities with each other. Mobbing, job satisfaction and climate factors are some of the most important things that influence the microclimate of an organisation. Managers need to take into account the needs of their employees in order to ensure a positive, safe and comfortable climate. Employees will not feel stressed, will work in a motivated and quality manner, and will not be exposed to situations that could lead to mobbing if the climate of the organisation meets expectations.

## Study of the organisational microclimate in Į Radmena

### Company presentation

Į "Radmena" is an individual company in Radviliškis, which has been operating for more than nineteen years. The company is engaged in the sale and production of furniture and individual cabinet furniture. With the help of the company, customers' wishes become unique interior solutions for their home, company or other institution. The aim of Į Radmena is to ensure that customers are satisfied with the result.

### Research methods

1. Aim of the study. To find out the microclimate of the organisation in Į "Radmena".
2. Objective of the research. To investigate the organisational microclimate of Į "Radmena".
3. Choice of the research. The research method chosen was a questionnaire survey (Quantitative research).
4. Place and time of the study. The study was carried out in the Į "Radmena". The survey was sent by e-mail to employees in April 2023.
5. Type of questionnaire. Anonymous questionnaire survey.
6. Course of the empirical study. The empirical study was carried out using a quantitative research method - questionnaire survey. According to the formula for calculating the sample presented in the methodological part, 28 respondents should be interviewed to carry out a representative survey with a 5% margin of error and 95% probability. A total of 30 questionnaires were sent out. 28 questionnaires were returned (93%). It can therefore be concluded that the results obtained are sufficiently representative.

### Summary of the survey results

The study was carried out by interviewing employees of different ages who work at Radmena Į. The survey showed that there are more men than women working in this company. Figure 1 shows the gender distribution of the employees of Į Radmena.



Fig. 1 Distribution of respondents by gender

\*Source: source or made by author

The survey data presented in Figure 1 shows that the majority of respondents to the survey were male. They account for 65%, while women account for 36%. This may be because this company manufactures and sells furniture, and in the manufacturing sector, a stronger force is often needed to lift furniture or cut parts.

Once the demographic questions have been successfully completed by the employees, we move on to the main questions, which are about the perception of the organisation's microclimate. This question seeks to find

out how the employee understands this concept and which definition is closest to his/her own. Figure 2 shows the distribution of employees according to their definition of the organisational microclimate.

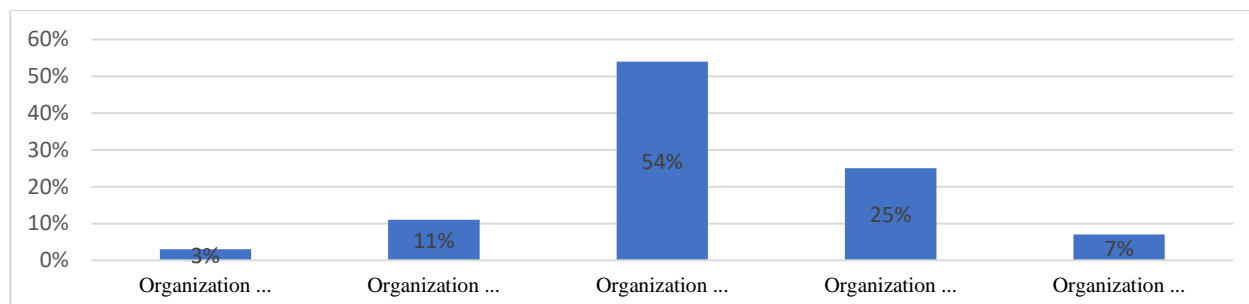


Fig. 2 Distribution of respondents according to the definition of organisational microclimate

\*Source:source or made by author

The survey data in Figure 2 shows that for 54% of respondents, the closest definition is Organisational climate is behaviour-oriented - an organisation can have a creative, innovative, safe climate, which is created by supporting creativity, innovation or safety in employee actions. This definition touches on creativity, which may be why employees chose it, as they work in a field that requires creativity, innovation and safety. 25% of employees chose that the closest definition to their own is Organisational climate, which is one of the most important aspects of the organisational environment that has a direct link to employee behaviour. This may be because the climate of the organisation will be the same for employees. It is therefore very important that the climate is safe, orderly, attractive and conducive to getting the most out of work. It can be seen that these two concepts are the most understandable and closest to the employees' minds when working in this company. 11% of respondents chose Organisational climate, which influences human resources, as a characteristic that employees inevitably feel every day. 7% of respondents chose the closest definition to their own as Organisational Climate, which is the atmosphere that employees feel in their workplace. People spend almost all of their lives in the workplace, so they need to feel good in that atmosphere. 3% of respondents chose the definition Organisational climate acts as a key component of culture, which is shaped by the influence of the organisation's objective characteristics and is characterised by an important psychological environment. The psychological state and environment is very important for employees, as it can influence motivation and mood.

In the survey, employees were asked to indicate which management function has the greatest impact on the well-being of the company. Figure 3 shows the distribution of respondents according to the management function that has the greatest impact on the well-being of the company.

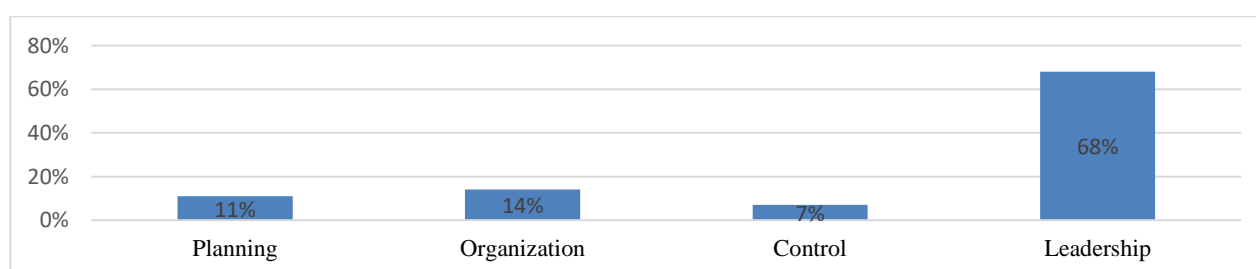


Fig. 3 Distribution of respondents according to the management function that has the greatest impact on the well-being of the company

\*Source:source or made by author

The survey data in Figure 3 shows that as many as 68% of employees chose leadership as having the greatest impact on the well-being of the company. The leadership style of the manager is very important to employees as it will determine the success of the company, employee job satisfaction, motivation, etc. 14% of respondents chose organisation, 11% chose planning and only 7% chose control.

In summary, the closest definition of an organisational climate for employees is an organisational climate that is behaviour-oriented - an organisation can have a creative, innovative, safe climate that is built on supporting creativity, innovation or safety in employee actions. More proximate factors that shape the climate are Good working conditions, adequate provision of work tools, safety of employees, a comfortable personal

work area, good relations with the supervisor, cordial relations with colleagues. Factors influencing job satisfaction are External factors such as pay, job content and nature, career and development opportunities, supervisor, co-workers, working conditions, physical and emotional working conditions, excellent working atmosphere and culture. Conflicts in the company are almost non-existent and there is no level of mobbing in the organisation.

Summarising the results of all the questions, it can be said that the company has a fairly positive, positive and safe microclimate. The manager, together with the employees, ensures that everyone in the company feels comfortable, safe, satisfied and motivated.

## Conclusion

A theoretical analysis of the organisational microclimate suggests that a positive organisational microclimate is one of the most important elements in providing employees with an experience, acting as a component of culture, providing an important psychological environment, and leading to employee job satisfaction.

The organisational microclimate of IĮ Radmena shows that mobbing is not currently prevalent in this company, that the manager takes into account the needs and opinions of the employees, and that he provides a safe, positive mood and a clean organisational climate.

Opportunities for improvement for IĮ Radmena would be to attend various conferences, trainings, lectures on conflict management, prevention of mobbing and improvement of the organisation's microclimate.

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## PRINCIPLES OF LEADERSHIP PARTICIPATION IN A MANAGEMENT TEAM

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### Abstract

This article analyses the participation of managers in management teams and its importance in organizational activities. The theoretical section discusses aspects of the concept of a manager, principles of a manager's teamwork, definition, characteristics, advantages, the role of a manager and functions in a team, as well as principles of a manager's participation. The empirical part presents a quantitative study conducted at the company "LIEPA" to clarify how the participation of managers in a management team affects the organization's activities and what the advantages and disadvantages of this participation are. The research results show that the participation of managers in a team is significant for the success of the organization and has a positive impact on efficiency, employee motivation, teamwork, and the overall organizational culture. In today's business world, which is related to rapidly changing environments, teamwork becomes increasingly important for the success of organizations. Creativity, innovation, and flexibility become important factors in achieving success. For these reasons, organizations increasingly value and use teamwork principles to increase the effectiveness of individual efforts and the overall quality of work. Studies show that effective teamwork helps organizations adapt to changes for which traditional hierarchical structures are not always suitable. The purpose of this article is to show that the participation of managers in a management team is essential for the success of organizations, effective teamwork, and the overall organizational culture. This is an important study that reveals that the advantages of teamwork are greater efficiency, higher quality work, better results, lower labor costs, greater individual development opportunities, and flexibility.

### Introduction

In today's world, team working is being employed to improve the performance of organizations in a competitive environment. In the ever-changing organizational environment where technology, speed, and flexibility are valued, team working combines individual work efforts, which is the key to success, innovation, and creativity (Smith, 2006). Team working in organizations has never been as important as it is today. Whether you work in manufacturing and use self-directed work groups or work in the knowledge economy and benefit from collaboration in a team structure, you are harnessing the power of the team. Organizations are forced to adapt to dynamic, often complex environmental changes that cannot be controlled and resolved by traditional organizational structures and old hierarchies. Team working is used to help with this – a harmonious group of employees working towards a common goal, which achieves expected results in a directed and consistent way. Obviously, the advantage of team working is more efficient and higher quality work, better results, lower work costs, flexibility, and greater opportunities for individuals to flourish.

**Article problem.** Constant change, increasing competition, the desire not only to survive but also to expand, forces companies to create new products or services, pay particular attention to their quality, relationships with customers, attract and retain competent and forward-thinking personnel. In extreme external environmental situations, traditional organizational structures and established hierarchy levels are often no longer sufficient to control them. This means that the management does not have all the answers and is not solely responsible for the organization's goals and work processes. Considering all these factors, the success of a company is increasingly linked to its employees, as a team, and not as a simple group of people, when knowledge, insight, and answers are obtained by combining the abilities and knowledge of all organization members when they are focused on the team. Research on successful organizations unanimously confirms that team working results are much better than those of individuals working alone. Therefore, team working is an

obvious advantage for a company, as work becomes of higher quality, work productivity increases, it is better adapted to changes, and each employee - a team member - has greater opportunities to flourish.

**Article object** - the participation of managers in the team. Article aim - to analyse the principles of manager participation in the team.

**Article tasks:**

1. Examine the theoretical aspects of manager participation in the team.
2. Conduct a study on manager participation in the team at UAB "LIEPA". Research method - analysis of scientific literature, quantitative research, data processing using Excel software.

### The Participation of Leaders in the Leadership Team: Theoretical Analysis of Principles

The Concept of Leadership. Leadership is one of the most researched concepts, considering its features in historical processes, the elements it consists of and the conceptual dimensions it comprises. Leadership is the ability to gather a group of people who have come together for specific goals, in order to achieve the organization's goals and tasks (Kalkan, Aksal, Gazi, Atasoy, Dağl, 2020). A leader is someone who has specific characteristics that motivate individuals within an organization to achieve a common goal, conveying their experience, preparing them for change through communication and motivating employees to create synergy (Kalkan, Aksal, Gazi, Atasoy, Dağl, 2020). In general terms, leadership is understood as the use of influence to bring together individual group members' efforts to achieve common organizational goals (Dinh et al., 2014).

According to the authors A. Stelmokiene and A. Endriulaitiene (2018), leadership is the influence on others to achieve set goals. Clifton (2014) states that leadership is important, clearly distinguishing a person from the general group of people, determining the actions and efforts of others in order to achieve goal(s), using all available resources (Clifton, from Petrulis, 2016). In such views, a leader in an organization, as its creator and the one who gives it meaning, becomes the most influential. The concept of leadership is presented in more detail in Table 1:

Table 1

**The concept of leadership**

Author	Concept
Abasilim, Gbervbie, Osibanjo, 2019	<i>Leadership is always an important element and function of management that helps to manage the level of employee commitment in the organization and achieve the organization's goals.</i>
Peter G. Northouse, 2018	<i>Leadership is a social interaction in which one group of individuals leads others to achieve common goals. The leader is the one who organizes and coordinates the work process, motivates employees, and helps them to achieve common goals.</i>
Avolio ir Yammarino 2013	<i>Leadership is a dynamic process in which leaders must perceive their environment and adapt to it, create visions, and form work groups in order to achieve common goals.</i>
Lussier ir Achua, 2017	<i>Leadership is the process by which leaders direct and support the efforts of organization members to achieve common goals</i>

*\*Source: compiled by the authors based on scientific literature*

Command concept. A team can be described as a group of individuals who come together to pursue common organizational missions and goals, often sacrificing personal plans for the achievements of the team. Therefore, teams unite different individuals but with a common goal, sharing knowledge and efforts (Sohmen, 2013, Sohmen, 2013). M. Tripathy (2018) emphasizes that one of the main advantages of teamwork is the ability to share ideas with the group. All team members can weigh their ideas, as well as the advantages and disadvantages of each perspective. Such collaboration is beneficial for the project and gives team members the opportunity to express their ideas to find the most suitable option, which encourages creativity and learning (Tripathy, 2018).

Principles of work of a leader in a team. Leaders play a key role in creating effective teams, so forming a team for a leader should be one of their main responsibilities, which should be their daily activity (Dubois et al., 2015). In order to effectively lead their team, a leader must have certain personal qualities, such as competence, administrative skills, physical and spiritual energy, and enthusiasm.

Leader's role and functions in a team. A leader in a team is a leader who performs the following functions:

**Leads** - stating that leadership is a process that brings together and motivates company members to work together to achieve organizational goals (Tamošiūnas, 2013).

**Motivates** - in order for leaders to encourage their employees to be more productive, they must establish their team members' needs and concerns, which can be physiological and psychological (Rodriguez from Hanaysha, Majid, 2018).

**Controls** - control is the implementation of processes for the team by directing them towards the goals and monitoring their results. Control is an integral part of any company (Robert Lloyd and Wayne Aho, 2020). Controlling has two main objectives: to help plan and facilitate leadership (Shinde, 2018).

**Manages conflicts** - leadership responsibilities are task-oriented, involving personnel training, consulting with high potential individuals, and resolving conflicts while maintaining ethics and discipline (Katz and Algahtani, 2014).

**Principles of a leader's involvement in a leader's team.** N. Arora (2016) emphasizes that a leader's participation in the decision-making process must be balanced with their authority and power. The leader must not only encourage employee participation, but also have the ability to make decisions when needed. A. O. Morales (2018) examines how a leader's participation style can affect employee performance and organizational effectiveness. Four leader participation principles are distinguished: autocratic, consultative, democratic, and laissez-faire:

1. **Autocratic** - the leader has all the power and makes decisions alone.
2. **Consultative** - the leader consults with employees before making decisions.
3. **Democratic** - the leader involves employees in the decision-making process.
4. **Laissez-faire** - the leader does not interfere with the team and allows them to make decisions independently.
- 5.

### Exploration of the Principles of Managers' Participation in the Leaders' Work Team

The study involved UAB "LIEPA," (the company name has been changed) whose employees and managers were sent an anonymous online [www.apklausa.lt](http://www.apklausa.lt) questionnaire. The organization selected was located in the city of Vilnius. A quantitative research method was chosen for this study. Questions are posed and research results are analysed about the principles of managers' participation in the work team. The survey consists of 14 questions. The questionnaire presents questions to which respondents can choose one of the possible answer options and mark them. The questionnaire is designed to reflect the research objectives and tasks.

The age groups of the respondents were evenly distributed. Half of the respondents were women, 49 percent, and half of them were men, 49 percent. The smallest proportion, 2.0 percent, abstained from answering the fifth question (Table 2).

Table 2

**Distribution of respondents by gender**

Gender	Percent %
<b>Women</b>	49
<b>Men</b>	49
<b>Didn't answer</b>	2

*\*Source: made by author*

This study's participants belonged to age groups of 18-61 and older. The majority of respondents were between the ages of 18 and 30, comprising 43 percent of participants. Those between 31-40 years old made up a quarter of respondents, at 23 percent. Similarly, those between 41-50 years old comprised the same percentage of respondents. The smallest group of participants were those between 51-61 and older, accounting for the remaining 8 percent of respondents.

The study examined the educational background of the respondents. The majority of respondents had obtained a non-university higher education degree, accounting for 45 percent. A significant portion of respondents had completed a bachelor's degree program, with a number of participants at 31.9 percent. A small percentage of respondents held a master's degree, at 32 percent, while 13 percent had a secondary education degree. The results of the study are presented in Figure 1.

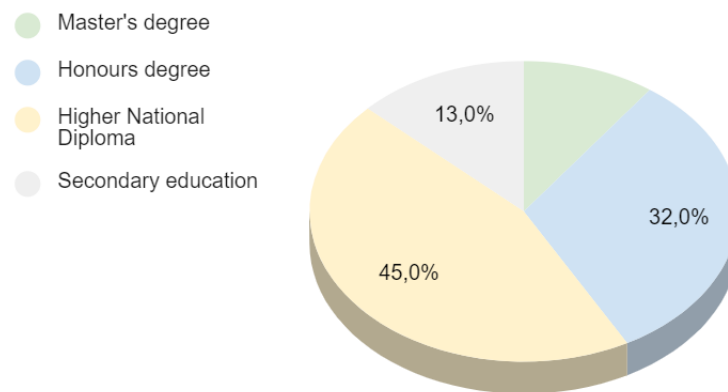


Fig. 1 Education  
\*Source: made by author

It is important to understand how long the respondents have been working in the company. Data from the second figure of the study shows that the majority of respondents have been working for 1 to 3 years, making up 32% of the participants. From 7 to 10 years in the company, 19% of respondents worked. A smaller percentage, 19%, worked in their current workplace for less than a year, while the same number of employees, 19%, worked for 4 to 6 years. The remaining participants had been working in the company for more than 11 years (Figure 2).

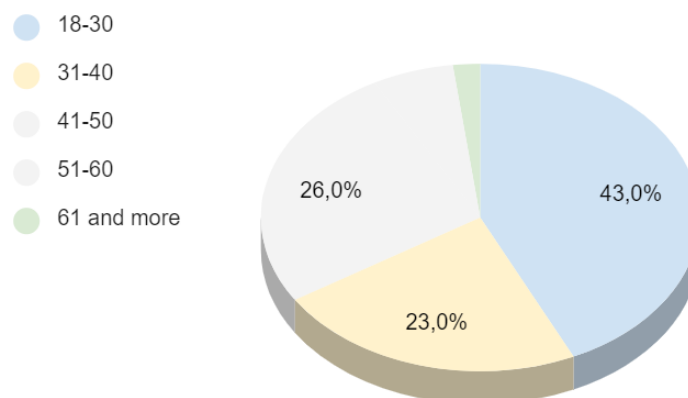


Fig. 2 Years of service in the company  
\*Source: made by author

In the second figure, it can be seen that the majority of respondents, when performing leadership roles, work in a team. Such a part is made up of 87% of participants. A smaller proportion of respondents, which was 13% of participants, work individually in their organization. These results were obtained by taking into account that the nature of the organization and its activities require more teamwork than individual work. Individuals occupy only a few specific positions in the workplace. In this case, there were 50 respondents, so 87% of participants working in a team are:  $87\% \times 50 = 43.5$  calculations show that approximately 43-44 respondents work in a team. About 6-7 respondents work individually,  $13\% \times 50 = 6.5$ . Considering the small number of respondents, it is necessary to pay attention to possible distorting factors and take possible errors into account when interpreting the results of the study.

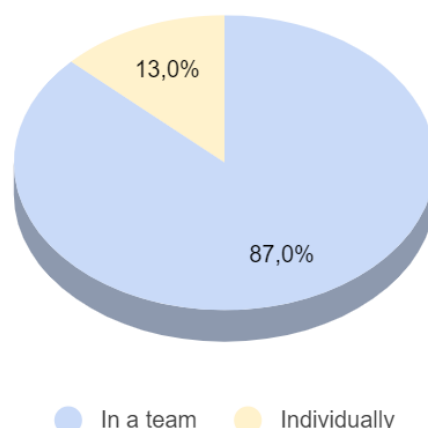


Fig. 3 Working in a team or individually  
\*Source: made by author

According to the data in Figure 3, it is evident that a significant portion of the respondents rate working in a team as average. This may indicate that some employees, comprising 51% of participants, tend to work individually and may feel uncomfortable working in a team, hence they are not completely satisfied with their work. On the other hand, the majority, which makes up 47% of respondents, rate their team work as excellent, indicating that other employees are satisfied with working in a team and feel that their contribution is important and valued. However, a few respondents did not answer the question, so no conclusions can be drawn about their attitude towards team work. Nevertheless, this data can be useful for managers seeking to improve team efficiency and create a suitable working environment for each employee (Figure 4).

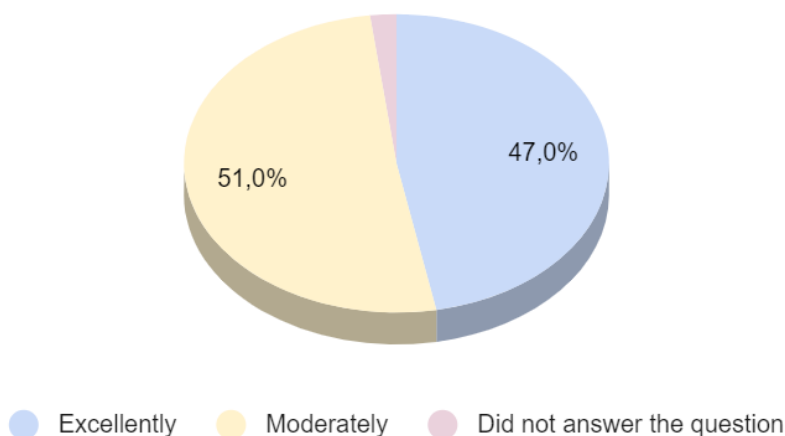


Fig. 4 Assessment of work in a team  
\*Source: made by author

The study examines the question of employee motivation and encouragement to work in a team, which is relevant in all businesses and organizations. From the study, it is evident that good relationships with the manager and other employees are very important, as 34% of employees chose this option as the greatest incentive to work in a team. This shows that a positive work atmosphere and friendly communication with colleagues are essential elements in achieving successful and productive teamwork. Another important factor that motivates employees to work in a team is the opportunity to improve professionally. 32% of respondents indicated this option, which means that many employees value learning from their colleagues and having the opportunity to participate in training and seminars. This aspect may also indicate that employees value their professional growth and seek long-term career goals. Additionally, 21% of respondents stated that they are motivated to work in a team by the growth of responsibility and sense of duty. This means that some employees value their contribution and sense of responsibility, which can help them improve and continue to achieve

greater work goals. It can be noticed that only a few respondents, 11%, indicated that they are motivated to work in a team by individual results. This means that for the majority of employees, the common team goal and productive cooperation are more important than individual success or achievements. Considering all these factors can help organizations create a positive work environment and increase employee motivation, which can have a positive impact on work efficiency and productivity (Figure 5).

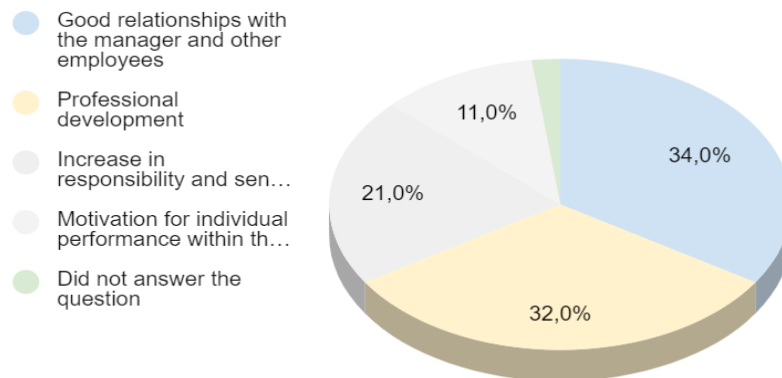


Fig. 5 The aspects that provide the greatest motivation to work in a team

*\*Source: made by author*

This research data indicate that teamwork is important for the success of organizations. Respondents expressed their opinion that teamwork has many advantages. This can be seen as a strategic investment, allowing the organization to achieve higher work results. The vast majority of respondents, 47 percent, mentioned that teamwork helps to achieve better work results because working with other colleagues can achieve good results and complete tasks faster and more efficiently. It was also mentioned that team formation allows saving the most valuable resource - time, which was chosen by 34 percent of the participants. This aspect is especially important for organizations that strive to optimize their processes and make the most of every minute to achieve better results. 15 percent of respondents indicated that team formation allows increasing the company's profit. This may be because teams can be much more effective and efficient in solving problems and performing tasks, which can allow the organization to achieve greater success and competitive advantage. In addition, some participants mentioned that teamwork is beneficial because it helps to reduce the likelihood of errors and losses. This is especially important for organizations that have a high level of responsibility and risk in their activities. The survey shows that teamwork is an important factor in the success of organizations and achieving better work results. This is important for both employees and managers, and organizations should encourage their employees to improve their teamwork and team working skills. This will help organizations operate more successfully in their field and achieve their goals (Figure 6).

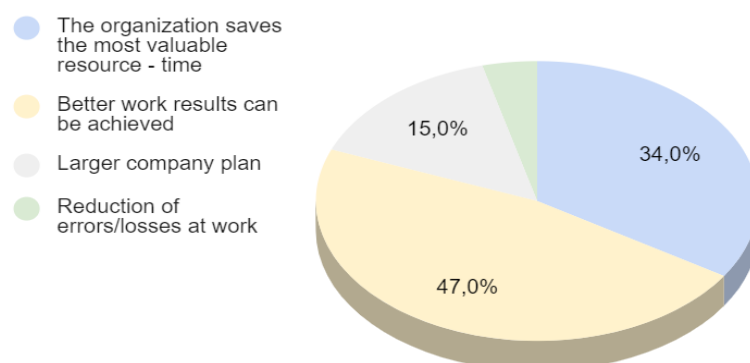


Fig. 6 Advantages of team work according to respondents' opinion

*\*Source: made by author*

The results of the study shows that the manager's attitude towards the team's opinion and work process can have a significant impact on employee motivation and job satisfaction. Although the majority of respondents, 54%, chose the answer "it varies", this indicates that the manager's attitude can be unstable and unpredictable. The smallest percentage of respondents, 2%, chose that their opinion is never asked, while 5% of respondents chose answers indicating that their opinion is always asked, and the remaining 20% almost never. Therefore, we can conclude that the manager's attitude towards the team's opinion can have a positive and negative impact on employee motivation and job satisfaction, depending on the manager's behaviour.

Analyzing the contribution of independent work while working in a team based on the survey conducted, the majority of respondents (35%) stated that they make decisions in the team themselves, which gives them a sense of being needed in the team and being important in the work process. However, only 5% of the respondents chose the answer that they always make decisions themselves. In addition, 23% of the participants indicated that they almost never make decisions themselves, indicating that not all team members' opinions are important in this organization. 37% of the respondents chose the answer that it varies, indicating that their decision-making on this issue is not clear and may mean that not all team members are given sufficient opportunities to work independently. It can be assumed that not all team members have the opportunity to make decisions themselves, and attention should be paid to this in order to ensure the importance and inclusion of all team members in the work process.

Analyzing how often the leader takes credit for the team's work in the organization, the survey results revealed that 32 participants feel that their achievements are almost always credited to the leader. Such an answer shows that employees may feel unappreciated for their ideas. Only 8% of the participants mentioned that the credit is not taken by the leader. 30% of the participants indicated that it varies, while 22% said that their achievements are almost never credited to the leader. This shows that the vast majority of employees feel that their contributions in the team's work process are not adequately recognized, and the leader often takes credit and rewards for their work. This can have a negative impact on employee motivation and job satisfaction, which in turn can lead to poor organizational performance.

The study evaluates whether team members are motivated by the fact that the leader rejects their idea and follows the team's proposals. 31% of the employees stated that the leader's behaviour of rejecting their idea and following the team's proposals motivates them almost always, while 42% stated that this behaviour varies. Additionally, 24% of the respondents stated that this behaviour almost never motivates them. This shows that the behaviour of rejecting the leader's idea and following the team's proposals can be a significant motivator for employees, but not for all of them.

Table 3

**Evaluation of Respondents position in the work team and leadership**

	Never	Almost never	It varies	Almost always	Always
<b>How often does your manager ask for your opinion? (For managers: How often do you ask opinions from your employees?)</b>	2 proc.	20 proc.	54 proc.	19 proc.	5 proc.
<b>How often do you make decisions yourself? (For manager: How often do you let an employee make decisions?)</b>	0 proc.	23 proc.	37 proc.	35 proc.	5 proc.
<b>How often does the manager acknowledge your contributions? (For manager: How often do you acknowledge the contributions of others?)</b>	8 proc.	22 proc.	30 proc.	32 proc.	8 proc.
<b>Does it motivate you when the leader rejects their own idea and chooses yours? (for the leader: do you think you motivate others when you reject your own idea?)</b>	0 proc.	3 proc.	42 proc.	31 proc.	24 proc.



P. Jackson (2013) stated that the strength of a team lies in each individual member and that the strength of each member is the team. Therefore, in order to achieve successful team performance, it is necessary for the leader to follow certain principles. The study found that the majority of respondents believe that the main principle of a leader's work in a team is to regulate work effectiveness, which was chosen by 36% of participants. Additionally, it is important for the leader to form a functioning work team, a choice made by 32% of respondents. A smaller percentage of respondents, 21%, believe that a leader's competence is the most important, while only 9% of respondents believe that administrative skills are the main principles. The final 7% of participants did not answer the question. Therefore, in order to achieve successful team performance, the leader should focus primarily on regulating work effectiveness and forming a functioning work team, taking into account their own competence (7th figure).

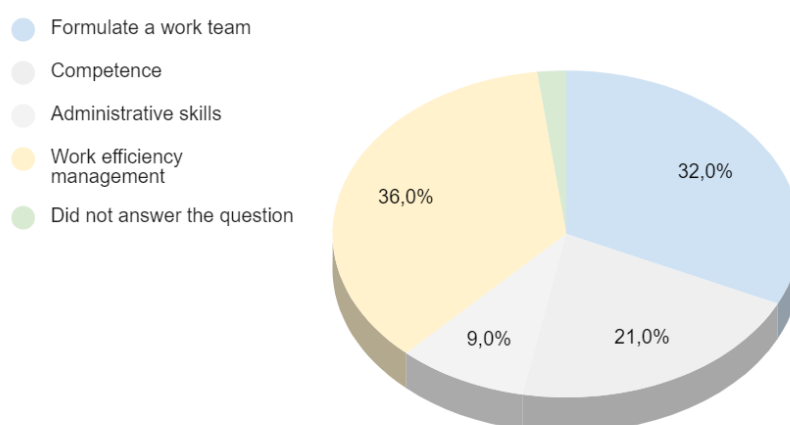


Fig. 7 The main aspects of a manager in a work team  
\*Source: made by author

The results of the study reveal different opinions about what functions should be most important in the role of a leader in achieving successful teamwork. Of all the respondents, 25% believe that the main function of a leader is to control team work and direct it towards goals. This opinion may indicate that employees value directed and goal-oriented teamwork. 27% of respondents believe that the main function of a leader is to motivate team members and help them become more productive. These employees value a leader who identifies each team member's physiological and psychological needs and deficiencies. A quarter (26%) of respondents believe that a leader's function is to lead and ensure that the team's work achieves organizational goals. These employees value a leader's authority in particular. 16% of respondents believe that managing conflicts is the most important function for a leader, which may indicate that these employees face conflict-related issues in the workplace. These results show that different people value different leader functions. To achieve successful teamwork, a leader should take these different opinions into account and strive to reconcile different perspectives to achieve common goals (Table 4).

Table 4

#### Main functions of a leader in teamwork

Provide answers	Participants' relationship
<b>Leadership-</b> states that leadership is a process that brings together and motivates members of a company to work together towards organizational goals	26 proc.
<b>Motivating-</b> in order for leaders to encourage their employees to be more productive, they need to identify the needs and concerns of their team members, which can be physiological and psychological in nature	27 proc.
<b>Controls-</b> control is the implementation of processes for guiding the team towards their goals, as well as monitoring their results. Control is an integral part of any company	26 proc.

<b>Manages conflicts- the responsibilities of leadership are task-oriented, which include staff development, counseling of high-potential individuals, and conflict resolution while maintaining ethics and discipline</b>	16 proc.
<b>Another opinion</b>	2 proc.
<b>No response to this question</b>	3 proc.

The study analyzes which management principles are most commonly used in a company or organization. The majority, 40% of respondents, indicated that a democratic leadership style prevails, where the leader consults with team members. A significant proportion of respondents also stated that leaders tend to use a hands-off management style. This response was indicated by 39% of those surveyed. A small proportion of respondents chose the option that an autocratic management principle prevails in their organization, where the leader makes decisions on their own. This response was indicated by 21% of those surveyed (Figure 8).

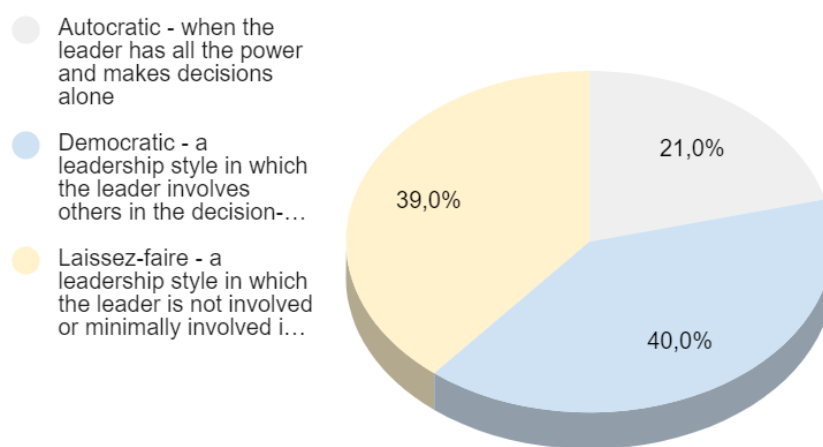


Fig. 8 Management principles in a organization during teamwork  
\*Source: made by author

The study found that leadership is decision-making - 40% of respondents believe that it is most important for the leader to make appropriate decisions and thus lead the team. A significant proportion of respondents, 30%, identified leadership as the act of leading. Their opinion indicates that it is important to have a leader in the team who would encourage them to achieve their goals. 19% of respondents identified leadership as motivation, while the remaining respondents indicated that leadership is about achieving results (Figure 9).

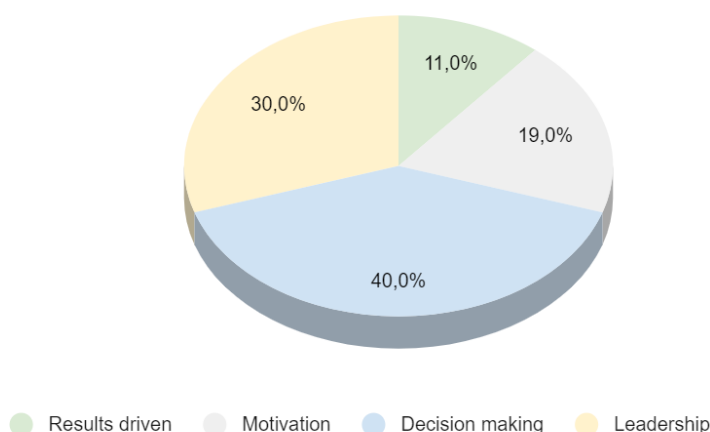


Fig. 9 The concept of leadership according to the respondents opinion  
\*Source: made by author

Based on the responses received from the respondents, the leader should review his attitude towards the team and its members' opinions and ideas. Efforts should be made to ensure that team members feel involved in the decision-making process and that their opinions are taken into account. The survey shows that most team members believe that the leader is not involved enough in the work and does not follow their ideas, which can negatively affect work motivation and trust in the leader. Another important tool for improving work motivation and increasing trust in the leader is to encourage communication and good relationships between team members. The study showed that most people believe that good relationships with colleagues are the most important motivation factor. The leader should encourage communication and organize team activities to strengthen team relationships and improve cooperation. By providing more responsibility and encouraging initiative, it is possible to improve the work motivation and trust of team members in the leader. Respondents indicated that most decisions are made by the leader alone, and only the leader takes credit for the results achieved. It is necessary to provide more responsibility and encourage initiative so that team members feel valued and have the opportunity to contribute to the achievement of organizational goals. Effective work regulation is one of the most important tasks of the leader. Respondents stated that the necessary tools and resources should be provided to allow the team to perform their work effectively. This would help reduce work stress and increase work quality. Consultative and democratic leadership principles can also help improve employee trust in the leader and improve the quality of collaboration in the team. The leader should consult with the team before making decisions and consider the ideas raised during these consultations. This would involve team members in the decision-making process and increase their trust in the leader. It is also important to assess employees' needs and expectations and try to meet them accordingly. Periodic surveys can be organized to listen to employees' opinions and feedback, and individual career development programs can be developed. Such measures would increase employee satisfaction with their work, which in turn should have a positive impact on work motivation and trust in the leader. The final result is a smoothly functioning, strong collaboration, and cohesive team, whose members trust their leader and have high work motivation.

## Conclusion

Leadership is the ability to bring together a group of people who share specific goals in order to achieve organizational objectives and tasks. The team can be described as a group of individuals who come together to pursue a common organizational mission and goals, often sacrificing personal plans for the team's achievements. Leaders play a crucial role in creating effective teams, so forming a team is one of the main responsibilities that should be part of daily activities. The leader in a team is a leader who performs functions such as leadership, motivation, control, and conflict management.

The results of the study showed that the majority of respondents evaluate working in a team as average, and the greatest motivation for working in a team is good relationships with the leader and other employees. According to the research data, working in a team in an organization has advantages as it encourages achieving better work results, as most survey participants indicated. Respondents stated that the involvement of the leader in the team's work and consideration of their opinions is average, as most respondents chose the answer option "it varies." A large number of respondents make decisions in the team almost always, and the leader almost always takes credit for the results achieved. Also, a large number of respondents stated that the rejection of the leader's ideas regarding their proposed opinion greatly motivates them. When analysing the leader's contribution in the organization, the majority of respondents indicated that the leader's most important principles are regulating work efficiency, and the leader's functions are most related to motivating employees and considering their needs. In the analysed organization, consulting and democratic leadership principles prevail, and many participants indicated that leadership is most related to decision-making.

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## **ANALYSIS OF SMALL AND MEDIUM BUSINESS ACTIVITIES UNDER THE CONDITIONS OF THE COVID-19 PANDEMIC**

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Keywords: *small and medium-sized business, business during the COVID-19 pandemic, support for SMEs.*

### **Abstract**

This article presents the analysis of the activities of small and medium-sized businesses in Lithuania under the conditions of the COVID-19 pandemic, presents theoretical data on small and medium-sized businesses, analyzes theoretical and practical studies of business activity management by Lithuanian and foreign authors, discusses the support provided to small and medium-sized businesses during the period of the COVID-19 pandemic.

### **Introduction**

Small and medium-sized businesses make up the majority of Lithuanian companies and this has an impact on the economy. Analyses show that it is the small and medium-sized business sectors that create the largest share of new jobs, and this number is growing every year. In today's market conditions, the analysis of economic activity is necessary, regardless of whether the company is working efficiently and profitably. A timely and correct assessment of the company's situation helps to better determine operational prospects and predict future plans. Constant analysis of the company's economic activity helps to survive, compete with other companies, effectively improve performance, and make appropriate decisions. Evaluating the indicators of the company's economic activity analysis helps to see the real current situation in the company's activities, identify problems and predict future prospects. Properly performed analysis of the company's economic activity, analyzed financial status, internal and external environment analyses help to orientate faster, assess shortcomings, notice increasing competition, set goals and priorities, determining prospects for economic activity.

### **Theoretical aspects of the analysis of company performance indicators**

The widely used abbreviation SME is the abbreviation of small and medium-sized business, and SME entities - small and medium-sized enterprises and individual producers - are the most numerous social group in the country. Small and medium-sized enterprises are considered the main source of employment growth not only in Lithuania, but also in the entire European Union, helping to eliminate economic difficulties. A well-developed SME sector promotes the growth of household income, provides consumers with goods and services, attracts investments from Lithuania and abroad, and promotes economic growth. Small and medium-sized businesses encourage starting a certain economic activity using initial capital, labor and other raw materials, risking competition with other market participants, on a country or national scale, and thus obtaining profit by assessing the reality that deviations from the expected results are possible. Competing with each other in order to occupy the largest possible share of the market at the local or international level, attracting as many users of their goods or services as possible, encouraging other market participants to innovate, which creates added value for the economy.

The term SME does not have a strict definition, and this concept may differ in different countries or organizations, but when analyzing this concept, it is important to pay attention to certain meanings, such as: number of employees, income, assets. The Law on the Development of Small and Medium-sized Businesses of the Republic of Lithuania states that small and medium-sized business entities are medium, small and very small companies that meet certain requirements, as well as natural persons who have the right to engage in independent economic, commercial and other similar activities, including those, which is translated with a business license [LR XIII-192 Law, TAR, No. 109-2993. 2017].

A small business is defined as a business organization with a small number of employees whose services are directed to the local market. SMEs dominate both in Lithuania and in Europe in terms of their number, because it is relatively easy to start such activities. Usually, this type of business involves small companies or private natural persons who carry out independent economic activities in accordance with the law. Taking into

account the information provided in Eurostat, small and medium-sized enterprises include the following types of enterprises: micro-enterprises - employ up to 10 employees; small companies - employ between 10 and 49 employees; medium-sized companies - employ between 50 and 249 employees. The legal forms of Lithuanian SMEs are usually UAB, sole proprietorship or small partnership [Investicijos ir Finansai, 2021].

Lithuanian authors J. Liustrovaitė and R. Martinkutė-Kiaulienė (2015) emphasize that "SMEs are one of the cornerstones that determine the country's growth and development. Small and medium-sized businesses create new jobs, increase employment, and thus achieve faster GDP growth." According to Gaganis, Pasiours and Voulgaris [2018], small and medium-sized enterprises play an important role in the EU economy. In many countries, they are considered the basis of economic activity. Author Davulis (2013) states that: "In today's economy, small and medium-sized businesses (SMEs) occupy an important position. SME entities - small and medium-sized enterprises and individual producers are the most numerous socio-economic group of the country. Small and medium-sized businesses comprise as much as 99% of all companies operating in Lithuania, which employ more than 70% of all employees and create more than 50% of the total added value. Therefore, small and medium-sized businesses create new jobs, which is very important at a high unemployment rate. Small business support also promotes competition in the market" (Davulis, 2013). Also, authors Gilmore, McAuley, Gallagher, Massiera, and Gamble [2013] agree that this is one of the key aspects of promoting employment growth, but these authors define a small business as having 500 or fewer employees. In the standard definition provided by the European Union, SMEs are considered any companies with fewer than 250 employees and a turnover of less than 50 million. EUR, and the balance sheet value of the assets does not exceed 43 million. Eur. However, this does not mean that this description is equally applicable in the case of other countries, as a company that is considered a large business in one country may not be considered as such in another country. The European Union gives priority to the activities of small and medium-sized businesses. In line with the actions of the Structural Funds, there are programs that provide support to small and medium-sized businesses. The state also provides assistance to this sector: very often, tax incentives are given to small and medium-sized businesses, other financial support, promotion funds are active, etc.

Summarizing the author's thoughts, it can be said that small and medium-sized businesses include a wide range of companies: from well-established traditional family businesses employing more than 100 employees to self-supporting individuals working in private very small businesses. Small and medium-sized businesses are an inseparable part of every country's economy, because they affect economic vitality and competition, help solve employment problems, engage in non-traditional businesses, and can serve large companies.

The scientific literature mentions the criteria that companies must meet in order to be classified as small and medium-sized companies. "From the point of view of world banks, there are more than 50 indicators that determine whether companies can be classified as SMEs. However, two main ones are usually used: the number of employees and the size of the annual turnover (sometimes the property value is also added) [Urbonavičius, Ivanauskas, 2010].

SMEs have certain characteristics that are in line with the state support policy, guarantee employment, growth of the population's income, promote economic growth and have goals of common interest. The majority of small and medium-sized enterprises are in the service sector, the importance of which for the economy is also constantly increasing due to structural changes. The service sector is important in relation to other sectors due to the rising standard of living and the ever-growing needs of the population. Small and medium-sized businesses take the lead in strategic areas of business services: information technology, computer software supply, e-commerce services, marketing, research and development (Štreimikienė, Dapkus, Šivicas, 2007).

There is a tendency in the economy that only those companies that are able to withstand the ever-increasing competition of other companies remain in the market. Such situations influence the companies in the market to constantly take care that the business develops successfully. However, to ensure this, you need to know the current state of the company and constantly monitor it. The state of the business is determined based on the analysis of the company's activities, with the help of which the current state of the company is studied, unexploited reserves of the company are estimated, which would help the company to increase its capabilities, and recommendations are made to eliminate the company's shortcomings. Problems detected in time for disruptions in the company's operations are a guarantee of avoiding failures. It should be emphasized that with the growing competition in the market, the development of the company's activities may be inevitable in order to continue to successfully carry out its activities. The development of the company can also be one of the conclusions of the results of the economic activity analysis. In the words of the author J. Mackevičius (2011), "Analysis of company activity is the collection of various economic information about the company's activities, its comprehensive and objective study and evaluation in order to help the company's management

achieve the intended goals" (Mackevičius, Poškaitė, Villis, 2011). A properly conducted analysis of the company's performance helps to answer the following questions: what were the results of the company's performance achieved? Why were these results obtained? What influenced the results and their changes? Compared to previous periods or planned results, is it possible to work better, more economically, use available resources? Are the decisions correct and economically justified? When analyzing the activities of companies, the dynamics and structure of various indicators, existing interrelationships and dependencies are studied, factors that influence changes in certain indicators are presented. In a freely competitive market, there is a valid provision that it is necessary for businesses to analyze the company's performance in all operating periods, even if they are working efficiently and profitably. (Mackevičius, 2011)

Each company is guided by material, financial and human resources in order to achieve the intended profit, survive and remain competitive at the level of other companies. To achieve all this, first of all, it is necessary to clear the relevant indicators of the previous periods. It helps to identify the weaknesses that need to be changed in order to build on the company's strengths and become more effective. In the conditions of a competitive market, it is useful to have the most accurate information about the state of economic activity. A proper analysis helps to determine the current position in the market of the same area and predict the business opportunities. Each author describes from his own analyzed position. According to Bagdžiūnienė (2011), analysis of economic activity is one of the parts of company management, without which goals will not be achieved. By analyzing the interrelationships of the indicators, it is possible to forecast and create future goals of the company. Analyses of the company's activities consist of a study of the state and results of the past, current and future years. This can be achieved by setting specific tasks, especially taking into account the strengths of the company's activities and using opportunities to improve the efficiency of its activities.

Authors Labonaitė, Subačienė (2014) state that "profit is evaluated by profitability indicators, which, depending on the nature of the evaluated information, can reflect the profitability of the company's main, typical, routine or all activities". Profitability indicators describe the company's performance - profit. This indicator shows whether shareholders' wealth is growing or investors' interests are safe.

The author Tulsian, [2014] believes that in order to properly calculate the efficiency of the company's activity, one of the most productive methods is considered to be profitability analysis.

According to Tamulevičienė [2016], the most analysis data is when we compare the financial profitability indicators of all years with the profitability indicators of the previous year or the average profitability indicators of the ongoing activities. Profitability is the most appropriately described indicator of the company's performance, an inter-internal element, because it is related to the company's assets, capital, income, costs, liabilities and other important components. "Profitability shows how much profit per monetary unit of sales revenue, available assets, share capital or other object" [Savickas, 2019], emphasizes the increase of future profits, indicates the company's efficiency. Profitability is most aptly defined by Tulsian [2014] as "profitability is the ability of a given investment to earn a return from its use". Profitability refers to the essential result of all types of economic activity, the efficiency of operation. Thus, it can be stated that "profit shows the result of the company's activity, while profitability indicators describe the efficiency of the company's activity" [Labonaitė, Subačienė, 2014].

After analyzing the theoretical aspects of economic activity analysis and perspectives, it was clarified that in the scientific literature, economic activity analysis is a set of methods with the help of which the company's activity is analyzed. Examining the interactions of mutual indicators determines the causes and factors that determine the efficiency of the company's further activities. Performing performance analysis and analyzing data is important for every company that wants to make a profit and compete in the market. In order to ensure the continuity of the company's economic activity, it is useful to know what types of analysis and methods are most suitable for the company. The company chooses such types as: financial, economic, functional, comparative, etc. according to its analyzed area. Horizontal, vertical, relative or comparative analysis methods are usually chosen. One of the most important goals of economic activity analysis is the assessment of the company's stability, service efficiency, and sustainability. Proper analysis of the indicators allows determining the company's future prospects. When analyzing the company's economic activity, it is necessary to analyze profit and indicators of profitability, solvency, asset and capital efficiency, cost level, indebtedness, inventories and labor resources. Analyzing indicators is an evaluation of the company, which helps to reveal the weak and strong areas of the company's activity, helping to make other important decisions for the company's activity. With the help of profitability indicators, companies learn their abilities, how to efficiently allocate funds, obtaining the highest possible profit. With the help of solvency indicators, find out how to cover short-term or long-term debts. Working capital indicators provide company management decisions. Indicators of the cost

level show how rationally the resources are used. Calculation of asset, inventory and indebtedness turnover indicators helps to assess how the company uses its assets, how long-term assets earn income, and how efficient short-term assets are used.

### **Possibilities of support for small and medium-sized businesses during the COVID-19 pandemic**

The COVID-19 pandemic is the respiratory disease COVID-19 caused by the virus SARS-CoV-2. The COVID-19 disease began to spread in 2019. December. in the Chinese city of Wuhan. in 2020 In January, an outbreak of this disease occurred in China, the infection began to spread to other countries and reached the level of a pandemic. The World Health Organization (WHO) is coordinating the response on a global scale. in 2020 March 11 WHO has declared COVID-19 a global pandemic. The causative agent of the COVID-19 disease is the hitherto unknown coronavirus SARS-CoV-2. In an effort to control the possible spread of the disease, most countries restricted the movement of persons between countries or within countries, introduced restrictions on public and personal life of citizens. The COVID-19 pandemic has caused a global economic crisis.

The countries of the European Union have taken steps to try to reduce the emerging threats to the economy. Measures that have been taken to protect the European economy:

1. The EU economic recovery plan "Next Generation EU" (Direction générale du budget, 2020)
2. the SURE measure (temporary support for employees), (2021)
3. Changes to the EU budget to address urgent issues,
4. Redistributing EU funds to help the Member States most in need
5. support for the most affected sectors.

In Lithuania in 2020 March 16 restrictions have been imposed to manage the pandemic, and some businesses have been restricted and shut down. Such restriction of the country's companies, some of them complete, others partial restriction of their activities, fundamentally affected the liquidity of companies in various sectors, companies lost part of their income, the payment chain was disrupted, and payment delays, in turn, caused a chain reaction - the threat of large-scale insolvency in the sectors affected by the pandemic.

Due to the COVID-19 pandemic, many businesses in the country have faced financial difficulties. Particularly affected were SMEs, which were forced to deal with the question of how they will manage to survive when the economic engine stops.

Small and medium-sized enterprises were particularly vulnerable, since most of them did not have accumulated reserves for a "black day" and even a short-term decrease in income could be decisive for them. A large number of companies engaged in services or trade did not receive any income during the quarantine period. Manufacturing businesses faced liquidity problems, the demand for production fell sharply, there were problems with payments to suppliers, fulfillment of financial obligations to banks, and payment of taxes to the state.

In Lithuania, Šiaulių bankas was one of the first financial institutions that started by providing support for the administration of the "Investment and Business Guarantee" (INVEGA) COVID-19 support measures for businesses.

Šiaulių bankas has noticed a growing need for business to use state aid - to use loan interest compensation, to postpone loan payment or to receive credit on preferential terms.

Businesses that were operating successfully before the pandemic, but faced liquidity challenges after the quarantine, could take advantage of the following measures provided by BNS [2020] "≤...100% interest compensation, loans for businesses affected by COVID-19, temporary deferment of loan payments and a portfolio guarantee for loans..." [bns, 2020].

SME could apply to INVEGA for 100% interest compensation of existing credit. In accordance with the terms of the contract, interest was compensated for the full period of deferred loan repayment, but no longer than 6 months and no longer than until the end of 2020. It was important, before applying to INVEGA, to agree with the bank on the terms of credit repayment postponement and to sign the agreement.

M. Rudys [2022] says that the INVEGA measures for affected businesses were announced some time ago and some entrepreneurs have already taken advantage of the opportunity to temporarily facilitate payments to the bank. "During the deferment period, customers paid neither credit nor interest to the bank, so all funds can be allocated to the company's activities." It is true that companies applying for this measure had to pay attention



to certain restrictions. This measure is intended only for small and medium-sized businesses, moreover, according to EU requirements, the state cannot support a business in the amount of more than EUR 200,000. Therefore, if the company has already used support for this total amount, it would not be able to claim interest compensation.

If the activity of a small and medium-sized business has been efficient in recent years, but faced liquidity problems after the quarantine, in this case the company could receive a loan for the companies most affected by COVID-19, as a loan tool to use for the necessary working capital. The loan is provided on preferential terms. The conditions are such that the preferential loan could be obtained by those businesses that were operating efficiently before the start of the quarantine. This means that such a company had no debts to "Sodra" and the State Tax Inspectorate, was not liquidated or restructured. Another condition is that the company must provide information that the turnover has decreased by 30% after the quarantine, and compared to 2020. on March 1, the company retained 50% of the jobs. Also, the company's own capital must make up at least half of the share capital, said M. Rudys [2022].

According to the statistical data portal in 2021 The number of SMEs increased by 6.1 percent. This figure was mainly made up of SME companies with 0-9 employees and such companies accounted for 84.3 percent. of this number. Small companies reached 13.1 percent. (employees 10-49), medium (employees 50-249) – 2.6 percent. During 2021 The number of persons working in SME companies decreased by 0.9 percent.

In the same year, the turnover of SME companies reached almost 78.1 billion. EUR and, compared to 2020, increased by 21.4 percent. 35 percent SME turnover was earned by small companies, 37 percent. - average. The turnover of very small companies was 28 percent. SMEs earned 6 billion EUR net profit, i.e. i.e. almost 2 billion EUR, or 52.2 percent. more than in previous years. The net profitability of these companies reached 30.1 percent. (23.7 percent in 2020). The most profitable were very small companies, whose profitability reached 10 percent.

in 2021 SME companies exported goods worth 13.9 billion. EUR and compared to 2020, their exports increased by 18.1 percent [Opstat.

According to economist I. Genytė-Pikčienė, in the face of the challenges of the pandemic, the stable number of companies remained due to the resilient Lithuanian economic structure: "The activities at the peak of the challenges of COVID-19 in the structure of the Lithuanian economy make up a small part compared to others, much more than tourism, travel and other European Union countries belonging to the service sector" [<https://osp.stat.gov.lt/imonės-lietuvoje>].

According to the expert, the number of new companies grew steadily, and during the quarantine period, their establishment could have been influenced by a certain activity niche that opened up due to the pandemic. [Opstat., 2020].

## Results

Small and medium-sized enterprises cover a wide range of enterprises, from well-established traditional family businesses employing more than 100 employees to self-sustaining individuals working in private very small businesses. Small and medium-sized businesses are an integral part. Analyzing indicators is a company assessment that helps to reveal the weak and strong areas of the company's activities, helping to make other important decisions for the company's activities. Analysis of the company's activity is a set of methods, with the help of which the company's activity is analyzed. Examining the interactions of mutual indicators determines the causes and factors that determine the efficiency of the company's further activities. Performing performance analysis and analyzing data is important for every company that wants to make a profit and compete in the market. In order to ensure the continuity of the company's economic activity, it is useful to know what types of analysis and methods are most suitable for the company.

A large number of companies engaged in services or trade did not receive any income during the quarantine period. One of the companies providing lending services is INVEGA. Also, banks such as Šiauliai and Luminoro signed contracts with it, and the state and the European Union also contributed.

The pandemic and the imposed restrictions and restrictions, the unfavorable forecasts of economists did not suppress entrepreneurship in Lithuania - more companies were established in the quarantine country than closed, as they moved to the distance and online trade niche.

Table 1

Small and medium business criteria			
Type of business	The number of employees	Income	Property
Average company	There are less than 250 employees.	The annual income of the company does not exceed 50 million. euros.	The value of assets specified in the company's balance sheet does not exceed 43 million. euros.
A small company	There are less than 50 employees.	The company's annual income does not exceed 10 million euros.	The value of assets on the company's balance sheet does not exceed 10 million euros.
A very small company	There are less than 10 employees.	The company's annual income does not exceed 2 million euros.	The value of assets specified in the company's balance sheet does not exceed 2 million euros.

\*Source: compiled by the author according to Law XIII-192 of the Republic of Lithuania, TAR, No. 109-2993. [2017]

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## ANALYSIS OF THE OPERATIONAL EFFICIENCY OF INDUSTRIAL COMPANY UAB "BAUWERK GROUP LIETUVA"

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### Abstract

The performance of a business enterprise is shown by its efficiency. Timely analysis of performance indicators allows to assess the proper use of available resources and the implementation of the goals pursued. The article presents analyzed indicators of the company's activity efficiency, dynamics, trends and the influence of factors on changes.

Keywords: *Efficiency, Profitability, Profitability, Net Profit.*

### Introduction

The efficiency of the business enterprise is shown by the earned income, incurred costs and the final result of the activity - profit. Experienced income and expenses allow you to calculate and see whether the company's activities are carried out successfully (when a profit is received) or unsuccessfully (when a loss is received), so it is very important to determine whether the income and expenses are correctly recognized in the company. If income, costs and other economic operations are recognized incorrectly, it can prevent managers from making the right decisions to increase the efficiency of the company's operations. In order to monitor and control all this, accounting is kept, with the help of which company managers can make important and appropriate decisions for the benefit of the company, as well as see the state of the company's activities and the result of the work. Constantly changing laws can cause certain difficulties for accounting staff, and mistakes made would distort the company's results in financial statements. Accounting and finance specialists must be constantly interested in innovations, have a good knowledge of laws and accounting standards. This paper examines one of the most important indicators for the company, allowing to evaluate the efficiency of the company's activities.

**Relevance of the topic.** The main goal of every company is to get the highest possible profit from its activities, the main indicators for the calculation of which are income and costs. Therefore, their accounting is necessary, which can be analyzed to see what influence income and expense accounting has on the company's performance.

**The purpose of the work** - to perform an analysis of the efficiency of UAB "Bauwerk Group Lietuva" company.

#### Work tasks:

1. To analyze the literature of domestic and foreign authors in the context of efficiency.
2. To perform an analysis of UAB "Bauwerk" company indicators and to assess the level of efficiency.

**Research methods of the work** - analysis of scientific literature, analysis of the regulatory laws of the Republic of Lithuania, business accounting standards, data systematization, grouping, isolation of the most important links, detailing and summarization, analysis of relative indicators, diagrams, analysis of financial ratios.

### Conceptual analysis of efficiency

In the economics term dictionary [e-terminai.lt], efficiency is defined as the level of utilization of production resources that guarantees the maximum result. Namely, the efficiency of manufacturing companies can be divided into the efficiency of employees activities, resource utilization, management decisions, and the production process. A lot of scientists use two separate terms, efficiency as productivity and effectiveness, among those scientists are M. Wooll [2022], L. Schwarz [2022], E. Sundqvist and others [2014].

In order to improve the company's efficiency, it is important to determine the factors influencing its activity. These factors are divided into internal and external, their determination helps the organization to reveal its strengths and weaknesses, protect itself from negative factors and make cost-effective plans for the future [Jackson, 2021].

Many types of efficiency are distinguished in various sources, but three types of efficiency are most often described. It is allocative, dynamic and technological efficiency [Škėlaitė, Mačiulytė-Šniukienė, 2019]. in 2009 V. Vinciūnienė and J. Rauluškevičienė linked allocative efficiency with choosing the optimal combination of

resources, taking into account the relative prices of production factors. “Dynamic efficiency – involves improving allocation and productivity over time. This can mean developing new or better products and finding better ways to produce goods and services. Learning, investment and innovation are the main elements of dynamic efficiency and are very important for the ability of an organization, industry or economy to adapt to changing circumstances” [R. Dolamore, 2014]. Technological or technical efficiency is the absence of losses due to the proper use of existing resources, when the producer is able to produce the largest amount of production of the desired quality with the lowest available costs [Kavaliauskienė, Žukauskaitė, 2021]. Apart from these three types of efficiency, economic efficiency is also important. Economic efficiency is the pursuit of benefits with minimal resources [Popovas, 2014]. Economic efficiency is understood as the main qualitative factor of economic growth, which ensures the absolute growth of the result with the same effort. Economic efficiency has a broader meaning than the concepts of efficiency listed before, because this concept describes the results obtained by using various options for the use of resources that participate or do not participate in the economic chain, such as productive consumption, individual consumption, sale or savings, such as people, material or financial assets [Geamanu, 2011].

When assessing whether a company is efficient, questions often arise as to whether the available limited resources are properly used, how to decide between different options when you can only afford one, how to decide whether certain investments are worth the money? Economic evaluation is used for this. Economic evaluation involves the identification, measurement and evaluation and comparison of costs and benefits [Corso, 2016].

In order to assess the economic efficiency of the company in more detail, an economic analysis is performed. Economic analysis of the company's activities is a study of the company's performance results, resources, processes and prospects, in order to evaluate them and provide the subjects of the management processes with the information necessary to make decisions [E. Jakštas, A. Kazakevičius, 2018]. The economic analysis of the company's activities is divided into internal and external analysis. The external economic analysis of the company is carried out by the authorities controlling the company, they can receive publicly available information from the company, that information can be financial, such as the company's financial statements, and non-financial, for example, company certificates and licenses. The external analysis consists of the analysis of market participants, the analysis of results which is carried out with the help of financial analysis and the analysis of competitive advantages, financial data is not used for this analysis, but all other information that can be collected is used, the most popular analytical method for this analysis is SWOT analysis.

The internal economic analysis of the company's activities is divided into financial and managerial, since there are managerial accounting and financial accounting, the analyses are performed to meet the needs of managerial or financial management. Management analysis includes material and human resources, as well as plan execution, organizational-technical level, sales, cost, expenses, internal and environmental factors, compensation and promotion. Financial analysis consists of financial results, financial condition, sources of financing, cash flows, investments, continuity of operations, financial resources, material and human resources.

Financial analysis plays an important role in the changing economic environment, helps to understand the efficiency of the company's use of financial funds to generate income, thanks to financial analysis, the company has the opportunity to evaluate its financial operations and market position, identify possible risks, notice mistakes and make plans for the future. Financial analysis is a study of the company's financial results and condition, designed to assess achievements and prospects and provide financial managers and other users with high-quality new information to perform managerial functions [Jakštas, Kazakevičius, 2018].

R. Donthi, A. Muskula, [2013] described financial analysis as the process of determining the company's strengths and weaknesses, determining the relationship between financial statements that measure the company's liquidity, profitability, solvency. According to N. M. Al-Nasser [2014], financial analysis identifies the relative strengths and weaknesses of the company and suggests actions that the company can take to take advantage of its strengths and correct its weaknesses in the future. D. Wang, F. Zhou [2016] defined financial analysis as the process and results of the company's financial activities, which are based on the company's financial statements and other information that can reveal the advantages and disadvantages of business enterprises in the past, analyze the financial condition and predict future trends in order to help company's managers to make long-term plans and optimize investment decisions.

After analyzing the opinions of scientists about financial analysis, it can be seen that the description is interpreted differently, but the essence remains unchanged, that financial analysis is the main tool that helps to make economic decisions for efficient company operations.

Horizontal, vertical or financial indicator analysis is usually used for the financial evaluation of the company's activities. Horizontal analysis is a comparison of data from financial statements of two or more periods [Jakštas,

Kazakevičius, 2018]. This analysis calculates absolute and relative change. The absolute change shows the absolute amount by which the indicator increased or decreased, it is calculated according to the formula:  $B - A$ . Where A means the past period, B the reference period. The relative change shows the change in the value of the indicator during the first period as a percentage, it is calculated according to the formula:  $(A/B) - 1 \cdot 100\%$ . The horizontal analysis of the financial report allows to identify significant and insignificant changes, positive and negative changes, to determine the influence of changes in one indicator on changes in other indicators. Such evaluations allow to summarize the impact of changes on the company's financial results or financial condition depicted in the report, to make decisions on further analysis of changes and their management [Jakštas, Kazakevičius, 2018].

Vertical analysis is an analysis of relationships between different individual indicators, as well as these indicators and their sums in a certain period of time [Donthi, Muskula, 2013]. In vertical analysis, the comparison of each indicator of a financial report with the general base indicator of that report shows the part of the compared indicator in relation to the general indicator, and the general indicator is the totality of the parts of all compared indicators or their general structure [Jakštas, Kazakevičius, 2018]. For example, in an income statement, if the selected base is revenue, then each row would be expressed as a percentage of revenue.

The analysis of relative indicators, sometimes called the analysis of coefficients, is performed by comparing the indicators of different financial statements with each other, the obtained ratios reflect the relationships of the financial processes taking place in the company and record changes in the financial condition. [Kasmir of Tongli, 2016] states that financial ratios are activities that compare numbers in financial statements by dividing one number by another. Thus, financial indicators are interpreted as a tool to analyze and evaluate the company's financial results by comparing the numbers presented in each financial report.

E. Jakštas and A. Kazakevičius [2018] in the textbook on the analysis of financial statements of business companies distinguished six main types of financial indicators, namely profitability, activity, solvency-liquidity, financial stability, financial value and cash flows. Each group of a financial indicator has subgroups, and a group and its subgroups can consist of various numbers of indicators.

The obtained results of the financial evaluation help the owners of the company to make decisions whether to continue or stop their main activity or part of their activity, to produce or buy certain materials for the production of their products, to purchase or rent certain machines and equipment for the production of products, and perhaps to rent that equipment to another firm entity, to issue shares or negotiate a bank loan to increase working capital, make investment plans, as well as other decisions that would allow managers to choose various business execution alternatives.

In addition to financial analysis, it is also important to analyze the internal and external environment of the company, so that it is possible to assess the efficiency of its activities in more detail. The effectiveness of a company is greatly influenced by factors both inside and outside the company, which are important to identify and employ to your advantage. Factors influencing the company's activities can be divided into internal factors that the company can control and use to its advantage, and external factors that the company cannot control, but knowing them can protect itself from threats in advance and take advantage of emerging opportunities [Marčinskas, Diskienė, 2001].

S. Kalesnykas and A. Katinienė [2019] divided the factors influencing the company's activities into direct impact (microenvironmental factors) and indirect impact (macroenvironmental factors). The immediate impact environment consists of consumers, suppliers, substitutes, the industry environment, the threat of new competitors, and existing competitors. The environment of indirect impact consists of the economic, natural, technological, political, social and legal environment.

One of the ways to evaluate the influence of factors on the company's efficiency is the SWOT analysis, which is a model of strategic planning. SWOT analysis helps highlight the company's strengths and identify weaknesses and threats and ways to mitigate their impact. SWOT analysis consists of four parts, that is, weaknesses, strengths, which are considered internal factors, and opportunities, threats, which are considered external factors [investments and finance, 2022]. Internal factors consist of organizational culture, training, human resources, capital resources, while external factors consist of available competitors, customers, economic or political events, legal environment [Jackson, 2021].

SWOT analysis is often combined with GGSS (TOWS) analysis. TOWS analysis is an acronym for SWOT analysis, just as SWOT analysis identifies a company's strengths, weaknesses, opportunities and threats, but TOWS analysis also identifies relationships between different factors and categories. A TOWS analysis aims to reconcile internal and external factors to help identify relevant strategic opportunities for an organization to

pursue. It can help an organization understand how it can take advantage of opportunities, reduce threats, overcome weaknesses and take full advantage [Oxford college of marketing, 2021].

There is also Porter's five forces analysis which helps to assess the competitive position of the organization. According to this theory, there are five forces that determine the intensity of competition and market attractiveness. This model is widely used to analyze the company's industry structure and company strategy [Investopedia, 2022].

Porter's 5 forces are:

1. Competition in the industry - shows the number of competitors and their influence on the company, the greater the number of competitors, the lower the power of the company.

2. Potential for new entrants – profitable markets attract new entrants, which reduces profitability. If there are no significant barriers to entry for potential entrants, profitability will decrease to a competitive level.

3. Power of suppliers is an assessment of how easy it is for suppliers to raise prices. This is determined by the number of suppliers of each raw material, the uniqueness of their products and how much it would cost the company to change the supplier.

4. Customer power - assessing how easy it is for customers to reduce prices. This is determined by the number of buyers in the market, the importance of each individual buyer to the company, if the organization has only a few influential buyers, in most cases, they can dictate terms.

5. Threat of substitute products - when there are close substitutes for a product in the market, it increases the likelihood that customers will choose alternatives in response to a price increase. This reduces both supplier power and market attractiveness.

Another analysis that can be used to evaluate the factors influencing the company is the PEST analysis (political, economic, social, technological). PEST analysis can help the organization to recognize the opportunities offered by the business environment conditions, as well as identify the challenges that the company may face and effectively plan how to best manage them. This approach can also be used to assess the internal structure of a company, identifying aspects of its internal politics, economic outlook, and social climate and technology base. This analysis can also be used in conjunction with other strategic business analysis methods, such as SWOT analysis [Kenton, 2022].

The main activity of the analyzed company UAB Bauwerk Group Lietuva is wood cutting, planing, production of installed parquet floors and services related to the main activity (drying and steaming of wood). The company also manufactures home accessories such as skirting boards and stair treads.

When processing wood, a sawdust collection system is also installed. The sawdust is sold and later used to make compressed sawdust tables, etc. goods, due to which the raw material is fully utilized. To implement the company's main activities, the company employs machine operators, parquet board sorters, varnishers, and employees responsible for drying and removal.

An analysis of the company's financial indicators was performed, profitability, activity, solvency, liquidity and bankruptcy probability indicators were calculated.

### Dynamic analysis of UAB "Bauwerk Group Lietuva" company's operational efficiency

The results of the company's profitability indicators:

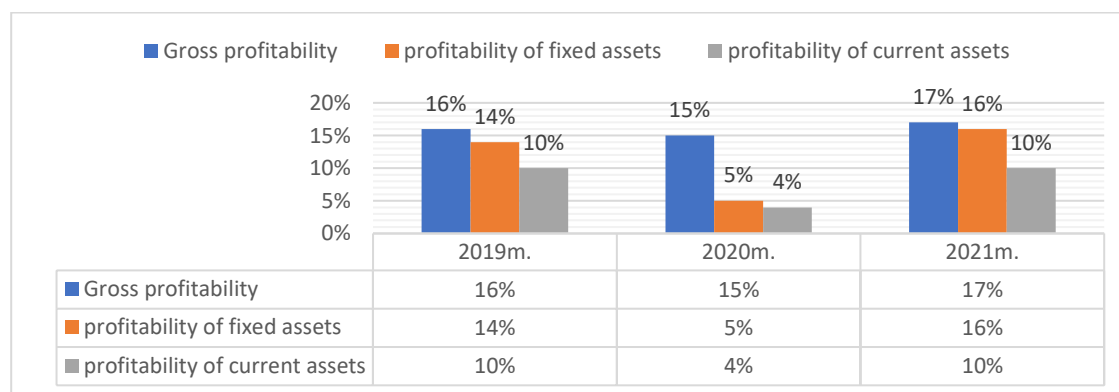


Fig. 1. UAB "Bauwerk" company profitability analysis for 2019-2021.

The profitability indicators of the company are quite low. 16-17% gross profit rate is considered low. However, since this company's main production of parquet boards and other home accessories made of wood, the raw material for wood is expensive and the company purchases it only from forests designated for replanting programs and pays more for it, and the transportation of raw materials and products to and from foreign countries is also expensive. Completely different trend can be emphasized by analyzing the company's activity indicators, which are shown in Figure 2.

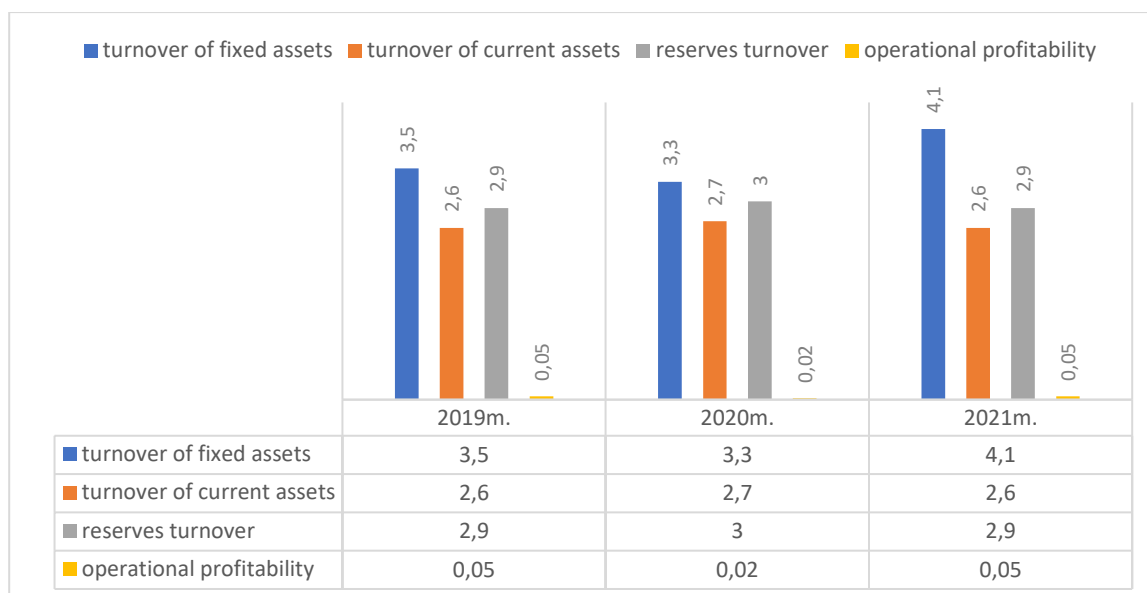


Fig. 2 Dynamic analysis of UAB "Bauwerk" asset turnover and profitability for 2019-2021.

From the assessment of the company's activity indicators in the year under analysis, it can be concluded that the company is able to use long-term and short-term assets effectively and efficiently uses reserves. The operational profitability indicator is not very good, but this is explained by expensive raw materials and equipment maintenance.

Analyzing the solvency and liquidity indicators, there is a clear trend that the company's indicators are improving, which is shown in Figure 3.

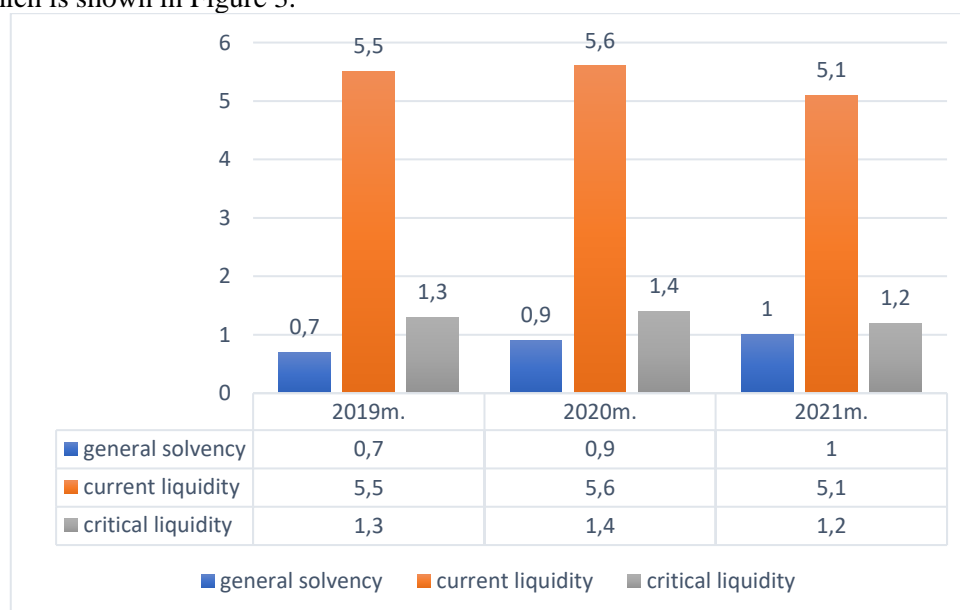


Fig. 3 Analysis of the solvency and liquidity indicators of Bauwerk UAB for 2019-2021.

The company's solvency indicators are not good, due to the indebtedness of the paid amounts to the group of companies, but dynamically this indicator keeps rising, which affects the progress of the company's solvency. The

current liquidity indicators are excellent in all the analyzed years, the value of the critical liquidity indicators cannot be assessed perfectly, but they are good and show that the company is managing its short-term liabilities.

The financial condition of the business enterprise is shown by the use of financial technologies in the analysis of business models. The analysis is based on the fintech model - the Z model, also called the Altman model.

Results of bankruptcy probability indicators:

Altman Z (1) an indicator for companies whose shares are listed in stock exchange		
2019m.	2020m.	2021m.
$X1 = 1.2 \times ((57029-10420) / 99593) = 1.2 \times (46609 / 99593) = 0.56$	$X1 = 1.2 \times ((49871-8882) / 90761) = 1.2 \times (40989 / 90761) = 0.54$	$X1 = 1.2 \times ((60506-11851) / 99836) = 1.2 \times (48655 / 99836) = 0.59$
$X2 = 1.4 \times (5734/99593) = 0.08$	$X2 = 1.4 \times (1126 / 90761) = 0.009$	$X2 = 1.4 \times (6261 / 99836) = 0.09$
$X3 = 3.3 \times (33867 / 99593) = 1.12$	$X3 = 3.3 \times (35698 / 90761) = 1.3$	$X3 = 3.3 \times (41959 / 99836) = 1.39$
$X4 = 0.6 \times (41205/57710) = 0.43$	$X4 = 0.6 \times (43036 / 46881) = 0.55$	$X4 = 0.6 \times (49297 / 49693) = 0.6$
$X5 = 1.0 \times (149193/99593) = 1.5$	$X5 = 1.0 \times (133970 / 90761) = 1.48$	$X5 = 1.0 \times (159903 / 99836) = 1.6$
$Z. 2019m. = 0.56 + 0.08 + 1.12 + 0.43 + 1.5 = \mathbf{3.69}$	$Z. 2020m. = 0.54 + 0.009 + 1.3 + 0.55 + 1.48 = \mathbf{3.88}$	$Z. 2021m. = 0.59 + 0.09 + 1.39 + 0.6 + 1.6 = \mathbf{4.27}$

An indicator lower than 1.80 means that the probability of bankruptcy is very high, between 1.81 and 2.9 it is high. The probability of bankruptcy is low if the ratio is higher than 3.0. In all analyzed years, the probability of bankruptcy indicator reached more than 3 and kept growing, which indicates that the probability of bankruptcy of the company is extremely low and the situation keeps improving.

## Conclusions

After performing the analysis of UAB "Bauwerk" activity evaluation, it is possible to draw general conclusions that in 2020 the company's sales fell, which forced the company to have more liabilities. The decrease in sales was also significantly influenced by the pandemic that started that year and its causes, as the borders were closed, which made it difficult to bring in raw materials and export products, as well as the introduction of quarantine contributed to further falling indicators. in 2021 the profitability of the company increased, due to the investments made in the mechanization of the machine tools, the raw material was used more efficiently, which affects the growth of the net profit. The company makes excellent use of short-term and long-term assets. The results of the solvency indicators are not good, but these results are not due to debts to creditors or banks, but due to the amounts paid to the group of companies. The dynamics of equity and liabilities showed that in the first two analyzed years, the company's liabilities significantly exceeded equity, but in 2021. this gap has almost disappeared, which shows that the company's solvency is improving. The probability of bankruptcy in the company is considered high, but it is already on the verge of considering the probability of bankruptcy as low, and this indicator has risen consistently. in 2021 all company indicators rose compared to 2019. which leads to the conclusion that even in those areas where the company needs to step up, such as improving solvency and profitability indicators, the decisions of the company's managers, regarding investments and improving operations, help the company to increase profitability and secure an increasingly strong position in the market.

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## THE INFLATION TRENDS IN THE EUROPEAN UNION DURING COVID-19 AND RUSSIA'S INVASION OF UKRAINE

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Keywords: *European Union; Inflation; COVID-19; Pandemic; Economic crisis.*

### Abstract

Inflation is one of the most important factors helping to ensure stable economic growth and balance in the economy, therefore, special attention must be paid to controlling inflation. The objective of this study is to analyze the inflation rate in the European Union (EU) in the time from 2019 to the end of 2022. In the spring of 2020, the whole world and the European Union were hit by the COVID-19 pandemic crisis, and 24<sup>th</sup> of February 2022 Russian Federation invaded the sovereign country Ukraine. These events led to high inflation in the world. The main task of this paper is to assess the inflation rate dynamics in the EU from before the pandemic crisis to the end of the year 2022 while the war is still in progress and the goal is to identify the reaction of EU countries to the rising inflation in this difficult period.

### Introduction

European Union countries are very dependent on import of energy resources which make significant impact on inflation level. In recent years, the world has faced a couple of economic crises – COVID-19 pandemic and Russia's invasion of Ukraine. Over the period of COVID-19 pandemic the economy experienced a recession and demand for energy resources significantly decreased, therefore most of EU countries experienced deflation. After the pandemic crisis had finished the economy recovered and demand for energy resources increased again, therefore the level of prices started to rise. In the spring of 2022, Russia invaded Ukraine and the sanctions that were adopted towards Russian Federation increased prices of energy resources, and general inflation in the European Union rose to heights.

The EU inflation rate is tracked and controlled by the European Central Bank (ECB). The goal of ECB monetary policy is to maintain price stability and target 2% price inflation in all EU member states. This 2% target inflation rate ensures stable economic growth in EU countries. Anything above 2% is unwanted inflation and it means that the value of the Euro is decreasing. If inflation is below 2% means the economy is slowing down. European Central Bank governing council takes decisions on monetary policy every six weeks – determining what should be done to keep inflation at their 2% target (ECB, 2023). After decisions are made, the President and Vice-President of ECB explain them in detail in a press conference. ECB can control the inflation rates with monetary policy tools: interest rate control, obliging Central and commercial banks to make reserve funds, and buying bonds from EU member states.

**Research object.** Inflation in EU countries during 2019-2022.

**Purpose of the article.** To conduct inflation analysis in the EU countries and compare its trend in the periods of COVID-19 and Russia's invasion of Ukraine.

#### Research tasks:

1. To describe the inflation rate in EU countries before COVID-19.
2. To analyze the inflation rate during COVID-19 and after the pandemic period.
3. To identify the inflation rate change in EU countries after Russia's invasion of Ukraine.

**Research methods:** Analysis and interpretation of literature sources and statistical data.

### Inflation rates before the COVID-19 pandemic in 2019.

The annual inflation rate in the European Union was 1.6% in 2019. The lowest registered rate was in Portugal 0.4% and the highest inflation rate was registered in Hungary 4.1%.

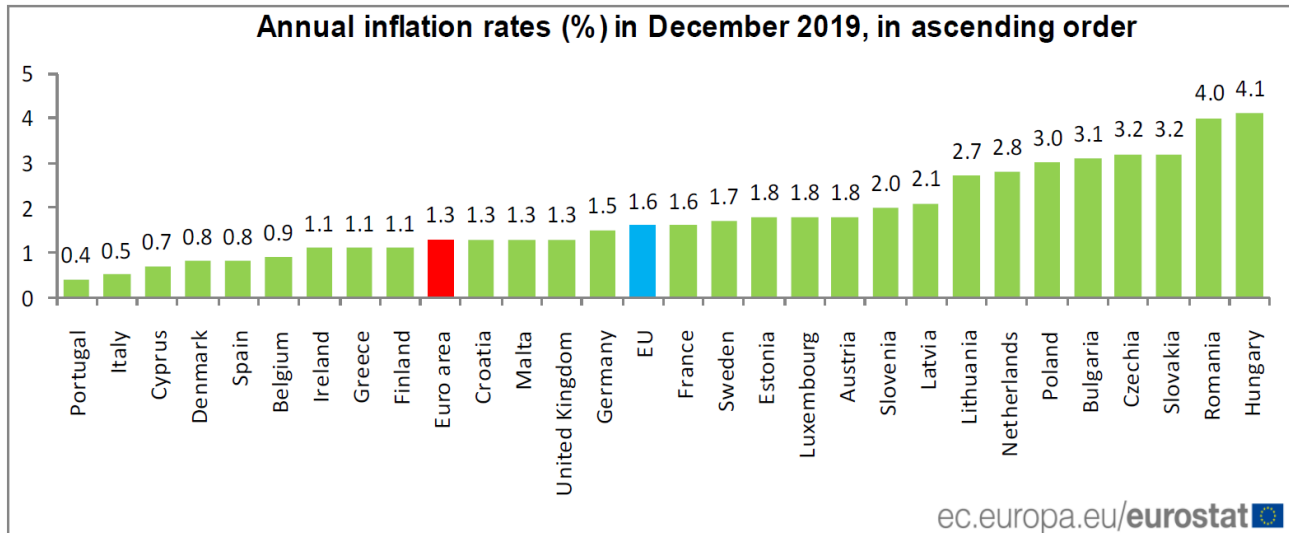


Fig. 1. Annual inflation rates 2019

\*Source: <https://ec.europa.eu/eurostat>

The highest inflation by category was for unprocessed food 2.1% and the lowest inflation rate was for energy 0.2%.

Table 1

**Inflation rates by aggregates 2019**  
**Euro area inflation rate (%), selected aggregates**

	Weights (%)	Annual rate							Monthly rate
	2019	Dec 18	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Dec 19
<b>All-items HICP</b>	<b>1000.0</b>	<b>1.5</b>	<b>1.0</b>	<b>1.0</b>	<b>0.8</b>	<b>0.7</b>	<b>1.0</b>	<b>1.3</b>	<b>0.3</b>
All-items excluding:									
> energy	898.7	1.1	1.1	1.2	1.1	1.2	1.4	1.4	0.3
> energy, unprocessed food	854.0	1.1	1.1	1.1	1.2	1.2	1.4	1.4	0.3
> energy, food, alcohol & tobacco	708.5	0.9	0.9	0.9	1.0	1.1	1.3	1.3	0.4
> energy, seasonal food	873.5	1.1	1.1	1.1	1.2	1.2	1.4	1.4	0.3
> tobacco	977.4	1.4	1.0	0.9	0.8	0.6	0.9	1.2	0.3
Food, alcohol & tobacco	190.1	1.8	1.9	2.1	1.6	1.5	1.9	2.0	0.1
> processed food, alcohol & tobacco	145.4	1.7	2.0	1.9	1.8	1.8	2.0	2.0	-0.1
> unprocessed food	44.7	1.8	1.7	2.5	0.7	0.7	1.8	2.1	0.9
Energy	101.3	5.5	0.5	-0.6	-1.8	-3.1	-3.2	0.2	0.1
Non-energy industrial goods	263.8	0.2	0.4	0.3	0.2	0.3	0.4	0.5	-0.1
Services	444.7	1.3	1.2	1.3	1.5	1.5	1.9	1.8	0.7

\*Source: <https://ec.europa.eu/eurostat>

2019 was the year that European Union was still not affected by COVID-19. Inflation was close to the ECB target of 2% and the economy was growing in EU countries and in the Euro area. The crude oil market price was stable with an average closing price of 56.99 US dollars per barrel. Crude Oil annual change for 2019 was 35.42% and year close price was 61.14 US dollars per barrel.

Table 2

**Crude oil prices - historical annual data**  
**Crude Oil Prices - Historical Annual Data**

Year	Average Closing Price	Year Open	Year High	Year Low	Year Close	Annual % Change
2023	\$76.37	\$80.26	\$81.62	\$66.74	\$80.70	0.24%
2022	\$94.53	\$76.08	\$123.70	\$71.59	\$80.51	7.05%
2021	\$68.17	\$47.62	\$84.65	\$47.62	\$75.21	55.01%
2020	\$39.68	\$61.17	\$63.27	\$11.26	\$48.52	-20.64%
2019	\$56.99	\$46.31	\$66.24	\$46.31	\$61.14	35.42%

\*Source: <https://www.macrotrends.net/2516/wti-crude-oil-prices-10-year-daily-chart>

### Beginning of the COVID-19 pandemic in the European Union in 2020

On 31st of December 2019, Wuhan reported the first cases of COVID-19 for the European Centre for Disease Prevention and Control starts surveillance (European Commission). The first registered case of COVID-19 in Europe was reported from France on the 24<sup>th</sup> of January 2020 (European Commission). The economy in European Union was slowing down, most of the travels were stopped, businesses were closing, and everyone eventually found themselves in lockdown. Once the lockdown began economy stopped and markets started crashing to all-time lows. On the 21<sup>st</sup> of April 2020, the crude oil price was 11.26 US dollars per barrel, which is the lowest price since World War II.

Crude Oil history chart.



Fig. 2 Crude oil history chart

\*Source: <https://www.macrotrends.net/1369/crude-oil-price-history-chart>

The annual inflation rate in 2020 in the EU was 0.3%. 13 countries registered deflation with the lowest registered rates in Greece -2.4%, Slovenia -1.2%, and Ireland -1%. Bulgaria and France registered 0% inflation and the remaining 12 countries registered inflation with the highest rate in Poland 3.4%, Hungary 2.8%, and Czechia 2.4%.

“In December, the highest contribution to the annual euro area inflation rate came from services (+0.30 percentage points, pp), followed by food, alcohol & tobacco (+0.25 pp), non-energy industrial goods (-0.14 pp) and energy (-0.68 pp).” (Eurostat, 2023).

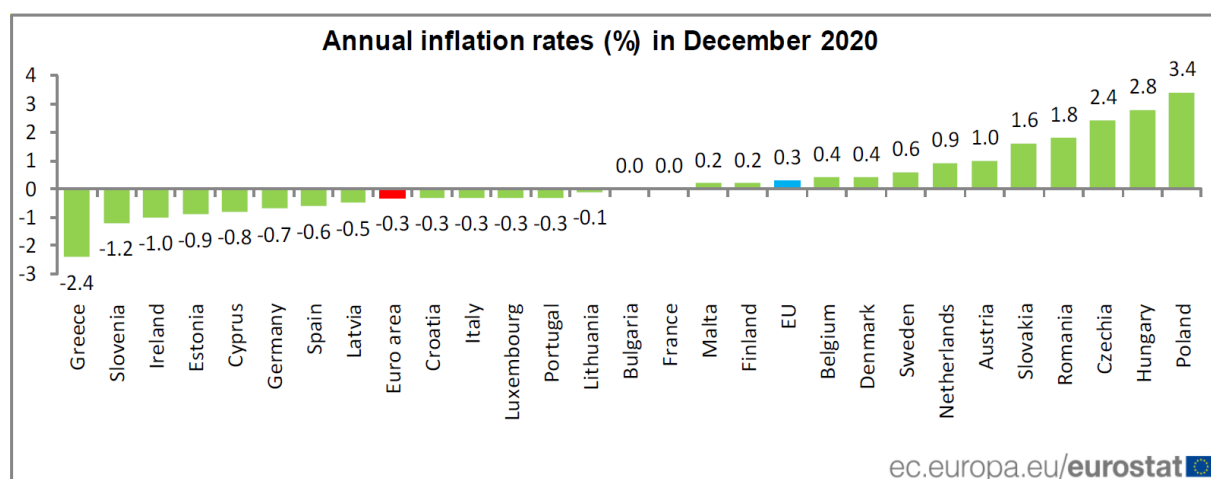


Fig. 3. Annual inflation rates 2020

\*Source: <https://ec.europa.eu/eurostat>

Because of lockdown in most countries of EU businesses did not need a lot of energy. Energy registered lowest inflation rate in 2020 -6.9%. Highest inflation in 2020 by category was unprocessed food with 2.1%.

Table 3

**Inflation rates by aggregates 2020**  
**Euro area inflation rate (%), selected aggregates**

	Weights (%)	Annual rate							Monthly rate Dec 20
		2020	Dec 19	Jul 20	Aug 20	Sep 20	Oct 20	Nov 20	
<b>All-items HICP</b>	<b>1000.0</b>	<b>1.3</b>	<b>0.4</b>	<b>-0.2</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.3</b>	<b>0.3</b>
All-items excluding:									
> energy	901.5	1.4	1.4	0.7	0.5	0.6	0.6	0.5	0.2
> energy, unprocessed food	857.1	1.4	1.3	0.6	0.4	0.4	0.4	0.4	0.3
> energy, food, alcohol & tobacco	710.8	1.3	1.2	0.4	0.2	0.2	0.2	0.2	0.4
> energy, seasonal food	876.5	1.4	1.3	0.6	0.4	0.4	0.4	0.4	0.3
> tobacco	977.2	1.2	0.2	-0.3	-0.5	-0.4	-0.4	-0.4	0.3
Food, alcohol & tobacco	190.7	2.0	2.0	1.7	1.8	2.0	1.9	1.3	-0.4
> processed food, alcohol & tobacco	146.3	2.0	1.6	1.5	1.4	1.3	1.2	1.1	-0.2
> unprocessed food	44.5	2.1	3.1	2.3	3.1	4.3	4.2	2.1	-1.2
Energy	98.5	0.2	-8.4	-7.8	-8.2	-8.2	-8.3	-6.9	1.6
Non-energy industrial goods	262.1	0.5	1.6	-0.1	-0.3	-0.1	-0.3	-0.5	-0.4
Services	448.7	1.8	0.9	0.7	0.5	0.4	0.6	0.7	0.8

\*Source: <https://ec.europa.eu/eurostat>

“On 21 December 2020, the European Medicines Agency (EMA) approved BioNTech-Pfizer's vaccine. The EU states will begin vaccinations against the COVID-19 virus on 27 December 2020.” (eu2020, 2023).

The European Union confirmed a fund for aid of eastern and southern countries in Europe to recover from the COVID-19 pandemic crisis. The agreed fund size was 807 Bn euros (The Economist, 2023). “The package consists of a Recovery and Resilience Facility (RRF) that will provide up to €312.5 billion in grants and €360 billion in loans and support and funds for existing budget priorities to speed up Europe's recovery from the economic impact of the pandemic”. (Global Economic Effects).

## 2021 recovery from the pandemic and high inflation

Over the year 2021 all the EU countries gradually called off restrictions. Businesses reopened and people started traveling, spending time with friends, and socializing again. After a large amount of money was injected into European Union countries people began to spend more. Because of that inflation rates rose up and the lowest inflation rate was in countries: Malta 2.6%, Portugal 2.8% and Finland 3.2%. The highest inflation was recorded in Estonia 12%, Lithuania 10.7% and Poland 8%.

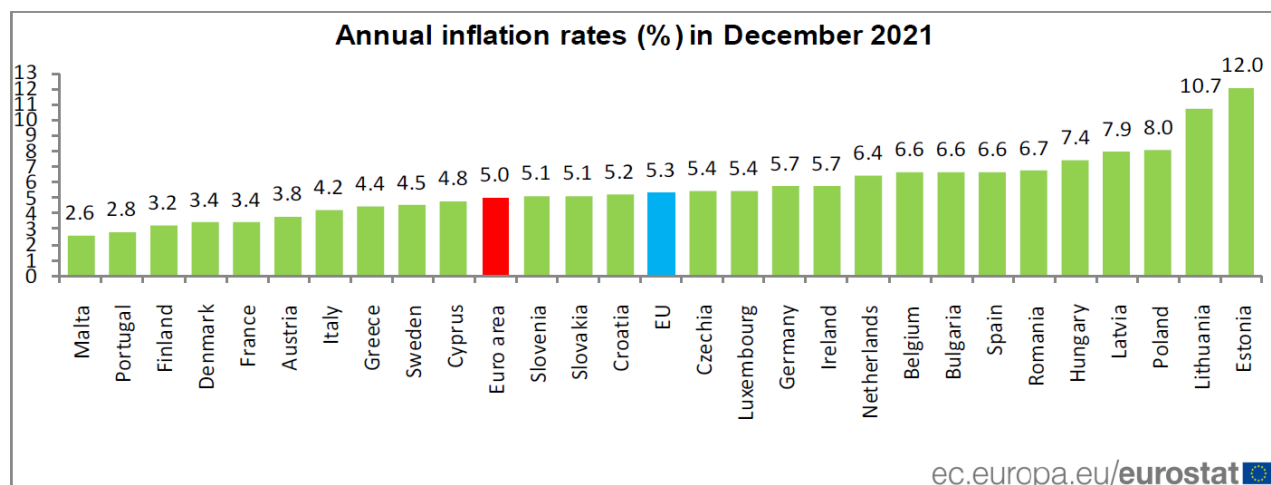


Fig. 4 Annual inflation rates 2021

\*Source: <https://ec.europa.eu/eurostat>

Inflation in European Union was 5.3% and main increase was registered in: energy 25.9%, tabaco 5% and unprocessed food 4.7%. All products, excluding energy, were 2.8% which means that most of the impact was created by the inflation of energy.

Table 4

**Inflation rates by aggregates 2021**  
**Euro area inflation rate (%), selected aggregates**

	Weights (%)	Annual rate							Monthly rate
		2021	Dec 20	Jul 21	Aug 21	Sep 21	Oct 21	Nov 21	
<b>All-items HICP</b>	<b>1000.0</b>	<b>-0.3</b>	<b>2.2</b>	<b>3.0</b>	<b>3.4</b>	<b>4.1</b>	<b>4.9</b>	<b>5.0</b>	<b>0.4</b>
All-items excluding:									
> energy	905.0	0.5	0.9	1.7	1.9	2.0	2.5	2.8	0.4
> energy, unprocessed food	854.5	0.4	0.9	1.6	1.9	2.1	2.6	2.7	0.4
> energy, food, alcohol & tobacco	687.4	0.2	0.7	1.6	1.9	2.0	2.6	2.6	0.4
> energy, seasonal food	876.3	0.4	0.9	1.6	1.9	2.1	2.6	2.7	0.4
> tobacco	974.5	-0.4	2.2	3.0	3.4	4.1	4.9	5.0	0.4
Food, alcohol & tobacco	217.6	1.3	1.6	2.0	2.0	1.9	2.2	3.2	0.6
> processed food, alcohol & tobacco	167.1	1.1	1.5	1.7	1.9	2.1	2.3	2.8	0.3
> unprocessed food	50.5	2.1	1.9	3.0	2.6	1.4	1.9	4.7	1.5
Energy	95.0	-6.9	14.3	15.4	17.6	23.7	27.5	25.9	0.4
Non-energy industrial goods	269.1	-0.5	0.7	2.6	2.1	2.0	2.4	2.9	0.1
Services	418.3	0.7	0.9	1.1	1.7	2.1	2.7	2.4	0.6

\*Source: <https://ec.europa.eu/eurostat>

## Trends of the inflation rate after Russia invasion to Ukraine in 2022

2022 was an extraordinary year for Europe and the whole world, on February 24<sup>th</sup> after Russia had invaded the independent and democratic country of Ukraine, the attitude and policy of the European Union countries towards Russia changed. The war started not only against Ukraine, but also against the Europe. European Union imposed sanctions on Russia, since beginning of the war nine sanction packages were announced on Russian companies and individuals. Europe decided not to buy Russian fissile fuel from Russian and there was energy price growth recorded. According to Eurostat indicators energy inflation rate percentage in 2022 December compared to December 2021 increased by 25.5% and it was highest rate from HICP (Harmonized Index of Consumer Prices) selected aggregates group. Processed food, alcohol and tobacco were second highest with 14.3% inflation rate. Lowest inflation rate was in services sector with only 4.4% inflation rate.

Table 5

**Inflation rates by aggregates 2022**  
**Euro area inflation rate (%), selected aggregates**

	Weights (%)	Annual rate							Monthly rate
	2022	Dec 21	Jul 22	Aug 22	Sep 22	Oct 22	Nov 22	Dec 22	Dec 22
<b>All-items HICP</b>	<b>1000.0</b>	<b>5.0</b>	<b>8.9</b>	<b>9.1</b>	<b>9.9</b>	<b>10.6</b>	<b>10.1</b>	<b>9.2</b>	<b>-0.4</b>
All-items excluding:									
> energy	890.7	2.8	5.4	5.8	6.4	6.9	7.0	7.2	0.6
> energy, unprocessed food	841.2	2.7	5.1	5.5	6.0	6.4	6.6	6.9	0.7
> energy, food, alcohol & tobacco	681.8	2.6	4.0	4.3	4.8	5.0	5.0	5.2	0.6
> energy, seasonal food	862.7	2.7	5.3	5.7	6.3	6.7	6.9	7.2	0.7
> tobacco	975.8	5.0	9.0	9.3	10.1	10.8	10.2	9.3	-0.4
Food, alcohol & tobacco	208.9	3.2	9.8	10.6	11.8	13.1	13.6	13.8	0.7
> processed food, alcohol & tobacco	159.4	2.8	9.4	10.5	11.5	12.4	13.6	14.3	0.9
> unprocessed food	49.5	4.7	11.1	11.0	12.7	15.5	13.8	12.0	0.0
Energy	109.3	25.9	39.6	38.6	40.7	41.5	34.9	25.5	-6.6
Non-energy industrial goods	265.2	2.9	4.5	5.1	5.5	6.1	6.1	6.4	0.4
Services	416.7	2.4	3.7	3.8	4.3	4.3	4.2	4.4	0.7

\*Source: <https://ec.europa.eu/eurostat>

The inflation in 2022 in EU countries was 10.4%. The highest annual inflation rates were registered in Hungary 25%, Latvia 20.7% and Lithuania 20%. The lowest rates were registered in Spain 5.5%, Luxembourg 6.2% and France 6.7%.



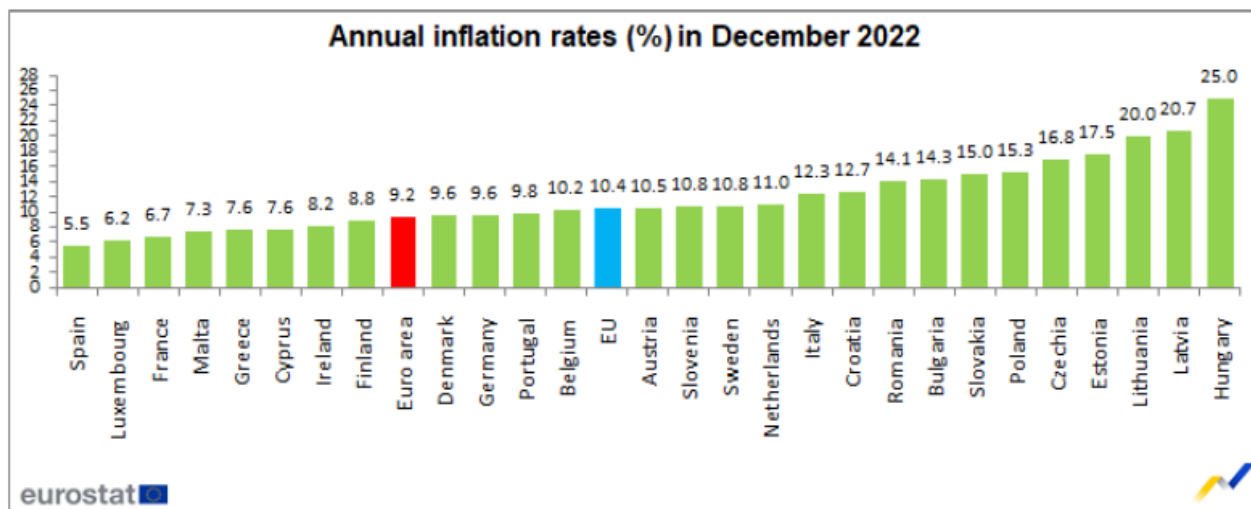


Fig. 6. Annual inflation rates 2022

The analysis of inflation in different periods shows that the Russian invasion of Ukraine led to a higher increase in inflation in EU countries than the COVID-19 pandemic, so the damage to the EU economy can be very large and long-lasting.

## Conclusions

European Union is one of the strongest economies in the world. European Central bank plays a key role in determining the price level and the target is to achieve healthy for the economy 2% inflation rate. The main goals of ECB are the maintaining price stability and ensuring stable economic growth in all EU countries. However, COVID-19 pandemic and the Russia's invasion of Ukraine have destroyed all plans of ECB. In 2019 European Union inflation was close to its target and all seemed well managed until the beginning of COVID-19 pandemic. The annual inflation rate in the European Union was 1.6% in 2019: the lowest registered inflation rate was in Portugal 0.4% and the highest inflation rate was registered in Hungary 4.1%.

During COVID-19 pandemic demand for energy resources significantly decreased and it was seen how it affected inflation rates in general, because of lockdown prices fell and majority of EU countries had deflation. The highest 3.4% inflation rate was registered in Poland while in two countries the inflation rate was 0% and in 13 EU countries the inflation rate fell even below 0%.

The situation changed after the Russian Federation invaded Ukraine, and sanctions towards Russia caused price increases in all sectors. Without exclusion, all European Union countries recorded very high inflation. Destabilization was mostly caused by the energy supply from the Russian Federation, sudden changes and sanctions affect not only Russian but also the EU. It is good that European Union cut its strings with communist Russia and become more independent from fossil fuel and will invest more in renewable energy which make the EU target to become carbon-free faster. Independent Europe will be more stable and stronger economically. The COVID-19 pandemic and the Russian invasion of Ukraine learned Europe to work smarter and use more innovative technologies in a lot of sectors while saving resources.

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## IMPORTANCE OF ASSESSMENT OF THE INFLUENCE OF SEASONALITY ON THE ACTIVITIES OF TRADING COMPANIES

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Keywords: *trading companies, seasonality, financial ratios.*

### Abstract

This article systematizes the theoretical aspects of assessing the impact of seasonality on the performance of a trading company. It has been established that seasonality affects every market sector. Understanding seasonality in business and finance is important because it can help businesses and investors anticipate and prepare for changes in demand, supply and market conditions. By analyzing historical patterns of seasonality, companies can make better decisions about inventory management, marketing campaigns and resource allocation.

### Introduction

Seasonality is a ubiquitous phenomenon that affects business across industries and regions. Seasonal fluctuations are a huge problem not only due to low return on investment, hiring of temporary and permanent workers, but also due to the efficiency of use of facilities, infrastructure maintenance or retaining suppliers during low load periods (Parilla et al., 2007). B. R. Totakura, C. Pradeep, T. Saurabh (2020) conducted a study in the USA and found that even 32 percent retail companies face the problem of seasonality.

The specific ways in which seasonality affects a trading company's performance can vary depending on a variety of factors, such as the types of products or services offered, the target market and geographic location. Furthermore, while many studies have investigated the impact of seasonality on business performance, there are few studies that focus on trading firms. This is notable because trading companies that specialize in buying and selling goods or services between different entities often face unique inventory management, pricing and logistics challenges that can be exacerbated by seasonal fluctuations. Therefore, by examining the impact of seasonality on the performance of a trading company, this work aims to contribute to a deeper understanding of the complexity and nuances of this topic and to provide practical insights and recommendations that can help trading companies to better manage seasonality.

Although seasonality is a well-known phenomenon in the business world, its impact on the performance of trading companies is not fully understood. The scientific literature examines the concept of seasonality, its causes and consequences, identifies individual measures, among which the marketing complex measures are most clearly dominant, as a tool that allows attracting and retaining the user, satisfying his needs, thus increasing the efficiency of operations. However, there is a lack of research in the scientific literature to overcome the problem of the influence of seasonality. Also, examining the impact of different seasons on a company's income, costs and profitability can reveal a deeper understanding of the relationship between seasonality and business results for trading companies and provide them with tools and insights that can help them make more informed decisions. on inventory management, pricing and marketing. In addition, by examining the use of data and analytics to predict and manage seasonal fluctuations, this work aims to highlight the importance of a data-driven approach to business operations and provide practical guidance on how trading companies can use data to optimize their operations. and achieve sustainable growth.

**The object** of the study is the influence of seasonality on the company's activities.

**The purpose** of the study is to systematize the theoretical aspects of assessing the influence of seasonality on the activities of a trading company.

**The objectives** of the study:

1. To examine the concept and causes of seasonality.
2. To reveal the importance of the influence of seasonality on the assessment of the company's activities by example of JSC "Serenika".

**Research methods:** analysis of scientific literature.

### **Analysis of the concept and causes of seasonality**

The efficiency of all processes taking place in any type of enterprise is revealed in the economic subsystem. Trading companies are companies that buy and sell goods in order to make a profit from the difference between their purchase and sale prices. Trading companies are an open system that depends on other systems related to it and conditions their development. In trading companies the role of satisfying the needs of goods is emphasized, and the possibilities of increasing profit depend on the results of the company's activities - profit volume, prices. The role of a trading company does not end with the sale of goods. Its activities depend on the environment and at the same time influence the environment. In this case, seasonality is extremely significant, which is discussed in the next subsection.

The concept and problems of seasonality have been widely studied in the world for the last few decades, and many scientists (Baum, Lundtorp, 2011; Lee et al., 2008; Parilla et al., 2007) believe that seasonality has a greater or lesser impact on each region and line of business.

Seasonality refers to the phenomenon where certain factors or events vary depending on the time of year. This is most commonly seen in weather patterns, agricultural cycles and consumer behavior.

G. Corluka et al., (2013) describe seasonality as an annual movement, as a pattern of visits that repeats itself every year. The model usually remains stable over the years, so reliability and predictability form the economic basis for its evaluation.

Based on the scientific literature (Kolomiets, 2010), it is observed that seasonality does not have a single definition and includes a large number of concepts and scientific fields: geography, economics, geology, biology, sociology, psychology and many others. Seasonality includes cyclical or periodic fluctuations in activity in any of the above mentioned disciplines (Baum, 2007).

B. Jyoti Das (2000) states that seasonal variation describes regular and yearly recurring fluctuations in economic activity. Seasonal variations are changes that occur every year at the same time of year. Thus, the seasonality of sales is a constantly recurring change in sales during the year.

Scientists (Jang, 2004; Parilla et al., 2006; Boffa, Succurro, 2012) claim that seasonality is determined by two main reasons: natural and institutional. Natural causes are mainly shaped by seasons and are related to various climatic conditions, which changes not only the needs of consumers, but also the nature of business mechanisms, especially when it is related to weather conditions. Institutional causes are more complex, as they arise from user behavior and decision-making, are more easily predictable and can be planned for. G. Corluka et al. (2013) claim that there is also a third type - these are additional reasons for sports events and calendar effects.

S. Lundtorp (2001), J. Ridderstaat et al., (2014) reclassifies the cause of seasonality as a push and pull factor (driving factors) promote the company's activities. For example, for companies engaged in water entertainment, these are free days that people want to spend meaningfully and change the environment. On the other hand, pull factors are the ones that make people go to the respective areas. J. Ridderstaat et al. (2014) added one more push element to the list of seasonality factors - climate acts not only as a pull factor, but also as a push factor. This especially affects the water transport services in the northern regions, because this service can only be used in the summer and even during the summer season there is little sunny and warm weather.

Almost every product is seasonal and those seasonal variations shape business strategy (Radas, Shugan, 1998). In scientific sources, the consequences of seasonality are examined from supply and demand perspectives (Lee et al., 2008; Corluka et al., 2013). The consequences vary by region and market products within them, as well as by region and how far away the products are from them. From a demand perspective, the consequences can be divided into several categories: economic, employment, ecological and socio-cultural.

Economic factors are mostly related to off-season problems, such as loss of profit due to underutilization or inefficient use of resources and facilities. This leads to negative consequences, such as low return on capital investment, difficult budget and financial flow management, covering fixed monthly fees, difficult to attract investors, lack of capacity during the season, unused production, infrastructure capacity during the off-season. Positive economic consequences of seasonality - during the off-season, companies can focus on infrastructure renovation and maintenance (Lee et al., 2008).

S. Jang (2004) believes that the influence of seasonality can be reduced by clarifying the needs of the consumer. J. Y. Chung (2009) provides several ways to overcome the problems caused by seasonality by means of marketing: accurately measure seasonal fluctuations, expand peak seasons, introduce a price differentiation model and composite schemes. G. Corluka et al. (2013) state that when responding to market demand, the following seasonality reduction strategies can be used: increase demand in the off-peak season,

reduce demand in the peak season, and redistribute demand. According to the authors, the main and simplest strategy used is to increase demand in the off-peak season, since some of such measures depend on the choice of the company itself and are very easily absorbed, what new value to convey.

Marketing offers various pricing solutions to reduce seasonality: group orders, discounted prices in the off-season (and high prices in the peak season). Both strategies have their own target market (Cantalops et al., 2011). Elements that are not directly related to the company's actions, but have a significant impact on seasonality management, can be applied - for example, state support (Lee et al., 2008). The easiest way to overcome the problem of seasonality is by increasing demand during the off-season, which requires a properly prepared plan of marketing measures.

### **Description the importance of assessing the impact of seasonality on the activities of companies**

It would be possible to single out companies from different sectors, for which the seasonality factor has a decisive influence:

1. Retail. For retail businesses that sell seasonal products like swimwear or winter coats, seasonality plays a big role. Usually, their demand increases during the season when their products are most relevant.

2. Tourism and wellness. Businesses in the tourism and wellness industry, such as hotels and resorts, often experience seasonal fluctuations in demand. For example, ski resorts may have higher demand in the winter and beach resorts in the summer.

3. Agriculture. Farming and agriculture are greatly affected by seasonal changes in weather and climate. Planting and harvesting seasons can vary by region and climate, but these industries often have to adjust their operations according to the season.

4. Seasonal entertainment. Businesses that provide seasonal entertainment, such as theme parks, haunted houses, and holiday-themed entertainment, are highly affected by seasonality. Usually, their demand increases at the time of year when their offers are most relevant.

5. Seasonal products. For businesses that sell seasonal products like Christmas decorations, Halloween costumes, and fireworks, seasonality works a lot. Their demand usually increases during the holiday season or other specific events.

It would be extremely difficult to find a company that would not want to increase efficiency in its activities, since the goal of all businesses is to achieve the best possible results in their field of activity. In order to objectively and correctly assess the company's efficiency, it is necessary not only to determine certain indicators, but also to find out the factors influencing the result of those indicators, which determine the efficiency of the company's activities. When evaluating operational efficiency in the literature, conclusions are often drawn that operational efficiency is richly related to many indicators and factors, therefore, basically, the calculation of the result from a group of a couple of indicators is not enough to state that the company's operation is reliably efficient. The scientific literature is full of various methods of assessing the company's performance, which can be used to assess the company's financial condition and predict future plans (Slavinskaitė, 2012). The most emphasized is that the best method, which is most suitable for today, must be a complex assessment, which includes malleable groups of indicators and calculations.

The purpose of the seasonality study is to determine the specifics of the development of the investigated phenomenon over several years, to measure seasonal fluctuations and to create a seasonality wave model. The main analysis tasks can be distinguished (Bagdonas, 2008):

1. To explain seasonal fluctuations.
2. To express the nature of fluctuations and its amplitude in quantitative parameters.
3. To model seasonality.

To measure seasonality, seasonality indices are calculated, which show the relative deviations of individual months or quarters of a certain phenomenon from the levels corresponding to the main trend of the phenomenon's development (Gražytė- Molienė, 2004).

There is no unified measurement system of activity's assessment in the scientific literature. Traditionally, it is customary to measure activities with financial indicators, which allow us to evaluate the company from various angles and draw significant conclusions about the company's activities. A huge number of performance evaluation indicators are distinguished in the scientific literature and used in practical activities. A. Šapkauskienė, Š. Leitonienė (2009) presented a systematized set of such indicators and asserts that their abundance obliges companies to form their own individual set of performance evaluation indicators taking into account the performance evaluation area, goals and users of conclusions.

Traditionally, most companies analyze the company's performance by assessing financial aspects, but financial indicators alone do not show a balanced performance of the company based on critical success factors. According to V. Boguslauskas, G. Jagelavičius (2002, p. 64), the balance in the model of balanced efficiency indicators is primarily the balance of financial and non-financial aspects. It is said that financial performance indicators evaluate performance in terms of money, while non-financial performance indicators mostly determine the future financial performance of the company (Lee, Sai On Ko, 2002, p. 70).

According to Ch. Christauskas, V. Kazlauskienė (2009, p. 717), non-financial indicators include: 1. Customer satisfaction; 2. Internal processes; 3. Innovation and learning. M. Punniyamoorthy, R. Murali (2008) proposed four groups of company activity areas and a sufficiently clear and practical strategy map, distinguishing four essential strategic areas of the company: company effectiveness (customers, product or service), organizational effectiveness (processes and structures), resource management and the area of innovation and personnel (Paulauskaitė, 2008).

In order to financially evaluate the influence of seasonality on the activity of a trading company, the analysis of financial indicators is the most commonly used method. Ratio analysis is perhaps the most commonly used technique by financial analysts. Ratio analysis is an analysis of financial statements that helps interpret the relationship between individual amounts in a financial statement. Its basis is the comparison of different indicators of the financial report with each other. Relative financial indicators reflect the interrelationships between financial statements and their articles. These relationships reflect the connections between the financial processes taking place in the company and record changes in the latter's financial status, illustrate trends and the nature of their changes. Although the coefficient is easy to calculate, it is difficult to interpret. Must be sure of the accuracy of the initial numbers. The coefficients alone do not mean anything, they must be compared with: previous coefficients of the same company; set standard or branch average; coefficients of other companies in the industry. When analyzing, it is very important to look for interrelationships between certain indicators. Once these relationships are precisely established, new indicators are "created", which, by analyzing them, determine new causes and factors that can determine the efficiency of the activity.

JSC "Serenika" was chosen for a more detailed analysis of the influence of seasonality on the company's activities. In JSC "Serenika" store Hobby Center has everything, what is need for active leisure time: the fishing department, which the company has leased to JSC "Triturus", the shipping department, which exhibits recreational boats and accessories, and the hunting department, which sells weapons and hunting equipment accessories. Also, the service at the back of the store can offer assembly and maintenance of purchased products.

It should be emphasized that JSC "Serenika" does not fill out quarterly financial reports, but it is known that the company earns its main income from the sale of ships and their accessories in March-May, i.e., 80 percent. income is generated during this period. Also related to this income is the cost of goods sold, which is the purchase price of the ships and their accessories for sale. Other costs are incurred on a straight-line basis. In order to reveal the influence of seasonality on the company's activities, conditional quarterly profit (loss) reports for 2019-2021 were prepared according to the available information. Since the results of other activities are incidental income and expenses not related to the main activity of the company, they are eliminated. Based on the information provided by the company, the profit (loss) statement was prepared for the quarters of 2019 - 2021. Figure 1 shows a clear seasonality in the company. Revenues are generated only in the II quarter of the entire year. Other periods are unprofitable.

The company's performance is also influenced by the competitive environment. Since JSC „Serenika“ has more than one field of activity, it also has quite a few competitors in Lithuania. In the shipping sector, the most serious competitors are JSC "Laivo sandėlis", whose sales income reaches 6550000 euros and JSC "Kotas" (Laivynas), whose sales income is EUR 4,886,355. These companies have the biggest impact on Hobby Center sales of boats and marine accessories. There are also smaller companies that bring more benefits than the competition, such as JSC „Valtinė“, which buys most of its accessories from JSC „Serenika“, thus becoming a customer of the company instead of a competitor. In the hunting sector, the company feels the biggest competition from JSC "Oksalis" and the company JSC "Baltijos arsenalas" (Army and civilians).

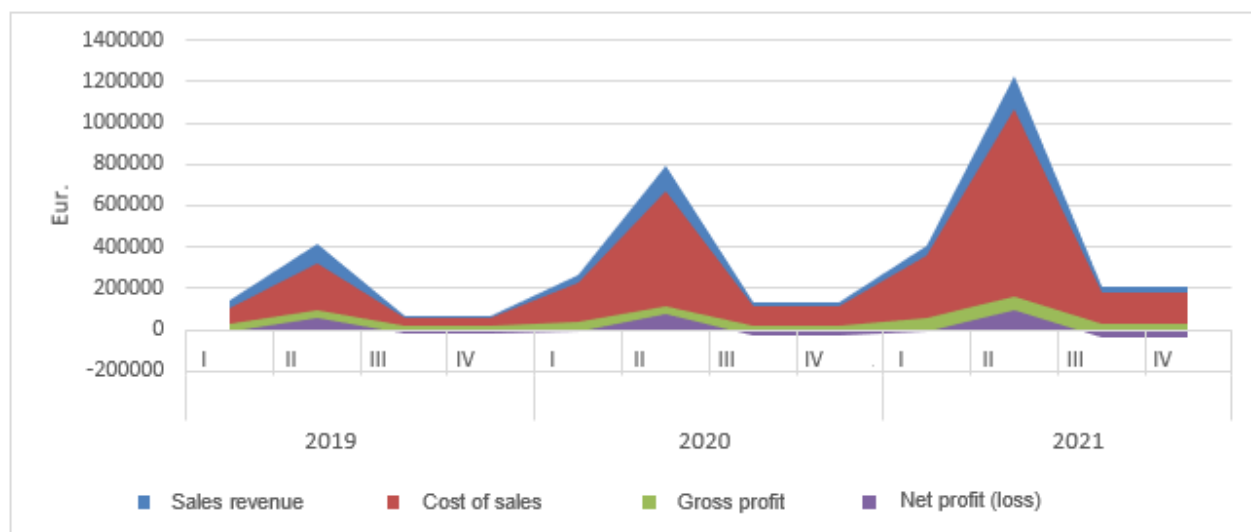


Fig. 1. JSC „Serenika“ change in performance indicators in quarters 2019-2021

The research revealed that seasonality occurs in the activities of JSC „Serenika“ for both natural and institutional reasons. The natural reason for the seasonality of JSC „Serenika's“ activities is the weather, as water entertainment in Lithuania can only be held from May to the end of September. Among the institutional reasons can be attributed the legal restrictions on shipping only during a certain period in Lithuania. It should be noted that the seasonality of JSC „Serenika's“ activities is linked to the seasons in nature (that is, summer). JSC „Serenika“ experiences both direct and indirect effects of seasonality. The direct effect is sales fluctuations resulting from direct relatively predictable forces - the purchase of ships and their preparation for operation at the beginning of the shipping season, i.e. depends on warm spring and summer temperatures. Indirect effects are fluctuations in the sales of the main business and the seasonality of other businesses (for example, suppliers). JSC „Serenika's“ seasonal business generates large sums of income in a short period of time, so when carrying out such activities, planning is particularly important - it is necessary to estimate what expenses the company will incur and have to cover during the period when sales decrease and how much funds can be allocated for investments and preparations for the new season. During the unprofitable period, the company will still have to pay for the rent of premises, utilities, and maintenance of employees, so advance provisions for these expenses are necessary.

JSC "Serenika", in order to overcome the influence of seasonality, it is recommended to implement digital marketing consisting of: digital devices, digital platforms, digital media, digital data and digital technologies.

## Conclusions

The basis of seasonality is repetition, cycle, annual peaks. This makes it possible to assess, measure and predict seasonality and, knowing what to expect from year to year, take appropriate measures to deal with this problem. Three main causes of seasonality can be distinguished: natural, institutional and others - exclusive sports, events, social pressure, fashion, traditions, inertia, calendar effect.

Seasonality affects every sector of the market. Understanding seasonality in business and finance is important because it can help businesses and investors anticipate and prepare for changes in demand, supply and market conditions. By analyzing historical patterns of seasonality, companies can make better decisions about inventory management, marketing campaigns and resource allocation. Many different non-financial indicators and relative financial indicators are indicated in the scientific literature and calculated in practice. Each analyst chooses a methodological tool for analysis that best reflects the goals of the analysis and the needs of the users of its results. It is often inappropriate for the analyst to calculate all the indicators, and it is better to choose ratios from each group that best reflect the purpose of the analysis.

After assessing the influence of seasonality on the performance results of JSC "Serenika", it was determined that seasonality occurs in the activities of JSC "Serenika" for both natural and institutional reasons. The effects of seasonality can be mitigated in several ways: increasing off-peak demand, reducing peak demand, and splitting demand. The first method is most often used, which can be implemented with the help

of marketing tools. Marketing is used as a factor to increase sales, which in turn helps to overcome the problem of seasonality.

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## POSSIBILITIES OF ATTRACTING FINANCING SOURCES TO START-UP COMPANIES

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Keywords: *Startup, innovations, financing.*

### Abstract

Early-staged companies or start-ups are one of the main drivers of economic growth and innovation in the modern economy. In recent years, Lithuania has become an increasingly attractive place for startups due to its favorable business environment and talented workforce. However, one of the main challenges faced by startups in Lithuania is attracting funding sources for their development and growth. The article will focus on different types of funding, including venture capital, angel investment and crowdfunding, and analyze their advantages and disadvantages for start-ups.

### Introduction

Attracting funding sources is a critical part of success for any startup company. Funding opportunities for startups is a fairly common topic in publications by foreign authors who write about finance and investment opportunities. As an example, E. Ries (2015) in his book talks about how startups can raise and use venture capital to grow and improve their business. In their book, B. Feld and J. Meldelson (2012) offer a detailed analysis of venture capital financing options and legal aspects related to this type of financing. The book by Cremades (2012) includes a detailed report on how to raise capital for startups and how to achieve success in this field. Angel investment options and options for investing in technology startups are also described (Calacanis, 2017).

Lithuanian authors also explore this topic and offer advice on how to successfully attract funding. In the article "Startup Funding Possibilities Analysis" (Neverauskaitė, 2018) analyzes different sources of funding for startups, such as banks, venture capital funds, business angels and others. The author presents the advantages and disadvantages of each source, as well as advice on how to prepare a suitable investment proposal and how to prepare for negotiations with investors. In the study "Startup funding opportunities" (Maknavičienė, 2019) examines funding sources operating in Lithuania and offers advice on how to attract investments. The author provides recommendations on how to properly prepare for an investment proposal, what data must be provided and how to properly communicate with investors. In the article "Features and effects of business angel investments in startups" (Maldeikienė, 2017) examines how business angels can help attract financing for startup companies. The author presents the peculiarities of business angel investing and tips on how to properly prepare for an investment proposal and how to properly communicate with business angels.

From these studies, it can be concluded that in order to successfully attract sources of financing, it is necessary to properly prepare an investment proposal, present a clear and attractive business idea, properly communicate with investors and choose the most suitable source of financing.

The lack of funding sources for start-up companies in Lithuania is one of the biggest obstacles to their development. Foreign literature often emphasizes the importance of venture capital and private investment in financing start-ups. For example, the article "The Lean LaunchPad - From the Beginning" (Blank, 2016) states that attracting venture capital companies is one of the most important factors promoting the success of startups. Also, the book *The Future of Capitalism: Facing the New Anxieties* (Collier, 2018) puts forward the idea that encouraging private investment in early-stage companies is an important factor contributing to innovation and economic growth.

In Lithuania, the lack of funding sources is particularly relevant for start-up companies seeking to grow and develop their business. The high level of bank requirements and limited funding sources are obstacles that prevent new startups from achieving their goals. In addition, there is a lack of investors in Lithuania who are ready to invest in risky startup business ideas, and a greater commitment of the state and the public sector to promote this activity is also needed.

This topic is particularly relevant not only in Lithuania, but also in other countries that also seek to create favorable conditions for the growth and development of new startups. Therefore, researching the topic of attracting funding sources is important to find out how to promote venture capital investments and alternative sources of funding to ensure a successful startup ecosystem that benefits not only new startups but also the country's economy in general.

**The object or article** is financing sources to start-up companies.

**The aim of article** is to analyse the possibilities of attracting financing sources to start-up companies.

**The objectives of article:**

1. To identify the concept and role of start-up companies in the country's economy.
2. To examine funding sources for start-up companies.

**The methods of research:** deductive and inductive methods, using scientific literature analysis, systematic, comparison, generalization.

### **Identification of concept and role of start-up companies in the country's economy**

Early-staged companies or start-ups are one of the main drivers of economic growth and innovation in the modern economy. In recent years, Lithuania has become an increasingly attractive place for startups due to its favorable business environment and talented workforce. However, one of the main challenges faced by startups in Lithuania is attracting funding sources for their development and growth.

Analyzing the concept of start-ups involves understanding the fundamental aspects that make these companies unique. Startups are characterized by a high level of uncertainty and risk, as they often operate in untested markets and have limited resources. They rely on funding from outside sources such as venture capitalists, angel investors or crowdfunding to fund their growth and development. Startups are also known for their agile and innovative approach to problem solving as they strive to rapidly iterate and change their business model based on customer and market feedback (Horowitz, 2016).

The word "startup" comes from the English word "startup", which means a new, often innovative business project that needs market penetration. Startups are often small or medium-sized companies that are looking for innovative ways to enter a market or create a new market. These are often high-risk projects with high levels of uncertainty and risk because they often operate in untested markets and have limited resources. A startup is a newly established and usually innovative company that is developing a scalable and repeatable business model. These are typically small and nimble organizations whose activities involve a high level of uncertainty and risk. They have little proven product or service viability and hope to refine their business model through customer and market experimentation (Ries, 2015). A startup is a new and innovative company that seeks to solve a particular problem or capitalize on an opportunity with its product or service. They may have an imprecise business model and are still trying to identify their market, but their idea and approach is innovative and playful. Startups are characterized by creativity, courage and the ability to quickly respond to market changes and feedback (Maurya, 2017).

Startups are characterized by a high level of uncertainty and risk, as they often operate in untested markets and have limited resources. They may have a minimum viable product or prototype, but are still developing their business model and testing their product's market fit. To finance their growth and development, startups often use funding from outside sources, such as venture capitalists, angel investors, or crowdfunding. They are also known for their agile and innovative approach to problem solving as they work to rapidly iterate and transform their business model based on customer and market feedback. Thus, start-ups often operate in unknown markets and have limited resources at the start of their operations, so their activities are accompanied by a high level of uncertainty and risk. While startups may have an initial prototype of a product or service, they are still refining their business model and testing their products to meet market needs.

Startups may have a minimum viable product or prototype, but are still developing their business model and testing their product's market fit. To finance their growth and development, startups often use funding from outside sources, such as venture capitalists, angel investors, or crowdfunding. Startups are also known for their agile and innovative approach to problem solving, as they work to rapidly iterate and transform their business model based on customer and market feedback.

Therefore, the meaning of the word startup and the specifics of the activity are discussed below:

- ✓ A start-up is a small, young, fast-growing company that has an interesting idea base and aims to transform its idea into a business that is attractive and competitive for market needs (Kubilius, 2018).

- ✓ A start-up is a company that has chosen an unconventional business model, which is based on new ideas, technologies, market needs, and at the same time usually with less capital and knowledge base, but with a higher risk level and faster growth (Urbelis, 2017).
- ✓ Startup - a business project that is based on an innovative, unique or little-tested solution, according to which the offered product or service is in demand by the market share, in the absence of target users or market size assessments (Glodas, 2014).

Thus, in this article, a start-up is understood as a newly established company or business project, the goal of which is to create a new product or service and achieve success in the market. Startups are often associated with new technology and innovation solutions that can change the market and business models.

Start-ups play a vital role in driving the growth and development of a country's economy. They often drive innovation, job creation and productivity, which are essential components of a thriving economy. This analysis examines the various ways in which start-ups contribute to a country's economy.

First, startups are often at the forefront of technological innovation, creating new products, services and processes that drive progress and economic growth. They are generally more agile and nimble than larger, established companies, allowing them to quickly respond to market changes and adapt to emerging trends. By introducing new and innovative products and services, startups can create new markets and disrupt existing ones, resulting in increased competition and efficiency.

Second, start-ups contribute significantly to job creation in the country. They often require a variety of skills and knowledge, providing job opportunities for a variety of individuals. Startups also tend to hire young and ambitious employees who are looking for opportunities to grow and develop their skills, resulting in a more dynamic and motivated workforce. Additionally, the multiplier effect of job creation in new businesses can increase consumer spending, increase demand for goods and services, and further contribute to economic growth (Osterwalder, 2010).

Third, start-ups contribute to the diversification of the country's economy by reducing dependence on a single industry or sector. This diversity provides a buffer against economic shocks and reduces the risk of a sector-specific downturn leading to a recession. New companies can also provide opportunities for collaboration and knowledge sharing with other companies and industries, which will lead to further innovation and growth.

Fourth, startups often attract investment from venture capitalists, angel investors, and other sources, increasing capital flows into the economy. This funding gives start-ups the resources they need to grow and develop, driving further innovation and job creation. In addition, investment in startups can lead to the development of new industries and sectors, further diversifying the economy and creating new growth opportunities (Kawasaki, 2017).

In conclusion, start-ups play an important role in promoting the growth and development of a country's economy. With their innovation, job creation, economic diversification and investment attraction, startups contribute significantly to the overall economic results of the country. Thus, policymakers, investors and other stakeholders should strive to support and encourage the growth and success of start-ups, ensuring continued economic prosperity and progress.

### **Funding sources and their attracting for start-up companies**

Funding is essential for businesses, whether established or emerging. Without the right financing, it can be difficult for a business to start, grow or even survive. There are various sources of funding and they can be divided into several categories.

The classification of funding sources is described in Aleknevičienė's (2017) textbook and is divided into the following main types (see Figure 1). Internal means of financing are sources with the help of which the company can finance its activities using internal resources and financial instruments.

These sources include:

- Capital, which consists of the company's owners' investment in the company's capital, such as shareholders' contributions and profit balances.
- Profit reserves, which are a part of the company's profit, which does not reduce the shareholders' capital, but is used for investments and other activities.
- Long-term borrowing, such as bonds and loans, that must be repaid over a period longer than the annual financial cycle.

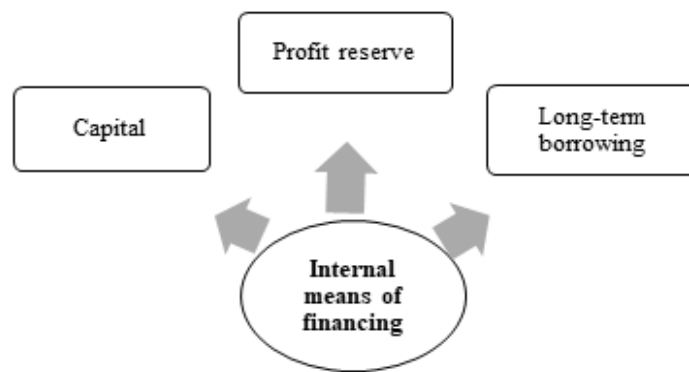


Fig. 1 Internal means of financing

*\*Source: Aleknevičienė, 2017*

External financing means are sources with the help of which the company can finance its activities by using external financial means, such as:

- Short-term loans that are intended to finance the company's short-term needs.
- Long-term loans, which are intended to finance the long-term needs of the company.
- Bonds, which are a borrowing tool used by companies and governments to obtain financing.
- Securities, such as shares, which give the right to the company's profits and the right to vote in the company's decision-making process.
- Leasing, which is a form of financing where a company leases a fixed asset with the option to purchase it after a certain period of time (see Figure 2).

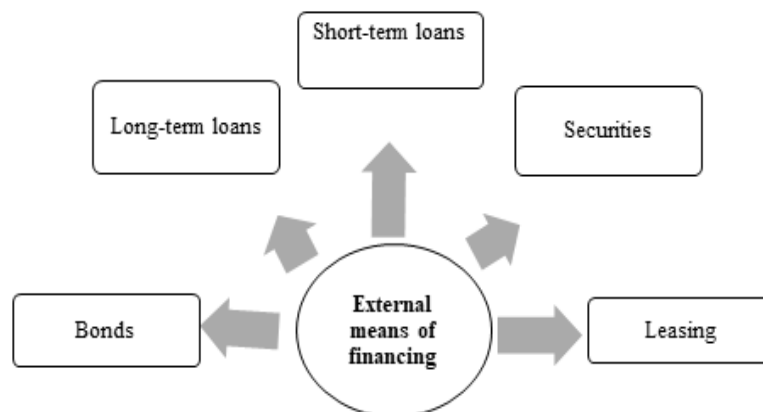


Fig. 2 External means of financing

*\*Source: Aleknevičienė, 2017*

Specialized funding sources are sources that are intended to finance certain activities or projects. These sources include:

- Venture capital - these are investments in start-up or growing companies that have high growth potential, but are not yet profitable or have little profit. Venture capital differs from traditional sources of financing because venture capitalists invest not only money, but also experience, knowledge and contacts.
- State funding - this is funding received from state institutions, such as the state budget or the structural funds of the European Union. This funding is used to promote business development, innovation or to help companies solve social or environmental problems.
- Mezzanine financing is a form of financing that is at an intermediate level between shareholders and borrowers. This means that mezzanine capital has both debt and equity characteristics. Mezzanine financing is usually used to finance the growth of companies or to finance takeover operations.
- Crowdfunding is a form of financing characterized by the fact that the source of financing is many individuals who want to invest in a specific project or company. Crowdfunding is a popular method of financing startups, artists, innovators, and other creative projects (see Figure 3).

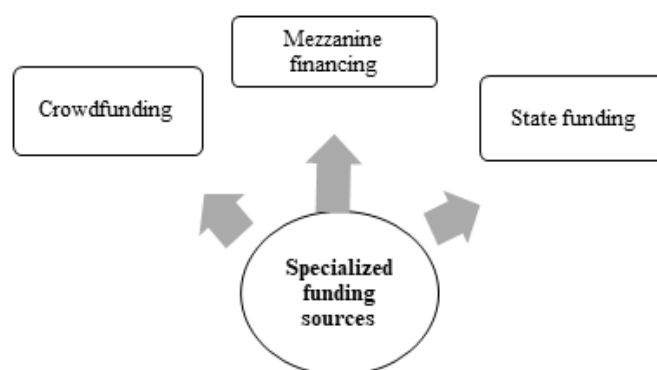


Fig. 3 Specialized funding sources  
\*Source: Aleknevičienė, 2017

The first category of financing sources is - equity financing involves selling part of the business's ownership to investors in exchange for financing. Investors become shareholders, which means they share in the profits and losses of the business. Equity financing is commonly used by start-ups and early-stage companies that do not have profits or assets to use as collateral. Venture capitalists, angel investors, and crowdfunding platforms are examples of sources of equity financing.

The second category is debt financing, where money is borrowed from a lender or creditor with a promise to repay the loan within a certain period of time, usually with interest. Debt financing is usually used by established companies with profits, assets used as collateral, and a good credit score. Banks, credit unions, and other financial institutions are examples of sources of debt financing.

The third category is state funding. Government funding includes funding provided by governmental entities such as local, state, or federal government. Funding can be in the form of grants, loans or tax incentives. Government funding is most commonly used by businesses with a social impact, such as non-profits, social enterprises or businesses operating in underserved areas.

The fourth category is alternative financing. Alternative financing includes sources of financing that are not traditional, such as peer-to-peer lending, invoice financing, and factoring. These sources of financing can be used by companies that do not meet the requirements of traditional financing or have unique financing needs.

The fifth category is personal financing. Personal finance involves using personal funds to finance a business, such as savings, credit cards or personal loans. Personal financing can be used by entrepreneurs who do not have access to traditional financing or do not want to share ownership with investors (Blank, 2016).

Equity financing is one of the most common sources of funding for startups. This involves selling ownership of the company to investors in exchange for capital. Venture capitalists and angel investors are the most common sources of equity financing for startups. These investors typically look for fast-growing companies with high profit potential. To raise equity funding, startups need a solid business plan, a clear value proposition and a strong team. They must also be able to demonstrate their potential for growth and profitability (Thiel, 2014).

There are several programs and companies in Lithuania that provide financing services for startups (VšĮ Versli Lietuva, 2023):

- "Startup.lt" is the innovative economy association of Lithuania, which provides initial financing for start-ups and organizes the conference of the Lithuanian business angel network every year.
- "LitBAN" is a network of Lithuanian business angels that aims to help startups get venture capital. LitBAN also advises startups on business development and financing.
- "Invega" is a Lithuanian business promotion agency that provides various financing services and support to startups that are new and innovative.
- "Open Circle Capital" is a venture capital fund focused on innovative and technologically advanced startups. The foundation also provides advice on business development and financing.
- "Iron Wolf Capital" is an investment fund that provides venture capital to innovative start-ups focused on IT and other technology areas.

Debt financing is another source of financing for start-ups. It involves borrowing money from lenders or creditors with a promise to pay it back with interest. Banks and other financial institutions are the most common sources of debt financing for startups. To attract debt financing, start-ups must have a good credit history, collateral and a well-developed business plan that demonstrates their ability to generate revenue and repay the loan.

Government funding is also an option for start-ups. This source of funding often comes in the form of grants, loans or tax incentives. Start-ups with a social impact, such as non-profit organizations, social enterprises or businesses that operate in underserved areas, can receive government funding. To attract government funding, start-ups must have a solid business plan and demonstrate their potential to make a positive impact on their communities.

Alternative financing is a newer source of funding for startups. This includes crowdfunding, peer-to-peer lending and other forms of non-traditional financing. To attract alternative funding, startups need a compelling story and value proposition. They must also be able to demonstrate their revenue potential and deliver on their promises.

Finally, personal financing is another option for startups. This source of financing involves using personal funds, such as savings, credit cards or personal loans, to finance the business. Personal financing can be an option for entrepreneurs who do not have access to traditional sources of financing or who want to avoid sharing equity with investors (Thiel, 2014).

In conclusion, financing is very important for the start-up, growth and success of a business. Funding sources can be divided into several categories, including equity financing, debt financing, government financing, alternative financing, and personal financing. Understanding the different types of financing sources can help businesses determine which source best suits their specific needs and goals.

Startups need funding to start and grow their business. However, attracting funding sources can be a difficult task. Investors and lenders are often hesitant to invest in startups because of the risks involved.

In order to raise funding for a startup business, there are several important aspects that should be followed. First, it is essential to have a clear and attractive business idea. Other elements would include describing the product or service in detail, demonstrating a market need, and showing how the business can successfully compete with other players in the market. A professional and reliable team will provide the first boost. Investors want to know that their invested money is safe and that the team is competent and experienced. Preparing a suitable financial strategy will indicate risk and will enable a certain preparation. Financial goals have to be determined, and questions like how to return investors' money and what other opportunities lie within the business model. Another key element is preparing financial data to check for performance and how well the business is poised to grow. This means that accurate financial indicators have to be submitted regularly.

Finally, startup owners should talk to potential investors as much as possible and gain their trust. Investors need to be convinced that the business has potential and that they will be able to make a profit on their investment. Therefore, it is important to understand their needs and expectations so that this can be adapted to their requirements and a suitable investment plan could be offered. (Ries, 2015).

Creating a startup is an exciting and challenging process of creating a new, innovative and valuable product or service idea. A startup aims to achieve massive success and become an influential player in its market area. During this process, startup developers have to face many challenges such as finding funding, competition, understanding market needs, etc.

In the diagram (Fig.4) shown what components are needed for the creation of a startup (Blank, 2016):

- The idea is to figure out what problems product or service will solve. Assess market demand and opportunities. It is important to understand, offer, to whom and why the offer is valuable.
- Product/Prototype - Create a Minimum Value Product or prototype to test the idea in the market and gather feedback.
- Marketing – to determine the target audience and distribution strategy. Analyze the market and market needs in detail. It is important to choose a field in which the idea feels most fit and startup developer has sufficient knowledge and experience.
- Funding - determine funding requirements and strategy. Will own startup owner funds be used, will venture capital be sought, or will other financing options be used?
- Team – building a startup team. Essential is to have a reliable and professional team and to choose people whose competencies and experience match the startup's needs and goals.

- Test - is to create a product or service and get feedback from customers of companies. Business model has to be tested and its effectiveness evaluate. Collected information and experience will enable easier penetration into the market. Start-up owners have to talk to industry experts and investors, monitor the market and competitors to better assess the business sector.
- Scalability – extremely important to plan the growth of the startup, business development, and scaling.

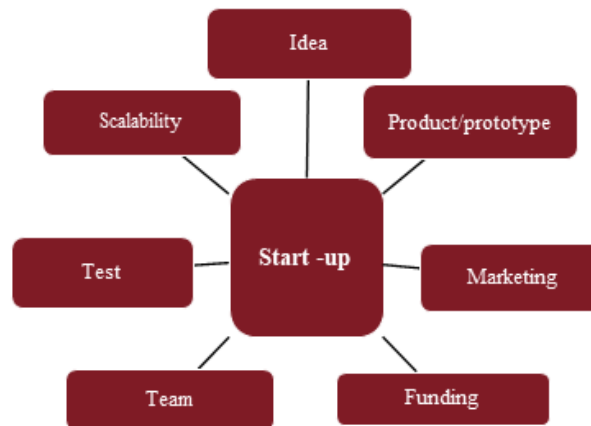


Fig. 4 Creating a startup  
\*Source: (Blank, 2016)

After discussing the above aspects, it can be said that one of the most important points is finding a suitable source of funding. Finding the right source of funding can be challenging as is a necessity to find an investor who is interested in investing in a specific startup idea.

Fundraising analysis is very important for startups, as it can help them decide where to look for funding and how best to attract investment. Examples of some important criteria and measurements that can be used in this analysis include:

- o Risk level - the main criterion, because it can determine how easy or difficult it will be to attract financing from different sources. This can be measured by the share of venture capital fund investments that the startup has received, which is related to the level of risk, and it can also be measured by the company's long-term borrowing capacity.

- o Business size and growth potential - another important criterion that shows how attractive the startup idea and its potential growth are to investors. This can be measured by the company's profits, sales growth rates, profit margins, and other indicators that show how well the company is performing and what its growth prospects are.

- o Company structure and management - can have a significant impact on the possibilities of attracting funding sources. This can be measured by the experience of the company's management and managers, its operational structure and processes, as well as by the number of partnership agreements with other companies and organizations.

- o The number of users/customers and the reaction to the product or service is another important criterion. This can be measured by user adoption of the product/service, level of customer loyalty, feedback, sales growth rates, etc.

- o Competition is an important criterion that can affect the possibilities of attracting investments. This can be measured by the number of competitors, the scale of their operations, the quality of their product/service and the level of innovation.

- o Financial indicators - such as company value, asset-to-debt ratio, profitability, etc., can also be important criteria for the analysis of attracting funding sources.

- o Legal requirements - related to borrowing, risk capital and other sources of financing, may affect the possibilities of attracting investments. The measurement of this criterion is straightforward - it is only necessary to determine exactly what legal requirements a startup must meet in order to attract financing from specific sources.

All these criteria can be measured in different ways depending on the specific situation. For example, the share of venture capital investment and company profits can be measured in terms of money, while the number of customers and reaction to a product can be measured in qualitative data, such as the number of quality ratings or reviews. Each startup needs to consider its specific situation and determine the appropriate criteria and measurements to perform a quality fundraising analysis (Thiel, 2014).

In conclusion, it can be said that in order to start and develop a business, it is necessary to attract sources of financing. The various sources of funding available to start-ups include equity funding, debt funding, government funding, alternative funding and personal funding. To attract these sources of funding, startups must have a solid business plan, a clear value proposition, and a strong team. They must also be able to demonstrate their potential for growth and profitability. By understanding the different sources of funding and developing strategies to attract them, startups can increase their chances of success.

## Conclusions

After identifying the concept and role of start-up companies in the country's economy, it could be state, that start-ups are one of the main drivers of economic growth and innovation in the modern economy. A start-up is a small, young, fast-growing company, that has chosen an unconventional business model, based on new ideas, technologies, and market needs. The importance of promoting venture capital investments and alternative funding sources is not just relevant to Lithuania, but also to other countries seeking to create favorable conditions for startup growth and development. It is crucial to understand how to create a successful startup ecosystem that benefits both startups and the economy in general.

Despite the favorable business environment and talented workforce in Lithuania, the lack of funding sources is one of the biggest obstacles to the development of startups in the country. The high level of bank requirements and limited funding options make it difficult for new startups to achieve their goals. More commitment from the state and public sector is needed to promote this activity and encourage private investment in early-stage companies.

From the studies mentioned, it is clear that there are various funding sources available for startups, including venture capital, angel investment, and crowdfunding. Each of these sources has its advantages and disadvantages, and it is important for startups to carefully consider which option is best suited to their needs.

Proper preparation and effective communication with potential investors are also crucial for attracting funding. Startups need to prepare a clear and attractive business proposal that outlines their goals, strategies, and potential for success. They also need to be able to effectively communicate their ideas to potential investors and demonstrate their understanding of the market and the competition.

In conclusion, attracting funding sources is a critical part of success for any startup. Proper preparation and effective communication with potential investors are crucial for attracting funding. Venture capital, angel investment, and crowdfunding are some of the funding sources available to startups, each with its advantages and disadvantages. The lack of funding sources is one of the biggest obstacles to the development of startups in Lithuania, and more commitment from the state and public sector is needed to promote this activity and encourage private investment in early-stage companies.

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## ANALYSIS OF SOLVENCY RATIOS

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Keywords: *Solvency, liquidity, financial analysis, bankruptcy, bankruptcy prediction models.*

### Abstract

We live in a highly competitive world, where there are companies that are able to earn enough profit to avoid the need to borrow additional funds, or that have minimal operations. However, most companies require new investments and often apply for new loans, and this is where the solvency ratio can indicate the level to which you can borrow.

### Introduction

In a developed market, every business is exposed to more or less risk. No company can guarantee that its operations will be profitable all the time and that its services will always be in demand, without the need to change its activities, lay off employees, incur additional costs, etc. due to fluctuations in demand. In order to maximise profits, company managers take risks, do not take risks more often, do not take action at all or go bankrupt because they cannot withstand competition. Therefore, managers must be able to assess their business risks, know their limits and stay within them in order to avoid bankruptcy.

Bankruptcy of companies has become a common phenomenon in the market economy, with many negative consequences not only for the company itself, but also for the state and society. Therefore, it is very important to continue to study the problems of corporate bankruptcy and to look for new forecasting methods. Bankruptcy can be avoided if its probability is properly assessed and the initial signs of financial difficulties of the enterprise are identified in time, and if appropriate methods of solving the problems are selected, the main one being the early forecasting of bankruptcy.

In Lithuania, the concept of bankruptcy is defined in the Law on Bankruptcy of Enterprises (2001) as "the state of an insolvent enterprise when the enterprise is subject to bankruptcy proceedings in court or when the creditors of the enterprise carry out out-of-court insolvency proceedings in the enterprise". Insolvency of an enterprise is the inability to pay for what is owed (Kavalnė, Mikuckienė, Norkus and Velička, 2009). Researchers have been studying the causes and signs of bankruptcy for many years and have been trying to provide entrepreneurs with the most efficient methodologies for calculating the probability of bankruptcy. The most widely appreciated and currently the most widely used is E. Altman's Z model, which has made the greatest theoretical and practical contribution to bankruptcy prediction.

*Research problem.* It is important for a company to identify financial difficulties in its profitability and solvency in good time and to take the appropriate decision to resolve them, so it is important to analyse the causes of insolvency and the factors that stabilise the financial situation.

*Objective of the study* - To analyse the solvency indicators of the company.

*Objectives of the research.* 1. To examine the theoretical aspects of financial analysis and to learn about the main aims and objectives of financial analysis;

2. Discuss the concept of corporate solvency and examine the analysis of corporate solvency at a theoretical level;

3. Present the impact of solvency ratios on financial performance.

Research methods: analysis of Lithuanian and foreign scientific literature; comparative analysis and generalisation of data; analysis of solvency indicators; bankruptcy forecasting models.

### Meaning, aims and objectives of financial analysis

Finance (finances monetary system in French) is the system of receiving and using funds belonging to an enterprise. All resources, including finance, are acquired on the market (Bagdžiūnienė, 2006, p. 139).

The word analysis, translated from the Greek, means to divide into parts, to examine, to investigate. It is the analysis of financial information that helps to identify the causes of one or more phenomena. Economic information is analysed in a piecemeal fashion until the causes of certain phenomena are found.

N.O. Rule, N. Ambady (2011) point out that financial analysis is the economic analysis of the activities of an enterprise, which creates opportunities to assess the financial and economic performance of the enterprise. J. Mackevičius (2012) states that financial analysis is an analysis of the company's performance, a comprehensive and objective study of the company's financial position, performance and cash flows in order to help the company's management to achieve its objectives. According to V. Janovič (2012), corporate financial analysis is a tool for understanding economic processes, the purpose of which is to objectively assess the current financial condition of the company in order to make adequate management decisions and project business development prospects.

The essence of financial analysis is summarised in Figure 1.

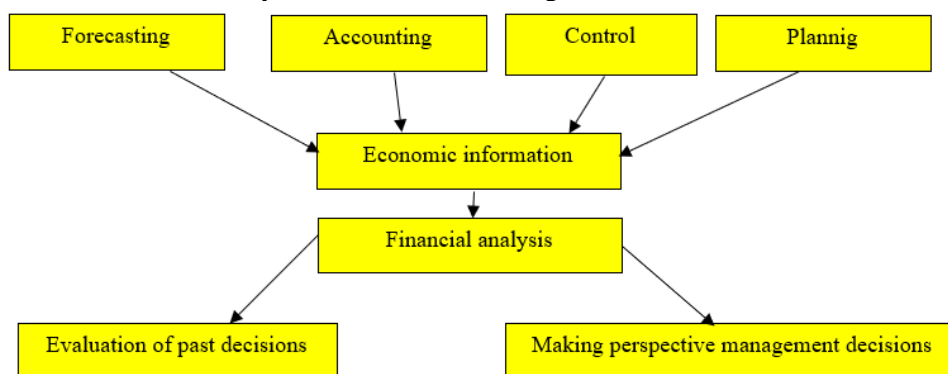


Fig. 1 The place and function of financial analysis.

*\*Source: Mackevičius, J., Poškaitė, D., 1998, p. 12*

Figure 1 shows that the main functions of a company's management system - planning, accounting, control, regulation and forecasting - generate a flow of economic information that is processed through specific analytical techniques in the financial analysis, and that the information obtained from the analysis helps to verify the validity of past decisions and to justify current and future management decisions.

In summary, financial analysis is an assessment of the financial position of an enterprise based on accounting data. It provides a better understanding of the phenomena and processes taking place in the company. Financial analysis also helps the company's managers to make optimal management decisions and appropriate options, and helps to reveal in time the shortcomings of the work of the various activities and departments of the company, and to provide measures for their elimination and for improving the efficiency of operations. The analysis reveals internal reserves, opportunities for better performance and how to rationalise the use of material, labour and financial resources.

## The nature and distribution of solvency indicators

To assess the financial condition of a company, various indicators can be calculated, the data for which are obtained from financial statements - usually the balance sheet and the profit and loss account. In order to distinguish between the aspects of the financial position to be assessed, the indicators are grouped. Both Lithuanian and foreign authors distinguish different groups of financial ratios and different indicators belonging to these groups (Mackevičius, 2006). The following main groups of financial ratios used to assess the financial condition of companies can be identified (Boguslauskas et al. 2011):

- profitability;
- liquidity;
- financial structure;
- activity.

Profitability indicators reveal the ability of a company to make investment and financing decisions and how efficiently profits are earned. Liquidity ratios (in some sources referred to as liquidity and solvency) show the company's ability to cover its liabilities over a given period of time. Financial structure indicators refer to the amount of leverage used and the level of short-term and long-term liabilities. Activity indicators show how efficiently the company's assets are used and how sales are made (Janovič, 2012).

Solvency ratios are synonymous with liquidity ratios. Solvency is the potential ability of an enterprise to pay its short-term liabilities with its available means of payment, while liquidity is its ability to convert its assets into cash. A firm is solvent when it has more means of payment than liabilities during the period considered. Solvency and liquidity are closely linked because the ability of a firm to convert assets into cash determines its ability to meet its liabilities: if it does not have sufficient cash to meet its liabilities in time, it will become insolvent.

A company's solvency reflects its financial position and is distinct from the profitability indicator that describes its performance. It is important for creditors and investors that a company is solvent and profitable. This is the ideal case. It is more difficult to assess a situation where a company is profitable but insolvent, or vice versa. Solvent but unprofitable companies need to change their focus and strategy and pursue new, profitable lines of business.

Table 1

**Relationship between solvency and profitability**

	<b>A solvent</b>	<b>Insolvent</b>
<b>Profitable</b>	Group I	Group II
<b>Unprofitable</b>	Group III	Group IV (financial crisis)

According to R. Wilson (1997) the classification of companies is as follows: 'The first box should include all companies that are profitable and solvent. These are stable and profitable companies. The second box contains those companies that are difficult to assess. Similarly, companies in the third box should be examined for reasons of unprofitability and possibly change their activities and strategy, as companies producing similar products can easily be driven out of the market. The firms in Box 4 are unprofitable and insolvent and the best solution would be to liquidate them.

Investors, shareholders, banks, suppliers and other information consumers are very interested in the solvency of companies.

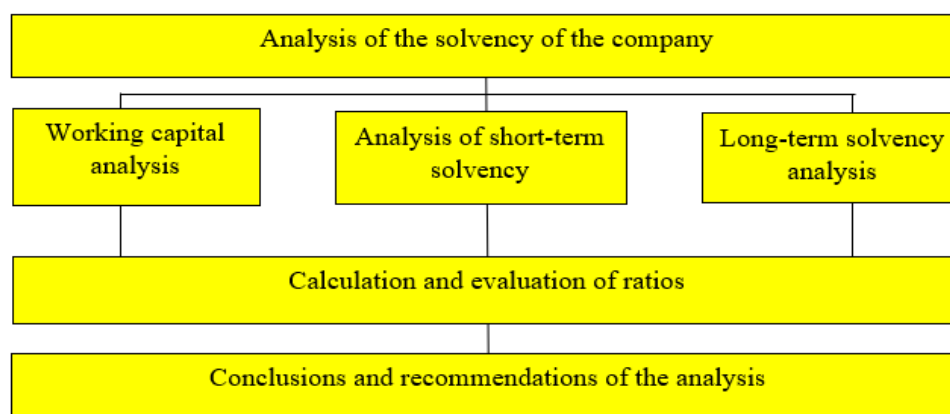


Fig. 2 Solvency analysis of the company

*\*Source: Mackevičius J., Poškaitė D. and Villis L., 2011*

Low solvency ratios are a sign to managers of problems in the company and its departments. Solvency ratios not only indicate a company's current financial health, but also the problems it may face in the future. It is therefore very important that all three groups of solvency ratios - working capital, short-term solvency and long-term solvency - are considered.

#### **Assessment of long-term and short-term solvency ratios**

Long-term solvency is the ability of an undertaking to maintain its financial equilibrium over the long term, as measured by a number of indicators. Some authors refer to them as long-term solvency and capital structure indicators, others as debt indicators and others as financial stability indicators. The lower the indicator, the better for the company.

There are several types of long-term solvency ratios: some are calculated using shareholders' equity, others using long-term liabilities, and still others using profits. However, the most important element in the analysis is capital, which measures long-term risk and the outlook for solvency.

A company's assets are built up from two sources: share capital and borrowed funds. The higher the debt/equity ratio, the riskier the company's activities, as the borrowed funds are subject to regular and timely interest payments. Therefore, when analysing the long-term solvency of a company, the following two important factors are taken into account: (1) the level of debts/liabilities, and (2) the evolution of the debt/equity ratio over time.

Liquidity, or short-term solvency, ratios show the short-term solvency of an enterprise, i.e. the ability of the enterprise to meet its short-term obligations (Mackevičius, 2007). A. V. Rutkauskas et al. (2009) describe liquidity as the ability to convert various parts of an enterprise's assets into means of payment.

Table 2

**Solvency ratios and formulae for their calculation**

Indicator	Formula	Purpose of the indicator
<b>Current solvency</b>	Current assets/ Current liabilities	Discloses the number of times current assets are higher than current liabilities.
<b>Rapid solvency</b>	Current assets - Inventories/ Current liabilities	Demonstrates the company's ability to deliver on time obligations from its most liquid asset: cash, receivables and short-term investments.
<b>Absolute solvency</b>	Cash/current liabilities	Represents the proportion of current liabilities the company can pay immediately.
<b>Net working capital</b>	Current assets - Current liabilities	Represents the amount of current assets in excess of current liabilities.

Short-term solvency indicators need to be analysed continuously, not episodically. Using Table 4, managers can predict the two most undesirable situations: when a business is expanding without adequate financial resources and when an excessive degree of solvency is achieved that is not needed in the period. The solvency of a company is represented by the difference between its current assets and current liabilities. An enterprise is solvent when, during the period under consideration, it has at least as many means of payment as liabilities.

### Assessment of solvency as a component of financial analysis

As a first step in assessing the financial position of a firm, researchers can use bankruptcy probability models. The bankruptcy probability assessment according to D. Rugenytė, V. Menciūnienė, L. Dagilienė (2010) is an opportunity to quantify the financial situation of companies. Bankruptcy probability models started from the simplest ones, which evaluated up to three indicators related to liquidity and sales. The first pioneers of bankruptcy probability models were Hickman, Mervwin, Fitzpatrick and others. Foreign and Lithuanian authors such as Altman et al. (2017) and Kanapickienė (2014) have analysed corporate bankruptcies and their prediction models. However, research has shown that only a few indicators are not sufficient to determine the probability of bankruptcy and that the models should be extended further (Rugenytė, Menciūnienė, Dagilienė, 2010). The practice from the first studies on the probability of bankruptcy has led to the development of more accurate models based on five or more financial indicators. The Altman Z-Score model is the most commonly used in research (Sanobar, 2012). According to A. Sanobar (2012), the Altman Z-Score model for determining the probability of bankruptcy of private companies has an accuracy rate of 90.9% when the probability of bankruptcy is determined at least one year prior to the company's bankruptcy.

E.Altman's bankruptcy probability indicator for businesses:

$$Z = 6.56 X_1 + 3.26 X_2 + 6.72 X_3 + 1.05 X_4$$

Where:

$X_1$  = Working capital / Assets

$X_2$  = Retained earnings (loss) / Assets

$X_3$  = Profit (loss) before tax / Assets

$X_4$  = Equity / Liabilities

$X_5$  = Sales revenue/Assets

The Z-model is designed to assess the probability of bankruptcy for companies listed on a stock exchange. If the Z-value is less than 1.80, the probability of bankruptcy is very high. When the Z-values are between 1.81 and 2.70, the probability of bankruptcy is high, and between 2.80 and 2.90, bankruptcy is possible. The probability of bankruptcy is very low if the Z-value is above 3.00.

## Conclusions

Financial analysis is the process of converting a company's data into useful information by applying various analytical techniques and methods. Liquidity analysis is one of the most important components of financial analysis. A correct assessment of the situation enables: 1. companies to identify the specific market situation, to discover problem areas, to identify prospects, and to identify opportunities for business continuity; 2. investors to choose the right company to invest in, based on their tolerance for risk and the required profitability; 3. creditors to decide on the granting of a loan, its terms and conditions and its maturity.

The literature review suggests that bankruptcy is the inability of an enterprise to pay its creditors and meet its various financial obligations. Investigating bankruptcy is necessary because bankruptcy can be avoided, it is only important to diagnose the initial signs and identify the causes in time.

Summarising the relationship between solvency and profitability indicators and bankruptcy prediction models, it can be said that, solvency and profitability indicators are of great importance for bankruptcy prediction models, but the analysis of the relationship between solvency and profitability indicators is of even greater importance.

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## LOBBYING ACTIVITIES, ITS CONDITIONS AND ASPECTS IN LITHUANIA

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Keywords: *lobbying, lobbying activities.*

### Abstract

This article analyzes lobbying activities in Lithuania and its conditions. The aim of the article is to analyze lobbying activities and legal regulation in Lithuania. The main tasks are: to analyze the conditions of lobbying activities in Lithuania, to assess the effectiveness of the law on lobbying activities; to review trends in the development of lobbying activities in 2020-2021 In Lithuania.

### Introduction

Relations between representatives of public authorities and lobbyists, as well as groups of subjects distinguished on the basis of each characteristic, have a certain specificity. From the significance of this specificity recognition depends on whether a separate legal regulation is established for specific public relations. Political decisions are the result of negotiations between separate, intersecting interests, the needs of interest groups are extremely important and can often have a significant impact on decision-making. Therefore, in this case, the activities carried out by lobbyists are often perceived as the main tool that helps to convey the interests of a certain public group or business organization to government representatives. Although the basic principles of lobbying in modern society are widely discussed and well known, certain shortcomings of presentation can still be observed. It should be mentioned that the importance of the media in the modern political arena is undeniably important. Lobbying today is one of the essential tools for public representation and cooperation with local and higher authorities. The public's perception of lobbyists is often only of a general nature, as the image formed by the media creates a false opinion about the principles of operation of lobbyists. It can be noticed that a considerable part of the public cannot even clearly name who lobbyists are, what activities they carry out, whose interests they represent or how it works in the public space. For these reasons, it can be said that the concept of lobbying, the characteristics of lobbying activities, the legal aspects of regulation and operation in Lithuania have not been sufficiently studied and require a detailed investigation.

**The subject of the article.** Lobbying activities.

**The purpose of the article.** To analyze the lobbying activity, aspects in Lithuania after the new legal regulation.

**Tasks of the article:**

1. To present the theoretical aspects of the concept of lobbying.
2. To analyze the peculiarities of lobbying activities in Lithuania in 2020-2021.

**Research methods.** Analysis of sources of scientific literature, analysis of normative legal acts, analysis of statistical data.

### Concept of lobbying activities and lobbyist

Lobbying activities are the actions of a natural person, the actions of a legal person or another organization or their units, which aim to influence state politicians, state officials, civil servants and other persons (who, according to the procedure established by law, participate in the preparation, consideration draft legal acts and their adoption) so that legal acts are adopted or not adopted in the interests of the client of lobbying activities or the beneficiary of lobbying activities (Law of the Republic of Lithuania on Lobbying Activities // TAR. 2020, No. XIII-3170, current version from 01.01.2021 ).

When trying to define lobbyism in Lithuania, two concepts are distinguished: lobbying and lobbying activities. Analyzing regulation of lobbying in Lithuania and the standards of OECD, Monika Ambrasaitė (2016) claims that the term "lobbyism" is used in Lithuania to define lobbying as a phenomenon or process. The term "lobbying activity" is used to describe lobbying in a narrow sense, i.e. i.e. to define the practical actions of lobbying. The definition of lobbying as a phenomenon used most often in the works of authors studying lobbying is as follows: lobbying is a process during which the opinion of a group, organization or

part of it is transmitted to both elected and appointed government officials, with the aim of influencing government officials to accept that a truly group or organization friendly solution. At the same time, it should be noted that lobbying does not stop only at the legislature. Lobbying can be used to influence the actions of courts, administrative institutions and law enforcement authorities (Senkus, 2014).

Lobbying activities (lobbyism in the narrow sense) in Lithuania are defined as the actions of lobbyists aimed at influencing representatives of the legislative or executive authorities in order to change, supplement or recognize certain legal acts as having lost their validity, as well as to adopt or reject new drafts of legal acts. These lobbying activities can be paid or unpaid. It should be noted that when carrying out lobbying activities, the lobbyist must not violate the rights of individuals or the interests of society and the state and act only in defense of the client's legitimate interests. The main tasks of such lobbying activities are the transmission of the right message, the right form of presentation of the information contained in this message, the presentation of this information to the right people and its presentation at the right time, as well as the transmitted information must properly express the problem (Senkus, 2014).

Lobbying is not a new phenomenon in the United States. In this country, the term "lobbying" has a well-defined meaning, it means approaching and persuading members of the legislative or executive branch with the aim of influencing their vote. In a broad sense, lobbying in the US is an integral part of the legislative process, as lobbying is used to convey people's needs and preferences to legislators. Similarly, lobbying is understood in the European Union and its institutions. Here, lobbying is accepted as an integral part of EU policymaking, so the work of EU institutions would be unthinkable without lobbying and lobbying activities. Thus, the phenomenon of lobbying includes the activities of interest groups that aim to influence politicians to make decisions that are necessary or favorable only to certain interest groups. Lobbying can be legal when the lobbyist declares which interest group he represents, the interests of that group and the funds spent for that purpose, and illegal when the lobbyist hides the interest group that hired him, the interests of that group and the financial resources spent or spent on behalf of this group (Ronalas J. Hrebenaras, Clive S. Thomas, 2002).

Lobbying activities (lobbyism in the narrow sense) in Lithuania are defined as the actions of lobbyists aimed at influencing representatives of the legislative or executive authorities in order to change, supplement or recognize certain legal acts as having lost their validity, as well as to adopt or reject new drafts of legal acts. These lobbying activities can be paid or unpaid. It should be noted that when carrying out lobbying activities, the lobbyist must not violate the rights of individuals or the interests of society and the state and act only in defense of the client's legitimate interests. The main tasks of such lobbying activities are the transmission of the right message, the right form of presentation of the information contained in this message, the presentation of this information to the right people and its presentation at the right time, as well as the transmitted information must properly express the problem (Senkus, 2014).

"Lobbyist" is defined as a person who represents an interest group and tries to influence government decisions in its favor in the corridors of government institutions. Represented interest groups pay for lobbyists. For their part, lobbyists try to make sure that the state authorities know the needs of their representatives and that the organizations that hire them know about the actions of the authorities. It is believed that lobbyists are valued for their experience and knowledge of how state institutions work. They are often people who worked as civil servants in the legislative or executive branch where they gained experience (Senkus, 2014).

More broadly, a lobbyist can be defined as a person who is appointed or hired by an interest group to make it easier for the group they represent to influence public policy. development and supervision of his group's lobbying activities.

In the United States media, the term lobbyist is often used in a general sense, giving the impression that all lobbyists operate in a similar way. A lobbyist is often thought of as someone who spends most of their time trying to convince legislators or government officials of the relevance of the issue they represent. The public, due to the influence of the media, understands the term lobbyist in a general sense (Ronalas J. Hrebenaras, Clive S. Thomas, 2002).



## Legal regulation of lobbying activities

The first attempts to legally regulate lobbying activities in Lithuania appeared immediately after the restoration of independence. The formed working group was obliged to prepare a draft law on lobbying activities, but the prepared draft was not considered by the parliament (Lukošaitis, 2011). Further attempts were more successful, since the resolution of July 14, 1997 no. 756, when it was proposed to prepare a draft law on lobbying activities of the Republic of Lithuania. The established working group prepared a project focused on the problems of legal regulation of lobbying activities, which was adopted by the Seimas on June 27, 2000 (Law of the Republic of Lithuania on Lobbying Activities, 2021). The main goal of the Law on Lobbying Activities - to regulate publicity and ensure transparency, preventing illegal lobbying activities and corruption - was not achieved, therefore a new version of the law was adopted on March 20, 2003.

The first lobbying law in the country was valid for three years. According to Petros Ragauskas, when evaluating this law, it is necessary to note that "the regulation of this area by a special act with the force of law was not an authentic aspiration of the Lithuanian authorities dictated by internal maturity and self-realized needs". The author criticizes the original version of the law and claims that another, more important goal was hidden under the alleged national goals of regulating lobbying activities: preparation for membership in the European Union. On the other hand, speaking about the content of the special law, P. Ragauskas describes it as "a creation of national legal and political consciousness" (Ragauskas, 2011). The first Law on Lobbying in Lithuania had many inaccuracies and loopholes, but despite this, it is necessary to mention that by adopting this law, Lithuania joined the ranks of states that regulate lobbying at the national level.

According to A. Lukošaitis, the operation of the Law on Lobbying Activities in Lithuania was hindered not only by errors in the content of the law itself or inappropriately chosen measures of legal regulatory effectiveness, but also by the lack of traditions of lobbying activities, unfavorable public attitude and the socio-cultural context of the country (Lukošaitis, 2011). In addition to these problems, Mr. Ragauskas also emphasizes another mistake, such as the search for an "ideal model", when, without taking into account the case of Lithuanian lobbying activities, the aim was to integrate the lobbying regulation model successfully operating in the USA. It is obvious that it was necessary to adjust the Law on Lobbying in Lithuania (Ragauskas, 2011). Taking this into account, a new version of the Law on Lobbying was adopted on March 20, 2003, which was valid until 2017 with the amendments of 2012. From 2021, not only lobbyists, but also persons who have experienced lobbying influence (i.e. personally received a proposal from a lobbyist regarding specific provisions of the legal act) must declare their lobbying activities. The possibility of cross-checking the submitted declarations and, if necessary, the Supreme Service Ethics Commission can take preventive actions. Not only a natural person, but also a legal entity can register as a lobbyist. And persons who are not subject to the Law on Lobbying, but who want to become the initiators of the legislature, in accordance with the Territorial Planning Law, can voluntarily enroll in the list of persons influencing the legislature. Those registered in this list have the right to receive information from the institutions about the draft legal acts prepared by the latter according to the areas of legal regulation specified in the application. Inaugurating legislators must declare their activities once a year (Vyriausioji tarnybinės etikos komisija, 2022 <https://vtek.lt/lobistine-veikla/naujas-reglamentavimas/>).

Law of the Republic of Lithuania on Lobbying Activities (Law on Lobbying Activities of the Republic of Lithuania, 2021). consists of 4 sections with a total of 18 articles. The first section of the law defines the purpose and tasks of the law, the main concepts, the rights and obligations of lobbyists and other persons. Persons who do not have the right to be lobbyists and persons who are prohibited from being clients of lobbying activities are also named. The first section of the law clearly defines what lobbying activities are considered illegal and what activities are not considered lobbying. The second section of the law is intended to approve lobbyist registration procedures, to summarize the conditions for suspension, resumption, termination and termination of lobbying activities. In addition, the procedure for submitting a lobbying activity report and other restrictions on lobbying activities are specified. The third section deals with the control of lobbying activities and the provision of information, and the last section provides for liability for violations of this law.

Regulation of lobbying activities in Europe and around the world is not a common and self-evident phenomenon. In many developed countries of the world, such as Australia, Belgium, Denmark, Greece, Italy, Japan, etc., there are no laws, regulations or procedures to regulate lobbying. Meanwhile, after adopting the Law on Lobbying, Lithuania joined other states that regulate lobbying, such as Poland, the United Kingdom, France, Slovenia, Austria and Ireland.

Milda Petrauskienė, deputy chairwoman of the State Administration and Municipalities Committee of the Seimas of the Republic of Lithuania, states that "lobbying can improve the quality of decision-making, opening the way for professionals with specific knowledge to help legislators and decision-makers in solving increasingly complex issues. Until now, the lack of clear rules and transparency causes public not only doubts, but also mistrust. Therefore, proper regulation, transparency and publicity of lobbying activities are not only very important, but also necessary." It is likely that the legal regulation of Lithuanian lobbying has not been finalized and certain changes in this area are still waiting for their turn.

Summing up what has been mentioned, it can be stated that the legal regulation of lobbying activities until 2021 did not ensure the solution of lobbying problems prevailing in the country. After regaining Lithuania's Independence, the first attempts to regulate lobbying activities appeared, which ended unsuccessfully. The currently valid law on lobbying activities regulates lobbying activities more strictly, as a result of which the public's opinion towards lobbyists is improving. Because there is less risk of corruption.

### Summarizing trends in the development of lobbying activities in Lithuania

It can often be observed that lobbying activities in the public sphere in Lithuania are often associated with corruption. Therefore, it can be assumed that this is due to the fact that in practice there are often attempts to circumvent the legal regulation of lobbying, and one of the most common cases is when, in order to avoid publicity, one does not want to officially hire a lobbyist and pay taxes, a non-profit organization is established, and thus there are no legal obligations to register and to submit lobbying activity reports to the Supreme Commission for Official Ethics (hereinafter - VTEK) and to comply with the regulations applicable to lobbying activities. Sometimes such organizations turn out to be supposed associations, founded for the immediate effect of one or another legislative process.

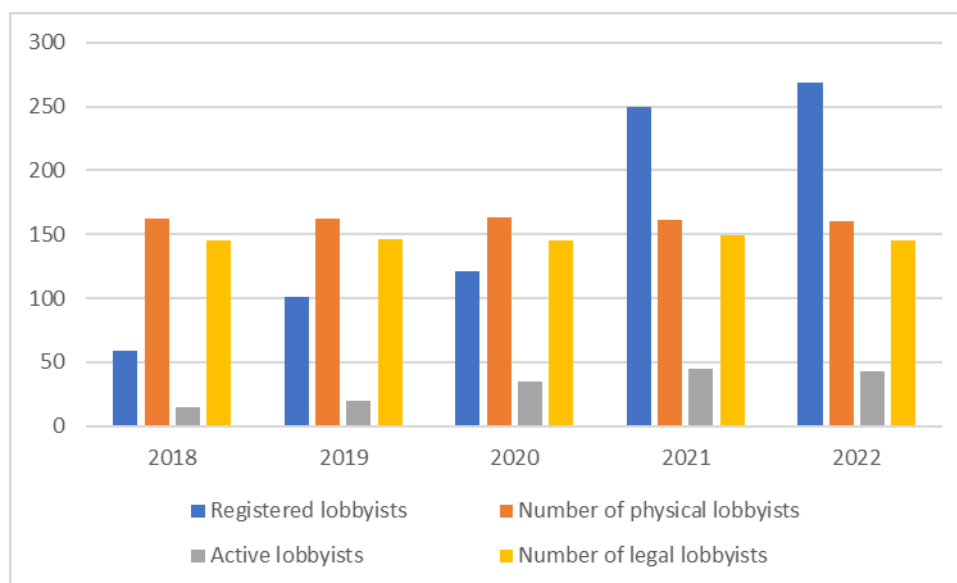


Fig. 1 Registration and performance of lobbyists in Lithuania in 2013-2022

Based on the results of document analysis (Fig. 1, Fig. 2), it can be stated that, according to the current Law on Lobbying Activities (the law was adopted in 2000), the number of individuals and legal entities registered as lobbyists tended to increase every year. However, the same cannot be said about the lobbying activities carried out by registered lobbyists, because as we can see from the data presented, the number of active lobbyists is significantly lower compared to registered lobbyists. Therefore, it is wrong to say that the extent of lobbying depends on the number of registered lobbyists. Based on the reports of lobbying activities of the last calendar year submitted to VTEK by registered lobbyists, it becomes clear that the trends of activities carried out by lobbyists are contrary to the increasing number of registered lobbyists every year and are independent of the increase in the number of active ones (see Figure 1). 2013 - 2016 we observe a rather passive increase in the number of lobbyists, which can be explained by the fact that it was not mandatory to declare lobbying activities until 2017. Well, starting from 2021, not only lobbyists, but also persons who have experienced lobbying influence (i.e. personally received a proposal from a lobbyist regarding specific

provisions of the legal act) must declare the carried out lobbying activities. In this way, it becomes possible to cross-check the submitted declarations and, if necessary, VTEK can take preventive actions. Also, not only a natural person, but also a legal entity can register as a lobbyist. Until then, the relatively passive increase in the number of registered lobbyists can be explained by the fact that there were significantly more de facto lobbyists than de jure lobbyists in Lithuania, who registered with VTEK and submitted reports to it about their activities and income from lobbying activities.

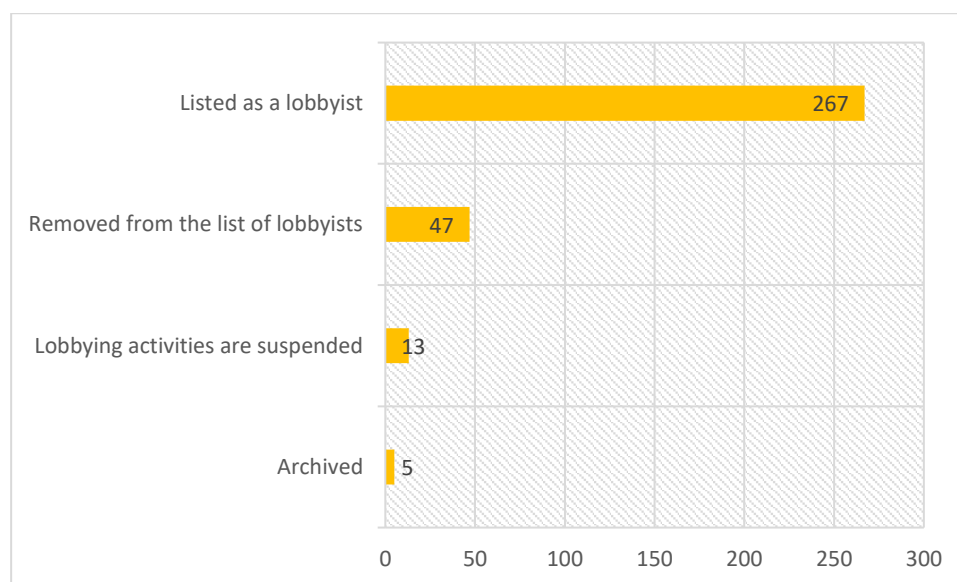


Fig. 2. Status of lobbyists engaged in lobbying activities

Analyzing the lobbying activities in Lithuania, the slightly growing trends of active lobbyists are noticeable. However, as it was already mentioned, this is not an indicator that could be used to judge the actual scope and trends of lobbying activities in Lithuania, because currently activities corresponding to the nature of lobbying activities are also carried out by entities - various non-profit organizations, which are not legally obliged to register as lobbyists. This problematic aspect has remained unchanged since the entry into force of the Law on Lobbying Activities of the Republic of Lithuania in 2001, therefore, when examining Lobbying Activities in Lithuania in 2013-2022. trends, it is important to identify changes in both legal regulation and lobbying activities.

As already mentioned, the concept of lobbyist is still poorly defined in Lithuania. in 2000 the concept of lobbyist was first defined and legally approved in Lithuania. Attempts were made to improve the term in attempts to pass amendments to the Lobbying Act, but this was only done in 2003, when the Act to amend the Act was passed. in 2003 lobbying activity was defined in the law as remunerated or non-remunerated actions of a natural or legal person aimed at influencing changes, additions or invalidation of legal acts, adoption or non-adoption of new legal acts in the interests of the customer of lobbying activities. This concept has remained largely unchanged to this day. It is important to note that lobbyist registration fees have been consistently decreasing. Back in 2003-2006 the fee was 2 thousand. LTL for natural persons and 10 thousand. Lt for legal entities. 2006-2013 the registration fee for lobbyists was significantly reduced, which was 500 LTL for both individuals and legal entities. It was one of the measures to promote lobbyist registration. Although this was more of a procedural aspect of deciding whether or not to register as a lobbyist, it can be said that the significant reduction in the fee amount has created real registration options for individuals with limited financial resources. According to the currently valid lobbying activity law, the lobbyist registration fee amount is only 10 EUR. The significantly reduced registration fee compared to the original registration fee provides all the opportunities for individuals who want to become lobbyists and thus contribute to more transparent legislation. However, it was not only the registration fee that made lobbying transparent. Until 2017 there was no electronic database where electronic declarations of lobbyists could be submitted. They had to be submitted to VTEK in writing, which made it difficult to submit declarations of lobbyist activities. Since 2017 there is an electronic

system for submitting declarations of lobbying activities, which also encourages individuals to carry out lobbying activities in a transparent manner.

## Conclusions

Lobbying activities are the actions of a natural person, the actions of a legal person or another organization or their division, which are aimed at influencing state politicians, state officials, civil servants and other persons (who, according to the procedure established by legal acts, participate in the preparation, consideration draft legal acts and their adoption) so that legal acts are adopted or not adopted in the interests of the client of lobbying activities or the beneficiary of lobbying activities.

In 2021 the adopted lobbying law is much more transparent than its predecessors. The aim of this law is to raise awareness that: transparent lobbying is a positive and encouraging phenomenon that helps to make better decisions, and discussion with lobbyists is a normal part of the job. For the sake of transparency, cross-declaration of lobbying activities is encouraged. Lobbying activities must be declared not only by the person carrying out this activity, but also by another person who was influenced. The lobbyist must also submit a declaration of lobbyist transparency, as well as provide all information about specific lobbying activities on one platform (regardless of whether individual organizations publish such information on their websites). Lobbyists must be given the opportunity to demonstrate specific results of their activities.

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## REFUGEE STATUS IN LITHUANIA AND CONTEMPORARY ISSUES

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Keywords: *war refugees, political refugees, irregular migrants, asylum seeker, foreigner.*

### Abstract

This research paper analyses the status of refugees and asylum seekers, and the problematic aspects. An analysis of quantitative data for the period 2021-2023 on the placement of illegal immigrants across the Belarusian border and the granting of asylum is carried out, highlighting refugee claimants. The main differences, problems faced by refugees and immigrants and the problems faced by the Lithuanian state are analysed. The paper has two main objectives: to analyse the legal status of refugees and asylum seekers; to provide statistical data on the number of asylum applications received in Lithuania for the period 2021-2023.

### Introduction

The refugee problem has been around since ancient times. It is the result of military conflicts, persecution based on race, nationality, etc. The major refugee problem arose at the beginning and end of the Second World War, when people first fled racial persecution and then devastation and famine in Europe. According to the Council of the European Union, the outbreak of war in Ukraine in 2022 has made the refugee issue even more pressing, as the Russian invasion of Ukraine has forced millions of people to flee their homes and seek asylum in the EU and neighbouring countries, pending the implementation of the Temporary Protection Directive (<https://www.consilium.europa.eu/lt/policies/eu-migration-policy/refugee-inflow-from-ukraine/>), which is intended to provide immediate collective protection for refugees and to reduce the pressure on the domestic asylum systems of EU countries. The Temporary Protection Regime (TPR) grants rights such as residence permits, access to the labour market and housing, health care and children's right to education. Currently, four million Ukrainian citizens are granted temporary protection status.

With Lithuania's accession to the European Union and NATO in 2004, the growth of the economy and legal and political freedoms, people from third world countries started to flock to Lithuania. Lithuania is a member of the UN and recognises the Geneva Refugee Convention, adopted on 28 July 1951. United Nations Conference of Plenipotentiaries on the Status of Refugees and Stateless Persons (State Gazette of the Republic of Lithuania, 07.02.1997, Nr. 12-227). The Geneva Refugee Convention is one of the first and most important international treaties. According to the UN High Commissioner for Refugees, Filippo Grandi, "the Convention continues to protect the rights of refugees worldwide". Lithuania became a member of the Convention on 27.07.1997.

**Subject of the article.** Refugee status in Lithuania.

**Aim of the article.** To outline the status of refugees and asylum seekers in Lithuania.

#### Objectives:

1. To outline the legal status of refugees and asylum seekers;
2. To assess the statistical data on asylum applications received in Lithuania for the period 2021-2023.

**Research methods.** The article is based on the analysis of scientific literature, analysis of statistical data, Lithuanian and international legal acts.

### Refugee status and the challenges of the 1951 Convention

According to 1951. Article 1(1) of the Convention relating to the Status of Refugees provides that a refugee is any person who, "owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his or her nationality and is prevented from availing himself or herself of, or is unwilling to avail himself of the protection of, that country owing to such a fear; or, not having a specific nationality and being outside his former habitual residence as a result of such events, is unable or, owing to such fear, unwilling to return to that country" (State Gazette of the Republic of Lithuania, 07.02.1997, Nr. 12-227).

According to the United Nations, by the end of 2021, more than 89.3 million people around the world had been forced to flee their homes due to conflict and persecution. This includes some 27.1 million refugees, more than half of whom are under the age of 18. Millions have been deprived of their nationality and access to basic rights such as education, healthcare, employment and freedom of movement. Statistics from the Migration Centre show that since the restoration of our country's independence until today, around 10 000 people have fled to Lithuania from various countries for a variety of reasons: socio-political, demographic and economic factors, as well as environmental factors and their consequences. (UNHCR: Global displacement hits another record high, reaching the peak of a decade-long upward trend, 2022).

The Law of the Republic of Lithuania on the Legal Status of Aliens sets out the similarities and differences between the concepts of a refugee and an asylum seeker. According to Article 1(18) of the Law on the Legal Status of Aliens, "a refugee is an alien who has been granted the status of a refugee in the Republic of Lithuania in accordance with the procedure laid down in this Law", and "an asylum applicant is an alien who has applied for asylum in accordance with the procedure laid down in this Law, and for whom a final decision has not been taken yet" (State Gazette of the Republic of Lithuania, 30.4.2004, No. 73-2539, current version as from 1.1.2023).

### **Right to refugee status, refugees, and their legal status**

Anyone seeking asylum and special status automatically acquires certain rights upon timely submission of an application to the special authorities. In order to help refugees, realise their status, several centres have been set up in Lithuania to assist refugees. The "Foreigners Registration Centre" and the Refugee Reception Centre help to organise all the information and to include all new arrivals in a database. These special centres help refugees to apply for asylum, receive social guarantees and integrate into Lithuanian society.

An applicant for international protection can be granted refugee status and permanent residence in Lithuania if he or she has a well-founded fear for his or her life: because of his or her race, religious beliefs, nationality, and political opinions.

A person who does not abuse his or her situation to qualify for refugee status under the Geneva Convention must meet specific criteria, such as: he or she has a well-founded fear of returning to his or her own country or to another country because his or her life is in grave danger on account of his or her sex, race, political opinion, and nationality. Each of these conditions is a prerequisite for refugee status.

The European Union classifies stateless persons and persons from third countries under Article 6 of the Directive, which states "that persecution and serious harm may be perpetrated not only by public authorities, but also by non-state actors from whom the public authorities are unable or unwilling to protect themselves" (Directive of the European Parliament and of the Council on the qualification of third-country nationals or stateless persons as beneficiaries of international protection, the qualification for refugee status or for subsidiary protection and the content and conditions for the kind of protection they enjoy ((/2011/95/EU)).

To this day, we do not have precise solutions to this problem in Lithuania, but we have quite a lot of case law precedents. Lithuanian courts cannot determine with certainty whether a person is justified in applying to become a refugee (if his or her freedom and life are at risk) or whether he or she is in breach of international and Lithuanian law. This problem exists because, first of all, the Geneva Convention does not contain or does not specifically describe and define what constitutes persecution of a person, but according to Article 33 of the Geneva Convention, it can be said that if a person's life or freedom is threatened, this can be called persecution.

Since 1990, when Lithuania consolidated and regained its independence, the door has been open to all foreigners fleeing war and seeking refuge and protection. All these persons have received some form of asylum (State Gazette of the Republic of Lithuania, 07.02.1997, Nr. 12-227).

### **Right to asylum, asylum seekers and their legal status**

1951 m. Article 33(1) of the Geneva Convention provides that "no Contracting State shall expel or return refugees to a country where their life or freedom would be threatened on account of their race, religion, nationality, membership of a particular social group or political opinion" (State Gazette of the Republic of Lithuania, 07.02.1997, Nr. 12-227). All procedures are based on one basic principle: it is forbidden and not possible to return a person if he/she is threatened with persecution or danger to his/her life. The principle applies not only to his home country but also to other countries where the refugee is in danger.



The right to asylum, also known as the right to asylum, is guaranteed under the Charter of Fundamental Rights of the European Union, Article 18, or the right to asylum guaranteed under the Convention of 28 July 1951. The Convention of 28 July 1951 and the Geneva Convention of 31 January 1967. Protocol relating to the Status of Refugees and the Treaty on European Union and the Treaty on the Functioning of the European Union ("the Treaties"). According to the Protocol to this Charter, Article 18 guarantees not only the right to apply for, but also the right to claim and receive asylum (Charter of Fundamental Rights of the European Union).

In the EU, an asylum seeker is known as an *international protection applicant*. EU asylum law governs the situation of asylum seekers. Once an asylum seeker has applied for asylum, he/she cannot be deported to his/her country of origin until a decision has been taken whether or not to grant him/her international protection. "Article 9(1) of the Asylum Procedures Directive (2013/32/EU) provides that an asylum seeker is lawfully present in the territory of an EU Member State" (Directive of the European Parliament and of the Council on a Common Procedure for Granting and Withdrawing International Protection (recast) // 2013/32/EU). This Directive describes the procedures under which applicants for international protection are allowed to remain in an EU country until the relevant decision is taken by the responsible national authority (European Handbook on Asylum, Borders, and Immigration Law, 2014).

"Article 5(1)(f) of the ECHR allows for the detention of asylum seekers to prevent them from 'entering' the territory of a State 'without authorisation'". The European Convention on Human Rights does not adequately define the legal status of an asylum seeker until the moment he or she is granted asylum, but following the EU Directive on reception conditions, EU Member States are obliged to issue within three days a special document confirming the international protection status of those who have applied for asylum while their asylum application is being examined by the special authorities (European Handbook of European Asylum, Borders and Immigration Law, 2014).

## Schengen area

Citizens of the European Union, as well as Schengen Area nationals, can freely move between Schengen countries, and their family members have the right to visit the territory of EU Member States without an entry permit. They are exempted in the medical and public sectors. If a person from a third country wishes to enter the territory of the EU Member States, he/she must comply with the visa requirements (requirements of the Regulation of the European Parliament and of the Council establishing a Community Code on Visas (Visa Code) (EC) No 810/2009). Aliens who do not need a visa can move within the Schengen area for a period of three months during a six-month period after the first entry, provided that the conditions for entry are met.

According to the Visa Regulation, almost all third-country nationals are required to apply for a visa in advance, but there is a certain category of third countries, such as diplomats, where this requirement does not apply. According to Article 21 of the Convention on the Schengen Agreement: "third-country nationals who are in possession of a uniform visa and who have lawfully entered the territory of a Schengen country shall be able to move freely throughout the Schengen Area as long as their visa is valid".

## Belarus-Lithuania border crisis 2021 - 2023

The whole incident and the problems associated with it started in May 2021. The Belarusian authorities landed a plane carrying a Belarusian oppositionist on a flight from Greece to Lithuania at Minsk airport. After the plane landed, the oppositionist was interrogated, accused of involvement in terrorism against the Belarusian state, and in response, Western countries formally imposed sanctions against the Belarusian authorities, to which Belarus responded by issuing visas to Iraqi citizens. Belarus initiated a publicity campaign to advertise the opening of a new continental route through Belarus to European Union countries. Many Kurds saw this as a promising opportunity to escape Iraq's undemocratic rule to the West.

By the beginning of August 2021 4,000 people had already entered Lithuania illegally, and by January 2022 there were already 4,326 people in Lithuania (<https://www.ohchr.org/sites/default/files/2022-04/SienosGrupėSubmission.pdf>).

*In 2022, Lithuanian border guards turned back 11,211 illegal migrants trying to enter Lithuania.*

*On 15 and 16 February 2023, Lithuanian border guards' officers refused entry to Lithuania to about 29 illegal immigrants. In 2023, 434 illegal migrants from Belarus were prevented from entering Lithuania by Lithuanian border guards' officers at unauthorised locations.*

Since 3 August 2021, when the Lithuanian border guards' officers were given the right to turn away illegal migrants trying to cross the border from Belarus in unauthorised places 8,120 persons were refused entry to Lithuania until 31 December 2021.

In total, Lithuanian border guards have prevented 19,749 migrants from entering the country illegally since the start of the migration crisis caused by Belarus (<https://vsat.lrv.lt/lt/naujienos/neileistu-neteisetu-migrantu-statistika>).

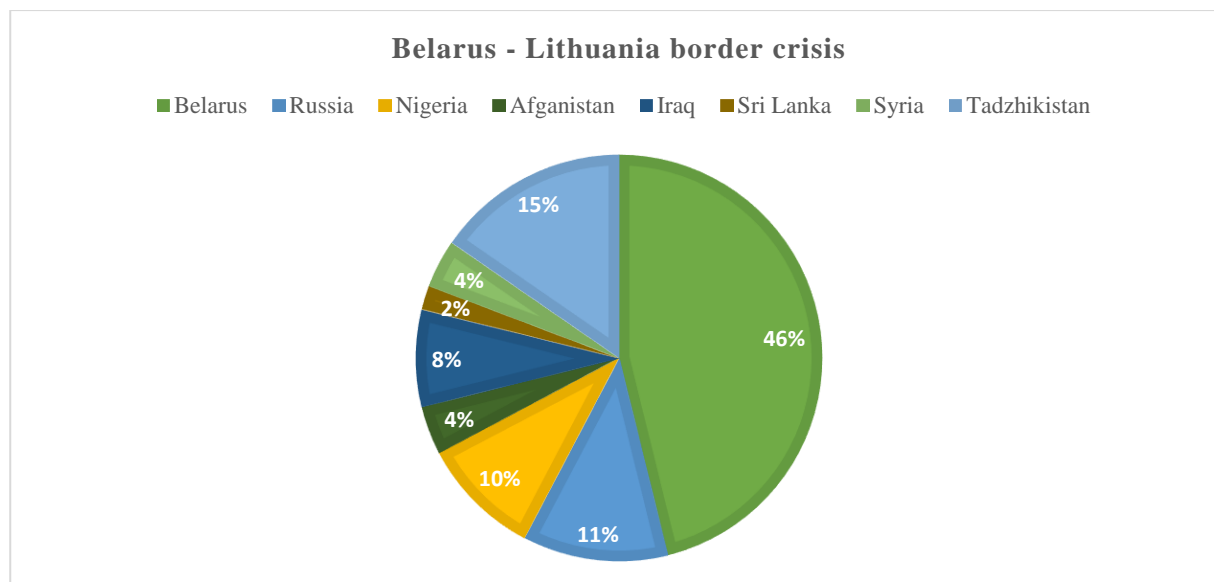


Fig. 1 Average number of applicants for international protection in the Belarus-Lithuania border crisis from October 2022 to November 2022 (Context of the ongoing Belarus-EU migration crisis)

Figure 1 shows the average number of applicants for international protection in the Belarus-Lithuania border crisis from October 2022 to November 2022. Belarusian citizens were the most frequent applicants for international protection (24 people), followed by Tajik citizens (8 people), with slightly fewer applicants for international protection in Lithuania from Russia (6 people) and 5 people from Nigeria. In this three-month period, 4 people requested international protection from Iraq, half as many from Syria and Afghanistan (2 people each), and the lowest number of people requesting international protection was from Sri Lanka (1 person).

To summarise, the above statistics must be taken as evidence of the increasing pressure of migration and the high demand for international protection among ordinary people fleeing threats in their homeland. The statistics show that the increasing influx of migrants can be very demanding and resource-intensive for the host countries of the international community.

### Refugees from the Ukraine crisis in Lithuania

Russia's illegal actions have triggered a flow of migrants from Ukraine to European Union countries, including Lithuania.

As of 7 March 2023, around 8 million people have fled from Ukraine to different European countries, including around 76,000 to Lithuania. About 290 war refugees arrive in Lithuania every week (<https://osp.stat.gov.lt/ukraine-dashboards>).



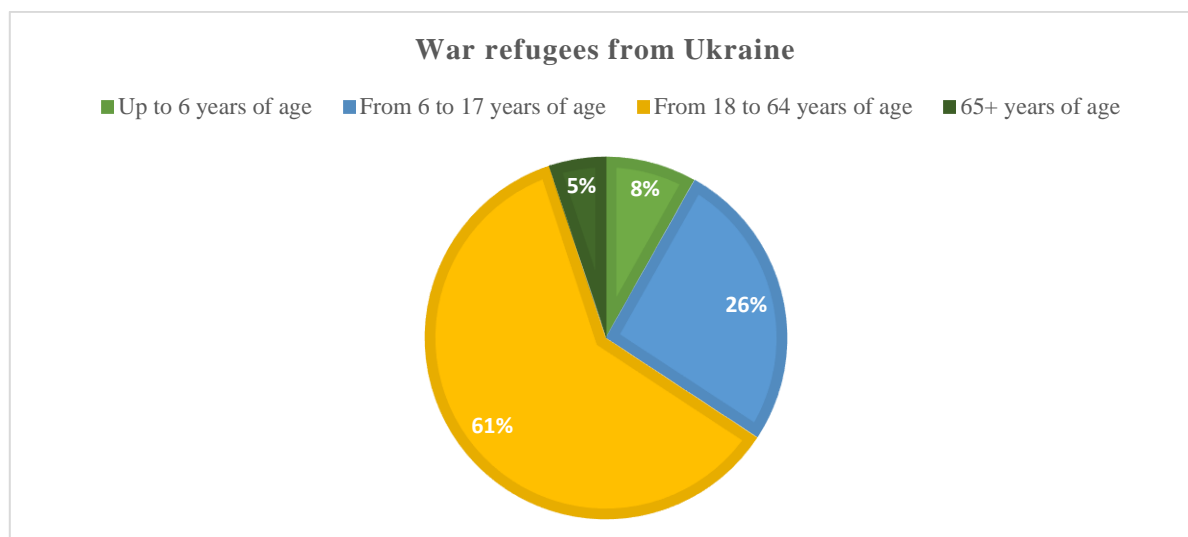


Fig. 2 Number of war refugees from Ukraine and their age ranges (Official statistics portal. State Data Agency. War refugees from Ukraine)

This chart shows the number of war refugees from Ukraine who have arrived in Lithuania since the beginning of the war, at different age ranges. Approximately 75,000 Ukrainian citizens have fled to Lithuania over the whole period. The largest number of refugees is of working age - about 46,000 people, while the smallest number of refugees is of retirement age - about 4,000 people. Slightly more than pensioners, children under the age of 6 have arrived in Lithuania - about 6 thousand, and children aged between 6 and 17 - about 20 thousand.

In conclusion, the number of children arriving in Lithuania is very high and we can say that children are the most vulnerable category in need of protection and require special attention and care from the host country and specialised institutions. Children under 17 years of age who have experienced emotional shocks find it difficult to adapt and integrate into a new community. The process of adaptation can also be complicated by the new culture when arriving in a new country. On this basis, it is important that States and institutions provide special support and assistance to newly arrived children.

## Conclusions

In summary, the concepts of refugees and asylum seekers are fundamentally different. The concept of asylum seeker itself is a collection of a wide range of international laws from which the concept of refugee follows. Countries are obliged to comply with the laws they have signed - both the 1951 Convention and various European and international directives. All these directives, Conventions and laws exist so that Member States, including Lithuania, have clear guidelines on how migrants are to be treated in one way or another, including the possibility for people to obtain a special status by meeting certain requirements. The special status is a requirement for public authorities to align the rights of refugees and asylum seekers.

According to the statistics presented for the period 2021-2023, and taking into account all the geopolitical changes that have taken place in the meantime, there has been a significant increase in the number of asylum seekers from third world countries in the Republic of Lithuania since the beginning of the return of Lithuania's Independence and this numbers are changing every day. It is important to understand that during this period from 2021 to 2023, due to the difficult political and legal situation, the highest number of applications have been received and are being received from citizens of Belarus and Ukraine. It is also important not to forget the Middle East countries, although the number of applications is slowly decreasing. The statistics on applications change every month and everything depends not only on political factors but also on the economy, so the state must monitor the situation with migrants and refugees and try to cooperate with the rest of the world in order to ensure that the refugees and migrants receive adequate protection.

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## LAW ENFORCEMENT INSTITUTIONS AND HUMAN RIGHTS PROTECTION

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*Keywords: law enforcement authorities, human rights, official examination, official sanction.*

### Abstract

This article analyses law enforcement institutions and the protection of human rights. The aim of the article is to analyse law enforcement institutions and human rights protection and to identify human rights violations by law enforcement institutions. The main objectives are: to define the concept, systems and functions of law enforcement institutions, and to present the characteristics of human rights violations. To provide an overview of the statistics on human rights violations by law enforcement institutions in the period 2019-2022.

### Introduction

The role of law enforcement institutions in the protection and defence of human rights and freedoms is unique and special. The effective work of law enforcement institutions is seen as a guarantor of the protection of human rights and freedoms, ready at all times to defend human rights and freedoms that have been violated. In the administration of justice, law enforcement institutions carry out specific activities regulated by the relevant legislation. Law enforcement is a set of specific law enforcement institutions that perform basic law enforcement functions. Therefore, law enforcement functions should be defined as activities that voluntarily or involuntarily enforce the law, protect and defend human rights, administer justice, and enforce the law through counselling, legal advice, representation and participation in the defence process.

**The object of the article.** Law enforcement institutions and the protection of human rights.

**The aim of the article.** To examine the relationship between law enforcement institutions and the protection of human rights.

#### **Objectives of the article:**

1. To define the concept, systems and functions of law enforcement institutions.
2. To analyse the statistical data for 2019 - 2022 on violations of human rights by law enforcement authorities in Lithuania.

**Research methods.** Method of analysis of legislation, articles, scientific literature, method of analysis of statistical data.

### Concept, system and functions of law enforcement institutions

According to Nekrošius V. and Kuonis P., "law enforcement institutions are independent activities of a part of the state apparatus or independent persons entrusted by the state to carry out certain functions belonging to it, in the exercise of the functions of specific protection of the law and its proper implementation" (Kuonis, Nekrošius, 2001, p. 13). The purpose of law enforcement institutions is to ensure public security: to protect citizens, to investigate and punish crime, and to ensure order in many aspects of life. It should be noted that the term "law enforcement institutions" itself is of a theoretical nature, which is not defined in any legal act, and is used as a general category to describe those institutions, or rather a system of them, which ensure the protection of the law in force in the state and its proper implementation.

Ensuring the judicial protection of individuals' rights, freedoms and interests protected by law is essential for law enforcement institutions in the exercise of their functions. Only real access to and protection of a person's right to a judicial remedy can ensure the rule of law and the existence of democracy itself.

The system of law enforcement institutions consists of: law enforcement institutions that administer or assist in the administration of justice; law enforcement institutions with private law enforcement features; and statutory law enforcement institutions.

The main law enforcement institutions that administer justice in Lithuania are the courts. Article 1, Part 1 of the Law on the Constitutional Court of the Republic of Lithuania stipulates that the Constitutional Court of the Republic of Lithuania guarantees the supremacy of the Constitution of the Republic of Lithuania in the legal system and constitutional legality by deciding in accordance with the established procedure whether laws

and other acts passed by the Seimas do not conflict with the Constitution, as well as whether acts of the President of the Republic and the Government do not conflict to the Constitution or the laws. (Law of the Constitutional Court of the Republic of Lithuania // TAR, 1993, No. 24-0 (current version 2022-09-01)). The court system is established by the Constitution of the Republic of Lithuania, this and other laws. The integrated court system of the Republic of Lithuania consists of courts of general competence and specialized courts. Only the courts have the right to resolve disputes between individuals on behalf of the state and to state in their final act which party is right and which is wrong, which person is guilty and which is not. By applying to the court, a person can defend his rights, freedoms or interests protected by law both from the actions or inactions of other private natural or legal persons, and from the actions or inactions of state institutions or officials.

Law enforcement institutions with privacy features - barristers' chambers, notaries and bailiffs. These are independent private individuals engaged in such activities for non-budgetary remuneration and charged with providing legal services.

Statutory law enforcement institutions can be divided according to the subordination and accountability of the institution, i.e. the central statutory institutions under the Ministry of the Interior, under the Ministry of Finance, under the Ministry of Justice (Law on the Approval of the Statute of the Internal Service of the Republic of Lithuania // TAR, 2003, No. 42-1927 (current version 1.1.2023)). Statutory body under the Ministry of National Defence - (Law on Military Police of the Republic of Lithuania // TAR, 2020, No. 24614.) and institutions that are accountable to the President and the Seimas. All these law enforcement institutions are guided in their activities by the Constitution of the Republic of Lithuania, legal acts of the European Union, international treaties of the Republic of Lithuania, laws and legal acts on the activities of law enforcement institutions, and other legal acts of the Republic of Lithuania.

Each law enforcement institution has its own functions, which are governed by specific legislation and laws. The concept of function refers to the tasks to be carried out by these authorities. Functions are those that carry out specific activities, whether voluntary or involuntary, that enforce the law, defend and protect human rights, administer justice, enforce the law through counselling etc. The main law enforcement institution that administers justice is the courts. In legal theory, the administration of justice is understood as the narrowing of the subjective rights of a particular person to the extent that the holder of those rights has refused to fulfil the obligations which the law deems necessary in order to legalise that person's rights in society. It is the judge who is allowed to restore the balance of rights and obligations to the legal status of the rights violator. The courts of general jurisdiction and the specialised (administrative) courts deal with the cases assigned to them, the public prosecutor's office organises pre-trial investigations and assists the courts in the administration of justice. Independent law enforcement institutions are entrusted with the provision of legal services, while statutory law enforcement authorities investigate and detect criminal offences that come to light in the exercise of their functions.

### **Respect for human rights and indications of limitation**

Human rights are natural rights that belong to all human beings, regardless of their nationality, gender, colour, religion, language or other status. Human rights are expressed and guaranteed by agreements, general principles and other forms of international law. They have not only rights but also duties. States assume responsibilities and undertake to comply with international law and to respect, protect and ensure human rights. The obligation to respect means that states must refrain from interfering with human rights. The obligation to protect means that states must protect an individual or group from human rights violations. The obligation to ensure means that the state must create the necessary conditions for the enjoyment of all human rights. The fundamental human rights and freedoms are enshrined in Section II of the Constitution of the Republic of Lithuania, and include the right to life, the inviolability of the person, the inviolability of the private life of the person, the inviolability of the property, the inviolability of the home, the right to freedom of religion, and the equality of all persons with the law, the courts and other state institutions (Constitution of the Republic of Lithuania, 1992). The most important other legal acts are the main legal acts of the European Union, the documents adopted within the framework of the United Nations (UN) and the legal acts in force in the Republic of Lithuania which protect human rights.

Human rights are inalienable. They should not be restricted or deprived, except in exceptional cases and in accordance with the laws that have been adopted. For example, the right to liberty may be restricted if a person has been found guilty according to the full extent of the law. The Constitutional Court of the Republic of Lithuania issued a ruling on 13 February 1997 in case No. 6/96-10/96, in which it emphasised that

restrictions on human rights are possible, i.e. are considered justified, if they meet two conditions: (1) they are legitimate, and (2) they are absolutely necessary in a democratic society. The requirement of legality means that restrictions must be imposed only by a law which is made public, and that they are necessary in a democratic society, firstly, the aims and purpose of the restriction must be ascertained, and, secondly, it must be established whether the means of restriction are proportionate to the legitimate aim pursued (Resolution of the Constitutional Court of the Republic of Lithuania in Case No. 6/96-10/96 of 13 February 1997). The principle of proportionality is a principle of law and its purpose is to protect human rights against excessive restrictions on human rights by the State.

### Human rights violations by law enforcement institutions 2019-2022

The analysis of law enforcement statistics for 2019-2022 shows that the number of human rights violations committed by law enforcement institutions is increasing. This study examines the following law enforcement institutions: prosecution, customs and police. An inter-departmental inquiry is initiated when an employee of a law enforcement institution is alleged to have committed an offence that violates the human rights concerned.

The first figure below gives an overview of the misconduct and the initiation of official investigations by prosecutors in the Lithuanian Prosecutor's Office in 2019-2022 (Figure 1):

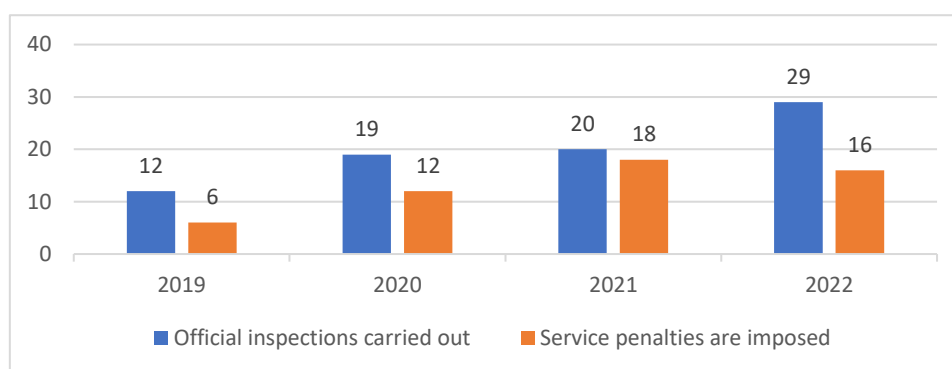


Fig. 1. Official inspections and penalties in the Prosecutor's Office in 2019-2022

As can be seen, the highest number of staff inspections was carried out in 2021 and 2022, while the lowest number of inspections was carried out in 2019. 16 staff penalties were imposed in 2022, 18 staff penalties in 2021, 12 staff penalties in 2020 and 6 staff penalties in 2019.

A prosecutor has been given a disciplinary sanction for breaches of the law, misconduct in office, acts disparaging the name of a prosecutor, as well as other breaches of the Code of Ethics for Prosecutors. As regards official penalties, it is necessary to first of all look at what kind of penalties are imposed:

- Note;
- reprimand;
- a severe reprimand;
- transfer to a lower position;
- dismissal from service (Law on the Statute of the Internal Service of the Republic of Lithuania // TAR, 2018, No. 12049 (current version 31.12.2019)) (Figure 2):

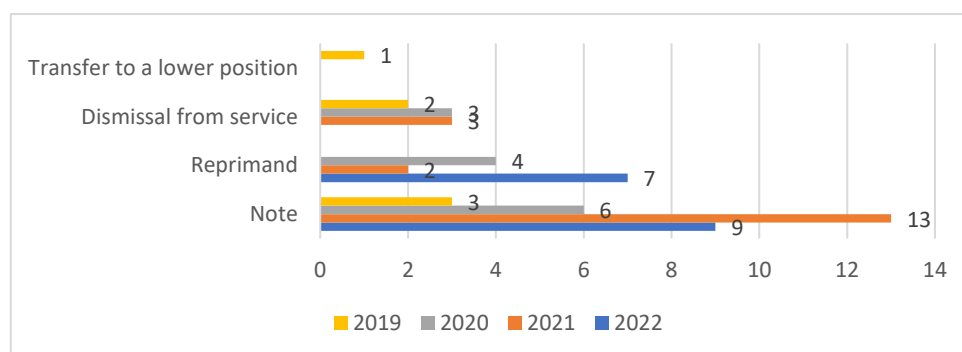


Fig. 2. Staff penalties in the Public Prosecutor's Office 2019-2022

As can be seen, the most frequent sanction applied is a reprimand. 3 reprimands were issued in 2019, 6 in 2020, 13 in 2021 and 13 in 2022. The lowest disciplinary sanction in 2019 was 1 transfer to a lower post. The dismissal from the service was imposed 3 times in 2020 and 2021 and 2 times in 2019. A prosecutor may be dismissed from service for being under the influence of alcohol, narcotic substances during the service or off duty in a public place, when the conduct of the prosecutor is offensive to human dignity, violation of the requirements of the Law of the Republic of Lithuania on the Harmonisation of Public and Private Interests in the Public Service, and so on. (Law on Prosecutor's Office of the Republic of Lithuania // TAR 1994, No. 81-1514 (up to date: 1 September 2022 - 31 December 2023)). Reprimand was issued 7 times in 2022, 2 times in 2021 and 4 times in 2020. In 2019, no prosecutor was reprimanded. The Prosecutor General issues the order imposing the official penalty or decides on the recognition of a prosecutor dismissed from the service as having committed a breach of law, an official misconduct, an act disgracing the prosecutor's name and the official penalty that should be imposed on him.

The following analysis focuses on irregularities in the Customs Department. The Customs Department employs officials, career civil servants and contract staff (hereinafter 'staff'). The activities of the Customs are based on the principles set out in Article 3 of the Law on Public Administration of the Republic of Lithuania, as well as on the principles of guaranteeing human rights and freedoms, publicity and professional secrecy, professionalism, personal initiative and responsibility, and professional discipline, as well as on the principles of unilateralism and collegiality. Figure 3 provides an overview of the number of probes carried out by the Customs Department in 2019-2022 in relation to possible violations of human rights (Figure 3):

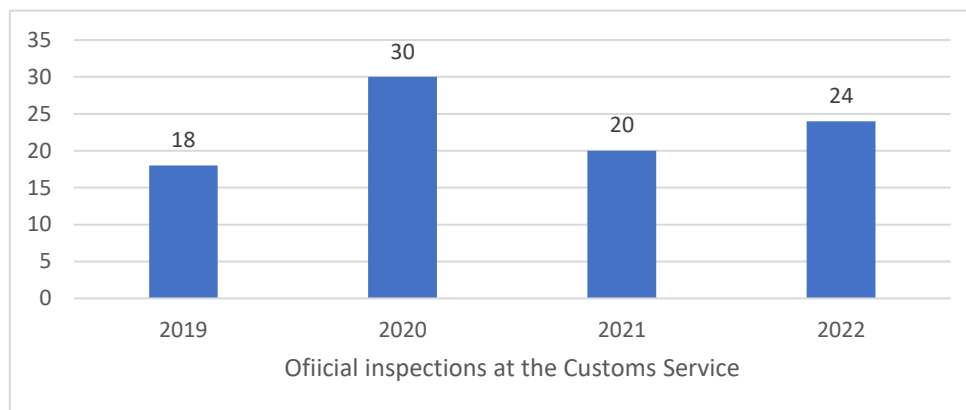


Fig. 3. Official inspections carried out in the Customs Department in 2019-2022

The highest number of service reviews was carried out in 2020 and 2022, while the lowest number was in 2019.

Following the completion of the service reviews, service penalties are imposed. A single misconduct carries one sanction and repeated misconduct carries a more severe sanction. It is useful to look at the number of service penalties imposed between 2019 and 2022 (Figure 4).

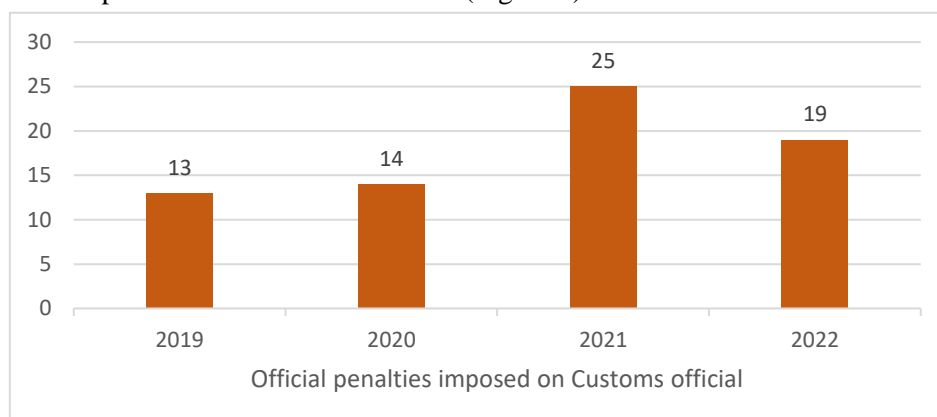


Fig. 4. Penalties imposed in the Customs Department in 2019-2022

In 2022, 19 officials were given disciplinary sanctions (12 remarks, 3 reprimands, 3 severe reprimands and 1 demotion) for misconduct in the service. In 2021, 25 officials were given disciplinary sanctions (14

remarks, 7 reprimands, 3 severe reprimands and 1 demotion) for official misconduct. In 2020, 14 officials will be subject to disciplinary sanctions for misconduct (6 remarks, 4 reprimands, 3 severe reprimands and 1 relegation) In 2019, 13 officials will be subject to disciplinary sanctions for misconduct (7 remarks, 4 reprimands and 2 severe reprimands). For customs officers, the service penalties are imposed by the head of the post and for the Director of the Customs Department, by the Minister for Finance.

The following analysis concerns police offences. Police officers are subject to strict ethical requirements in terms of integrity, are not allowed to abuse their status as police officers (Section 6.8), tolerate "violations of the law by colleagues and conduct inconsistent with the requirements of this Code or other legislation".

Staff inspections are carried out following a complaint from a person, a staff report, a prosecutor's decision to open a disciplinary case, or information published in the media or otherwise about possible misconduct by an official. It is useful to look at the most frequent occasions when police inspections were carried out (Figure 5):

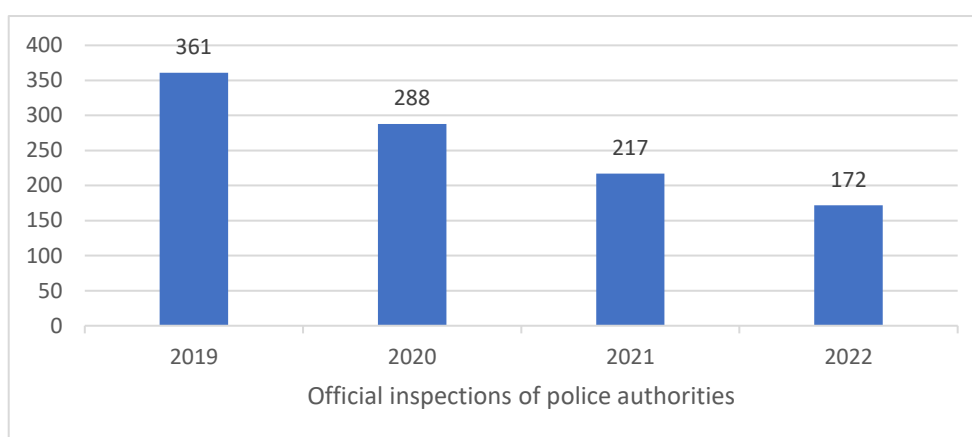


Fig. 5. Police inspections carried out in 2019-2022

As can be seen, the highest number of inspections was carried out in 2019, 2020 and 2021, while the lowest number of inspections was carried out in 2022. This shows that the number of inspections in the police force is decreasing over time.

Figure 6 provides an overview of the service sanctions between 2019 and 2022 (Figure 6):

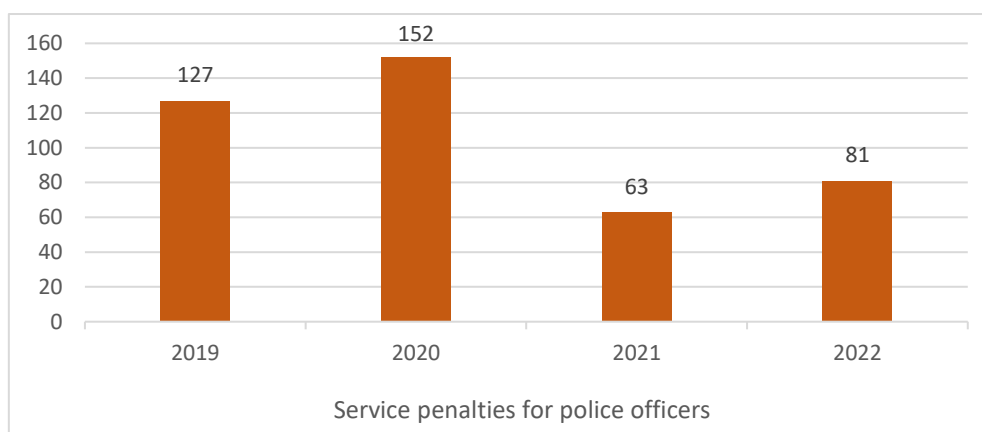


Fig. 6. Penalties imposed in the police service between 2019 - 2022

The highest number of service penalties was imposed in 2020 and the lowest in 2021. 127 service penalties were imposed on police officers in 2019, 152 service penalties in 2020, 63 service penalties in 2021 and 81 service penalties in 2022.

In summary, there are higher and stricter requirements for officials and staff in the Public Prosecutor's Office, the Customs Department and the Police. Therefore, violations of human rights may result in a service sanction such as a remark, a reprimand, or dismissal from the service.

The study found that police officers are the most frequently subjected to official inspections and penalties for human rights violations. It can be said that police officers abuse their position and violate ethical principles,

which they are obliged to strictly observe in their activities, as non-observance of these principles can have moral and ethical consequences.

## Conclusions

Law enforcement institutions are an autonomous part of the state apparatus, whose activities are regulated by various legal acts. Their main functions are to protect and defend human rights, to ensure order in society, to administer justice, and to investigate and punish crime. The system of law enforcement agencies comprises courts of general competence and specialised courts, private law enforcement agencies, agencies accountable to the President and the Seimas, agencies attached to the Ministry of the Interior, etc.

Fundamental human rights are enshrined in the Constitution of the Republic of Lithuania, Section II. Human rights are protected and defended because it is the most important thing in the state, but they can also be limited under two conditions, that is if they are legitimate and that is if they are absolutely necessary in a democratic society.

An analysis of the statistics on violations in the three law enforcement agencies (Public Prosecutor's Office, Customs Department and Police) for the period 2019-2022 suggests that in the case of service inspections for violations of the rights of certain officials or employees, the most common penalties are: a reprimand, a reprimand, and for serious violations, dismissal from service. It can be argued that law enforcement officials or employees abuse their position and do not respect human rights.

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## IMPROVEMENT OF THE PUBLIC SERVICE PROVISION SYSTEM IN THE CITY OF KLAIPĖDA

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KEY WORDS: *Public services, municipality, state, service, improvement, provision, system.*

### Abstract

This article examines the main aspects of the improvement of the public service delivery system. Based on the results of specialists working in the provision of public services on the improvement of the provision of public services. Relevant issues for the improvement of public service provision are examined, which are discussed by presenting and based on the opinions of specialists.

### Introduction

The provision of public services is the provision of essential services financed and administered by the government for the benefit of the citizens through statutory acts. Public services are generally provided to ensure that citizens have access to basic necessities such as health care, education, public transportation, public safety, and social services. Meeting the needs of users and achieving satisfaction with public services is understood as a continuous process that requires constant attention in order to effectively manage public sector institutions. State companies that provide services are responsible for their provision and quality, so it is especially relevant to discuss the improvement and possibilities of public service provision, as Lithuanian institutions are legally responsible for the provision and quality of public services. In order to satisfy public services, and in order for them to satisfy the needs of customers, it is necessary to improve public services, try to satisfy the wishes of each customer and take into account the customer.

**Subject of the article:** Improvement of the public service provision system in the city of Klaipėda.

The purpose of the article is to analyze the improvement of the public service provision system in the city of Klaipėda.

#### **Tasks of the article:**

1. To analyze the essence of the improvement of the public service provision system in the city of Klaipėda.
2. To discuss the obtained results of the qualitative research in order to find out the aspects of improving the public service system in the city of Klaipėda.

**Article research methods:** When writing an article, the aim is to reveal the essence of the topic as consistently as possible, therefore various research methods are used: the method of scientific literature analysis, the method of generalization, questionnaire survey.

### The essence of improving the public service delivery system

The improvement of the public service provision system in Lithuania, especially in Klaipėda, is an essential aspect for citizens to receive efficient services. The provision of various public services is one of the main duties of the state, which is provided only by the state. The state has a very important role to play in providing some essential things and services that ensure a certain minimum level of well-being for all who need it. Financial and other resources are always limited, so services must be provided effectively and efficiently to ensure the desired level of well-being for citizens. It is even more important to ensure that services are delivered effectively to achieve the desired outcome and this is continuously improved. The essence of improving the public service delivery system is to ensure that state services are provided to citizens efficiently and correctly (Improving Public Service Delivery, [accessed 03/14/2023], online access: [https://atiwb.gov.in/index\\_html\\_files/Delivery %20of%20Public%20Services.pdf](https://atiwb.gov.in/index_html_files/Delivery%20of%20Public%20Services.pdf) Overall, improving the public service delivery system is necessary to promote good governance, increase citizens' trust in government, and ensure the provision of quality services that meet the needs of citizens. Improving the public service delivery system requires a multifaceted approach that includes leadership, citizens inclusion, data and analysis, technology and employee engagement and training (Sources of public service improvement a critical review

and research agenda [accessed 2023-03-20] online access: <https://ideas.repec.org/a/nos/vgmu00/2012i3p94-134.html> Improvement of the public service delivery system requires various sources. Here are some of the main sources of improvement:

- Government leadership and policy: Government leaders must provide a vision for better public service delivery and set policies and objectives to support that vision. This includes allocating resources and funding to support service delivery improvements.
- Citizen participation: Citizens play an important role in improving the delivery of public services. They can provide feedback on the quality of services they receive, help identify areas for improvement, and hold government officials accountable for delivering quality services.
- Data and analytics: Data and analytics can be used to identify areas of service delivery that require improvement and monitor progress towards goals. Governments can use the data to make informed decisions about where to allocate resources and what changes to service delivery processes.
- Technology: Technology can play a key role in improving public service delivery. For example, digital platforms and tools can make it easier for citizens to access services, while automation can simplify service delivery processes and reduce the time and resources needed to deliver services.
- Involvement and training of employees: Public employees providing public services must be engaged and motivated to provide quality services. They need the necessary training and support to deliver services effectively and efficiently.

So, it can be said that public services are very important and the essence of their improvement is very important. Every citizen of the country has the right to receive public services and to be a full-fledged citizen whose needs must be met. Based on the Constitution of the Republic of Lithuania (Article 5) it is stated that the authorities serve the people, therefore every citizen of the state must be given assistance and answers to all the questions that arise. Public services provided to society on a daily basis are an integral part of its life - they make life easier for residents. (Constitution of the Republic of Lithuania, adopted by the citizens of the Republic of Lithuania on October 25, 1992 in referendum No. 220-0, Lithuanian Echo, current edition 2022-05-22).

### **The main aspects of the essence of the improvement of the public service provision system**

Improving the public service delivery system is very important both in Klaipėda and in all Lithuanian cities, in order to ensure that citizens receive high-quality services and support from their government. Here are some key ways to improve the public service delivery system:

- Focus on customer service: A public service delivery system should focus on high quality customer service. This includes being responsive to citizens' needs and concerns, being easily accessible through multiple channels and providing accurate information in a timely manner.
- Increase efficiency: the public service delivery system should aim to be as efficient as possible, with as little time and resources as possible to provide services to citizens. This can be achieved through technology and automation, streamlining processes and eliminating unnecessary steps.
- By increasing transparency and accountability: citizens should have access to information about the services they receive and how their taxes are spent. This can be achieved by providing information online, holding public meetings and providing regular updates on service delivery.
- Empowering employees: Employees working in the field of public service delivery should be empowered to make decisions and take actions that improve the quality of the services they provide. This includes providing continuous training and development opportunities, recognizing and rewarding excellent performance, and creating a positive work environment.
- Continuous monitoring and improvement: The public service delivery system should be continuously monitored and evaluated in order to identify areas for improvement. This can be achieved through regular surveys, feedback mechanisms and data analysis.

Thus, the results of evaluations should be used to implement changes that improve service delivery. Overall, improving public service delivery requires a commitment to excellence, a focus on customer service, and a willingness to adapt and change to meet the changing needs of citizens. (Janet V. Denhardt, Robert B. Denhardt, (2007). *The New Public Services Expanded edition*. Serving, not steering, 25–42). Janet V. Denhardt and Robert B. Denhardt articulate the need for public services to focus on citizen needs, cooperation, community engagement, and the creation of public value. These are the most important aspects of improving public services. Improving public services is essential to meet consumer needs. It is important to provide

citizens with the highest quality services. Improving the delivery of public services is an important goal of governments around the world, as it can have a significant impact on the well-being of citizens and the overall economic growth of a country.

### **Improvement of the public service provision system based on the analyzed results after conducting the survey**

In order to make sure and prove that the system of providing public services requires improvement and efficiency, as it should, a survey was conducted at [www.manoapklaus.lt](http://www.manoapklaus.lt). A qualitative study was conducted, during which a total of 10 respondents working in the municipality and providing public services were interviewed, including 8 women and 2 men.

The first figure presents data on whether the public service system is worth improving:

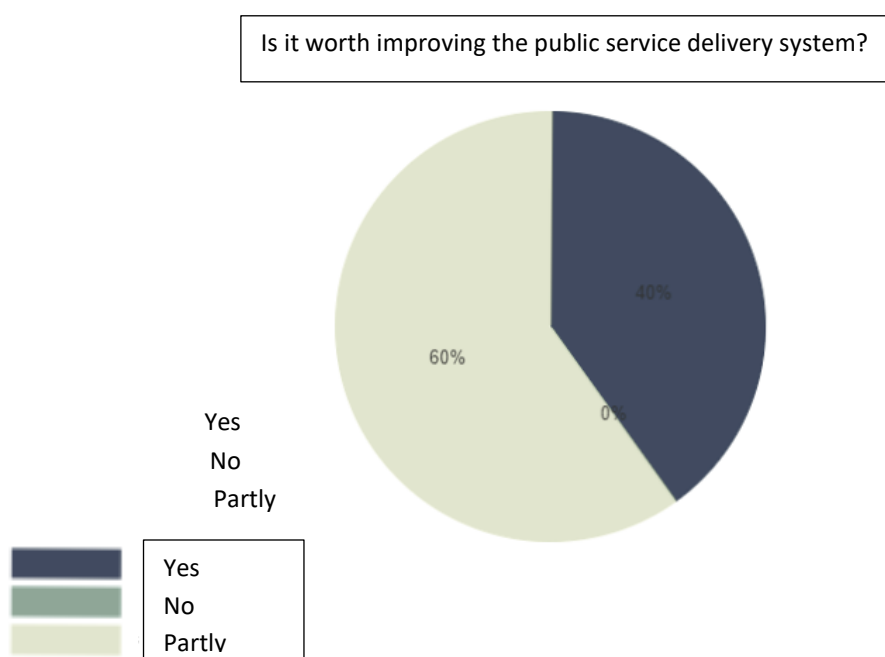


Fig. 1 Improvement of the public service provision system in the city of Klaipėda

*\*Source: compiled by the author, based on a survey on the [www.manoapklaus.lt](http://www.manoapklaus.lt) website*

Most of the respondents who took part in the survey answered that the improvement is necessary and chose the answer "Yes", while 40% of the respondents think that the improvement is only partially necessary. Therefore it can be said. That probably the quality of public services may seem different to everyone. The next chart will show the results of the respondents on the areas with the most problems in the administration and provision of public services:

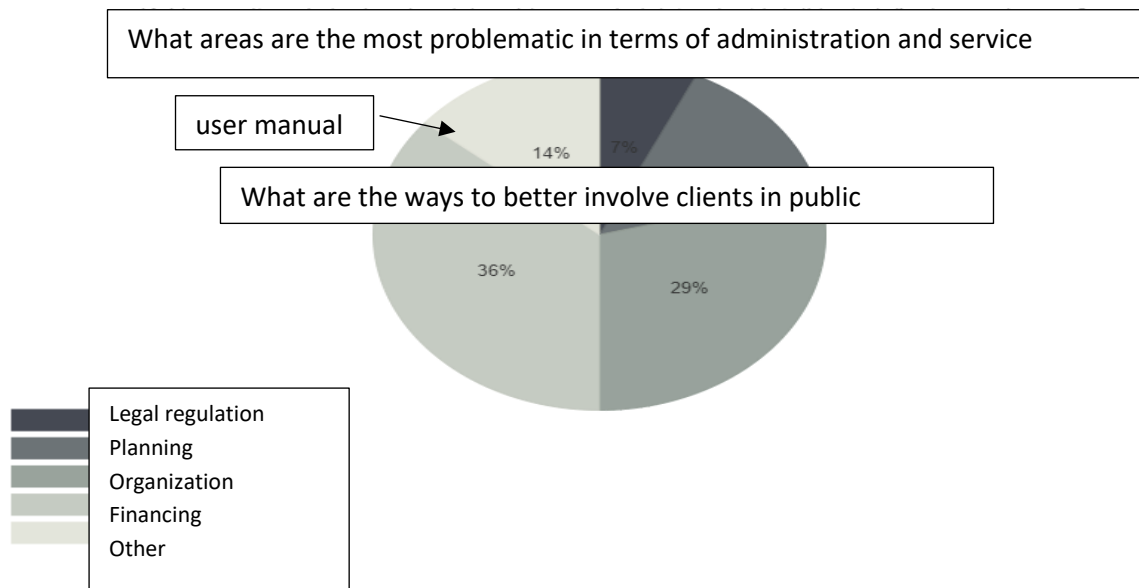


Fig. 2 Improvement of the public service provision system in the city of Klaipėda  
\*Source: compiled by the author, based on a survey on the [www.manoapklausa.lt](http://www.manoapklausa.lt) website

According to the results of this chart, it can be said that the problem that arises in the provision of public services is mainly due to financing, while a few more respondents chose that the problem is in legal regulation or organization. One respondent chose that the most problems with the user manual.

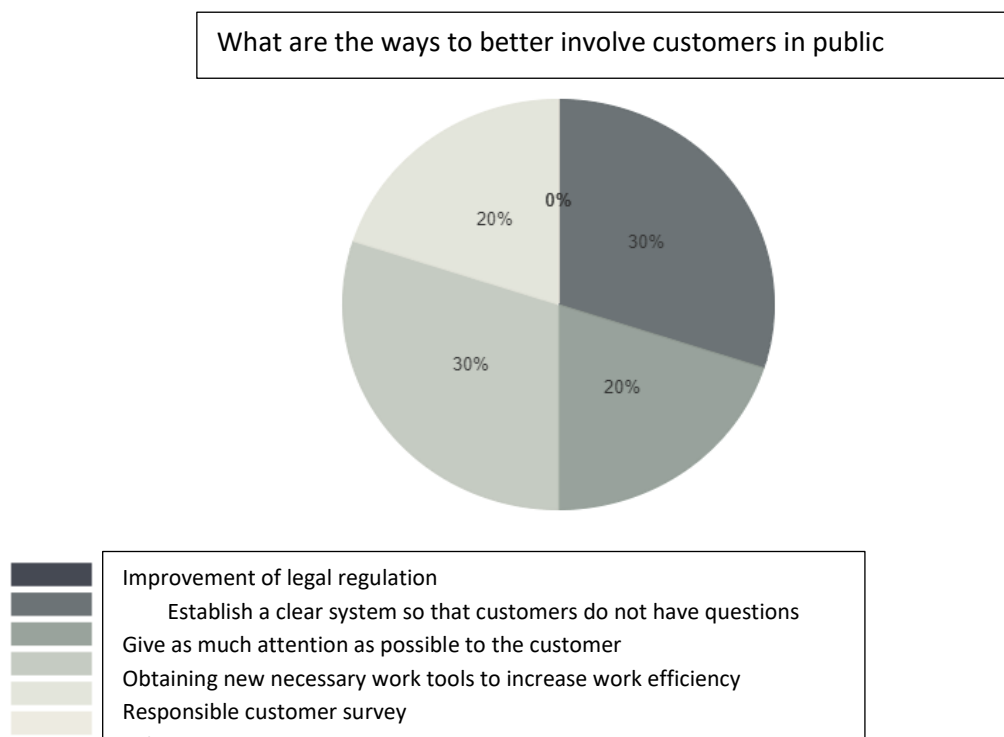


Fig. 3 Improvement of the public service provision system in the city of Klaipėda  
\*Source: compiled by the author, based on a survey on the [www.manoapklausa.lt](http://www.manoapklausa.lt) website

Based on the results of this answer, we can say that not a single respondent chose the improvement of legal regulation, but the majority of respondents, i.e. 30% chose that a clear system should be established so that clients do not have questions in the provision of public services, and also, according to the respondents, obtaining new tools is needed to increase work efficiency. Next, 20% of respondents chose that it would be appropriate to pay more attention to customers and conduct customer surveys responsibly. Next, the main problems of public service provision were discussed with the respondents:

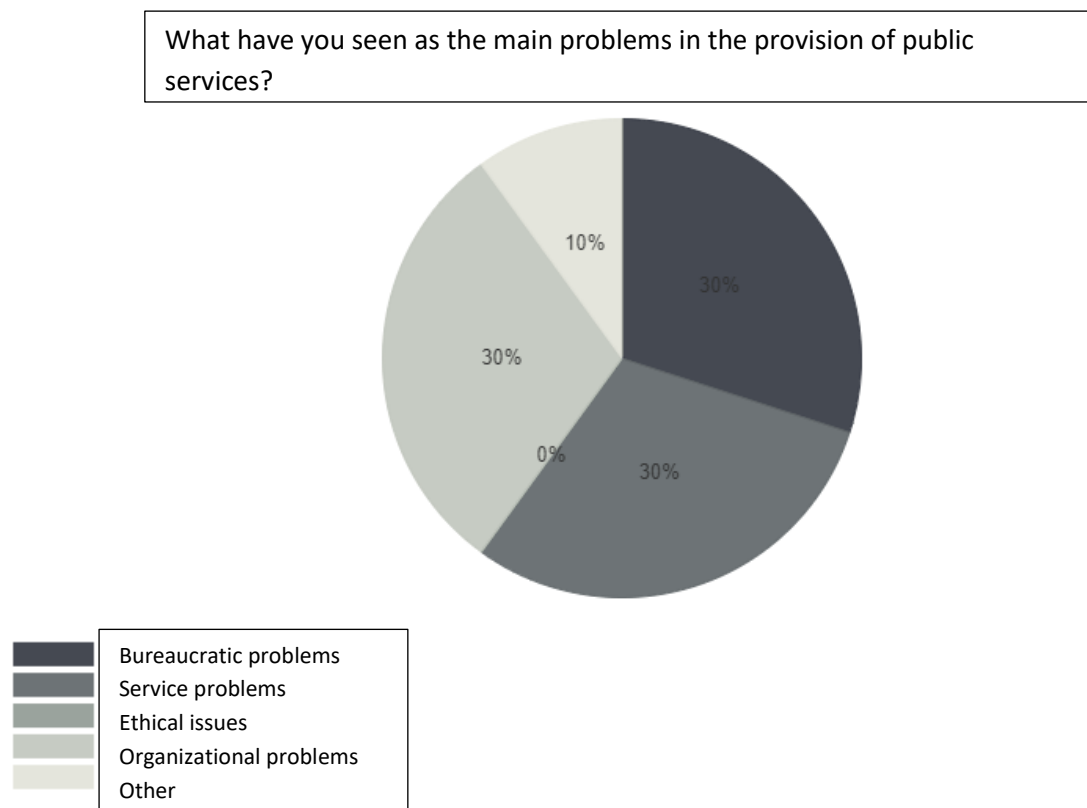


Fig. 4 Improvement of the public service provision system in the city of Klaipėda

*\*Source: compiled by the author, based on a survey on the [www.manoapklausa.lt](http://www.manoapklausa.lt) website*

Based on the results of this question, we can say that the main problems in the provision of public services are bureaucratic, service and organization, here the problems were chosen by 30% of the respondents, like the respondent, which is 10% of all respondents, chose the answer "Other" and gave his individual answer, that little attention is paid to the elderly, it is difficult for them to cope alone. The respondent was also asked how to improve the quality of public services:

11. How would you improve the quality of public services? (Briefly)
- 1) Many abbreviated versions of how to use.
  - 2) There should be clear algorithms for servicing projects
  - 3) I would make it easier to get services, reduce them to a language people can understand.
  - 4) Pay more attention to the customer
  - 5) More training and dedicated time for employees
  - 6) Allocate more time to the employee with the solution of the customer's problem
  - 7) A clearer description of how to use the services
  - 8) More detailed explanation of how to use the services

Fig. 6 Improvement of the public service provision system in the city of Klaipėda

*\*Source: compiled by the author, based on a survey on the [www.manoapklausa.lt](http://www.manoapklausa.lt) website*

Based on the results of this open-ended question, we can say that there are a number of ways to improve the quality of public public services. The first respondent gave the answer that it is necessary to improve the versions that provide information about the provision of services by shortening them, it would help to understand more easily what results will be obtained from the selected service. The second respondent gave the answer that clear algorithms should be presented on how to service projects, which would help public services to grow in all areas, even economically. A third respondent writes that access to services should be improved and information about services should be simplified to "language that people understand", which would help attract more customers to public services if the information is presented as clearly as possible. The fourth respondent expressed his opinion that more attention should be paid to the client, which would create greater trust in public service providers and the entire delivery system. The fifth respondent believes that more time should be given to the employees themselves, the quality of the work and the professionalism of the performance depend on it. The sixth respondent gave a very similar answer to the fifth, but mentioned that more time should be spent not only on the employees but also on solving the customer's problem, which would really help to get closer to each customer and try to fully help them solve the problems that have arisen. The seventh and eighth respondents agree that there should be a clearer, more detailed explanation of how to use public services, which would provide opportunities to perform as many public services as possible if the explanation was clear and understandable to everyone. The ninth respondent gave his answer that more time should be spent on e-services, in part this is very important because nowadays age is no longer important, almost every person uses e-services, and it is a much easier way to fulfill a need or perform a certain necessary action, and sometimes you don't even have to leave the house to do it, so it's a very easy and affordable way for some people. The last respondent expressed his opinion that customer service should be improved, which would help improve the quality of public services and improve it.

## Conclusions

Improvement of the public service provision system in the city of Klaipeda is very important in order to meet the needs of every customer. Public service delivery refers to the provision of essential services and resources by government or other public institutions for the benefit of the general public. A well-functioning public service delivery system is essential to promote the well-being of citizens and ensure that everyone has access to the services they need. Improving the public service delivery system in Klaipeda requires a comprehensive approach that includes digitization of services, streamlining administrative processes, empowering citizens, increasing human resources capacity, promoting transparency and accountability. If these measures are implemented effectively, they will allow creating a more effective and efficient public service provision system that meets the needs of Klaipeda city residents.

After carrying out a qualitative study, it can be said that public services are used, and improving them is very important. Of course, all this has certain shortcomings, too little attention to the customer, insufficient work tools, etc., but if all this is improved, public services can be developed very well. Improving the public service provision system in Klaipeda requires a comprehensive approach that includes digitalization of services, efficiency of administrative processes, empowerment of citizens, increase of human resources capacity, promotion of transparency and accountability. If these measures are implemented effectively, they will allow creating a more effective and efficient public service provision system that meets the needs of Klaipeda city residents.

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## OFFSHORE WIND POWER LEGAL OPTIONS AND PRACTICAL ASPECTS

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Keywords: *wind farms, the legal regulation, convention on the Law of the Sea.*

### Abstract

This article analyzes the practical, legal aspects and facilities of offshore wind farms. Renewable energy is a more hygienic energy source with less negative impact on the environment than conventional fossil energy. Today's current events show that companies are using alternatives to meet their energy needs. The sustainable nature of wind, hydro, geothermal, solar and biomass is a strong incentive for energy companies to use them, making wind power one of the most advanced and fastest technologies that stand out from other forms of energy. The purpose of the article is to analyze the legal and practical aspects of offshore wind power plants. Raised main tasks: to define the concept of wind power plants and their classification, as well as to examine the legal regulation of offshore wind power plants. To review the advantages and disadvantages of offshore wind farms.

### Introduction

The main characteristic of renewable energy is its infinite and abundant supply. Renewable energy is a more hygienic energy source with less negative impact on the environment than conventional fossil energy. Renewable energy typically involves investment in materials and labor to build and maintain facilities. Proper use of energy is critical to meet energy demand. This is the opinion of experts from all over the world to use renewable energy sources for energy production. Today's events show that companies are using alternatives to meet their energy needs. The sustainable nature of wind, hydro, geothermal, solar and biomass energy is a strong incentive for energy companies to use it, making wind energy one of the most advanced and fastest technologies that stand out from other forms of energy.

**Problem of the article.** Renewable energy is our future. Experts have no doubt that high oil consumption, a warming climate and a growing population will make alternative energy a part of everyday life. European countries are increasing investment in innovation, expanding their technological capabilities and looking for suitable solutions both in industry and in the household to make renewable energy more efficient.

**The object of the article.** Legal options and practical aspects of offshore wind farms.

**The purpose of the article.** Analyze the legal and practical aspects of offshore wind farms.

**Tasks of the article:**

1. Present the concept of renewable energy sources and their classification;
2. To examine the legal regulation of wind power plants in international and national law;

**Research methods.** Method of analysis of legal acts, articles, scientific literature, analysis of statistical data.

### Alternative energy sources and their concept

Energy from renewable resources - energy from renewable non-fossil resources: wind, solar energy, environmental energy, geothermal, hydrothermal resources and ocean energy, hydropower, biomass, biogas, gas from landfills and wastewater treatment plants, as well as other renewable non-fossil resources that are technologically possible now or will be possible in the future (Renewable Energy Law of the Republic of Lithuania, TAR, No. XI-1375, current version from 02.01.2023).

According to the 2018 June 21 the approved National Energy Independence Strategy, which stipulates that "Energy efficiency improves the financial activity of the state's residents, increases business competitiveness, the amount of emitted greenhouse gases and environmental air pollutants, and improves environmental air quality. In Lithuania, it is aimed that increasing the efficiency of energy consumption and the use of renewable energy resources become part of the daily activities of every household consumer, business or industry that purchases electricity, gas, biofuel or other fuel raw materials. Renewable energy resources are the most promising energy source for expanding domestic energy production, therefore the



further development of renewable energy resources and increasing the efficiency of energy consumption, which is compatible with the reduction of environmental air pollution, is constantly encouraged by the state" (Resolution of the Seimas of the Republic of Lithuania on 06/21/2018, "On national energy" . of independence strategy approval" // TAR 2018-06-30, i. k. 2018-10958, current version from 06/30/2018).

Renewable energy is energy that comes from natural sources that are replenished at a faster rate than consumed, e.g. sunlight and wind are such sources that are constantly replenished. Renewable energy sources are abundant and all around us. On the other hand, fossil fuels – coal, oil and gas – are non-renewable resources that take hundreds of millions of years to form. Fossil fuels that are burned to produce energy cause the emission of harmful greenhouse gases such as carbon dioxide. Generating renewable energy produces far fewer emissions than burning fossil fuels, a shift away from fossil fuels that currently account for a large share of emissions. In the strategy of energy independence, Lithuania has already planned to pay great attention to the development of renewable energy resources by 2030, which means focusing mainly on the development of energy-producing consumers and wind energy and the further use of renewable energy resources for the production of centrally supplied heat by implementing efficient biofuel cogeneration and heat production in households.

According to the United Nations Framework Convention on Climate Change, Lithuania has also undertaken to take into account climate change as much as possible in relevant social, economic and environmental strategies and measures and to apply appropriate methods, such as impact assessment, prepared and regulated at the national level, in order to minimize the negative impact on public health. and the environment in projects and measures to mitigate or adapt to climate change. Also support scientific, technical, socio-economic and other scientific research, carry out systematic monitoring of the climate system and the accumulation of data archives on it, in order to better understand the climate and determine the causes, consequences, extent and timing of climate change and various measures to combat climate change social and economic impact of measures. Support and cooperate fully with other Member States through open and timely exchange of relevant scientific, technical, socio-economic and legal information related to the climate system and the socio-economic impacts of climate change and various measures to mitigate the socio-economic impacts of climate change. (General Convention on Climate Change of the United Nations of the Republic of Lithuania // TAR 1992-05-09, i. k. 092T001KONVRG922712, current version from 1995-06-22).

Thus, the EU energy sector is highly dependent on energy imports and faces major challenges in ensuring security of energy supply, reducing greenhouse gas emissions to meet the long-term climate change mitigation targets set by the Paris Agreement, and maintaining the dominance of fossil fuels in total energy consumption sources. In order to overcome these challenges, EU energy and climate change policies are being consolidated and consistently strengthened based on the principles of greater integration, reliability and security of energy supply, competitiveness and sustainable development. The aim is to increase energy efficiency and reduce the economy's dependence on fossil fuels.

### **Qualification and types of energy sources**

The main renewable energy sources are hydropower, biofuel (food and municipal waste, biogas), wind energy and solar energy. Hydropower is currently the largest source of green energy in the world. It is a method of electricity generation where electricity is extracted from the movement of water. New technologies also make it possible to extract hydrogen from water more quickly and use it as fuel. The second most common source of energy is wind energy, and the third is solar energy. The state also uses tidal energy and geothermal energy.

The presented figure (Fig. 1) shows the distribution of renewable energy sources and the main ones are distinguished: solar energy, wind energy, geothermal energy, hydrodent, ocean energy.

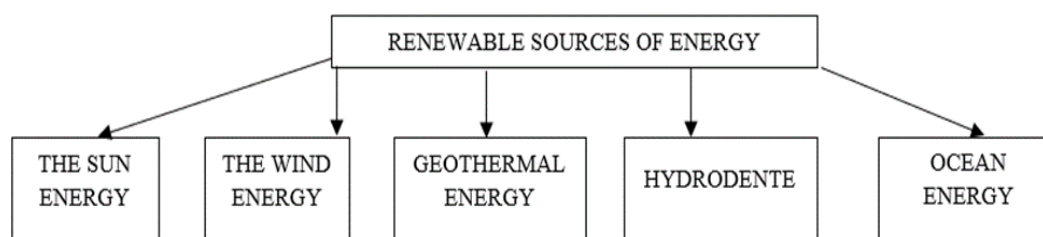


Fig. 1 Distribution of renewable energy sources

*\*Source: Compiled by the author based on United Nations. Climate Action*

Each energy source is qualified, definitions of terms are provided, as well as describing their meaning and benefits. There are four sources of energy that benefit humanity, i.e., for industrial, construction, agricultural and other types of economic activity companies, households, since the energy consumption is higher than the available energy.

The presented table shows the change in electricity consumption indicators for the first half of the year 2019-2021. Among the four sources of energy, the most consumed are the industrial sector, the population, services and other consumers, and agriculture.

Table 1

Electricity consumption			
Electricity indicator	2019 first half	2020 first half	2021 first half
Industry (companies, energy)	2 163,8	2 071,7	2209, 7
Residents	1 397,3	1 462,2	1745, 4
Services and other users	1 790,8	1 640,3	1731, 0
Farming	121,8	119,0	128,8
Transport	56,6	46,3	52,6
<b>Final electricity consumption, Gwh</b>	<b>5 530,2</b>	<b>5 339,5</b>	<b>5 867,5</b>

*\*Source: State Energy Regulatory Council, 2021*

After examining the table of electricity indicators, it can be seen that a large part of electricity consumption is made up of residents, comparing the year 2019-2021, the change reaches as much as 19.4 percent. The next area, where a change is also noticeable, is the transport sector, whose consumption grew by as much as 13.6 percent. Agricultural electricity consumption increased by 8.2 percent. compared to the year 2021. It can be said that energy consumption in Lithuania is only increasing every year, so there is a need to increase alternative energy sources.

## Overview and prospects of offshore wind farm development

Wind energy is one of the most promising renewable energies with capacity around the world. Wind is considered the main source of energy to achieve the goals in Europe. Although offshore wind power has proven to be a viable option in terms of cost reduction, there is still much to be done to ensure the competitiveness of offshore wind power against other conventional and non-conventional energies. According to research and endorsements by the International Renewable Energy Agency (IRENA) and the Global Wind Energy Council (GWEC), wind power is one of the fastest growing renewable energy technologies. Its use is expanding worldwide. Global onshore and offshore wind capacity has grown nearly 75-fold over the past two decades, from 7.5 gigawatts (GW) in 1997 to almost 823 GW in 2021. In addition, offshore wind has proven its maturity in recent years and is rapidly being implemented in the Northern and Mainland Chinese markets. Until 2021, about 55 GW of offshore wind had been installed worldwide, with a record 20 GW of new additions, with 16.9 GW mostly in mainland China. Until 2030 total offshore wind capacity will increase by

almost 190GW due to significant cost reductions, technological advances, support policies and higher national targets.

According to the International Renewable Energy Agency, wind is used to generate electricity by converting the kinetic energy of moving air into electricity. In modern wind turbines, the wind turns the rotor blades, converting kinetic energy into rotational energy. This rotational energy is transmitted by the shaft to the generator to produce electricity, as shown in Figure 3.

J. Twidell and T. Weir (2017) studied onshore and offshore wind farms. They claim that offshore wind farms started to grow around 2000. Their installation costs more than onshore wind farms. Sea wind speed is higher than continental wind speed. Europe leads both in terms of the number of offshore wind turbines and the development of the technology in 2013. As of mid-2018, installed offshore wind capacity reached 6 GW across 58 wind farms in ten countries, indicating that the industry is already mature.

In the presented table of advantages and disadvantages of offshore wind farms (tables 3, 4) compared to onshore farms, it can be seen that the advantages account for the majority of the disadvantages, since the sea has stronger wind, more energy is produced, larger national areas are available, and there are no residents who would be disturbed by wind farms. This proves that offshore wind farms are an excellent source of alternative energy.

Table 2

**Advantages and disadvantages of offshore wind farms compared to onshore wind farms**

ADVANTAGES	DISADVANTAGES
<b>Stronger wind, less turbulence, more energy.</b>	A difficult approach that requires special skills.
<b>Larger only state-owned areas are available.</b>	More expensive installation and maintenance, including underwater foundations.
<b>There are no residents who will be disturbed by the turbines.</b>	Corrosive saline environment
<b>Large tower structures are delivered by ship. (transport by water is easier than by land)</b>	
<b>A large volume of total generated power</b>	
<b>Energy output of individual wind farms (remote control)</b>	

*\*Source: Based on: Twidell, 2017, p. 293 renewable energy resources, compiled by author*

So, as can be seen from the table, the following advantages are distinguished: Stronger wind, less turbulence, more energy, there are no residents who would be disturbed by the turbines, large tower structures are delivered by ships. (Transportation by water is easier than by land, large volume of total generated power, energy output of individual wind farms (remote control).

In order to establish offshore wind farms, all the requirements for offshore turbines must be met. The requirements are:

- Marine environment impact assessment, including bird migration, marine mammal communication, shipping lanes, fishing, landscape impact;
  - Estimation of wind speed, most likely with the help of acoustic and laser instruments;
  - Underwater foundations and protection against washing by underwater water currents;
  - Special marine installation platforms/vessels;
  - Access by boat for maintenance, including in bad weather;
  - Marine substation intended for high-power connection with onshore power grids;
  - Extremely high component standards to reduce breakdowns and maintenance;
  - High-density power, transmitted over long distances and integrated into high-voltage terrestrial networks.
- There is a more efficient way, but such connections require high-power inverters, so the costs can be high (Twidell, 2017, p. 295).

In summary, in the first chapter on the advantages and disadvantages of wind farms, we can see that offshore wind farms have more positive aspects than disadvantages. It is a great benefit and aspiration to build offshore wind farms, which constitute a benefit in the amount of energy, which is also in addition to alternative energy sources.

## Legal regulation of wind power plants

Lithuania must become a country that does not import, but develops and exports energy technologies. Increasing energy efficiency through building modernization programs, increasing production efficiency and promoting the use of renewable energy sources will create a large market for these services and provide opportunities for job creation, the development of innovative technologies with low greenhouse gas and low air pollutant emissions, and the development of human resource capabilities. Business development in the country will be supported by the following measures: Promote experimental and industrial development of the most promising energy technologies and promote innovation and scientific research related to green, distributed generation and digital energy solutions. To promote the export of information technology solutions tested in Lithuania and their products intended for the optimization of the energy sector. Develop the potential of regional gas infrastructure, LNG technology, distribution and competence centers through the cooperation of LNG terminals, companies, associations and national research and scientific organizations (including research institutes and universities). The strategic directions of the Lithuanian energy sector, which must be given more attention in separate periods, will be followed when implementing the goals and objectives set out in the Strategy:

Table 3

**Goals and objectives of the strategic directions of the Lithuanian energy sector**

<b>2020 is the year ENERGY SECURE STATE</b>	<b>The year 2030 COMPETITIVE ENERGY</b>	<b>2050 year ENERGY SUSTAINABLE AND AUTONOMOUS STATE</b>
<b>GOALS:</b> <b>1. Integration of the energy system into the EU energy system</b> <b>2. Increasing the efficiency of energy consumption</b> <b>3. Balanced and sustainable development of renewable energy resources.</b> <b>4. Optimization and modernization of energy infrastructure.</b>	<b>GOALS:</b> <b>1. The price of energy in industry will be the lowest in the region (compared to other Baltic states); for residents - a decreasing share of energy costs compared to the average income of residents</b> <b>2. Smooth transition from fossil energy sources to renewable energy sources</b>	<b>GOALS:</b> <b>1. 80 percent of the country's energy needs is produced from non-polluting (low emissions of greenhouse gases and ambient air pollutants) resources</b> <b>2. 100 percent the country's total electricity consumption is made up of locally produced electricity</b>
<b>TASKS</b> <b>1. Synchronization of the Lithuanian electrical energy system with the continental European electrical energy system</b> <b>2. Increasing the efficiency of energy consumption (goals set out in EU legislation have been implemented)</b> <b>3. Development of renewable energy resources - to focus on the development of energy-producing consumers, biofuels and wind energy, the use of renewable energy resources for the production of centrally supplied heat and the production of heat in households</b>	<b>TASKS</b> <b>1. Increasing the efficiency of energy consumption (energy intensity will not exceed the average energy consumption of EU member states)</b> <b>2. Development of renewable energy resources - to focus on the development of energy-producing consumers and wind energy and the further use of renewable energy resources for the production of centrally supplied heat through the implementation of efficient biofuel cogeneration and heat production in households</b> <b>3. Use of alternative fuels and electrification in the transport sector.</b>	<b>TASKS</b> <b>1. The necessary conditions for the development of non-polluting energy production methods have been created</b> <b>2. Development of efficient and non-polluting energy production, supply, storage (accumulation) and consumption technologies</b>

In implementing the National Energy Independence Strategy, approved by the Seimas of the Republic of Lithuania in 2012. June 26 by resolution no. XI-2133 "Regarding the approval of the National Energy Independence Strategy" (hereinafter - the National Energy Independence Strategy), Lithuania diversified the forms and sources of energy supply, reduced the cost of energy resources and opened up new opportunities for the country's development. The Lithuanian energy sector was fundamentally reorganized in order to reduce and ultimately to eliminate energy dependence on the Russian Federation, which manifested itself in unreasonably high prices of energy resources and the use of energy as a political tool.

Analyzing the environmental impact programs of the planned offshore wind farms, we see that the use of renewable energy sources is encouraged by Directive 2001/77/EC of the European Parliament and the Council on the promotion of electricity produced from renewable energy sources in the internal electricity market. Offshore wind farms are preferred due to various restrictions on building wind farms on land. Currently, not a single wind farm has been built in the Lithuanian Baltic Sea. If there is a planned construction of wind farms or other planned economic activities, then the creation of wind farms, planned activities and environmental assessment are regulated (Law of the Republic of Lithuania on Environmental Impact Assessment of Planned Economic Activities, TAR, No. I-1495, current version 2020-06-27) Article 3 the third part must be completed before the issuance of a legally established permit (a document authorizing construction, a permit to use resources or cavities, a permit for integrated prevention and control of pollution, permits specified in laws). If the selection for the environmental impact assessment or the environmental impact assessment was not carried out, the permit is not issued. According to the Lithuanian Energy Agency, the site selection criteria for offshore wind energy are: Technological - Installed power of the power plant, arrangement of power plants, power density. Territorial - Rational use of the territory, Depth/bottom relief, distance from shore/ports, zoning and wind speed. Infrastructural - Possible offshore substation location. Three companies are interested in setting up offshore wind farms: UAB "Foedus", UAB "AVEC" and UAB "Baltic Energy Group".

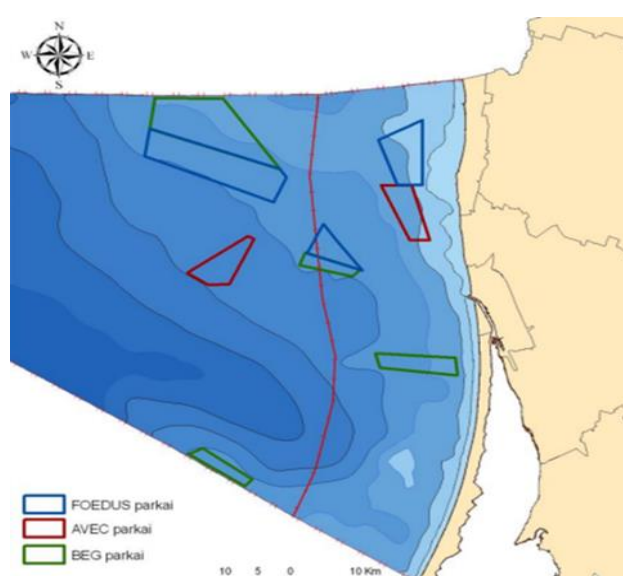


Fig. 2 Potential locations of wind farms.

*\*Source: Environmental impact program of wind farms*

The sites were selected based on the main criteria of selecting sites with the lowest potential for conflict based on existing land. Use of marine areas and resources and environmental aspects. The assessment program for offshore wind farms states that the installation of a wind farm involves several stages:

- transportation of wind electric elements to the construction site;
- installation of wind power towers;
- construction of engineering communications and connecting parks to networks;
- electricity generation in the wind farm;
- transmission of produced electricity to power grids.

The Coastal Research and Planning Institute (2021) states that the Baltic Wind Farm is one of the most important projects of the National Energy Independence Strategy, which aims to increase local electricity production from renewable energy sources and reduce dependence on electricity imports.

According to the 2020 of the government of the Republic of Lithuania June 22 No. 697 Regarding the parts of the territorial sea of the Republic of Lithuania and the exclusive economic zone of the Republic of

Lithuania in the Baltic Sea, where it is appropriate to organize a tender for the development and operation of power plants using renewable energy resources.

In summary, Lithuania strives to increase the efficiency of energy consumption, we can see this in the goals and objectives set out in the Lithuanian Energy Strategy. In the objectives, we can see that the main focus will be on the development of energy-producing consumers and wind energy and the further use of renewable energy resources for the production of centrally supplied heat by introducing efficient biofuel cogeneration and heat production in households. As can be seen in the strategy, it is planned to switch to one of the alternative energy sources, i.e. the construction of wind power plants in the sea. Legislation is also being developed that would favor the construction of offshore wind farms.

## Conclusions

Alternative energy sources are understood as energy from renewable resources, obtained from natural sources, which are replenished at a higher rate than consumed. For example, sunlight and wind are sources that are constantly replenished. Wind energy is one of the most renewable and unlimited sources of energy. It does not emit harmful greenhouse gases. In the future, offshore wind energy will play an important role in the production of electricity in order to combat climate change and reduce greenhouse gas emissions, therefore Lithuania's energy independence strategy aims to increase the efficiency of energy consumption and strive to make the use of renewable energy a part of every consumer's daily life.

There are no offshore wind farms in Lithuania, but the Lithuanian legal system gives preference to offshore wind farms due to various restrictions on the construction of onshore wind farms. The Lithuanian energy independence project was presented, which aims to increase local electricity production from renewable energy sources and reduce dependence on electricity imports, thereby ensuring lower electricity prices for residents.

It is not surprising that renewable energy has become important to Lithuanian residents as well. Not only as a way to make money, but also as an opportunity to use these technologies in everyday life. Wind turbines and solar power plants are widespread in Lithuania, and the demand for solar modules, biofuel fireplaces and energy-saving heat pumps is growing rapidly.

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## CYBERSECURITY ATTACK AND DEFENSE STRATEGIES

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### Abstract

This article discusses the effects of different types of cyber -attacks and the main protection methods. It is stated that cyber security is related to the protection of information technology systems from cyber threats and aims to ensure the confidentiality, integrity, and accessibility of information. The article also presents cyber security strategies that can be implemented for individuals and organizations. In addition, cyber- attack methods are also mentioned. To summarize, this article can be considered as a resource that provides information about protection strategies against cyber-attacks, explains the types of cyber- attacks, and emphasizes the importance of cyber security.

### Introduction

For more than two decades, the Internet has played a significant role in global communication and has become increasingly integrated into the lives of people around the world [1]. With the development of information technologies increasing rapidly with each passing day, increasing internet usage; It has become an indispensable element of life in the public, private sector and even on a personal scale. The widespread use of informatics and the internet in the world not only gives users unlimited freedom, but also causes the misuse of information systems due to the security vulnerabilities that occur, and in this sense, causes them to become a criminal mechanism [2]. According to the “Digital 2023 Global Overview” report prepared in cooperation with the digital marketing agency “We Are Social” and “Meltwater”, there are 5.16 billion global internet users around the world. This number of users equates to a 64.4% penetration. The fact that the global internet user, which had a 33% penetration 10 years ago, has a 64.4% penetration today clearly shows the spread of the internet. This number is expected to increase even more in the near future [3].

With the spread of the internet Transferring information to cyberspace provides great convenience, especially for businesses and institutions. Data can be transferred to digital environments faster, more efficiently, and more securely. As a result, users can make faster decisions, process transactions more quickly, and work more efficiently. Therefore, the transfer of information to cyberspace has made them valuable and important. Given the growing importance of information, it is often viewed as being analogous to an organization’s ‘lifeblood’: should the flow of information become seriously restricted or compromised then the organization may wither and die [4].

Transferring information to cyberspace also brings some risks. These risks are called cyber- attacks. A cyber- attack is an intentional attempt by attackers to gain access to an individual's or organization's information system. The main purpose of a cyber- attack is to steal information after finding security vulnerabilities in systems, disable the main functions of the target system, and launch various types of network attacks to disrupt the target's system resources. Typically, this attack seeks some form of ransom. However, these threats are not limited to large organizations only. It is also applicable to medium and small-sized organizations, as they may not be able to meet top-level security measures. Therefore, security becomes particularly important [5]. To provide the best security, it is necessary to use protection methods. These can be classified under Strong Password Policies, Firewall, Current Software and Hardware, Data Backup, Education and Awareness.

Based on what we mentioned above, users should be prepared for cyber- attacks with a strong cybersecurity strategy and protection methods. This article provides information on types of cyber- attack, damages caused by cyber - attacks, and methods of protection against cyber - attacks. However, users need to stay constantly updated on cybersecurity and be prepared for new threats.



## Cyber Security

Cyber Security aims to protect the information technology systems that make up the cyberspace from threats, to ensure the confidentiality, integrity, and accessibility of the information there, to determine the attack and cyber situations, to take measures for these determinations, and then to bring back the problems encountered in the systems before the Cyber Security attack.

The fact that major Cyber Security breaches have become ordinary and regular attracts the attention of companies and leaders all over the world. In recent years, many organizations around the world have been drawing attention to such events and trying to understand and manage the cyber risks that arise in an increasingly complex digital society. As companies' need for data and their interconnectedness grows, building resilience to withstand cyber shocks becomes crucial. Increasing ransom attacks and data theft in recent years have caused companies to lose both reputation and money.[8]

## Cyber Attacks

Disruption of integrity or authenticity of data or information is termed as computer network attack or cyber- attack. The malicious code which alters the logic of the program and that causes errors in the output. The process of hacking involves the scanning of the Internet to get the systems that contains poor security control and looking for systems which are misconfigured. Once a hacker infects the system ,he/she can remotely operate the infected system and the commands can be sent to make the system to act as a spy for the attackers and it will also be used to disrupt the other systems. The hacker will expect the infected system to have some flaws such as bugs in software, deficient in anti-virus, and flawed system configuration so that other systems can be infected through this system. Cyber- attack aims to steal or hack the information of any organization or government offices. To steal data or information, the attacker or hacker follows certain characteristics so that they can achieve their aims.[6]

## Cyber Attack Areas

Cyber- attacks can occur on any device or system with an internet connection. Attackers can reach their targets by targeting the following areas:

- 1) **Network Attacks:** Network attacks target devices, servers, or network components on a network. Attackers can penetrate the network by monitoring network traffic or using security vulnerabilities that are open on the network.
- 2) **Application Attacks:** Application attacks occur on businesses' websites, applications, or databases. These attacks can be carried out using methods such as malware, phishing attacks, or injection attacks.
- 3) **Physical Attacks:** Physical attacks are the least visible type of cyber- attack. These attacks are carried out by breaking the physical security of people, equipment, or buildings close to the target.
- 4) **Mobile Device Attacks:** Mobile devices are among the devices that have the potential to create security vulnerabilities for businesses. Attackers can access the device by using security vulnerabilities that are open on mobile devices.

## Types of Attacks

Cyber- attacks can be carried out with many different methods. Here are the most common types of attacks:

### 1) Malware

Malware is software designed to cause damage to a device or system. Malware can come in various types such as viruses, worms, trojans and ransomware. This software can take control of devices or systems and carry out activities such as deleting, changing, or stealing data.

### 2) Injection Attacks

Injection attacks are an attack method used to place malicious code into an application's database or processor using security vulnerabilities in applications. This attack method provides a wide range of options for cyber criminals to access or control the target's data.

### 3) Physical Attacks



Physical attacks can be carried out by breaking the physical security of people, equipment or buildings close to the target.

#### 4) DDoS (Distributed Denial of Service) Attack

DDoS (Distributed Denial of Services) attack, cyber attackers; A popular type of cyberattack in which users try to block access to a network. However, attackers make many fake redirects to block access to these networks. Cyber attackers send multiple fake requests to any website they target, causing that site to crash. In addition, for detailed information about this type of cyber- attack, please refer to this content.[9]

#### 5) Phishing Attack

Phishing is one of the most common types of cyber-attacks. Cyber attackers in phishing attack; They send some harmful links to people's e-mail addresses and aim to reach users' personal data and information such as bank cards through these links. When users open these links to their e-mail addresses and enter their personal information; cause cyber attackers to achieve their goals.[9]

#### 6) Man in the Middle Attack

In the Man-in-the-Middle Attack, also known as the man in the middle, the attackers; It intends to eavesdrop on the communicating parties, seize their information and use this data for malicious purposes. On the other hand, attackers may also want to mislead the other party by intercepting the data between two connections and changing this data.[9]

#### 7) Cryptojacking Attack

Cryptojacking is another common type of cyber-attack. In this type of attack, malicious people; It means that computer users install some software on their devices and mine cryptocurrencies without their knowledge.[9]

#### 8) Brute Force Attack

Brute force attack, passwords of social media users or websites; It is a type of cyber- attack in which the attackers try to break through trial and error.[9]

### The Main Strategies of Defense Against Cybersecurity Attacks

The IC3 (Internet Crime Complaint Center), a center supported by the FBI and the National Crime Information Center (NCIC), has received an average of 652,000 complaints per year over the past five years. These complaints relate to a wide variety of internet scams that affect victims around the world [ 11]. As can be seen in the following graph [Fig. 1], this number of complaints is at a significant level. Some attacks have caused more damage than expected due to inadequate knowledge, even though they could have been prevented.

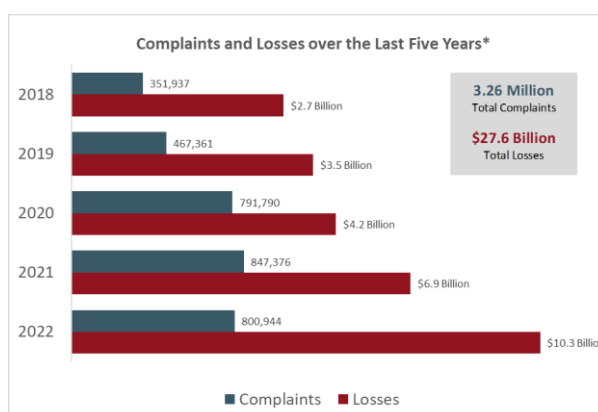


Fig 1. Complains and loses due to cyber- attacks: [https://www.ic3.gov/Media/PDF/AnnualReport/2022\\_IC3Report.pdf](https://www.ic3.gov/Media/PDF/AnnualReport/2022_IC3Report.pdf) (page:7)

For example, Equifax Inc., a credit reporting company, failed to take reasonable steps to secure its network, leading to a data breach in 2017 that affected approximately 147 million people. As a result, Equifax Inc. agreed to pay at least \$575 million and potentially up to \$700 million as part of a global settlement with the Federal Trade Commission, Consumer Financial Protection Bureau (CFPB), and 50 US states and territories [12]. This example clearly shows that we must learn protection methods against cyber - attacks and give this issue enough importance in order to prevent them or at least minimize the damage. The main methods of defense against cyber - attacks are explained below.

### **1) General methods:**

#### **1.1) Create a Cybersecurity Awareness Training Program**

Employees are the first line of defense against cyberattacks. They are constantly targeted by threat actors and can allow or prevent an attack. Employee training is critical to ensure the security of digital assets. It helps promote a security-first culture that includes all types of employees, rather than just the security team [16].

#### **1.2) Backup Your Data**

A data backup strategy is critical to an overall security strategy and any disaster recovery and business continuity program. Data backups help protect the organization against data loss events, providing ways to restore deleted data and recover overwritten files. You can use data backups to recover from ransomware attacks without paying the ransom and ensure business continuity during outages [16].

#### **1.3) CVE Databases**

There are many CVE vulnerability databases available. Organizations can use a CVE database to establish criteria for evaluating the security risks. As part of the digital forensics process, security analysts can reference CVE vulnerability information, search for known attack signatures, and fix critical vulnerabilities [16].

#### **1.4) Extended Detection and Response (XDR)**

DR solutions employ a proactive threat detection and response approach to holistically protect against unauthorized access, misuse, and various cyberattacks. It provides visibility across all data, including networks, cloud data, and endpoints, applying automation and analytics to address sophisticated threats. The automation functionality helps ensure operators strengthen security processes while improving their productivity [16].

### **2) Secure your accounts and devices:**

#### **2.1) Turn on Multi Factor Authentication**

Apply multi-factor authentication to your accounts and devices, which adds an extra layer of security and significantly reduces your risk of being targeted by an attack [14].

#### **2.2) Update Your Software**

Update your software. In fact, turn on automatic updates [13].

#### **2.3) Think Before You Click**

Think before you click. More than 90% of successful cyber-attacks start with a phishing email [13].

#### **2.4) Passphrases, Passwords and PINs**

Using unique and complex passphrases and passwords for every account and device is one of the best ways to keep your personal information safe [14].

#### **2.5) Watch What You Download**

When you download files off the internet, use caution and ensure that you are getting them from a trusted source. Always use your anti-virus software to scan files you download before you open them and immediately delete anything flagged as dangerous [17].

#### **2.6) Social- Media**

If you're not careful, social media can be an easy way for cyber criminals to learn more about you. Take these precautions before you post [14].

### **3) Secure your connections:**

#### **3.1) Private Networks**

Your computers, phones and other connected devices share a Wi-Fi network. Make sure your network is secure to protect all your devices from getting compromised. E.g. Anyone can connect to public Wi-Fi networks, which makes them flexible, convenient and risky. Learn how to take care when connecting to public Wi-Fi [15].

#### **3.2) VPNs**

Learn how to use Virtual Private Networks (VPNs), which are private servers that create a shield between two devices so you can surf the Internet privately and securely [15].

#### **3.3) Firewalls**

Firewalls guard your device from other devices trying to access it through the internet. Learn how to pick and maintain a firewall that's right for you [15].

### 3.4) Bluetooth

If hackers can detect your Bluetooth, they can get access to your device. Learn how to take care when using Bluetooth devices like speakers and headphones [15].

Although we categorize the ways to protect against the cyber- attacks mentioned and described above, each of them is important from a security point of view. It would be preferable to classify them for better guidance, but it is also worth repeating that since they are all very important for cybersecurity, we should be careful that none of them can be underestimated.

### The harm that cyber- attacks can cause to people and companies

Cyber- attacks can cause great losses if precautions are not taken. Your social media accounts can be stolen, your bank or stock market accounts can be stolen, causing great financial losses. It can cause your personal harm or bring companies to the brink of bankruptcy. Here are some examples of the damage cyber - attacks can cause:

- Your identity information, social media accounts can be stolen, and your personal information can be accessed.

- Your bank accounts, card information or stock market accounts may be stolen, causing you financial losses. They can transfer the money in your exchange accounts or bank accounts to their own accounts. They may use your card information or sell it to others.

- As a result of the attack, you may lose all or some of the data stored on your computer or servers. This can be a big problem for companies and businesses. It reduces the trust in the company and the company may experience legal problems. It can even cause great financial losses by stopping the production lines of the enterprises.

- When a system is hacked, users' data can be stolen and sold, or money can be demanded by blackmailing stolen data. This will cause customers to lose their trust in the company.

- A cyber attacker can interfere with your personal life by hacking your computer, phone, smart system of your home.

Some companies damaged by cyber- attacks:

**André Mignot Hospital** – A ransomware attack forced a hospital in the suburbs of Paris to shut down its phone and computer systems. The hospital had to partially cease operations and only accept appointments and visits. A ransom has been demanded, but the medical facility says it does not intend to pay it.[10]

**Acer** – the organization was the victim of a REvil ransomware attack in March. Threat actors demanded a \$50,000,000 ransom.[10]

**Colonial Pipeline** - company had to shut down after being hit by ransomware in May. The operator paid the hackers about \$5 million in cryptocurrency in exchange for a decryption key to restore their system. [10]

### Conclusions

This article covers different types of cyber-attacks, including malware, phishing attacks, and injection attacks; It talks about the main protection methods in order not to be affected by these attacks or to be affected with the least damage. Cybersecurity refers to the protection of information technology systems from cyber threats to ensure the confidentiality, integrity, and accessibility of information. Cyber-attacks can occur on any device or system with an internet connection and pose a threat to the security of your information. To protect against cybersecurity attacks, individuals and organizations can implement strategies such as using strong passwords, regularly updating software and security systems, being alert for suspicious emails or links, limiting access to sensitive information, and implementing firewalls and encryption. It should not be underestimated or bypassed by any means of protection, and it should not be forgotten that anyone can be a target for the attacker who carries out the cyber-attack.

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## THE IMPORTANCE OF VISUAL IDENTITY ON THE COMPANY'S BRAND AND ITS IDENTITY

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Keywords: *visual identity, branding, brand, brand identity, graphic elements, logotype*

### Abstract

Visual identity and its benefits are researched since the 19th century when it became mandatory for companies to have and submit their visual identity. This topic has been researched by authors like D. A. Aaker (1996), K. L. Keller (2003), and A. Wheeler (2018) – in their books and scientific articles they talk about visual identity's importance to the brand and brand's identity. However, as for many things, visual identity's demand, importance, and presentation change over time. Visual identity gains different forms of expression – back in time, it was mainly shown through printing, in today's world everything moves into digital space and makes visual identity adapt to the changes. While we still present visual identity through the press, nowadays digital world, social media, and digital technologies take the biggest place in the brand. Precisely these, over time occurring changes, make the need for this topic to be researched even more.

### The concept of visual identity

Visual identity refers to the strategically planned and branded presentations of corporations shown through visual cues. The present study argues that visual identity is not just a brand; it is also a collection of perceptions about someone or something's image (O'Donnell, 2018). The concept of visual identity has been known for a long time, but its use of it spread after the industrial revolution. Graphic designers started using it to help bigger and more complex commercial organizations visually show their personality and reason for their exitance from the community and employees. Nowadays a lot of research studies consider a company's visual identity as an integrated element into their brand or brand identity – business representation through symbols, communication, and behavior (Gregersen, Johansen, 2018; Mudrock, J. E., 2016). Visual identity is like a brand's terminology for unique graphic elements "alphabet", which directly and indirectly through engaging visuals and design styles communicates business values and its personality (Ushchapovska, 2018). To distinguish visual identity elements, author M. Gębarowski (Gębarowski, 2014) states that base essentials for organizations are: the name, graphic symbols, typography, and colors. Base elements and system carriers are presented in the first table ().

### Visual identity's base elements and system carriers

Base elements	System carriers
Logotype	Printed office forms (templates, envelopes, files for documents)
Colors	Building facade
Typestyles	Bodies of company cars
Dominant graphic arrangement	Company uniforms
Minimum areas around symbols	Decoration of interiors (colors of walls, information boards)
Sizes and proportions of graphic elements	Elements used during fairs (popup stands, stages, roll-ups)
	Promotional materials (among others, leaflets, brochures, press advertisements, and advertising merchandise)
	Forms of electronic communications (Internet website, profiles in social media portals, templates of multi-media presentations)

*\*Source: made by the author. Reference (Gębarowski, 2014).*

The system of visual identity is defined by its shaping elements, which are chosen by the company's activity, its size, services, or products, and for any type of organization when they use different tools to create those services and products: visibility, uniqueness, authenticity, transparency, consistency. Author Z. Jabbar

citing A. L. M. van den Bosch and M.D.T de Jong's studies states that usage of visual identity will be effective only when elements related to organization identity (system carriers) will be regularly presented to people through different communications channels. It is important to mention, that color combinations as symbols can create a strong visual cue for a company's awareness and represent the organization. The concept of visual identity let us understand how companies should represent their idea, work, and image and at the same time be easily recognizable while using different visual identity elements. It is important to realize that consistency between different visuals is one of the main things that let people remember a specific organization. Logotype, colors, and typography are the main things that should be used constantly to make your company seen and recognizable in the mix of all other organizations.

## Brand and brand's identity

Pretty often it's thought that a brand and its identity are the same as visual identity, but a brand and visual identity are only linked to each other, and they must be seen as separate objects. It is crucial for companies to know the difference and be able to understand and develop those elements. A lot of people think that a company's brand is the company's logotype, however, a brand is way more than just a logo. The brand itself is a complex phenomenon, which is broadly researched, yet there is no one and only concept of it because experts use the concept through different cases. Based on different studies, the concept of a brand could be described as a tangible and intangible set of attributes intended to create a company's awareness, identity, product, service, individual, place, or organization reputation (Mikačova, Rypakova, 2014; Sammut-Bonnici, 2014; Wooden, 2021). The brand itself is often associated with employees, product attributes, packaging, logo, product categories, brand name, symbols, advertisement, communication, communication style, price, broadcasting channel, etc., all these elements help to identify products among many other (Farhana, 2012; Batra, 2019). As could be seen, it is difficult to explain a brand with one specific term, it is a dynamic object which changes with time and depends on social, economic, political, technological, legal systems, and geographic changes. Knowing how important it is for the company to have a brand determines the brand's luck and it is not really dominant if the brand is a company, new business, or organization. It is crucial to maintain these main three functions – navigation, satisfaction, and engagement while being able to answer questions related to the brand that is being developed: Who you are? Who needs to know? How will they find you? Why should they care? Today the brand has a significantly bigger value than the company's accumulated material wealth (Wheeler, 2018).

Brand identity is often also seen as branding or visual identity, however, it has more elements in it and visual identity is one of them. Brand identity could be introduced as „a path, in which an organization chooses to present itself to the consumers“ (Wooden, 2021). It is a tangible object that appeals to the senses – we can see it, touch it, hold it, and watch it move. Brand identity fuels recognition amplifies differentiation, and makes big ideas and meaning accessible. In order to keep the brand known and recognizable it is important to manage the brand based on consistency and vitality (Mikačova, L., Rypakova, M., 2014).

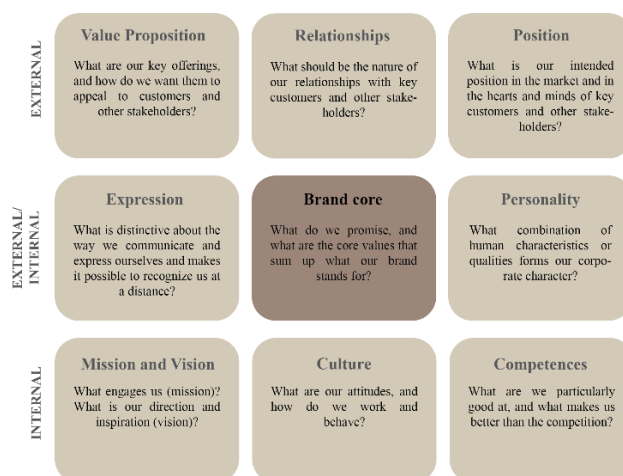


Fig. 1

Source: Made by author. Reference (Greyser, Urde, 2019)

When a strong brand is created it is time to work on a strong brand identity – it is best to refer to the main questions which were scientifically found to help build a brand identity (*Fig. 1*).

Even though the questions seem like the ones author A. Wheeler (2018) introduces for brand creation, however, the questions in picture 3 are answered when the organization already has a strong brand made up – this fact changes the perspective on how these questions are answered. To find your brand identity idea, organizations should answer questions like: What are the brand's particular vision and aim? What makes it different? What need is the brand fulfilling? What is its permanent nature? What is its value or value? What is its field of competence? Of legitimacy? What are the signs which make the brand recognizable? (Biaudet, 2017). The majority of studies show these questions through "The Corporate Brand Identity Matrix" - a corporation's identity is made up of nine interrelated components. By examining each one and how it relates to the others, an organization can build a stronger brand. The framework we've developed guides an executive team through a structured set of questions about the company. Each question focuses on one element of the organization's identity. There are nine elements in total, and in our matrix, we array them in three layers: internally oriented elements on the bottom; externally focused elements on top; and those that are both internal and external in the middle (Greyser, Urde, 2019). The organizations that work on these questions through the perspective of the identity matrix while creating their brand identity should help themselves to make the process easier and have a better understanding of what brand identity should look like. The ability to understand and separate the brand and brand identity allows the companies to present their brand identity in a way that highlights the brand's most important traits and features.

A brand that does not have its brand identity will only be able to copy other brands or belittle its brand while trying to fulfill too many different expectations and following the trends. The image of the brand could easily change over time, but brand identity is a thing that represents long-lasting brand values.

### **The importance of visual identity on the company's brand and its identity**

Although brand identity and visual identity are often confused with each other or they are seen as the same object, even with the terms being similar, brand identity and visual identity perform different functions for the company's brand. After conducting a scientific analysis, it is clear that brand identity consists of elements that represent the brand itself, whereas visual identity is created from different graphic elements, that visually convey and identify already made up – the brand and its identity.

Visual identity is a separate component connected to the brand and its identity. For a company to have a visual identity and correctly use it helps them become more recognizable in the market, however, visual identity is not only a design – it is the company's image. The usage of a visual image creates a strong brand representation in the community and increases its visibility (Jabbar, 2014). There are three main reasons why good quality visual identity is beneficial to the brand: the first impression made through visuals, visual identity communicates with the audience, and consistent branding builds trust and recognition. The first impression that was made through visual identity, forms the way customers see the brand itself. In today's digital age, people judge everything way faster than ever before and visuals are the first thing that our brain processes. The first impression is something that either attracts potential clients or turns them away. Communication with the audience through visuals helps the company to show its uniqueness which makes it easier for customers to understand and remember how special the brand is. It is way easier to remember visual information than text, which is why the usage of visual elements in brand and marketing strategies creates the possibility to make the message even more memorable. Each visual brand conveys a certain mood. Whether a company is casual, professional, modern, laid-back, or driven, its visual brand should reflect those unique values to draw in the right clients. Visual branding is the tool that can connect a brand with its audience emotionally. Studies have proven that today's customers make decisions based on their emotions rather than logic, and if the visual brand creates a trustworthy, positive, and engaging feeling, the likelihood of customers returning to the business is a lot higher. Consistent branding builds trust and recognition – a company's visual brand should speak the same language as what is said in its text, audio, and video. Also, a well-recognized and trusted brand appearance and identity share the idea of an honest and dependable business. Successful businesses put a lot of effort into building their visual presentation and identity that is clear, professional, and consistent from start to finish. It is not exaggerated to say that a strong brand image is one of the most powerful assets of a company (Dang, 2018).

Visual identity for a brand or business is the same as faces for people and even though back in the day it was not hard to create exclusive designs, nowadays the capitalist market made it harder to achieve

distinguished designs in the global market. High-level entrepreneurs understand the importance of strong and quality visual design brings to their brand. In today's world designers are invited to the top business meetings to help the brand become successful, while in the past designers were only able to meet mid-level managers. While the brand is often associated with product or service quality it is important to remember that the specific association is frequently based on visual elements that customer easily relates to the brand (Airey, 2019; McQuarrie, 2014).

It is frequently thought that a logotype is enough for a brand, and having a logo means, that company has its visual identity. Unfortunately, for a brand to be successful, memorable, and prominent, it cannot rely only on having a logo – the brand needs to expand beyond the logo and include all communication forms. A truly successful brand will be recognizable even without its logo. Other graphic elements, that help a brand to be easily recognized are brand guidelines, visual information, layout, color, and typography. These elements should be so consistent, that brand would be known even without the logo. Every visual element which is used by the brand should not be looked over or thoughtless (Hall, 2015). Relation between visual tools and the brand has a huge influence on how the company represents itself to internal and external stakeholders. Visual tools help spread many different messages while still keeping high recognition of the brand, and at the same time-sharing company's culture, and personality, and making consumers remember the brand's visual identity (Faroudi, Melewar, 2022). The visual identity has a strong power over the brand, and with visual elements, the brand can be recognizable really quickly. At the same time, any changes in visual identity elements can change the associations with the brand or fully redo the whole brand (McQuarrie, Phillips, 2016).

Consumers do not expect to get only visual identity itself; they are looking for uniqueness, innovations, and efficiency. New technologies changes and rises customers' needs and make them look for new visual identities (Andrzejczak, J., Glinka, K., 2015). Maintaining a visual identity but at the same time adjusting to today's technologies and consumers' needs is what brings a brand uniqueness and advantage. Following basics and maintaining essential elements is the root of everything, however, the ability to adapt a brand's visual identity is the addition to its growth (Guida, 2014). As most authors state – consistency and strong, easily recognizable visual identity are really important in a long-term perspective.

## Conclusions

After conducting scientific research on visual identity, it can be said, that this topic is widely researched and often talked about in scientific literature, however, there is not much research done on visual identity changes in creation and importance over time, especially since the digital age and social media era arise. While doing a scientific analysis, it stands out that from a long time ago it was clear how important visual identity is to the brand and its recognition, it was also observed that the connection between the brand and visual identity is one of the company's success elements. Successful companies are the ones, that work on their brand and brand identity and show that information through the visual identity. It is a brand's element that is inseparable from the brand and has a huge influence on it. Visual identity is something that consumers usually associate with the brand and which elements (logo, color, typography, visual image) are most easily recognizable and rememberable. Today's tendencies show that it is not enough for companies to only be known for their services or products – to be recognizable and unique in the overfilled market, it is important to have a created brand and find your own visual identity. Correct usage of all branding elements, while referring to theoretical aspects, makes the brand look strong in consumers' eyes. Keeping all the elements consistent and their constant usage makes the brand more noticeable and faster rememberable. More and more scientific research shows that visual identity is a strong tool that is necessary for every company.

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## FIVE DIMENSIONS OF SMART CITIES

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### Abstract

According to the UN data, world's population exceeds 8 billion in 2023 and human needs are increasing with the population. At the same time the aim is to supply the needs of the human and, also to improve living standards. Provide the smart environment, life, government, economy, mobility, and people through smart cities. This article devaluations were made on the smart city conflicts with Japan, Netherlands, Canada, Finland, and Singapore.

### Introduction

Since the neolithic age when societies settled down the tendency to urbanization has increased. Due to some discovery and invention, constituted city lives and bureaucracy. The community has become create economic, social, political, or religious missions. Therefore, has started to look forward to having harbouring, food and beverage, welfare with the expanding cities and growing population. The grid plan of Hippodamos, the first examples of which we see in ancient Rome, was created for the purpose of fair sharing of land and proper air circulation. In this way the city control and layout has become quite easy. In the transition from the first human Homo Sapiens to these day's modern human by today's definition who has relaxed trying to get unlimited needs from limited resources and this time who has started to protect from slaughtering living things and nature for our insatiable needs. For this reason. After industrial revolution people has begun to migrate from the villages to the cities where there was a lot of employment and 4000 people died and 100.000 people injured in 1952 due to the polluted air. Thus, the people have began to try to protect to nature and leaving a liveable World for tomorrow.

According to World Bank data while the urban population in 2013 was 382 billion, it was 4.45 billion in 2021. Today, some 56% of the world's population – 4.4 billion inhabitants – live in cities. This trend is expected to continue, with the urban population more than doubling its current size by 2050, at which point nearly 7 of 10 people will live in cities (according to worldbank indicator, 2023). Due to the growing population, authorities have decided to take control of it. The first example of smart city is published in Amsterdam in 1994.

For the UNDP, by 2050 two-thirds 68% of the global population will be living in cities. Therefore, nitrogen gas which causes global warming is increase and green spaces are disappearing. Through the smart cities plans to decrease air pollution, uncontrolled urbanization, uncontrolled resource usage and ozone layer perforation.

Smart cities have different definition, one of the definition is belong to World Bank: "Leverage data and technology to integrate urban infrastructure and service delivery and provide solutions to achieve a citizen-centric approach". According to European Commission smart city definition: "Place where traditional networks and services are made more efficient with the use of digital solutions for the benefit of its inhabitants and business". According to Giffinger, essential of all definitions that provide well performing city in a looking forward way in economy, people, governance, mobility, environment and living built on the smart combination of endowment and activities of self decisive, independent and aware citizen (Liu et al., 2021).

This article's aim is analyse the security as a smart living in Japan, smart mobility in Amsterdam, smart environment in Singapore, smart governance in Helsinki and smart economy in Canada.

### Smart Governance

Urbanization is increasing in countries every day. Not only urbanization but also population. Thus the demand for services is rising with the population. This situation is making harder to resource saving and controlling. The main goal of the governments is meeting human needs by improving the quality of life. However, it is very difficult for public power alone to provide all the services. But it is easy to provide with citizens participation, non governmental organizations, legal entities and international organizations by

innovation and technology. To ensure that, governments prepare protocols, legal regulations and policies. When we submit the governance by sustainability, making life easier and more economic the smart governance term occurs (Table 1 and 2).

Governance is defining by UNDP as a “The exercise of economic, political and administrative authority to manage a country’s affairs at all levels. It comprises mechanism, porcesses and institutions through which citizens and groups articulate their interest, exercise their legal rights, mmet their obligatios and mediate their differences”. According to Kaufmann, Kraayand Zoido Lobaton 1999 governance has five dimensions: Voice and accountability, political instability and violence, regulatory burden. And World Bank CPIA Indicators has spesified that the governance includes the quality budgetary, financial management, the efficiency of revenue mobilization; the efficiency of public expenditures and transparency, accountability and corruption.

Table 1

Variables/Indicators			
No	Variable / Indicator	Coded	% Confirmation
1	Variable Openness and Public Participations		
1.1	Availability of online city information and feedback mechanisms	21	80%
1.2	Online civic engagement	24	96%
1.3	Existence of strategies, rules, and regulations to enable ICT literacy among inhabitants	27	80%
2	Variable e-Governance		

*\*Source: Febrianta M. Y. Et al. Identification of e-Governance Indicators for Measuring Smart Governance in Bandung City, (2019)*

Table 2

*\*Source: Febrianta M. Y. Et al. Identification of e-Governance Indicators for Measuring Smart Governance in Bandung City, (2019)*

No	Variable / Indicator	Coded	% Confirmation
2.1	Provision of online systems for administering public services and facilities	40	100%
3	Variable New Public-Private Collaboration Frameworks	28	92%
4	Variable Smart Applications		
4.1	Support degree of information resource on decision-making	11	64%
5	Variable Guarantee System		
5.1	Smart city plan and implementation scheme	46	100%
5.2	Organization guarantee	19	96%
6	Variable Modern Processes of Public Management of The Municipal Budget		
6.1	Existence of a multi-annual budget	10	84%
7	Variable Modern Systems of Public Management of The Municipal Government		
7.1	Existence of electronic systems for tracking the municipality's management	33	100%
7.2	Existence of electronic procurement system	9	60%
8	Variable Transparency and Auditing of The Government's Public Management		
8.1	Transparency index	12	52%
9	Variable Efficiency	16	60%
10	Variable Coordination and Integration		
10.1	Integration of policy implementation in multiple dimensions	40	100%
11	Variable Participation and Coproduction		
11.1	Information exchange	24	80%
12	Variable Local Government Staff	36	100%

People assumes to achieve all gove rnance principles and reach the good governance. Developing civic awareness and demanding high standards but taking an active role in ensuring these standards and produces solitions. The World Bank also mentioned that good governance includes management of the public sector, transparency, opennessand the development of technical regulations to optimize public services. Some of the good governance goals are achieving with the modern information technology, artificial intelligence, and big

data (Liu D., Qi X. 2021). Future policies rather than blindly acting on the based on one's past experience and intuition can improve the scientificity of decision making and provide a basis for future strategic development.

Former US president Bill Clinton utilized the term in the presentation of his views on the future role of government. Last, one of the core conferences in EGR, the Digital Government Society's dg. o 2013 conference was held under the motto of "From e-Government to Smart Government" (Scholl H. J., et al. 2014).

These indicators ensure that to create framework for governance. In this way smart governance structure becomes clearer. Smart governance includes three steps procedures: Diagnosing the situation, developing a strategic plan, and then taking - action (Jiang et al. 2020). The main goal is to encourage investment and build a sustainably populated urban area by providing to improve the quality of life of its citizens. In general, the term smart governance refers to search and discovery of intelligent solutions that enable current cities to improve the standard of quality of life offered to inhabitants. Governance framework is to ensure transparency, open data, enhance freedom of speech, create openness to access public information, efficiency, and participation of the people in governance and decision making. The smart governance aims that submit by technological innovation, resource saving and foster potential liveability, workability, and sustainability (Visvizi et al.2019). Smart governance not only implement with ICT applications but also must be implemented within a suitable legal framework related to values, protocols, and human capital displayed inside a suitable ICT infrastructure.

Table 3

**Top 50 Smart City Government Rankings**

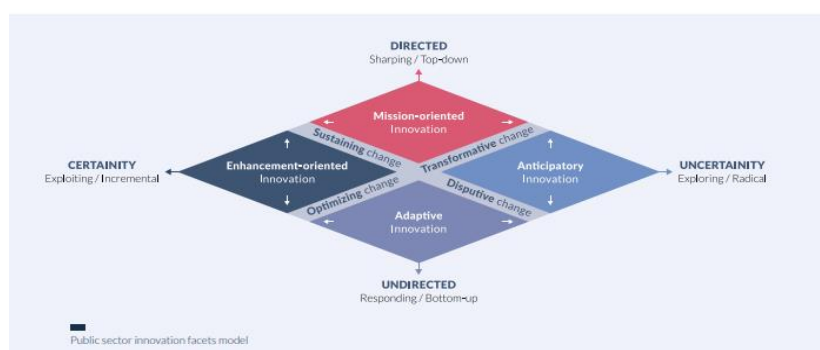
Rank	City	Rank	City	Rank	City	Rank	City	Rank	City
1.	Singapore	11.	Columbus, Ohio	21.	Hamilton, New Zealand	31.	Adelaide	41.	Hong Kong
2.	Seoul	12.	Tallinn	22.	Tokyo	32.	Boston	42.	Chicago
3.	London	13.	San Francisco	23.	Berlin	33.	Wellington	43.	Christchurch
4.	Barcelona	14.	Moscow	24.	Milan	34.	Dubai	44.	Vancouver
5.	Helsinki	15.	Beijing	25.	Shenzhen	35.	Copenhagen	45.	Zurich
6.	New York City	16.	Chengdu	26.	Dublin	36.	Guangzhou	46.	The Hague
7.	Montreal	17.	Tel Aviv	27.	Oslo	37.	Seattle	47.	Rotterdam
8.	Shanghai	18.	Sydney	28.	Bandung	38.	Frankfurt	48.	Lisbon
9.	Vienna	19.	Taipei	29.	Hangzhou	39.	Philadelphia	49.	Chongqing
10.	Amsterdam	20.	Melbourne	30.	Busan	40.	Los Angeles	50.	Stockholm

*\*Source: Eden Strategy Institute The top 50 smart city governments in 2020/2021 smartcitygovt.com 2021*

According to top 50 city government rankings, Finland includes top 5 country ranking (Table 3). To provide integration of center-periphery, governance is increasing. Finland is one of these countries. As far as Freedom House 2022 Finland report, Finland has hundred out of hundred. Report includes government's openness and transparency skore, individuals' free to express their personal views on political or other personal topics without fear of surveillance, etc. This report shows us that governance is connected with the freedom of country. The freer the country, the easier it is to implement governance.

As regards to this survey, Finland try to involved citizen participation with innovation portfolio is connected with the freedom of country. The freer the country, the easier it is to implement governance (Fig.1).

Fig. 1.



*\*Source: OECD, Anticipatory innovation governance: Towards a new way of governing in Finland 2020*

To reach their goals and solve societal-level problems (mission-oriented innovation), Adapt to their citizens' needs and changing environments (adaptive innovation), Run their current systems more efficiently (enhancement-oriented innovation), Address future challenges, risks and opportunities (anticipatory innovation, 2020). Parliament member Saara-Sofia Siren say that, in Finland the idea of smart city is around the idea of sustainability and Collaboration between the government and people is key to success she added. Within the smart city, the government is developing transportation, communication and information Exchange, housing projects. These are performing with listening to citizens and collaborating.

According to e-Government Benchmark 2022 report, 84% of the services delivered by central governments are online compared to 71% by regional governments and only 60% for local governments. There are not many resources on smart governance. For this reason, smart and state based activities have been tried to be explained within the framework of smart governance. There are quite a lot of executions about e government and smart government in Finland. This innovations, applications and policies made easy to administration and daily life. All process about smart governance is examined under three main headings: Digital government infrastructure, Digital government services for citizens and Digital government services for businesses.

### **Digital Government Infrastructure**

Digitalization in government, transparency and accountability made easy. In the future, public institutions may make request for tenders and receive tenders as electronic documents. Thus, contracting firms without a private electronic tendering system will be able to receive bids (Digital public administration factsheet Finland, 2021). In addition, with the turn Finland into digital government, both government and governance gained efficiency and speed and the workload was alleviated. Apart from that, government supply cybersecurity service besides public services.

Suomi.fi web service for citizens, organizations, and companies. It provides businesses and people with access to public service information and services at a single location. It offers official electronic services, forms, and details on municipal services, for instance. In this way bureaucratism is reduced and resource and time savings are achieved. Demokratia.fi platform that combines news and information about political decision making from many websites that are engaged to democracy. Kampus is common platform for sharing information between ministries. This platform provides Access to internal and external government and parliament information. Tutki Hankintoja offers citizens and companies information about government spending on procurement. Citizens can search and find information about the state purchases and how public funds are spent (Digital government factsheet Finland 2019). In addition, in Finland all payments are done electronically (via Suomi.fi:maksut). By this way to spend less paper, do instantly and from anywhere. Finnish Population Information System used throughout Finnish society's information services and management, including in public administration, elections, taxation, judicial administration, research, and statistics. Digiroad provides detailed and up to date description of the Finnish road and street network online. This Project purpose is route planning, navigation, tourism, and intelligent transportation system. Considering all of these, the website improves contact with and openness within government while facilitating citizens discovery of the greatest paths for participation and influence. Through these services, society easily find what they are looking for without keeping institutions busy and can communicate and interact. But also, to use and serve this services society must have knowledge about how to use. To provide this, Finland Education Ministry adds courses on the schools and universities. Besides, in Finland 57% of those 65 to 74 years old who use the internet everyday have done so. These figures fall to 41% for experience using the internet and 23% for daily use in Finland when we look at those aged 75 to 89 (Pirhonen et al. 2020). This digitalization processes are preparation for future not only sustainability, non carbon footprint and saving time but also to keep up with the changing and developing World and humanity and improve conception of the state for society.

### **Government Services For Citizens**

Services provide to avoiding extra hassle and red tape when moving, learning, working, shopping, or just traveling overseas. The factsheet's categories, on the other hand, are meant to gather a wider variety of data, with an emphasis on both national and cross-border services. The government serves six categories: Travel, work and retirement, vehicles, residence formalities, education, and youth, healthy, family and consumer.

About the employment, there is a web site "te-palvelut.fi". which has provided online application, carry out online all tasks related to communication with the TE Office. For the wages, salary, any sideline income,



social benefits, or seafarer's wages there is a tax card. You can Access is easily using your network banking login credentials or HS card from the Public Register Centre. On the other hand, to take salary or pay debt of taxes you do not have to wait working hour and take time off(<http://www.tax.fi/Taxcard>). In addition, government ensure that online student grant, public libraries, volunteering, electronic prescription self care health services. With application or by web site citizens access easily these services. Essentially this convenience executions ensure that public buildings such as hospital, municipality, and tax office; public or private transportation and rush hour in the city; less crowded, fuel uses and wasting time. Furthermore supply ombudsman service for between man and woman equality and based on age, language, sexual orientation, religion, disability, ethnicity etc. Ombudsman can contact through secure email, a form on the website, phone, or letter. Mentioned services' web sites are: [www.tasa-arvo.fi](http://www.tasa-arvo.fi) and [www.sryjinta.fi](http://www.sryjinta.fi). Expect this ombudsman services, Finland parliamentary also supply ombudsman service. If one believes that an authority has acted unlawfully or in neglect of duty. Mainly, when the government freer and transparency, governance gives efficiency consequences by ombudsmen. Whether public institutions comply with the ombudsman's report is linked to openness, transparency. And this also influences that how much effect citizens to governance.

### **Digital Government Services for Businesses**

Governance necessitates not only social meaning citizen participation but also economical. For businesses and anyone interested in beginning a business, public business service organization developed enterprise Finland by online services. In this way public power can give some duty to private sectors to supply half public service.

Finland government provide online with the digital services: Patents, trademarks, designs. Furthermore, central government supply for company tax, online application submission and payment mechanism. About human resources there are a few executions. Employment contracts, working hours, holidays and leave, social security and health, equal treatment, and qualification. The employer posts a job opening announcement. Job Market recommends candidates for the position to the employer whose qualifications match those listed in the job posting. The suggestions are based on an algorithm's algorithmic scoring. Through the executions, employers do not have to be wast of their time by traditional methods to find employee. Algorithm make easy to find employee process. Apart from that supplying ombudsman services. The Ombudsman for Equality oversees the equality of gender minorities as well as men and women. The website offers guidance and information for a variety of scenarios in which gender discrimination may occur.

When everything is said and done, this three main titles mention that Finland governance executions' main aim is facilitating human life, achieving prosperity and creating a sustainable lifestyle. In this way, state and citizens cooperate and coordinate each other. The burden on the public is reduced by the transformation of management into a form of public administration. Thus the trend with governance is increasing. Sharp borders between the center and the periphery are being removed and the responsibilities of the government are being reduced. Supporting to the governance by technology, artificial intelligence and innovation makes it smart. It ensures the avoidance of unnecessary employment and public expenditure and efficient expenditure can be made with the state budget. As a result the smart governance passed after classical governance aims to save resources and offer maximum efficiency to citizens. While doing this, they aim to be sustainable.

### **Smart Cybersecurity**

A modern and efficient information and communication technology (ICT) infrastructure is essential for managing the challenges in the complex urban systems development (Ademola et al. 2014). A increasing number of cities around the world have begun to develop their own smart strategies in an effort to address these issues, enhance citizen well-being, spur economic growth, and manage contemporary cities in a sustainable and intelligent manner. Predictably, the infrastructure of a city is embedded with billions of devices that can be mutually beneficial for the citizens by means of various applications, such as smart transportation, smart government, smart healthcare, smart environments, and smart homes (Cui 2018). Due to the vulnerabilities that are frequently present in each layer of a smart system, the development of these smart apps could, however, result in significant security and privacy issues.

One of the first and most advanced countries that has begun smart city development is Japan. Digital tools launched in a Japanese smart city that can send disaster alerts to safeguard residents are part of an optional technology push aiming to overcome social and economic challenges, while also allaying privacy fears. In

Japan, smart cities became an area of focus after the 2011 earthquake and tsunami, with local governments partnering with businesses and researchers to tackle social and economic issues including an ageing population and the impacts of climate change, with technologies such as artificial intelligence (AI). Following the smart city construction concept of “legislative guarantee first”, mainly relying on market operation, active participation of enterprises and citizens, and policy guidance. The smart Japanese city’s steady development also depended on a series of government policies to build a digital society, such as the “e-Japan” strategy (e: electronic) in 2001, the “U-Japan” strategy (U: ubiquitous) in 2006 and the “I-Japan” strategy (i: information) in 2009 (Su, 2022).

Likewise, cybersecurity and network monitoring are becoming increasingly important in information technology as there is rising worry about how human rights could be protected in the face of the pandemic and in the digital era. Today’s thriving smart city integrates a variety of urban systems and services with innovative technology in order to improve resource utilization efficiency while enhancing the standard of life for citizens. Almost all smart applications are susceptible to hacking through present-day attacks, such as background knowledge attacks, collusion attacks, Sybil attacks, eavesdropping attacks, spam attacks, likability attacks, inside curious attacks, outside forgery attacks, and identity attacks, even though the aforementioned developments in smart cities have significantly contributed to the improvements of the entire society.

In recent years, significant problems have been found in different application scenarios. For example, the smart metering infrastructure in smart grids can monitor the private lives of residents, including their living habits and working hours. Similarly, in the context of smart homes and healthcare, device manufacturers and service providers may gain access to the sensitive data. In addition, the large amount of trajectory information collected by smart mobility applications can be used to infer the location and mobility patterns of a user. In addition to these problems, the following items are the latest issues generated by the rapidly developing smart applications.

### **The Path To Develop Cybersecurity In Smart Cities**

Security for smart cities refers to a bigger problem, and one should not view it in silos. By silos, we are referring to developing security solutions for specific smart city applications, such as smart transport, smart health, smart environment, smart living etc (Fig. 2). Rather, one should view and understand what are the underlying factors that will govern and contribute to the secured operations and services of these smart city applications (Toh, 2022).

Effectively, we need to secure the every component of a smart city, in addition to securing each smart city application. This calls for a comprehensive and total security solution to protect a smart city. As shown in Fig.1, the security solution will not only shield and protect the city from attackers from intruders outside the city but also protect its internals – infrastructures, connectivity, applications, and services.



Fig. 2 Security protection shield of a smart city

*\*Source: Toh, 2020*

The beauty of blockchain technology lies in its use of consensus protocols and public-key encryption to authenticate a ledger and validate transactions in a distributed way without the need for a central authority (Fig. 3). Since the roll out of bitcoin and the use of blockchain technology, many people have accepted the use of blockchain to provide security for financial transactions. Its incorruptible distributed ledger technology has allowed bitcoin to evolve as a digital cryptocurrency invested by millions. How, though, blockchain technology

be used in smart cities. It is said that cities could be made more effective, transparent, safe, and resilient using blockchain technology. These are challenging inquiries that need to be addressed.

Country	Remarks on the application of blockchain
Sweden	real estate transactions are made using blockchain
UK	blockchains are used in the distribution of grants
Estonia	blockchain helps to maintain transparency in medical records
Ghana	blockchain used to provide tamper-resistant property ownerships
Russia	blockchain used to provide secured trading and transactions between shareholders
Korea	banks have created blockchain-based eco-system
Singapore	blockchain used to help prevent trade invoice fraud

Fig. 3 Global blockchain initiatives

*\*Source: Toh, 2020*

There are still a lot of policies, architectures, plans, and technological solutions in this crucial area as smart city cyber-security is still in its infancy. With the increase in population information technology in cities, it is essential to have sophisticated management strategies that make use of the newest platforms and technologies to enhance metropolitan services. A novel approach to integrating information and communication technologies is found in smart cities. Therefore, there are several reasons why cybersecurity should be implemented in a smart city. Without it, the benefits of smart city technologies may be outweighed by the risks posed by cybersecurity threats.

## Smart Economy

Globally emerging urbanization patterns depict various situations on various continents, necessitating various approaches, policies, and strategies. Amazing global ICT democratization sparks a debate on resilient, sustainable, and sustainable smart cities, as well as smart city economic growth suitable for various cities, nations, and continents. It's conceivable that the challenges to the economic development of smart cities will vary depending on the city within a given nation or continent. The issue of what constitutes smart city economic development arises when the traditional rural economy gives way to the urban economy, which accounts for a significant portion of the national gross domestic product.

Ottawa- A Heritage Of Innovation. The focus of innovation research is all too frequently on "learning regions" or core regions that have successful innovation systems, such as Silicon Valley, Route 128, Emilia-Romagna, and the Baden-Württemberg Lessons from these areas, however, are rarely transferrable elsewhere, especially in areas where key actors in the innovation process are less diverse.

The need for communication compelled Canada to come up with the modern communications age's tools, which are now utilized on a global scale. Due to the presence of government Research and Development Laboratories, Ottawa in particular became a hub for the creation of communications technology. Innovation, therefore, was given a springboard for growth in Ottawa's culture. Innovation is the driver of the Smart Economy today, responsible for three-quarters of all economic growth in the USA since World War II (Gander et al. 2016).

To continue to grow its economy and remain competitive in the global market, Ottawa can leverage smart technologies to further develop its tech sector and support the growth of new industries. For example, Ottawa could invest in IoT infrastructure to improve transportation and traffic management, or in smart grid technology to increase energy efficiency and reduce carbon emissions. Ottawa could also leverage blockchain technology to improve supply chain management or create new opportunities for the finance and banking sector.

More than one in four workers are employed in the knowledge field, and 61 % of the workforce have a post-secondary degree. Smart Community author Richard Florida ranks Ottawa as Canada's number one city based on the three Ts of economic development: Technology, Talent, and Tolerance (Gander et al. 2017). Likewise, Ottawa's innovation economy is driven by a number of factors, including its highly educated and skilled workforce, strong academic institutions, supportive government policies and programs, and access to



funding and investment. The city is home to a number of leading research institutions, such as the National Research Council of Canada and Carleton University, which contribute to a culture of innovation and collaboration.

A second component is required for an innovation to be a powerful economic force: the capacity to recognize its commercial potential. Because innovations are still in their early phases, it has been challenging to evaluate this value-adding characteristic. The overall intensity of the "Smart City" environment can be determined in Ottawa using a new assessment method that is based on hundreds of variables. Another innovative technique examines the effectiveness of the organization's capacity to commercialize innovation at the organizational level. Any community that wants to have a smart economy can use these technologies.

Ottawa is known for its thriving technology sector, with companies such as Shopify, Kinaxis, and BlackBerry having headquarters in the city. The city also has a growing startup ecosystem, with organizations such as Invest Ottawa providing support and resources to entrepreneurs. Ottawa is known for its thriving technology sector, with companies such as Shopify, Kinaxis, and BlackBerry having headquarters in the city. The city also has a growing startup ecosystem, with organizations such as Invest Ottawa providing support and resources to entrepreneurs.

Smart Cities are environments that do more than allow people to "think outside the box" - they allow minds to move through multiple linked boxes. That's why, Canadian cities have plenty of innovative ideas. One of them, are non-profit entities. Invest Ottawa is a non-profit organization that supports economic development and entrepreneurship in the Ottawa region. The organization was established in 2012 as a merger between the Ottawa Centre for Research and Innovation (OCRI) and the Ottawa Partnership.

Invest Ottawa provides a range of services and resources to entrepreneurs, startups, and established companies in the region. Some of its initiatives include:

1. Business advisory services: Invest Ottawa offers business consulting and mentorship services to help entrepreneurs and startups grow and scale their businesses.
2. Workshops and training: Invest Ottawa provides workshops and training programs on a variety of topics, such as business planning, marketing, and finance.
3. Incubation and acceleration: Invest Ottawa offers incubation and acceleration programs to help early-stage startups grow their businesses, access funding, and connect with mentors and investors.
4. Partnership development: Invest Ottawa works to build partnerships between local businesses, government, and academic institutions to promote innovation and economic growth in the region.
5. Community building: Invest Ottawa organizes events and networking opportunities to bring together entrepreneurs, investors, and other members of the local business community.

Smart cities require effective governance and institutional support to fulfill their role with regard to smart economy. That's why Canadian cities receive auxiliary impulse from authorities. Canada provides several institutional supports for the implementation of the smart economy. Some of them are:

1. Strategic Innovation Fund: The Strategic Innovation Fund (SIF) is a government fund that supports research and development projects in key areas, such as advanced manufacturing, digital technologies, and clean technology. This fund provides financial support for innovative projects that can help Canadian companies compete globally.
2. Canada Accelerator and Incubator Program: The Canada Accelerator and Incubator Program (CAIP) provides funding and support to startup accelerators and incubators across Canada. This program helps new businesses grow and develop by providing mentorship, funding, and access to resources.
3. National Research Council of Canada: The National Research Council of Canada (NRC) is a federal research organization that supports innovation and economic growth in Canada. The NRC provides funding, expertise, and facilities to support research and development in key areas, such as advanced manufacturing, digital technologies, and clean technology.
4. Canadian Digital Service: The Canadian Digital Service (CDS) is a federal organization that works to improve the digital services provided by the Canadian government. The CDS helps government agencies adopt digital technologies and improve the user experience for Canadians.
5. Innovation Superclusters Initiative: The Innovation Superclusters Initiative is a federal program that supports the development of business-led innovation superclusters in Canada. This program provides funding for projects that bring together businesses, universities, and research institutions to collaborate on innovative projects.

6. **Smart Cities Challenge:** The Smart Cities Challenge is a federal program that encourages cities to use technology and data to improve the quality of life for their residents. The program provides funding for cities to develop and implement smart city projects.

These institutional supports provide the necessary funding, expertise, and resources to help Canadian businesses and communities implement the smart economy, fostering innovation, competitiveness, and economic growth. In conclusion, the concept of a smart economy involves leveraging advanced technologies and data-driven strategies to drive sustainable economic growth and development. A smart economy also emphasizes the importance of innovation, collaboration, and a strong focus on creating value for all stakeholders, including businesses, consumers, and society. By adopting a smart economy approach, countries and organizations can harness the power of technology to create a more efficient, equitable, and sustainable economic future.

## **Smart Transportation**

The city of Amsterdam has long been a pioneer in sustainable and intelligent mobility. Amsterdam serves as a role model for cities throughout the world aiming to establish more livable, ecologically friendly urban areas because to its network of bike-friendly roads and canals, effective public transit system, and commitment to lowering emissions and congestion. The vast bike infrastructure in Amsterdam is one of the city's primary strengths. Many locals use bicycles as their main form of transportation, and the city has created an outstanding network of bike lanes and trails to make cycling accessible, safe, and easy. In reality, cycling accounts for close to 40% of all journeys in Amsterdam. This has improved public safety while simultaneously reducing transportation congestion and pollutants.

The success of Amsterdam's public transportation system in terms of sustainable transportation is another important factor. The city offers a vast network of effective, dependable, and reasonably priced trams, buses, and trains. Additionally, the system is completely integrated, allowing users to simply switch between various types of transportation with just one ticket. This makes getting around the city without a car simple for both locals and visitors.

To further enhance its transportation infrastructure, Amsterdam has adopted innovative technologies in recent years. The city has put in place a variety of smart mobility solutions, including on-demand transportation services, real-time public transit information, and intelligent traffic control systems. While lowering emissions and improving convenience, these advances make transportation

The increasing number of electric vehicles is among the most fascinating transportation-related phenomena in Amsterdam. Promoting the use of electric bikes and autos is a crucial component of the city's ambitious plan to reduce pollution. With the installation of a network of charging stations across the city, Amsterdam has made it simple for locals and visitors to refuel their electric cars. The city has also put measures into place to promote the use of electric vehicles, including tax breaks for companies who transition to electric fleets and free parking and charging for electric vehicles.

Of course, Amsterdam's transportation system's success is not just attributable to its setting and regulations. The citizens of the city are essential to its operation. Many locals in Amsterdam use bicycles as their main form of transportation, and the city is well-known for its bike culture. This not only encourages a more active lifestyle but also lessens pollutants and congestion. Residents of the city are also firmly committed to sustainability and open to altering their regular routines to promote a more environmentally friendly transportation system.

In conclusion, Amsterdam is a role model for urban regions around the world that want to become more sustainable and habitable. The city has become one of the most livable cities in the world thanks to its dedication to sustainable mobility, creative regulations, and bike-friendly infrastructure. Cities can improve the quality of life for their citizens while also preserving the environment by supporting smart mobility solutions and funding environmentally friendly transportation.

## **Smart Environment**

Singapore is often regarded as one of the world's most environmentally friendly and sustainable cities. The city-state has made great advances in environmental conservation, waste management, and green energy production, establishing itself as a model for other communities across the world seeking to create a more sustainable and habitable environment.

Singapore's commitment to green energy production is one of the fundamental elements of its success. Despite its small land area, Singapore has made significant investments in renewable energy sources such as solar power and biomass. By 2025, the city-state hopes to have at least 20% of its energy demands satisfied by renewable sources. Singapore also has the world's largest floating solar farm, which has a capacity of 60 megawatts and is located on the Tengah Reservoir.

Another critical part of Singapore's green drive is its dedication to waste reduction. The city-state has put in place a comprehensive waste management system that incorporates recycling, composting, and waste-to-energy technologies. Singapore is one of the few countries in the world with a high rate of waste recycling. Littering in public places is likewise punishable by fines of up to \$1,000 in the city-state.

Singapore's commitment to green spaces is also a significant factor in the country's achievement of sustainable living. The city-state has made significant investments in parks, gardens, and green corridors, making it one of the world's greenest cities. Gardens by the Bay, one of Singapore's most well-known green spaces, is home to over a million plants from all over the world. Towering "supertrees" give shade, shelter, and ventilation to the surrounding area at Gardens by the Bay.

Singapore is likewise devoted to smart environmental solutions to help it achieve its green goals. To increase environmental sustainability, the city-state has adopted several smart technologies, including a real-time air quality monitoring system and a network of sensors to detect and prevent water contamination. These technologies enable Singapore to better monitor and control its environment, making it a safer and healthier place to live.

Singapore is a leader in smart urban design, in addition to its efforts to encourage green living. To make its urban environment more pleasant and sustainable, the city-state has incorporated a variety of smart technology. The Smart Nation initiative, for example, attempts to employ technology to improve inhabitants' quality of life while also promoting economic progress. The effort covers a variety of smart solutions, including smart homes, self-driving cars, and smart logistics systems.

Singapore's success in developing a green and intelligent environment is attributable to more than simply its infrastructure and laws. Residents of the city-state also have an essential part in ensuring a sustainable future. Singaporeans are well-educated and concerned about the environment. To encourage inhabitants to adopt sustainable behaviors such as decreasing energy and water use and using public transportation, the city-state has established a variety of public education programs.

After all, Singapore serves as a model for cities around the world looking to create a more sustainable and livable urban environment. The city-state's commitment to green energy, waste management, and green spaces, as well as its adoption of smart technologies and urban planning, have made it one of the most livable cities in the world. By promoting a green and smart environment, cities can create a better quality of life for their residents while also protecting the environment.

## Conclusion

In this study, we analyze the definition and application domains of a smart city to give a gateway to a deeper comprehension of the idea.

We describe a smart city as a systematic integration of technological infrastructures that rely on advanced data processing, with the objectives of increasing the effectiveness and protect the sustainability of city governance, the happiness of its residents, the prosperity of its enterprises, and the sustainability of the environment. In addition, we consider that any smart city concept should consider five essential perspectives such as Smart Governance, Smart Cybersecurity, Smart Economy, Smart Transportation and Smart Environment.

Thus, smart cities represent a vision of the future in which technology is used to improve the quality of life for citizens, enhance economic development, promote sustainable living, and ensure efficient governance.

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