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## INDEPENDENCE MOVEMENT IN CATALONIA AND EU'S VIEW ON IT

**Linda Sefuli, Ian Dalmau Mendoza, Enrique Diaz García Strelnikova Irina Aleksandrovna**  
*National Research University Higher School of Economics*

### **Abstract**

The Catalonia Independence Movement is an important part of Spain's history and contemporary times. It has had serious consequences for the EU, which consider the situation as an issue that should be solved inside the country. Nonetheless, it has been demonstrated that Europe won't accept any independence movements including Catalonia as an independent state. In order to reach a peaceful compromise, mutual understanding through dialogue and the following of the constitution is needed at all times to keep the country united.

**Keywords:** Independence movement; Catalonia; Law; EU.

### **Catalonia and its history with independence movement**

Catalonia is classified as an autonomous community of Spain situated in the Iberian Peninsula on the shores of the Mediterranean and in the foothills of the Pyrenees. The old Catalonia, consisting of the earldoms, and the new Catalonia, which was still under Muslim territory. In old Catalonia the earldoms gradually established stronger relationships among themselves. There was a particular focus on Barcelona, which became the predominant earldom. (Utrera, 2014)

By the 12th century, the Muslims started losing territory and the peninsula was divided into kingdoms. In the 14th century was established the Government of Catalonia. Catalonia's self-government was becoming more and more established. (Santisteban, 2013)

Fernando, King of Aragon, and Isabel, Princess of Castile, married, and in this way both kingdoms came to have the same monarchs. This meant that each kingdom would keep its own institutions and government. The Count-Duke of Olivares wanted all the kingdoms to have the same government and pay the same taxes. The Catalan nobles accepted the idea, but in Catalonia the ordinary people rebelled against it because it meant the loss of autonomous government which they had defended for so many years and... everything flared up and the result was the War of the Reapers. (Cortijo & Martines, 2020)

The king died without heirs. Now there were two candidates to succeed him: one from the House of Bourbon and the other from the Austrian royal family. Catalonia fought for Austria and the war broke out. The Austrian candidate gave up and the Catalans lost the war on September 11, 1714, with the fall of Barcelona. As a result, the new monarch suppressed their institutions and laws, and prohibited their language. Catalonia came to depend totally on Madrid. The national day of Catalonia is celebrated in memory of that date. (Utrera, 2014)

In the 19th century the whole of Europe became industrialized. Catalonia grew remarkably in commerce, industry and agriculture, and so its economy grew. Feelings of national consciousness arose again and with it, political Catalanism. Then the Carlist Wars started.

The candidate for the throne was Queen Isabel. The Salic law prevented women from inheriting the throne. In view of this situation, some people wanted Carlos, the brother of the late king to become king. This caused three wars: Carlists against Isabel's supporters. Carlos offered a better guarantee of recovering the lost institutions and for this reason the Catalans were on his side, but they lost, and so their dependency on Madrid continued. Spain became a republic and the Catalan self-determination movement returned. During the republic Catalonia succeeded in recovering its institutions and in 1932 the Statute of Autonomy was passed, a kind of constitution. This changed rapidly with the arrival of the Francoist dictatorship. During that time Catalan institutions and language were forbidden. With the dictator's death there began a period of transition, a new political status, and the reactivation of the institutions. (Utrera, 2014)

### **Contemporary independence movements in Catalonia**

While a few Catalans have longed for autonomy, the issue has simply ascended to the front in the recent years. The past decade the striving of Catalans to reach their independence from Spain has grown immensely. Many Catalans believe that their region has put economically more into Spain than it has received back from it, then they want a political, cultural, and moral right to self-determination. Nonetheless, not all Catalans are pro-independence, and the parties have not had the ability to reach a 50% of the vote in regional elections. But what put the fuel to this fire? Many states it was the economic crisis Spain endured. The Catalan president of that time, Artur Mas, started supporting the independence movement in 2011 during an upsetting angry time over his center-right Convergence and Union party's austerity policies. (Jordan, 2019)

In November 2014 more than 80% of voters opted for independence in Mas's non-binding independence referendum but only 2.3 million of Catalonia's 5.4 million eligible voters took part. After this Mas was barred from holding public office for two years, but that did not stop the movement. After three years, Carles Puigdemont pushed a unilateral referendum despite being warned by the Spanish government and constitutional court not to do it. Although they managed to get a referendum law passed in the regional parliament, the law was struck down by Spain's constitutional court. Sometime after that on 1st of October 2017, the poll was marred by Spanish police with violence to attempt to stop the referendum. This backfired on Spain as the news spread globally and it ruined Spain's reputation as the referendum gave the country the image of "the worst political and constitutional crisis since its return to democracy". (The Guardian, 2019)

The next thing that happened was the signing of the declaration of independence, but they suggested to suspend it for two months in order for dialogue to take place. In December 2017, three Catalan pro-independence parties won 47.7% of the vote in the regional parliament at the election. Direct rule was lifted in June 2018 when the new Catalan government was confirmed. Later on, Pedro Sanchez warned he could apply the article 155 if it would be necessary and he spoke about the need for coexistence in the region. (Guifré Jordan, 2020) The invocation of Article 155 is an outstanding measure, referred to comparative law as the federal coercion clause, inferred mediating in self-rule, completely dissolving the Catalan Government scheduling new regional elections to be held in two months' time. (Real Instituto Elcano, 2019)

Since the referendum, the independence movement has lost force. The Catalan inquiry will be slippery whatever the supreme court's verdict will be. 2020-2021 is a year loaded up with vulnerability, a political year effectively loaded with disrupted questions because of the pandemic. An improvised response to the ongoing health crisis, complete with its good and bad times, has monopolized the end of the 2019-2020 political year, delaying and leaving open to question issues not currently considered priorities such as Catalonia's independence movement that is being put on hold. (Jordan, 2020)

### **European Union's view**

It should be noted that no European constitution contemplates that part of a territory be separated. It is possible to highlight, as an example, some member countries of the EU. In Italy, article 5 of the constitution establishes the prohibition of secessionism or territorial cession, making no declaration of independence possible. The Hungarian constitution also does not present any right of power to self-determination, even the Armed Forces can act against these actions that endanger the integrity of the country. In addition, Portugal, as a great neighbor of Spain, also highlights the unitary character of the State in its constitution. (La Vanguardia, 2017)

The referendum on October 1, 2017 marked a turning point for the EU as well. The violence represented in the streets during that day was the typical one that the EU usually condemns and punishes when it comes to a non-member country, but this case was different, since it involved Spain, a member country. This situation is uncomfortable for the EU, as this group always defends democracy, including freedom of expression and the right to vote; but it must be emphasized that in the end the EU is made up of sovereign states, and that is why Catalonia is an external problem for the EU. According to the European Commission "it is an internal issue for Spain that must be addressed in line with the constitutional order." Thus, for the Catalans, the EU is surrounded by contradictions that they do not like, since they would have wanted to remain in the EU in case of a successful independence. Although according to the Prodi doctrine, a state that becomes independent can only be readmitted to the EU if this independence followed the constitutional law of the state to which it previously belonged. In addition, all members would have to unanimously accept the entry of the new member, and here Spain could oppose along with other countries. (Erlanger, 2017)

This European response of "no-action" is due to the fact that the referendum took place at a time when other movements were growing, and the EU was afraid to act and promote them, such as the Corsicans in France or the Flemish sentiment in Belgium. Thus, the European bloc avoids acting and promoting them, endangering the union. Separatism as a sensitive issue for the EU can be seen reflected in the independence of Kosovo, in which five member states do not recognize it, including Spain. According to the expert Steven Blockmans, Spain should even look at Belgium, which gave a part of power to the Flemings, through a reform of the constitution. For this reason, constitutional reforms must be considered and the Catalans must negotiate with fewer demands to reach a realistic and possible agreement. (Erlanger, 2017)

The European Commission defends the "rule of law in Spain", and European conservatives emphasize that if the Spanish Constitution is disobeyed, it is also failing to follow EU law. Despite the non-intervention of the EU, the group has confirmed a great general rejection of the independence of Catalonia, in the European institutions no member state would accept Catalonia as an independent state, not even the United Kingdom

after Brexit. All EU leaders support the dialogue between Spain and the pro-independence activists without intervening between these negotiations, but this dialogue must always be in favor of unity and condemning the actions of Puigdemont, without considering any other possibility. (Porteiro, 2018)

In this way, the EU has in the end taken real and decisive action, issuing a document reinforcing the European position. The desire to separate from the rest of Spain will not be supported by community institutions, nor will it have any consideration even in the future. (López, 2020) The Venice Commission of the Council of Europe officially declared that it is totally illegal to call a referendum not allowed by the country's constitution. Thus, strong support for the Spanish Court of Justice is reflected. In addition, the Council also emphasizes that a query cannot have a specific character, nor can it be treated for a specific referendum. The Venice Commission defends a referendum of general condition, open to observers and contemplated by the constitution. It is a guide for all of Europe, and in this case, it shows full support for the position of the Spanish government and the law of the territory itself. (Del Riego, 2020)

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## THE EVALUATION OF INVESTMENT INFLUENCE ON INDUSTRIAL COMPANY CAPABILITIES

Laura Kolesnikova, Paula Kubiliūtė

Doc. dr. Ineta Zykienė

Kaunas University of Technology, [laurakoles@gmail.com](mailto:laurakoles@gmail.com); [kubiliutep@gmail.com](mailto:kubiliutep@gmail.com)

Keywords: Investments, Industrial capabilities.

### Abstract

This article analyses the concepts of investment and industrial capabilities, and reveals the importance of investments in industrial capabilities, in order to increase the companies' income, activity effectiveness and competitive advantage. In the article, the options for decisions on company investment in activity expansion and the influence of these decisions on the activity results of the company are analyzed as well.

### Introduction

The goal of each company is to reach for a certain benefit, with it most often being economical. In order to be able to act properly, the company needs various resources, which determine the industrial capabilities of the company. The more available resources the company has – the more effectively the activity is carried out. A company which wants to stay competitive in the market, has to constantly improve, and that requires investments. Improvement in a company means that it is not indifferent towards its customers.

**Work goal** – To analyze the positive impact of investments on the activity of a company.

**Work tasks:**

1. To understand the concepts of investments and industrial capabilities;
2. To determine how company industrial capabilities are influenced by investments;
3. To evaluate company investments in their activity.

### The concept of investment

Valančius (2005) and Vaitkevičiūtė (2001) describe investments as increases in long-term capital with the intention of making profit. Investments are directions of funds towards the renewal of main measures (buildings, equipment, means of transportation, etc.). Jewell (2002) defines investments similarly – she argues that investments are acquisitions of long-term equipment (machinery, devices, transport, facilities). What is more, investments can also be used as working capital, various financial instruments (stocks, bonds) and separate non-material short-term and long-term intellectual property (patents, licenses) (Lileikienė, 2002). Investments are treated as an economic category, related to economic relations and the economic activity sphere, even though they are also undoubtedly related to technological, social, environmental and other aspects (Norvaišienė, 2004). Investments – cash and in accordance with the procedure established by laws and other legal acts evaluated tangible, intangible and financial wealth, which is invested in order to gain profit from the object of investment (Mackevičius, Rutkauskas, Sūdžius, 2009). Investments – usage of money to obtain a certain asset with the intention of receiving some sort of benefit in the future. In certain cases, investments may be understood as the usage of a single type of wealth in order to obtain another type of wealth (Aleknavičienė, 2009). It is evident, that all of these authors describe investments very similarly - as a company's increase of tangible and intangible valuables with the aim of gaining profit or other benefits. In conclusion, investments – the abandonment of money today, in order to have more of it in the future. Investments are very important for companies, because they guarantee the expansion and competitive advantages of the company itself.

### Industrial capabilities

In a general sense, companies describe industrial capabilities as the maximal amount of a certain assortment production, which the company can produce over a certain period of time. The industrial capabilities of a company are expressed through the optimal volume of high-quality production, which the company can produce, properly utilizing owned equipment, production spaces, the best manufacturing technology, and the newest work organization methods. It is the capability of a company to, while using the available resources and equipment, reach work results, regardless of the external environment (Zabelavičienė,



Žikevičiūtė, 2012). In order to accumulate as much wealth as possible - it is very important to guarantee as big as possible industrial capacity of the company (Obolonskaya, 2012). Industrial capabilities reveal whether a company has enough resources to effectively carry out their activities and whether a company properly uses the available equipment to reach its goal (Gajdzik, 2020). A company, investing into its own industrial capability enhancement, attempts to build better production sector functions than its competitors (Bargelis, 2002). It is evident that all of these authors define industrial capabilities as the most important driving force of a company, which is created by using the available resources of the company.

### **The importance of investing in industrial capabilities**

Investments have a great impact on the financial state of companies, on their business continuity, expansion and competitiveness (Mackevičius, Tomaševič, 2010). Investments provide an opportunity to improve the products produced, technologies used, increase existing assets, reduce costs, increase market competitiveness, profit. Technological process investments are the application of technologically new or greatly improved ways of production output (Valentinavičius, 2011). In the modern production environment, the competitiveness and capacity of an organization can be vastly increased only by innovation implementation. The heads of every company must understand that they can expect to surpass their competitors only by investing their funds into the implementation of innovations (Bargelis, 2002). Investments in manufacturing equipment of the company are very important when striving for an increase in work effectiveness. The introduction of new technology or the improvement of already existing technology within the company increases the competitive advantage in the market (Williamson, 2008). The competitive advantage in the market increases due to the fact that a company, because of the investments and innovations in its business development, gradually becomes more autonomous (Howe, Ito, 2016). The introduction of new technology or improvement always means progress (Teich, 1997). Investments encourage an increase in manufacturing effectiveness, which is directly related with the quality of the provided services and the quality of services is directly related with the growth of funds (Das, 2000). Additional investments are essential for a company, as they are the reason for increases in supply and the number of employees, and the growth of a company's profit, which is accumulated more effectively due to the development of the company. Naturally, it is important to understand that development needs to be logical, for example, if a company is already selling carbonated drinks, it can start selling juice, coffee or tea as well. The segment will still be drinks. (Fisk, 2009). The choice and implementation of investment activity is an incredibly important step for a company, because if the investment activity is successful, a company can greatly increase its wealth (Girdzijauskas, 2005). In order for investments into production equipment of a company to pay off or to bring economic benefits, it is very important to pick a rational, narrow field of the market (Bargelis, 2002). As we can see, all of the authors describe the importance of investments in a company very similarly. Investing in company activity or by obtaining new equipment (technologies) and even developing it, increases the activity effectiveness of a company, which, in turn, guarantees better income and the competitive advantage of the company.

### **Evaluation of investments in a company's development**

In February of 2021, the authors of this work surveyed 40 leaders from companies of various economic sectors in order to find out if, during the past 5 years, the heads of these companies had invested in their companies' activity and how those investments affected their results. It turned out that 75% (30 respondents) of these leaders invested in their company's development during the last 5 years, whereas the remaining 25% (10 respondents) – did not. Out of the ones who invested, 80% (24 respondents) of the leaders' profits grew stably, but for the rest – profits even managed to decrease. It was found out that companies, which invested in their activity development, were not able to grow their profits due to the fact that they are catering establishments, which suffered greatly because of the global quarantine caused by the COVID – 19 virus. Out of the 10 companies, which did not invest in their company's development, answers, it turned out that their profits did not change drastically. When asked why they did not invest in their company's activity, some answered that they did not have additional funds and were afraid to get a loan. Others argued that, in their opinion, they did not need it. In the end, it is evident that investments in the company's development are essential for the increase of production capacity and a stable growth of the company's profit. Even so, every company may encounter unfavorable factors of their external environment, which are impossible to control.

### **Conclusions**

1. Investments – the increase of tangible and intangible value within a company with the intention to gain benefits in the future. Industrial capabilities of a company – the company's ability to manufacture a

- high quality of production by working effectively and fruitfully. Investments are directly related with production capacity, as with growing investments in a company's development – production capacity increases as well.
2. Investments in the industrial capabilities of a company are very important, as because of them, the company optimizes its work, which becomes more effective and fruitful, which leads to more profit and a better competitive status in the market.
  3. Many companies try to invest more in their industrial capabilities. Companies which invest in their production capacity usually increase their profits, unless they encounter unfavorable external factors.

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## LEGAL SUPPORT OF COPYRIGHT ON THE INTERNET

**Iklymova Alina**

*State University of Management, Moscow, Russian Federation*

**Scientific Supervisor: Strelnikova I.A.**

### Abstract

The article examines the process of formation of copyright. With the development of technology, the protection of copyright on the Internet is becoming more complicated. The article raises the problem of the lack of special rules for the regulation of copyright in the information and telecommunications network Internet. Along with the experience of the Russian Federation, the experience of foreign countries is being studied.

Key words: Intellectual property, copyright, copyright protection, Internet.

### Introduction

Such concepts as "intellectual rights", "copyrights" were first applied in Europe in the 18th century, where the first copyright laws appeared. From this moment on, the state undertakes to protect the rights of authors.

England was one of the first to adopt copyright law in 1709. Later, in 1791, the French copyright law appeared. The effect of this law extended only to literary works and at the same time put the interests of book printers above the interests of the authors. Over time, the laws have spread to other objects of creative activity, such as musical works, visual arts, dramatic works, etc. [16]

The most important date in the formation of copyright is 1886, when the Berne Convention for the Protection of Literary and Artistic Works was adopted. It determined the principles of copyright, recognized the rights to all objects of copyright and established the term of protection for works [2]. The aim of this convention was to unify copyright laws in the member states. The development of society required repeated revisions and additions to the provisions of the convention, so even now the Berne Convention continues to be an international standard in the field of copyright protection.

In Russia, the first copyright law appeared in 1828. In 1911, a law on the copyright of the Russian Empire was adopted, which largely assimilated the experience of European countries. During the USSR period, copyright was heavily modified so as not to contradict Soviet ideology. Only the author's right to remuneration and personal rights were retained. Also, the users of rights were now not private organizations, but state ones. The term of protection for works was 15 years after the death of the author, but in 1973 it was increased to 25 years. This is due to the accession of the USSR to the Universal Copyright Convention [3]

After the collapse of the USSR, the Russian Federation Law "On Copyright and Related Rights" of 1993 and the Law "On the Legal Protection of Computer Programs and Databases" in 1992 were adopted, property rights were also recognized for the authors of works. The copyright law was rewritten during the development of the Civil Code of the Russian Federation and was included in its composition. Now copyright is fully regulated by the fourth part of the Civil Code of the Russian Federation, which entered into force in 2008. It defines copyright as intellectual property rights in works of science, literature and art. Article 1259 establishes an open list of copyright objects [1].

### Data

The author is recognized as a citizen who created the creative work. Copyright does not require registration and other formalities. They appear at the time of creation of the work, which is consistent with the provision of the Berne Convention. It is also recommended to use the copyright sign - © - to prevent illegal copying [1;2;4].

But in the period of globalization, when various spheres of society life of different countries are united into a whole, it would not be enough to regulate copyright only within the framework of national legislation. After all, now with the help of the Internet, copyright objects are rapidly spreading all over the world and require protection in other countries as well. That is why various international conventions and treaties are being adopted in order to unify legislation in the field of intellectual property. So, Russia is a participant in.

Berne Convention for the Protection of Literary and Artistic Works; World Copyright Convention; International Convention for the Protection of the Interests of Artists - Performers, Producers of Phonograms and Broadcasting Organizations; the Convention establishing the World Intellectual Property Organization; Convention on the Protection of the Interests of Producers of Phonograms from Illegal Reproduction of Their Phonograms; Convention on the Propagation of Program-Carrying Signals Transmitted by Satellite; Agreements on cooperation in the field of copyright and related rights protection. At the same time, these legal acts are valid only in the part in which Russia has joined them [14].

Almost all European Union states are members of the Berne and Geneva Conventions, so their legislation is largely identical. But, since international acts do not cover all aspects of copyright and do not take into account the specifics of each individual country, the participating states have the freedom to establish their own control standards, which, however, do not change the fundamental principles of conventions.

US copyright law differs in a number of ways from European legislation and international agreements. The main act is the 1976 Copyright Act, which establishes the grounds for the emergence, registration and protection of rights. The features of this law are - assignment of EPM programs not to objects of copyright, as it is done in most countries, but to objects of patent law; registration of copyright is provided, without which the author will not be able to use judicial protection; the copyright holder has the opportunity to establish a ban on the export of the original work abroad, which will be taken into account by the customs authorities [8].

Russian copyright legislation is still underdeveloped and has many gaps. Thus, the Civil Code lacks criteria for determining a creative nature, does not pay sufficient attention to the protection of official works, and there is almost no judicial practice. But the most unregulated area is the Internet. At the moment, there are no special laws in Russia to regulate intellectual rights on the Internet, and, given the specifics of this network, the provisions of the Civil Code are not enough.

Now the Internet is an integral part of the lives of millions of people around the world. And in connection with the difficult epidemiological situations of 2020, the Internet has become not only a platform for communication, but also an intermediary for doing business. Every day, thousands of purchases are made here, bank accounts are paid, and anyone can find the information they are interested in. That is why the authors strive to put objects of intellectual activity on the Internet, where they can easily gain fame, get additional income, and the rest can easily get access to a huge amount of information. However, this gives rise to such a problem as piracy, which is especially relevant on the territory of Russia.

Piracy is illegal use of intellectual property results without the consent of the author. The specificity of the Internet is such that at any time of the day or night, you can easily access an array of information, which means copy someone else's text and use it for personal purposes, download a photo in order to later use it in store advertising, listen to music for free and watch a movie. All these actions cause significant damage to the real authors in the form of lost profits, and can also damage the reputation [11;12]

To protect his rights, the author will have to prove that the infringer knew that the author did not enter into licensing agreements or agreements on the alienation of exclusive rights to this work. Therefore, the first time it will not be possible to prove the guilt of the offender. The author will have to notify the violator of the fact of violation of exclusive rights and to demand removal of the object of intellectual property. The situation is complicated by the fact that it is not always possible to track the actions of violators on the Internet and determine the real culprit [13;15].

Unlike the Russian Federation, other countries are taking active steps to obliterate piracy. So, in the UK there is 'Copyright, Designs and Patents Act'. Article 56 of this law stipulates that the copying of documents in electronic form is permitted only within the framework of the license for their use. And the creation of any copies will be perceived as going beyond the scope of the license, and, therefore, a violation of it. This does not apply to backups, which if the original object is damaged will be covered by the original license. It also sets out penalties for copyright infringement, which range from a fine to imprisonment ranging from six months to a year [6;7].

The United States is considered the most progressive country in the legal regulation of copyright objects on the Internet. In 1988, America adopted the Digital Millennium Copyright Act, which is still in effect. According to it, all objects of copyright on the Internet are subject to protection. Like in Russia, people who did not know that they were violating someone's copyright are exempted from liability for illegal copying. To protect intellectual property rights, the author notifies the person of the violation and demands that the object of the violation be removed. If the violator does not take measures to restore the violated right, sanctions will be applied to him. The Digital Millennium Copyright Act also provides for criminal liability. It is used when distributing pirated copies of films if they were made before the official premiere. For other distribution of copies, only the recovery of the lost benefit is imposed [8].

Unlike the United Kingdom and the United States, French law does not seek to enforce regulations and pre-trial proceedings. On the contrary, it toughens the responsibility. Violation of copyright on the Internet in France, according to the Law on Copyright and Intellectual Property can lead to a fine of 300 thousand euros or imprisonment for a period of up to three years, while the nationality of the violator will not matter if the violation of the right occurred in France [9]. Given the specifics of the Internet, where it is not always possible to identify the real offender, such measures seem to be too harsh. This also leads to a violation of the rights of citizens to free access and use of information, established in the UN General Assembly Resolution "Questions Concerning Information", where freedom of information is recognized in relation to every person, organization, state [5]. The People's Republic of China adheres to the same principle as France [10].

## Results

Nowadays, there is no standard for copyright protection on the Internet. The United States has the most progressive legislation in this area, and other countries are still trying to come up with their own model of protection. In the author's opinion, one of the possible options for improving the legislation on copyright protection on the Internet will be the conclusion of an international treaty, the provisions of which will unify the rules of law of the participating countries. That, given the global nature of the Internet, can greatly simplify the search and establishment of responsibility for violators.

With regard to the legislation of the Russian Federation, it is possible to suggest the adoption of additional laws that will concretize the disposal of intellectual property objects and rights to them. And also the creation of separate provisions for the protection of copyright on the Internet. It is also required to carry out activities to explain such concepts as intellectual property and rights among the population in order to reduce such a phenomenon as piracy.

## Conclusions

Thus, the legislation in the field of intellectual property is not perfect not only in Russian Federation, but also in foreign countries. However, the situation is rapidly changing due to the development of society, technology and the process of globalization.

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## ANALYSIS OF THE ACTIVITIES OF STATUTORY LAW ENFORCEMENT AUTHORITIES AND THE GENERAL HELP CENTER

Nijolė Grakulskienė

*Lithuanian Business College*

Doc. Renata Šliažienė

### Abstract

This article analyzes the activities of statutory law enforcement agencies and the General Assistance Center. The aim of the article is to analyze the peculiarities of the activities of the Statutory Law Enforcement Institutions and the General Assistance Center, to identify problematic aspects in practice. The main tasks are to analyze the main reasons for the application of official responsibility; evaluate the effectiveness of promotion. To review the statistics of service penalties and promotion in 2017 – 2020 at the General Help Center.

KEY WORDS: Statutory law enforcement institutions, General Assistance Center, official responsibility, official activity, demotion of an official, principles of ethics of officials, promotion, motivation.

### Introduction

Official responsibility is intended to regulate the rights and duties of an official, which would ensure his lawful conduct in the performance of his duties in the public service. Meanwhile, the system of incentives and motivation aims to motivate statutory civil servants to achieve the goals of the institution more effectively, but employees do not always perform the assigned tasks properly, therefore the quality indicators of the organization's activities suffer. Liability obliges a civil servant to comply with certain legal norms that regulate his relations with the state and citizens. It can be stated that one of the most important conditions of public service activity and its operating principles are properly trained and motivated officials (Marozas, Guščinskienė, 2020).

**The object of the article.** Peculiarities of the activities of statutory law enforcement institutions and the General Assistance Center.

**Purpose of the article.** To analyze the reasons for the application of official penalties of the General Assistance Center and the effectiveness of the promotion system.

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

1. Define the purpose and functions of the statutory law enforcement authorities and the General Assistance Center.
2. To review the statistics of service penalties and incentives for 2017 – 2020 at the General Help Center.

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

### **Purpose and functions of the statutory law enforcement authorities and the General Assistance Center**

Paragraph 3 of Article 5 of the Constitution of the Republic of Lithuania enshrines that government institutions and institutions serve the people, and Paragraph 1 of Article 94 of the Constitution states that the duty of the Government to guarantee state security and public order (Constitution of the Republic of Lithuania // TAR, 1992, No. 33-1014, current version from 01/09/2019). It can be assumed that statutory law enforcement agencies serve the people by ensuring the protection of their rights and freedoms, protecting them from danger, ensuring the seriousness of society. Officials performing the assigned functions must act in accordance with the Constitution, the interests of society and the state. The legitimacy of these institutions is intended to ensure the well-being of the people.

Their system consists of statutory law enforcement institutions subordinate and accountable to the Ministers of the Interior, Justice, Finance, National Defense and the President and Parliament of the Republic of Lithuania. It is necessary to emphasize that statutory law enforcement institutions are subjects of public order, state security and public security, conducting pretrial investigations and criminal intelligence, the activities, and functions of which are regulated by law. The activities of these institutions are coordinated and controlled by the State. Their main purpose is to ensure public security, public order, and the protection of citizens against crime, to protect human rights and freedoms, to investigate and prosecute crimes, and to educate and prevent the public. Meanwhile, the Joint Assistance Center is the first link between the applicant and the assistance services. The Center is staffed by statutory civil servants and contract staff who receive requests for assistance,

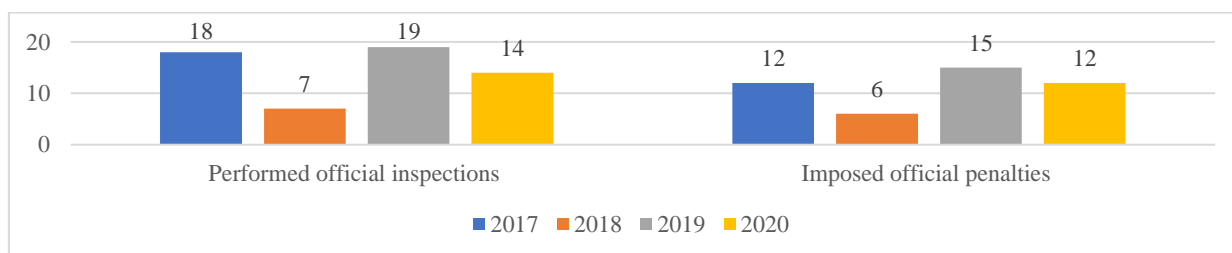
assess them properly, prepare them as soon as possible and forward the notification to the appropriate emergency service, which must respond to all necessary information. request for assistance received.

Statutory civil servants, in performing their direct functions, must comply with the applicable legal acts and not violate them. Every official must strictly adhere to the ethical principles of the internal service, civil service, and civil servants, which are established in Article 3 of the Statute of the Internal Service of the Republic of Lithuania, other laws and codes of ethics governing the activities of each institution. Their non-compliance is reprehensible, incurring moral and ethical liability on the statutory civil servant, which is subject to appropriate sanctions.

### Application of official responsibility in the General Assistance Center

According to G. Kuncevičius and V. Kosmačaitė (2012, p. 1440): "Official responsibility is an integral part of the Lithuanian civil service, which directly affects the human resources of the civil service, improves its image in society and increases people's trust in it." Consistent regulation of legal liability in legal acts creates conditions to avoid mistakes and create a professional and efficient civil service environment. It is also important to mention that the state must guarantee such legal and practical regulation that would not only ensure defined conditions for the application of official liability, but also ensure that statutory civil servants who have committed violations are prosecuted. Consequently, the principle of the inevitability of liability must be guaranteed.

Civil servants working in the General Assistance Center must communicate respectfully with the caller by telephone, listen to him, do not interrupt, do not engage in conflict situations. Violation of the rules of telephone communication is subject to official liability. It is noticeable that officials and employees perform the same functions, but officials are subject to stricter requirements and greater responsibilities. It is useful to review how much in 2017 – 2020 General Help Center was subject to official inspections and the number of official penalties imposed (1 picture):



1 picture. Performed official inspections and imposed official penalties at General Help Center in 2017-2020  
(Source: compiled by the authors)

Looking at the statistics, the largest number of inspections was carried out in 2019, 2017 and 2020, with the lowest number of inspections in 2018. The highest number of inspections was opened for officials in the year under review – 15 and 2019 – 12. 2018 and 2020 after 6. For public career civil servants in 2017 – 2 inspections were initiated, possibly due to their low General Help Center. Compared to officials, relatively few official inspections have been started for employees working under an employment contract: in 2017 – 2018 after 1 case, in 2019 – 4, 2020 – 3. It is noted that most of the official inspections are carried out due to the actions of officials, possibly improperly performed functions.

Following official inspections, most administrative penalties were imposed in 2017 and 2019 as already mentioned, most of the official inspections were started in that year, so it can be assumed that the received complaints were confirmed, and official penalties were imposed. The lowest number of service penalties in 2018.

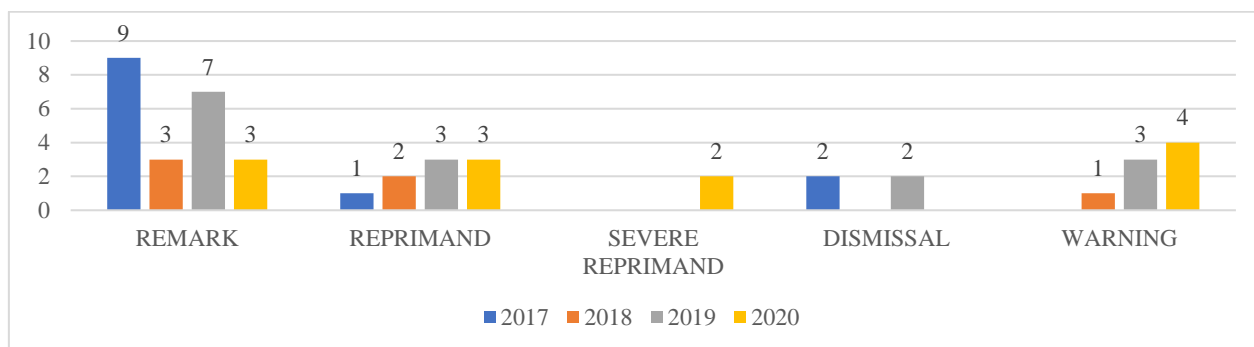
One of the following official penalties may be imposed on a civil servant for misconduct:

1. Note;
2. Reprimand;
3. Severe reprimand;
4. Promotion;
5. Dismissal.

The most severe official penalty imposed is dismissal, which can be imposed for a serious misconduct. Serious misconduct is the conduct of a civil servant related to the performance of official duties that discredits the public service, degrades the reputation of the service or the employee himself, degrades human dignity, or

performs other actions that directly violate constitutional rights (Statute of the Civil Service of the Republic of Lithuania // TAR, 2018, No. 12049, current wording from 31 December 2019).

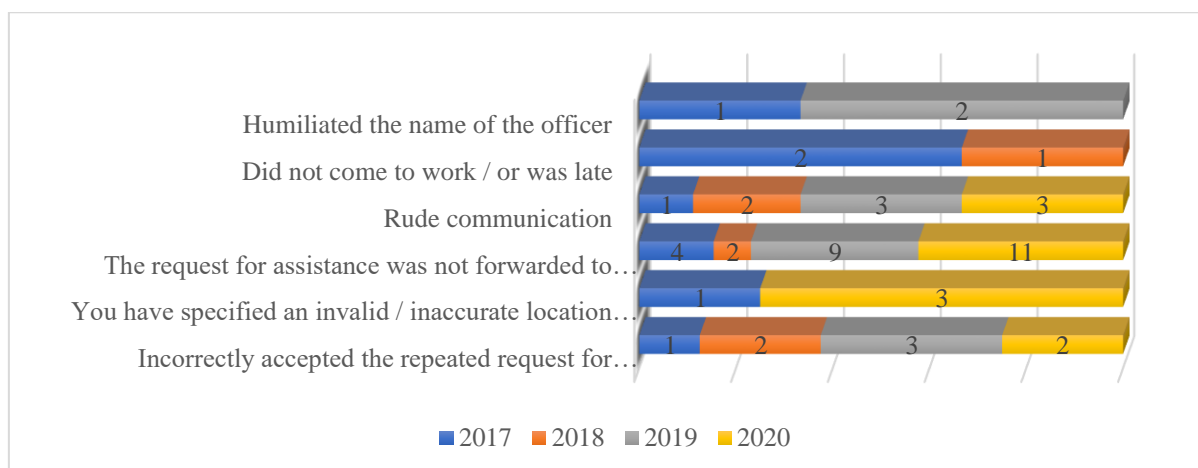
As far as service penalties are concerned, it is useful to review the types of service penalties that are most imposed on General Help Center employees. Employees working under an employment contract who have committed violations may be warned of possible dismissal for the same violation (2 picture):



2 picture. Types of service penalties General Help Center 2017-2020  
(Source: Compiled by the authors)

An analysis of the available data reveals that the most common type of penalty is a remark for minor misconduct. Less frequent service punishment - severe reprimand and dismissal. Official penalties - reprimand and warning data are quite similar.

Pursuant to Paragraph 1 of Article 39 of the Statute of the Civil Service of the Republic of Lithuania, statutory civil servants are subject to service penalties for official misconduct according to his guilt, causes, aggravating and mitigating circumstances and consequences, as well as to civil servant activities prior to the offense. / TAR, 2018, No. 12049, current version from 31.12.2019). Taking all these circumstances into account, an official penalty is imposed, choosing it correctly according to the level of the violation. It is useful to review the most common violations of official penalties in the General Help Center (3 picture):



3 picture. Reasons for conducting official inspections General Help Center 2017 – 2020  
(Source: compiled by the authors)

In the General Assistance Center, the main reason for checking service penalties is incorrect assessment of the assistance request, when a General Help Center employee handling assistance calls does not forward the assistance request to the relevant assistance service (police, ambulance, fire, and rescue forces), whose assistance is necessary at the scene. 2017 – 1 report not transmitted to ambulance, 3 reports not transmitted to police, 2018 – 1 report not passed to the police, another fire, and rescue forces, 2019 – 1 report not transmitted to fire, and rescue forces, 1 to ambulance and even 7 to the police. In 2020 – 4 reports were not passed on to fire, and rescue forces, 2 to ambulance and 5 to police. It is noticed that General Help Center employees do not always follow the General Help Center telephone communication rules. In keeping with them, the employee must communicate politely and respectfully with the caller. Due to this violation from 2017 the number of official inspections is increasing. When a request for assistance has already been forwarded to the



helpdesk, the employee, after receiving a repeated call from the person requesting assistance, must correct the address, ask additional questions if the situation at the scene has changed or new information is received, the employee informs the relevant helpdesk by phone. The analyzed data show that there are not many such cases. However, an General Help Center employee who handles emergency calls must be aware of their responsibilities. It is also very important to find out the exact location of the disaster when transmitting the message, without which the emergency services will not be able to carry out rescue work. The number of such violations, when the address of the place of the accident was not determined or the place of the accident was inaccurately indicated, is relatively small. It is important to emphasize that the employee must follow the rules of internal procedure, arrive at the service on time, not be late, such violations in 2017 registered 2, and in 2018 – 1. An official must always, in the service and out of the service, act in an exemplary manner, not to humiliate the name of the official, but General Help Center 2017 and 2019 one official inspection was initiated due to a non-official traffic accident during which a General Help Center employee was intoxicated. 2019 one official inspection was initiated due to an employee intoxicated during alcohol service. Such violations by an official are considered serious, by which the officials have degraded the authority of the General Help Center and the name of the official. In order to protect and enhance the authority of the service and public confidence in the service, officials were fired for gross misconduct.

It can be said that the activities of statutory civil servants are regulated by rules that they must follow. In the performance of his / her direct duties, he / she must comply with the applicable legislation. For each decision or action, the official must take responsibility and accountability, follow the principles of professionalism and other principles. The professionalism of officials should be constantly improved to improve the image of the institution and the official. Acting contrary to law entails legal consequences. It can be said that official responsibility is closely related to the ethical principles, which officials must strictly adhere to in their activities, because non-compliance with them threatens the moral and ethical consequences of the official. Official responsibility applies to the professional and efficient management of the state.

### **Motivation and promotion measures in the General Assistance Center**

The purpose of motivation is to ensure that the statutory officer strives to perform his or her functions and duties properly, in a timely and responsible manner. Motivation can be divided into internal and external. Internal motivation is associated with intangible incentives, such as job diversity, career opportunities, employee self-realization, job satisfaction, evaluation, and desire to improve. And external motivation is associated with material incentives and is expressed in monetary terms, such as bonuses, pay, working conditions, work environment, and reputation. It can be said that all these motivation measures are closely related to a person's internal and external motivation, so if the motivation system is applied purposefully and properly, it will meet the person's needs and his attitude to the received remuneration will be assessed positively. activities will be more efficient, giving positive results and the implementation of institutional goals will be successful (Guščinskienė, Marozas, 2020).

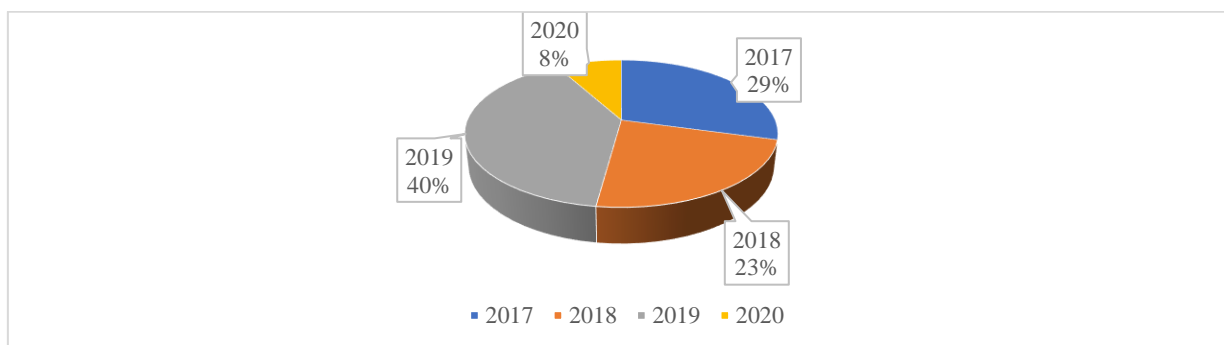
Article 37 of the Statute of the Internal Service of the Republic of Lithuania defines that officials may be encouraged and rewarded for the impeccable and exemplary performance of their duties. Encouraged by the provision of thanks, the provision of a cash benefit (not exceeding the average salary of an official 2), the provision of additional paid leave or the provision of a nominal gift. Officers may be awarded a departmental badge or a nominal weapon. And officials who have been directly involved in the detection or investigation of criminal offenses and other offenses which have caused or may have caused pecuniary damage to the State shall be awarded a lump sum, the amount of which shall be determined by the Government. The promotion takes into account the specific performance of the official in the service, the principles of transparency, fairness and objectivity are followed (Statute of the Internal Service of the Republic of Lithuania // TAR, 2018, No. 12049, current wording from 31.12.2019).

The application of awards is guided by the principle of consistency, if an official has not been promoted by a nominal gift or a departmental mark, then he or she will not be awarded the highest award - a cash payment for special merits to the state (Vitkauskas, 2012). It can be said that the system of incentives and motivation is not flexible towards the official, because the official deserves the highest award and if he does not receive it, the system of incentives and motivations will be disappointed. Such a system does not motivate officials to strive to work more efficiently and effectively in the interests of the service and the public.

However, according to Article 41 of the Statute of the Internal Service of the Republic of Lithuania, officials with a valid official penalty are not encouraged and rewarded (Statute of the Internal Service of the Republic of Lithuania // TAR, 2018, No. 12049, current wording from 31.12.2019). As regards the encouragement and motivation of officials, it must be emphasized that the application of those restrictions does not make it possible to encourage officials even when they have performed specific tasks and uncovered

criminal offenses which have caused or are likely to cause serious damage to the State. Thus, it can be assumed that if an official has a valid service penalty and serves the state but does not receive an incentive as a motivating measure, he will be less interested in performing the assigned tasks more efficiently and properly.

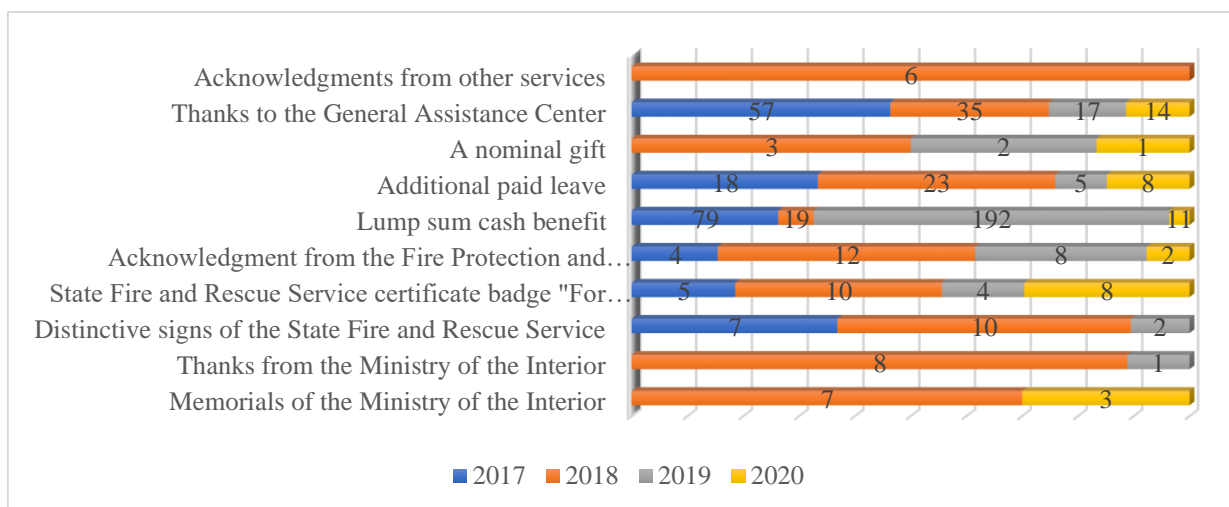
It would be useful to look at how much in 2017-2020 General Help Center was encouraged and rewarded by employees (4 picture):



4 picture. Promotion of officials and employees General Help Center 2017 – 2020  
(Source: compiled by the authors)

The data provided show that most General Help Center employees were promoted in 2019 – 231, and at least in 2020 – only 47 employees. 2017 – 170 employees, 2018 – 133 employees. From the data provided, it can be assumed that employees are rarely encouraged. A system of incentives and motivation would motivate employees to work more efficiently and achieve General Help Center goals.

In the following analysis, it is useful to find out what measures are used to encourage General Help Center officials and employees to work more efficiently (5 picture):



5 picture. Promotion and motivation measures General Help Center 2017 - 2020  
(Source: compiled by the authors)

It can be said that General Help Center officials and employees are usually encouraged by a lump sum, which was the most common in the year under analysis. Another more common incentive is General Help Center Thanksgiving, and the next incentive is additional paid leave. It can be said that these are the main incentives of the General Help Center, other incentives have been given less frequently, which are given for the anniversary of the year of service, certificate, badges, and thanks from other services.

The promotion of officials is important for every institution or organization, as it determines how well an institution will function. The encouraged official will feel more responsible for the tasks assigned to him. It can be emphasized that the knowledge and experience of officials allows them to perform the assigned tasks in time and achieve the set goals. In order to achieve these goals, officials and employees must be loyal to the institution. Encouraging employees is aimed at reducing their turnover, as older employees are more competent and useful to the institution, and it is therefore necessary for the institution to retain them.

## Conclusions

The activities of statutory law enforcement institutions are regulated by laws and various legal acts. Their purpose is to ensure public security and public order, to protect and safeguard human rights and freedoms, to protect the public from criminal acts, and to investigate and disclose them. Meanwhile, General Help Center main task is to manage emergency calls to the emergency number 112, and to ensure that every citizen can call the emergency number free of charge and, upon request, properly assess, prepare and pass it on to the emergency services.

Official responsibility is an integral part of the Lithuanian state, which aims to regulate the relations of a civil servant with the state and citizens. For misconduct in the performance of direct duties or in the humiliation of an official, the types of penalties applied are reprimand, reprimand, severe reprimand, demotion, dismissal.

The effectiveness of motivation and incentive measures depends on the internal motivation of the institution itself and the official. Targeted and proper application of motivation measures - the needs of the official are met, and when his / her needs are met, his / her activities are more efficient, which gives positive results to the institution. The heads of the institutions should be more interested in motivational measures, as the authority of the service and the state and the public's trust in it depend on how the official will perform his duties. It must also be emphasized that the main problem - the existing official penalty - does not allow for promotion even when an official has performed a special task and prevented a crime by protecting the state from harm.

An analysis of the BPC statistics shows that most of the official inspections are carried out due to the activities of officials, the most common official penalty is a remark, and the most severe penalty is a dismissal for serious violations. It can be assumed that BPC employees lack professionalism in performing assigned functions. Managers should take this into account and create a loyal incentive system that motivates the officer to work more effectively in the best interests of the institution. Meanwhile, BPC is usually encouraged by a cash benefit, additional paid leave, or gratitude. Officials and staff are encouraged to reduce their turnover, as high staff turnover makes it more difficult for the institution to achieve the desired positive results.

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## GOVERNMENT SUPPORT AND COMMUNICATION STRATEGIES WITH CREATIVE CLUSTERS IN EU COUNTRIES

**Olga Kostycheva, Sofya Kuzmina**

*Faculty of Social Sciences, National Research University - Higher School of Economic*

[oiikostycheva@edu.hse.ru](mailto:oiikostycheva@edu.hse.ru),

[sskuzmina@edu.hse.ru](mailto:sskuzmina@edu.hse.ru).

### Abstract

The creative economy is gaining popularity every year. This is not just a new trend in the economy, but a real driver of innovation and economic development. Many countries, in particular European ones, are leading in the development of creative clusters. The clusters themselves are of particular importance in the urban regeneration of regions, cities, abandoned territories. Public administration in this context plays an increasingly important role, since it is with the public authorities' support the creative economy can acquire a large scale. This study examines review of literature on a specified topic as well as several case-studies of creative clusters in European countries. Preliminary results show that European countries are indeed using the right strategies for the development of creative industries within their countries. *Keywords:* creative economy, creative industries, creative cluster, public administration.

### Introduction

In the last two decades, the term "creative economy" has become one of the most discussed topics and has been popularized around the world. Many scholars have tried to find theoretical determination of the creative industries and their position in the culture industry development. However, there is a recognized research gap in studying creative economy within the context of its generally accepted definition.

Only several decades ago creativity has become a key element of urban regeneration in cities worldwide (Štreimikienė & Kačerauskas, 2020). Creativity can be found almost everywhere: it is connected with art, innovation, technology, entertainment. Nevertheless, not all locations can become "creative clusters" (quarters or zones) that have real competitive advantages (Yang, 2019).

The phenomenon of creative quarters is becoming widespread. The present study will examine the creative clusters which are playing an increasingly important and decisive role in the process of urban regeneration of the particular regions in which they are concentrated. Over time creative industries attract more and more attention from the public authorities. The government has played a decisive role in this matter, since only with its support the creative economy can develop fast (Yang, 2019) and gain large scale in the country.

The empirical approach consists of case studies of creative industries in the countries of the European Union and systematic literature review. The preliminary results imply that the public authorities should apply the appropriate strategies to interact with representatives of creative industries and promote innovations and creativity in the society.

### Literature review

The term "creative economy" was first used in American magazine «Business Week». John Hawkins was one of the first people who has given a justification for the term. He revealed the concept of "creative economy" within the context of those spheres in which the creation of the final product of a certain type of activity requires intellectual or creative labor. These spheres include the following: fashion, design, music, radio, television, programming, publishing, photography, game production, advertising, architecture, cinema, scientific research, etc. All of the above can be characterized as another term, increasingly important within the framework of this study: "creative industries". (Hawkins, 2011).

It should be noticed that the topic is quite specific (Potochenko, 2020). That is why every year new terms, indicators and ideas appear in the scope of the creative economy. Many studies also use the term "innovative economy" as a synonym for "creative economy". Some scholars focus on connecting creative clusters with innovations. The importance of creative clusters' research became noticeable in the last decades with the acquisition of a creative economy on a real scale in the GDP of developing countries (Germany, Sweden, France, Belgium etc.) Creative industries are concerning both employment and high revenues, which is confirmed by the investigators around the world (EY, 2015; Jones, Lorenzen, & Sapsed, 2015).

The existing literature indicates that creative places have real competitive advantages over conservative cultural institutions (Sachkova, 2010; Morozov, 2016). A creative zone is a space that combines one or several organizations whose activities are related to creativity (Potochenko, 2020). The advantages that landlords receive from the creative quarter include financial support from the top management of the cluster, non-standard advertising, popular location, modern conditions (Sachkova, 2010).

There is a research gap in the current literature in accepted definitions of what a creative economy is. Each investigator has the right to perceive it from his own point of view. Since the beginning of the active development of the creative economy worldwide, it has often been subjected to various kinds of criticism. Some scholars, for instance, Khestanov (2018), question the possibility of direct mathematization of intellectual property products.

## Main body

The study is based on the concept that creative clusters throughout all the regions should be managed by applying the proper support strategies. Therefore, the "creative cluster" is an object that can transform not only social and cultural appearance, but also the economic component of the region.

Within the framework of this study, it is important to give clear definitions of terminology: «creative economy», «creative industries», «creative cluster / quarter / zone». According to UNESCO, a creative cluster is a special location or institution where one or several agencies of the creative industries are located. The activities of a creative quarter can be associated with either one specific creative industries sector (art, architecture, design, literature ...), or combine several of them. Actually, creative industries "specialise in the use of creative talent for commercial purposes" as they include diverse fields of society life, such as producing cultural goods and services, intellectual property and business-facing sectors producing creative services for other sectors. (Higgs, Cunningham and Bakhshi, 2008)

Therefore, the study focuses on the prospects and opportunities of the creative clusters for further development in the near future. **The aim of this paper** is to demonstrate the potential of creative clusters that can not only transform the image of old outdated districts (Evans, 2009), but also become a real driver of economic development in many countries.

In the past, culture has been considered in terms of public affairs (Yang, 2019). Nowadays the situation has changed. Most of the research literature presents that the model of creative clusters' management can easily be implemented and adopted across a range of regions and cities (Chapain et al., 2013). Comunian & England (2019) highlight that this innovative model has a potential to revitalize the economies of the lagging regions. That is why it is increasingly important for the public authorities to form the promising strategies for interaction and support of creative industries.

But how do you determine where the border of the creative sector is? Where and what to invest in - at least your time? And what to ignore? There are several definitions of this phenomenon. One of the benchmarks is considered the definition of the UK Department of Culture, Media and Sports: "Industries emanating from individual creativity, skills and talents and having the potential to create wealth and create jobs through the generation and use of intellectual property" (Evans et al., 2004).

### *Creative sector in the countries of the European Union*

Over the past decade, creative industries have become a new model of economic growth in **European countries** (Maradana et al., 2017).

Tables 1,2

Table 1. Creative economy employment (2013): A six-country comparison

The six countries surveyed represent 63.6% of European Union gross domestic product

Rank Country	Creative economy		Creative industries		Embedded	
	Share of overall employment	Total	Share of overall employment	Total	Share of overall employment	Total
1 Sweden	11.92%	557,000	8.88%	415,000	3.04%	142,000
2 Netherlands	10.90%	834,000	7.68%	588,000	3.21%	246,000
3 UK	9.93%	2,941,000	7.91%	2,343,000	2.02%	598,000
4 Germany	7.96%	3,142,000	5.76%	2,276,000	2.19%	866,000
5 Poland	5.62%	873,000	3.73%	580,000	1.89%	293,000
6 France	7.54%	1,922,000	5.52%	1,407,000	2.02%	515,000

Source: European Labour Force Survey data in Max Nathan, Andy Pratt and Ana Rincon-Aznar, *Creative Economy Employment in the European Union and the United Kingdom: A Comparative Analysis* (London: Nesta, 2015)

Table 2. Average annual growth rates for creative economy employment (2011-2013): A six-country comparison

The six countries surveyed represent 63.6% of European Union gross domestic product. The German growth rates are based on 2012-2013 only.

Rank Country	Creative economy		Creative industries		Embedded	
	Total	Increase in share of overall employment	Total	Increase in share of overall employment	Total	Increase in share of overall employment
1 Netherlands	9.3%	7.9%	3.7%	2.4%	28.9%	27.2%
2 UK	5.8%	4.8%	6.1%	5.0%	4.6%	3.7%
3 Poland	3.7%	3.7%	3.7%	3.7%	3.7%	3.8%
4 Germany	2.2%	1.3%	1.8%	0.7%	3.5%	2.3%
5 France	1.3%	1.5%	-1.7%	-1.5%	12.0%	12.4%
6 Sweden	1.0%	0.2%	1.1%	0.3%	0.8%	0.0%

Source: European Labour Force Survey data in Max Nathan, Andy Pratt and Ana Rincon-Aznar, *Creative Economy Employment in the European Union and the United Kingdom: A Comparative Analysis* (London: Nesta, 2015)

The creative economy growth rate differs from country to country. Of the six EU countries, Netherlands has the fastest growth, with jobs in the creative economy increasing some 9.3% per annum on average in the 2011-2013 period. The United Kingdom is No. 2 – rising 5.8% per annum in the two-year period and reinforcing its relatively high rating in the standings. Of greater concern, notwithstanding the volatility of growth rates in individual years, should be the relatively slow growth in France and Germany. Creative economy jobs in France, for example, grew on average by a relatively meagre 1.3% per annum in the two-year period, coming off a relatively low 2.02% percentage of the overall employment (jobs in the creative industries sector in France actually shrank 1.7% per annum in this same period). (Bakhshi, Hargreaves and Hofheinz, 2017). Comparison

of employment patterns and growth rates is fundamental to serving a wider public interest. Without data of this kind, it is impossible to run a well evidenced 21st century debate about key policy choices, including innovation, education, digital infrastructure, competition policy and much else.

It was in **Great Britain** that special statistical codes were firstly used to distinguish representatives of the creative sector from other economic entities. This practice has now been adopted by most of the **EU** member states. **Great Britain** remains a textbook example of the development of all five infrastructural components of the creative sector for almost twenty years. The regional data also confirms the insight that London's creative economy is built more heavily upon the creative industries than in the application of creative labor to other businesses. This can be seen as a strength built upon specialization.

Support for the creative sector (Innocenti, Lazzeretti, 2019), in fact, boils down to the synchronous development of five components:

- 1) policy development and advocacy, professional networks and associations;
- 2) strengthening organizational capacity, including through special education and lifelong learning;
- 3) the work of incubators and accelerators;
- 4) creation of clusters and hubs;
- 5) internationalization (that is, focus on global markets and the global creative scene).

This infrastructural pillar ensures the sustainability and consistency of the sector. According to Ernst & Young, more than 7 million people are employed in the creative sector in the **EU**. (Ernst & Young Report, 2019)

Policies developed at the level of **Brussels and Strasbourg** (Schlesinger, 2018) are aimed at ensuring the diversity of creativity, openness, democracy, inclusiveness of the creative sphere through the support of small and micro-enterprises (SME). This is due to the fact that large companies employing several hundred people often strive to monopolize markets, in particular, in advertising, cinematography, and game production, thereby deforming the cultural space.

Each of the TOP-4 European clusters presented in the report - **Berlin, Catalonia, Inner London and North Holland** - has an organizational component of municipal and regional policies and strategies. The most powerful regional cluster of creative businesses in Europe, as one would expect, remained **Inner London** before Brexit. More than 386 thousand local creative entrepreneurs generate about 19 billion pounds annually, which is 16% of the entire economy of the British capital. **London** is the third largest producer of films: the cinematic year here consists of about 14 thousand shooting days.

#### ***Berlin, Germany***

**Berlin**, with 3.4 million inhabitants, is the largest and youngest city in **Germany**: 23.2% of all city residents are under the age of 25. More than 24 thousand creative companies with 170 thousand employees are concentrated here. **Berlin** as a creative crossroads: today more than 24 thousand creative companies operate in the capital of **Germany**.

The capital of **Germany** is the leader in the music industry, the third most important city in Europe (Schlesinger, 2018) in terms of the number of films and TV programs shot and shown. It is here that "the Berlinale" takes place - one of the top events in world cinema. **Berlin** attracts creative people and artists from all over the world with its special atmosphere, openness to new things, high tolerance for dissimilarity, modern art with a very fresh outlook on the world.

#### ***Barcelona, Spain***

One of the largest clusters of creative industries in **Europe**, according to PwC, is **Barcelona** (within the metropolitan area), where The Catalan Institute of Cultural Enterprises is located - this institution facilitates the activities of 140,000 creative entrepreneurs represented in the region. Together, they create an added value of over 5.7 billion euros per year, which is 3.2% of the added value of all products manufactured in **Catalonia**. Despite the fact that Barcelona is steadily associated with Gaudí's buildings, architecture and tourism are not central to the city's creative field. Today, the film and audiovisual sector is actively developing here, including the production of advertising and video games. In addition, **Catalonia** remains one of **Europe's** leading literary regions (Schlesinger, 2018).

#### ***Netherlands***

The Dutch DFA Program operated in the **Netherlands** in 2009-2012 as part of the integrated strategy Policy Program for the Creative Industries. Its goal is to promote the movement of Dutch companies working in the field of design, fashion and architecture to the markets of China, India, Germany and Turkey (The Ministry of Economic Affairs of the Netherlands, The Ministry of Education, Culture and Science of the Netherlands, 2009). Analyzing the export of design art objects to China and India during the implementation of this program, it can be noted that in 2012, the last year of the program, the dynamics of Dutch exports to China showed much better results compared to the global and pan-European values.



## Conclusions

Municipalities, government and regional structures and international donors view their financial spending on the development of the creative sector as an investment in creating new jobs (especially for young people) (Maradana et al., 2017) and strengthening the social fabric. This approach is actively criticized by economists and investors of the neo- or post-liberal direction for the fact that it supposedly develops infantilism and spreads a lot of bureaucracy around supporting the creative sector. A productive alternative could be the American model, which is more focused on entrepreneurial skills and ingenuity. Interaction with the sector of modern high-tech production is one of the key challenges for representatives of the creative sphere. Time will show which models will be viable here, but it now tends to accelerate.

At present, the EU lacks the statistical data to adequately measure its creative economy, let alone to compare the advantages and disadvantages of one approach versus another. The understanding of “creative work” is relatively new and the data bases upon which the researchers have relied on are not always easily comparable, that is why it is needed to unify the data and the understandings of the creative sector.

Summing up the results of the research, it can be stated that, despite the priority importance of creative industries in the formation of "smart" economic growth in the EU and the launch of supranational programs to stimulate their exports (for example, Creative Europe, etc.), there are still imbalances in the national level of countries in the preparation and implementation of such programs. At present, the available statistical data do not allow the researchers to fully assess the effectiveness of stimulating the export of creative goods and services from the EU countries. However, implementing the Dutch DFA program already demonstrates its undoubted effectiveness, which will be strengthened after the end of the new internationalization strategies.

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## CURRENT LEGAL ISSUES OF THE “NORD STREAM – 2” ENERGY PROJECT

**Romanova Violetta**

*PhD in Law, Associate Professor Strelnikova Irina*

National Research University Higher School of Economics, Moscow, Russian Federation;  
[varomanova@edu.hse.ru](mailto:varomanova@edu.hse.ru)

### Abstract

The “Nord Stream – 2” (“NS-2”) pipeline gas project’s purpose is to expand gas suppliers from Russian Federation to EU countries, especially to Germany. The construction of this pipeline is based on mutually beneficial economic interests. These interests are based on the expected increase of international gas demand as well as on the need to strengthen the EU’s energy security.

However, the realization of this project is facing a lot of difficulties, especially in the legal field because for Russian companies it is quite complicated to deal with the necessity to take into account the EU energy legislation. Moreover, despite the fact, that both parts of this project declare it exclusively as an economic one, there are several legal obstacles which impede the project. Keywords: “Nord Stream – 2”; energy security; legal issues.

In this article some of these legal problems are to be discussed.

Gudkov I. in his articles “New Legislative Measures of the European Union in the Field of International Energy Cooperation” and “Current Legal Issues of Competition Development in the Energy Sector of the European Union” is analyzing the controversial questions and problems concerning the EU energy Law and its subordinates.

Belov V. in his analytical note “Nord Stream 2 in the Context of the Munich Security Conference” and article “Nord Stream – 2 Project Chances of Implementation” and Ctarikovs A. in his article “Nord Stream 2: The Dilemma of European Energy Interests” focus on the problems of EU’s energy security and sovereignty and the role of the “NS-2” project in solving these issues.

Zhiznin S. and Timohov V. in an article “Economic and Geopolitical Aspects of Nord Stream - 2” and Frank Umbach in “Commercial Project or Strategic Disorientation: The Controversial Nord Stream 2 Gas Pipeline” study the economic and geopolitical issues of “NS-2”, compare the positions of its supporters and opponents, as well as assess the project’s prospects.

Alan Riley in report “The Threat Posed by Nord Stream - 2 and Potential Challenges to the Pipeline” describes the scale of potential damage to the EU and the CEE states and claims that the project would harm these actors of politics but does not bring any benefit, while in the report “Defending Nord Stream 2” he provides arguments for the realization of the project.

Ana Stanič in “EU-Russia Relations Through the Prism of EU Law” analyses the legal issues of EU-Russian bilateral relations concerning the “NS-2” project.

The “Nord Stream” project is now more than 20 years. When the Russian Federation together with Germany announced the idea of starting this mega-project, almost none of the European energy market members paid enough attention. “NS-1” fell under the limitations of the third restrictive package of the EU. The future of “NS-2” is now not clear due to a big number of contradictions in different fields (Belov, 2018).

However, in 2014 the European Commission published the European Energy Security Strategy till 2030, and one of the objectives of it was diversification of external supplies and related infrastructure. Nowadays the EU makes a lot of effort and implements various measures to ensure its energy security, but it faces a lot of obstacles. Replacing Russian gas with other type of alternative energy is now not feasible. American liquefied natural gas (LNG) is more expensive, and its amount is not sufficient to provide Europe with energy. The Organization of Petroleum Exporting Countries (OPEC) cannot become a reliable gas supplier for the EU for a number of reasons. All these factors lead to the conclusion that the EU is not successful in ensuring the diversification of energy sources and that they still need Russian gas (Miroshnikova, Bogoutdinova, 2018).

That is why the realization of the pipeline is important not only for Russia as an essential political achievement, but for Europe too. However, there are different problems which both sides face with.

One of the main issues we should consider is the fact that Russian companies, while performing the “NS-2” project, deal with both European Union as a single actor of international relations and with national states separately. It is extremely difficult because there can be some collisions or even gaps in the European and National legislations. The situation was exacerbated after the introduction of standards in the framework of the implementation of the Energy Union.

Thus, in 2017 the European Parliament established an information exchange mechanism with regard to intergovernmental agreements and non-binding instruments between Member States and third countries in the field of energy and repealing Decision (No 994/2012/EU). This measure means that every European country since that moment should exchange any information about bilateral agreements with third countries. Moreover, one of the innovations was the implementation of ex-ante assessment of the compliance of new and amendments of existing intergovernmental agreements in the field of oil and gas with the European Law (No



994/2012/EU). So, the European Commission now has an authority to control agreements in this sphere, however, only between states and not between private economic subjects (No 994/2012/EU).

All the above-mentioned leads to the fact that the gas pipeline crossing the EU border will fall entirely under different jurisdictions – the EU and non-EU countries.

The EU as one of the founders and main guardians of international order must always take into account (and, actually, it does) the International Law and Maritime Law which is an important part of the latter.

According to the United Nations Convention on the Law of the Sea (UNCLOS) 1982, the width of the territorial sea of a coastal state should not exceed 12 nautical miles, and the Exclusive Economic Zones (EEZ) of opposing countries (with 12-mile territorial waters) can be established if the distance between the coasts exceeds 24 nautical miles. And, if in the territorial sea the state has full sovereignty, in the EEZ it does not have any significant grounds to make decisions about laying foreign pipelines and cables.

The problem areas for the construction of the “NS-2” which are too narrow to meet the criteria of the EEZ are areas between Finland and Estonia, Danish Bornholm island and Southern Sweden, as well as the Danish territorial Sea near Bornholm. In fact, the distance between the Finnish island of Myakiluoto near Cape Porkkala and the Estonian island of Naissaare is 19.44 miles, and between the northern tip of the Danish island of Bornholm and the nearest point in Southern Sweden is 18.9 miles.

While in 2005 during working out plans of “NS-1” in Estonia there were some voices to change the Estonian-Finnish agreement of 1996 to eliminate such narrow corridor, there were not such voices during the construction of the second “Nord Stream”. However, the existence of these two narrow places has created several problems during the construction of the “NS-2”.

The unregulated status of the sea areas south from the territorial sea of Bornholm island caused a problem with Denmark – this country initially refused to give permission for the construction of the Russian pipeline through this area. This uncertain status was explained by the fact that there was not any agreement between Denmark and Poland on the delimitation of their territories in Baltic Sea. Moreover, Poland, which was initially strongly against “NS-2” energy project, insisted that its EEZ should extend all the area to the Danish territorial sea off the Bornholm island. However, despite the differences and contradictions, on November 19, 2018, Foreign Ministers of Denmark and Poland signed in Brussels a treaty on the delimitation of disputed areas, and in June 2019 it entered into force (Oreshenkov, 2020).

Thus, one of the many legal problems that served as an obstacle to the successful implementation of the project was solved.

## **Conclusion**

There are various factors and challenges on the way of the implementation of the Russian gas pipeline project. So, on December 22, 2019 the US Administration imposed sanctions against companies involved in the construction of the Nord Stream, which led to the suspension of the construction of the “NS-2” (Oreshenkov, 2020). The Obama administration has also been an opponent of the pipeline. Congress has passed two sanctions laws on Russian pipeline projects. Congressmen and the State Department directly warned European businesses about the threats of sanctions for participating in the project (Timofeev, 2021).

Central and Eastern Europe countries are other stakeholders of the Russian pipeline project. These countries are the most active critics of “NS-2”. Especially Poland and The Baltic states, whether they do not sustain economic losses directly from the new gas pipeline. However, they are forced by political issues: they are main advocates of European “Eastern Policy” and active supporters of Ukraine’s European integration (Andreis, 2017). So, these countries cannot provide objective assessment of the pipeline project.

The main lobbyists of Russia’s gas interests in the European Union will remain the state structures and economic entities of Germany and Austria mostly because these countries are interested in maintaining the competitive advantages of their economic spaces as the leading European gas distribution hubs. At the same time, both countries will continue the policy of diversifying gas supplies by sources and by forms (Belov, 2020).

Although today neither Germany nor the Russian Federation has an adequate response to the American threats, it is unlikely that the German and other European partners will refuse to continue the “Nord Stream” (Belov, 2018). This statement can be confirmed by the fact that on February 15, 2019 A. Merkel at the Munich Security Conference, in which she said that this gas pipeline will be built, despite political difficulties, because this project directly corresponds to the economic interests of Germany and other EU countries.

Indeed, there are many challenges on the way to the implementation of this large-scale project, including problems in the legal sphere. These are the above-described problems of the ratio of different legislatures, legal conflicts, the lack of regulation in some important areas and many others. However, the actions of the political

leaders of the states, interested in bringing the project, to completion suggest that both sides are ready to tackle with different problems, including emerging legal issues.

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## SHORTCOMINGS OF THE EU'S GENDER POLICY

**Maria Gerdt**

*Associate Professor Irina Strelnikova*

National Research University Higher School of Economic, Russian Federation

### **Abstract**

This paper presents a critical assessment of the EU's policy on gender equality. Despite having an extensive system of institutions dealing with the issue of gender inequality, and also exploits various legal mechanisms, the EU's policymakers tend to prioritize market needs and lack feminist reading. As a result, gender equality becomes a «side effect» of other European policy initiatives, usually connected to the liberalization of the market. The EU's gender policy is challenged by neo-liberal ideology, assuming the existence of «gender-neutral» policies. Along with differences in implementation of European gender policy in member-states, that produces new gender inequalities in the form of unintended consequences harmful for women. The solution is seen in engaging more gender experts and feminist movements in the decision-making process, therefore feminist reading can be incorporated.

Keywords: EU gender equality policies; gender inequality; gender mainstreaming; feminist political theory.

### **Introduction**

According to the official statements of the European Union, gender equality, along with other perspectives, formed the foundation of the European project and up to this day remains a crucial direction of European policy. For instance, in a press release on the 50th anniversary of the Treaty of Rome, the European Commission noted that «gender equality has been a key principle of the EU ever since the Treaty of Rome introduced the principle of equal pay for men and women in 1957» (Europa, 2007). Another Commission's document states that «equality between women and men is a fundamental right, a common value of the EU, and a necessary condition for the achievement of the EU objectives of growth, employment and social cohesion» (Commission, 2009). Moreover, since 1995, the term «gender mainstreaming» has been included in the socio-political lexicon of the EU. According to the European Institute for Gender Equality, gender mainstreaming involves «the integration of a gender perspective into the preparation, design, implementation, monitoring, and evaluation of policies, regulatory measures, and spending programmes, with a view to promoting equality between women and men, and combating discrimination».

Among other accomplishments of the Commission, it is important to mention the creation of the Gender Equality Index, which consists of eight criteria: work, money, knowledge, time, power, health, inequality, and violence. Despite its notable usefulness for assessing the effectiveness of European gender policies, it also discloses the modest rate at which gender inequality in the EU is decreasing (since 2015, the index for the European Union has decreased by only 2.7), as well as how the indicators differ between the EU member states: the gap between Sweden (the highest rate in the EU - 79.7) and Greece (lowest in the EU - 50.1) is 26.6.

A large number of initiatives are also being undertaken within the framework of the work of the European Commission - the main body responsible for the implementation of gender policy. The Commission has organized various units and structures dedicated exclusively to gender equality issues, including, for example, the Equal Opportunities Unit; The Advisory Committee on Equal Opportunities for Men and Women; European Institute for Gender Equality; the Women's Information Bureau, etc. The European Parliament, especially the Committee on Women's Rights and Gender Equality, also plays a critical role in ensuring gender equality, primarily by lawmaking.

Thus, the European Union has developed an extensive system of institutions dealing with the issue of gender inequality, and also exploits various legal mechanisms embodied in strategies, conventions, and other documents in order to promote gender equality. However, many feminist authors have expressed skepticism and even caution towards the effectiveness of the current EU's gender policy, even stating that «modern women are often disappointed that states and institutions do not keep their promises of equality» (MacRae, 2010). Further research focuses specifically on the problems of EU gender policy, which do not allow, firstly, to cover a sufficient range of gender equality problems, and secondly, to achieve foundational transformations towards gender equality in European society.

### **Literature review**

This section presents a review of the literature regarding the issue of EU's gender policy. Major contributions have been made by J. Ann Tickner, whose studies give the further discourse a foundation of feminist International Relations theory. In «Gender In International Relations» J. Ann Tickner claims the relevance of gender mainstreaming in foreign policy and international relations analysis (Tickner, 1992). In «Gendering World Politics» she also specifies the difference of concepts such as «sovereignty» and «safety»

if the gender aspect is taken into consideration, which provides a better understanding of how gender differences in actor's behavior affect world politics (Tickner, 2001).

There have been numerous studies estimating the efficiency of the EU's gender policy. Emilie M. Hafner-Burton, Mark A. Pollack (Hafner-Burton and Pollack, 2009), Maria Stratigaki (Stratigaki, 2004), and Heather MacRae (MacRae, 2010) investigate fundamental flaws of EU's «gender equality myth» as well as efficiency and overall performance of gender and feminist mainstreaming in EU's gender policymaking. A notable job in proving the importance of feminist reading in EU's gender policymaking was accomplished by Emanuela Lombardo and Petra Meier (Lombardo and Meier, 2006).

Previous studies have also emphasized the unintentional and unanticipated outcomes of European Union gender policy. For instance, Kimberly Earles (Earles, 2013) focuses on how European Union's pensions policy had a negative impact on the majority of women, Heather MacRae (MacRae, 2010) has recognized unexpected gender consequences of liberalization of the airlines' sector, and Maxine David and Roberta Guerrina (David and Guerrina, 2013) address the issue of unintended consequences of gender mainstreaming in the field of external relations. Gill Allwood (Allwood, 2018) has also examined the problems with the EU's policy on prostitution, more specifically, the absence of such and the EU's silence of the topic.

## Results

In order to identify the fundamental problems of EU gender policy, it is essential to pay more attention to the content of the Roman treaty - the «foundation» of European gender policy - it enshrined the principle of «equal pay for equal work», while in feminist discourse it is much more appropriate to say about «equal pay for work of equal value». This is due to the fact that the European Union is a project primarily of economic integration, the main goals of which are market liberalization, the establishment of open competition, and «four freedoms», therefore, in essence, gender equality in the EU was created as a means of ensuring equal competition between the original states - members. The evidence even suggests that Article 119 («equal pay for equal work») was originally intended to be included in the Treaty of Rome under the competition section but was moved to the social section after the negotiations ended.

Thus, Heather Macrae believes it is not an exaggeration to say that gender equality has often been a «side effect» of other European policy initiatives, and gender is forced to compete with the strong narratives of market liberalization, the gender equality narrative is simply not entrenched enough to offer a real challenge (MacRae, 2010). Feminist authors generally agree that EU gender policy suffers from attempts to achieve gender equality based on neoliberal market principles, since from a neoliberal point of view, from a neoliberal point of view, the consumer and the producer are assumed to be gender-neutral, while in reality, people are always gendered beings, therefore, there are no «gender-neutral spheres» either. Maria Stratigaki calls this the «double identity» of gender equality policy as both economic and social invited ambiguity in the outcome, limitations of potential reach, and reluctance in implementation (Stratigaki, 2004).

A striking example of this duality can be traced in the EU pension policy, which emphasized the creation of more private pension funds in member states (using, for example, a tax break), while paying less attention to state pensions, in some countries private pensions have become mandatory. This policy is based on the neoliberal idea that public pensions undermine individual savings, while private pensions increase the country's savings rate, leading to economic growth. Neoliberal ideology highlights the supremacy of markets for meeting each individual's economic needs, including in retirement, and thus prescribes individual choice and flexibility in promoting private pensions (Street and Ginn, 2001). While this policy direction may seem gender-neutral, in fact, the shift in emphasis from public pensions to private pensions is contributing to an increase in poverty among women of retirement age. Ginn, Daly, and Street recognize that in the pension reform literature «an ungendered individual is assumed, who can maintain full-time employment throughout the working life» (Ginn, Daly, and Street, 2001), which usually corresponds to male workstyle. Women, on the other hand, are forced to periodically leave the labor market to take care of children; moreover, they are more likely to agree to part-time or temporary work. Maria Stratigaki even suggests that the EU's policy is designed to create a more flexible labour force through the incorporation of women's flexible and often temporary labour (Stratigaki, 2004). Hence, «gender is virtually invisible». Kimberly Earles argues that «individualizing pension entitlements and treating men and women the same in pension schemes (i.e., the same statutory retirement age) only works if men and women have the same labor market behavior and, thus, the same ability to earn pension benefits» (Earles, 2013).

In her article «The EU as a Policy for Gender Equality: Myths and Reality» Heather MacRae draws attention to the difference in the implementation of gender policies in member states, citing an example of European policy on parental leave. During the war, Germany developed its own national myth, based on a strict separation of gender roles – male soldiers and mothers-caregivers (MacRae, 2010). In compliance with the

1996 EU parental leave directive, Germany has significantly extended parental leave to three years, while claiming that it meets «minimum» EU requirements. At the same time, as a result, there was a gap between the aims of the EU policy and its outcomes in Germany, primarily because the target of the EU policy was to provide a short period of temporary job protection, while the German government sought to promote long-term childcare and traditional gender patterns. And although Germany later changed its policy, this example demonstrates such a shortcoming of European gender policy as «inconsistency between legislative objectives and legislative results» at the level of gender policy implementation in EU member states. MacRae also draws attention to this gap at the level of the EU itself, using the example of the connection between liberalization, in the given case, of air traffic, and the problems of gender equality, namely prostitution. The emergence of cheap air tickets to the former Soviet Union republics has resulted, for example, in the fact that Estonia has become the «European prostitution-tourism capital» (Gunter, 2004). Similar trends were also noticed in Prague and Riga, where, incidentally, local residents accused the Irish airline Ryanair of helping to «tarnish the city's image» through stag parties (Alas, 2005).

The policy on prostitution, or rather its absence, is generally a rather indicative example. Among the EU member states, one can find both examples of full legitimization of the sex industry (Netherlands, Germany, Latvia), criminalization of prostitution (Albania, Serbia), and the most effective and feminist at the moment «Nordic model» – criminalization of a client, when purchasing the services of prostituted women or brothels equates to rape, the model operates in Sweden and France. This testifies both to significant intercountry differences in the EU, but also, in the case of full legitimization of prostitution, the dominance of economic factors and neoliberal ideology, since it is within its framework that prostitution is treated as «work» and «personal choice». At the same time, in Germany, the negative consequences of this policy can be spotted, for instance, the increased amount of incidents of violence and traumatization of women employed in prostitution. According to Dr. Ingeborg Kraus «far from protecting the women, ‘the German model’ has become ‘hell on Earth’ for them» (Kraus, 2018). Thus, the issue of prostitution is directly related to the safety and well-being of women who are not provided with social protection. However, the European Union has not yet developed a common policy towards prostitution. This is often because the issue of prostitution is «outside the competence» of the EU, but Gill Allwood argues that this is only a matter of interpretation: «Making the link between sexual exploitation, which does fall within the EU's competence and prostitution, which does not, is a strategy for seeking agenda status, and this strategy depends on framing» (Allwood, 2018). The EU's competence has repeatedly expanded to cover the single market, and everything related to the «four freedoms». Due to the successful posing of issues and their linking to the single market and other EU affairs, various issues were included in the agenda, therefore using the argument of the EU's «competence» or «jurisdiction» is only an indicator of unwillingness to address a debatable issue that could spark controversy among the member countries, as well as the desire to preserve the underlying superiority of the economic interests of economic liberalization. At the same time, the contradictions regarding the regulation of prostitution concern not only the member states but also various EU institutions. In 1986, the European Parliament adopted a Resolution on Violence against Women, containing a section on prostitution. Thus, this problem was included in the agenda linked to the problem of violence against women, which can also be interpreted as an issue within the competence of the EU. In subsequent years, the European Parliaments adopted a number of resolutions aimed at regulating prostitution, while the attitude in the problem changed from demands for decriminalization to the opinion that «looking upon prostitution as legal ‘sex work’, decriminalizing the sex industry in general and making procuring legal is not a solution to keeping vulnerable women and under-age females safe from violence and exploitation, but has the opposite effect and puts them in danger of a higher level of violence, while at the same time encouraging prostitution markets» (Honeyball, 2014). However, the 1986 Resolution, like all the subsequent ones, was ignored by the Commission and the Council of Ministers, which prevented prostitution from being on the agenda. Hence, the absence of a European policy on prostitution is not a consequence of the fact that it «does not fall within the competence of the EU», but is the result of active silencing and refusal to include this issue on the agenda in order to preserve the economic orientation of the Union.

### **Conclusions**

The article examined that the main problem of EU's gender policy lies in the contradiction between the economic orientation of the European Union and the more radical changes necessary to achieve gender equality, which involve more than just market liberalization. This leads to lack of foresight in gender policy, as the gender aspect is excluded from certain decision-making processes, which entails unintended negative consequences, as showed in the case of pension policies or the liberalization of air travel. Often these problems arise from a lack of feminist reading. For example, Emanuela Lombardo and Petra Meier suggest that evidence of a non-feminist interpretation can be found in the view that the problem is seen as a problem for women that

women must solve, while men are not part of the problem and are not asked to change (Lombardo and Meier, 2006). At the same time, the feminist approach can be seen in the official texts of the European Parliament's Committee on Women's Rights and Gender Equality; feminist reading is also defended by the European Women's Lobby and a small number of gender experts. Gill Allwood also notes that while it is important to take into account the voices of feminist movements, she also notes that issues enter the EU agenda when they are promoted by actors, formulated in such a way as to correspond to EU priorities and commitments (Allwood, 2018). Therefore, in order for the problems of gender equality, firstly, to be addressed, and secondly, to be handled as efficiently as possible, it is necessary to attract more gender experts and more active involvement of feminist movements in the decision-making process.

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## SEXUAL CRIMES AGAINST YOUNG CHILDREN 2017-2020

**Lukrecija Urnikaitė**

*Lithuania business university of applied sciences*

**Doc. dr. Renata Šliažienė**

### **Abstract**

This article will analyze sexual crimes in Lithuania against young children in the period 2017-2020.

### **Introduction**

We often hear about various crimes on television or radio, and we still see an increase in crime in newspaper posters. It is frustrating when the numbers are growing at an inhumane rate and when we hear about sexual offenses against young children. This crime can irreversibly affect the child's mental state, moral norms, trust in people, mental state. Sexual offenses against young children are strictly prohibited. These relations are prohibited by the Constitution, international treaties, national statutes and other laws. Lithuania has a very conservative society, so it has been relatively recent to talk about child sexual abuse. Since the issue was raised in public, the media, the press and crime reports have increasingly reported cases of child sexual abuse, which show that child sexual abuse is a widespread phenomenon.

**The object of the article.** Sexual crimes in Lithuania against young children.

**Purpose of the article.** To analyze the increase, change, motives of sexual crime against young children in the period 2017-2020

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

1. To analyze the types of criminal activity and statistics.
2. Provide legislation that prohibits this crime.
3. To find out the consequences of the crime on the child's development and prevention.

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

### **The concept of sexual crime**

A sexual offense is a sexual act committed intentionally, involuntarily and that endangers psychological and physical well-being. These can include unpleasant sexual touches, forcing to have sex, taking sexual photos, sending unsolicited, intrusive messages with sexual content. Some criminals try to look friendly, helpful and polite. Sexual exploitation is when a child or young person is exploited for sex. An abuser can engage in a relationship by buying things, giving money, drinking alcohol, persuading, or treating you very kindly. Children or young people may believe that they are truly loved or that they have close relationships (Jasulaitis A. Dynamics and Peculiarities of Sexual Violence against Children in Vilnius County. 2008.).

### **Sexual abuse of a child**

According to the criminal laws of the Republic of Lithuania, a person under the age of 14 is considered a minor. A child's behavior when sexually abused is twofold, as some children may begin to exaggerate their genitals, express inadequately detailed knowledge about sexual intercourse, run away from school and home, not manage anger, etc., while other young people close themselves, are afraid of physical contact, close unwilling to undress in the eyes of others, such children have trouble sleeping, they often dream of nightmares, are distracted, or cry during sleep. It is also worth mentioning V. Mitka's opinion that sexual abuse of a child may become the main cause of a child's difficulties in social life, as victims of sexual abuse more often than their peers face other, often interrelated, social problems: drug abuse, alcohol abuse. This type of abuse, like physical abuse, interferes with the psychophysical development of the personality. (MITKA. V., Social Determination of Domestic Violence against Children, KTU Panevėžys Institute P. 293)

Sexual harassment can be divided into four forms:

- verbal,
- non-verbal
- cyber
- physical sexual harassment.

According to McGuinness (2007), various studies have shown that verbal harassment is the most common way to influence another person when directly trying to lean into sex, discussing breasts, legs, buttocks, sexuality. In the case of non-verbal harassment, pornography and erotica may be demonstrated. Cyber-internet sends various sexual images, pornography excerpts, naked photos or masturbation.

Oral comments	Physical actions	Visual behavior
Sexual in nature jokes, replicas	Unwanted physical contact or requirement	Sexual in nature. drawings, posters, photographs demonstration
Unwanted compliments the look comments on body shapes, clothing	Unwanted hugs / touches	Ambiguous, lustful, lustful glances, staring
Sexual in nature gossip about a colleague	Kissing, cuddling	Sexual gestures showing mimics
Vulgar humor related to gender, sex, stereotypical gender roles	Unwanted gifts, attention, flirting	Sexual in nature publication of posters, drawings
Annoying questioning about private life, intimate relationship or your own sexual life discussion		

*Annex 1 Prevention of Sexual Harassment Policy. University of Bristol.*

Assessing the peculiarities of child sexual abuse, it should be noted that representatives of educology and sociology (eg: Grigutyte E., Karmaza N., etc.) note that sexual abuse of children is determined by many factors, namely social factors, lack of education, psychological reasons and unmanaged internet and social networks.

## **Legal regulation**

- I. Constitution of the Republic of Lithuania
- II. United Nations Convention on the Rights of the Child
- III. Council Framework Decision on combating the sexual exploitation of children and child pornography.
- IV. Criminal Code of the Republic of Lithuania
- V. Law of the Republic of Lithuania on the Fundamentals of the Protection of the Rights of the Child

Article 38 of the Constitution of the Republic of Lithuania provides that the family is the basis of society and the state, the state protects and takes care of the family, motherhood, fatherhood and childhood. Paragraph 3 of Article 39 of the Constitution of the Republic of Lithuania provides that minor children are protected by law. Chapter XXIII of the Criminal Code, ensuring the following constitutional provisions, establishes criminal liability for the most dangerous acts in the interests of the family and children: abduction, exchange, purchase, sale, bequest, involvement in crime, use of drugs, alcohol or other abusive means, exploitation of pornography, abuse of rights or responsibilities of parents or other legal representatives of the child, avoidance of child maintenance. The Law on the Fundamentals of the Protection of the Rights of the Child of the Republic of Lithuania defines that a child is a person under the age of 18, unless the law provides otherwise. (Constitution of the Republic of Lithuania)

The terms violence and coercion are often used in the codes of various branches of law (criminal, administrative, civil, etc.), in other laws and regulations, as well as in international documents regulating the protection of the rights of the child and liability for these violations. The general concept of a child in terms of age is defined in the Law on the Fundamentals of the Protection of the Rights of the Child of the Republic of Lithuania. The adoption of this law was conditioned by the desire to ensure general legal preconditions and bases for the implementation of the provisions of the Constitution of the Republic of Lithuania and the United Nations Convention on the Rights of the Child in the field of protection of the rights of the child.

Article 47 of the Law on the Framework for the Protection of the Rights of the Child of the Republic of Lithuania provides that the promotion or coercion of a child into sexual activities, prostitution or prostitution, pornography, production or distribution of pornographic publications or other pornographic or erotic items criminal responsibility. Children need to be taught to avoid sexual abuse and exploitation.

Article 150 of the Criminal Code of the Republic of Lithuania. 1. Any person who has engaged in sexual intercourse with a person against his or her will by analogy, oral or other physical contact with physical violence or by threatening to use it immediately, or by otherwise depriving him or her of resistance or helplessness, shall be punished by arrest or imprisonment until seven years. 4. Whoever has committed the acts provided for in paragraph 1 of this Article on a minor shall be punished by imprisonment for a term of



three to thirteen years. Article 151. Coercion to have sex. 1. Any person who coerces the use of violence, other forms of mental coercion or the use of a person's addiction to have sexual intercourse or otherwise satisfies sexual passion with the perpetrator or any other person shall be punishable by arrest or imprisonment for a term not exceeding three years. 2. Whoever has committed the acts provided for in paragraph 1 of this Article on a minor shall be punished by imprisonment for a term not exceeding eight years. (Criminal Code of the Republic of Lithuania).

### Sexual crime in the period 2017-2020

The law prohibits any violence against children. Although the law provides for up to 13 years of imprisonment for sexual abuse of children, the problem has remained acute. A state child rehabilitation center has been set up to provide medical and psychological assistance and care to children, as well as victims of various forms of violence. In addition, there was a center in Vilnius providing legal, psychological and medical assistance to sexually abused children and their families. According to the data of the Department of Statistics, in 2018. There were 4,854 reports of violence against children in 2017, compared to 5,625 in 2017. The Ombudsman for Children reported that 97 complaints had been received in the eight months of 2019. In the first eight months of 2019, the Children's Line (a telephone helpline for children and adolescents) received 248,210 calls from children and answered 130,047 calls. The Children's Line also received and responded to letters from 555 children, ranging from relationships with parents and friends to domestic violence and sexual abuse. (Department of Informatics and Communications under the Ministry of the Interior of the Republic of Lithuania).

According to the data of the Family Social Support Information System (SPIS), during 2019. In January-April, 46 cases of child sexual abuse were recorded, during which 44 children (16 boys and 28 girls) were potentially affected. Of these, 3 potentially affected children were 4-6 years old. age group, 7 children - 7-9 years. in the age group, 24 children - 10-14 years. in the age group, 10 children - 15-17 years. age group. Out of all affected children, 7 children were diagnosed with a disability. The most common forms of sexual abuse of children were possibly used by foreign adults, who potentially affected 16 children. It should be noted that although these persons are not closely related to the child, they are usually well known to the child (for example, uncles, maternal cohabitants, adult friends, etc.). 13 children were possibly affected by adults close to the child, 11 children were possibly affected by foreign minors, and 4 children were possibly affected by close minors. Of the 44 children who were potentially victims of sexual violence, 21 children were likely to have experienced sexual violence in their immediate environment. (State Child Protection and Adoption Service under the Ministry of Social Security and Labor)

During 2018. In January-April, 25 cases of child sexual abuse were recorded, during which 25 children were potentially affected. Comparing these data with the data of 2019, it can be seen that the number of cases of sexual violence was almost twice as high. It is believed that this change in indicators was not due to an increase in sexual abuse, but to changes in legislation related to the protection of children's rights, more active public response and more frequent reports of possible violence against children, as well as child protection, education, health care and other professionals. more successful identification and response of children who may have experienced violence (State Service for the Protection and Adoption of the Rights of the Child under the Ministry of Social Security and Labor).

	Rape of minors	Sexual abuse of minors	Forcing a minor to have sex	Satisfaction of sexual passion	Child abuse	Exploitation of a child for pornography	Possession of pornographic items containing children
Year							
2013	57	64	6	44	53	5	39
2014	75	95	3	29	54	3	36
2015	55	63	0	40	67	3	88
2016	46	63	3	35	60	13	123
2017	58	63	2	47	79	16	132
2018	65	61	2	61	112	24	139

*Annex 2. Gintautas Sakalauskas Vilnius University, Faculty of Law, Department of Criminal Justice, Associate Professor Doctor of Social Sciences.*

## **Prevention of sexual offenses against young children**

In implementing the National Program against Commercial Sexual Exploitation and Sexual Abuse of Children, approved by the Government of the Republic of Lithuania in 2000. January 11 by resolution no. 29 (Official Gazette Valstybės žinios, 2000, No. 5-144), on the initiative of the Ministry of Social Security and Labor, a sociological study was conducted in 2000–2001 to determine the extent of sexual abuse of children and to analyze the situation. Seek to find out the respondents' opinion about all types of violence (i.e. emotional, physical, sexual abuse). Five social groups were interviewed - children, parents, society, specialists and experts. It has been established that up to 10 percent of Lithuanian children experience various forms of sexual abuse (mostly 13-16 years old). According to this survey, the majority of the population perceives that the commercial sexual exploitation and sexual abuse of children is a particularly painful problem, but proposes to address it through repressive measures - more active persecution of perpetrators and harsher punishments. This shows how important it is to educate the public so that it is more aware of crises and the ways to overcome them.

Insufficient public involvement in the prevention of violence against children, imperfect system for collecting and providing information on child victims of violence, insufficient coordination of social, health, law enforcement, pedagogical and psychological services, too narrow network, lack of qualified specialists (especially in some municipalities), poor material and technical base hinders the proper organization of prevention work, timely and qualified assistance to children who have been victims of violence or abuse. In the exercise of the Minister of Education and Science December 16 order no. ISAK-1811 “On the Plan of Measures for the Implementation of the Model of Provision of Pedagogical and Psychological Assistance in 2003-2005” (Official Gazette Valstybės žinios, 2004, No. 13-390), new pedagogical psychological services are established in municipalities, thus increasing the universality and accessibility of children at risk. The new services are equipped with information technology, specialists are provided with specialized training to improve their knowledge and practical skills to work with children at risk and their families (as well as those who have experienced violence, abusers, survivors of psychological crises and others). (Resolution of the Government of the Republic of Lithuania On the Approval of the National Program for the Prevention of Violence against Children and Assistance to Children for 2005-2007).

Prevention is divided into several levels

- Primary prevention
- Secondary prevention
- Tertiary prevention

Primary prevention: fundamental changes in family and community life. It is an activity aimed at preventing violence at all.

Secondary prevention: early prognosis and identification. These are short-term actions to predict and identify child abuse.

Tertiary prevention: intervention, treatment, problem control. Tertiary prevention is an aid measure when a child has already been abused. Its purpose is to provide assistance to a child who has been abused by rehabilitating him or her and ensuring his or her safety. (Child Welfare State Policy Concepts, 2002).

Educators involved in the prevention of sexual violence against younger school-age children, interested in the success of preventive activities, have the knowledge and motivation, are able to highlight the most important directions of preventive activities. On the other hand, the results of the research show that prevention activities are inconsistent and continuous, there is no common strategy in schools, lack of competence of teachers, lack of cooperation between teachers and parents, between institutions, insufficient involvement of parents and children in prevention activities. (Grigutytė N., Karmaza E., Kemerienė S. (2004). Rehabilitation and reintegration of children who have experienced sexual abuse and their relatives. Methodological recommendations for social workers and social pedagogues. Ministry of Social Security and Labor).

## **Conclusions**

Sexual harassment can be divided into four forms: verbal, nonverbal, cyber, physical harassment. Various studies have shown that verbal harassment is the most common way to influence another person when directly trying to lean into sex, discussing breasts, legs, buttocks, sexuality.

Assessing the peculiarities of child sexual abuse, it should be noted that representatives of educology and sociology note that child sexual abuse is determined by many factors, namely social factors, lack of education, psychological causes and unmanageable Internet and social networks.

The legal acts regulating liability for this act are endless, but the main ones are the following: Constitution of the Republic of Lithuania, United Nations Convention on the Rights of the Child, Council Framework

Decision on Combating the Sexual Exploitation of Children and Child Pornography, Criminal Code of the Republic of Lithuania. The terms violence and coercion are often used in the codes of various branches of law (criminal, administrative, civil, etc.), in other laws and regulations, as well as in international documents regulating the protection of the rights of the child and liability for these violations.

Sexual exploitation and sexual abuse are a particularly painful problem, but they need to be tackled through repressive measures - more active persecution of perpetrators and harsher punishments. This shows how important it is to educate the public so that it is more aware of crises and the ways to overcome them.

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## PROBLEMS OF INTELLECTUAL PROPERTY RIGHTS PROTECTION

**Alexandra Solomennikova**

*Strelnikova I.A.*

[asolomennikova2000@mail.ru](mailto:asolomennikova2000@mail.ru)

### Abstract

This article compares the protection of intellectual property rights in Russia and foreign countries. The sources of intellectual property rights protection are considered. The author reveals the problem of plagiarism, as well as analyzes judicial practice.

Keywords: intellectual property rights, intellectual property law, legal support.

### Introduction

The development of a society directly depends on its intellectual potential. The world needs people who are creative, cultured, gifted, and striving for improvement. The development of society is impossible without its intellectual development. All this is realized through the creation of intellectual property, its management, as well as the protection of intellectual rights.

According to Article 1225 of the Civil Code of the Russian Federation intellectual property is the results of intellectual activity and the means of individualization equated to them. The law defines an exhaustive list of intellectual property objects that are granted legal protection. This list consists of 16 objects:

- 1) works of science, literature and art;
- 2) programs for electronic computers (computer programs);
- 3) databases;
- 4) executions;
- 5) phonograms;
- 6) broadcasting or cable broadcasting of radio or television programs (broadcasting of broadcasting or cable broadcasting organizations);
- 7) inventions;
- 8) utility models;
- 9) industrial designs;
- 10) breeding achievements;
- 11) integrated circuit topologies;
- 12) production secrets (know-how);
- 13) brand names;
- 14) trademarks and service marks;
- 14.1) geographical indications;
- 15) names of places of origin of goods;
- 16) commercial designations.

Intellectual property rights arise on objects of intellectual property, which include personal non-property rights, exclusive rights and other rights in accordance with Article 1226 of the Civil Code of the Russian Federation. The author of intellectual property owns the right of authorship, the right to a name and other personal non-property rights, they are not alienable and not transferable. According to Article 1228 of the Civil Code of the Russian Federation, the waiver of these rights is null and void. An exclusive right is a property right that includes the right to use, dispose of, and protect. the product of intellectual activity (articles 1233, 1252 of the Civil Code of the Russian Federation). The property right has a limited validity period, it can be transferred by entering into a contract. There are also other rights, such as the right to follow, the right to a patent, the right of access, and so on (Articles 1292, 1293, 1357 of the Civil Code of the Russian Federation).

Exclusive intellectual property rights are divided into two main institutions: copyright and related rights; industrial property, which includes patent law and rights to means of individualization of legal entities, goods, works, services and enterprises.

To protect copyright objects, registration or compliance with any formalities is not required, they are protected at the moment of their appearance. The objects of copyright are literary works, dramatic and musical-dramatic works, scenario works; choreographic works and pantomimes, musical works with or without text, and others. Objects of patent rights are protected only if they are registered with a special body. Such objects are inventions, industrial designs, utility models, and others.

The legal regulation of intellectual property is provided by various sources: the Constitution of the Russian Federation, international agreements and various codes.

## **Data and problem**

The Constitution of the Russian Federation is the main legal source of the Russian Federation, which establishes certain rights related to the protection of intellectual property. According to article 44, everyone is guaranteed the freedom of literary, artistic, scientific, technical and other types of creativity and teaching.

It seems true that the most important source of regulation of rights related to the results of intellectual activity is the Civil Code of the Russian Federation. The basic legal framework of objects, their types, rights, protection and protection of intellectual property rights are set out in Part 4 of the Civil Code of the Russian Federation.

It is also important to mention international sources. Russia's accession to the World Trade Organization and the signing of the agreement on trade-related aspects of intellectual property is also a major breakthrough, which affects five areas: the procedure for applying the basic principles of international agreements on trade and respect for intellectual property rights; protection measures on the territory of certain States; special measures on the way to a new system of protection; the procedure for resolving disputes; the procedure for ensuring sufficient protection measures.

Legal support includes not only protection, but also protection of intellectual property rights. The protection of rights implies a general legal order in the field of intellectual property, enshrined in normative legal acts, carried out in an out-of-court and judicial manner.

Personal non-property rights are inseparable, their transfer is null and void, unlike property rights. A civil contract refers to the self-protection of intellectual property. According to Article 1233 of the Civil Code of the Russian Federation, the right holder has the right to transfer property rights on the basis of a contract. Assignment of intellectual property rights is the alienation of an exclusive right by entering into a contract. Transfer of copyright for a period of time, i.e. by granting the right to use intellectual property on the basis of a civil contract: alienation, labor, license, and so on.

Violation of copyright, related and inventive rights, violation of the established procedure for patenting, illegal use of means of individualization of goods, etc. - all this is protected on the basis of the Code of Administrative Offenses of the Russian Federation. (Article 4.10; 7.12; 7.28 of the Code of Administrative Offences of the Russian Federation). Administrative legislation requires a lot of changes in the field of intellectual property protection, since there is no method for calculating losses in case of violation of rights, and ineffective administrative and legal sanctions.

To protect intellectual property rights in court, civil protection is used, which is aimed at restoring the violated or disputed right. Several methods of protection are used: recognition of authorship; restoration of the situation that existed before the violation, compensation for damages; compensation for moral damage; compulsion to perform a duty in kind, the so-called real performance; withdrawal; termination or change of legal relations; other measures. The main disadvantage of civil protection in the Russian Federation is the insignificant payment of compensation for material damage.

Criminal - legal protection of intellectual property includes violation of copyright and related rights, violation of inventive and patent rights, illegal use of means of individualization (Articles 146, 147, 180 of the Criminal Code of the Russian Federation).

A serious problem of copyright protection in Russia is that the form is protected, not the content. In any work, the elements of the form of the work and the elements of its content differ. Thus, in a work of fiction, the elements of form include language, artistic images, the sequence of presentation, and the elements of content - theme, idea, plot, etc. At the same time, the content of the work is always clothed in a certain form, through which it is expressed. It was noticed that the same content elements - theme, idea, plot, etc. - are repeated in different works, appear in different authors. This is a clear sign that these elements can not be considered unique, original. In this regard, this paragraph indicates that the elements of the content of the work are not protected by copyright. Only the form of the work is protected in the work.

## **Results**

A striking example is the trial between the authors of the works "Harry Potter and the Philosopher's Stone" and "Tanya Grotter and the Magic Double Bass". An Amsterdam court has banned the release of a work by Russian writer Dmitry Yemts. The judge believes that the work "Tanya Grotter and the magic double bass" copies the book by Rowling, so the decision was made to ban replication in connection with copyright infringement. In foreign countries, this work of the Emca is no longer produced. In the Russian Federation, a similar case was resolved by a victory for the author Tanya Grotter. The publishing house that prints "Harry Potter" in Russia, sued the author of "Tanya Grotter and the magic double bass", but lost the court case. Since

the content of the work is not subject to protection, and there are no clear criteria for plagiarism, it was decided that the work about Tanya Grotter is only a parody of the work about Harry Potter.

Objects of intellectual activity in foreign countries are protected by the Agreement on Trade-Related Aspects of Intellectual Property Rights, the Berne Convention for the Protection of Literary and Artistic Works of 1886, the Paris Convention for the Protection of Industrial Property of 1883, the Madrid Agreement on the International Registration of Marks of 1891, the World Copyright Convention in Geneva of 1952, as well as the World Intellectual Property Organization, and much more.

Despite the large number of sources of intellectual property protection, the global problem of determining the criteria for plagiarism remains relevant. Plagiarism can be in relation to data, words or phrases, ideas and principles. Plagiarism is the appropriation of scientific ideas, results, or texts without correctly indicating the source of the borrowing.

Abroad, they actively fight against plagiarism, theft of ideas, etc. In Russia, at the moment, no serious attempts have been made to combat the theft of the content of the results of intellectual activity. There are about 10 types of plagiarism: Deliberate Plagiarism, Paraphrasing, Mosaic Plagiarism, Bluffing, etc. For example, Deliberate Plagiarism is an attempt to pass off someone else's work as one's own; Paraphrasing is the act of changing a few words, but maintaining the same sentence structure used by the original author; Mosaic Plagiarism is stealing sentences or words from multiple texts; Bluffing is reading some key source texts, marking some key ideas so that they seem different, although they are essentially the same, and other methods.

There are attempts to create a universal list of criteria for plagiarism, but is it really always possible to use it?

In 2014, Katy Perry was sued by rap artist Marcus Gray, who performs under the pseudonym Flame. He claimed that her hit "Dark Horse" was copied from his 2009 song "Joyful Noise". The musician demanded compensation in the amount of \$ 20 million. During the trial, the jury found Katy Perry guilty of plagiarism, saying that the singer intentionally or not copied the melodic and rhythmic pattern from the song Flame. In the song "Dark Horse" there are 8 notes, 4 of which are the same, it is these notes that according to Flame copied Katy Perry. Katy Perry and her record company have been ordered to pay a \$ 2.78 million fine in a copyright infringement case. There was even an American musicologist at the trial, who claimed that the sequence of these four was invented by Flame. The situation is absurd, since this sequence is found in folk works and in the works of Bach. It is impossible to judge for plagiarism of obvious and consonant notes. Many musicians stood up for Katy Perry, as the decision of this case may lead to a mass trial in such cases.

## Conclusions

Is it possible to universally evaluate plagiarism? It seems reasonable that it is not. This situation is indicative of the understanding that multiple evaluation criteria should be taken into account, for example, pitch, tone, frequency, etc.

The solution to the problem of plagiarism is the assessment of the general parameters of the objects of the result of intellectual activity, as well as an individual approach to the assessment of the special features of the object. It seems correct for the courts to make a deep assessment of the results of intellectual activity. For example, the appointment of professionals, the trial by jury, as well as conscientious and logical evaluation.

Summing up, I conclude that the violation of intellectual property rights is a global problem that can threaten the development of society. The results of people's intellectual activity are the engine of the process, which is why serious measures are needed to protect them.

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## THE LINEAR AND FUNCTIONAL ORGANIZATION MANAGEMENT STRUCTURE AND REVIEW OF SWOT ANALYSIS IN COMPANIES

**Roma Jankauskaitė**

*Lithuania Business University of Applied Sciences*

**Doc. dr. Jurgita Martinkienė**

### Abstract

Organizational structure is a set of functions on the basis of which the activities of the organization are organized and coordinated. This article describes organization management structures, analyses organization linear and functional structure in companies, presents strengths, weaknesses, opportunities, and treats (SWOT) analysis review.

Key words: Organization, SWOT, company, progress, management, structure.

### Introduction

Organizational structure is a set of functions on the basis of which the activities of the organization are organized and coordinated.

The organizational structure includes four functions performed by the leaders of the organization: division of labour; formation of structural chains, creation of organizational hierarchy; coordination process (Čiarnienė and others., 2011).

The management structure of an organization is influenced by many factors: legal status, chosen line of business, number of managers, employees and departments. The organizational management structure shows the dependence and composition of linear and functional management circuits. The composition and subordination of related units, circuits performing various functions (Vanagas, Vyšniauskienė, 2012).

The article presents various management structures of organizations the *patriarchal, linear, functional, matrix, bureaucratic, adhocratic*, structures and SWOT analysis review, which is a tool for strategic planning and strategic management in organizations.

**Research object** – Linear and functional organization management structures.

**Research aim** –SWOT analysis review in companies using linear and functional management structures.

#### Research tasks:

1. To analyse the organization management structures on the theoretical aspect.
2. To perform SWOT analysis review in limited liability company „RIOLIS” and „ARC ROYAL” company.

**Research methods:** analysis of literature sources and organizational structures on the theoretical aspect.

#### Organizational management structure analysis on the theoretical aspect

The organizational structure includes four functions performed by the leaders of the organization: division of labour; formation of structural chains, creation of organizational hierarchy; coordination process (Fig. 1.) (Čiarnienė ir kt., 2011).

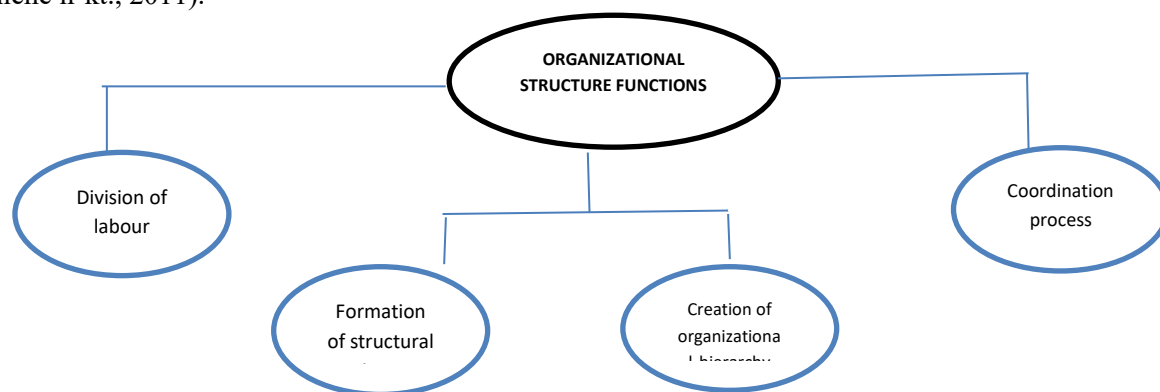


Fig. 1.: Organizational structure functions (Source: Čiarnienė and others., 2011)

**Organizations are changing rapidly. Their activities, forms of management, the workplace and the employees are changing.** People spend most of their time at work, the workplace becomes one of the communities in which it operates. The organization and its internal culture have an incredibly significant impact on employee well-being. The work environment affects employee's psychological characteristics and emotional intelligence and behaviour patterns [Skliustys, 2021].



The organizational management structure must be appropriate, suitable for the members of the organization. A management structure is a tool to achieve organization goals. They are achieved by implementation of certain strategy, following the decisions made by applying a certain mode of operation - technology. The objectives must be pursued in terms of the technology used and the strategy implemented (Zakarevičius and others, 2011).

The choice of organization management structure form and type is influenced by the external factors, goals and strategy, size and technology. Many internal and external factors need to be taken into account when creating an organizational management structure (Zakarevičius and others, 2011).

There are three main types of organizational structures: linear, functional, and matrix. All other models of management structures are only modifications of these three basic models.

Each organization chooses the most convenient option, considering the number of employees, advantages, and disadvantages, division of departments and the nature of activities. Each company chooses the most convenient way for itself, and sometimes combines several methods, taking from each of what is most useful and relevant to them.

A *patriarchal* management structure of a company is a type of management where all the right to decide, distribute and organize work belongs to one manager. This type of corporate management is most common in smaller companies, which have virtually no different divisions and relatively few employees [Visalietuva.lt, 2019].

A *linear management* (synonyms: team, administrative) the essential feature is monopoly- subordinates receive tasks from only one manager and are accountable to him. Subordination is clear, with several employees directly reporting to manager. Direct (manager - subordinate) and feedback on one line. Linear structures are thought to be more suitable for smaller organizations with greater stability, periodic repetitions (Vanagas, Vyšniauskienė, 2012).

LLC „RIOLIS”, in Lithuania, that is engaged in creating and producing cross-stitch kits of different designs and other handicraft sets. Has 21 employees and operates using a linear management structure. Subordinates have one manager and receive precise instructions. All workers report to manager directly. The manager is responsible for the work of the unit. The head of the company – manager, must be competent in all matters. The essential feature of a linear structure (Fig. 2) is monopoly - subordinates receive tasks from only one manager and report only to him. This structure defines a line of command that defines the direction from the bottom up, where authority and ruling begin, and accountability from the top down the same trajectory. A linear structure is a structure of tasks / instructions and authority focused on primary performance (Bivainis, 2011).

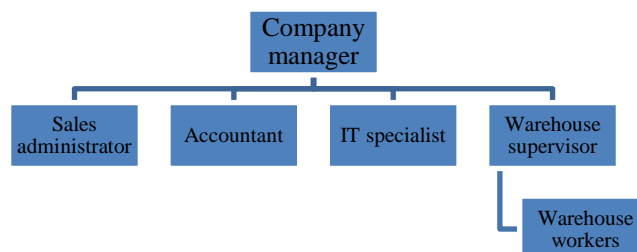


Fig.2. Linear structure (compiled by the author).

Using this type of management, a manager can directly assign tasks to his or her subordinates. This is one of the most common forms of organization management, often seen in medium companies (Stoner and others, 2017).

Below there are presented (Fig. 3) advantages and disadvantages of linear structure (Ceopedia, 2019):

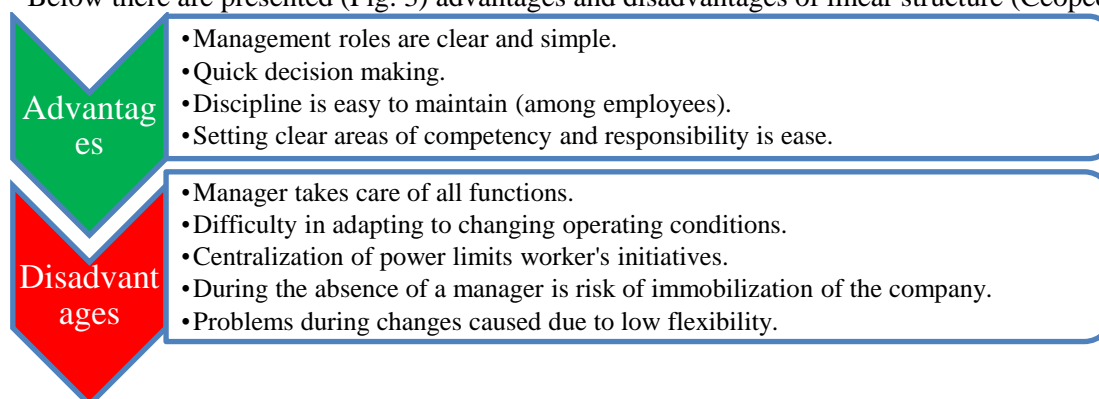


Fig. 3. Linear structure advantages and disadvantages



*\*Source: compiled by the author based on Ceopedia,2019.*

Although using a linear model, problem solving is rapid, but only managerial competencies would not be able to solve all the problems properly. The quality of services provided is especially important, advertising, public activities, relations with the media, attitudes of staff towards their work and perspectives.

A *functional* management structure is a type of management where work in a company is divided into certain groups performing specific functions and the head of each group is responsible only for a certain area, for example, accountants, technologists, specialists in a certain field, etc. (Stoner and others, 2017).

The functional structure (Fig. 4) is characterized by the fact that the organization is divided into divisions and each is assigned a specific task, responsibilities. The main advantages of the structure: professional and subject specialization is encouraged; reduction of duplication; improving work coordination. The main disadvantages: individual units may value their goals more than the overall goals of the organization, which can lead to conflicts; chain of command, in large organizations, from manager to general director can become too long (Čiarnienė and others, 2011).

Medical device company „ARC ROYAL”, market leader in Ireland, in the supply of Custom Procedure Trays and a wide range of essential surgical products, employs about 150 employees in warehouse.

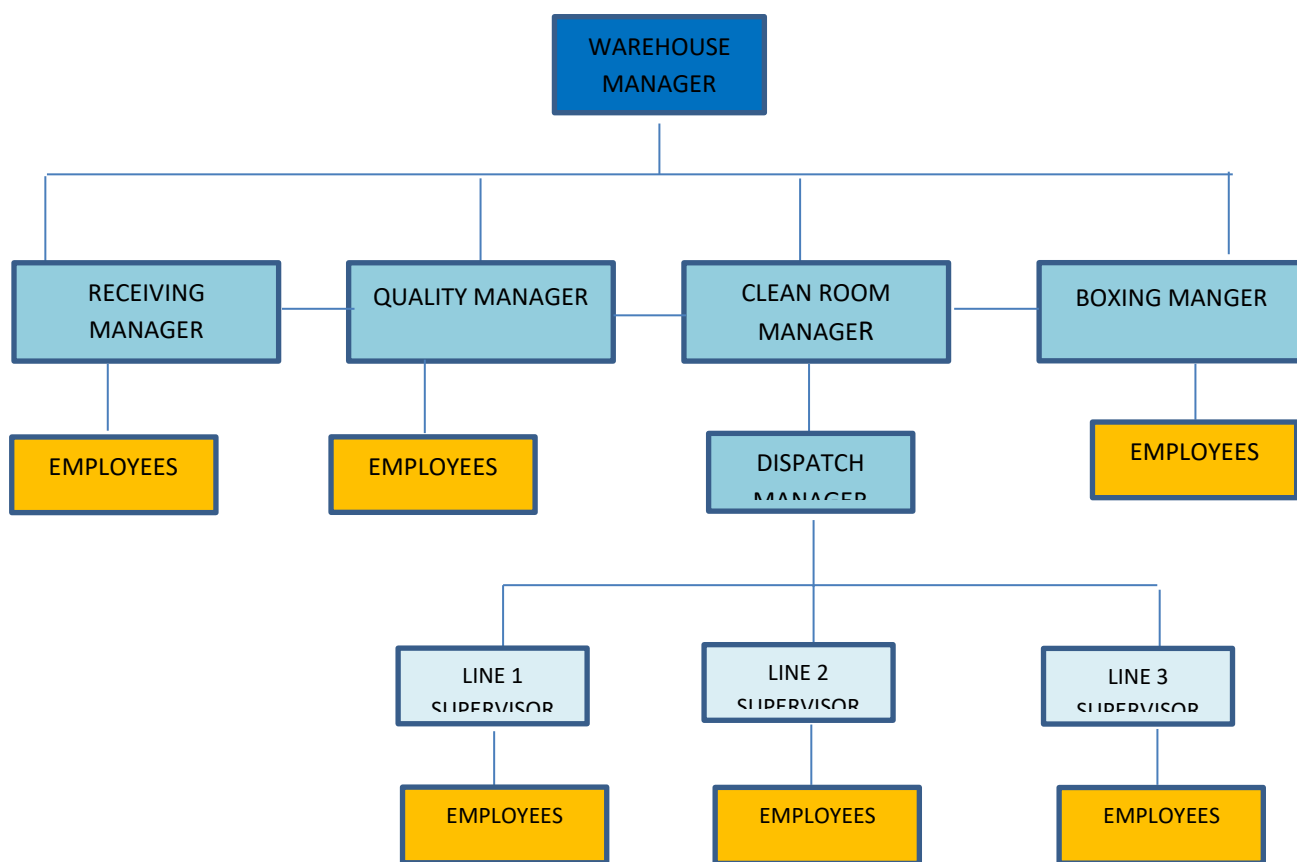


Fig. 4. Functional structure ( compiled by the author).

A *functional* management structures are recommended for the big companies using more sophisticated technological equipment, higher quality requirements and innovations, which are an important factor in competitive advantage (Bivainis, 2011).

Below there are presented (Fig. 5) advantages and disadvantages of functional structure (Ceopedia, 2019):

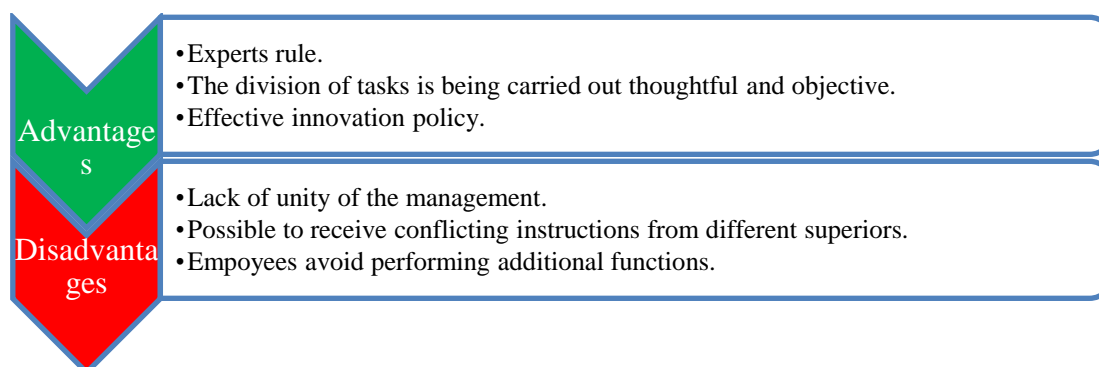


Fig. 5. Functional structure advantages and disadvantages  
\*Source: compiled by the author based on Ceopedia, 2019.

The principles of *linear* and *functional* structures are integrated in the *matrix* control structure. The main point is double subordination to the lower links. Employees are members of two groups separated by attributes (such as Production and Functions). The matrix structure is recommended when an organization is applying complex activities that require highly qualified professionals. Suitable for international organizations with markets in different countries (Bivainis, 2011).

*Bureaucratic* organization form is organizational management with high standardization, clear procedures, and policies, most of the organisation's operations are described, including employee collaboration, and working together (organizational structure, decision-making hierarchy, etc.). Efficient bureaucratic organizations achieve efficient use of organizational resources, leading to productivity and profitability. And while efficient bureaucratic organizations have their strengths, they do have their own challenges, such as losing the race against time and lack of innovation, procedures that cause internal conflicts and division of employees into “we” and “them,” inertia, and low employee empowerment [Baltrušaitis, 2018].

The opposite alternative to bureaucracy is *adhocracy*. It is a flexible, adaptable, creativity-promoting, and informal form of organization management, characterized by the lack of a clear structure, organicity and spontaneity. An organization with such characteristics is far more prepared to meet the challenges of a complex and changing world than traditional bureaucratic organizations. Adhocracy as a form of future organization, leaving bureaucracy to the past. Today, by taking adhocracy as a basis, we can discover all sorts of new varieties of it, such as holocracy, sociocracy, and so on, derivatives [Baltrušaitis, 2018].

Although these forms of management are distinguished as two separate, hardly one can operate without the other. Creative ideas (*adhocracy* side) are useful in business only insofar as they can be turned into a profitable routine (*bureaucracy* side). No matter what effective routines we achieve in the company - without innovative ideas, they will quickly become obsolete without creating value for the market. Probably the only way out is to play with the right forms of bureaucratic and adhocratic management, or to strike the right balance, which requires, on the one hand, productivity, and profitability, and, on the other hand, the presence of creativity and innovation in the organization [Baltrušaitis, 2018].

#### SWOT analysis review in limited liability company „RIOLIS” and „ARC ROYAL” company

Research aim – to perform SWOT analysis review in companies using linear (LLC „RIOLIS”) and functional („ARC ROYAL” company) management structures.

Research method - The SWOT analysis method was chosen because it is useful for company's strategic management process. Company identifies the internal (strengths and weaknesses) and external (opportunities and treats) factors. Analysis reveals company's current situation and helps to develop future plans.

SWOT analysis is a tool, that is used for strategic planning and strategic management in organization. An organization exists in two environments, one in itself and other being outside.

External environmental assessment is especially important for organizations. Changes in the environment influence the decisions of the marketing strategy formation process, so it is necessary for organizations to perform an environmental analysis in order to identify current and future opportunities and threats that may affect the implementation of the company's goals. Following a SWOT analysis, companies can set specific goals for a planned period. It is the formulation of goals. Goals are formulated in a hierarchy, must be quantified, be realistic, consistent.

Internal organization factors the features of the organization that may be useful in achieving the goal (strengths) and features of the organization that can be harmful to the entire organization (weaknesses).

The SWOT analysis is referred to as - SWOT Matrix. SWOT analysis helps to identify internal and external factors. Strengths and weaknesses are internal organization factors, opportunities and treats are external factors of the environment.

The components of SWOT analysis:

1. Organizational strengths – defines the characteristics and situations in which an organization is more effective and efficient compared to their competitors. Strengths exist with regard to financial resources, market leadership, buyer/supplier relations.
2. Organizational weaknesses – it is something more disadvantageous when compared to something else. Weakness is negative and unfavourable. The aspects or activities of an organization, in which it is less effective and efficient compared to its competitors. No strategy can be built on weaknesses.
3. Environmental opportunities – elements in the external environments that give benefits for the organization. Opportunity is a situation or condition suitable for an activity. Opportunities allow organization to take advantage of organizational strengths and overcome weaknesses.
4. Environmental treats – disadvantageous situation. A treat makes it difficult or impossible to reach organizational goals [Gürel, 2017].

It is important for the organization to know its weaknesses and strengths. No strategy can be built upon weaknesses. The organizational weaknesses that could lead the organizations to ineffectiveness should be known and improved. SWOT analysis helps the organizations to understand what actions are needed to improve.

SWOT analysis is a valuable technique for decision making and planning. It identifies the internal and external factors which are favourable and unfavourable to achieve objectives. The internal analysis identifies internal sources and capabilities for competitive advantage. The external analysis identifies market opportunities and treats. It analyses environment and competitive industry environment.

A SWOT analysis for the companies is needed to see what action needs to be taken to achieve company goals. An organization must align internal activities with external realities to be successful. This analysis makes it possible to develop future action plans for the organization.

An example of a SWOT analysis (Table 1) on the theoretical review for „RIOLIS” company in Lithuania, that is engaged in creating and producing cross-stitch kits of different designs and other handicraft sets. Company started its business in 2010 and has its own brands: „RIOLIS Premium”, „Create Yourself” and „Happy Bee” [Verslo žinios, 2021].

<b>Strengths</b> <ul style="list-style-type: none"> <li>- High quality products at the lowest possible price.</li> <li>- Strong reputation for its high-quality product.</li> <li>- Enthusiastic, trusted employees.</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>- Low advertising.</li> <li>- Income dependent upon market.</li> <li>- Minimum wage rates.</li> </ul>
<b>Opportunities</b> <ul style="list-style-type: none"> <li>- Expand business.</li> <li>- Create new jobs.</li> <li>- Products are for the consumers that like cross-stich, good for creativity and relaxation.</li> </ul>	<b>Treats</b> <ul style="list-style-type: none"> <li>- Other companies producing cross-stich kits.</li> <li>- Competitors.</li> <li>- Sudden economic recession.</li> <li>- Low employee motivation can lead to frequent staff change.</li> </ul>

*Table 1. SWOT analysis (compiled by author).*

SWOT analysis (Table, 2) of Medical device company „ARC ROYAL”, market leader in Ireland, in the supply of Custom Procedure Trays and a wide range of essential surgical products, employs 150 employee's in warehouse.

<b>Strengths</b> <ul style="list-style-type: none"> <li>- High profitability.</li> <li>- Own office and warehouse building, parking lot.</li> <li>- Long-term contracts with freight terminals.</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>- Low employee motivation and creativity.</li> <li>- Income dependent upon market.</li> <li>- Low advertising.</li> <li>- Low salary increase.</li> <li>- Low employee value.</li> </ul>
<b>Opportunities</b> <ul style="list-style-type: none"> <li>- Modernization and business expand.</li> <li>- Ability to penetrate new markets and find new clients.</li> <li>- Create new perspective jobs.</li> <li>- Career opportunities.</li> </ul>	<b>Treats</b> <ul style="list-style-type: none"> <li>- Competitors.</li> <li>- Sudden economic recession.</li> <li>- Lack of skilled labour.</li> <li>- Low employee motivation, high employee change.</li> </ul>

*Table 2. SWOT analysis (compiled by author).*

## Conclusions

SWOT analysis shows that both companies are income dependent upon market, both have competitors. „ARC ROYAL” can offer more career opportunities, than „RIOLIS”. Even though both companies do repetitive work every day „ARC ROYAL” has more career opportunities, because company is big and has more divisions. But both companies have to find the way to motivate employees to avoid high employee change,

because training of new employees is time consuming. As well as if employees do not get salary rise they tend to leave employment for a better paid one and with more career perspectives.

Every organization depends on what their business is, what they produce, need to find the way to organize work properly. Motivate employees, provide career opportunities. Adjust they production to the consumer needs.

The functional organizational structure is suitable for companies producing the same products, using the same materials. Each department is responsible only for a part, only for an assigned task, not for the whole work to be completed. Due to the clear lack of monopoly in the functional structure, it is difficult to ensure connections between functionally organized units.

It is important to note that a linear management structure is characterized by a minimum number of management levels. Because the manager is responsible for all areas of management and can act independently, he or she must make decisions alone without doing so with other subordinates.

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## MUSEUMS AND ART IN THE DIGITAL AGE

**Nora Kelpšaitė**

*Lithuania Business University Of Applied Science*

**Doc. dr. Simona Grigaliūnienė**

### **Abstract**

Today's society is getting more and more digitalized and digitized, with all the new and growing technologies in our world. New technologies not only change the way we use various products but also the relationship between people. This digital era made a big difference to art, artists, and art institutions like museums. The overall improvement in technologies and digitization give us possibilities to create and present art in different ways.. The art became digitized, businesses digitalized, and the internet made it available to everyone. In this paper, we explore what impact the digital age has on art and museums, how they adjust to the new era, and how technologies change the way art is presented and created; the analysis of survey revealed people's opinion about digital age and new technologies impact on art and museums.

Keywords: Digital Age; Museums; Art; Digitalization; Digitization.

### **Introduction**

The digital age is becoming our new normal. As (Bowen, Giannini, 2014) said, "From the digitisation of documents to the digitalisation of life itself and the birth of the digital self, digitalism demands new ways of doing, knowing, being, and thinking". The 4.0 industrial revolution is visible in social and cultural change, political movements, and social justice. Individuals share their creative works, ideas, or opinions through social media, blogs, websites, people are living in a digital world where they can communicate and access the internet 24/7. Digitalization adds a big value to the medical field, education system, traveling, communications, work field, research field, etc. The internet has now become a major part of work, leisure, social and political life for most people in advanced economic nations. It is no longer its novelty, uniqueness, or potential to transform life, but its mundane nature and pervasiveness that now gives the internet its significance." (Miller, 2011). The digital age is not only about the internet, social media, or the possibility to video call to each other, but it is also about the invention of new technologies in various fields. Of course, this digitalism has not only all nice and good things for us it also brings some issues for our population that we were not prepared for. Even if the new digital world has its cons, we as a population usually try to find more pros, so we can go forward and it is hard to ignore how digital technologies helps in the medical sector, especially for people with disabilities. Also, there is a strong impact from technologies on art and museums, digitalism changes the way art is made and presented, it changes how museums work too. L.D Rivero Moreno (2019) says that "the museum has been forced to adapt itself to the new ways of preservation, circulation, and exhibition of new media art. To that end, it will be necessary to reflect on the changes undergone by the institution inside this ongoing process". We can easily see that the digital age added new possibilities and various new technologies, those let us create products, arts, technologies not yet seen.

### **Digitization and digitized processes**

Digitization – the continuing convergence of the real and the virtual worlds will be the main driver of innovation and change in all sectors of our economy. The exponentially growing amount of data and the convergence of different affordable technologies that came along with the definite establishment of Information and Communication Technology are transforming all areas of the economy (Kagermann, 2015). The importance of digital elements, as well as fully automated processes on a strategy and planning, has been growing because of new developments in technology, but it is still hard to understand the difference in these related terms: digitization, digitalization, and automation. As A. Schumacher, W. Sihn, S. Erol (2016) says: "The terms "automation", "digitization" and "digitalization" are currently omnipresent and seem to be the driving force behind many scientific, social, or business developments. The most prominent field of their industrial application is the one of smart manufacturing – commonly referred to as Industry 4.0. Thereby, the approach of automation seems well understood while it remains unclear whether digitization and digitalization are understood as visions, concepts, tools, or simply as a collective term for the generation and utilization of digital data and its consequences.

Digitalization is a hot topic all over the internet and companies are trying to have digital transformations, but it is still fresh information that needs time to be accurate. At the same time, digitalization is already impacting business environments and the corporate way of working. Neglecting digitalization could create a risk of losing the game in highly competitive markets. Digitalization can impact a company's entire operation environment and internal functioning. Digitalization can also bring new business opportunities, change the roles of operators in a value chain, and end existing business. For example, digitalization may remove

traditional intermediates in the supply chain and create new intermediates. This can be due to, for example, direct access to consumers and the increased use of mobile devices (Parviainen, Kääriäinen, Tihinen, Teppola, 2017). To better understand the difference between digitization, digitalization, and automation authors A. Schumacher, W. Sihn, S. Erol (2016) shares descriptions, focus areas, and general implication for these terms:

**Table 1. Aspects of digitization, digitalization, and automation**

Aspects	Digitization	Digitalization	Automation
Description	Describes the conversion of continuous analog, noisy, and smoothly varying information into clear bits of 1s and 0s.	Describes the social implications of increased computer-assistance, new media, and communication platforms for economy, society, and culture.	Describes the implementation of technology, software, and programs to accomplish a procedural outcome with little or no human interference.
Focus areas/ level of analysis	Micro-level, analogue, and digital signals; binary states, signal sampling; algorithms, signal interpretation; signal storage material, electrical components.	Macro-level; digital media infrastructure; communication platforms; social structure; cultural aspects, networked society; human-centered; knowledge production and management.	Systemic view; automation of analyses/decision processes or actions; program instructions; control and monitoring; utilization of electrical/mechanical/thermal and light-power for automation.
General implications/ effects	Dematerialization of information; loss of information due to sampling; limitless transfer of information between two points; transfer of information only through copying; nearly no costs for the reproduction of information; simultaneous utilization of same information; convergence of transfer media for information; the universality of information through conversion; additional control of information; enabling of data manipulation, etc.	Linkage of all activities in society; connection and circulation of cultures; information as organizing mode of social life; convergence of all aspects of life (connected life); convergence of media infrastructure towards universal communication platforms; non-physical market economy emerges; new media as the main determinant of the economy; reciprocal effects of digital communication and globalization, etc.	Empowering of processes to act without human interference; automation of physical tasks or information handling automated monitoring and decision making; partly or full substitution of human labor; increased human-machine interaction; automation as the enabler of integration; the problem of process transparency and understanding.

*\*Source: A. Schumacher, W. Sihn, S. Erol (2016)*

The aspects in table 1 allow us to better understand the difference between those most important three terms in this topic. We could say that digitization is the technology that is responsible for digital signals, data transfers, and its storage, and digitalization, on the other hand, describes the implications of cultural and social aspects. It is important to understand that these terms are still new and with technologies still rising in all possible ways, digitization and digitalization description will need more time to get more accurate.

### **Museum changes and the implementation of digitized solutions**

Since the digitization and digitalization process started a lot of industries had to do many changes to be able to keep with new technologies. The digital age brought a lot of various opportunities and big changes for museums too. They have not only to get their data and information digitized but also to keep up with the digitalization process, digital media era is another really important process to master. Museums have to adapt to numerous changes that come from industry to our society needs, and not to forget, that artist is also developing in different ways. A museum which is like a forum helping us to understand who we were, are, and will be in the future has continued its existence as a complex and unique social and cultural foundation representing and gathering communities within a cultural context, keeping cultural and social records of scientific and artistic achievement (Çıldır, Karadeniz, 2015). Authors J. P. Bowen and T. Giannini (2014) think, that digitalism is changing how artists create and communicate their art and their artistic persona. Through various digital modes, artists can engage the viewer/participant, can network their art, and speak to its meaning. That is one of the reasons why museums have to find a way to keep with artists too. Apart from being cultural institutions that collect, store, and exhibit artefacts with a significant aesthetic, historic, cultural, or scientific value, museums are places in which, over time, artefacts acquire and change meaning as a result of the triangular relationship between artefact, the way it is displayed, and the affective and cognitive response of the audience (Akker, Legêne, 2016). Author S. Caspani, R. Brumana, D. Oreni, M. Previtali (2017) also agree that in recent years, museums have been attempting to do more than preserving and conserving artworks and remains. The collections have always been at the center of the museums, but their role has shifted from showing the power of the prince or being available to erudite scholars, as happened during Renaissance, towards being the “channel”, the “excuse” to intertwine organic relations, stories, and links with and among people. Additionally, museums have been called to open up their doors to an increasingly wider audience. This has asked them to define alternative modalities of encounters that may be especially appealing for those categories who are not usually accustomed visitors, as, for instance, teenagers are, as well as to push for using cultural heritage as a tool to foster a reflective behaviour and sense of belonging within societies. Digital tools support the storage and retrieval of multimedia content and allow the presentation of oral history archives to



the public through interactive and accessible interfaces. Additionally, they make possible the inclusion of contributions generated by visitors during their visit, materialising, to some extent, the theorisations of the museum as participatory media and an embodiment of the public sphere (Arrigoni, Galani, 2019).

As was mentioned before, museums have to change so they can stay connected with transforming society, and that society is getting more and more digitalized every day. Within the framework of modern museum practices, today's museums can be considered as living places which produce information, display information about objects by evaluating them, and aim to convey information to all classes in a society by using educational activities. Museums that adapted modern approaches can be successful foundations as long as they realize structures which can be formed within the framework of time-place based circumstances, possibilities and needs prudentially. In museums structural reforms and innovations have taken place especially for the last thirty years due to the developments in information technologies. These changes have been the source for digitalizing museums from museum collections to their policies and from the use of human resources to their activities (Çıldır, Karadeniz, 2015). So, the museum digitization movement has been going for more than a decade, since the beginning of the 21<sup>st</sup> century. However, the huge advancement of information technology has turned the digitization process to become more progressive and diversified. Accordingly, the virtual museum has become a platform where museum connects with their clients outside the museum building. Many well-known museums have committed to creating their virtual environment by either putting the digitized information onto their web pages or pre-recording their tour guide through portable devices. Although the development of museums seems to benefit from the application of digital technology, digitization of the museum has also brought with it some disadvantages. For example, the physical museum is becoming more isolated and functionless without visitor's participation; meanwhile, the audiences are also losing the opportunities for sharing and communicating their viewpoint with others. From the user's point of view, the digital museum is not to replace the traditional museum; conversely, the digital information should complement the physical museum (Li, Liew, Su, 2012).

Social media also does a big influence on museums, because people are eager to see and find everything fast. Using social media, museums could reach different people, because social media does not have borders and different cultures could reach museums from various countries. These numbers are huge – there are 7.7 billion people in the world, with at least 3.5 billion of us online. This means social media platforms are used by one-in-three people in the world, and more than two-thirds of all internet users. It is important to know that Facebook is the largest social media platform in the world and has 2.4 billion users (Ortiz-Ospina, 2019). Author R. K. Baggesen (2014) says that a general thread running through this discourse concerns the potential of digital media – and social media, in particular – to inspire civic and cultural engagement and, thus, aid the process of democratisation in cultural institutions. As social communication platforms are used extensively across age groups and demographic boundaries, it is presumed that, through these channels, institutions might be able to reach audiences that have hitherto had little interest in museums. Similarly, the technical properties of social media, which allow for shared authorship and open dialogue, mean that they are seen as ideal tools for discussion, co-creation, and the sharing of cultural narratives. As our daily lives and social interactions become increasingly permeated by our use of social and mobile media, so are our cultural institutions steadily transformed by the parallel processes (albeit, on different levels) of digitisation and mediatization. Both as cultural media in themselves and as users of a variety of communication media, museum institutions are increasingly relying on digital technologies for the dissemination of cultural knowledge. The influence of (new) media on the development of museums is undeniable.

While museums are growing in various ways, they still struggle to be able fully to integrate people with disabilities, but it is stated that over the past decade museums have developed educational programs for individuals with disabilities, making adaptations according to the disability and the needs of each group. The museum of the 21<sup>st</sup> century is aiming to be the “forum” of contemporary crossroads. Yet, there are many steps to go regarding theory and practice. Museums have recognized that audiences, in general, are not homogeneous groups but consist of different people with different and various needs, different ages, different social, educational, religious, or ethnic backgrounds, different interests and expectations (Argyropoulos, Nikolarazi, Kanari, Chamonikolaou, 2017). Authors R. McMillen and F. Alter (2017) in their study explore ways people with disabilities interact socially and culturally using social media and how it impacts their perception of being socially included. As they found out, museum's accessibility issues varied depending on disability type. For example, blind participants struggled more with visual challenges; deaf participants with audio limitations, and wheelchair-bound participants, in general, pointed out difficulties of navigating between the physical spaces of exhibits. Museums have both the opportunity and the challenge to minimize the potential disadvantages often faced by those with disabilities that place some at risk of being socially excluded inside and outside the museum walls. This is where the help from digitalization and digitization comes and we are able not only to communicate easier but also can integrate people with disabilities into the world that other

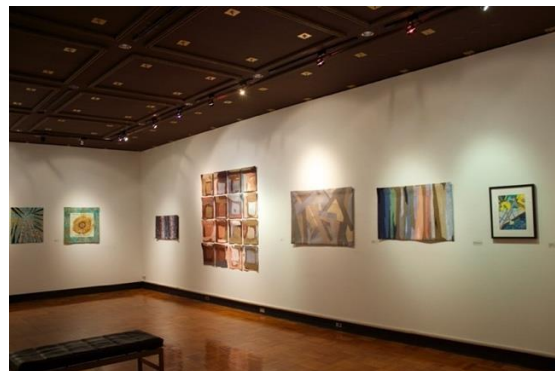
people are used to. According to World Health Organization (2020) over 1 billion people are estimated to live with some form of disability. This corresponds to about 15% of the world's population, with up to 190 million (3.8%) people aged 15 years and older having significant difficulties in functioning, often requiring healthcare services. The number of people living with disability is increasing, in part due to ageing populations and an increase in chronic health conditions. The research show, that museums are trying to do their best and integrate people with disabilities and prepare exhibits as much adapted as is possible at this time.

### **Art and the influence of digitalization in the digital era**

Museums and art are tied together and without one there would be no other, consequently, the digital era affected art and artist too. Art started to change as the result of new technologies and various new possibilities for the artist. As the author B. Wands (2018) says, while the classic portrait of an artist in the garret is centuries old and still relevant, contemporary artists are establishing new identities using digital tools and media for creating, experiencing, exhibiting, and disseminating their creative work. While digital art cannot be specifically described as an art movement with philosophical underpinnings, the emergence of making art with technology and redefining the traditional media of drawing, painting, and sculpture spawned an interest in what the digital could add to creative self-expression. The pioneers of digital art relied on limited access to computers, partnerships between artists and computer scientists, and programming. There are two main pathways of digital art: evolutionary and revolutionary. Evolutionary digital art includes media such as photography and video and revolutionary changes enable artists to make creative work that was not possible before the new technology was invented. One of the areas affected by computer-based technology is painting. Painting is a field that emerged as a form of communication and transformed into an art form throughout history. The materials have diversified, and different movements have emerged in time and paintings have been produced using different techniques. There are various types of digital art but the most popular nowadays are photography, photo painting, digital painting, 3D digital painting, vector drawing, animation, etc. Digital art has never-ending possibilities – you can paint and make it animated; you also can create unseen video effects with new technologies. Art itself change in so many ways after digitalization started: vector art which lets us print huge size posters, the digital painting that we see in fantasy movies or videos. Today's creations in digital media are quite different in terms of the environment they have been created in, and the tools and techniques used in the process. Produced in digital media with technological means, painting has become more interdisciplinary by establishing close connections with fields like graphic design and photography. In this context, painting produced in digital media opens up a new period for artists, which can be considered as an innovation. The artist can produce richer works compared to traditional painting within the extent of his or her imagination. This independent practice in painting that pushes the limits has changed the traditional understanding of painting (Aydoğan, 2019). The internet is full of articles that talk about digital arts vs traditional art; it is no right answer, both have their ways to be interesting, different, and hard to create. However, you can feel the difference in art presentation in museums – it is easier to adopt digital art and create unseen exhibits. The pictures below show the difference between new media art and traditional art in museums.



Source: <https://borderless.teamlab.art>



Source: <https://www.geneseo.edu/galleries>

Art digitalization is a technology development that is used to convert real artwork into digitalization projection or other virtual forms. Digitalization creates a digital art space that representing real art space. Digitalization points out the usage of digital technology and digital media integration into art. Hence, art digitalization is the usage of digital-physical content in virtual reality that is more complex from real art reality. Knowledge about how digital technology integration into art creation technology need involvement, participation, and different experience with real art object. The usage of Facebook, Twitter and other website



application in organizing art enable to continue online creation process. Consumption toward art is a communicative act that socially planted into mutual interaction. Mutual communication through social media increases the inclusivity of real and community that can facilitate collaboration between creator and public (Nasution, Ghani, 2019). Art is currently grown through social media marketing that is defined as word-of-mouth electronic. Thus, art is very possible to be promoted with a chance of exponential penetration through social media communication.

Author T. Giannini (2018) thinks, that internet in this digital age makes us question the art creation and our own identity in real and virtual life: “As life increasingly plays out on the Internet, human states of being, both conscious and unconscious are recast in digital incarnations of self and identity. The Internet, and especially the web as a global creative platform and public space of communication and interaction brings together and juxtaposes diverse identities, places, and spaces that more than ever, cause us to question who we are in real and virtual life as we seek to evolve towards an integrated self that is at once physical and digital”. Digitalization lets people connect worldwide, which means that art can be visible in any part of the world and artists are using this power to not only share their creations but also to socialize and support other people, countries, and different movements. Digitalism made information accessible to everyone, and important things in life got even more powerful. Key social movements coalesce around MeToo, decolonize, repatriation, reparation, historical narratives, cultural appropriation, LGBT, and women’s rights notwithstanding questions about the ownership of heritage – who’s stuff is it? From the perspective of art and the artist, we see an increasing prevalence of blending art with politics and social justice into works of art that deliver political punch and readable messages to their audience. What has made these movements more powerful than ever, is the digital ecosystem to which we are all connected. Our global network where people are communicating *sans cesse*, brings awareness to causes and crises, while setting the stage for things to go viral at any moment (Giannini, Bowen, 2019). The emergence, development and widespread use of the Internet and digital media are key markers within this broader transformation. Online participation is associated with heightened connectivity and an unprecedented potential for sharing information, connecting people and ideas usually kept apart, and facilitating collaboration both within the digital world and beyond it. These features not only impact creativity as a phenomenon but essentially redefine it, as the processes of creatively collaborating with others find themselves mediated by technological means. The Internet is a fundamental part of today’s global culture. Much more than a simple tool or medium, it effectively shapes the very processes that define culture such as communication, meaning-making and institutionalisation (Lerat, Glăveanu, 2016). Recently, some of subjects in the field of cinema and communication studies have come into prominence than before. “Digitalization” is one of the subjects in question. Apart from development and changes of electronic devices, digitalization, which progresses in parallel with the technological developments, also performs as driving force for change and transformation taking or to take place in the society. Technological development for cinema indicates milestone with regard to style and content more than the developments on mobile phone models and internet infrastructure (Ormanli, 2019).

While culture and art have started to acquire new forms and shapes in the digital environment, it is important to mention, that the fact that engineers, developers and artists have started to produce artwork by collaborating is an inevitable result of the development of digital technology. Problems like geographical distance and difficulty of access do not exist anymore (Aydoğan, 2019).

It is possible to see those new technologies, social media, and digitalization making a huge difference for arts and museums. It helps to create new unseen artworks; the artist can share their creation worldwide by using social media and online selling platforms. At the same time technologies are growing and making new ways to enjoy museums and arts for people with disabilities. In various research and museums accessibility information – museums are trying to use new technologies for better and easier access for everyone. The next chapter will review an analysis of created online survey “Adaptation of museums and art in global digitization processes”. Topics like digitalization relevance, museums in the digital age, digital and traditional art and museums, and art accessibility will be examined out of answers get from the online survey.

## Results

Museums have to keep up with society and technology changes to be efficient, inviting, and needed. To discover how museums adapt and integrate into the growing digital world, an online questionnaire was made to learn how people see and understand museums and art in the digital age. Survey analysis and important topics about museums and art will be reviewed in this chapter.

One of the first question in the survey helps to see how respondents understands the meaning of digitalization and digitization. These terms look similar and usually are confusing as synonyms, but they have a different meaning and purpose. 1<sup>st</sup> figure (Fig 1.) shows how respondents comprehend those two terms.

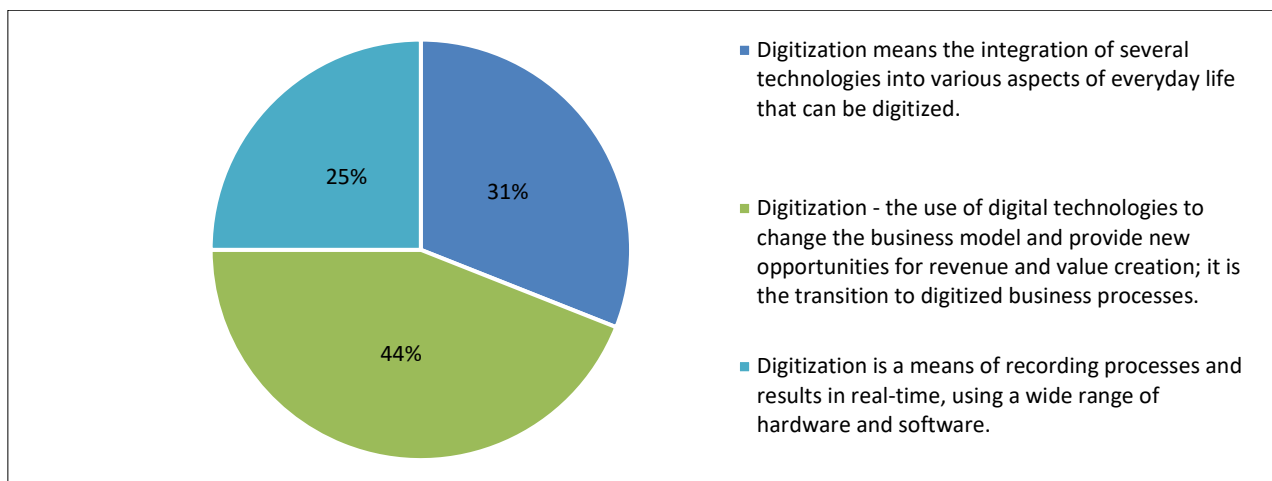


Fig 1. Digitalization and digitization meaning

*\*Source: made by author*

Figure 1 reveals what percentage of each given options respondents chose. Even 44% of respondents agrees that digitization is the use of digital technologies to change the business model and provide new opportunities for revenue and value creation; it is the transition to digitized business processes. Just a little less respondent (31%) say that digitization means the integration of several technologies into various aspects of everyday life that can be digitized and only 25% chose that digitization is a means of recording processes and results in real-time, using a wide range of hardware and software. The result shows, that respondents have at least minimal knowledge about what is digitization and what is its purpose and it also coincides with details in literature review.

We live in a digital age where technologies take place in a lot of new ways and we as humanity try to keep up with it. Digitalization and digitization made a huge change in museums and their workspace. The 2<sup>nd</sup> figure (Fig 2.) reveals respondents' opinion about changes that are taking place in museums with the rising prevalence of the digitized age.

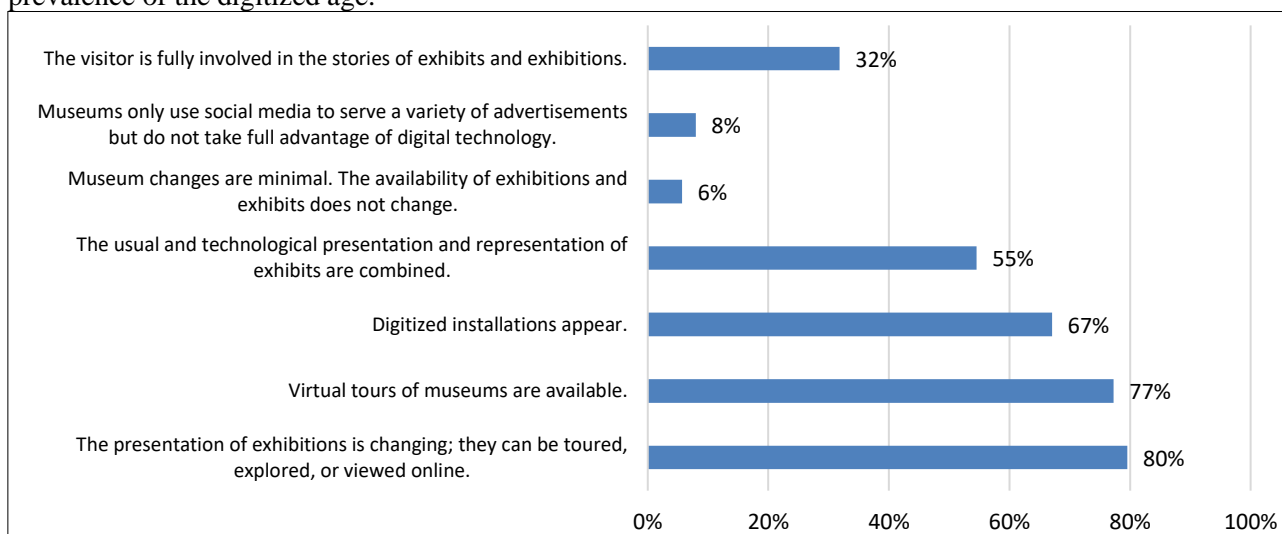


Fig 2. Digitalization and digitization meaning

*\*Source: made by author*

Figure 2 displays what multiple options respondents chose to represent their opinion about changes in museums. Even 80% of all respondents chose the same option – that museums are transforming in the way they handle the exhibitions' presentations, just a little less – 77% of all respondents think, that digitized age brought a bigger availability of virtual tours. 67% and 55% of all interviewees also chose that digital installations appear, and museums are combining the usual and technological presentations and representations in exhibits. 32% of all respondents think that museums started fully involving visitors in the stories of exhibits and exhibitions. 8% of all respondents chose an option that museums are using only social media as digital technology but are not taking a full advantage of it. Just 6% of all respondents think, that museums changes are minimal, and they are not using any technologies. This actively demonstrates that most of interviewees sees the changes brought by digitalization and digitization and this shows that museums are growing along with technologies.

Not only museums but also an art was affected by always progressing digital era. To find out respondents' opinion about this topic, they had to choose multiple options those represents their ideas about digitalization affecting the art (Fig 3.).

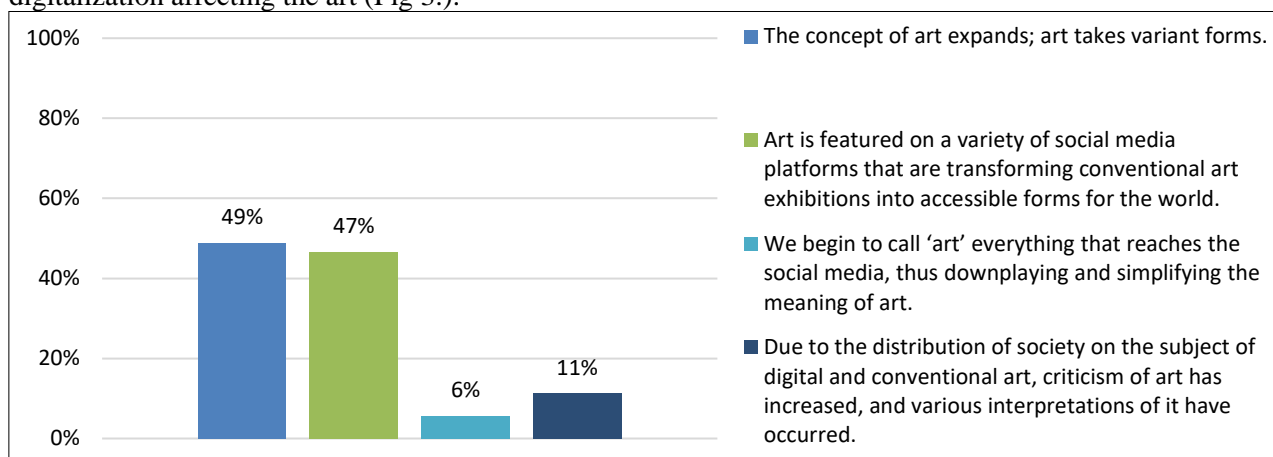


Fig 3. Digitalization and digitization meaning

*\*Source: made by author*

The 3<sup>rd</sup> figure reveals that almost half (49%) of all respondents agrees that concept of art is expanding in digital age. Slighter amount of all respondents (47%) also chose an option that social media platforms transform conventional art exhibitions into accessible forms for the world. 11% of all interviewees think that due to distribution of society on the subject of digital and conventional art, criticism of art has increased, and various interpretations of it have occurred. Just 6% of all respondents say that since digital age started the art become everything that reaches social media and simplifies the meaning of art. The results shows that most of interviewees sees the new and changing pattern between art and digitalization and it matches the data shown in literature.

Together with digital age society started to talk more about digital art, though where is a lot of different opinions about digital art being a “real” art. The 4<sup>th</sup> figure (Fig 4.) explores respondents' opinions about digital art importance in this age.

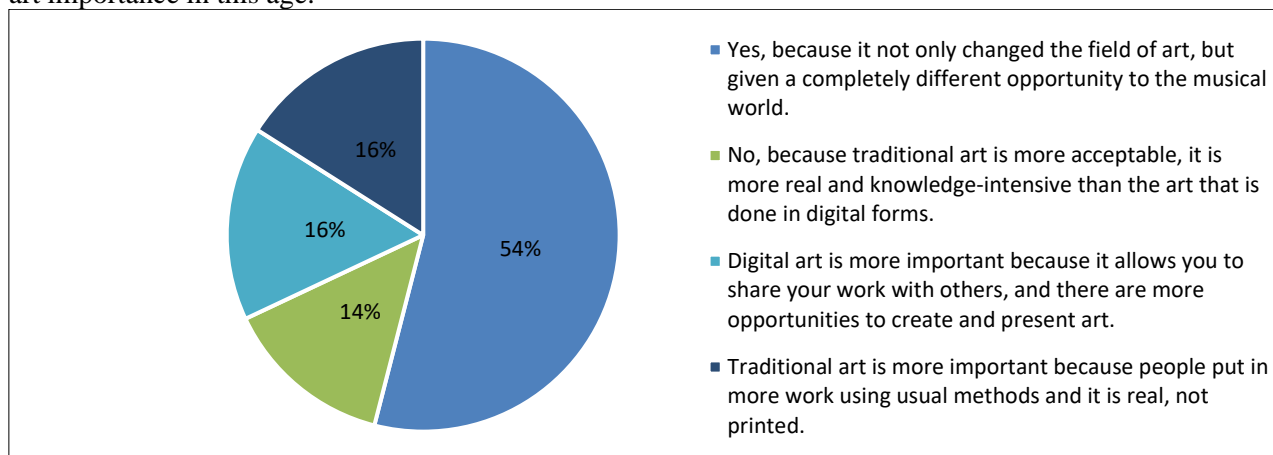


Fig 4. Digital art is as important as traditional art

*\*Source: made by author*

Figure 4 reveals that 54% of interviewees agrees with digital art importance because it not only changed the field of art, but music world too. Yet 16% of respondents thinks that digital art is more important as another 16% of respondents says that in fact traditional art is more important. Just slightly less (14%) of interviewees disagree that digital art is important. These results display us how our society is still diverse in this topic, even though more respondents think that digital art is as important as traditional, we cannot change the fact, that we see the same percentage of people saying one is more important than another.

Museum's availability should be adjusted to be accessible for people with disability, however, disable people still have difficulties with going to museums and exploring the exhibits. The digitalization and growing technologies should be a huge help and step forward for museums to grow and adjust even more to be accessible to disable people. In figure 5 respondents expressed their opinion about digitized museums increasing the chances of integrating people with disabilities into museum activities (Fig 5).

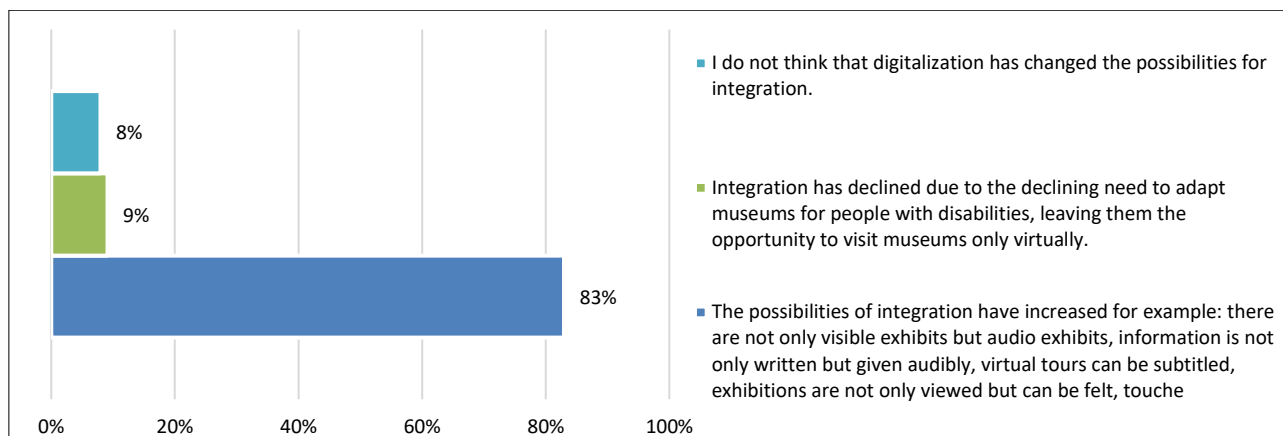


Fig 5 Digital art is as important as traditional art

*\*Source: made by author*

The 5<sup>th</sup> figure explores how respondents see museums changes and progress towards disable people accessibility. This information shows positive growth since even 83% of interviewees agree that the possibilities of integration have increased, and this actively demonstrates that digitalization and digitization did a huge difference on accessibility development. On the other hand, there are still 9% of respondents thinking, that integration has declined due to the declining need to adapt museums for people with disability and only leave them the opportunity to visit museums online, also 8% of respondents say that digitalization did not change the possibilities of integration. The results reveal that even a big number of interviewees think that digital age made accessibility better there is a small number of opinions, that it not even did not change but also decreased.

To sum up everything that has been stated so far, it is possible to see the positive outcome from digital age to art and museums. The analysis results were similar to what research have showed. The most opinions are looking good for digitalization and technologies help to improve and growth museums, art, and artists. On the other hand, it is important to see that there are still some problems coming up, that makes people think about all the bad outcomes for our art world. The digital art importance over the traditional art is still in debatable phase, but they are equally important to the larger number of people. Also, it is important to emphasize that digitalization brought a positive outcome for people with disabilities. The digital age has its ups and downs, but analysis reveals that it brought more ups to our life.

## Conclusions

The digital age brought unexpected possibilities to various jobs and specialties; art world was not left out too. We recognize changes in art works, music, museums, exhibits or artists itself, in one way our world got freer, people and technologies got freer too. Digitization shifted how our business operates, digitalization changed how our humanities life works. Museums got a lot more freedom to share and show different artworks, it become possible to live in one side of the world and visit a museum in other side of world, people can exchange their artwork through social media and start they exhibits because somebody saw their artwork through viral posts. Of course, the digital age brings some cons with itself, but there is not a single thing that would be completely perfect. Research founds that museums become even more popular because of the change what artwork is presented, as well as art and artist got more visible because of social media and internet giving a chance to show yourself and you work to the whole world. It is important not to forget that new technologies as well brought opportunities to access museums and exhibits to people with disabilities – get involved into exhibits, visit museums online, subtitles of tours or even better accessibility inside of museums. The digital era become our new world with unknown possibilities, unexpected technologies, better place for connections worldwide and immeasurable opportunities for art.

The analysis revealed diverting results about people's opinion towards digital age and art. Respondents were from different cultures and countries, so the analysis results got diverse answers. It was explored that even most results were matching research articles' information – digital age brought new opportunities to museums, art and artists and people with disabilities, there as well were opinions that disagreed and saw more cons in the digitalization. Studies showed that museums developed toward integration of disable people and 83% of survey respondents agrees and sees museums improvement. On the other hand, results explored opinion differ between people then the same percentage of interviewees said that traditional art is more important, and the same number of respondents said that digital art is more important, that leads us to think, that humanity

still did not come together for new digital age. To sum up everything it is possible to see the pattern going through 4.0 industrial revolution to our everyday life changes and enormous growth and process in art world.

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## INDEPENDENCE MOVEMENT IN CATALONIA AND EU'S VIEW ON IT

**Linda Sefuli, Ian Dalmau Mendoza, Enrique Diaz García Strelnikova Irina Aleksandrovna**

*National Research University Higher School of Economics*

[sefuli@edu.hse.ru](mailto:sefuli@edu.hse.ru) [idalmaumendoza@edu.hse.ru](mailto:idalmaumendoza@edu.hse.ru) [ediazgarsiya@edu.hse.ru](mailto:ediazgarsiya@edu.hse.ru)

### **Abstract**

The Catalonia Independence Movement is an important part of Spain's history and contemporary times. It has had serious consequences for the EU, which consider the situation as an issue that should be solved inside the country. Nonetheless, it has been demonstrated that Europe won't accept any independence movements including Catalonia as an independent state. In order to reach a peaceful compromise, mutual understanding through dialogue and the following of the constitution is needed at all times to keep the country united.

**Keywords:** Independence movement; Catalonia; Law; EU.

### **Catalonia and its history with independence movement**

Catalonia is classified as an autonomous community of Spain situated in the Iberian Peninsula on the shores of the Mediterranean and in the foothills of the Pyrenees. The old Catalonia, consisting of the earldoms, and the new Catalonia, which was still under Muslim territory. In old Catalonia the earldoms gradually established stronger relationships among themselves. There was a particular focus on Barcelona, which became the predominant earldom. (Utrera, 2014)

By the 12th century, the Muslims started losing territory and the peninsula was divided into kingdoms. In the 14th century was established the Government of Catalonia. Catalonia's self-government was becoming more and more established. (Santisteban, 2013)

Fernando, King of Aragon, and Isabel, Princess of Castile, married, and in this way both kingdoms came to have the same monarchs. This meant that each kingdom would keep its own institutions and government. The Count-Duke of Olivares wanted all the kingdoms to have the same government and pay the same taxes. The Catalan nobles accepted the idea, but in Catalonia the ordinary people rebelled against it because it meant the loss of autonomous government which they had defended for so many years and... everything flared up and the result was the War of the Reapers. (Cortijo & Martines, 2020)

The king died without heirs. Now there were two candidates to succeed him: one from the House of Bourbon and the other from the Austrian royal family. Catalonia fought for Austria and the war broke out. The Austrian candidate gave up and the Catalans lost the war on September 11, 1714, with the fall of Barcelona. As a result, the new monarch suppressed their institutions and laws, and prohibited their language. Catalonia came to depend totally on Madrid. The national day of Catalonia is celebrated in memory of that date. (Utrera, 2014)

In the 19th century the whole of Europe became industrialized. Catalonia grew remarkably in commerce, industry and agriculture, and so its economy grew. Feelings of national consciousness arose again and with it, political Catalanism. Then the Carlist Wars started.

The candidate for the throne was Queen Isabel. The Salic law prevented women from inheriting the throne. In view of this situation, some people wanted Carlos, the brother of the late king to become king. This caused three wars: Carlists against Isabel's supporters. Carlos offered a better guarantee of recovering the lost institutions and for this reason the Catalans were on his side, but they lost, and so their dependency on Madrid continued. Spain became a republic and the Catalan self-determination movement returned. During the republic Catalonia succeeded in recovering its institutions and in 1932 the Statute of Autonomy was passed, a kind of constitution. This changed rapidly with the arrival of the Francoist dictatorship. During that time Catalan institutions and language were forbidden. With the dictator's death there began a period of transition, a new political status, and the reactivation of the institutions. (Utrera, 2014)

### **Contemporary independence movements in Catalonia**

While a few Catalans have longed for autonomy, the issue has simply ascended to the front in the recent years. The past decade the striving of Catalans to reach their independence from Spain has grown immensely. Many Catalans believe that their region has put economically more into Spain than it has received back from it, then they want a political, cultural, and moral right to self-determination. Nonetheless, not all Catalans are pro-independence, and the parties have not had the ability to reach a 50% of the vote in regional elections. But what put the fuel to this fire? Many states it was the economic crisis Spain endured. The Catalan president of



that time, Artur Mas, started supporting the independence movement in 2011 during an upsetting angry time over his center-right Convergence and Union party's austerity policies. (Jordan, 2019)

In November 2014 more than 80% of voters opted for independence in Mas's non-binding independence referendum but only 2.3 million of Catalonia's 5.4 million eligible voters took part. After this Mas was barred from holding public office for two years, but that did not stop the movement. After three years, Carles Puigdemont pushed a unilateral referendum despite being warned by the Spanish government and constitutional court not to do it. Although they managed to get a referendum law passed in the regional parliament, the law was struck down by Spain's constitutional court. Sometime after that on 1st of October 2017, the poll was marred by Spanish police with violence to attempt to stop the referendum. This backfired on Spain as the news spread globally and it ruined Spain's reputation as the referendum gave the country the image of "the worst political and constitutional crisis since its return to democracy". (The Guardian, 2019)

The next thing that happened was the signing of the declaration of independence, but they suggested to suspend it for two months in order for dialogue to take place. In December 2017, three Catalan pro-independence parties won 47.7% of the vote in the regional parliament at the election. Direct rule was lifted in June 2018 when the new Catalan government was confirmed. Later on, Pedro Sanchez warned he could apply the article 155 if it would be necessary and he spoke about the need for coexistence in the region. (Guifré Jordan, 2020) The invocation of Article 155 is an outstanding measure, referred to comparative law as the federal coercion clause, inferred mediating in self-rule, completely dissolving the Catalan Government scheduling new regional elections to be held in two months' time. (Real Instituto Elcano, 2019)

Since the referendum, the independence movement has lost force. The Catalan inquiry will be slippery whatever the supreme court's verdict will be. 2020-2021 is a year loaded up with vulnerability, a political year effectively loaded with disrupted questions because of the pandemic. An improvised response to the ongoing health crisis, complete with its good and bad times, has monopolized the end of the 2019-2020 political year, delaying and leaving open to question issues not currently considered priorities such as Catalonia's independence movement that is being put on hold. (Jordan, 2020)

### **European Union's view**

It should be noted that no European constitution contemplates that part of a territory be separated. It is possible to highlight, as an example, some member countries of the EU. In Italy, article 5 of the constitution establishes the prohibition of secessionism or territorial cession, making no declaration of independence possible. The Hungarian constitution also does not present any right of power to self-determination, even the Armed Forces can act against these actions that endanger the integrity of the country. In addition, Portugal, as a great neighbor of Spain, also highlights the unitary character of the State in its constitution. (La Vanguardia, 2017)

The referendum on October 1, 2017 marked a turning point for the EU as well. The violence represented in the streets during that day was the typical one that the EU usually condemns and punishes when it comes to a non-member country, but this case was different, since it involved Spain, a member country. This situation is uncomfortable for the EU, as this group always defends democracy, including freedom of expression and the right to vote; but it must be emphasized that in the end the EU is made up of sovereign states, and that is why Catalonia is an external problem for the EU. According to the European Commission "it is an internal issue for Spain that must be addressed in line with the constitutional order." Thus, for the Catalans, the EU is surrounded by contradictions that they do not like, since they would have wanted to remain in the EU in case of a successful independence. Although according to the Prodi doctrine, a state that becomes independent can only be readmitted to the EU if this independence followed the constitutional law of the state to which it previously belonged. In addition, all members would have to unanimously accept the entry of the new member, and here Spain could oppose along with other countries. (Erlanger, 2017)

This European response of "no-action" is due to the fact that the referendum took place at a time when other movements were growing, and the EU was afraid to act and promote them, such as the Corsicans in France or the Flemish sentiment in Belgium. Thus, the European bloc avoids acting and promoting them, endangering the union. Separatism as a sensitive issue for the EU can be seen reflected in the independence of Kosovo, in which five member states do not recognize it, including Spain. According to the expert Steven Blockmans, Spain should even look at Belgium, which gave a part of power to the Flemings, through a reform of the constitution. For this reason, constitutional reforms must be considered and the Catalans must negotiate with fewer demands to reach a realistic and possible agreement (Erlanger, 2017)

The European Commission defends the "rule of law in Spain", and European conservatives emphasize that if the Spanish Constitution is disobeyed, it is also failing to follow EU law. Despite the non-intervention of the EU, the group has confirmed a great general rejection of the independence of Catalonia, in the European

institutions no member state would accept Catalonia as an independent state, not even the United Kingdom after Brexit. All EU leaders support the dialogue between Spain and the pro-independence activists without intervening between these negotiations, but this dialogue must always be in favor of unity and condemning the actions of Puigdemont, without considering any other possibility. (Porteiro, 2018)

In this way, the EU has in the end taken real and decisive action, issuing a document reinforcing the European position. The desire to separate from the rest of Spain will not be supported by community institutions, nor will it have any consideration even in the future. (López, 2020) The Venice Commission of the Council of Europe officially declared that it is totally illegal to call a referendum not allowed by the country's constitution. Thus, strong support for the Spanish Court of Justice is reflected. In addition, the Council also emphasizes that a query cannot have a specific character, nor can it be treated for a specific referendum. The Venice Commission defends a referendum of general condition, open to observers and contemplated by the constitution. It is a guide for all of Europe, and in this case, it shows full support for the position of the Spanish government and the law of the territory itself. (Del Riego, 2020)

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**Yaroslava Mavlyutova**

*National Research University – Higher School of Economics, Russia*

**Scientific supervisor: Irina Strelnikova**

*yaamavlyutova@gmail.com*

#### **Abstract**

The paper examines the legal foundations of oil and gas activities in Norway for the production and transportation of hydrocarbons through the prism of national legislation and EU law. In addition, the author analyzes the legal obstacles to cooperation between Norway and Russia for the transportation of hydrocarbons to the countries of Southeast Asia through the Northern Sea Route.

Key words: Norway, hydrocarbon production, transit of hydrocarbons, Northern Sea Route.

#### **Introduction**

The scientific work raises questions of the foundations of the legal consolidation of oil and gas production in Norway due to the fact that this issue is of scientific interest for adopting successful solutions and experience. In addition, Russia and Norway are countries that are actively producing hydrocarbons in the northern waters of their continental shelf. Due to the proximity of the two countries, it may seem that they need to closely interact in the production and transportation of hydrocarbons. However, the article below provides examples of the fact that in matters of transporting hydrocarbons to European countries, Norway has the necessary infrastructure, and transporting hydrocarbons to the countries of the Pacific region may be a difficult task for Norway in connection with the latest changes in Russian legislation.

The issues of subsoil use in Norway and Russia are most extensively disclosed in numerous scientific works of Y.V. Manin (Manin, 2011), where the scientist uses numerous examples of the laws of both countries, raises problems in the regulation of oil and gas production and, from a critical point of view, assesses the points for convergence of the legislation of the two countries in the field of hydrocarbon production. By joint efforts of scientists from both countries, V.N. Kokin and J.A. Stubberud with L.O. Askheim (Stubberud, Askheim & Kokin, 2005). the experience of regulating oil and gas activities in Norway, including its transportation, was presented in detail. The legal status of the Northern Sea Route is raised in their works by such scientists as V.V. Gavrilov (Gavrilov, 2015), V.I. Kuvatov co-authored with D.V. Kozmovsky (Kuvatov, Kozmovsy & Shatalova 2014). Nevertheless, the latest changes in the legal regulation of the Northern Sea Route in Russia have not yet been reflected in the scientific literature.

#### **Results**

The production of hydrocarbons on the territory of Norway is built in accordance with the 1970 normative legal act "On concessions" on the continental shelf, which laid the foundation and laid the foundation for the production of hydrocarbons in the Kingdom of Norway. The law was issued in order to attract not only foreign investment, but foreign capital, expressed in specialists for the training of Norwegian personnel and foreign technologies.

Legal regulation of the use of the kingdom's subsoil is carried out by the norms of international and national Norwegian law (Climate and Pollution Agency, 2010), the basic principles of which are laid down in the Constitution of 1814 (Grunnloven undertegnet på Eidsvoll, 1814).

The Norwegian law establishes the exclusive right of the Norwegian state to carry out oil activities without a license, approvals and agreements (Act No. 72, 1996). Moreover, the Norwegian Petroleum Law (Olje- og energidepartementet, 1996) establishes Norway's ownership of oil and the exclusive right to its production. It is noted that this provision of Norwegian legislation may run counter to the UN Convention on the Law of the Sea, according to which states exercise sovereign rights to extract natural resources over the continental shelf.

In the legislation of Norway, oil is understood as both liquid and gaseous hydrocarbons alongside with other substances (Manin, 2012).

Collective and individual licenses issued by the government, namely the Royal Department of Petroleum and Energy, allow for petroleum activities (Manin, 2018).

Turning to the second part of the scientific work, namely the transportation of hydrocarbons by the Kingdom of Norway, two components of this activity can be distinguished. First, the transportation of hydrocarbons can take place in the western direction, namely Norway can supply hydrocarbons to European countries. Secondly, hydrocarbons can be supplied to the countries of Southeast Asia. The shortest route for the supply of hydrocarbons to Asian countries is the Northern Sea Route (hereinafter referred to as the NSR), in connection with which this transportation is associated with close cooperation between Norway and Russia.

Gas from the Norwegian continental shelf is transported using the world's largest gas transmission system, with a total length of more than 6,600 kilometers of gas pipelines from the continental shelf to the Norwegian coast, as well as to the UK and the European mainland.

Through its membership in the European Economic Area, Norway is subject to the EU gas market directive (Directive 98/30/EU, 1998), EU 2003/55 (Directive 2003/55/EU, 2003). In addition, from September 1, 1995, the Norwegian concession system must comply with the requirements of another directive - EU 94/22 (Directive 94/22/EC, 1994), regulating the procedure for issuing permits for prospecting, exploration and production of hydrocarbons.

As for the NSR, in 2009 only two commercial vessels under foreign flags proceeded between Europe and Asia through the northern waters of Russia, in 2011 - 34, and in 2015 - 715 (Kudrevich, 2016). The Northern Sea Route reduces the time of sea transportation of goods from Europe to East Asia by two weeks compared to traditional routes through the Suez or Panama Canals.

Most of the transit cargo along the Northern Sea Route is hydrocarbons destined for the countries of the Asia-Pacific region. Thus, in August 2017, the Russian gas carrier Christophe de Margerie made its first commercial voyage, delivering a batch of liquefied natural gas from Norway to the Republic of Korea (Severnio vorota, 2019). In addition, since 2012, the supply of hydrocarbons produced at the Hammerfest plant has been carried out to Japan via the NSR. The first such pass was made in 2012 (Sistemy transporta uglevodorodov v Article, 2017).

Moreover, the adviser to the Russian embassy said that he had many times attended the speeches of the Norwegians about the Northern Sea Route and each time their representatives stated that they were interested in the NSR, but not as a national transport artery of Russia, but as part of a larger inter-continental route (Rossiya budet osvivaivat Sevmorput bez uchastiya Norvegii, 2019).

Thus, Norway benefits from cooperation with Russia for the transportation of hydrocarbons to the countries of Southeast Asia.

However, the practice changed with the signing in 2017 of Federal Law "On Amending the Merchant Shipping Code of the Russian Federation and invalidating certain provisions of legislative acts of the Russian Federation" (Federal law №460-FZ, 2017), which establishes that ships flying the Russian flag received the exclusive right to transport gas and oil along the Northern Sea Route.

This means that only ships flying the Russian flag can transport hydrocarbons on the Russian part of the Northern Sea Route. At the same time, the Government of the Russian Federation is empowered to make decisions on the possibility of carrying out the specified transportation for ships flying the flags of foreign states. This provision allows, in the absence of the necessary ships flying the flag of the Russian Federation, by a government decision, to attract ships flying the flag of a foreign state (Iskluchitelnoye parvo na perevosku uglevodorodov po Severnomu morskomu puti poluchat suda pod rossiyskim flagom, 2017).

Consequently, now for the transportation of gas and oil along the shortest route, Norway will not be able to carry out supplies to the countries of the Pacific region itself. Since 2017, any foreign state has been put in such a position that it will have to hire Russian companies to carry out oil and gas transportation.

## Conclusions

Thus, the legal regulation of Norway's subsoil use is of interest to other states that produce oil, especially for states that produce oil on the continental shelf due to the development of this area of Norwegian legislation. The logical consequence of hydrocarbon production is its transportation, which in this article was divided into two sections, one of which revealed a close relationship between Norway and Russia on the transportation of hydrocarbons. The study revealed a problem in the interaction of the two countries, which can be resolved through bilateral negotiations of diplomatic representatives and further consolidation of the results of such negotiations in international legal documents. Norway's practice is interesting and relevant for other European countries that produce or transport energy resources in this region.

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## LEGISLATIVE REQUIREMENTS FOR LANGUAGE PROFICIENCY IN CANDIDATES FOR ELECTED POSITIONS: EXPERIENCE OF THE RUSSIAN FEDERATION, THE REPUBLIC OF LATVIA AND THE REPUBLIC OF ESTONIA

**Nepogodin Alexander, Irina Strelnikova,**

*HSE University, Faculty of World Economy and International Affairs,*

[npgd777@gmail.com](mailto:npgd777@gmail.com)

### Abstract

This comparative legal study is devoted to legislative requirements for compulsory proficiency in the language required for candidates for elected office. On the examples of the law-enforcement practice of bodies of the constitutional control of the Russian Federation, the Republic of Latvia, the Republic of Estonia and the European Court of Human Rights is considered the problems of restricting citizens' electoral rights and discrimination on the ground of language.

Keywords: language policy, linguistic rights, discrimination, minority language, language proficiency, freedom of speech, electoral rights, constitutional control, disputes over linguistic rights, native language.

### Introduction

The constitutions and unique legislative acts of many states stipulate requirements for the compulsory knowledge of a candidate's state language for the presidency and other elective positions, such as a deputy of representative bodies of state power and local self-government bodies. These requirements may be related to the need to know the language at a certain level, which raises the question of limiting citizens' electoral rights to linguistic minorities and discrimination based on language. Besides, often such requirements can be established in regional legislation, which provides for the mandatory knowledge of candidates in the language that has been given legal status in a given administrative-territorial unit, which, as a rule, is typical for states with a federal structure.

Consequently, the question may arise about limiting the right to equal access to elective offices of persons who do not speak the regional language. This problem usually arises in states in whose jurisdiction a significant number of persons belonging to national and linguistic minorities live. In this regard, examples for considering this problem can be the legislation of the Russian Federation, the Republic of Latvia, as well as the Republic of Estonia, in which Russian is the native language for more than 30% of the population, in the absence of provisions securing its legal status.

### Comparison of the data

Under part 1 of Article 68 of the Russian Federation's Constitution, the Russian language is the state language throughout the Russian Federation's territory (1). However, the constitutional provisions do not contain requirements for the proficiency of the Russian language for candidates for elective positions, as well as Article 3 of the Federal Law of January 10, 2003, No. 19-FZ "On the Election of the President of the Russian Federation" and Article 4 of the Federal Law of May 18, 2005, No. 51-FZ "On the Election of Deputies of the State Duma of the Federal Assembly of the Russian Federation", which provides for provisions on the electoral rights of citizens (2).

The situation is different in the legislation of many states-former republics of the Soviet Union. Thus, Article 21 of the Constitution of Latvia directly stipulates that the Seim (unicameral parliament) working language is the Latvian language (3). Besides, Article 18 provides for the obligation of a member of the Seimas to take a solemn parliamentary oath, including the obligation "to be loyal to Latvia, to strengthen its sovereignty and the Latvian language as the only state language" (4). The language requirements for candidates for deputies are directly established in Article 17 of the Law of the Republic of Latvia of January 13, 1994, "On elections to the City Council, Regional Duma and Volost Council" and Article 11 of The Saeima Election Law of May 25, 1995 (5). At the same time, under the Regulations of the Cabinet of Ministers of the Republic of Latvia of July 7, 2009, No. 733 (Regulations No. 733), the Seimas deputies are required to know the Latvian language at the "highest" level C2, while the deputies of local authorities — at C1 (6).

The constitutionality of these provisions, including the procedure for checking the Latvian language skills, which limit the electoral rights of specific categories of citizens, was considered by the Constitutional Court of the Republic of Latvia. In Decision No. 2012-24-03 (November 7, 2013), it was recognised that the fixed requirements to know the state language and use it for deputies and other officials, taking into account Article 4 of the Constitution of the Republic of Latvia, which endows the Latvian language with constitutional

status, meet the legal the goals of ensuring the normal functioning of state bodies and consolidating the Latvian language as the only state language in the Republic (7).

The Constitutional Court of the Republic of Latvia recognised that such requirements reasonably follow from the "continuous and unchanging state policy", which is normatively defined in the legislation since there are no other means by which a legitimate goal can be achieved "at the same qualitative level" (8). This conclusion is consistent with the legal position of the European Court of Human Rights (the European Court, the ECHR, the Court), indicated, among other things, in the judgment in the case *Podkolzina v. Latvia* (*Podkolzina*), which stated that the requirement that a candidate in elections must know the Latvian language at the "highest" level pursues a legitimate aim, taking into account the discretion of the state and "a choice that is determined by historical and political circumstances specific to each country" (9). However, the legislative consolidation of language requirements, in addition to the envisaged possibility of depriving by a court decision of the mandate of an elected deputy, if they do not correspond, leads to an actual violation of proportional representation at both the national and local levels (10).

For a long time, the requirement to know the state language was also mandatory for elective office candidates in the Republic of Estonia. In 1998, the Judicial Collegium for Constitutional Review of the Supreme Court of the Republic of Estonia (the Supreme Court of Estonia) twice considered applications for the constitutionality of the legal requirements for knowledge of the Estonian language for candidates for deputies of the Riigikogu (unicameral parliament) and local councils, including on the issue constitutional substantiation of the requirements for language proficiency in general.

In the first case (No. 3-4-1-1-98), the applicant, who at that time was the President of the Republic of Estonia, argued that the wording of the provision of Language Act (February 23 2011) was general and thus, grants disproportionately broad powers to the executive branch of government, allowing the level of language proficiency of members of the Riigikogu and councils. They have already been elected to be assessed and checked, which is contrary to the constitutional principle that restrictions on this right cannot distort its nature (Article 11 of the Constitution of the Republic of Estonia) (11). Consequently, the applicant argued that the ambiguity in the wording of the language requirements rules distorted the right to non-discrimination. In the second case (No. 3-4-1-7-98), the main complaint was that by delegating authority to control the knowledge of the state language of candidates for elections to the executive branch, the provisions of the legislation, thereby, threatened the constitutional principle of separation of powers, since the authorities the executive branch of government could potentially prosecute these candidates after their election (12).

Therefore, the contestation of the legislative provisions was based not on protecting the linguistic rights of minorities (in connection with a particular constitutional and legal status assigned to the Estonian language in Article 6 of the Constitution of the Republic of Estonia) but on formal procedural requirements. The Estonian Supreme Court, disregarding the provisions of Section 52 (2) of the Constitution of the Republic of Estonia on the right to use the language of the majority of residents in a local government, pointed out the obligation of the state to ensure the preservation of the Estonian nation and culture ("the language is an integral part of the Estonian nation and culture"; "the preservation of the Estonian people and culture is impossible without it"), as is enshrined in the Preamble to the Constitution.

Based on this provision, taking into account the provision of Article 52 (1) of the Estonian Constitution, which stipulates that everyone has the right to use the Estonian language when applying to administrative authorities and public services and to receive a response in Estonian, the Estonian Supreme Court in its Decision in case No. 3-4- 1-7-98 concluded that the contested requirement of compulsory knowledge of the Estonian language for candidates for deputies is not unreasonable, since it is justified by the purpose of the functioning of democratic institutions (Article 1 of the Constitution of the Republic of Estonia) and "historical circumstances" (13). By this decision, the Supreme Court of Estonia took the legal position of the ECHR in the case of *Mathieu-Mohin and Clerfayt v. Belgium*, according to which restrictions on linguistic rights may be justified by the legitimate aim of ensuring the effectiveness of the functioning of the political system (14)

## **Results**

As these examples demonstrate, restrictive legislative measures applied by states concerning language use in the public sphere can be justified by legitimate aims. In the *Podkolzina* case, the European Court explicitly noted that the linguistic requirements imposed on a candidate for deputy pursue an "undoubtedly legitimate" interest in ensuring the "proper functioning of parliament", taking into account the principle of respect for national characteristics (15). However, this legal position does not take into account in some cases the actual position of individual linguistic minorities in the context of the language policy of the state as a whole.

In the *Podkolzina* case, excluding a representative of the Russian-speaking minority from the list of candidates for the Seimas was considered based on the results of an additional language exam held a few days before the elections. The Court found that the application of the legal provisions, in this case, was incompatible

with the requirements of procedural fairness and legal certainty, since, firstly, at that time, the applicant already possessed a legal certificate of knowledge of the Latvian language at the highest level, and, secondly, the decision was taken by the only civil servant who, during the examination, questioned the applicant about her political preferences (16). As a result, the ECHR found a violation of Article 3 of Protocol No. 1 to the Convention for the Protection of Human Rights and Fundamental Freedoms, without considering the issue of discrimination of such measures and practices. It follows from this that the Court, using a formal approach to examining language disputes, confines itself to problems of a procedural nature, without considering the merits of the question of whether the language policy of the state is generally discriminatory towards a particular group of the population.

The ineffectiveness of international mechanisms for the protection of human rights in determining the margin of appreciation in implementing restrictive measures in the field of regulation of language policy is also confirmed by the decision in the similar case *Ignatane v. Latvia*. It was considered by the UN Human Rights Committee (17). Despite recognising the political factor that influenced the exclusion of candidates from the electoral lists, none of these decisions directly indicated a more general discriminatory policy pursued by the state against the Russian-speaking minority. Although in connection with such a policy, representatives of the Russian community do not have access to elective positions due to the increased requirements established by law for a satisfactory passing of the exam. In other words, awareness of the discriminatory nature of language policy, influencing the adoption of relevant decisions, is recognised by international bodies implicitly, without indicating it in the relevant decisions. The adoption of decisions on the limitation or prohibition of using the language in the public sphere, based on a "legitimate aim", is recognised as permissible in the practice of international bodies for the protection of human rights.

In this regard, of interest are the Constitutional Court's legal positions (from now on referred to as the Constitutional Court). Their decisions also do not directly recognise the discriminatory nature of specific measures and practices if the requirements for proficiency in a non-state language are presented to elective office candidates. They are established in the legislative acts of the Russian Federation's constituent entities based on Part 2 of Article 68 of the Constitution of the Russian Federation. This article provides that the republics have the right to establish "their state languages" and use them in administrative bodies and state services, along with the Russian language (18).

In Resolution No. 9-P (April 27 1998), the Constitutional Court considered the issue of the constitutionality of the provisions of the Republic of Bashkortostan's legislation. They established the requirement of proficiency in the Bashkir language as a condition for election to President of the Republic. The Constitutional Court recognised these norms as inconsistent with the Russian Federation's Constitution and did not indicate their discriminatory nature due to the objective impossibility of establishing the legal consequences of these provisions. This is since the Bashkir language status was not normatively defined as the state language (19). As noted by the Constitutional Court, "during the electoral process, state bodies, including law enforcement agencies, must ensure the implementation of citizens' electoral rights, regardless of the requirements for language proficiency" (20).

Noteworthy is the legal position of the Constitutional Court, specified in the Determination No. 260-O (November 13 2001) "At the request of the Council of the Republic of the State Council - Khase of the Republic of Adygea to verify compliance with the Constitution of the Russian Federation of paragraph 1 of Article 76 of the Constitution of the Republic of Adygea" (21). This Determination established that part 2 of Article 68 of the Russian Federation's Constitution does not imply the right of republics, as subjects of the Russian Federation, to establish special requirements for knowledge of languages as a condition for acquiring passive electoral rights. As noted by the Constitutional Court, it is all the more inadmissible to establish such a non-specific requirement as the requirement of "free" proficiency in the relevant state language, since it — and subject to the necessary form of regulation — would be disproportionate to the constitutionally significant goals enshrined in Article 55 (part 3) Of the Constitution of the Russian Federation, restriction of passive suffrage" (22).

However, the Constitutional Court made a particular clause, namely that the federal legislator may establish such a requirement for acquiring the right to be elected by the highest official of the Republic within the Russian Federation (23). Thus, the Constitutional Court connects the possibility of restricting electoral rights by language requirements, following the provisions of Part 3 of Article 55 of the Constitution of the Russian Federation, with their establishment only in federal legislation "only to the extent necessary in order to protect the foundations of the constitutional order, morality, health, rights and legitimate interests of others, ensuring the country's defence and state security" (24).

## Conclusions

Thus, as these examples demonstrate, law enforcement practice, including at the supranational level, does not apply the principle of discrimination based on language when considering disputes related to establishing legal requirements for compulsory language proficiency for candidates for elective office. A general formal approach is applied, as evidenced by the national legislation and practice of considering language disputes by the European Court of Human Rights, the Constitutional Court of the Russian Federation, the Constitutional Court of the Republic of Latvia, and the State Court of the Republic of Estonia. They admit the possibility of limiting electoral rights by establishing candidates' requirements for elective positions on the compulsory knowledge of the state language or regional language. This is due to the legitimate goals of ensuring the effectiveness of the political system's functioning and protecting the foundations of the constitutional order. However, this may not always correspond to the actual equality in citizens' position, especially those who are representatives of linguistic minorities.

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## MIGRATION CRISES AND ITS INFLUENCE ON THE EU'S LEGISLATURE

**Samir Kadirov, Stefania Paramonova**

*Associate professor, visiting lecturer of Faculty of World Economy and International Affairs*

**Irina Strelnikova**

*HSE University in Moscow,*

[sskadyrov@edu.hse.ru](mailto:sskadyrov@edu.hse.ru)

[ssparamonova@edu.hse.ru](mailto:ssparamonova@edu.hse.ru)

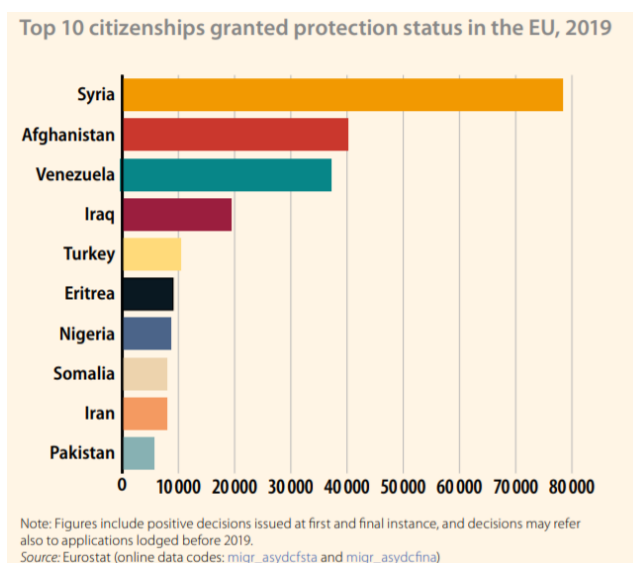
### Abstract

In this article we focus on the evolution of migration legislation of the EU, the influence the migration crisis made on the EU's law, what issues of the EU's law and supranational mechanisms of management the crisis revealed. At the end of the article recommendations for tackling the matters in the near future were given.

Keywords: EU law, migration crisis, migration policy

### Introduction

Since 2012 the European Union has faced a problem of migration. Huge flows of people from North Africa and the Middle East flooded into Europe. Economic problems, famine and poverty, that were the effects of destabilization of the region during the Arab spring and the outbreaks of civil wars in Libya and Syria, made people leave their countries of origin and seek a rescue in European states. However, in this article we will focus more closely on the legal aspects of so known migration crises, describing the measures the EU pursued to settle the challenges. Moreover, the article provides information on the EU's policy before and after the crises, its key features, results and problems. In the end of the article we will give some perspectives in improving the migration regulation on the legal sphere within the EU.



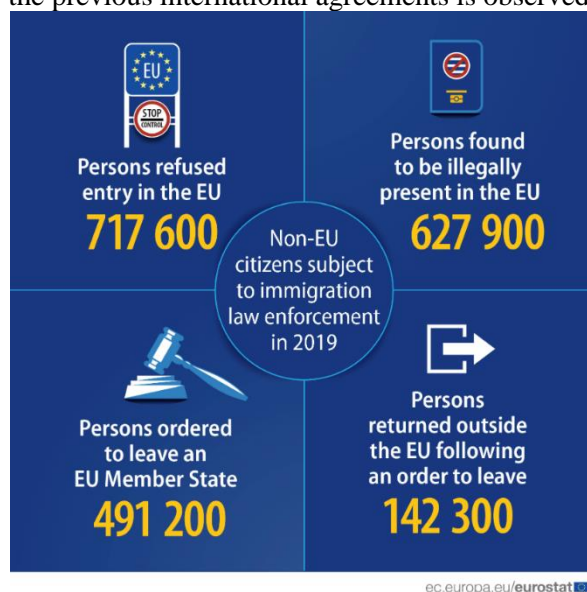
Source: Eurostat. 2018

Before the migration crises of the 2010th the EU's migration policy was based on the international agreements such as The Universal Declaration of Human Rights with freedom of movement and rights for shelter; The 1951 Refugee Convention and its 1967 Protocol (Articles 31-32), which guaranteed a free arrival of refugees and prohibition on their deportation if it is proved, that these people are in danger in the country of origin. (Convention and Protocol Relating to the Status of Refugees, 1967) The European Union, being one of the strongholds of the liberal international order and ideology, is to be fulfill its obligations, provided in the international agreements. So the key principals of these documents were reflected in primary legislation acts. The Treaty on the Functioning of the European Union of 2007 with the principle of non-refoulement, the Hague and Stockholm programs of 2004 and 2009 respectively, that developed The Common European asylum system (Krasnov, 2015). And the main EU document on this issue is the Dublin Regulation, stating that the first country migrants entered is responsible for asylum examination.

However, those papers were signed under other social and economic global circumstances, with migration flows not being so tremendously massive and with no such a threat to the unity and stability of the



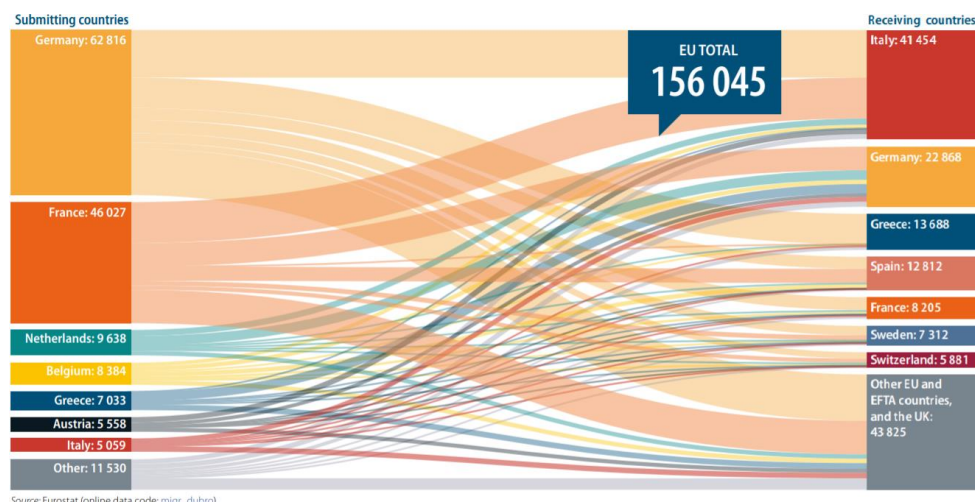
EU. Moreover, there appeared an important question at stake: whether the EU would continue following ideological guidance and put the unity under question (Malakhov, Motin, 2020) or the organization was going to amend the legislation on the migration at the supranational level and to improve its implementation among member-countries (The Constitutionalisation of Immigration Detention: Between EU Law and the European Convention on Human Rights). The EU now is trying to improve its legislation on the migration process and this was reflected in numbers of documents such as The European Agenda on Migration, but there are still many difficulties. The European agenda includes the changes to the Dublin's order of migrants' deployment-quotas per country depending on a list of criteria. This principal is the core of European policy of solidarity. Despite the Agenda, the EU issued several acts that simplify departure of migrants back to the countries of origin, also the documents separate refugees and migrants, providing the asylum rights only for the latter (Potyomkina, 2016). The Union signed an agreement with Turkey to stop migrant flows across the borders with Greece and Bulgaria, and is preparing to set up special camps outside the EU to select migrants and refugees. Besides that, the EU's borders are strengthened and naval forces patrol the Mediterranean (Pazyna, 2020). Here, the deviation of the previous international agreements is observed.



Source: Eurostat. 2019

Yet the EU cannot develop a common migration policy and other member-countries have sometimes absolutely opposite approaches to the matter as creating common laws and mechanisms on settling the migration problems at supranational level (Germany) or to continue to let states make decisions according to national legal practices, Austria, the Vyshegrad group, for instance. (Mikhalyova, 2017). Thus the migration crisis reveals the core problem of the EU's legislation system – implementation of the EU's law and enforcement. (Upcoming issues of EU law. 2014). Newly joined countries are to admit all preceding agreements, but having admitted them formally these countries are reluctant to implement these rules. (Potyomkina, 2019) It was more clear during the migration collapse, when the Quarter of Vyshegrad and Austria not only refused adopting migrants, as international agreements prescribe, and creating proportional quotas within the Union (Brussel's proposal), but also restored borders control in breach of the Schengen Borders Code. As there is no collectively agreed status of refugee and migrant in the EU, and countries may determine and grant the status according to the national law, deporting the others. And some countries such as Poland, Czech Republic use its sovereign right to control entry and stay, preferring national interests to European solidarity and liberal values. These precedents separate member-states, for other countries as Italy and Greece are on the line of migrant flaws (Malykha, 2015).

But even the judgement of the European court of justice, which confirmed that actions of Hungary, Poland and Czech Republic broke the EU's laws, did not make influence on and no punishment measure was taken.



Source: Eurostat. 2018

The problem of the migration policy of the European Union has not been solved for a long time. It affects not only the economic sphere but also, above all, the security sphere of countries. Due to the fact that countries cannot find the right mechanism to influence the migration pressure, the international situation worsens and relations between countries as a whole deteriorate.

It is difficult for countries to make a single decision on migration policy. Some of them simply do not want to unite in this critical situation, which influenced badly the quality of migration policy. There is no solidarity between the countries that could contribute to solving this problem. Solidarity refers to the unification of countries in solving international issues and overcoming contradictions.

Poland, the Czech Republic, Slovakia and Hungary strongly oppose the EU proposal. They propose a formula of "effective solidarity", in which each EU state makes its own decision. However, many other EU countries, especially Italy and Greece, disagree.

At the moment, we can offer several ways out of this situation, give our recommendations based on the essence of the problem. First of all, countries need to take collective action that will help resolve some contradictions: for example, to convince the countries of the European Union to act together in the field of migration, where everyone can protect not only their borders but also their national interests. A necessary tool is the solidarity of countries. It is important that it is flexible. Flexible solidarity will help countries to unite the vital directions of European migration policy.

The problem of the migration policy of the European Union has not been solved for a long time. It affects not only the economic sphere but also, above all, the security sphere of countries. Due to the fact that countries cannot find the right mechanism to influence the migration pressure, the international situation worsens and relations between countries as a whole deteriorate (Hall, 2000). It is difficult for countries to make a single decision on migration policy. Some of them simply do not want to unite in this tricky situation, which is already bad for the quality of migration policy. There is no solidarity between the countries that could contribute to solving this problem. Solidarity refers to the unification of countries in solving international issues and overcoming contradictions. "Poland, the Czech Republic, Slovakia and Hungary strongly oppose the EU proposal. They propose a formula of "effective solidarity", in which each EU state makes its own decision. However, many other EU countries, especially Italy and Greece, disagree." (Bistrina, 2019). The specifics of migration models are expressed in the geography of migration donors, the close relationship between the sending states and the receiving country, the ethnic composition of migrants. Moreover, each model is subject to certain changes depending on the socio-economic and political situation.

At the moment, we can offer several ways out of this situation, give our recommendations based on the essence of the problem. First of all, countries need to take collective action that will help resolve some contradictions: for example, to convince the countries of the European Union to act together in the field of migration, where everyone can protect not only their borders, but also their national interests. A necessary and important tool is the solidarity of countries. Flexibility allows you to align European policy steps with the views, interests and characteristics of each country. Flexible solidarity will help countries to unite the vital directions of European migration policy. (Tyurenkova K., Muraveva K. 2017). But the ideology of unity should

be also extrapolated at the local level to assure ordinary citizens that migration is not a bad tendency and to debunk right views populists use. In addition, mechanisms of law implementation and enforcement should be developed and those member-states, which do not fulfill their obligations and common decisions of the EU, are to be sanctioned. So the key idea here is to strengthen a supranational legislation system and European institutions by providing leverages (Smith, 2018). The migration issue as crucial one in order to tackle without delays should be accepted not by all members, but by a qualified majority of them as the EU's is a freewill association and members that do not accept common decisions may leave.

The purpose of migration plays a significant role. Why do people migrate? Countries need to ask this question and understand what can be done in this situation. We concluded that people migrate because of economic reasons: unemployment, poverty, search for housing, and the reason is the military situation in the country. Many people are seeking refuge. Countries need to consider creating temporary full-fledged shelters with modern conveniences and protection for asylum-seekers, while trying to find the right approach to avoid illegal migrants entering the country. To prevent such crises in the future the EU ought to provide financial aid and form international funds to spread education, build modern health-care systems, create local specialists in different spheres, fight terrorism in the hotbeds of conflicts, instability, disasters, that are one of the first reasons for migration. Moreover, it is vital to spread the systems of temporary camps outside the EU, where people would stay until receiving admission or refusal of refugee status. These systems firstly allow specialists to check all the asylum seekers to select migrants from refugees, and to minimize the possibility of admitting extremists and terrorists, secondly, there will be no workload on EU's holding countries and difficulties with deportation from the EU.

To avoid populist callings and people's protest against migration, newcomers should be integrated into the European society, become a part of that civilization rather faster without saving close national societies among each other. (Voynickov, 2018) That is why migrants from one country had better resettle across all the EU. Additionally, migration policy should be pursued not only at supranational and national levels, but also at regional level (devolution of powers), for it is more clearly locally what measures are to be taken depending on the situation. Thus people will receive some powers and feel that responsibility for other lives and will not easily follow xenophobia, but in contrast will try to help migrants and refugees to adjust. (Potyomkina, 2020)

Another step towards overcoming the difficulties in the field of migration can be the choice of countries in relation to migrants. EU countries can decide for themselves how many and which migrants they can accept. States that do not want to accept migrants at all will have to be given the right to compensate for their refusal with certain monetary contributions. There is an option to focus on an approach called "circular migration". The approach provides that migrants who have long term visas will be able to leave for their homeland and return back to the countries where they have issued a temporary residence. This type of migration has the characteristic of triangular cooperation, because within the framework of it migrants can study in African countries and then return to their home. (Bistrina, 2019). At the moment, discussions have intensified over the need for various reforms to strengthen the EU and accelerate integration.

## Conclusion

Having analyzed the problem of the EU's legislation on migration, we could say that the EU's migration policy before the crisis was based on international agreements and was not developed at supranational level, however the migration crisis revealed problems of the European law concerning its implementation and enforcement in all member-states. The solution to the collapse was also worsened by lack of common supranational policy and it leaves a possibility for some countries to act in breach of the common position. Building an effective migration policy, it is necessary to come to the realization that this is a complex task that requires the interaction of all levels of government and strategic thinking, tactical tasks or short-term decisions can not be guided here. European countries need to establish external contacts and help the countries-epicentres of migration flows, also the EU's supranational level of legislation and institutions should be strengthened to avoid difficulties within the EU. Then the EU will save its unity and keep being the most successful integrational association, having settled one more crisis.

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## THE ROLE OF THE Manager OF „FLAM AS” COMPANY

Ieva Ražauskaitė

*Lithuania Business University of Applied Sciences*

Assoc. prof. dr. Jurgita Martinkienė

### Abstract

The topic of leadership is relevant to every manager and employee which is seeking a manager position. The article consist of conception of leadership, manager personal qualities, leadership style and their essence. Quantitative research has been done to reveal the role of the manager's in the company. Quantitative research was done with employees of company by anonymous survey.

Keywords: Leadership, leadership styles, management, manager

### Introduction

Many literature sources writes about how and what kind of manager to be. Frederik Winslow Taylor (2005) talks not only about science-based management, but also delves into motivational problems, the benefits of specialization, and the personal responsibility of workers for the work they do.

**Relevance of the topic.** Leadership and the role of the leader are widely discussed by both Lithuanian and foreign researchers. A. Algahtani (2014), A. Stelmokienė, A. Endriulaitienė (2015), R. Cote (2017), A. Petrulis (2016), V. Valiulė, M. Vaikšnoras (2018) in their scientific work reveals the essence of the conception of leadership, the importance of leadership styles and the effectiveness of leadership. According to V. Valiulė, M. Vaikšnoras (2018), leadership is revealed through the manager's ability to focus employees on a group of people who work effectively, therefore a large part of the company's success depends on the manager's competence and thinking, which is relevant nowadays.

**Research of the topic.** Leadership is not a new concept in terms of scientific sources. Leadership is described by both foreign and Lithuanian researchers. The topic of leadership, leadership effectiveness, and the personality of the leader was first mentioned decades ago by foreign authors such as V. H. Vroom, P.W. Yetton (1973), B. M. Bass, B. J. Avolio [1990], F. J. Yammarino, B. M. Bass [1990], J. W. Gardner (1993). Nowadays, leadership is being discussed y both Lithuanian and foreign authors such as A. Algahtani (2014), L. Šimanskienė, E. Župerkienė (2013), A. Stelmokienė, A Endriulaitienė (2015), E. d. Haan (2015), Z. Yang, J. Zhu (2016), W. A. Bruns (2017), R. Cote (2017), A. Petrulis (2017) V. Valiulė, M. Vaikšnoras (2018), A. Petrulis, L. Šimanskienė, D. Burgis ir kt. (2020), K. T. Kelemen, S. H. Matthews, K. Breevaart (2020) and others.

**Problem of the topic.** The personal qualities of a manager and his leadership style can create a successful company or ruin it. The importance of a good manager's role means having shared goals with employees, encouraging them to perform the tasks assigned to them, which is often not the case in some companies. Managers engage only in their activities without paying attention to their subordinates, which can give dissatisfaction for subordinates for work that has not been evaluated. What can result in staff turnover, due to managerial negligence on the part of employees, unwillingness to involve them in the common activities to achieve goals and make decisions.

**Object of the topic** - the role of the manager

**Target of the topic** - to study the role of the manager

**Tasks of the topic:**

1. Analyze the leading function from a theoretical perspective.
2. To make a research of leading function in the company „Flam AS“.

### Conception of leadership

Leadership is an integral action in an organization. Leading is one of the four management functions in management science. The term leadership has been mentioned for about 1700 years (Stelmokienė, Endriulaitienė, 2015). R. Stogdill, in 1974, provided descriptions of leadership, in which he described leadership as a personal trait, the art of achieving obedience, the way to persuade or influence people, the means to achieve goals (Stogdill, from Stelmokienė, Endriulaitienė, 2015). And L. Katz, defines leadership as group management in the performance of administrative and managerial roles (Katz, from Algahtani, 2014). From the definitions of leadership, it can be stated that leadership manifests itself through the influence of solid persons, that is, subordinates. Definitions of the concept of leadership are given in table 1.

Table 1  
**Leadership definition**

	Author, year, page	Definition
1.	Bivainis, (2011), p. 12	„Leading is the part of the management which object is subordinates.“
2.	Paunskienė, Antanavičienė, Peleckis, (2011), p. 91	„Leading is encouraging employees, directing them in the right direction, appropriate influence in order for them to perform the necessary tasks.“
3.	Šilingienė, (2012), p. 7	„Leadership means directing employees and motivating them to achieve the goals of the organization, using the formal power given by the organization, following the appropriate leadership style, applying various management methods, techniques.“
4.	Dromantaitė, Raišienė, Račelytė, Jurčiukonytė, Vyšniauskienė, (2012), p. 79.	„Leadership is one of the most important functions of a manager in relation to the human aspects of the management of the organization and helps subordinates to understand the company's goals, encouraging them to achieve them effectively.“
5.	Kutkaitis, Petrulis (2014) p. 172	„Leadership is the knowledge and skills that a leader must have in order to achieve the goals of the organization.“
6.	Haan, (2015) p. 4	Leadership means influencing others and doing what leader wants.
7.	Burns, (2017) p.34	Leadership includes a focus on both mission execution and team well-being.
8.	Cote, (2017) p. 52	Leadership is the process of a relationship, between a manager and employees, in which the manager convinces subordinates to achieve common goals.
9.	Valiulė, Vaikšnoras, (2018) p. 93	Leadership is related to the group, goals, work efficiency, productivity, knowledge and skills, the influence of one person on another, human desires and needs, their satisfaction.
10.	Bortnikas, (2018) p. 20	„Leading an organization and its staff is an activity that can be monitored and evaluated according to the leadership style chosen by the leader. “

*\*Source: made by author*

The most important person in the leading function is the manager. Leading depends on the manager whether the manager understands or has mastered human resources (Hretcanu, 2014). The company's reputation, employee turnover, company's goals and many other factors depend on leading. Every day, managers are responsible for their subordinates, the tasks they perform, their well-being (Kelemen, Matthews, Breevaart, 2020). The leadership function takes place through an appropriate leadership style and each leader has a different leadership style that is followed when managing the organization. Based on the various management literature, three traditional leadership styles are distinguished: autocratic, democratic, liberal, this is presented in Table 2. But nowadays, modern leadership styles are also presented: charismatic, transformative, transactional, serving (Nagendra, Farooqui of Petrulis, 2017), this is presented in table 3.

Table 2  
**Traditional styles of leadership**

Autocratic	Liberal	Democratic
<ul style="list-style-type: none"> <li>• Characterized by strong centralization of management, monotony.</li> <li>• Restriction of relationships with subordinates.</li> <li>• Constant efforts are made to control, limit, obey subordinates.</li> <li>• Subordinates are not introduced to the company's perspective.</li> <li>• This style determines the passivity of the group or collective.</li> </ul>	<ul style="list-style-type: none"> <li>• The manager interferes minimally in the group's activities.</li> <li>• Makes decisions carefully and does not show his authority because he does not trust his competence.</li> <li>• The manager to this style is not active, consistent, easily persuasive.</li> <li>• A liberal-style manager is not demanding, unable to persuade, has no opinion.</li> </ul>	<ul style="list-style-type: none"> <li>• Encourages the initiative of subordinates, provides an opportunity to work independently.</li> <li>• Reacts intelligently to criticism, admits wrong.</li> <li>• This style guide is based on power sharing.</li> <li>• A democratic leader follows the progress of work, but does not interfere in the details, because the results of the work are most important to him.</li> </ul>

*\*Source: made by author (based on Dromantaitė and others 2012)*

Each of the classic leadership styles has advantages and disadvantages, and is different. The autocratic leadership style is characterized by the principle of monopoly, this type of manager is not interested in the opinion of subordinates, the decisions are made by the manager himself. When, in the meantime, the complete opposite of the autocratic style is democratic. The democratic leadership style leader encourages his employees to be part of the decisions they make (Khan, Khan, Qureshi, Ismail, Rauf, Latif, Tahir, 2015). M., S. Khan et al. (2015) states that democratic leading can ensure long-term high-quality work. According to S. Jakhar [2017], a democratic leadership style is the most effective of all management styles due to the division of its power, especially when the manager works with highly qualified staff. Another leadership style is the liberal, the success of which often depends on the specialists in the specific field (Tamošiūnas, 2013). According to V. Valiulė, M. Vaikšnoras (2018) employees feel better when the manager has a liberal leadership style.

Table 3

**Modern styles of leadership**

Charismatic	Transformational	Transactional	Servant
<ul style="list-style-type: none"> <li>Managers who have mastered this style become an inspiration to others.</li> <li>Shows an example of behavior.</li> <li>Charismatic leadership behavior improves leadership effectiveness.</li> <li>Charismatic leadership behavior can effectively shape the behavior of subordinates.</li> </ul>	<ul style="list-style-type: none"> <li>The manager encourages, inspires and encourages commitment when communicating.</li> <li>Encourages thinking when innovating.</li> <li>The manager of this style takes care of the needs of the employees.</li> <li>Considered a significant quality trait that can lead to organizational success.</li> </ul>	<ul style="list-style-type: none"> <li>Appears in employee-manager relationships where each party seeks to meet their own needs.</li> <li>Focuses more on technical problem solving, regardless of employees.</li> <li>Relative remuneration shows the manager's ability to set goals.</li> </ul>	<ul style="list-style-type: none"> <li>Not only does the manager influence employee behavior, but employees also influence manager behavior by providing feedback.</li> <li>This leadership style is related to ethics, morality, values.</li> <li>The leader is especially attentive, helps to set goals and in the educational process.</li> </ul>

*\*Source: made by author (based on Yang, Zhu, 2016; Petrulis, 2017)*

Modern leadership styles, like traditional ones, have their advantages and disadvantages and are different. According to V. Valiulė, M. Vaikšnoras (2018), charismatic leadership emphasizes the personality of the leader. Managers who have mastered this style become an inspiration to others, it leads to success despite the effort put in (Karim of Petrulis, 2017). This leadership style is also often equated with a transformational leadership style (Cote, 2017). Transformational leadership style is people- and employee-centered (Gandolfi, Stone, 2017). The leader of this style acts as a role model and is considered a significant characteristics of leaders that determines success (Lam, O'Higgins of Petrulis, 2017). Another style of leadership is transactional. It differs from the transformational style in that this style focuses more on technical problem solving regardless of the employees. Leaders in this style are task-oriented (Cote, 2017). This style also has a relative reward. It is characterized by exchanges between employee and manager (Khan, Nawaz, Khan, 2016). The last of the leadership styles in question is the minister. This leadership style is characterized by the fact that managerial behavior is influenced by employee feedback (Petrulis, 2017). The manager of this style is attentive, helps to set goals and is interested in the personal needs of employees (Chan, Maki of Petrulis, 2017).

### Qualities of a leader and motivation

While leading, it is important not only to achieve good results, but also to create an environment where people are empowered and inspired by a common goals (DuBois, Hanlon, Koch, Nyatuga, Kerr, 2015). According to R. L. Katz, leading responsibilities are focused on tasks that include staff development and conflict resolution while keeping ethics and discipline (Katz of Algahtani, 2014). Managers play a key role in building effective teams, so forming a team is one of the main responsibilities that should be in day-to-day operations (Dubois and others., 2015). A manager is that person in a company who needs to have certain personality traits in order to lead team properly. According to various management literature, it is stated that the personality of a leader is formed in childhood, when a well-educated child tends to lead, control, or influence others. Effective leadership requires certain qualities of a manager, which are described by A. Seilius (Seilius from Petrulis, 2016): intelligence, clear understanding, propensity to advise, perseverance, willingness and ability to solve difficult issues, ability to apply existing knowledge, clear thinking, ability to summarize data, creativity, diligence, honesty, fairness, ability to manage an unacceptable situation, employee development. And based on A. Dromantaitė and others. (2012) can be most effectively led by people with a balance of power and needs.

Beginners of a management science provide qualities of effective leadership such as competence, administrative skills, body and mind energy, or enthusiasm. These days, the qualities of an effective manager are different. As Torres (2017) states, effective managers in the 21st century need to look ahead and be always ready to act, they need to step out of their comfort zone and develop their relationships with different people including physical, biological, social, and economic cultural differences (Cote, 2017). It is important for a manager to have charisma. The power of charisma is the ability to motivate others through the personal qualities of a manager (Lloyd, Aho, 2020). However, it is mainly the leadership qualities and behavior that influence leadership style.

As the personality of a manager depends on the leadership style, each leadership style manager has distinctive qualities. According to V. Valiulė, M. Vaikšnoras (2018), the charismatic style manager gives the impression that he is competent, because he talks about previous successes and ignores losses. Such managers are an inspiration to others because they motivate their employees by changing the interests of their subordinates to the collective interests [Breevart, de Vries, 2019]. However, a charismatic leader may have negative qualities that may be destructive, such as manipulation, application of repression, or self-exaltation

(Petrulis, 2017). The qualities of transformational-style managers match with the qualities of a charismatic-style. Managers of this type are focused on the needs of employees (Cote, 2017). However, the transformational leader may also have the qualities of a dark triad. According to A. Stelmokienė, T. Vadvilavičius (2019), negative characteristics of a transformational leader can be narcissism or manipulation. The manager of a transactional leadership style can be passive or active, depending on the circumstances, when employees do not work or do a bad job (Petrulis, 2017). This kind of manager focuses on tasks and exchanges between employee and manager (Cote, 2017). The last modern leadership style to describe the qualities of a manager is the servant. The qualities of this type of leader become apparent through loose leadership, or caring for others.

In order for employees to be satisfied with their job and to be more productive, the manager, as the main person of the company, must ensure this by motivating his subordinates. Motivation itself is defined as the process of encouraging people to act on goals (Shinde, 2018) or the process of creating and maintaining goal-oriented activities (Cook, Artino, 2016). As all organizations tries to reach the highest possible results and higher productivity, it is important to pay attention to how motivate employees. Although the needs of each person are different, the needs for motivation are not only material but also psychological, mental, intellectual or spiritual (Syafii, Thoyib, Nimran, Djumahir, 2015). According to E. B. Kuranchie-Mensah, K. Amponsah-Tawiah (2016), the most important thing is to evaluate the work performed by subordinates in the context of the organization, although verbal motivation and monetary rewards are also very important. G. Lăzăroiu (2015) believes that the current business environment requires employees to be fast-paced and constantly innovate, so it means that managers should motivate their employees to innovate. As J. D. Jensen (2018) states, there are several ways to motivate employees:

1. Managers need to know their employees closely to identify employee needs. They must involve employees in the work and take time for each employee to get to know each other.
2. Managers must arrange live meetings with the employee, which must be conscious and premeditated.
3. Managers must ensure that the meeting with the employee is effective and benefits the employee and the organization.

Any employee motivation plays an important role in the organization. To encourage managers to be more productive, they need to identify the needs and concerns of their team members (Rodriguez of Hanaysha, Majid, 2018).

In summary, the success of a job in an organization is highly dependent on the leadership style, as a result of the leading function going through it. The most important person in the leading function is the manager and this is one of the most important management functions. The leading function itself takes place through a leadership style. Each of the leadership styles has its own strengths that are used by companies to accomplish tasks or goals. Employee motivation is important for every company and its manager, because motivated employee will feel greater job satisfaction and work will be more efficient. In order for a manager to motivate, it is important to identify the needs of the employees, which can be physiological and psychological. If employees feel the needs are met, they will achieve company goals more effectively. Employee motivation is possible through salary, incentives, manager's attention to employee knowledge.

### **Leadership research in "Flam AS"**

Flåm AS is a subsidiary of Aurland Ressursutvikling AS (ARU) and works to develop business-oriented tourism. The company is located in Flåm in Aurland Municipality, where travel experiences are marketed and sold to the national and international markets. Aurland ressursutvikling (Aurland Resource Development) was founded in 1997, and is owned by SIVA Eiendom Holding AS (47.39%), Aurland Municipality (39.98%) and Aurland SpareBank (12.63%).

A survey was selected for *the quantitative study*. Questions were formulated to help to study the respondents' attitudes towards the research problem. Responses are anonymous to avoid breaches of confidentiality. The survey involved 18 respondents. It is representing 100% of the respondents. The study revealed that 83% of the company is of women and 17% are men. The majority of employees are between the ages of 22 and 30, which is 50%. In second place are people between the ages of 31 and 40, which is 39% of respondents. The company employs the least of people age 41 or more and between the ages of 16 and 21, which includes only 6%. The majority, 39%, of the company's employees have a bachelor's degree and 22% a master's degree. In total, 61% of employees in the company work with higher education. 33% of respondents work in the company with secondary education and 6% with associates education. In the department where the survey was conducted, consists of 33% of booking workers, 28% of sales representatives or front desk workers, 22% of team leaders and 17% of tourist information staff (figure 1).





Fig. 2. The most understandable definition of leadership

*\*Source: made by author*

Figure 2 provides data on the most understandable definition of leadership based on research data. According to 39% of respondents, the most understandable definitions of leadership are two: "Leadership means directing employees in the right direction to perform the necessary tasks" and "Leadership is one of the most important functions of a manager in relation to the human aspects of organizational management and helps subordinates to understand the company's goals, encouraging them to achieve them effectively. The least understandable definition of leadership remained "Leadership means influencing others willingly to do what a leader wants." It can be stated that in the opinion of 5% of subordinates, this definition of the concept of leadership is the least understandable among all the provided definitions. However, such a distribution of responses may have depended on both current positions and education.

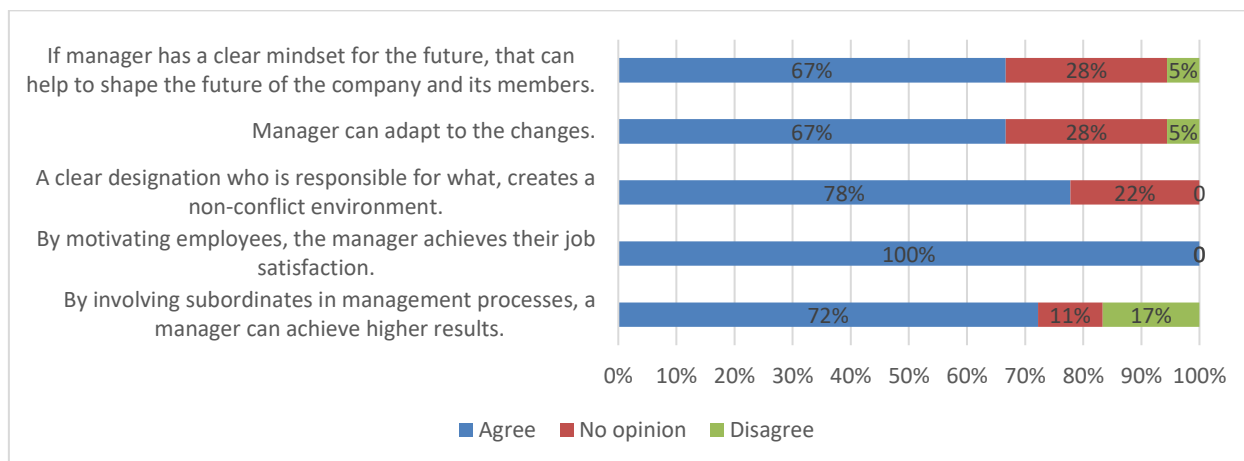


Fig. 3. Statements that may reveal the effective role of the leader.

*\*Source: made by author*

In order to assess what can reveal the effective role of the leader, the respondents were asked which of the following statements they thought could reveal the effective role of the manager (figure 3). Employees say motivation is important to reveal an effective managerial role. According to employees, the manager achieves employees job satisfaction by motivating them. Subordinate job satisfaction can help a manager achieve higher results. 78% of respondents agree that naming who is responsible for what creates a non-conflicting environment, and 22% neither agree or disagree. Such a distribution of response may have depended on the employee's non-exposure to the situation in question. The majority, 72% of respondents, agree that a manager can achieve higher results by involving subordinates in management processes. 11% have neither agree or disagree and 17% disagree. This distribution of responses may have been due to the difference between current positions and description of position. The answers of the respondents were evenly distributed between the two choices, the manager's clear mindset for the future, which helps to shape the future of the company and its members, and the manager's ability to adapt to the changes. 67% of respondents agree that these two statements can reveal the role of effective leader, 28% neither agree nor disagree and 5% disagree. This arrangement of answers depends on the employees' understanding of leadership and their education. Neither agree or disagree

choice could be influenced by the person's lack of encounter with a specific situation or not knowing the manager personally.

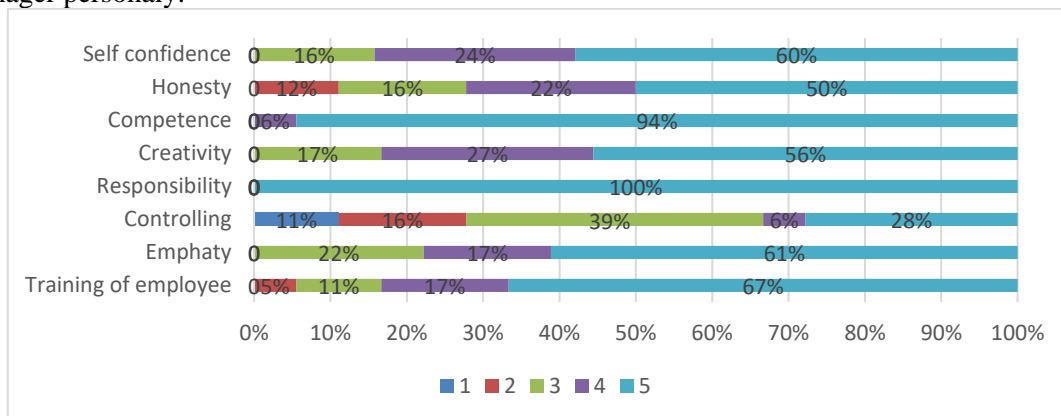


Fig. 4. Most important qualities of a manager

*\*Source: made by author*

During the survey, respondents were asked about the qualities of the manager to evaluate each of the qualities according to their importance (figure 4). According to the respondents, responsibility is the most important characteristics of a manager, it is rated 5 as a very important. 94% of employees says competence is a very important trait, and 6% says it is important. 67% of respondents distinguished training of employee as a very important trait. According to them, this trait is very important, 17% important, 11% neither important or unimportant and 5% not important. 61% of respondents singled out empathy as a very important trait, 17% as important and 22% as neither important or unimportant. Self-confidence stayed as one of less important characteristic as 60% of respondents said it was a very important trait, 24% important and 16% neither important or unimportant. Among the less important qualities remained honesty and creativity. Accordingly to 50% of respondents honesty is a very important quality of a manager, 22% think it is important, 16% neither important or unimportant, and 12% think this quality is unimportant. The creativity was rated by 56% of respondents as a very important trait, 27% as important and 17% as neither important or unimportant. Of all the possible qualities listed, the least important quality of the manager remained controlling. Only 28% of respondents chose this trait as very important, 6% consider it an important trait, 39% neither important or unimportant, 16% unimportant and 11% completely unimportant. In this question, respondents' views on the importance of the qualities of the manager differed widely. The only trait as very important that all respondents agree on is responsibility. However, it can be said that although the answers of the respondents differed, each of the characteristic of the manager is unique and helps to do their job better.

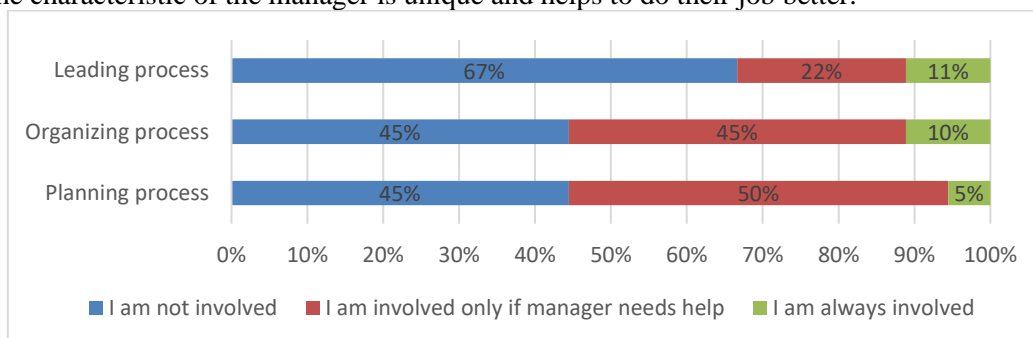


Fig. 5. Involvement into management processes.

*\*Source: made by author*

Figure 5 shows responses to the question of how often manager involve them in planning, organizing, and leading processes. The majority of respondents answered that they are not involved in management processes or are only involved when the manager needs help. 67% are not involved in the leading process, 22% are only involved when the manager needs help and 5% are always involved in the leading process. Involvement in the management process may depend on the position held, so not all employees may be involved in the management process at all times. 45% of employees are not involved in the organizing and planning process. 45% are involved in the organizing process and 50% in the planning process only when the manager needs help. 10% is always involved in the organizing process, it is 5% more than in the planning process and 1% less than in the leading process. Such a distribution of responses may mean that the manager involves

employees in these three processes when he or she fails to complete his or her tasks on time or wants to involve employees in the processes so that they can contribute by expressing their ideas. The position of employee and the description of position can also have influence on involvement of processes.

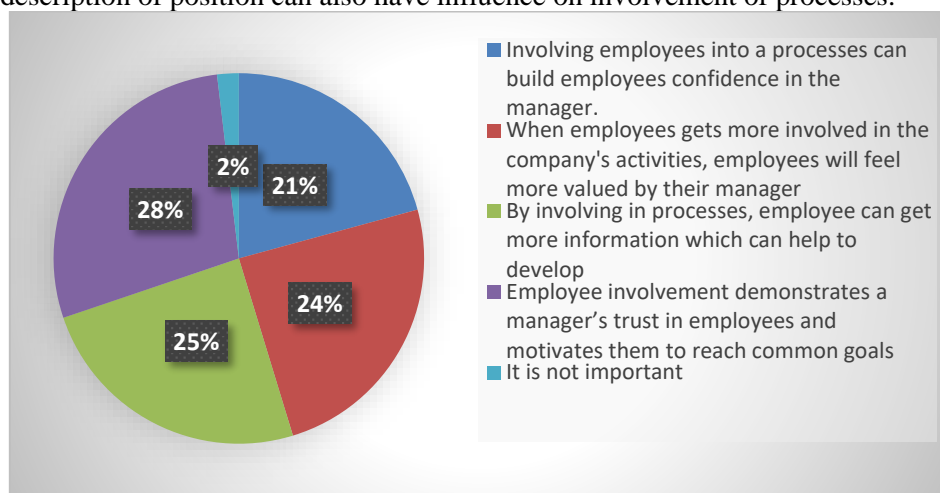


Fig. 6. Importance to involve employees to management processes.

*\*Source: made by author*

In order to find out the opinion of the respondents about the reasons why it is important to involve employees in the management processes, the answers were similarly distributed. According to 28% of respondents, the involvement of employees in management processes shows the manager's trust in employees and gives them motivation to pursue common goals. Motivation is one of the most important factor for employees from the manager side. According to 25% of the respondents, the manager will educate his employees by involving them in management processes. One percent less, that is 24% of respondents, says that by being involved more in the company's activities, employees will feel more valued by the manager. One of the statements that collected the fewest responses is that involving employees in management processes will build employee confidence in the manager. 2% of respondents says that involving subordinates in management processes is not important.

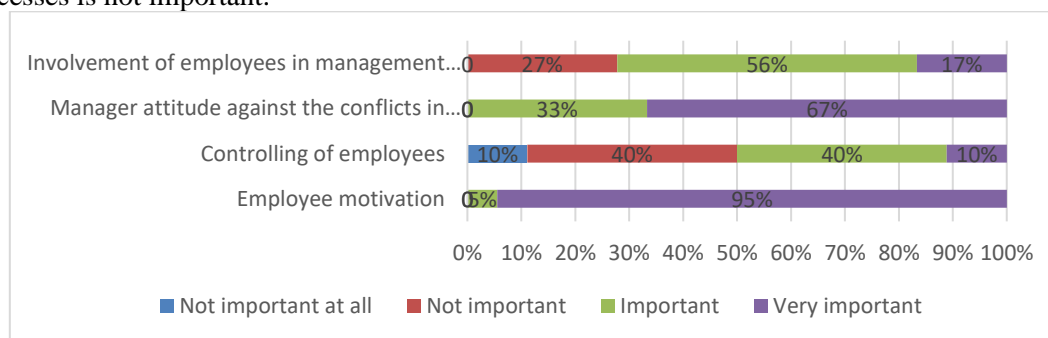


Fig.7. Statements importance to reach higher results

*\*Source: made by author*

Figure 7 reflects respondents views which factors they are very important, important, or unimportant for a manager to achieve higher results. According to the respondents, employee motivation is very important for the successful operation of the company. Employee motivation was chosen as a very important factor by 95% of respondents and 5% of respondents chose it as important. Responses reflected the need for the manager to play his role if conflict appears. 67% of respondents think it is very important for a manager and 33% think it is important. 17% of respondents says employee involvement in management processes is very important, 56% think it is important and 27% think it is not important. This distribution of responses may have been influenced by the fact that a large group of employees are not involved in management processes, as shown in figure 5. Only a small piece of respondents 10% believe that strong control over the work of employees is a very important factor in achieving higher results. 40% consider that controlling is important and unimportant, and 10% say that strong control of employees work is completely irrelevant in order to achieve higher work results. This distribution of response may have been as by the fact that employees affected by job control feel stressed and are unable to perform tasks better as a result.

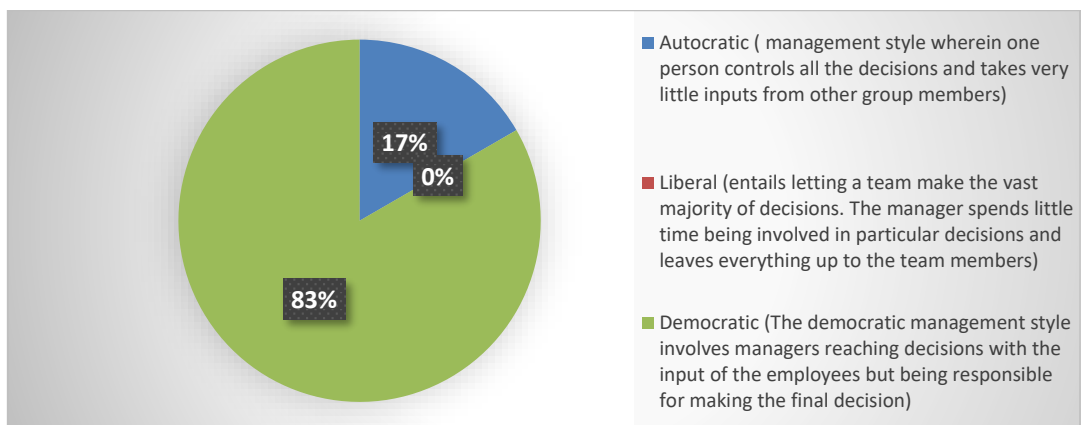


Fig. 8. Leadership style

\*Source: made by author

Figure 8 shows the leadership style in the company. 83% of respondents believe that their department has a democratic leadership style based on a dividing of power involving subordinates. According to 17% of respondents, an autocratic leadership style prevails in the company as well, where one person leads and does not share power. None of the respondents chose a liberal leadership style, which means that this leadership style does not prevail in the company.

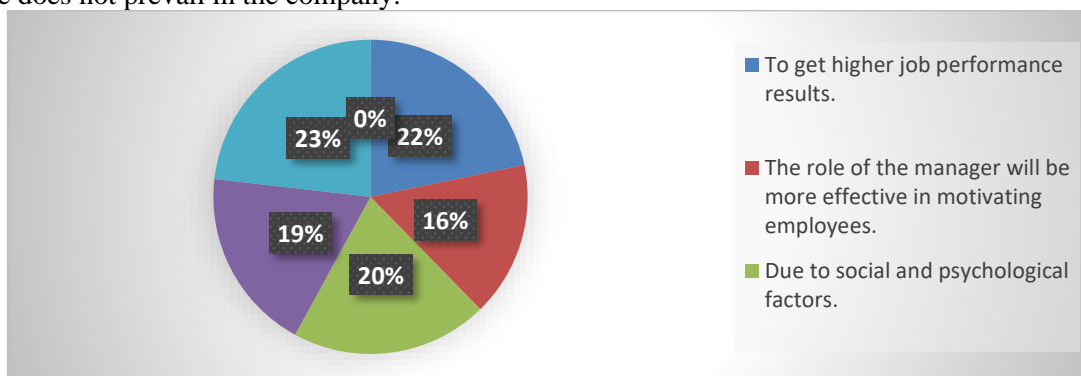


Fig. 9. Importance of motivating

\*Source: made by author

According to the data of the survey (Figure 9), 23% of the respondents think that motivation is important for the manager so that the employee feels job satisfaction. As a result, there is a tendency that employee job satisfaction can reduce employee turnover in a company. 20% of employees say motivation is important due to social and psychological factors and 19% to prevent staff turnover. An employee who is valued by a manager is motivated to achieve better work results and feels job satisfaction. Also, motivation, according to 22% of respondents, is important for a manager to achieve higher work results. And only 16% of respondents believe that the role of the manager can be more effective in motivating employees

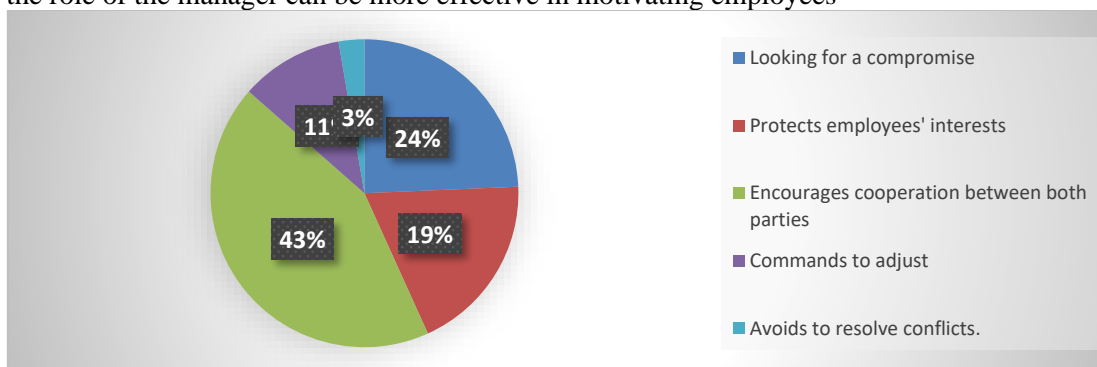


Fig. 10. The role of the manager during the conflict.

\*Source: made by author

Figure 10 shows the data results on the behavior of the manager during a conflict. Most of respondents, 43%, says that in the event of a conflict, the manager encourages cooperation on both sides, speeding up the

resolution of the conflict. According to the survey, 24% of respondents say their manager is looking for a compromise between the two parties. As respondents states, the manager defends the interests of employees, according to 19% of employees. According to 11% of people surveyed, the manager tells them to adjust and come down in the event of a conflict. The survey shows that 3% of respondents say that the manager avoids conflict resolution. Summarizing the results, the manager is more inclined to resolve conflicts by encouraging cooperation, seeking compromise, defending the interests of employees, or commanding to adjust.

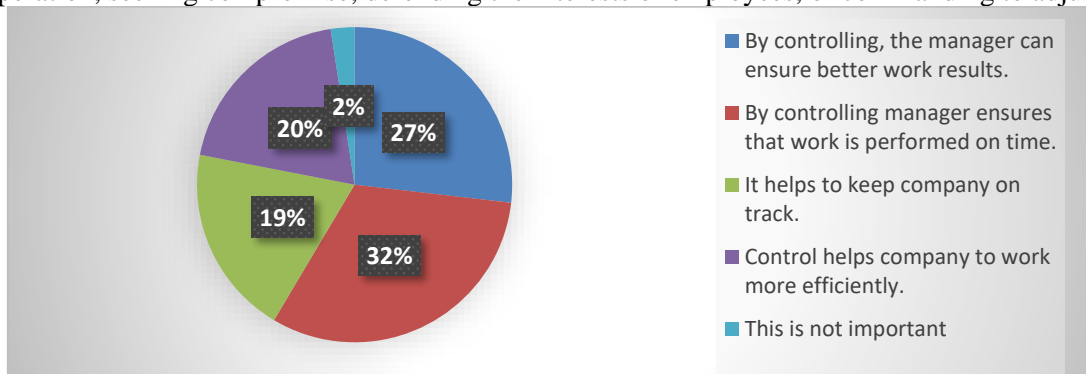


Fig. 11. Manager influence on controlling employees

*\*Source: made by author*

According to 32% of respondents manager control has a significant impact on the task which should be completed on time (figure 11). The survey found that 27% of people believe that by controlling their subordinates, a manager can ensure better work results. 20% of respondents think that manager control helps the company to work more efficiently and 19% of respondents believe that managerial control helps to keep the company on track. Each step of control can help the company to operate more efficiently, which was agreed by the majority of respondents. In the survey, 2% of respondents said that controlling subordinates is not important to a manager.

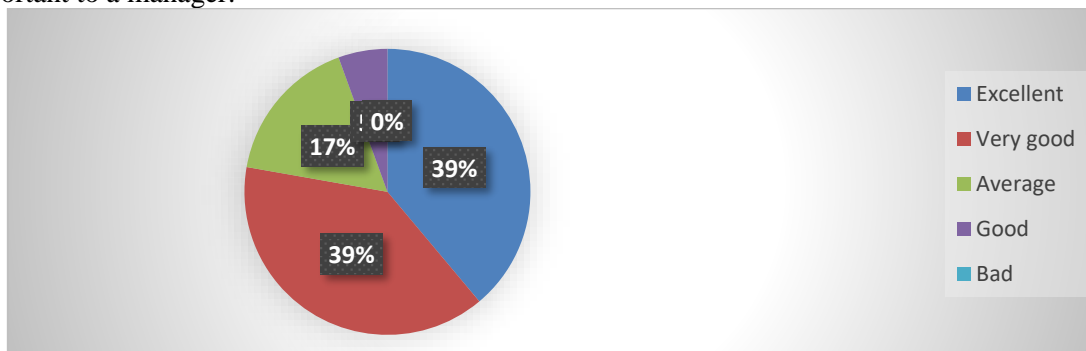


Fig. 12. Evaluation of the role of the manager

*\*Source: made by author*

The data presented in figure 12 shows how respondents evaluate the leading of manager. The majority of respondents, 39%, thinks that the head of the company plays both an excellent role while leading the company and a very good one. For average, the manager was rated by 17% of respondents. Among the 5% of respondents' responses, the evaluation of the manager's work was evaluated as good. None of the survey participants rated the role of the manager as bad. Based on the results, it can be stated that the manager is regarded as a very good and excellent manager in the role of the company.

## Conclusions

Leadership is one of the most important functions of a leader, which influences others to achieve the respective goals. From the leading can depend a success of a company, the turnover of employees, and the goals of the company set by the leader. While leading, it is important to plan targets and goals, it is important to organize. The success of an organization is influenced by the leadership style chosen as leading is being done per certain leadership style. Each manager is different and has certain personal qualities that stand out in his leadership style. In an organization, employee motivation is important as it helps to improve productivity. It allows employee to feel valued by the manager. A manager can motivate employees in a variety of ways, verbal, by getting know of employee or though salary.

The results of the quantitative research showed that the most understandable definition of leadership for employees is that leadership means to direct employees, encourage them in the right direction to perform necessary tasks and encourages to achieve company goals efficiently. The most important personal qualities of a manager are responsibility, competence and employee training. It is important to motivate employees to reveal effective role of a manager. According to employees, not all employees are involved in the planning, organization and management processes, but involvement to the processes is important to reveal effective role of a manager, as survey showed. During the conflicts, both sides are encouraged to cooperate and while controlling manager ensures tasks performed on time and better work results.

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## EU ENVIRONMENTAL POLICY IN THE ARTIC: HOW TO FIND A BALANCE BETWEEN PROFIT AND PRESERVATION OF THE ENVIRONMENT

**Makukhin Daniil Borisovich, Marukhlenko Olga Sergeevna, Nefedova Olga Alekseevna**

*Title Name Surname of scientific supervisor: Professor Irina Alexandrovna Strelnikova*

email addresses: dbmakukhin@edu.hse.ru [osmarukhlenko@edu.hse.ru](mailto:osmarukhlenko@edu.hse.ru) [oanefedova@edu.hse.ru](mailto:oanefedova@edu.hse.ru)  
[istrelnikova@hse.ru](mailto:istrelnikova@hse.ru)

### Abstract

The European Union has distinct economic interests in the Arctic. Human activity in the region, however, may pose imminent danger to the environment of the region. The evolution of international legislation addressing the preservation of the Arctic nature is in place, but current pace of its development is insufficient. The European Union is capable of contributing in the possible establishment of the international regime protecting the environment in the North, as its expertise in dealing with similar issues in other regions is substantial.

Key words: Arctic, EU, ecology, regulations, environmental policy

### Introduction

The development of the Arctic region began many years ago. All this has led to active work in this region and, as a result, to global environmental problems. It should be noted that many environmental problems, such as climate change, global warming and water pollution, directly depend on the activities of people in the Arctic region. In this region, there is the creation of oil platforms, active production and transportation of oil, which leads to enormous damage to the environment as a whole and affects the more global processes of our planet.

One of the most terrible consequences for the entire environmental problem is the drilling of oil wells and accidental oil spills, which can lead to the release of pollutants into the marine environment, the discharge of reservoir water and pollution of the atmosphere. In addition, there may be emissions of gaseous and liquid hydrocarbons during drilling. This region is a link to other regions, for example, an oil spill on the Russian side of the Bering Strait has a high probability of passing into US waters and thereby jeopardizing the entire ecosystem.

The Russian Prirazlomnaya oil platform has been installed in the Barents Sea, and no one is immune from oil spills. According to the calculations of the Russian services, regular oil spills in the Barents Sea will lead to a strong weakening of the entire fragile region, the extinction of rare animals and species. In addition to the more global problems, one of the main fisheries in the Bering Sea basin is fishing, and there are trap fisheries throughout the western part of the sea.

Moreover, the Bering Sea has a potentially important navigable value, as the Bering Strait is the gateway to the Arctic, and due to global warming and the reduction of ice cover, the Northern Sea Route is becoming a popular transport route, which leads to even more pollution of the region. In addition to oil pollution, the atmosphere, the soil is oversaturated with heavy metals, radioactive elements. During the development and active use of the Arctic regions, powerful equipment is used, especially in oil production, and all this emits a lot of exhaust gases.

Today, the Arctic territory is under threat, as the climate of the region is considered the most vulnerable on the planet due to constant warming. If the Arctic continues to melt with the same tendency, it will irreparably change the life of all continents and oceans. In addition to the general increase of the sea level and a greater number of flooding, the so-called reflective mirror may vanish, and the waters of the world ocean will begin to absorb even more sun rays, water temperatures will rise, fish species will disappear, and polar bears and seals will become extinct. Other crucial dangers for the Arctic ecology are connected with the facilities of the Kola nuclear power plant and Russia's nuclear vessels deployed nearby, which pose even greater menace.

Thus, the activities of Arctic countries are extensive and dangerous for all its parts of development. The United Nations Environment Programme is developing its own ways to identify and improve the environmental situation, just like the European Union, which refers to the protection of the region's environment as one of the most important parts of any possible economic development of the region. The EU notes that it is necessary to find a balance between a protected area and merciless exploitation of the resources of the Arctic. As it will be shown further, the European Union has gained unique experience empowering it to establish an effective international regime, which would ensure the preservation of the Arctic.

### Literature review

The issue of the EU's role in the development of the Arctic has been aroused many times before. As Tina Hunter (2017) elaborated, the European and Russian, which is considered one major Arctic power, goals

are similar and, broadly speaking, can be deduced to exploration of oil deposits and protection of the environment. The latter was sought to be achieved by SAR and MOSPA agreements. However, the guidelines included in them are non-binding and repeat OPRC's requirements for the most part. Daria Shapovalova-Krout (2019) also put stress on the fact that the two agreements pay little attention to the prevention of oil spills, which is by far the most important part of dealing with water contamination. Apart from the state activity, some NGO's presented the research of their own. The prominent example of this may be two WWF's papers of 2014 and 2016 highlighting the importance of European involvement in preservation of the Arctic environment and the consequences of ship oil spills in several northern seas as well as recommendations on how to lower the risks of them. These papers are two proper examples of possible corporation-NGO cooperation. Some other articles by Greenpeace show off a polar attitude to relations with corporations and governments. This gives birth to a perennial issue - the one of misunderstandings between the environmentalists and the business. Léonie J Archer (1995) argued that the core of an eternal dispute is in the following dichotomy: the environmentalists believe that we know enough about global warming to take action, while oil producers are confident that we know only too little. It illustrates in a comprehensive manner both the ignorance of essential economic urgencies of the whole world from the green side and the equal ignorance of the latest research from the producers's viewpoint.

The possible intermediary between the two parties could be the state itself. Papers focusing on national and international legislation in this field by Knol and Arbo (2014), Pedersen (2012), Anyanova (2012) and Dams, Van Schaik and Stoetman (2020), which are available in sudden abundance, prove that laws of single nations may not suffice. For that reason, we are confident that the EU obtaining significant expertise in environmental matters (research conducted by Carpenter (2007) regarding the Bonn Agreement effectiveness can be one proof for that) is the body that is capable of solving and many other problems related to the topic.

Various types of articles and documents addressing European policy in the region are also present. For instance, the European Commission communiqué "European Union and the Arctic Region" identified the main tasks of the EU countries in relation to the Arctic. One more example of a document of the same kind is the text of the EU Parliamentary Resolution dated March 12, 2014. While writing the article, there was also an appeal to Internet resources, such as the Official Website of the Nordic Council of Ministers, the Official website of the Arctic Council. Information was gained from several articles, such as the master's thesis "Interests and priorities of the European Union in the Arctic region", executed by Andronova Anastasia and the article by Dmitry Danilov "The Arctic policy of the European Union: foundations and evolution".

## **Main body**

Over the past decade, the European Union's interest in the Arctic has increased steadily. At the same time, the EU's policy towards the Arctic region has been formed, though its evolution does not cease to exist. The concept of the "Northern Dimension", proposed by the Prime Minister of Finland P. Lipponen in 1997 the first step in this direction can be considered one of the very first steps in this direction. The Northern Dimension involves joint activities of equal partners: the European Union, the Russian Federation, Norway and Iceland in the Nordic region. The aim of the interaction is to promote dialogue between states, strengthen stability, prosperity and economic cross-border cooperation, as well as promote economic integration, competition and sustainable development in the north of Europe.

The next step in the development of the EU's Arctic policy was the European Commission's communiqué "The European Union and the Arctic Region", adopted in 2008. It outlined the three main objectives of the European Union in the region, which continue to be systematically implemented at the present time: the protection and preservation of the Arctic region and its population (with a strong emphasis on indigenous peoples), the promotion of sustainable use of resources and the strengthening of Arctic multilateral governance. The following year, 2009, the EU Council issued an opinion on Arctic policy. From the 23 points of this document, it follows that the EU has become more active in positioning itself in the Arctic region, primarily through the EU member States (Finland, Denmark and Sweden), and has set more extensive tasks in the field of environmental protection and climate change, as well as continues to insist on expanded management of the Arctic.

In the resolution of the European Parliament "EU Policy in the Far North on Sustainable Development" (January 2011), the EU confirms its "legitimate interest" and involvement in such key issues as environmental conservation and climate mitigation in the region. It also focuses on supporting the Arctic member states of the EU in the realisation of their economic interests, including the transportation and extraction of natural resources. In addition, the resolution mentions that the territory of the Arctic countries of the European Union (Finland and Sweden) is home to the only indigenous group in Europe – the Sami, the preservation of their original way of life is one of the priorities of the EU in the Arctic.

In March 2012, the head of the EU Foreign Policy Department, K. Ashton visited the Norwegian-administered island of Svalbard, Finland's Rovaniemi and Sweden's Kiruna. In June of the same year, a joint communique entitled "Development of EU policy towards the Arctic region: progress since 2008 and further steps" was issued, addressed to the European Parliament and the Council. The document emphasises that due to climate change in the Arctic region and its impact on the entire planet, the EU focuses its special attention on "knowledge", which includes the conduct of scientific research in the region, the development of space monitoring, the creation of innovative knowledge and know-how technologies. The EU sees its participation in "Arctic affairs" primarily through obtaining permanent observer status with the Arctic Council. Certain hopes in increasing the role of the EU in the region were also expressed in the prospect of Iceland's accession to the European Union. However, in 2013, Iceland withdrew its application for membership. To date, the latest version of the EU strategy for the Arctic is the Parliamentary Resolution of 12 March 2014. In one way or another, it summarises the previously stated imperatives of the EU's policy towards the Arctic region.

Thus, the analysis of the EU documents on the Arctic allows us to conclude that there is an expansion and specification of the range of EU policy objectives in the region, the key of which are environmental protection and mitigation of climate change, sustainable development of the region, protection of the rights of indigenous people, safe navigation, multilateral management of the Arctic and scientific research. The European Union, along with Denmark, Finland, Iceland, Norway, Russia and Sweden, is a full member of the Barents Council. The Euro-Arctic region, whose main objectives are to ensure the sustainable development of the region, the expansion of bilateral and multilateral cooperation in the fields of economy, trade, science and technology, the environment, infrastructure, education, culture and tourism.

The EU's interests are indirectly represented in several regional forums through the EU member states – Finland, Sweden and Denmark. For example, these countries participate in the activities of the Nordic Council of Ministers and are members of the Arctic Council. The latter is considered the most authoritative and influential mechanism of interaction between the countries of the "Arctic Eight" in the region. Since 2008, the EU has been trying to obtain permanent observer status for the Arctic Council, but for a number of reasons this has not happened so far. Due to the EU ban on the import of seal fur, leather and meat, Canada has long been hindered from making a positive decision. However, in 2015, this contradiction was removed, but Russia acted as an opponent, against which the European Union imposed sanctions in 2014.

In addition to the supranational level of implementation of European policy in the Arctic region, there is also a country level. Many EU member states have distinct interests in the Arctic. Let us look at some of them. France's interests in the Arctic are vast and diverse. The French company Total, which has been operating in the Far North for about 40 years, is considered an expert in oil and gas production (including in cold climates). France, being the only member of the EU – holder of nuclear weapons, also considers itself obliged to pursue an active policy to ensure security in the Arctic region. It participates in NATO exercises in Norway on a regular basis. France is constantly conducting Arctic scientific research, using the icebreaker "Astrolabe" and the research vessel "Marion Dufresne II". The French Polar Institute, the Centre for Arctic Research, the European Arctic Centre and the French National Centre for Scientific Research conduct scientific research in France. The importance of the Arctic direction in French politics is emphasised by the creation of the post of Ambassador for international negotiations on the Arctic and Antarctic in 2009.

The Netherlands, as one of the world's largest gas exporters, has extensive experience in deep-sea drilling and dismantling of oil and gas platforms, which can be used in the Arctic region. At the same time, the state conducts serious scientific research related to minimising environmental risks, including cleaning the sea and coast from oil spills. The development of new sea transport routes in the Arctic region will lead to an increase in trade turnover through Dutch ports.

Spain, despite its remote geographical location, also has interests in the Arctic. The main ones are concentrated in the research and tourism sectors. In order to develop Arctic tourism on the basis of sustainable development, Spain participates in the activities of the Association for the Sustainable Development of Arctic Tourism (SATA), as well as in the project "Sustainable Model for the Development of Arctic Tourism" (SMART). In addition, its interests are determined by the conduct of fishing in the Arctic seas and the development of hydrocarbon resources. Today, there are a large number of legal documents regulating the policy of the EU countries in relation to indigenous peoples in the Arctic. For instance, there are conclusion of the council of the EU on the EU policy towards the Arctic region (8 December 2009) and resolution of the European Parliament "On a sustainable EU policy in the Far North" (20 January 2011). There are several basic ideas in these documents. First of all, it is the protection and preservation of the Arctic in harmony with its population. It also promotes governance in the Arctic by involving indigenous peoples in an ongoing dialogue and decision-making process. These documents also contribute to the sustainable development of indigenous peoples, including through their traditional livelihoods. According to these documents, special measures are

being developed to protect culture, language and land rights, as they were established in the ILO Convention of 1989.

The environmental aspect of the legal provision of the Arctic by the EU countries will be discussed below. It should be noted that the unified policy in the field of environmental protect prior to the XXI century was formed in 4 consecutive steps:

1. "Passive" environmental policy (1957-1971) At this stage, the EU member States carried out only a few autonomous measures: the introduction of restrictions on imports, exports, and transit in commodity turnover for reasons of environmental safety.

2. The initial stage of the formation of the EU environmental policy (1972-1985). This stage is characterized by the implementation of initial measures to protect the environment by the EU countries, the appearance of the first action programs in this area, the initial development of legal regulation in the field of ecology. The most important step in the formation of the Community's environmental strategy was the "First Environmental Action Program" (1973), which aimed to prevent natural threats, preserve ecological balance and rational use of natural resources. It is noteworthy that in this document.

The economic development of the region and the successful environmental policy were considered as interrelated processes. The EU has acceded to a number of major international environmental conventions, such as the Convention for the Protection of Wild Flora and Fauna and Natural Habitats in Europe (1979), the International Tropical Timber Agreement (1983), and the Convention on Long-range Transboundary Air Pollution (1979)

3. The stage of assigning competence in the field of environmental protection to the EU institutions (1986-1991). In 1986, the First European Act was created, which outlined the priorities and principles of European policy, and some aspects of the document addressed environmental protection issues. In addition, the most important feature of this stage was the introduction of the principle of subsidiarity (according to which the EU and its institutions should be active where the member states are not able to successfully solve problems on their own), the adoption of legislative acts (at this stage, about 200 acts were adopted). It should be noted that such active actions have led to another innovation– the introduction of a system for assessing possible environmental impacts, monitoring, disseminating environmental information and ensuring public access to it, and, especially, financing environmental protection measures.

4. The stage of improvement of the community's environmental policy (1992-2002). At this stage, the EU is improving the legal regulation of environmental protection. In particular, the acts that lay the legal basis for the system of collecting and processing environmental information, environmental monitoring, environmental certification (European "eco-label"), environmental impact assessment, and mechanisms for financing environmental measures were updated.

Today, there are common principles of the EU environmental policy in relation to the Arctic. To begin with, there is an expansion of the network of specialized bodies (although the EU institutions play an important role in ensuring environmental policy: the European Parliament, the European Commission). In this context, it is worth highlighting a specialized body – the European Environment Agency- an agency established by the Council of the European Union. The Agency is independent from the EU Commission. It was founded in 1990 and has been in service since October 1993. The company is headquartered in Copenhagen, Denmark. It promotes following fundamental notions: the principle of preventive action, the principle of compensation for environmental damage, mainly by eliminating its sources; the principle of paying for damage by those who caused it ("the polluter pays"), the principle of sustainable development, i.e. taking into account the interests of present and future generations in the use of natural resources.

Obviously, modern environment policy of the EU in the Arctic is remarkably diverse, though primarily declarative and insufficient. In the following section of this paper we will shed light on the peculiarities of activities within the two major European regions in the Arctic - Norway and Greenland. By doing so, the weak spots of nascent environment policy in the region will be distinguished. The first main issue, which may seem pretty straightforward at first glance, concerns the degree to which environmental organisations' claims are justified and whether they are consistent in their demands. If they are, the way the European regulations operate may be seriously questioned. With no doubts does the issue of environment preservation plays the second fiddle to economic interests. The EU is a major player on energy markets and is looking forward to using the resources of Greenland. The Union has the power of influencing two out of five Arctic littoral powers and may be a power in its own right in the activities of the Arctic Council. As the authors of this paper would like to propose, Europe could use all its expertise no only to promote its economic interests, but for the sake of the greater good - to establish a ubiquitous international regime, which could defend the Arctic.

Let us first look at what specialised NGOs believe should be implemented in the Arctic. Greenpeace's "Save the Arctic" campaign aspires to establish the Arctic Sanctuary - an area with little to no economic activity (the sole exception is shipping, which is assumed to be a subject for strict restrictions). In spite of the

ridiculousness of such a demand, Finland adopted this strategy on the state level. When it comes to the rest of the European Union, however, such a vision of the Arctic's future is by no means seen as ridiculous. Europe is one of the would-be beneficiaries of oil from the North - in 24% of fossil fuels from the Arctic was consumed by the EU. The fashion of the Greenpeace's claim may seem somewhat radical, as the claim of the environmentalists was made on the grounds that less than 1.5% of the region has protected area status, e. g. is covered by reserves, national parks etc. In order to achieve their goal Greenpeace pledge to "pressure the international community every chance they get". This is the promise they have not failed to fulfil, as further examples will show.

Greenpeace as well as the majority of other environment organisations primarily speak against the offshore oil drilling in Barents Sea - a territory partly governed by Norway. The main argument in favour of their claim is based on the lack of technologies and experience for prevention and successful neutralisation of the consequences of alleged oil and gas spills in the Arctic. As it has already been mentioned before, the problem is present and is here to stay for long, since the exploration of the North is clearly on the rise. The most acute controversy between the environmentalists and the corporations concerns not exactly the measures to safeguard against the potential spills, but the prospects of oil employment on the whole. Ubiquitous hysteria in regards to the global warming results in confrontational claims from various environmental organisations. They are ardent supporters of the idea that oil consumption should be rapidly decreased and banned completely as soon as possible. Such a position, as Archer elaborated, makes producers adapt an aggressive defensive stance and reflects complete ignorance of the economic realities, especially in the developing countries. Moreover, in some cases the laws facilitated by the environmentalists suffocated research in the field of dealing with oil spills. But still, as research demonstrates the nascent problem of such disasters takes place indeed.

Speaking about the frequency of oil spills and the response of the governments to them, it is essential to clarify first if appropriate laws exist at all. Ekaterina Anyanova stipulated that the issue remained mostly unsolved. In spite of the fact that prevention of potential oil spills is beneficial for the corporations in terms of their reputation capital, practice shows that the only driving force behind new pieces of legislation is another significant catastrophe. Moreover, are no international regional addressing the issues connected with oil rigs and existing international legislation on the Arctic seems not to exist at all, since the Arctic Council lacks resolutions of such kind. The reason for such As Jędrzej G. Frynas argues, however, the number of self-reported oil spills among selected energy companies tends to rapidly decrease. Though it is hard to praise exclusively CSR for those results, the author stipulated that it is the possible strict mandatory restrictions that encourage corporations to elaborate new means of preventing the spills. In this exact case environment organisations with their ridiculous demands act as a part in security dilemma, which here acts in actually a positive way.

When it comes to Norway, the situation looks somewhat different due to the proximity between the state and Statoil company (the same can be referred to Denmark - another Arctic state with substantial oil reserves in Greenland). The corporation itself can be identified as "eco-friendly" in a way, as its statistics on oil spills frequency is encouraging indeed. But the government as well as the whole welfare state model in this country is influenced by profits from oil and gas, which impacts policies and decisions of Norway. This can be partly demonstrated by the lawsuit between Greenpeace and Norwegian government in 2019-2020. The activists referenced the constitutional right to a healthy and viable environment in hope of arguing the validity of Statoil's explorations in Barents Sea. The activists referenced the constitutional right to a healthy and viable environment. Should the court have decided to satisfy the appeal, the consequences for the gas and oil industry in Norway would have been devastating, since a dangerous precedent would have gone into effect.

Being one of trailblazers in environment legislation, Norway cannot be underestimated in terms of its attempts to fight the consequences of oil spills. The first law addressing this issue was adopted in 1981 (the Pollution Control Act) and established a NOFO - Norwegian Clean Seas Association for Operating Companies. The law established a three-part system, which involves the state, private companies and NGOs. In theory it may prove highly effective, but oil spill response systems lack equipment which could meet the requirements in terms of dealing with aforementioned threats. Hopefully, catastrophes have not yet questioned its effectiveness. All things considered, Maaïke Knol and Peter Arbo highlight the necessity for Arctic Powers to join their powers in OSR, since regimes of fighting the consequences of oil spills in different countries differ vastly.

With many other cases considered, including the Arctic Sunrise one, state of affairs between the EU and Norway on the one hand and environmentalists on the other change only for the worse. It is an unpleasant miss of a promising opportunity indeed. Both parties could benefit from collaboration, especially in terms of joint efforts towards more effective elaboration of CSR. As WWF 2014 research shows, the consequences of an oil spill of 10000 t in Barents Sea may be horrendous for the environment, especially for the Nenets Reserve and the population of endangered species - Arctic walrus. What is even more important, WWF's

recommendations were taken into account by Gazprom and were brought into life. This and a significant proves that fruitful cooperation is possible.

Greenland and its environment is one more case to consider. Thanks to this island only the EU can have a say in genuine Arctic policy. Although it is a part of the Kingdom of Denmark with a distinct influence from the continent (both EU and Danish), this island is not a part of the EU. Governed by a vastly autonomous government, Greenland succeeded in elaborating its own versatile environment legislation. It includes the Mineral Resources Act of 2009 and various amendments to it in 2012-2019, which inherited Danish solutions in this field, which are referred to as one of the best in the world. Many a issues connected with fishery are subjected to joint treaties with the EU. The problems do arise when it comes to further development of Greenland.

The island's rich natural resources are vital not only for the economy of Greenland and its struggles for independence, but for the affairs among China, the US and the EU. Self-government successfully repelled the laws banning the extraction of uranium and rare earths from the soil in 2013, which gave green light to a hunt for such a promising resources. Deposits of those resources in Greenland are one of the largest in the whole world. The amount of gas in southwestern seabed of Greenland is also substantial. Greenlanders themselves are eager to use their land to diversify national economy and loosen ties Denmark. The EU and Denmark are looking forward to occupy a more beneficial stance in high-tech production by diversifying its supply of rare metals, which comes primarily from China at this point. Control over uranium deposits would also suit European interests in foreign policy.

The brief description of economic prospects in Greenland makes it obvious that the environment is bound to be impacted in a negative way. Increased shipping activities, extraction of resources and constant risks of oil spills - those are trends the EU must not fail to oversee. It would be the flagrant naïveté to think that they are not indelible. All parties - states and NGOs alike - pay little attention to the future of environment in Greenland. Environmentalists may have no wish of sabotaging alternative energy projects (rare metals are essential compounds of those) and the states have obvious high politics interests.

With this kind of circumstances given, it seems tremendously worrying to envisage Greenland's future. The shared interest of the EU members also includes the dangers stemming from the Ice Shield melting. For that reason, Europe must ensure that Greenland acts in strict accordance with the Mineral Resources Act, which highlights the necessity of thorough assessment made prior to giving corporations licenses on exploration and extraction of minerals. Hopefully, it has the leverage to influence decision making in Greenland and thus mitigate possible consequences of human activity on the island. This territory may hypothetically be a subject for a ubiquitous international regime in the Arctic, which could employ the EU's expertise in numerous conventions and its core interests in the Arctic, as a region following sustainable development Paradigm.

## Results

In conclusion, the authors would like to elaborate on what the EU is capable of bringing forward in terms of the Arctic environment preservation. As it has been unveiled earlier in the paper, two major regions connected with Europe either politically or economically will be endangered in the nearest future. Even though the problems are obvious, the European Union mostly ignores them due to its interests in vast resources of the Arctic, which will turn more an more accessible as a result of global warming. The consequences of the threats mentioned above must not be underestimated, as they pose enormous menace for Europe. In its own turn, the EU can establish an international regime, which would highly benefit from the European in expertise in this field. It could be founded under the auspices of the Arctic Council. This regime must cover a number of issues:

1. **An effective framework for the dealing with oil spills.** We believe that the EU has gained sufficient amounts of experience in dealing with oil spills. One case to illustrate this measure is the activities within the Bonn Agreement (1969). Its core element is airborne surveillance performed and shared by the members, which allowed European states to substantially reduce the number of oil spills in North Sea. A similar framework could be established in the Arctic. Furthermore, European experience can be used in order to unify the OSR systems in the regions.
2. **An intermediary institution between the business and the environmentalists.** European business network for Corporate Sustainability and Responsibility is a unique example of approaching the involvement of business in CSR projects. Having more than 10000 thousands of enterprises from all around the world as its members, it provides great opportunities for cooperation among businesses, the EU and civil society. An organisation of such a kind would be of great use for the sustainable development of the Arctic, as corporations are key players there.
3. **Common maritime laws.** This part is exceptionally valuable, since shipping will be on the rise clearly (the latest events in Suez Canal is food for thought worth to be taken into account). They could be based on three European Erika legislative packages, which introduced regulations addressing traffic

monitoring, covering the losses of victims via COPE fund, port state control and liabilities for oil spills.

4. **Supervision of mining activities.** The EU - an advocate for Paris treaty 2015 - is bound to introduce the carbon tax. This specific measure may be controversial from Russian perspective, but still the essence of this concept may be used in order to make mining companies in Greenland, for instance, follow a more sensible way of exploration of natural resources from environmental point of view. We will leave the evaluation of possible damage and limitations to experts, presumably of European origin.

These four examples do depict the importance of European experience in terms of environment preservation. In fact, our generation is yet to find out, which notions are crucial for the common goal of saving the Arctic. The EU has tangible and profound expertise, but at this point its implementation is restricted by the interests Arctic powers with Norway and Denmark included. In order to change the situation for the better, the European Union must employ its influence as a major consumer of Arctic resources and broaden its activities in the Arctic Council. Should the latter be brought into life, the Arctic states will be released from the burden of inventing the bicycle, as we would say in Russia.

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## GOVERNMENT SUPPORT AND COMMUNICATION STRATEGIES WITH CREATIVE CLUSTERS IN EU COUNTRIES

**Olga Kostycheva, Sofya Kuzmina**

*Faculty of Social Sciences, National Research University - Higher School of Economic*

[oikostycheva@edu.hse.ru](mailto:oikostycheva@edu.hse.ru), [sskuzmina@edu.hse.ru](mailto:sskuzmina@edu.hse.ru).

### Abstract

The creative economy is gaining popularity every year. This is not just a new trend in the economy, but a real driver of innovation and economic development. Many countries, in particular European ones, are leading in the development of creative clusters. The clusters themselves are of particular importance in the urban regeneration of regions, cities, abandoned territories. Public administration in this context plays an increasingly important role, since it is with the public authorities' support the creative economy can acquire a large scale. This study examines review of literature on a specified topic as well as several case-studies of creative clusters in European countries. Preliminary results show that European countries are indeed using the right strategies for the development of creative industries within their countries.

*Keywords:* creative economy, creative industries, creative cluster, public administration.

### Introduction

In the last two decades, the term "creative economy" has become one of the most discussed topics and has been popularized around the world. Many scholars have tried to find theoretical determination of the creative industries and their position in the culture industry development. However, there is a recognized research gap in studying creative economy within the context of its generally accepted definition.

Only several decades ago creativity has become a key element of urban regeneration in cities worldwide (Štreimikienė & Kačerauskas, 2020). Creativity can be found almost everywhere: it is connected with art, innovation, technology, entertainment. Nevertheless, not all locations can become "creative clusters" (quarters or zones) that have real competitive advantages (Yang, 2019).

The phenomenon of creative quarters is becoming widespread. The present study will examine the creative clusters which are playing an increasingly important and decisive role in the process of urban regeneration of the particular regions in which they are concentrated. Over time creative industries attract more and more attention from the public authorities. The government has played a decisive role in this matter, since only with its support the creative economy can develop fast (Yang, 2019) and gain large scale in the country.

The empirical approach consists of case studies of creative industries in the countries of the European Union and systematic literature review. The preliminary results imply that the public authorities should apply the appropriate strategies to interact with representatives of creative industries and promote innovations and creativity in the society.

### Literature review

The term "creative economy" was first used in American magazine «Business Week». John Hawkins was one of the first people who has given a justification for the term. He revealed the concept of "creative economy" within the context of those spheres in which the creation of the final product of a certain type of activity requires intellectual or creative labor. These spheres include the following: fashion, design, music, radio, television, programming, publishing, photography, game production, advertising, architecture, cinema, scientific research, etc. All of the above can be characterized as another term, increasingly important within the framework of this study: "creative industries". (Hawkins, 2011).

It should be noticed that the topic is quite specific (Potochenko, 2020). That is why every year new terms, indicators and ideas appear in the scope of the creative economy. Many studies also use the term "innovative economy" as a synonym for "creative economy". Some scholars focus on connecting creative clusters with innovations. The importance of creative clusters' research became noticeable in the last decades with the acquisition of a creative economy on a real scale in the GDP of developing countries (Germany, Sweden, France, Belgium etc.) Creative industries are concerning both employment and high revenues, which is confirmed by the investigators around the world (EY, 2015; Jones, Lorenzen, & Sapsed, 2015).

The existing literature indicates that creative places have real competitive advantages over conservative cultural institutions (Sachkova, 2010; Morozov, 2016). A creative zone is a space that combines one or several organizations whose activities are related to creativity (Potochenko, 2020). The advantages that landlords receive from the creative quarter include financial support from the top management of the cluster, non-standard advertising, popular location, modern conditions (Sachkova, 2010).

There is a research gap in the current literature in accepted definitions of what a creative economy is. Each investigator has the right to perceive it from his own point of view. Since the beginning of the active

development of the creative economy worldwide, it has often been subjected to various kinds of criticism. Some scholars, for instance, Khestanov (2018), question the possibility of direct mathematization of intellectual property products.

## Main body

The study is based on the concept that creative clusters throughout all the regions should be managed by applying the proper support strategies. Therefore, the "creative cluster" is an object that can transform not only social and cultural appearance, but also the economic component of the region.

Within the framework of this study, it is important to give clear definitions of terminology: «creative economy», «creative industries», «creative cluster / quarter / zone». According to UNESCO, a creative cluster is a special location or institution where one or several agencies of the creative industries are located. The activities of a creative quarter can be associated with either one specific creative industries sector (art, architecture, design, literature ...), or combine several of them. Actually, creative industries "specialise in the use of creative talent for commercial purposes" as they include diverse fields of society life, such as producing cultural goods and services, intellectual property and business-facing sectors producing creative services for other sectors. (Higgs, Cunningham and Bakhshi, 2008)

Therefore, the study focuses on the prospects and opportunities of the creative clusters for further development in the near future. **The aim of this paper** is to demonstrate the potential of creative clusters that can not only transform the image of old outdated districts (Evans, 2009), but also become a real driver of economic development in many countries.

In the past, culture has been considered in terms of public affairs (Yang, 2019). Nowadays the situation has changed. Most of the research literature presents that the model of creative clusters' management can easily be implemented and adopted across a range of regions and cities (Chapain et al., 2013). Comunian & England (2019) highlight that this innovative model has a potential to revitalize the economies of the lagging regions. That is why it is increasingly important for the public authorities to form the promising strategies for interaction and support of creative industries.

But how do you determine where the border of the creative sector is? Where and what to invest in - at least your time? And what to ignore? There are several definitions of this phenomenon. One of the benchmarks is considered the definition of the UK Department of Culture, Media and Sports: "Industries emanating from individual creativity, skills and talents and having the potential to create wealth and create jobs through the generation and use of intellectual property" (Evans et al., 2004).

### *Creative sector in the countries of the European Union*

Over the past decade, creative industries have become a new model of economic growth in **European countries** (Maradana et al., 2017).

Tables 1,2

Table 1. Creative economy employment (2013): A six-country comparison

The six countries surveyed represent 63.6% of European Union gross domestic product

Rank Country	Creative economy		Creative industries		Embedded	
	Share of overall employment	Total	Share of overall employment	Total	Share of overall employment	Total
1 Sweden	11.92%	557,000	8.88%	415,000	3.04%	142,000
2 Netherlands	10.90%	834,000	7.68%	588,000	3.21%	246,000
3 UK	9.93%	2,941,000	7.91%	2,343,000	2.02%	598,000
4 Germany	7.96%	3,142,000	5.76%	2,276,000	2.19%	866,000
5 Poland	5.62%	873,000	3.73%	580,000	1.89%	293,000
6 France	7.54%	1,922,000	5.52%	1,407,000	2.02%	515,000

Source: European Labour Force Survey data in Max Nathan, Andy Pratt and Ana Rincon-Aznar, *Creative Economy Employment in the European Union and the United Kingdom: A Comparative Analysis* (London: Nesta, 2015)

Table 2. Average annual growth rates for creative economy employment (2011-2013): A six-country comparison

The six countries surveyed represent 63.6% of European Union gross domestic product. The German growth rates are based on 2012-2013 only.

Rank Country	Creative economy		Creative industries		Embedded	
	Total	Increase in share of overall employment	Total	Increase in share of overall employment	Total	Increase in share of overall employment
1 Netherlands	9.3%	7.9%	3.7%	2.4%	28.9%	27.2%
2 UK	5.8%	4.8%	6.1%	5.0%	4.6%	3.7%
3 Poland	3.7%	3.7%	3.7%	3.7%	3.7%	3.8%
4 Germany	2.2%	1.3%	1.8%	0.7%	3.5%	2.3%
5 France	1.3%	1.5%	-1.7%	-1.5%	12.0%	12.4%
6 Sweden	1.0%	0.2%	1.1%	0.3%	0.8%	0.0%

Source: European Labour Force Survey data in Max Nathan, Andy Pratt and Ana Rincon-Aznar, *Creative Economy Employment in the European Union and the United Kingdom: A Comparative Analysis* (London: Nesta, 2015)

The creative economy growth rate differs from country to country. Of the six EU countries, Netherlands has the fastest growth, with jobs in the creative economy increasing some 9.3% per annum on average in the 2011-2013 period. The United Kingdom is No. 2 – rising 5.8% per annum in the two-year period and reinforcing its relatively high rating in the standings. Of greater concern, notwithstanding the volatility of growth rates in individual years, should be the relatively slow growth in France and Germany. Creative economy jobs in France, for example, grew on average by a relatively meagre 1.3% per annum in the two-year period, coming off a relatively low 2.02% percentage of the overall employment (jobs in the creative industries sector in France actually shrank 1.7% per annum in this same period). (Bakhshi, Hargreaves and Hofheinz,

2017). Comparison of employment patterns and growth rates is fundamental to serving a wider public interest. Without data of this kind, it is impossible to run a well evidenced 21st century debate about key policy choices, including innovation, education, digital infrastructure, competition policy and much else.

It was in **Great Britain** that special statistical codes were firstly used to distinguish representatives of the creative sector from other economic entities. This practice has now been adopted by most of the **EU** member states. **Great Britain** remains a textbook example of the development of all five infrastructural components of the creative sector for almost twenty years. The regional data also confirms the insight that London's creative economy is built more heavily upon the creative industries than in the application of creative labor to other businesses. This can be seen as a strength built upon specialization.

Support for the creative sector (Innocenti, Lazzeretti, 2019), in fact, boils down to the synchronous development of five components:

- 1) policy development and advocacy, professional networks and associations;
- 2) strengthening organizational capacity, including through special education and lifelong learning;
- 3) the work of incubators and accelerators;
- 4) creation of clusters and hubs;
- 5) internationalization (that is, focus on global markets and the global creative scene).

This infrastructural pillar ensures the sustainability and consistency of the sector. According to Ernst & Young, more than 7 million people are employed in the creative sector in the **EU**. (Ernst & Young Report, 2019)

Policies developed at the level of **Brussels and Strasbourg** (Schlesinger, 2018) are aimed at ensuring the diversity of creativity, openness, democracy, inclusiveness of the creative sphere through the support of small and micro-enterprises (SME). This is due to the fact that large companies employing several hundred people often strive to monopolize markets, in particular, in advertising, cinematography, and game production, thereby deforming the cultural space.

Each of the TOP-4 European clusters presented in the report - **Berlin, Catalonia, Inner London and North Holland** - has an organizational component of municipal and regional policies and strategies. The most powerful regional cluster of creative businesses in Europe, as one would expect, remained **Inner London** before Brexit. More than 386 thousand local creative entrepreneurs generate about 19 billion pounds annually, which is 16% of the entire economy of the British capital. **London** is the third largest producer of films: the cinematic year here consists of about 14 thousand shooting days.

#### ***Berlin, Germany***

**Berlin**, with 3.4 million inhabitants, is the largest and youngest city in **Germany**: 23.2% of all city residents are under the age of 25. More than 24 thousand creative companies with 170 thousand employees are concentrated here. **Berlin** as a creative crossroads: today more than 24 thousand creative companies operate in the capital of **Germany**.

The capital of **Germany** is the leader in the music industry, the third most important city in Europe (Schlesinger, 2018) in terms of the number of films and TV programs shot and shown. It is here that "the Berlinale" takes place - one of the top events in world cinema. **Berlin** attracts creative people and artists from all over the world with its special atmosphere, openness to new things, high tolerance for dissimilarity, modern art with a very fresh outlook on the world.

#### ***Barcelona, Spain***

One of the largest clusters of creative industries in **Europe**, according to PwC, is **Barcelona** (within the metropolitan area), where The Catalan Institute of Cultural Enterprises is located - this institution facilitates the activities of 140,000 creative entrepreneurs represented in the region. Together, they create an added value of over 5.7 billion euros per year, which is 3.2% of the added value of all products manufactured in **Catalonia**. Despite the fact that Barcelona is steadily associated with Gaudí's buildings, architecture and tourism are not central to the city's creative field. Today, the film and audiovisual sector is actively developing here, including the production of advertising and video games. In addition, **Catalonia** remains one of **Europe's** leading literary regions (Schlesinger, 2018).

#### ***Netherlands***

The Dutch DFA Program operated in the **Netherlands** in 2009-2012 as part of the integrated strategy Policy Program for the Creative Industries. Its goal is to promote the movement of Dutch companies working in the field of design, fashion and architecture to the markets of China, India, Germany and Turkey (The Ministry of Economic Affairs of the Netherlands, The Ministry of Education, Culture and Science of the Netherlands, 2009). Analyzing the export of design art objects to China and India during the implementation of this program, it can be noted that in 2012, the last year of the program, the dynamics of Dutch exports to China showed much better results compared to the global and pan-European values.

## Conclusions

Municipalities, government and regional structures and international donors view their financial spending on the development of the creative sector as an investment in creating new jobs (especially for young people) (Maradana et al., 2017) and strengthening the social fabric. This approach is actively criticized by economists and investors of the neo- or post-liberal direction for the fact that it supposedly develops infantilism and spreads a lot of bureaucracy around supporting the creative sector. A productive alternative could be the American model, which is more focused on entrepreneurial skills and ingenuity. Interaction with the sector of modern high-tech production is one of the key challenges for representatives of the creative sphere. Time will show which models will be viable here, but it now tends to accelerate.

At present, the EU lacks the statistical data to adequately measure its creative economy, let alone to compare the advantages and disadvantages of one approach versus another. The understanding of “creative work” is relatively new and the data bases upon which the researchers have relied on are not always easily comparable, that is why it is needed to unify the data and the understandings of the creative sector.

Summing up the results of the research, it can be stated that, despite the priority importance of creative industries in the formation of “smart” economic growth in the EU and the launch of supranational programs to stimulate their exports (for example, Creative Europe, etc.), there are still imbalances in the national level of countries in the preparation and implementation of such programs. At present, the available statistical data do not allow the researchers to fully assess the effectiveness of stimulating the export of creative goods and services from the EU countries. However, implementing the Dutch DFA program already demonstrates its undoubted effectiveness, which will be strengthened after the end of the new internationalization strategies.

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## THE INFLUENCE OF OVERCONSUMPTION ON SOCIETY

**Laura Kolesnikova, Ernesta Kolesnikova**

*Kaunas University of Technology, Vytautas Magnus University,* [laurakoles@gmail.com](mailto:laurakoles@gmail.com);  
[ernesta0122@gmail.com](mailto:ernesta0122@gmail.com)

### **Abstract**

This report theoretically explains the term “overconsumption” and reveals the influence of advertisements on overconsumption.

Keywords: Overconsumption

### **Introduction**

Consumerism is one of the most important parts of the market, without which the whole economy would stop (Howe, Ito, 2016). Usually, people obtain various goods and services in order to fulfill their basic needs. However, in the modern and always developing world, consumerism is no longer based on basic need fulfillment and it has turned into a habit, which promotes excessive and mindless purchasing of various goods and services. Consumption levels keep rising due to the constant creation of innovations and new products. Even though consumption encourages economical growth, it is also able to negatively affect the world that surrounds us.

**Work goal** – to determine what conditions lead to overconsumption and what are its consequences.

#### **Work objectives:**

1. To define the term of “overconsumption”.
2. To analyze the different types of overconsumption.
3. To determine the consequences of overconsumption.

### **Definition of Overconsumption**

No matter how much stuff a person buys, it will never be enough. According to J. de Graaf, D. Wann and T. H Naylor (2014), the excitement of shopping is one of the aspects of addiction to materialistic things. The problem here is that both goods and services keep developing and consumerism addicts will never reach the realization that they have enough stuff. Consumption becomes a disease, because its importance keeps growing, and fulfillment decreases proportionally (Graaf et al., 2014). The needs of consumers gradually become greater because salesmen let consumers get accustomed with certain “norms”, the consumers get used to them and then those “norms” are increased further. However, when there is no possibility of increasing those norms and consumers keep wanting more, new ways of pleasing them have to be found.

The prevalent consumerism culture is also lead by habits that are related with excessive consumption. Overconsumption happens when the ecosystem is no longer able to sustainably reproduce its resources. Writer J. Becker (2015) says that consumption becomes excessive when more goods and services are purchased or consumed than necessary. According to Becker, advertisements subtly change our desires, related with materialistic things and because of the consumeristic culture that surrounds us – excessive consumption begins to look natural and normal. It is evident that overconsumption is defined as a negative phenomenon in respect to both the consumer and the ecosystem.

The global population is only growing. A charity organization with the name of “Population Matters”, located in the United Kingdom, widely covers the topics of consumerism and resources. According to “Population Matters” (2021), unless action to stabilize the population will be taken, the global population count will surpass 11 billion by the year 2100. As it would be expected, with a growing number of inhabitants – the amount of consumption increases as well. According to A. Rinne (2020), during the last several decades, consumerism has become so prevalent that people rarely think what the word “consumer” even means. Rinne (2020) argues that most people define the term “consumer” as people, who purchase things. The modern objective of the consumer is to buy. The author describes this consumption purpose as a never-ending sad reality.

Marketers tell stories about certain products and services only because that is what the consumers want and believe in (Godin, 2007). According to the author, stories pay off because consumers buy things they do not even need. People buy non-essential goods not because they need them, but because those goods make them feel special. G.E. Belch and M.A. Belch (2003) state that the main challenge and goal of market specialists is how to affect the purchasing trends of a consumer in order to benefit both the marketer and the consumer. The success of market specialists is mostly determined by their ability to influence the purchasing

behavior of consumers. According to K. E. Clow and D. Baack (2018), finding ways to influence the purchasing process of the consumer and to create demand is a very important part of marketing communications. A well-made advertisement can increase the demand of consumers. As is observed, advertisements influence consumers and add to the problem of overconsumption.

### **Types of Overconsumption**

One type of overconsumption is compulsive buying. It is an unbeatable, involuntary attraction to purchase something. This ailment transcends the boundaries of simple consumerism and is a psychological disorder. The symptoms of a compulsive buyer are shopping mania, anxiety without shopping, constant need to buy something and the purchasing of unnecessary or even unwanted items (Kagan, 2020). Compulsive buying is even compared with the addictions to alcohol and smoking (Lukminė, 2020). The writer states that this type of consumption is a socially accepted circumstance, which elevates one's mood for a moment. Dr. A. Tarutė, a marketing researcher of Kaunas Technology University, adds to this notion. She says that compulsive purchasing behavior is a way of brightening the mood of people who experience negative emotions. Compulsive buying excels by manipulating the therapeutic powers of consumption and can be used in order to get rid of a negative emotional state. To alleviate emotional suffering, consumers recklessly buy, considering this behavior as a reward and a pleasure (Tarutė, 2018). In the end, compulsive buying is a very severe addiction.

Yet another type of overconsumption would be impulsive buying. According to G. Ofori (2020), impulsive buying is invoked not only by various inner psychological factors, but also by external stimuli, related with the market. G. Ofori (2020) constitutes that on average, consumers spend 5400\$ a year on impulsive purchasing of food, clothes, household appliances and shoes. The author distinguishes several features, which create impulsive buying: the search of sensation – the tendency to look for new experiences and emotions, without reflecting on the risks, and self-identification – concrete beliefs about oneself and the shortcomings that a person has. For example, the purchasing of an expensive item is important to the consumer not because of the practicality of the item, but because of the surrounding attitudes and perceptions by others that the purchased thing will change.

It is important to mention that marketing specialists are also able to influence impulsive buyers with the help of advertisements. Marketers perfectly understand the weaknesses of impulsive buyers and exploit them by encouraging impulsive buying. C. Mendenhall (2014) argues that online shopping gives satisfaction to impulsive buyers, thus internet websites must be visually appealing and easy to use. Yet another way of attracting people to impulsive buying is the good atmosphere of a shop, which consists of many factors, such as appropriate lighting, music and pleasant service. Therefore, it is seen that marketing specialists directly influence impulsive buying.

In conclusion, excessive consumption in society, which is influenced by advertisements, is both compulsive – when a person buys things to please his/her inner addiction, and impulsive – when a person obtains a good or service because he/she was influenced by advertisements to think that the person truly needs the good or service.

### **The Aftereffects of Overconsumption**

Humanity is consuming natural renewable resources twice as fast as the Earth is able to reproduce them and according to predictions, by 2050, the usage of resources per-person will have increased by 71% when compared to current usage trends (Population Matters, 2021).

One consequence of overconsumption is obesity. Talking about younger people, only 5% of 12–19-year-olds in the middle of the 1960s had obesity, whereas in the 2000s – 17% of teenagers are overweight and 17% more are obese. (Keller, Thesis, 2012). Young people of the 21<sup>st</sup> century spend increasingly more time indoors, watch TV, play videogames, live a sedentary lifestyle. Due to a too large consumption of television among young people, they see a lot of advertisements, which is full of unhealthy, mouth-watering fast food. (Keller and Thesis, 2012). The obesity epidemic, alongside other problems such as underage drinking and children diabetes, is only worsened by clever marketing techniques that are used by marketing agencies of the food industry (Keller ir Thesis, 2012). Thus, long-term interaction with one of the advertising transmission channels - television, which is full of advertisements of greasy and unhealthy food, influences the consumption of such food, which has a negative impact on the health of a person.

Overconsumption encourages social inequality. As C. Arnold (2009) argues, the fashion industry is one of the most ethically conflicting branches of production. People working in the fashion industry suffer long working hours for underwhelming salaries and work in unsafe working conditions, so that the Western



countries could enjoy cheap fashion choices. The author reveals that the pressure of retailers to produce cheap clothes quickly creates a lot of issues. The clothing retail company “Primark“, which has the title of fast fashion queen, was revealed to be using three Indian companies, which incorporate child labor (Arnold, 2009). Thus, overconsumption requires receptive and cheap labor, which especially increases social inequality.

The environment also suffers from overconsumption. Continuously increasing needs, encouraged by advertisements, create overconsumption, which then encourages fast fashion. Huge amounts of clothes end up in landfills. In the U.S.A., only 10% of donated clothes are resold, the rest – flood landfills and 13 trillion tons of clothing are sent to the U.S.A. landfills alone, where they stay for 200 years, spreading toxic chemicals and coloring, which pollute local soil and water streams (Barenblat, 2017). C. Arnold (2009) says that excessive purchases of clothing add up to an increased usage of cotton, which greatly damages the environment. Many pesticides, which pollute local soil, are used to grow cotton. Factories, dyeing cotton, emit a lot of dyes, which pollute water resources. Also, in order to produce shirts - approximately 4000 liters of water are used up on a yearly basis. Yet another way of encouraging consumers to buy, created by marketing specialists, is the “Black Friday”. It is a day when most shops advertise themselves with huge sales and discounts. Usually, during Black Friday, the working hours of shops are increased. New studies show that in the end of 2020, after the surge of Christmas and Black Friday, the consumers of the United Kingdom were filling landfills, or accumulated around 5 million unwanted electrical devices, the donation price of which added up to 218 million USD. “Material Focus“ ordered to conduct a study which determined that British people were throwing out approximately 573588 kilograms of Christmas ornaments every four years – which is enough to reach the moon and go halfway back (Vetter, 2021).

As discussed, the money of consumers only adds to the existence of fast fashion, which negatively impacts the whole ecosystem.

## Conclusions

Overconsumption – is such consumption, when more is consumed than is needed, and it is done without thinking if the obtained goods or services are required and necessary. Excessive consumption is further encouraged by a carefully crafted advertising system, which creates perfect conditions to buy what the person does not need. Overconsumption is the absolute opposite of sustainable development, as the main idea behind sustainable development is that future generations would not feel a lack of resources.

The two types of overconsumption are – compulsive and impulsive. Compulsive – when a person consumes in order to please his/her inner addiction, whereas impulsive consumption is when a person purchases a good or service only because he/she was forced to think that the service or good is necessary by advertisements. Increasingly growing needs of people and excessive consumption lead to the reduction of natural resources and the destruction of nature. A lot of damage is done not only to nature, but to the consumer himself/herself as well. By consuming in great amounts, people contribute to human exploitation, increase of child labor and the unhealthy food products, which are advertised by media, encourage obesity.

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## NEURALINK BRAIN - MASCHINE INTERFACE NEEDS ANALYSIS

**Agnė Budrikaitė**

*Lithuania Business University of applied sciences*

**Doc. dr. Simona Grigaliūnienė**

### Abstract

Artificial intelligence is currently used in various fields of science, such as medicine, economics, and management. In July 2019, Elon Musk, an entrepreneur, founder and CEO of SpaceX and Tesla, unveiled the goals of his new project, Neuralink: to create a brain implant that will help a person control a variety of technological devices. In this article, an analysis of the scientific literature is presented in order to present the principles and purpose of neuronal implant operation. An overview of the short-term and long-term goals of the Neuralink organization. In the research part, the need for a neuronal implant in the society and its desired purpose are clarified. A low need for an implant was found among the study population. The predominant intended use of a neuronal implant in the presence of a health disorder is observed, confirming the insights and the original goal set by the researchers who developed Neuralink. Regression analyzes were performed to investigate the relationship between the selected segment and IT capabilities. A strong link is observed between IT capabilities and consent to implant.

*Keywords: Neuralink, neural implant, brain-computer interface, artificial intelligence.*

### Introduction

We live in a time of rapidly improving technology. Perhaps we are watching the vision of Francis Bacon's New Atlantis or George Orwell become a reality. The speed of technological change and its global impact is so marked that the third industrial revolution, which has just gained momentum, has already been replaced by the fourth. Novel technologies, among which artificial intelligence plays an important role, have already affected and fundamentally changed most of the business and industry. The role of technology in society is also changing rapidly: new technologies are no longer just a tool to improve people's quality of life. It is already a necessity and an inevitability that changes the social behavior and human relationships of man and society (Amilevičius, 2017). Artificial intelligence is currently used in various fields of science, such as medicine, economics, and management. In July 2019, Elon Musk, an entrepreneur, founder and CEO of SpaceX and Tesla, revealed the goals of his new project Neuralink: to create a brain implant that will help a person control various technological device such as computer by using the electrical activity of neurons.

**The object** of the research - Neuralink neural implant.

**The aim** of the article - to find out the need for a neural implant in society and its desired purpose.

**Research tasks:**

1. To analyze the goals of the Neuralink neural implant project and its operating principles.
2. To conduct a study to determine the need for a neural implant in society and its purpose.

**Research methods:** analysis of scientific literature, questionnaire survey, generalization.

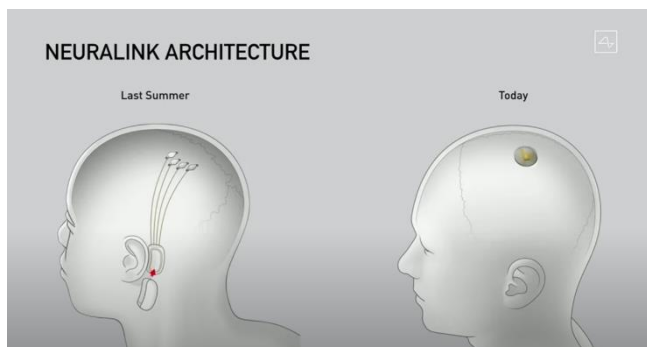
### What is Neuralink?

In 1943, a neurologist Warren McCulloch and a young mathematician Walter Pitts wrote a paper on how neurons might work; they modelled a simple neural network with electrical circuits. In 1957, John von Neumann suggested simple neuron functions by using telegraph relays and vacuum tubes. Recently, the studies related to neural networks have taken a sudden leap and it is being used to heal a person's brainly disorders. Neuralink has gone out of the bounds of current studies in neural network and has started to not just cure the patients but also connect them to digital devices and help them use these devices without the need of using any of their body parts. (Kulshreshth, Anand and Lakanpal 2019). Elon Musk, introduced Neuralink already back in 2017, but only in July 2019, the billionaire shared what his newest company had been up to. Musks short-term goal is to develop a Brains-Maschine Interface (BMI) that gives communication access and mobility to people with permanent spinal cord injuries. In the long run, he even envisions a future where BMIs will enable a symbiotic relationship between humans and artificial intelligence (AI) (Stockmeyer, 2019). Neuralink presents itself as a team of exceptionally talented people who are building the future of brain interfaces: building devices now that will help people with paralysis and inventing new technologies that will expand our abilities, our community, and our world (Neuralink team, 2021).

## Neuralink neural implant (BMI) and it's installation

In recent years, Neuralink has simplified the implant from a relatively large device that is installed behind the ear to a 1.84 cm<sup>2</sup> round implant that is mounted in the skull by replacing the corresponding part of the bone and inserting the device threads into areas of the brain that control movement (Fig. 1).

Fig. 1 Neural implant change



\* Source: YouTube, screenshot from Neuralink Progress Update, Summer 2020

The brain consists of neurons firing all the time in response to electrical signals sent when we see, hear, move, talk, or think, and whenever a neuron fires from these electrical signals, a tiny electromagnetic field is present. Basically, Neuralink is going to tap into these tiny electromagnetic fields generated as a junction in the brain (Elbehery, 2020). By capturing the neural activity associated with inner speech (also known as “covert speech” or “verbal thinking”), the cerebral implant transmits inner speech to a computer that in turn transmits it as a form of synthetic speech (Fournieret, 2020). They plan to capture electromagnetic fields signals by installing an array of threads near the neurons emitting these waves (Fig. 2).

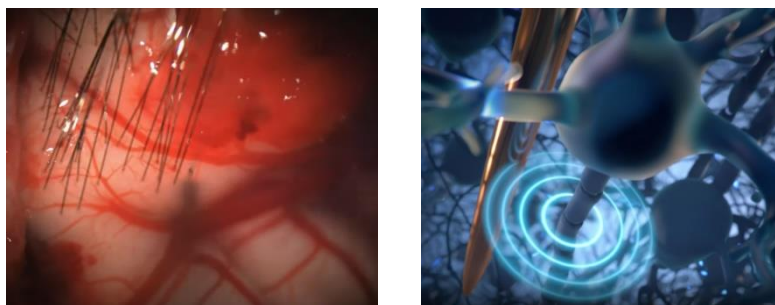


Fig. 2 Electrode implantation

\* Source: YouTube, screenshot from Neuralink Progress Update, Summer 2020, and Neuralink page presentation Understanding the Brain

Threads are the ultra-thin, flexible polymer which will contain the electrodes and will transfer the information and signals to the transmitter. These threads (4-6  $\mu\text{m}$ ) are thinner than a human hair (17  $\mu\text{m}$ ) and have a length of 20 micrometers. An array will contain 96 threads which will have 32 independent electrodes which means that an array of threads contains 3,072 electrodes which makes transfer of high-volume of data possible with just one array. A human brain also shifts its shape which can cause damage to these threads, but the flexible nature of these threads makes them shift accordingly (Kulshreshth, 2019).

To ensure that the neural implant is integrated into the brain without interaction with veins or arteries, a dedicated robot has been developed (Fadziso, 2020). The robot's needle for insertion is about 24 micrometers in diameter which is much smaller than the state of the art for Deep Brain Stimulation (DBS). According to ColdFusion, such surgeries have been done before for DBS for Parkinson's sufferers with about ten electrodes and a much bigger needle. However, these traditional methods have a 1 in 100 chance of causing a severe brain hemorrhage. Neuralink doesn't only reduce the risk of causing damage to the brain by using tiny threads, it also introduces the possibility of collecting vast amounts of data by using not only ten but several thousand electrodes (Stockmeyer, 2019). According to E. Musk (2020), this procedure takes less than an hour, and the patient can go home on the same day. No anesthesia is used during the operation.

## **Fields of usage**

Right now, Neuralink is focused on the motor cortex, the part of the brain that sends signals down to the spinal cord and onto the muscles to drive movement (Stockmeyer, 2019). This technology will be used to help individuals with various forms of physical disability. For example, for walking by controlling an exoskeleton, for communication by way of a neuroprosthesis for minimally conscious individuals, or those with complete locked-in syndrome (LIS). Recent studies have shown that external devices controlled from decoded intracortical activity become seamlessly embedded as an extension of the body, the user being able to control the device effortlessly just by thinking about it. It will not be a question of acting with the force of physical movements, but with the electrical activity of the brain (Fournier, 2020). In the future, the same technology could be applied to other parts of the brain such as the visual cortex or auditory cortex. With this kind of development, things like depression or chronic pain could be cured or cognitive function, as well as the memory, could be increased. However, it is important to note here that these are still speculations that lie in the far future if at all (Stockmeyer, 2019).

## **Where Neuralink will stand in Future?**

Neuralink will do far more than address neurological disorders over the next five to ten years. Elon Musk trusts Neuralink. He recognizes that his invention will quickly disperse memory and the execution of his mental mind, and yet he plans to encourage Neuralink to connect people with the machines surrounding them. Musk wants Neuralink to prompt an inclusive vocabulary between all people before the end of the decade. Neuralink may also enable people to communicate with each other without communicating, a form of fabricated clarity. Musk's breakthrough provides a number of specific benefits that could boost individual personal satisfaction (Fadziso, 2020). The vision of the company is to achieve symbiosis with AI. Elon Musk has stated his fear of an eventual decline in importance of a human when AI will itself become capable of simulating all of our brainly functions. To not let that happen, humans must merge with artificial intelligence in order to become a more capable being. And according to Elon Musk, to save humanity's future, we must see the importance of the BMI (Kulshreshtha, 2019).

The Neural implant has already been tested in rats, pigs and monkeys. Elon Musk teased that neurotechnology company Neuralink could begin implanting BMI in humans later this year.

## **Methodology of research**

The following methods were used in the research: questionnaire survey, comparative analysis, statistical research method for calculating correlations, summary.

The questionnaire element was based on an analysis of the scientific literature. It was used to study the demographics of the respondents, also as a tool to assess the need for a neural implant in society and its desired purpose. The questionnaire consists of an introduction, subject and sociodemographic questions, which are divided into two blocks. The introduction addresses the respondents by defining the purpose of the survey, the conditions, the correspondent and his purpose for conducting the survey. Gratitude is expressed to the survey participants who fill out the questionnaire and emphasis is placed on anonymity. The questionnaire uses closed-ended questions, which provide an opportunity to interpret the answers provided by all respondents in the same way and to perform a comparative analysis. The questions seek to clarify:

- Respondent demographics (gender, age);
- Respondents' need for a neural implant;
- The intended use of the implant by the respondent.

Sociodemographic questions consisted of open-ended and closed-ended dichotomous-type questions to elucidate gender and age of respondents. Input on closed dichotomous and 5-point scale questions, the aim was to find out the respondent's level of information technology knowledge and initial knowledge about the neural implant being developed by Neuralink. The construction of the subject question block was aimed at elucidating the need for a neural implant in society and its desired purpose, using closed dichotomous and multiple-choice type questions.

The study used a non-probabilistic random grouping method in connection with the "snowball" principle, where members of the initial sample were asked to provide the coordinates of other members of the population eligible for the study. The questionnaires were prepared in a Google Drive environment with online access and published on the author's personal Facebook page. A total of 99 questionnaires were completed.

## Determination of sample volume

To determine the volume of the study sample, the first 30 questionnaires answered were interpreted as units of the pilot survey in order to determine the volume of the study sample. The questionnaire included two questions that were directly related to the research object. The overall group of responses to these hearings indicates whether or not the individual has a need for a neural implant. Because, one of the goals of the study is to determine the need for an implant, the responses are interpreted as confirmed and denied by calculating their percentage. In the pilot study, 77 % respondents confirmed the current need by their choice, 23 % - denied. Selected 95 % reliability and 4 % permissible inaccuracy. The 3 Figure shows the following steps for calculating the sample volume.

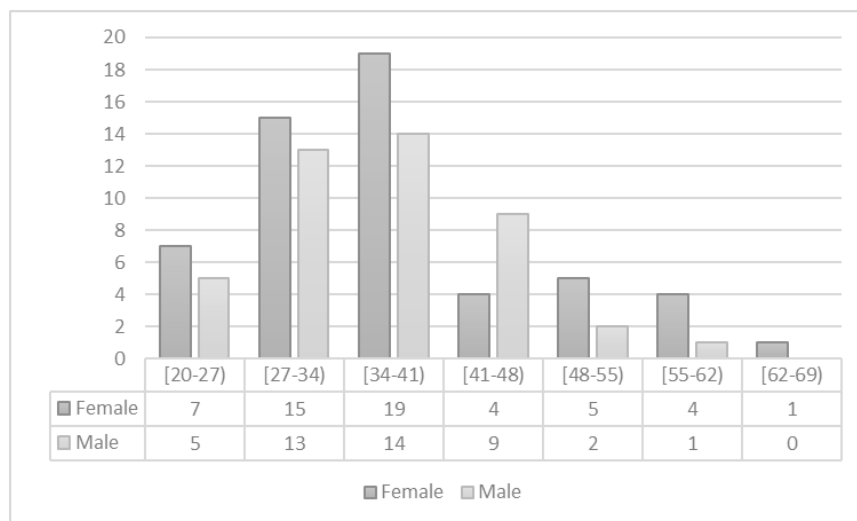
$$S = \sqrt{\% * (100 - \%)} = \sqrt{77 * (100 - 77)} = 42$$

$$n = \frac{z^2 * s^2}{\Delta^2} = \frac{1,96^2 * 42^2}{4^2} = 423$$

**Fig. 3 Steps performed to calculate sample volume**

*\* Source: compiled by the author of the work*

It was determined that 423 respondents needed to be interviewed. However, 99 questionnaires were completed during the relevant period, resulting in a reverse formula to calculate the allowable inaccuracy of 8.3%.



**Fig. 5 Distribution of respondents by age and gender**

*\* Source: compiled by the author of the work*

The study sample volume consisted of 99 respondents. The proportion of respondents is 55 women and 44 men, which is a ratio of 56 and 44 percent, respectively.

In order to determine the respondent's demographic indicators, individuals were divided into groups according to age from 20 to 66 years. The intervals are calculated according to the formulas:

$$k = 1 + 3,222 * \log_{10} n = 1 + 3,222 * \log_{10}(99) \approx 7$$

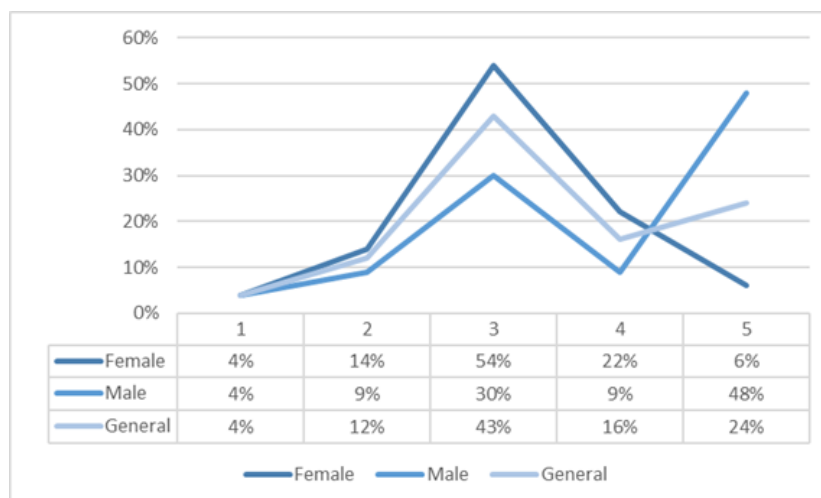
$$Ilgis = (max - min) / k = (66 - 20) / 7 = 7$$

Analyzing the age of the study members, it is observed that the age of most of them belongs to the ranges [27-34) and [34-41), which makes up 62 percent of the total sample volume. The averages of both genders were also calculated: the average age of the female group is 37 years, men - 34 years, and the overall average age - 35 years. The distribution of respondents by age and gender is presented in Figure 5.

## Presentation of results

During the research, the respondents had to evaluate their information technology skills using a 5-point evaluation scale, when the value of 0 - I do not understand anything at all, and 5 - I am proficient in the field of information technology. The survey included 99 respondents, including 55 women and 44 men, representing

a gender distribution of 56% and 46%, respectively. When assessing the ability of information technology, the results are monitored separately for both groups, as well as the overall indicator.



**Fig. 6 Distribution of respondents by IT skills**

*\* Source: compiled by the author of the work*

From the data presented in Figure 6, we can see that among women, the score was 3, with a choice of 54% of the population in this group. Among men, the score was 5, 48% of the members of this group rated their IT capabilities with this score. Observing the entire study population, the dominant score is 3, representing 43% of the study volume. The averages of IT skills were calculated: 3.1 for women, 3.9 for men and 3.4 for the whole study sample.

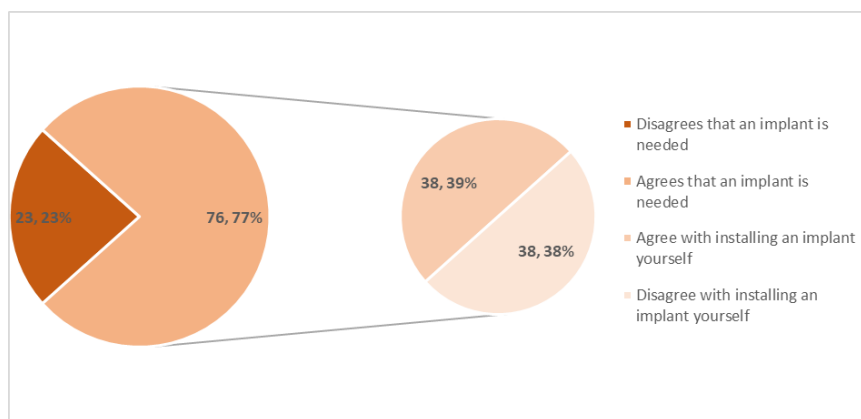
At the beginning of the questionnaire, information about the neural implant was provided to acquaint the respondent with the main aspects of this technology. The question in the input block is - Did you know about the Neuralink brain-computer interface before completing this questionnaire? - to find out what part of the study population has heard or has knowledge about the ongoing Elon Musk Neuralink project. The group of knowledgeable respondents consists of 41% of the total survey sample, 76% - men and 24% - women. Meanwhile, 59% of the total survey sample, 22% of men and 78% of women are unaware of this project.

Observing the results of the input questions, it can be concluded that among the participating respondents, the group of men was characterized by higher IT skills and knowledge of the ongoing Neuralink project in this area. After reaching such conclusions, it was decided to perform a correlation analysis to investigate the relationship between gender and information technology skills. The analysis gave a  $r_s$  value of 0.46, indicating a relationship of moderate strength.

The first part of the subject questions seeks to clarify the general need for a neural implant, that is, when the respondent considers the implant to be necessary in society, when it is not considered whether its use will apply or not to its own personal use. 77% of respondents think that the Neuralink implant is necessary for the society, 23% do not agree with it.

Respondents were asked whether they would personally agree to implant this implant to find out their personal need for the technology. Of those who believe that an implant is needed in society, 50% of respondents would agree to have it implanted, and the same proportion would not agree to do so.

Analyzing the need for an implant in society observes a relationship between universal need and personal need for implant use, based on how the respondent's overall assessment of implant need occurs under the circumstances, regardless of the respondent's current situation. Therefore, it can be stated that the need for an implant among the study population is not high. 38% of the respondents who participated in the survey agree with its realization and, if necessary, would implement it themselves. A graphical representation of the data is given in Figure 7.



**Fig. 7 The need for an implant and the choice of its installation**

*\* Source: compiled by the author of the work*

A multiple-choice type question was asked to investigate the desired implant purpose. Respondents who thought the implant was unnecessary did not participate in this part of the survey. The following areas of use are presented: in case of health disorders, representatives of the relevant specialties in the professional activity and for all who wish. Table 1 presents the results of the study.

**Table 1**

The intended use of the implant

Case	Group	Female	Male	General
In the case of health disorders		68%	42%	55%
Representatives of the relevant specialties in the professional activity		2%	0%	1%
all those who wish		23%	44%	33%
Health disorders and professional use		7%	14%	11%

*\* Source: compiled by the author of the work*

More than half of the respondents chose the purpose of the implant in case of health disorders. 11% of the respondents would attribute the purpose of the implant to health disorders and professional activities, 33% - to all who wish. When the groups were observed separately, the choice of health disorder dominated in the group of women, and in the group of men the ratio between the condition of the health disorder and occupational activity was 42% and 44%, respectively. The results of the study confirm the insights created by Neuralink and the primer goal to create a brain-computer interface that would allow people with permanent spinal cord injuries to communicate and move, which is the chosen purpose of the implant in health conditions.

Taking into account the above conclusions about the need for an implant in society, the distribution of respondents belonging to the respective group among the desired purpose of the implant was determined. 42% would like the implant to be used in health conditions, 18% in health disorders and in professional activities, 40% - in professional activities.

The study found that individuals with higher IT skills were more likely to believe that a Neuralink implant was needed and would agree to implant it themselves. A regression analysis was performed to investigate the relationship between IT capability and neural implant need. A  $r_s$  value of 0.27 was obtained, indicating a weak relationship between these two variables. The relationship between IT capabilities and consent to install neural implant is also observed. The value of  $r_s$  obtained - 0.79 indicates a strong relationship, under the condition that one variable increase and the other decreases. The data were rearranged by systematizing the study data and performing correlation analysis. When the respondent has agreed to implant a neuronal implant, a lower value is assigned than for a negative response. This means that the higher the rank of the IT rating, the lower the rank of the ranked opinion. A strong link is observed between IT capabilities and consent to install neural implant.

## Conclusions

Elon Musk, introduced Neuralink already back in 2017, but only in July 2019, he shared what his newest company had been up to. Musks short-term goal is to develop a Brains-Maschine Interface that gives communication access and mobility to people with permanent spinal cord injuries. In the long run, he even envisions a future where BMIs will enable a symbiotic relationship between humans and artificial intelligence. This is to be done with the help of a neuronal implant of the size of 1,84 cm<sup>2</sup> and round shape. Implant will be mounted in the skull by replacing the corresponding part of the bone and inserting the device threads into



areas of the brain that control movement. They plan to capture signals from electromagnetic fields and thus transmit the internal language to a computer, which in turn will transmit it as a form of synthetic language. To ensure that the neural implant is integrated into the brain without interaction with veins or arteries, a dedicated robot has been developed.

Right now, Neuralink is focused on the motor cortex, the part of the brain that sends signals down to the spinal cord and onto the muscles to drive movement. This technology will be used to help individuals with various forms of physical disability. Neuralink will do far more than address neurological disorders over the next five to ten years. Elon Musk trusts Neuralink. He recognizes that his invention will quickly disperse memory and the execution of his mental mind, and yet he plans to encourage Neuralink to connect people with the machines surrounding them. The vision of the company is to achieve symbiosis with AI.

The following methods were used in the research: questionnaire survey, comparative analysis, statistical research method for calculating correlations, summary. The questionnaire element was based on an analysis of the scientific literature. It was used to study the demographics of the respondents and was used as a tool to assess the need for a neuronal implant in society and its desired purpose. The questionnaires were prepared in a Google Drive environment with online access and published on the author's personal Facebook page. A total of 99 questionnaires were completed. Achieved 95 % reliability and 8.3 % permissible inaccuracy.

The study sought to elucidate the universal need for a neuronal implant, that is, when the respondent believes the implant is needed in society, when it is not considered whether or not its use will be applied to its own personal use. 77% of respondents think that the Neuralink implant is necessary for the society, 23% do not agree with it. The relationship between universal need and personal need for implant use is also observed, based on how the respondent has a comprehensive assessment of implant need in the relevant circumstances, regardless of the respondent's current situation. Therefore, it can be stated that the need for an implant is not high among the study population. 38% of the respondents who participated in the survey agree with its implementation and, if necessary, would implement it themselves.

A multiple-choice type question was asked to investigate the desired implant purpose. The following areas of use are presented: in case of health disorders, representatives of the relevant specialties in the professional activity and for all who wish. More than half of the respondents chose the purpose of the implant in case of health disorders. 11% of respondents would attribute health disorders and professional activities to the purpose of the implant, 33% - to everyone who wants to. The results of the study confirm the insights created by Neuralink and the original goal to create a brain-computer interface that would allow people with permanent spinal cord injuries to communicate and move, which is the chosen purpose of the implant in health conditions.

Taking into account the above conclusions about the need for an implant in society, the distribution of respondents belonging to the respective group among the desired purpose of the implant was determined. 42% would like the implant to be used in health conditions, 18% in health disorders and in professional activities, 40% - in professional activities.

The study found that individuals with higher IT skills were more likely to believe that a Neuralink implant was needed and would agree to implant it themselves. A regression analysis was performed to investigate the relationship between IT capability and neural implant need. A  $r_s$  value of 0.27 was obtained, indicating a weak relationship between these two variables. The relationship between IT capabilities and consent to install neural implant is also observed. The value of  $r_s$  obtained - 0.79.

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## TECHNOLOGICAL FACTORS OF SELECTION OF SEAPORT TERMINAL FOR ACCEPTANCE OF DIFFERENT TYPES OF SHIPS

**Arina Dumčiūtė, Mantvydas Petraitis**

*Lithuanian Maritime Academy*

*Lect. Vilma Locaitienė*

### **Abstract**

This paper deals with importance of terminal selection for ro-ro and container ships. To find the right terminal for each ship it is also important to evaluate ships length, draught and needed terminal characteristics to serve each ship, seaport channel depth is also taken into consideration. This paper reveals that terminal selection for each ship is different and one size fits all approach is not relevant.

Keywords: Ship, gross underkeel clearance, port selection, technological factors.

### **Introduction**

**Relevance of the topic** – Not every port can serve any ship, so it is important to accurately assess the technical capabilities of the terminal, the characteristics of the port entrance channel. The ship's parameters must meet the port and terminal requirements and criteria. It is very important to choose a suitable port and terminal for specific cargo handling. Also, the terminal has to ensure secure mooring of ship at the seaport and safe implementation of ship's stevedoring operations. This paper analyzes the terminal selection sequence based on the ship's navigational characteristics and port characteristics.

**Research object** – seaport terminal selection process

**The aim** – assess the technological factors that determine the choice of a seaport terminal for accommodating different types of ships.

**Research tasks:**

1. Distinguish the technological factors of port and terminal selection after the analysis of literature sources.
2. To analyze the influence of container vessels and ro-ro vessel parameters in selecting terminals in Genoa and Klaipeda ports accepting different types of ships.

**Research methods** such as scientific literature analysis (Burns, 2015, Belova, 2019, Paulauskas, 2015, Thorensen, 2017), data interpretation, comparative analysis and synthesis were used.

### **Port and terminal selection factors**

The port is intended for ships to sail and leave, to stand, to reload cargo, to serve passengers and to perform other commercial and economic activities related to shipping. Port users may carry out only such commercial economic activity in the port territory that corresponds to the functional purpose of the port (Žin., 1996, No. 53-1245). The functional purpose of the port is described as providing safe shelter for ships, loading to and from the ship and supplying the ship with fuel, lubricants, spare parts, repairs, the ability to replenish ship's stores and change crews (Burns, 2015).

Companies, institutions and organizations in the port operate independently in accordance with the laws regulating their activities but must comply with the requirements of the country's Port Law and the Port Use Rules. The result of the port activity is mostly influenced by the amount of cargo handled in the port (Belova et al., 2019), and this activity is carried out in port terminals adapted for this purpose.

A sea terminal is a complex of equipment at the initial, final or intermediate point of cargo transportation, which ensures the interaction of various public transport companies in the transportation of cargo and passengers (Baublys, Vasilis Vasiliauskas, 2011). One of its functions is to guarantee freight accessibility of other modes of transport (Belova, 2019). That is to say, the actors in the transport chain must choose a port and a terminal operating in it that is suitable for all means of transport and, in the context of a seaport terminal, suitable for both seagoing vessels and land vehicles. When analysing the terminal environment, it is necessary to assess:

- What vehicles will be used to bring in the cargo;
- What are the maximum parameters of the ships;
- What is the planned handling technology;
- How the terminal will interact with other port facilities;
- What will be the volumes of cargo handled at the terminal (Baublys, 2016).

In addition to these factors, the total number of terminals in the port, their capacity, and the connection of the land transport system with the port are important (Paulauskas, 2015).

Most researchers (Alderton, 2008, Brooks & Pallis, 2008, Burns, 2015, Moya & Valero, 2017) agree that when choosing a port, shipowner, agent, cargo owner considers the following factors:

- Port infrastructure;
- Geographical location (shipping lanes);
- Efficiency of port service;
- Port cooperation;
- Reliability of ports and their terminals, capacity, frequency of ships;
- Possible costs;
- Level of inland transport services;
- Quality and price of ancillary services;
- Efficiency and cost of port services provided;
- Availability, quality and price of the required logistical activities (such as warehousing);
- Environmental level;
- Reputation of the port, etc.

One of the factors in the choice of port, which is equally important from both the maritime and landward side, is the port's activities. Port activity is a very broad concept that includes the analysis of many indicators, but two components can be distinguished from all of them (Brooks & Pallis, 2008):

- Port efficiency;
- Port effectiveness.

When assessing port efficiency, the authors single out the performance of cranes (or ship service facilities) (Alderton, 2008). Tiwari et al. (2003) use the number of cranes and moorings as an indicator of port efficiency. Tongzon (2009) conducted a more detailed analysis of port efficiency on the part of the freight forwarder and found that the performance of cranes and the number of their mechanization lines is one of the best descriptions of port efficiency. J.M. Moya and M.F. Valero provide a comprehensive analysis of port efficiency and effectiveness indicators, which includes the approach of the shipper, shipping line, port authority to the port selection decision, and found that, however, port infrastructure and superstructure are key indicators of port efficiency and effectiveness (Moya & Valero, 2017). The speed of the ship's service, the efficiency of the loading facilities, the number of services and their level depend on the superstructure of the terminal. Meanwhile, the number of moorings, berth parameters, port and terminal accessibility depend on the infrastructure. Port and terminal infrastructure includes the shipping canal, quays, hydraulic structures, road and rail system, communication networks.

When assessing port accessibility, security, ship serviceability, first of all, the navigational conditions in that port, the depth of the shipping channel, the parameters of the terminal berths, such as depth and length, must be taken into account. Only if the latter comply with the technical characteristics of the ship shall the ship be chartered and the ship's voyage, including the selected ports and terminals, shall be approved at the time of the charter party.

Several authors (Brooks & Pallis, 2011; Brooks & Schellinck, 2015) suggest that these port efficiency indicators be complemented by customer satisfaction with the services provided and the quality of services provided. To these indicators can be added the efficiency of customs clearance, the quantity and quality of port services, the reputation of the port, the speed of handling goods, packaging, assembly of consignments (Brooks and Schellinck, 2015). For shippers and freight forwarders, one of the most significant factors has been found to be the specific number of services available in the port itself (Yuen et al, 2012).

Another key factor in port choice is port dues. Port dues include both mooring, pilotage, and port service costs (Tongzon, 2009). For example, the types of Klaipėda State Seaport dues shall be as follows: vessel dues; navigation dues; berth dues; tonnage dues; sanitary dues; passenger dues; port waters dues (Regulations on application of Klaipėda state seaport dues, 2008). The importance of this factor depends on the costs incurred by a particular actor in the logistics chain. Brooks and Schellinck (2015) point out that for the cargo owner, the total cost of port services is the most important factor in choosing a port, including a terminal (Brooks & Schellinck, 2015).

Geographical factors must also be analyzed when selecting a port, but they are neither the only nor the most important factors in determining the choice of port. In this case, when shippers and freight forwarders try to reduce door-to-port distance and cost (Rodrigue, 2021), shipping lines seek a balance between distance to major production / consumption centers. Geographical factors influence the formation of routes and the formation of transport corridors.

In summary, it can be stated that the choice of port and terminal depends on various factors and must therefore be assessed in a complex manner. However, in the initial stage, the port and terminal infrastructure (depth of the water area, depth at the berth, number of moorings) and the element of the superstructure, the

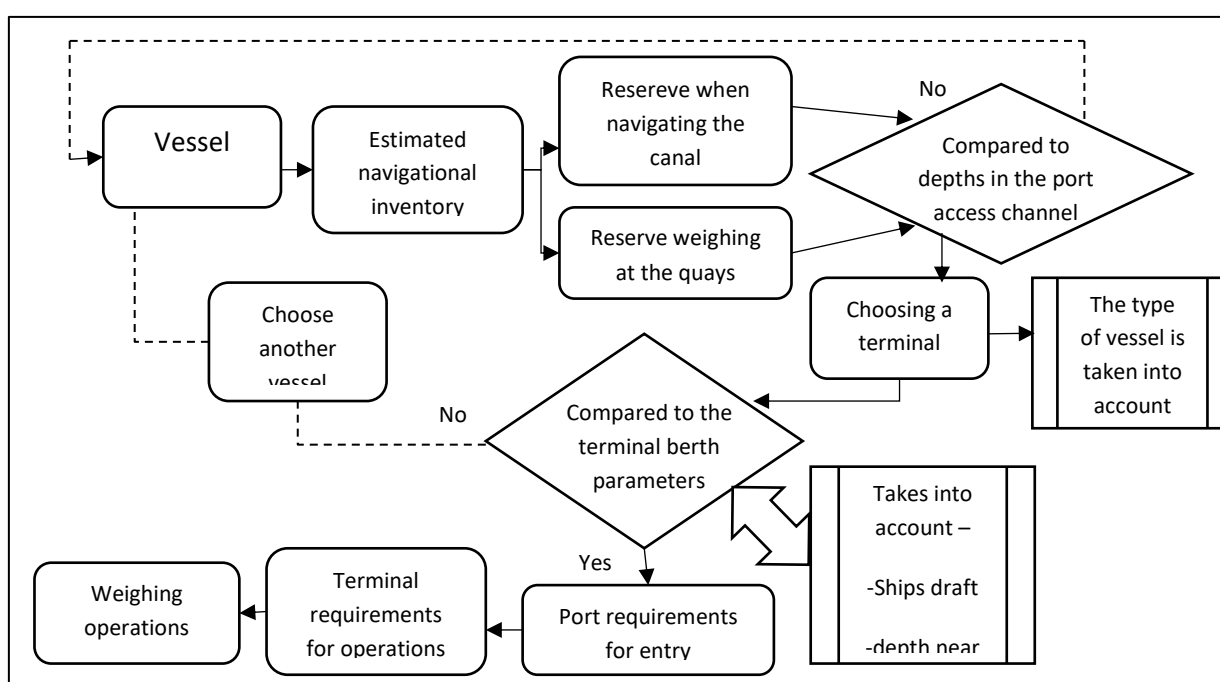
efficiency of the berth equipment, must be assessed, as the speed of the ship's service depends on it. These factors are important for all actors in the logistics chain.

#### Data and research methodology

Scientific articles analyzing port and terminal selection factors (Alderton, 2008; Paulauskas, 2004; Brooks & Schellinck, 2015; Burns, 2015) have found that one of the most important factors in selecting suitable terminals is the compliance of ship parameters with terminal infrastructure. The sequence of proper ship selection, taking into account the terminal and port conditions, is analyzed in the article by S. Gucma (2019). He singled out several sections of waterways (such as the access channel, the turning basin, mooring points) and found that they differed in safety requirements due to the different type of bottom, the speed of the vessel, and the maneuvering actions. Based on this insight, it is appropriate to analyze two conditions for optimizing the ship's entry into port and the selection of terminal infrastructure:

1. Optimization of navigation to the port, turning basin parameters.
2. Optimization of swimming berth parameters at the berth (Gucma, 2019).

Based on this provision, a research model (Fig. 1) was developed, on the basis of which it is possible to assess whether the selected ship and the parameters of navigation to the port and mooring at the quay meet the conditions for safe maneuvering.



**Fig. 1. Sequence of seaport terminal infrastructure assessment**

*\*Source: made by author*

A port canal is a deeper canal connected to the sea or riverbed so that larger ships can enter the port (Maritime Terms of Use Data, 2020). There is ship traffic in the canal, which can be one-way or two-way, depending on the width of the canal. Ports with significant changes in water level (eg Rotterdam, Amsterdam, UK ports, etc.) are equipped with a locks system to regulate the water level, as the height of the water connected by the canal often varies significantly.

Based on given sequence (fig. 1), in particular when selecting a vessel suitable for the carriage of cargo, the calculation of navigational supplies, which varies according to whether the vessel is sailing on the high seas, in a canal or at berth.

The water depth in an approach channel and the harbour basin, and in the front of and alongside the berth, should generally be sufficient for manoeuvring (Thoresen, 2017). When a ship sails through canals or straits, the parameters of its movement change due to the added mass of water and the change in the flow, as well as the draft of the ship increases (Paulauskas, 1999). Increases in a ship's draft are affected by its speed of navigation. As the speed in the approach channel in the port area is limited for safety reasons, it is necessary to assess its impact on the ship's navigational reserves (1 table).

Table 1

#### Proposed safety margin for sailing at low speed

Vessel speed, kn	Vessel speed, m/s	Minimum navigational reserve due to sailing speed, m
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3	1,6	0,15
5	2,6	0,25
7	3,6	0,35
8	4,1	0,40

Source: Carl A. Thoresen, C.A. (2018). *Port Designer's Handbook, Fourth edition*

This safety margin depends on atmosphere pressure, tide, water density. Navigational safety is influenced a channel width and its types of the soil. For example, the type of soil is a silt or mud, and ship draft 8,9 m, a master of ship must take in attention, that under keel clearance must be increase 4 proc. Other recommendations are shown in table 2.

Table 2  
**Proposed safety margin depending on character of the bottom**

Character of soil	Outside port area, m	Inside port area, m
Silt or mud	0,04 $T_v$	0,03 $T_v$
Sand	0,05 $T_v$	0,04 $T_v$
Rock	0,07 $T_v$	0,06 $T_v$

Source: Carl A. Thoresen, C.A. (2018). *Port Designer's Handbook, Fourth edition*

Where the bottom is composed of soft materials (sand, etc.) the minimum underkeel clearance should be 0,5 m, and for a rocky bottom 1,0 m. The water depth must, during construction of dredging, be sufficient to avoid both possible errors in dredging and a yearly excessive cost for maintenance dredging due to possibility of silting up. It influences calculation of safety margin during mooring of the ship. It is recommended to add extra 0,3 m, if the dredging works took place 3 months ago, or 0,5 m – if works had done 6 months ago. In conditions of intensive silting up, it is recommended add extra 1.0 m (Thoresen, 2017).

Water depth must also take into consideration an increase in draft due to the roll and the pitch of a ship when moored, trim due to loading or discharging of the ship. In the general case, it is proposed to calculate the required depth in the channel  $H_{HA}$  using (1) formula (Thoresen, 2017):

$$H_{HA} = T_v + Z_1 + Z_2 + Z_3 + Z_0 + Z_4 \quad (1)$$

where,

$T_v$  – draft of the vessel, m;

$Z_1$  - minimum safety margin due to bottom type, m;

$Z_2$  - safety margin due to waves, m;

$Z_3$  - safety margin for sailing at low speed, m (1 table);

$Z_0$  - safety margin for stevedoring, m;

$Z_4$  - safety margin for bottom cleaning works, m.

The terminal was selected by comparing the depths in the port entrance channel, and depending on the type of vessel. When comparing the parameters of the ship with the parameters of the terminal berth, the draft of the ship, the depth at the berth and its length were taken into account.

In order to mooring a ship, it is necessary to know the length of the required berth. The size of the berthing area and the berth will depend on the dimensions of the largest ship and the number of ships that will use the harbour. The length of the quay is calculated by the following (2) formula:

$$L_K = L_L + 2 \times 15, n=1, \text{ or } L_K = 1.1 L'_L + 2 \times 15, n > 2 \quad (2)$$

where,

$L_L$  - length of the vessel, m.

$L'_L$  - the average of the lengths of the vessels,

$n$  - the number of vessels

The berth layout will be affected by many factors, such as the size of the harbour basin for manoeuvring, satisfactory arrivals and departures of ships to and from the berth, whether or not the ships are equipped with a bow rudder and bow thrusters, the availability of tugboats, the direction and strength of wind, waves.

If the harbour basin is subjected to strong winds and tides the clearance should be increased to 0.2 times the length of the largest ship. A minimum distance of 15 m between the ships is commonly adopted.

### Research results

Two types of ships were selected for analysis in the study. The ship “City of Rotterdam”, with a length of 140 m, a width of 22.4 m and a deadweight tonnage of 5,000 t. This ship is a ro-ro cargo vessel that was built in 2011 (10 years ago) and is sailing under the flag of Panama. It’s carrying capacity is 21143 Gross Tonnage (GT) and her current draught is reported to be 5.8 meters. Her length overall (LOA) is 140 meters

and her width is 22.4 meters (3 table). Ro-ro vessel “City of Rotterdam” works area is Baltic sea and operates in the ports Gdansk (PL), Hanko (FI), St. Petersburg (RUS), Goteborg (SE) and etc.

Other ship – the container ship “Glasgow Express”. This container ship was built in 2002 (19 years ago) and is sailing under the flag of Germany. It’s carrying capacity is 4115 TEU and her current draught is reported to be 8,9 meters. Her length overall (LOA) is 281 meters and her width is 32.2 meters (table 3). The operator of this vessel is HAPAG-LLOYD, the fifth largest container operator in the world (Alphaliner, 2021). Such type of container ship is typical in Baltic Sea region and works as a feeder ship.

Table 3  
Ships parameters

The name of the vessel	Capacity,	Tonnage, t	DWT, t	Lenght, m	Width, m	Draft, m
m/v „City of Rotterdam“		21143	5000	140	22,4	6,3
m/v „Glasgow Express“	4115 TEU	46009	54157	281	32,2	8,7

\*Source: Vessels Database - MarineTraffic Data, <https://www.marinetraffic.com>

A underkeel clearance (UC) depends on the minimum safety margin for the type of bottom, the safety margin for waving, the safety margin for low speed, the safety margin for loading operations, the safety margin for loading operations and was calculated according to (1) formula.

During research was selected the port of Klaipeda. Since the wave height is 1 m and the length of the selected vessel is 140 m, the required margin is 0.09 m. M/v „City of Rotterdam“ can operate with a speed of 6 knots during manoeuvring in the approach channel. After the assessment, all safety margins it was determined the minimum UC must be 2,64 m (table 4). The minimum shipping margin for loading operations in m/v “City of Rotterdam” is multiplied by coefficient 0.017 and depend on the width of the ship and can be 0,35 m. As the sediments in the port of Klaipeda were cleaned 6 months ago, the minimum reserve is 0.5 m.

The port of Genoa has a sandy bottom type. Based on the parameters of the vessel, the margin for the type of bottom must be minimum 0,44 m. As the wave height is about 0.80 m and the length of the „Glasgow Express“ is 281 m, the required margin wasn’t evaluate because hasn’t an impact. The selected ship is sailing at a speed of 8 knots, so the minimum shipping margin due to the sailing speed is 0.40 m. The ship selected is a container ship, so the safety margin for stevedoring is multiplied by 0.017 by the width of the ship. Since the sediments in the port of Genoa were cleaned 12 months ago, the minimum reserve is 1 m. The results obtained are presented in Table 4.

Table 4  
Ships underkeel clearance parameters

Computational parameter	„City of Rotterdam“		„Glasgow Express“	
	in approach channel	mooring at the quay	in approach channel	mooring at the quay
Summer draft, m	6,3	6,3	8,7	8,7
Min.safety margin for bottom type, m;	$6,2 \times 0,05 = 0,31$	$6,2 \times 0,05 = 0,31$	$8,7 \times 0,05 = 0,44$	$8,7 \times 0,05 = 0,44$
Safety margin for surges, m;	$6,2 \times 0,09 = 0,56$	0	0	0
Safety margin for speed, m;	0,30	0,15	0,40	0,15
Safety margin for stevedoring operations, m;	$22 \times 0,017 = 0,35$	$22 \times 0,017 = 0,35$	$32,2 \times 0,017 = 0,55$	$32,2 \times 0,017 = 0,55$
Safety margin for dredging, m	0,5	0,5	1	1
Underkeel clearance, m	2,02	1,31	2,39	2,14
Required minimum water depth	8,32	7,61	11,09	10,84

When mooring ships in ports, it is necessary to calculate the clearance at berths. It depends on the type of bottom, speed during mooring, wave height and sediments. The (2) formula for calculating the clearance is the same as when the ship enters port, only the speed of the ship changes. M/v “City of Rotterdam” is 140 meters long and m/v “Glasgow Express” is 281 meters long. In order to moor a ship, it is necessary to know the length of the required berth. The length of the quay is calculated and are presented in Table 5:

Table 5  
Length of the quay, m

„City of Rotterdam“		„Glasgow Express“	
Mooring one ship	Mooring two ships	Mooring one ship	Mooring two ships
$140 + 2 \times 15 = 170$	$1.1 \times 2 \times (140 + 15) + 15 = 356$	$281 + 2 \times 15 = 311$	$1.1 \times 2 \times (281 + 15) + 15 = 666.2$



Calculations have shown that the minimum berth length for a terminal should be 170 m for a ro-ro vessel and 311 m (or 150 m longer) for a container vessel. For example, Klaipėda Container Terminal operates at the quay, which is 820 m long and 12.5 m deep.

„City of Rotterdam“ needs much less clearance at berth and in the canal than „Glasgow Express“. The length of the quay required to moor and service each ship is totally different. „City of Rotterdam“ requires only 170 m, of berth length where is „Glasgow Express“ requires 311 m, of berth length. Because of the vessels length there also are differences in number of moorers needed. For ship „City of Rotterdam“, which is 170 m, length, are needed 3 moorings at the bow, 3 moorings at the stern and 1 coordinator, other ways, the vessel „Glasgow Express“, which is 311 m, length, are needed 5 moorings at the bow, 5 moorings at the stern and 1 coordinator.

The UC sizes are in line with the proposed recommendations:

**Open sea areas:** for high-ship speeds and exposure to strong swells, the clearance should be approximately 30% of the maximum draft. It was found 2,02 m for m/v „City of Rotterdam“ (32 % of draft 6,3 m), 2,39 m for m/v „Glasgow Express“ (28% of ship draft 8.7 m)

**Exposed manoeuvring and berthing areas:** exposed to swells, the clearance should be approximately 20% of the maximum draft. It was found 1.31 m for m/v „City of Rotterdam“ (21 % of draft 6,3 m), 2,14 m for m/v „Glasgow Express“ (25% of ship draft 8.7 m). The possibility of reducing UC can be achieved by more frequent bottom dredging works.

**Protected manoeuvring and berthing areas:** protected from swells, the clearance should be approximately 15% of the maximum draft. If the bottom dredging and cleaning works were carried out more frequently, the margin due the dredging would be only 0.30 m. In that case, m/v „City of Rotterdam“ minimum water depth could be 15 % of draft or 0,95 m. M/v „Glasgow Express“ minimum water depth could be 15 % of draft or 1,3 m. The possibility of reducing UC can be achieved by more frequent bottom dredging works.

## Conclusions

1. It can be said that when choosing a port and terminal it is necessary to consider various factors and they must be assessed in a complex manner. Port infrastructure like water area, depth at the berth and number of moorings are one of the most important factors when choosing a port or a terminal. Also, the berth equipment must be assessed as the service depends on it.

2. Analyzing the influence of container vessels and ro-ro ferry parameters and selecting terminals in Genoa and Klaipėda ports, when accepting different types of ships there are a lot of differences – vessel „City of Rotterdam“ needs much less clearance at berth and in the canal than „Glasgow Express“. At protected manoeuvring and berthing areas protected from swells, the clearance could be approximately 15% of the maximum draft. If the bottom dredging and cleaning works were carried out more frequently, the margin due the dredging would be less. In that case, m/v „City of Rotterdam“ minimum water depth could be 0,95 m instead 1,31 m. M/v „Glasgow Express“ minimum water depth could be 1,3 m instead 2,14 m. A smaller underkeel clearance of ship would allow to load more cargo.

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## EVALUATION OF LOGISTIC CONNECTIVITY OF SHORT SEA SHIPPING AND KLAIPĖDA PORT IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

**Edvinas Šiurna, Naglis Kanišauskas**

*Lietuvos aukštoji jūrėivystės mokykla*

**Lekt. Vilma Locaitienė**

### Abstract

This paper deals with evaluation of logistic connectivity of short sea shipping and Klaipėda port in the context of sustainable development. Also, here we can find the logistical index of Lithuania with other two countries and their comparisons of last ten years side by side. For the perfect observation we can look in charts and tables where all numbers are displayed. Among the data we can also find each mentioned country shipping line, also numbers of each port shipping lines and how many shipping lines has with each other also their comparison in the last few years parallel. The main idea is to perfectly reveal the evaluation of logistic connectivity of short sea shipping and Klaipėda port in the context of sustainable development.

**KEYWORDS:** port connectivity; short sea shipping; port planning; sustainable development

**Relevance of the topic** - Port performance and the position of ports in the global logistic chain reflect a country's trade competitiveness. Logistical connectivity is one of the most important components of freight shipping, which ensures efficient movement of goods in different modes of transport. Transport and logistics face the same challenges as other sectors: the need to increase efficiency, improve sustainability and reduce expenses. Understanding of connectivity - the planned elements of related activities are arranged consistently in space and time to ensure the interconnection - functional and spatial integrity.

**Research of the topic** – This paper will look into five components of LSCI, introduced by The United Nations Conference on Trade and Development (UNCTAD) in 2004, to identify which among the connectivity components contributes the most impact towards the improvement of development of Klaipėda port, specifically near countries Poland and will have impact to sustainable development in future.

**The object of research** – logistical connectivity of short sea shipping in Klaipėda port

**Research aim** – to assess the logistical connectivity of short sea shipping and Klaipėda port in the context of sustainable development.

**Research tasks:**

1. Identify the factors of logistical connectivity of short sea shipping lines and ports that affect sustainable development.
2. To analyze the changes in the Lithuanian logistical connectivity index in 2010-2020.
3. To analyze the elements of Klaipėda port connectivity with German and Polish ports in the context of sustainable development

**Research methods:** analysis of scientific literature (Bartholdi, J., Jarumaneeroj, P. & Ramudhin, A, Fugazza, M., Hoffmann J ..); connectivity index data analysis; Comparative analysis.

### Factors of short sea shipping and port connectivity

Liner shipping is the service of transporting goods by means of high-capacity, ocean-going ships that transit regular routes on fixed schedules. Liner vessels, primarily in the form of containerhips and roll-on/roll-off ships, carry about 60 percent of the goods by value moved internationally by sea each year.

Logistical connectivity can be understanding as a physical connectivity and interoperability of transport infrastructure, such as the ability to move containers or ro-ro freight efficiently using intermodal transport mode (e.g., ship-to-truck-to-rail) (Rodrigue, 2020). In this approach, a transport terminal is a basic infrastructure and superstructure in which physical flows are combined with supply chain management requirements. It is therefore not surprising that logistics activities are coordinated around seaport terminals (Baublys, 2020, Paulauskas, 2015, Burns, 2015) or general around seaport.

There are several indexes related with shipping or logistics activities: Logistics Performance Index (, Container Port Connectivity Index (CPCI) (Bartholdi, Jarumaneeroj, & Ramudhin, 2016), Liner Shipping Connectivity Index (LSCI), (Hoffman, 2005), Index for Bilateral Liner Shipping Connectivity (Hoffman, Hoogenhuizen, 2014), Port connectivity indices (de Langen, Udenio, Fransoo, et al., 2016). Logistics Performance Index (LPI) is a result of a perception survey of logistics operators on the ground (global freight forwarders and express carriers), by means of providing feedback on the countries they do business with, LSCI aims at capturing and benchmarking a country's level of integration into global liner shipping networks. This index has been observed to be strongly correlated with other measures, such as the Logistics Performance Index (LPI) (Bartholdi, Jarumaneeroj, & Ramudhin, 2016); a comprehensive survey of perceptions that is reported annually by the World Bank (Arvis et al, 2007; Ojala and Hoffmann, 2010). Connectivity is also an important indicator of port administration performance (de Langen et al., 2007). Ports create value by connecting firms and consumers of the port with foreign markets and products. In various ports, the connection

is emphasized as an important point of sale, especially for container transport (Rodrigue, 2020). Recent initiatives of the European Seaports Organization (2010) aim to establish port connectivity indicators. In addition, port connectivity is clearly relevant to port users: better connectivity means better access for imports and exports to foreign markets (de Langen, Udenio, Fransoo, et al., 2016).

The Liner Shipping Connectivity Index (LSCI) aims at capturing the level of integration into the existing liner shipping network by measuring liner shipping connectivity. It can be calculated at the country and the port level. LSCI can be considered a proxy of the accessibility to global trade through to proxy of its shipping network. The higher the index, the easier it is to access a high capacity and frequency global maritime freight transport system and effectively participate in international trade. Therefore, LSCI can be jointly considered as a measure of connectivity to maritime shipping and as a measure of trade facilitation. It reflects the strategies of container shipping lines seeking to maximize revenue through market coverage. The index is calculated based on ~~six~~ major components: (1) number of vessels assigned to liner services, (2) combined container carrying capacity of those vessels, (3) number of services offered by companies, (4) number of companies that provide liner shipping services calling the country's ports, and (5) the largest vessel size. The data are derived from UNCTAD Stat platform.

*Scheduled ship calls.* Concerns the number of ships that are calling on a weekly basis. These calls can either involve imports, exports, or transshipment activities. In the case of a high level of transshipment call s, the number of ship calls can be somewhat misleading as those calls are not related to the connectivity to the global trade system but the presence of a transshipment hub. Still, maritime services remain available for importers and exporters.

*Deployed capacity.* The previous measure is mainly linked with the frequency of services while adding the total capacity of these services enables to link port calls with the related physical capacity. The higher the capacity, the greater the potential to trade on global markets. However, it does not necessarily mean that the capacity is available for imports or exports.

*Number of shipping companies and liner services.* This relates to how many shipping companies are servicing the country or the port as well as how many scheduled services they are using to provide this coverage.

*Average and vessel size.* A proxy to the available economies of scale since they convey lower shipping costs per TEU. A limited number of ports are able to accommodate ships higher than 8,000-10,000 TEU. Those who can have higher connectivity.

*Directly connected ports.* The number of ports that are directly connected to the reference port. Due to the structure of maritime shipping services oriented along a sequence of port calls (loops), a direct connection implies that a port is connected to another as long as they are part of that loop and that any container carried between them does not need to be transshipped.

The country or port that received the highest score in the reference year of 2006 is assigned a value of 100, which serves as a benchmark to assign value to other ports and countries.

The distribution of the port LSCI reveals a high level of concentration among a small group of highly connected ports that are the gateways and hubs of global trade. The countries that have the highest LSCI values are actively involved in international trade.

Transport connectivity is a crucial determinant of exports, including bilateral exports. Fugazza, M., Hoffmann J. (2017) research has shown that the quality of bilateral relations, as measured by several composite indices, is a decisive factor in bilateral exports. The impact of distance on bilateral exports is overestimated (Fugazza, Hoffmann, 2017). Therefore, it is important to evaluate the other indicator that are including in UNCTAD's Liner Shipping Bilateral Connectivity Index. This index is meant to reflect specifically the liner shipping connectivity between pairs of countries. The current version of the LSBCI includes 5 components. For any pair of countries, A and B represented in our sample, the LSBCI is based on:

1. The number of transshipments required to get from country A to country B;
2. The number of direct connections common to both country A and B;
3. The number of common connections by country pair with one transshipment;
4. The level of competition on services that connect country A to country B;
5. The size of the largest ship on the weakest route connecting country A to country B.

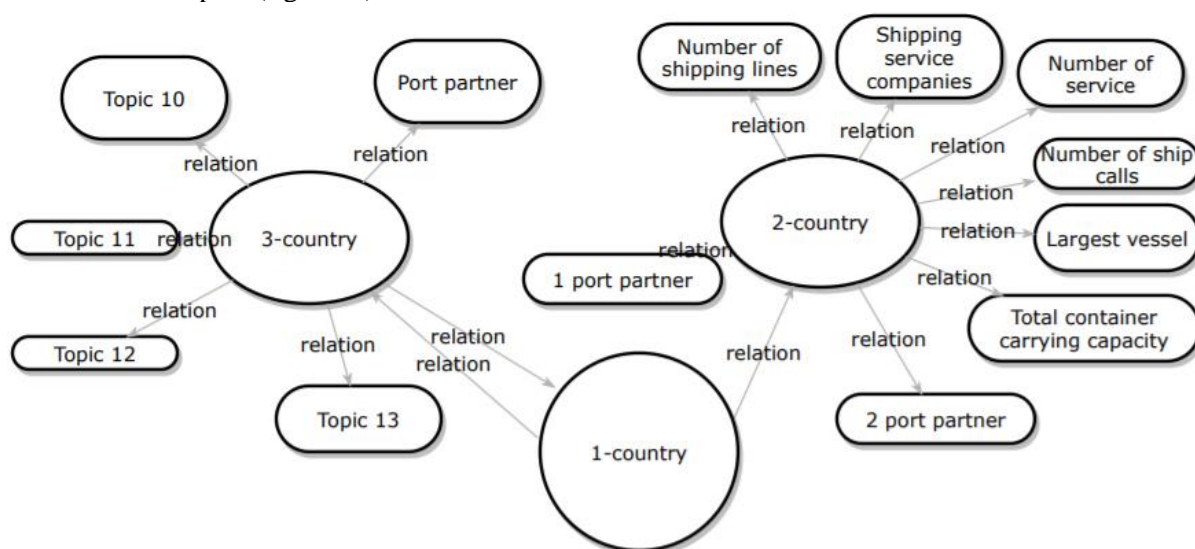
Upon the LSCI have been developed for maritime container connectivity Bang et al. (2014) add information on ship size and number of competing shipping lines per string (whereas LSCI 'just' uses the number of shipping lines that provide services to/from a country, regardless of the trade). Jiang et al. (2015) add a method to include indirect connectivity through transshipment of containers in intermediate ports.

The Port LSCI (PLSCI) reflects a port 'position in the global liner shipping network. The Port Liner shipping connectivity index complements the country LSCI, using the same methodology, but applied on the

port level. It was generated upon request of many users of the country LSCI who considered it useful to track the Liner Shipping Connectivity of individual ports. UNCTAD, based on data provided by MDSTransmodal. It is generated from 6 components:

1. The number of scheduled ship calls per week in the port.
2. Deployed annual capacity in Twenty-Foot-equivalent Units (TEU): total deployed capacity offered at the country.
3. The number of regular liner shipping services from and to the country.
4. The number of liner shipping companies that provide services from and to the country.
5. The average size in TEU (Twenty-Foot-equivalent Units) of the ships deployed by the scheduled service with the largest average vessel size.
6. The number of other countries that are connected to the country through direct liner shipping services. A direct service is defined as a regular service between two ports. It may include other stops in between, but the transport of a container does not require transshipment.

Evaluating the listed indicators, a research model combining elements of the analysis of pairs of two countries was developed. (figure 1,)



1 Fig. The model of the liner shipping connectivity between Lithuania, Poland and Germany.

Source: made by author

Port development is carried out in accordance with the principles of sustainable development (Taylor, 2016; Zhai & Chang, 2019; Du & Kang, 2016). The concept of sustainable development implies, first, the integration of environmental issues with the imperatives of economic development in order to meet the immediate needs of populations today without undermining the aspirations of future generations (J Blewitt – 2014). However, the definition of the term "sustainable development" has been expanded to include the ideas of fairness and interdependence, not only between generations, but between the countries and peoples of the Earth. Social, cultural, economic and natural environments, whose harmonious development is essential to the well-being of humanity and of nature, are also included in the concept.

Sustainable development can only be achieved in a long-term perspective (PP Rogers, KF Jalal, JA Boyd – 2012, M Carley, I Christie - 2000). However, this cannot be done reactively, but rather through applying the principles of proactive and strategic planning and management. It is therefore essential to establish clear principles at all levels of participation and decision-making, together with clear objectives and measures that are part of a long-term approach and take into consideration the various countries' ability to act and to pay.

In the context of port management, these directions of sustainable development are emerging:

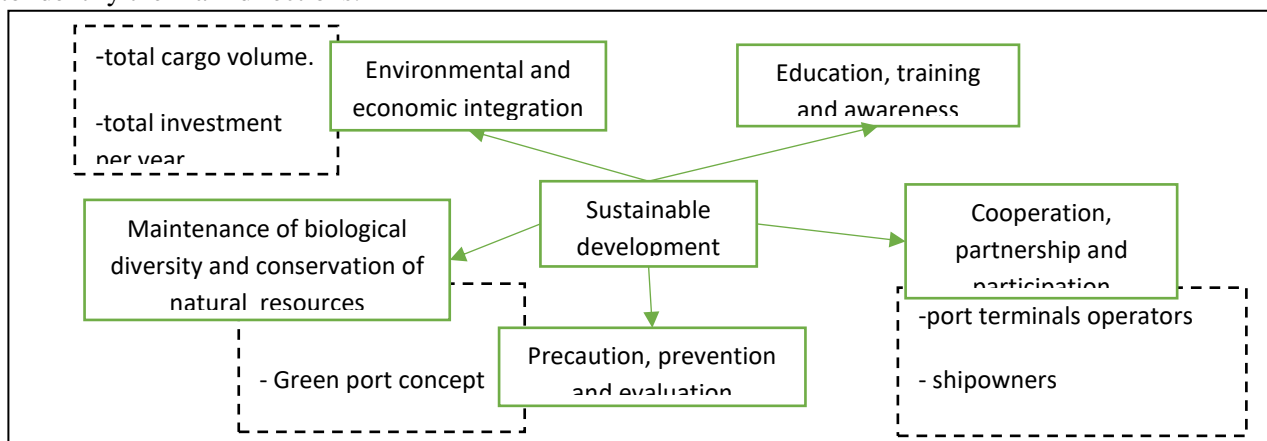
- Economic and environmental integration. In this case we have total cargo volume, total investment per year, GPD (G Chichilnisky - Land Economics, 1997).

- Education training and awareness. In this case we have maritime schools, various courses, seminars (JD Sachs – 2015).

- Cooperation, partnership and participation. In this case we have port terminals and operators, shipowners, container line operators, SSS line operators.

- Here we have maintenance of biological diversity and conservation of natural resources and precaution, prevention and evaluation. These two elements include green port concept and shipping regulation conventions.

General conditions of sustainable development in port operation management can be summarized (2 fig.) to identify the main directions.



2 Fig. General conditions of sustainable development in port operation management

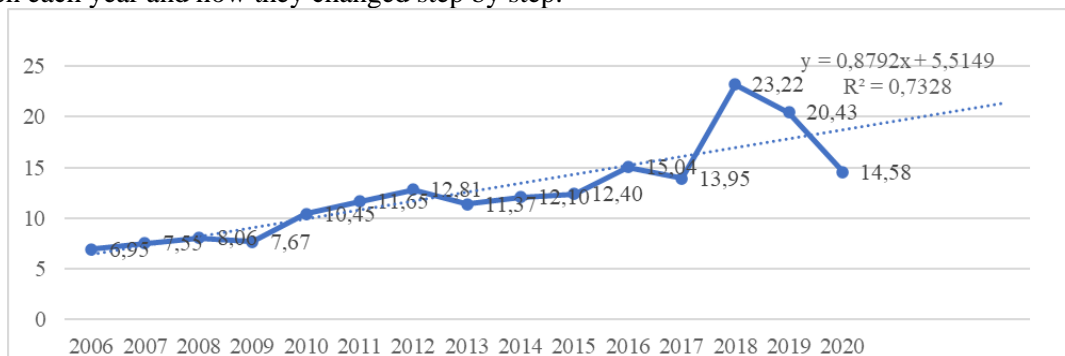
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Sustainable development is containing with other five perspectives. First of all, everything starts with education, because it is the main source of knowledge, with it also come with training and awareness. Then, without stable partnership, cooperation and participation you cannot make the sustainable development. Thirdly, with every job you have to be precaution, prevention and evaluation (M Carley, I Christie – 2000). Also, for perfect sustainable development you need to understand about maintenance of biological diversity and conservation of natural resources. Afterall, you need some environmental and economic integration. With these all five points you can have perfect sustainable development.

The liner shipping connectivity index can be assessed retrospectively for changes over a ten-year period. A 10-year period is considered sufficient for the validity of the study. According to the research model, we will evaluate three countries with this index, namely Lithuania, Germany and Poland. This research model will analyze the indices of sustainable development and economic development, but this will be done in the continuation of the research (J Blewitt – 2014). The model of the liner shipping connectivity between Lithuania, Poland and Germany is presented in the second figure.

In summary, the main factors influencing sustainable development are liner shipping and logistical connectivity. However, in order to analyze these factors well, we must examine the liner shipping connectivity index, the logistics performance index, the liner shipping bilateral connectivity index and link it all to the principles of sustainable development.

Logistical connectivity in Lithuania index from 2010 to 2020 years (fig. 3) shows the index what was given each year and how they changed step by step.



4 Fig. Changes in the Lithuanian logistical connectivity index.

Source: Unctadstat database <https://unctadstat.unctad.org/EN/>

Analizing Lithuanina logistical index (fig.4) we can single out that tradeline is going up even if we had a one big drop between the years . From 2010 years to 2017 years the index is pretty wavy but still going up even if few years wasn't successful. Looking into 2017-2018 years we can see the big index increase, from 13,95 to 23,22. After 2018 year the chart is prety fast going down, decreasing to the old parameters like in 2017 years. It is very interesting why after the big jump of the logistical connectivity index in 2017 that this index started to fall pretty fast. This index began to decline due to a halving contraction in oil exports, largely driven by falling global oil prices, rather than a contraction in production.



## Lithuania, German and Poland ports connectivity

Logistical connectivity can be understanding as a physical connectivity and interoperability of transport infrastructure. If we want to get our main logistical index, we need this bilateral index which shows in table 1. Without this table we cannot find out real numbers. Analyzing liner shipping connectivity in the context of sustainable development, we compare Polish German and Lithuanian ports according to these elements.

1 table

**Liner shipping bilateral connectivity index, 2010 - 2020**

	Belgium	Finland	France	Germany	Latvia	Poland	Russian Federation	United Kingdom
2010	0,191087	0,186538	0,146718	0,20419	0,177082	0,195644	0,178772	0,17576
2011	0,190951	0,179736	0,146518	0,203219	0,192613	0,197961	0,169686	0,163904
2012	0,217244	0,168958	0,152111	0,233083	0,199944	0,21405	0,180693	0,162727
2013	0,195411	0,176383	0,149291	0,213263	0,176703	0,195847	0,184628	0,162451
2014	0,194196	0,180306	0,150829	0,212201	0,181487	0,199102	0,174895	0,164971
2015	0,196847	0,180278	0,1901	0,214221	0,184359	0,206864	0,192443	0,167475
2016	0,224657	0,175448	0,21791	0,238477	0,183832	0,230986	0,190643	0,169998
2017	0,204448	0,167966	0,201187	0,215638	0,168611	0,216616	0,164765	0,165711
2018	0,232838	0,176691	0,166806	0,26465	0,183649	0,249476	0,166582	0,165369
2019	0,259099	0,198237	0,254747	0,274182	0,188797	0,281475	0,196915	0,261531
2020	0,203038	0,20201	0,199777	0,213095	0,203168	0,22779	0,202772	0,199049

Source: Unctadstat database <https://unctadstat.unctad.org/EN/>

Liner shipping connectivity is a crucial determinant of exports, including bilateral exports. UNCTAD's Liner Shipping Bilateral Connectivity Index is meant to reflect specifically the liner shipping connectivity between pairs of countries. This index shows a country pair's level of integration into global liner shipping networks. According to this indicator, we see that Lithuania has the largest logistical connection with Germany and Poland. That is why we chose these states for further research. Based on this index, we calculated the main logistic connectivity index of our study, which is presented in the second table.

2 table

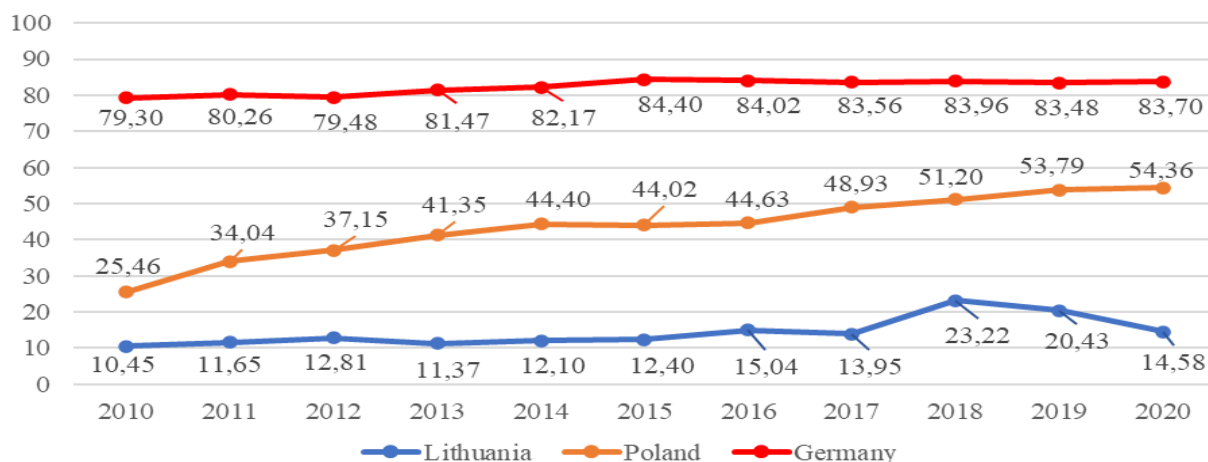
**Lithuania, Poland and Germany liner shipping connectivity index 2010 – 2020**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Lithuania	10,45	11,65	12,81	11,37	12,10	12,40	15,04	13,95	23,22	20,43	14,58
Poland	25,46	34,04	37,15	41,35	44,40	44,02	44,63	48,93	51,20	53,79	54,36
Germany	79,30	80,26	79,48	81,47	82,17	84,40	84,02	83,56	83,96	83,48	83,70

Source: Unctadstat database <https://unctadstat.unctad.org/EN/>

Compared to Poland and Germany(table 2). Lithuania has the lowest liner shipping connectivity index, which in the analyzed period ranges from 10,45 in 2010 to 23,22 in 2018 it's about 122 percent .From 2018 to 2020, the Lithuanian liner shipping connectivity index decreased by almost half . Speaking about Lithuania's partner Poland, we can say that its liner shipping connectivity index is constantly increasing from 25.4 in 2010 to 54.3 in 2020. The polish liner shipping connectivity index increased by 113 percent over the entire analysis period (table 2.). However, the biggest jump in this index was found in 2011, when it rose by as much as 33 percent. Of all the countries analyzed, Germany has the highest connectivity index, which is relatively constant but has a slight upward trend. At the beginning of the analyzed period, it was 79.3 and at the end of this period 83.7. From all this, we can say that Lithuania has very effective partners. By comparing them, we can expect the growth of our country's liner shipping connectivity index.





7 Fig. Lithuania, Poland and Germany logistical connectivity index.

Source: Unctadstat database <https://unctadstat.unctad.org/EN/>

This chart perfectly shows each country logistical index from 2010 to 2020 years. We can clearly see, that like in other figures and charts here is the same situation, because Germany is in first place, Poland take second and the third is Lithuania. Comparing the Lithuania with Poland we see, that in 2010 year Poland made 2 times bigger index, but after few years it is more than 3 or 4 times bigger. The biggest Lithuania index was in 2018 year 23.22, but after this year it went down to the old indicators. When we strating to look into Poland and Germany, we clearly see that Germany index does not change so much in a while. Poland is only one country from these three which is going into positive side.

Analyzing liner shipping connectivity in the context of sustainable development, we compare Polish German and Lithuanian ports according to these elements:

The first element is the shipping line, this element shows how many ports our port of analysis has connections to.

Writing about shipping lines, we would like to mention Klaipeda – Hamburg, Hamburg-Gdynia. Firstly, point out Hamburg which have 224 shipping lines to other ports. Most common line sis „Maersk“, „HHM“, „Evergreen“, „ACL“ and etc. When we are looking into shipping line with Klaipeda, we can find 23 different services. Mostly UAB „Estma Klaipėda“ and UAB "Limarko jūrų agentūra". After this shipping line we would like to comment a little bit about Gdynia which have 77 shipping lines and we would like to mention especially Hamburg-Gdynia. Between these two countries we can find 29 shipping lines, which most popular are „Evergreen“, „Inchcape“, „UASAC Polska“ and others.

The second element is shipping service companies it shows what size the port is. The more companies there are, the more connections with other ports and in this way is increasing logistical connectivity. We will analyze shipping service companies according to the port liner shipping connectivity index. It shows the level of service provided by the port. According to this indicator average of 2010-2020 that we will compare the ports of Klaipeda, Hamburg, Kiel Gdynia and Gdansk. Among the analyzed ports, the highest average of this index is the port of Hamburg it reaches, even 75.3. The second largest would be the German port of Bremenhaven, with a figure of 61.6. The third port of Gdansk in Poland ranks according to this index, with an index of 39. The ports of Gdynia and Klaipeda rank next to each other according to this index, but the port of Gdynia is slightly more productive, with an index of 15.2 and Klaipeda 14.6 The level of service provided in the port depends on the number of services. In summary, we can say that the largest and best-performing port service companies are in the port of Hamburg, and Klaipeda port has the fewest companies.

3 table

**Lithuania, Germany and Poland largest port liner shipping connectivity index**

Poland, Gdansk	39,05
Poland, Gdynia	15,20
Lithuania, Klaipeda	14,69
Germany, Bremerhaven	61,61
Germany, Hamburg	75,31

Source: Unctadstat database <https://unctadstat.unctad.org/EN/>

The fourth element is the number of ships calls the more ships call at the port, the more profit the port will generate. Lithuanian, Germany and Poland port call you can see in 4 table.

4 table

**Lithuanian, Germany and Poland port calls statistics**

State	Ship types	Year			Time in port (day)	Average age of vessels	Average size (GT) of vessels	Max. size (GT) of vessels	MPax. TEU
		2018	2019	2020					
German	All ships	106613	108634	88445					
German	Ro-ro ships	5651	6051	5055					
Germany	Container ships	9589	9543	7139	0,984	13	48831	236583	4442
Lithuania	All ships	5126	5117	5047					
Lithuania	Ro-ro ships	156	119	246					
Lithuania	Container ships	844	806	709	0,64	12	17378	65483	1591
Poland	All ships	12689	12981	12457					
Poland	Ro-ro ships	525	620	538					
Poland	Container ships	1791	1994	1811	0,71	13	26018	232618	2479

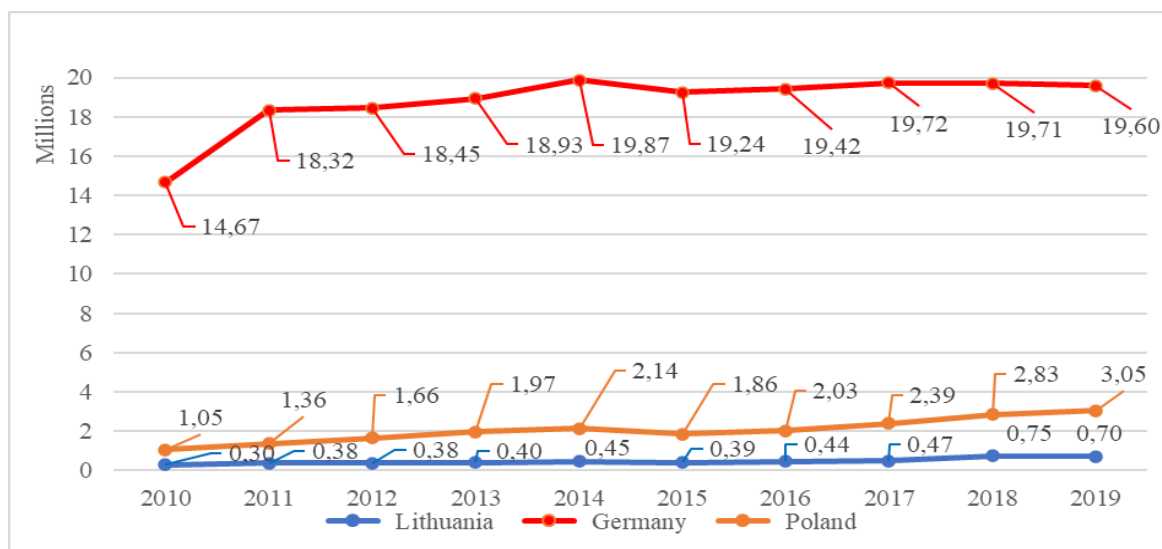
Source: Unctadstat database <https://unctadstat.unctad.org/EN/>

Looking at the fourth table, we see that in 2018-2020, the largest number of ships was in German. In 2018-2019, the number of ships received by this country was almost similar to 106613 and 108634, but by 2020 the number of ships arriving in German ports dropped to 88445 and this could be due to the global pandemic. Poland received a similar number of ships from 12457 to 12981 throughout the analyzed period. Lithuania performed slightly worse than its partners in 2018-2020. The number of ships arriving in this country did not change significantly but was the lowest compared to the countries we analyzed. In all three countries, container ship flows were highest, with significantly fewer ro-ro ships arriving in the analyzed countries. In summary, we can state that in the period of 2018-2020, the largest number of ships arrived in Germany, the second largest number of ships arrived in Poland, and Lithuania had the lowest ship traffic.

Started comparing these three countries indicators with container ships. Here is the last three years analysis and information about time in port(day), average age of vessels, average size (GT) of vessels, max size (GT) of vessels, max TEU. Looking in this table we can see, that most time in port indicator is in Germany, which is 0,984 and the least Lithuania with 0,64-time indicator, Poland stays between these counties with 0,71. Liking into average age of vessels we can see that Germany and Poland have the same age index of vessels 13, but Lithuania have 12. Comparing average size (GT) of vessels Germany again in the first place with 48831 which is 2,8 times more than Lithuania's whose number is 17378 and Poland sits in second place with 26018. Pointing out max size (GT) of vessels we can point out that Lithuanian's number is 3,5 times smaller than other two countries with 65483. Germany and Poland have almost similar numbers 236583 and 232618. And last but not the least we can look in column is MPax TEU which again Germany is in first place with 4442 after it goes Poland with almost two times smaller number 2479 and in the last position is Lithuania with 1591.

The fifth element by which we compare ports is largest vessel. The largest vessel arriving in Germany was HMM ALGECIRAS with its dimensions of 400x61x33. This ship was picked up by the port of Hamburg. The largest ship that arrived in Poland was OOCL HONG KONG, with dimensions of 400x59x33. This ship was picked up by the port of Gdańsk.

The sixth element though we will analyze is total container carrying capacity. A comparison of this indicator in German, Polish and Lithuanian is presented in Figure 5.



5 Fig. Lithuania, Poland and Germany total container carrying capacity, TEU.

Source: Unctadstat database <https://unctadstat.unctad.org/EN/>

According to the analysis performed in Figure 5, we can see that in the analyzed period in 2010-2019 both Lithuanian, Polish and German container carrying capacity increased. However, the largest volume of cargo is transported by Germany, which exported from 14.67 million TEU in 2010 to 19.6 million TEU in 2019. Both Lithuania and Poland are strongly distant from Germany. During the analyzed period, Poland transported containers from 1.05 million TEU in 2010 to 3.05 million in 2019. Our country did the worst in Lithuania. During the analyzed period, the Lithuanian container carrying capacity did not reach one million but increased from 0.3 million TEU in 2010 to 0.7 million TEU in 2019. In summary, we can say that the container carrying capacity of all three countries is constantly increasing. But the most notable is Germany.

5 Table

**Lithuania, Poland and Germany total maritime cargo, thousand tones and GDP from 2016 to 2019 years**

	Total maritime cargo, thous.tonnes				GDP mln euro			
	2016	2017	2018	2019	2016	2017	2018	2019
<b>Lithuania</b>	<b>49299</b>	<b>52913</b>	<b>56206</b>	<b>55953</b>	<b>38889,9</b>	<b>42276,3</b>	<b>45491,1</b>	<b>48797,4</b>
<b>Poland</b>	<b>72926</b>	<b>78076</b>	<b>91798</b>	<b>93864</b>	<b>427092</b>	<b>467427</b>	<b>497842</b>	<b>532329</b>
<b>German</b>	<b>297137</b>	<b>299189</b>	<b>296181</b>	<b>294533</b>	<b>3134740</b>	<b>3259860</b>	<b>3356410</b>	<b>3449050</b>

Source: Unctadstat database <https://unctadstat.unctad.org/EN/>

In fifth table we can see Lithuania, Poland and Germany total maritime cargo, thousand tones and GDP from 2016 to 2019 years. This figure perfectly shows what is the differences between these three countries in each aspect. Like we see here, Germany is the leader by total maritime cargo and GDP, all these years positions were similar, second place is for Poland and third is for Lithuania. In total for these years Germany congestion 1187040 (1187,04 mln), that is 3.5 times more than Poland, which congested 3366,64 millions and 4.9 times more than Lithuania congested, 2413,55 millions.

Analising lithuania, Poland and Germany GDP we can see that Lithuania and Poland are pretty similar, but Polands numbers are bigger. Germany is in first place with even bigger numbers, about 7 times bigger comparing to Poland and Lithuania.

Sustainable development is an extremely important aspect of protecting the environment and finding more partners. In this reasearch, we also analyze the bunkering possibilities of ships in the largest ports in Lithuania, Poland and Germany. Marine fuel availability in the ports Hamburg, Gdansk, Klaipėda are shown in 5 table.

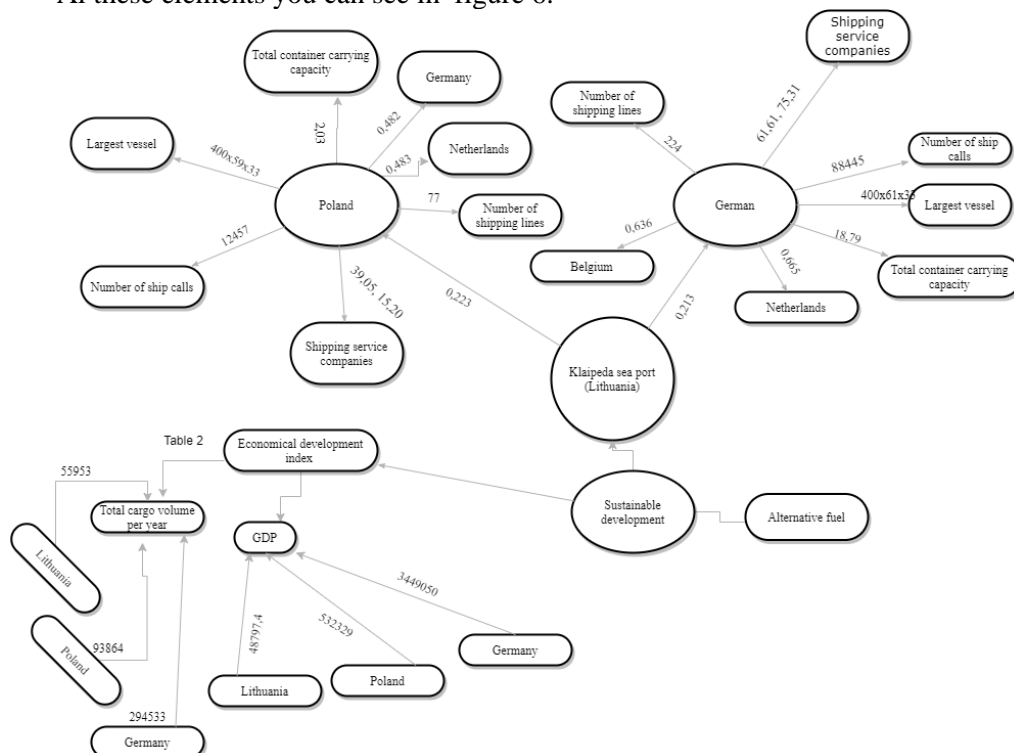
6 Table  
**Marine fuel availability in the ports Hamburg, Gdansk, Klaipėda**

Name	Abbreviation	Sulphur content by mass - % m/m	Hamburg	Gdansk	Klaipėda
Marine Gas Oil	MGO	<0,50%			
Marine Gas Oil	MGO	<0,10%	ü	ü	ü
Low Sulphur Fuel Oil	LSFO	<0,50%	ü	ü	ü
Ultra Low Sulphur Fuel Oil	ULSFO	<0,10%	ü	ü	ü
High Sulphur Fuel Oil	HSFO	>0,50%	ü	ü	ü
Liquefied Natural Gas	LNG	0%	ü	ü	ü
Biofuels	-	0%	ü		ü

Source: Unctadstat database <https://unctadstat.unctad.org/EN/>

After analyzing the marine fuel availability of Klaipėda, Hamburg and Gdansk ports. We can say that the analyzed ports can bunker ships with marine Gas Oil, low sulfur fuel oil, ultra low Sulfur fuel oil, high sulfur fuel oil, liquefied natural Gas. This means that, in the context of sustainable development, ports can offer a variety of fuels to their partners. However, in terms of sustainable development, we can say that LNG and biofuel are the least harmful to the environment.

At these elements you can see in figure 6.



6 Fig. The model of the liner shipping connectivity between Lithuania, Poland and Germany.

Source: Unctadstat database <https://unctadstat.unctad.org/EN/>

## Conclusions

Investigating short-distance liner shipping and port logistics connectivity, we can state that the following factors have the greatest influence: logistics performance index, liner shipping connectivity index, index for

bilateral liner shipping connectivity, port connectivity index, the logistics performance index. It is these indicators that have the greatest impact on sustainable development, which is extremely important in creating a clean, unpolluted planet.

Examining the Lithuanian logistical connectivity index, we can say that from 2010 years to 2017 years the index is pretty wavy but still going up even if few years was not successful. Looking into the 2017-2018 years we can see the big index increase, from 13.95 to 23.22. After 2018 year the chart is pretty fast going down, decreasing to the old parameters like in 2017 years. It is very interesting why after the big jump of the logistical connectivity index in 2017 that this index started to fall pretty fast. This index began to decline due to a halving contraction in oil exports, largely driven by falling global oil prices, rather than a contraction in production. After analyzing Lithuania's connectivity with Polish and German ports, we can state that Lithuania has the lowest liner shipping connectivity index. The polish liner shipping connectivity index increased by 113 percent over the entire analysis period. Of all the countries analyzed, Germany has the highest connectivity index, which is relatively constant but has a slight upward trend. Germany has the most shipping lines 224, Poland has the second largest 77, and Lithuania has the least shipping lines 29. Germany is also the first in terms of productivity of ship service companies, its index is 75 in Hamburg compared to 14 in Klaipeda port. In the period of 2018-2020, the largest number of ships arrived in Germany, the second largest number of ships arrived in Poland, and Lithuania had the lowest ship traffic. Total container carrying capacity of Lithuania Germany and Poland is constantly increasing. But the most notable is Germany. Regarding the principles of sustainable development, we compared our research with marine fuel availability, and we can say that both Klaipeda and Hamburg ports can bunker with all types of fuel, Gdansk port does not have biofuel possibilities.

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## EU SUPPORT FOR TOURISM, FASHION AND HIGH-END BUSINESS

**Laura Marutian, Kamile Raustyte**

Lithuania Business University of Applied Sciences [raustyte.kamile@gmail.com](mailto:raustyte.kamile@gmail.com)

National Research University Higher School of Economics [lauramarutian@gmail.com](mailto:lauramarutian@gmail.com)

Keywords: European Union; business; tourism; coronavirus.

European Union is very significant and important for every member of EU. It helps to improve countries economical, social and educational situation. Small and Medium Enterprises (SME) are the backbone of EU's economy: there are 23 million SMEs in Europe representing around 99% of all undertakings, and 57% of them are sole proprietorships [Lopriore, 2009]. A brief literary review is needed in order to gain a better understanding of these categories and to be able to analyze the key aspects of EU policy and programmes in favour of supporting businesses and SMEs in the selected fields.

The category of Small and Medium sized businesses is extremely heterogeneous. Although the role of new firms in job creation and innovation has long since been recognized [Acs, 1988; Birch, 1979], the full heterogeneity of it still remains uncovered. [Coad, 2014; Muller 2015]. The constantly evolving understanding of the role is mirrored in the different emphases of SME and entrepreneurship policy, and in the definitions, they use to describe their targets. Therefore, it is necessary to have a look at the main definitions. The arguably leading approach in the policy arena remains the use of employment size-based categories when describing the policy focus. The following Table shows the way small and medium-sized enterprises are defined: [5, 6].

*Table 1. EU Firm Size Definitions. (The EU definition does not distinguish self-employed separately.*

Category	Employees	Turnover	Balance sheet
Self-employed	0-1	n.a.	n.a.
Micro	2-9	≤€2M	≤€2M
Small	10-49	≤€10M	≤€10M
Medium-sized	50-249	≤€50M	≤€43M

They are highlighted here because some one third of new firm creation attempts do not expect to employ anyone beyond the focal entrepreneur according to Global Entrepreneurship Monitor.)

A size-based categorization is not only simple and unequivocal but it also fully resonates with Birch's original idea that "small firms" were the important job creators in the US of 1970s while large firms played the role of job destructors. However, the size of the firm is obviously not the only way to define the entrepreneurial character of it. As Birch subsequently found out it was the relatively small sub-population of rapidly growing SMEs that were responsible for the bulk of job creation by small firms [Birch, 1997]. Nowadays this conclusion is considered as generally one of the most robust and applicable "law" which describes the regularities in growth patterns in firm populations [Coad, 2014, 8-13].

Various definitions have tried to capture high growth firms. The most common ways to do so are by defining growth based on employment of sales growth. It was proposed that 'gazelles' should be defined as business establishments that have achieved at least 20% sales growth rate each year over a given period, starting from a base sales revenue of at least \$100k [ Birch, 1997].

As for the exact definition of these categories, Small and medium-sized enterprises (SMEs) are defined in the EU recommendation 2003/361 [8].

The main factors determining whether an enterprise is an SME are the following: staff headcount; either turnover or balance sheet total.

*Table 2. Small, micro and medium-sized enterprises.*

Company category	Staff headcount	Turnover	or	Balance sheet total
Medium-sized	< 250	≤ € 50 m		≤ € 43 m
Small	< 50	≤ € 10 m		≤ € 10 m
Micro	< 10	≤ € 2 m		≤ € 2 m

These ceilings apply to the figures for individual firms only. A firm that is part of a larger group may need to include staff headcount/turnover/balance sheet data from that group too.

Having shortly reviewed the main terms that the paper revolves around, we can discuss the main challenges of supporting SMEs. As for the challenges reported by EU28 SMEs, finding costumers seems to be the most pressing one [Muller, 2015]. According to the results of 2014, 20% of small- and medium- sized

businesses highlighted finding customers as the main challenge. However, if we look at the corresponding figures of the previous years we will notice that the trend is decreasing. 17% of SMEs indicated availability of skilled staff or experienced managers to be the most pressing problem, making it the second most challenging aspect. Finally, 16% of SMEs ranked regulation as the key challenge, which makes it the third most pressing problem. Here, however, the trend seems to be increasing. This trend signals that much remains to be done in cutting red tape, both within EU28 member states, and also, in harmonizing the regulatory frameworks across the member states. The remaining key problems faced by EU28 SMEs were competition (at 15%), access to finance (at 13%) and costs of production or labor (at 12%).

In order to gain a deeper understanding of how the EU addresses the challenges faced by businesses, we will analyze its support for the following narrower sectors: fashion and high-end industries, tourism.

To maintain Europe's position as a leading tourist destination, the quality of its services needs to be continuously improved. The European Commission is involved in initiatives that improve the skills and mobility of workers, particularly by engaging in global digital networks and helping tourism entrepreneurs manage their businesses. Tourism is a major economic activity in the European Union with wide-ranging impact on economic growth, employment, and social development. It can be a powerful tool in fighting economic decline and unemployment. Nevertheless the tourism sector faces a series of challenges. The European Commission works to address these with policies and actions.

The outbreak of COVID-19 has put the EU tourism industry under unprecedented pressure and tourism companies of all sizes are facing acute liquidity problems. On 13 May 2020, the Commission adopted a comprehensive package of initiatives to allow for a coordinated framework to resume transport and tourism safely, enable Europeans to travel and enjoy the summer tourism season in safety, as well as address pressing issues for tourism operators and consumers. Executive Vice President Margrethe Vestager, in charge of competition policy, said: "The economic impact of the COVID-19 outbreak is severe. We need to act fast to manage the impact as much as we can. And we need to act in a coordinated manner. This new Temporary Framework enables Member States to use the full flexibility foreseen under State aid rules to support the economy at this difficult time."

As the latest data shows an 85% fall in tourist arrivals across Europe at the start of 2021, UNWTO has noted Europe can set a global example by restarting the sector. Given tourism's huge socio-economic importance, the benefits that will accompany the return of tourism in time for the peak European season will be felt well outside of the sector itself (<https://www.unwto.org/>).

One of the measures to regenerate tourism industry is a website <https://reopen.europa.eu/en>. This tool provides an overview of the health situation in European countries, based on data from the European Centre for Disease Prevention and Control (ECDC). The information is updated frequently and available in 24 languages. It enables you to follow the evolution of the coronavirus situation in your country and beyond. Re-open EU also provides information on the various restrictions in place, including on quarantine and testing requirements for travelers and mobile coronavirus contact tracing and warning apps. This should help you plan your travel in Europe, while staying safe and healthy. The European Union is making major efforts to overcome this pandemic, to protect citizens and their livelihoods (<https://reopen.europa.eu/en>).

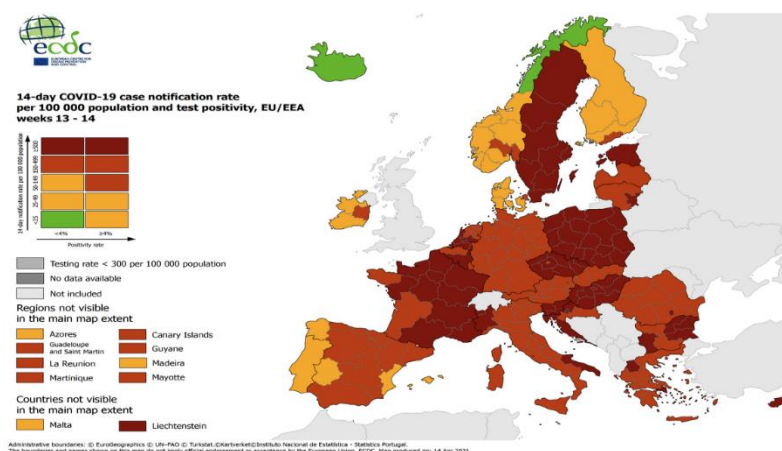


Fig. 1. 14-day COVID case notification rate per 100 000 population and test positivity, EU/EEA.  
(<https://reopen.europa.eu/en>)



Other measures to support the economy in the context of the COVID-19 outbreak (The Commission had adopted a Temporary Framework in 2008, in response to the global financial crisis):

1. Direct grants, selective tax advantages and advance payments: Member States will be able to set up schemes to grant up to €800,000 to a company to address its urgent liquidity needs.
2. State guarantees for loans taken by companies from banks: Member States will be able to provide State guarantees to ensure banks keep providing loans to the customers who need them.
3. Subsidised public loans to companies: Member States will be able to grant loans with favourable interest rates to companies. These loans can help businesses cover immediate working capital and investment needs.
4. Safeguards for banks that channel State aid to the real economy: Some Member States plan to build on banks' existing lending capacities, and use them as a channel for support to businesses – in particular to small and medium-sized companies. The Framework makes clear that such aid is considered as direct aid to the banks' customers, not to the banks themselves, and gives guidance on how to ensure minimal distortion of competition between banks.
5. Short-term export credit insurance: The Framework introduces additional flexibility on how to demonstrate that certain countries are not-marketable risks, thereby enabling short-term export credit insurance to be provided by the State where needed.

These measures can be used by grant compensation to companies for damage suffered due to and directly caused by the COVID-19 outbreak. This can be useful to support particularly impacted sectors, such as transport, tourism, hospitality and retail (<https://ec.europa.eu/>).

Most of the EU's financial support for tourism comes from the European Regional Development Fund (ERDF) and the Cohesion Fund (CF). Taken together, these two 7 funds allocated €6.4 billion to tourism in 2007-2013 and €4 billion (budget allocated so far) in 2014-2020.

EU has 12 funds and projects for the tourism sector funding. They have different types of tourism-related actions eligible for funding, types and levels of funding.

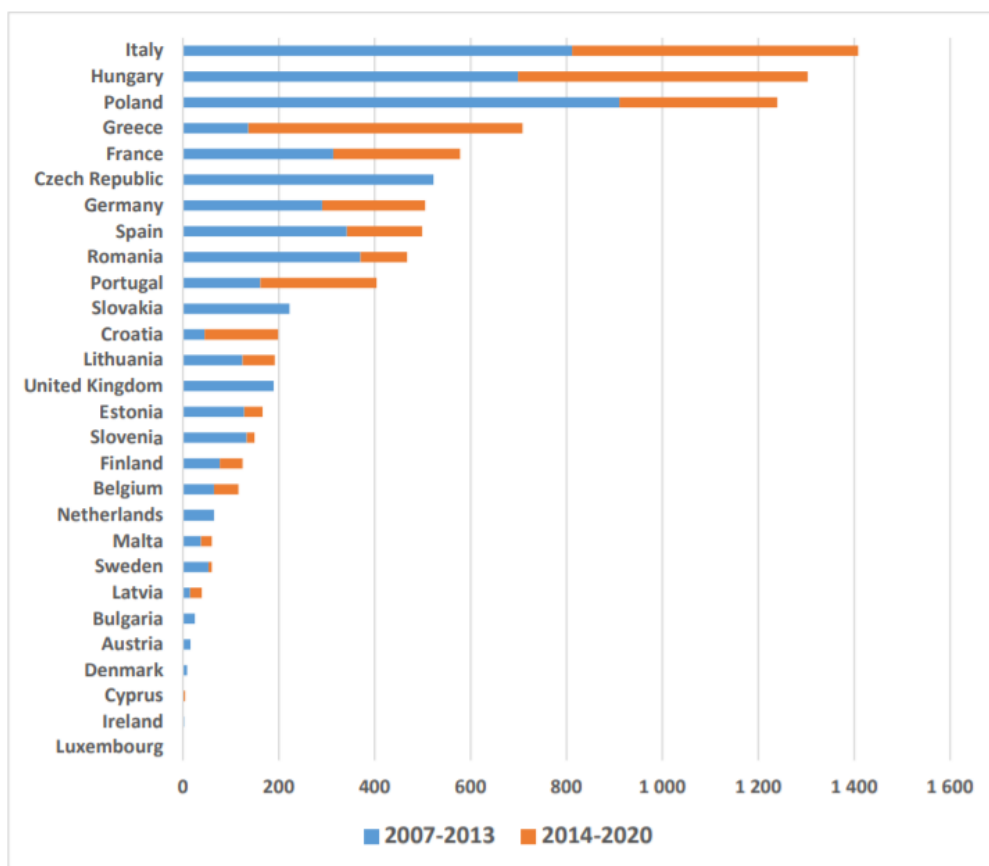


Fig. 2. Budget allocations to Tourism in ERDF/CF per Member State (Million euro) (<https://www.eca.europa.eu/>).

EU also assess the supporting role of the Commission, including its strategy on tourism and how information and best practices were shared between Member States (<https://www.eca.europa.eu/>).

It is rather obvious that the character of the European Commission's initiatives to strengthen the competitiveness of the industry that on varies depending on the sector and the specific challenges it faces. In

the case of the fashion and high-end industries, the EC mainly focuses on measures, which not only help fashion small and medium-sized enterprises (SMEs) access finance but also stimulate creativity and innovation, as well as ensure the protection of intellectual property rights and include measures to fight fake goods.

As of 2012, the 'Promoting cultural and creative sectors for growth and jobs in the EU' addressed the issue of creative and cultural sectors being a largely untapped resource for jobs and growth in the EU [10]. This led to the creation of Action Plan for Fashion and High-end Industries that outlined progress in key areas and proposed further initiatives to boost growth and create more jobs.

As mentioned before the main support initiatives, which are found in the Action Plan, can be broken into the following categories: helping SME access finance, helping businesses create and innovate, and fighting fake goods. As one would expect, there is a huge number of small, even family-owned companies who contribute to Europe's leading position in the fashion and high-end markets. However, one of the main challenges for these businesses is accessing finance. There are two main programs, which tackle this, and provide financial instruments and funding to SMEs: Cosme and Horizon 2020. Cosme provides two dedicated financial instruments that target companies in different phases of their lifecycle, while Horizon 2020 supports industry competitiveness through the development of new materials, manufacturing technologies, and ICT; and by financing close-to-market actions via a specific SME instrument [11, 12].

While financial support is a crucial point in supporting SMEs, there is also a need to help businesses create and innovate it is needed to ensure Europe's position as a global leader. For this particular task the Worth project was created. Its main purpose is initiating partnerships between Designers and Enterprises (manufacturers, retailers, craftsmen, technology companies) in fashion, textiles industry from different EU member countries to create innovative new products [13].

Finally yet importantly, it needs to be mentioned that small businesses often lack the necessary means to protect their Intellectual Property Rights (IPR), therefore there is a certain need for the EU to act on this issue and regulate it. To counter the possible threats and to protect IPR, the European Commission is active in different areas. The main campaign that addresses this problem is the Stop Fakes campaign, which is meant to raise consumer awareness about the dangers of fake goods and to promote closer cooperation between the Commission, national authorities, industry and consumers. [14]

To sum up, the specific character of the fashion and high-end business industry creates a need to face certain unique challenges such as protection of Intellectual Property Rights, while the universal challenges, such as difficulties finding finances, also remain. It can also be concluded that, as creative and cultural sectors have remained a largely untapped resource for jobs and growth for a long time, the number of initiatives targeting this sector is still growing. Tourism sector is very exhausted from the pandemic situation, but EU support is very helpful and has a lot of measures to recover for every tourism area.

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## THE ROLE OF THE MEDIATOR DURING THE MEDIATION SESSION

**Raminta Petrauskaitė**

*Lietuvos verslo kolegija*

**Lekt. Vilija Šlajienė**

### Abstract

This article analyzes the opinion of mediators based on their practice in the mediation process. One of the key aspects is to analyze and present the main choices of mediator roles during the mediation session and statistics about their role during the mediation session.

KEY WORDS: court, court activity, administrative code of misconduct, civil code, mediation, mediator's law, mediator, mediator's activity, conflicts, family mediation, application of mediation, legal acts.

### Introduction

Disputes or conflicts are a natural part of public relations. This topic is relevant in that most parties to a dispute do not have enough information and are unaware that they can turn to mediators for a dispute. Mediation is not yet widely known. Modern legal systems are evolving rapidly, new ways of resolving disputes are being sought, or efforts are being made to improve existing solutions. However, in today's society, legal scholars are particularly active in discussing the development of a peaceful dispute resolution culture to ensure faster and cheaper dispute resolution at the earliest possible stage of a conflict. According to Confucius, instead of entrusting dispute resolution to the courts, people should meet with an independent third party to help reach a mutual agreement (Parkinson, 2011, p.)

There are two main ways of resolving a dispute in the Lithuanian legal system - judicial and extrajudicial mediation. "Mediation is the search for the most appropriate way of resolving disputes, taking into account the needs of the parties and the specific type of dispute" (Milašius, 2007, p. 44). This alternative dispute resolution method is not only used in case law, but is also being introduced in educational institutions, as well as in business negotiations. The main participant in mediation is the mediator, who in his role helps the parties to the dispute to find a compromise.

**The object of the article.** The role of the mediator during the mediation session.

**Purpose of the article.** Analyze the role of the mediator during the mediation session.

**Straipsnio uždaviniai:**

1. Analyze the role of the mediator during the mediation session.
2. Discuss the role of the mediator in different mediation style choices.
3. Analyze the main functions of a mediator.
4. Review survey survey responses.

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

### The role of the mediator during the mediation session

Article 109 of the Constitution of the Republic of Lithuania there is an established provision that justice in the Republic of Lithuania is administered only by courts (Constitution of the Republic of Lithuania, TAR, 1992, No. 220-0, current wording from 01.09.2019), but in today's society a court is not the only way to resolve a dispute and restore justice: when which violated subjective rights and interests protected by law can be protected not only by a court. The party may try to resolve the dispute amicably, through negotiations and mutual compromises. They may also apply to other state and non-state institutions for a dispute. Usually, the ways in which the parties resolve a conflict out of court are called alternative dispute resolution (Kaminskienė, N., 2011, p. 25). Mediation is a form of dispute intervention, when a third party, a mediator, helps the parties to the dispute to negotiate. The mediator, or otherwise the mediator, is not himself involved in the dispute and is not identified with any competing interests (Roberts. M. 2014, Mediation in Family Disputes, p. 26).

In Lithuania, mediation is a relatively new alternative way of resolving a dispute. Every year, mediators are getting better and better. With their help, more and more people are resolving their disputes not during the trial but during the mediation session. Summarizing the changes in the development of the law and mediation, it can be stated that the popularization of dispute resolution through the mediation process together with the popularization is improving the legal framework. Different perceptions of individual types of mediation and mediator functions in the mediation process have shaped certain mediation styles, each of which is focused on achieving different outcomes.

The types of mediation enshrined in the provisions of the Law on Mediation are: judicial mediation, out-of-court mediation and compulsory mediation (Law on Mediation of the Republic of Lithuania, TAR, 2008, No. 87-3462, current wording as of 1 January 2021).

The Law on Mediation of the Republic of Lithuania establishes general requirements for the activities of mediators (Law on Mediation of the Republic of Lithuania, TAR, 2008, No. 87-3462, current wording as of 1 January 2021), according to mediators' behavior distinguishes mediation styles.

The following mediation styles are most widely known in the legal literature:

- 1) Relieving. This style is characterized by a particularly passive role of mediator. This style acquired its specificity because at the beginning of the development of mediation, lawyers were not involved in the activities of mediators, which was considered to be the prerogative of non-legal professionals. The mediators were volunteers and others who were not experts in the areas in which the disputes arose.
- 2) Evaluative. In this style, the mediator intervenes in the process more than the facilitator in the facilitation style, as he has the right to make recommendations or express his opinion on what would happen if the case were heard in court. They care more about the rights of the parties than the needs and interests, often meeting separately with each of the conflicting parties and their lawyers. An evaluative-style mediator can encourage parties to reach an agreement through persuasion and even pressure.
- 3) Transformative. Mediation in this style assumes that people can solve their problems by providing them with the necessary environment and support. Therefore, the essential task of a mediator in this style of mediation is to reveal the powers of the parties and to promote mutual understanding between the parties, changing the quality of the conflict from negative to positive.
- 4) Narrative. This style originates from narrative family therapy, which evolved from postmodernist traditions and the perception that one person's opinion can never be completely objective. The most important task of narrative mediation is to identify the problem and bring it to light.
- 5) Therapeutic. This style focuses on communication and relationships, and less on finding a solution. The aim is to help the parties achieve mutual understanding.

#### **The main functions of a mediator**

The main function of the mediator in the mediation procedure is optimal control of the process, initiation and supervision of negotiations between the parties to the dispute. The main differences between mediation and litigation should be reviewed in order to identify in detail the functions of the mediator. The mediator communicates with both parties and seeks a compromise together, and during the court the party communicates only with the judge and he decides the final option.

The proper performance of the mediator's functions in the mediation procedure is considered a guarantee that the issue of the mediator's civil liability will not be encountered. In order to name in detail the functions performed by the mediator, it is necessary to compare the functions of the mediator and the judge. Suppose a mediator focuses the resolution of a dispute on the future, and the judge emphasizes past events. The mediator also tries to reconcile the different interests and needs of the parties, and the judge tries to ensure the implementation of the rights and obligations of the parties.

The first direction in which the mediator helps the parties to the dispute to communicate successfully is:

- 1) initiate and facilitate communication between the parties to the dispute;
- 2) examine the statements of the parties in order to obtain a more precise and clearer description of how they perceive the conflict, their interests and needs, emotions, expectations;
- 3) ensure that the statements of the parties are formulated in a neutral manner, highlight important information and problematic issues;
- 4) be responsible for the course of the process and lead the negotiation sessions;
- 5) teaches unprepared and unskilled participants to negotiate.

The second direction, when the mediator helps the parties to the dispute to find and make the optimal solution:

- 1) ensure that the parties have access to the information necessary to reach a decision;
- 2) enables participants to analyze the problem;
- 3) contribute to the development of a reasonable and enforceable agreement;
- 4) summarize and combine different approaches and results of mediation in a way that is mutually beneficial;
- 5) promote the free flow of information and ideas.

And the third direction, where the mediator helps the parties to the dispute to maintain their status and maintain a constructive relationship with each other:

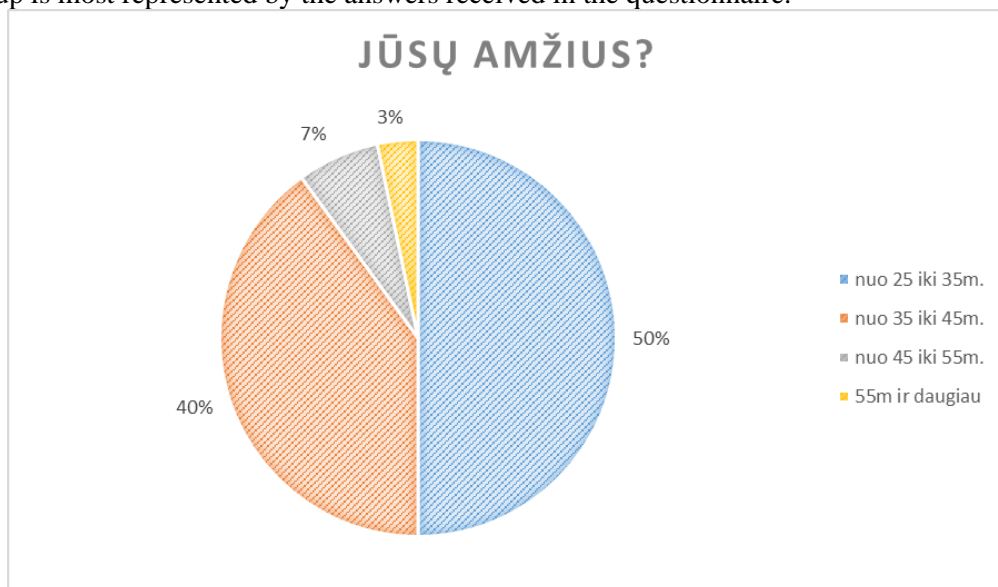
- 1) assist the parties in recognizing each other's rights;
- 2) protect the mediation process itself, prohibiting the parties from using it to gain an advantage in litigation;
- 3) neutralizes negative comments, reduces party disturbance;
- 4) ensure that in cases where the parties have unequal power or opportunities, the less powerful party can properly engage in the process.

One of the most important features of the role of the mediator is that in all styles of the mediator, the mediator has no decision-making power, unless we apply an evaluative mediation style, the mediator has the right to make a decision, even for the parties.

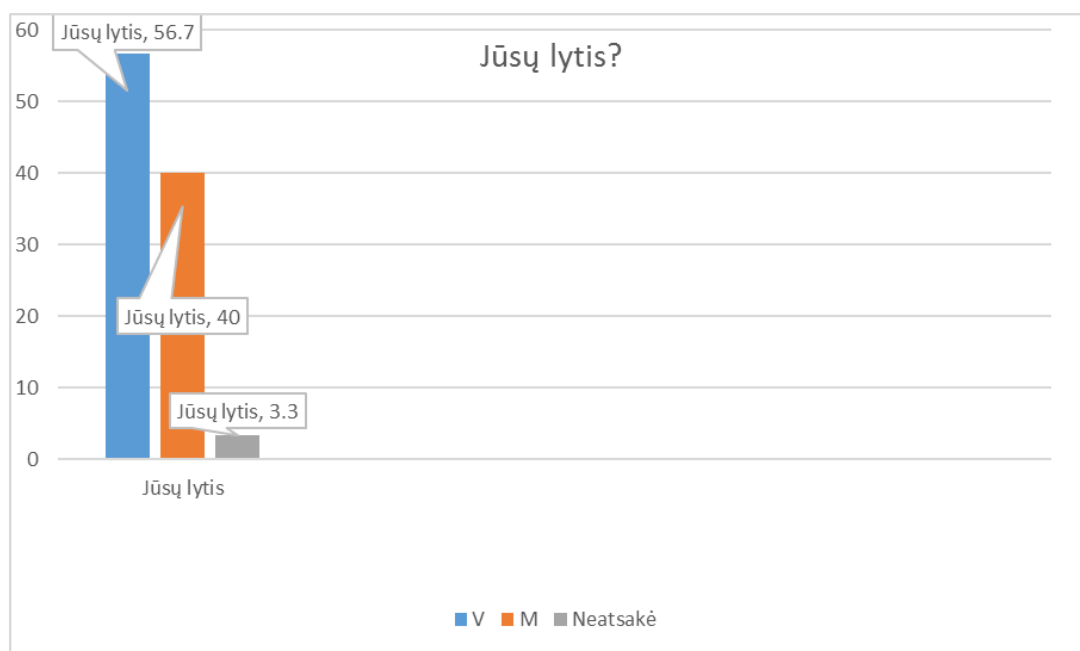
### Analysis of mediator activity in Lithuania

Below are tables, graphs with survey questions and mediators' responses to them. Each table is preceded by summaries of responses.

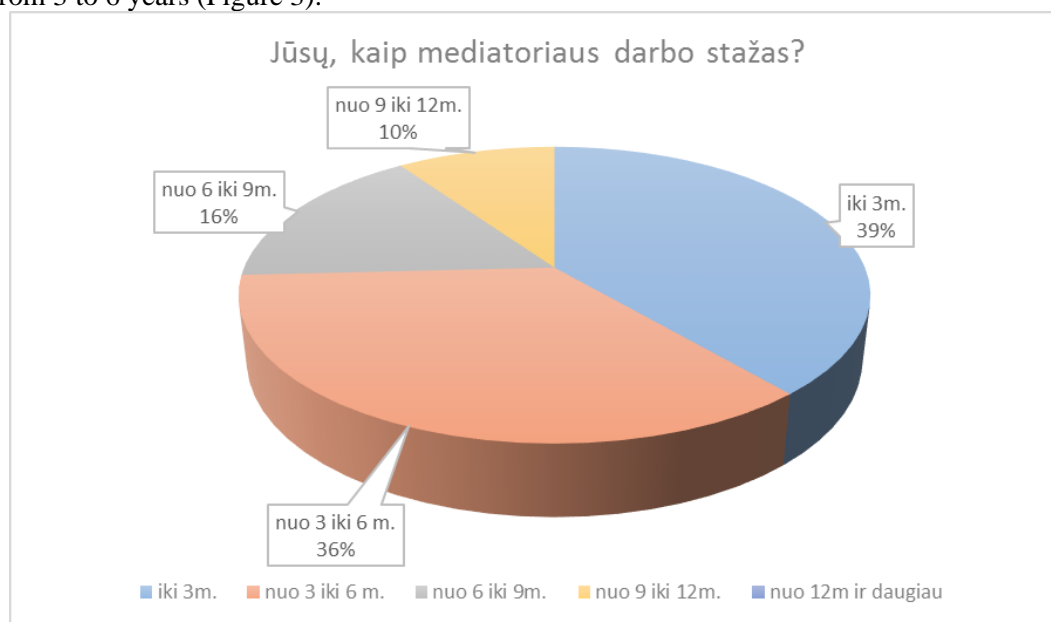
The first question of the questionnaire was interested in the age of the respondents (Fig. 1) Analyzing the results of the first question, the most active group of respondents was aged 25 to 35 years, under 45 years of age, which accounted for 40 percent of all respondents, the remaining two groups made up only 10 percent of respondents. The age of the respondents was asked in the questionnaire in order to determine which age group is most represented by the answers received in the questionnaire.



The second question of the questionnaire is designed to determine the gender of the respondents, the answers show that men, who make up 75, and women only 25 percent of all respondents (Figure 2), are more active in the survey (Figure 2). also to find out which gender mediators are more involved in the survey and the result shows that men were more active in the survey because the survey was sent equally to men and women.



The third question sought to find out the length of service of the mediators filling in the questionnaire. According to the survey data, the majority of respondents indicate that their length of service as mediators is up to 3 years, such length of service mediators makes up 39 percent of all respondents, followed by 36 percent of respondents that their length of service is from 3 to 6 years. , 15 per cent indicated that their length of service is from 6 to 9 years, 10 per cent of respondents are from 9 to 12 years. According to the collected data, it can be stated that the majority (75 percent) of the surveyed mediators actually practice mediation for up to 3 years or from 3 to 6 years (Figure 3).



The fourth question sought to clarify the style applied during the mediation session. The majority of respondents (36.6 percent) chose the answer “Evaluative style”, therefore, analyzing the result, it can be stated that mediators use and choose such a style more, because they have the right to make recommendations or express their opinion on what would happen if the case were heard in court. They care more about the rights of the parties than the needs and interests, and meetings often take place separately with each of the conflicting parties and their lawyers. An evaluative-style mediator can encourage parties to reach an agreement through persuasion and even pressure (Figure 4).

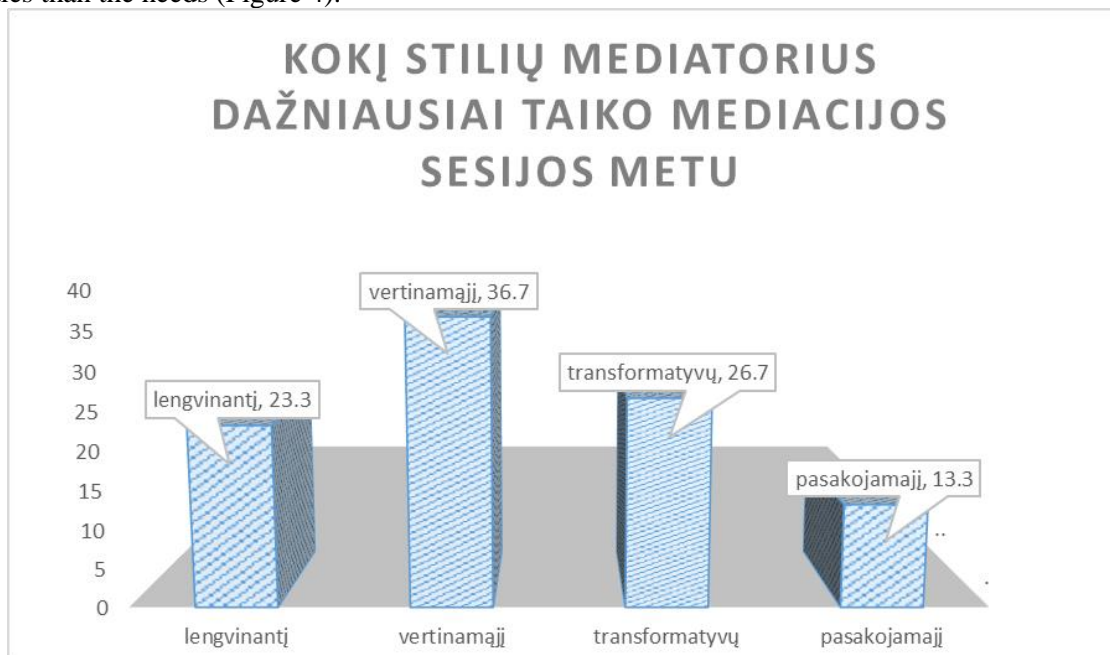
The second most frequently chosen answer, chosen by 8 out of 30 respondents, was “Transformative style”, with a significant number of mediators surveyed seeing that resolving a dispute requires working with the parties to the dispute to help them change their conflict from negative and destructive to positive and



constructive. and discussing problems and solutions. Transformative mediation assumes that people can solve their problems by providing them with the necessary environment and support (Figure 4).

The third response chosen by 7 out of 30 respondents was “Facilitating Style”, as this style was the first and only one as soon as this method of conflict resolution was formed and formally adopted. The style has a particularly passive role as a mediator. This style acquired its specificity because at the beginning of the development of mediation, lawyers were not involved in the activities of mediators (Fig. 4).

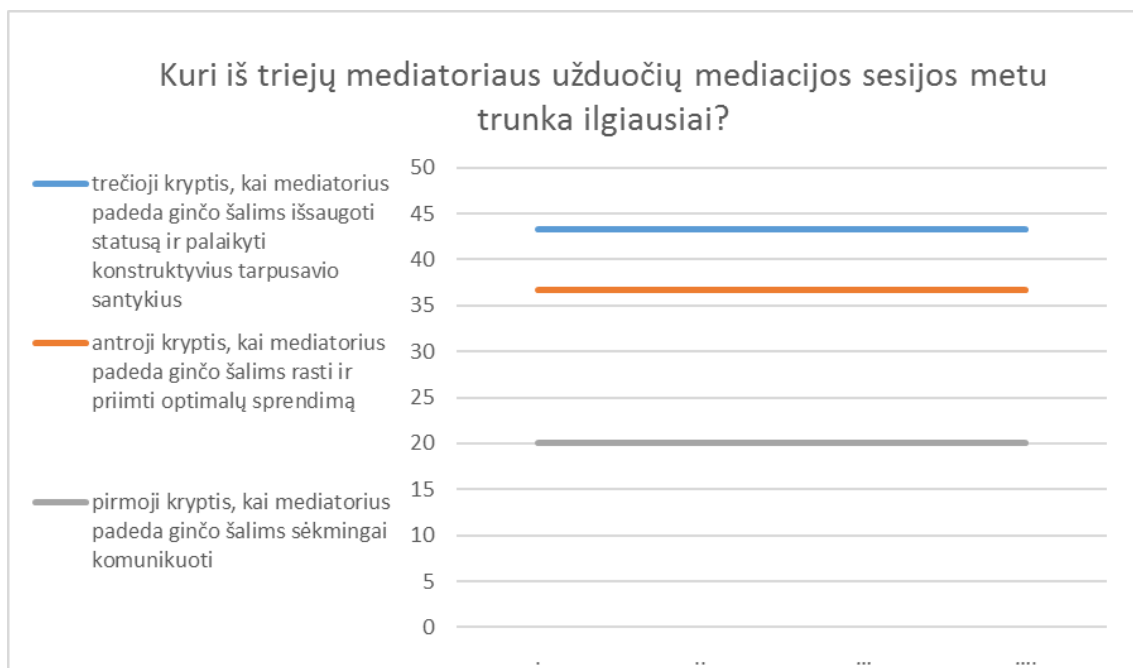
Only four mediators chose the answer "Narrative style", mediators choose because it is most important to identify the problem and bring it to light, so analyzing all the survey results, it can be said that most mediators choose an evaluative style where they have and can express themselves. takes more care of the rights of the parties than the needs (Figure 4).



The fifth question asked to mediators was "Which of the three mediator tasks lasts the longest during a mediation session." In this regard, the attitudes of mediators towards mediation tasks were analyzed, an attempt was made to find out which mediation task is the most difficult for the mediator and takes the longest time to solve (Figure 5).

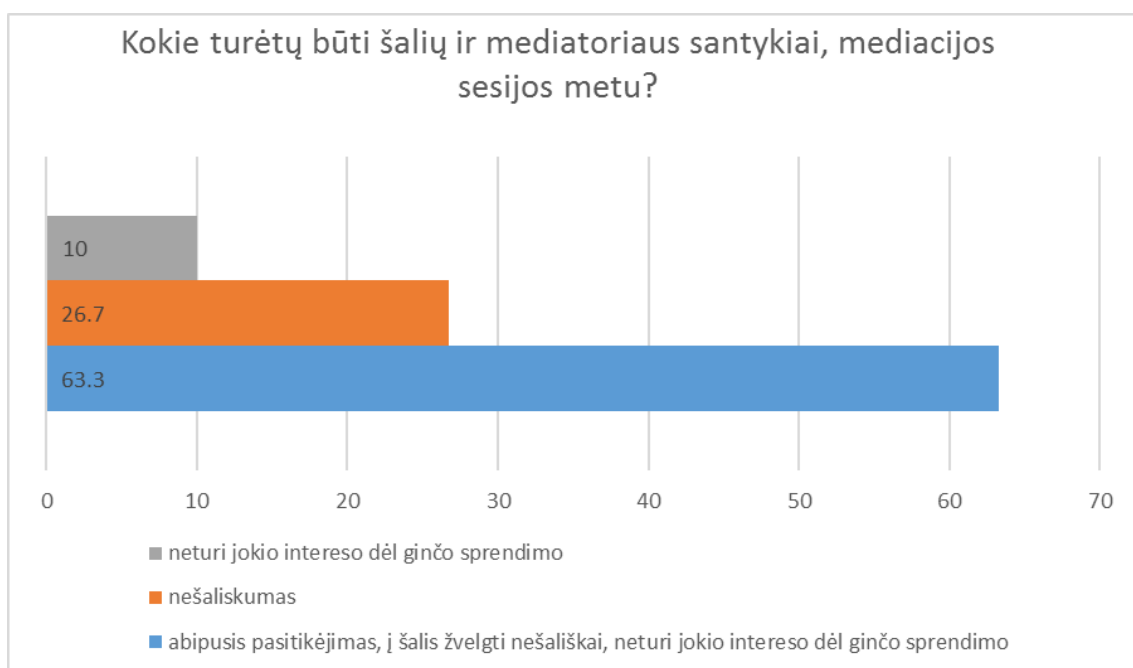
The answer “Second direction, when the mediator helps the parties to the dispute to find and make the optimal solution” collected 43.3 percent, so it can be said that the mediators have the most difficulty finding the optimal solution that would suit both parties. 36.7 percent of mediators agree that the third direction is the most difficult for them, when the mediator helps the parties to the dispute to maintain their status and maintain constructive relations with each other (Figure 5).

Six mediators, who make up 20 percent, chose the answer “The first direction, when the mediator helps the parties to the dispute to communicate successfully (Figure 5).



The sixth question asked to the mediators was “What should be the relationship between the parties and the mediator during the mediation session?”. (Figure 6) In this regard, an attempt was made to find out what the mediator expects from the parties and what he or she could provide and ensure to the parties that the relationship between the mediator and the parties is good and that the dispute can be resolved more quickly and easily. During each mediation, it is especially important to ensure that the parties are involved in the process voluntarily (Račelytė, D., Kaminskienė, N., Tvaronavičienė, A. et al., 2019 p. 53.)

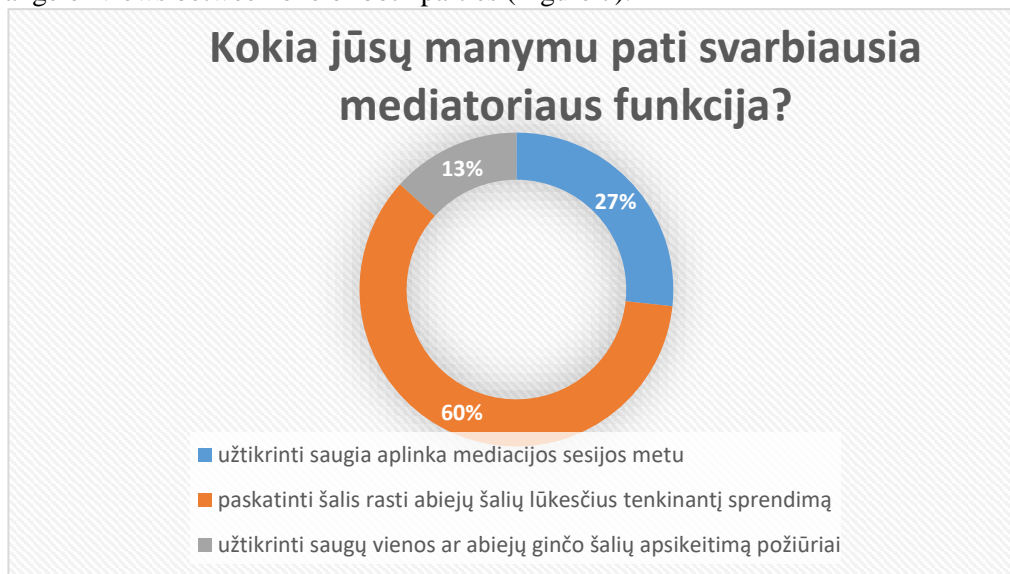
63.3 percent of respondents answered this question by choosing "Mutual trust, to look at the parties impartially, to have no interest in resolving the dispute", so it can be said that the majority of mediators agree that the relationship between the mediator and the parties should be based on mutual trust. Almost three times less (26.7 percent) chose impartiality in the relationship between the parties and the mediators, and only 3 mediators (10 percent) of the respondents chose not to support the parties and have absolutely no interest in resolving the dispute (Figure 6).



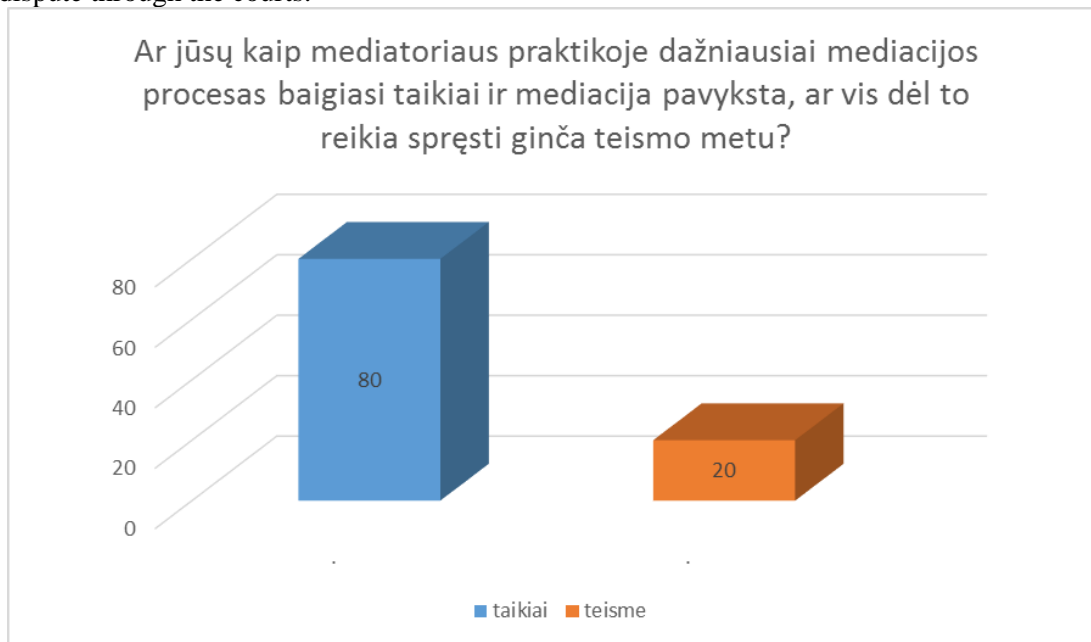
The seventh question was one of the most important questions asked, "What do you think is the most important function of a mediator (in private mediation)?". (Fig. 7)

In this regard, an attempt was made to find out what kind of mediator raises the task for himself during the mediation session. The main response chosen by 18 of the 30 mediators was “encourage the parties to find

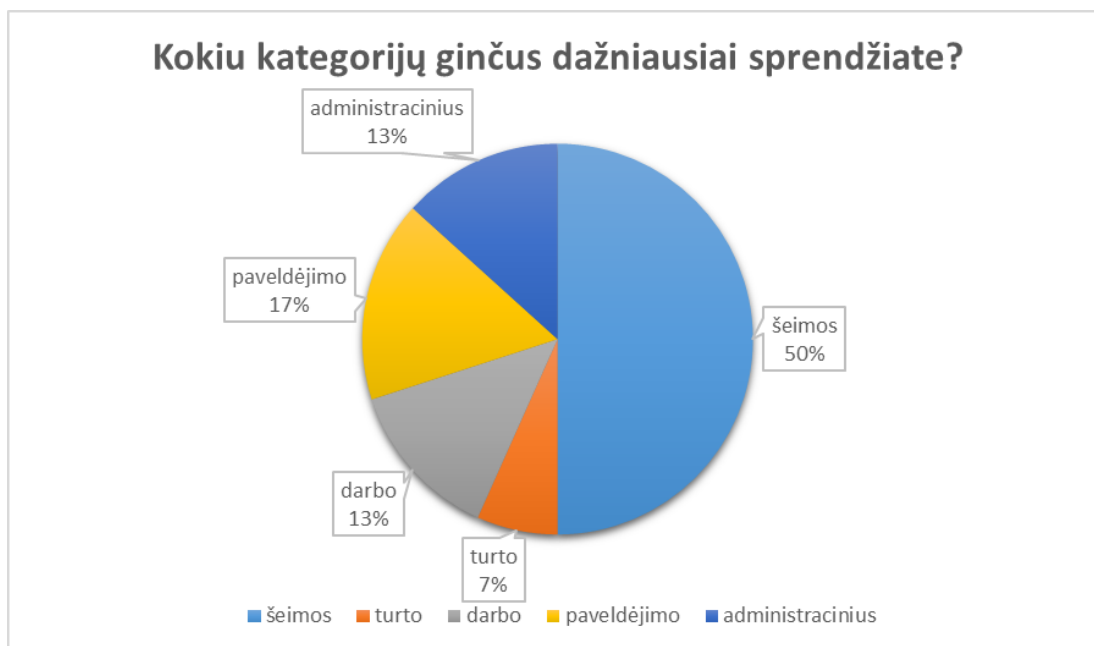
a solution that meets the expectations of both parties” when analyzing such an answer, it can be assumed that most mediators want to complete mediation as quickly and effectively as possible and are strongly involved. 8 mediators chose that the most important task for them is to ensure a safe environment during the mediation session and only 4 out of 30 mediated respondents answered that the most important task for them is to ensure a safe exchange of views between one or both parties (Figure 7).



In the eighth question, the respondent was asked “In your practice as a mediator, does the mediation process usually end peacefully or should a dispute be resolved in court?” (Fig. 8). however, the dispute needs to be resolved in court. To this question, 24 mediators answered that mediation succeeds and ends peacefully, so it can be argued that mediation is really needed, because of the amicable way of resolving a dispute, out of court. Only 6 out of 30 respondents said that they usually fail to resolve the dispute amicably and have to settle the dispute through the courts.

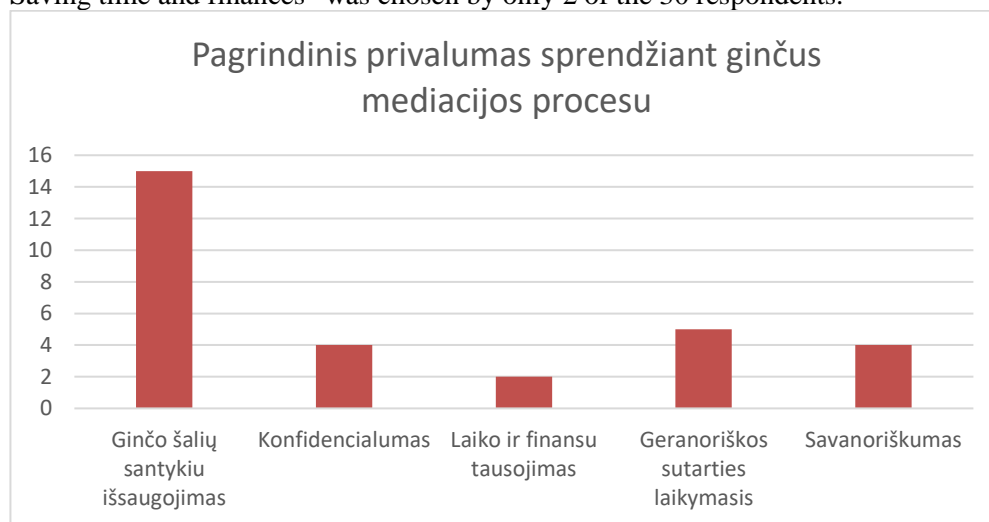


The ninth question of the questionnaire was interested in which categories of disputes are most often resolved by the respondents (Fig. 9). Analyzing the results of the ninth question, the most active group, they accounted for 17 per cent of all respondents, the two groups which each accounted for 13 per cent were administrative disputes and labor disputes. And the last one that accounted for at least 7 percent of these are property disputes. The questionnaire asked respondents the most frequently resolved disputes during mediation in order to determine which category of disputes most people resolve through mediation.



The tenth question, which was asked to mediators “The main advantage of resolving disputes in the mediation process”, to which most mediators, ie 15 out of 30, answered the answer “maintaining good relations between the parties to the dispute”, so that mediators see good relations as the main advantage. dispute resolution. Also, the answer “Goodwill of the parties to the dispute” was chosen by 5 out of 30 respondents (Figure 10).

Responses such as "Confidentiality" and "Volunteering" were chosen by 4 out of 30 respondents. And the answer "Saving time and finances" was chosen by only 2 of the 30 respondents.



## Conclusions

Mediation is one of the alternative dispute resolution methods that is widely used around the world and has a long tradition of application. It is being successfully developed in the USA, Great Britain, Australia, New Zealand, Argentina, China and other countries of the world, as well as in Lithuania. The choice of mediation style according to the specific dispute is considered a sign of the mediator's competence and experience.

The mediator is a third, impartial and neutral person who, in the mediation process, directs the parties to the dispute towards finding the optimal solution. The mediator is the problem handler because he enables the parties to the dispute to analyze the problem from different points, helps to define the key issues, the mediator must also be a leader because he promotes the progress of negotiations through procedural and substantive proposals and is identified as a person who can take part guilt that the parties to the dispute could preserve their dignity once they have taken a decision.

The main function of the mediator in the mediation procedure is optimal control of the process, initiation and supervision of negotiations between the parties to the dispute. By focusing in three directions, the mediator

helps the party find a solution, leaving the final decision to the parties. Mediation, even without an agreement, never fails because it forces the parties to identify the facts and issues in the dispute.

The analysis of the quantitative study clarified the role of the mediator during the mediation session, assessing the responses of the majority of respondents, it can be stated that mediators are really involved in the mediation process and try to find a solution that is acceptable to both parties. A quantitative study revealed that mediators see the preservation of good relations between the parties to a dispute as the main advantage of mediation.

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## PROFITABILITY INCREASE OPPORTUNITIES UAB „GETTRANS”

**Loreta Beinorienė**

*Lithuania Business University of Applied Sciences*

**Prof. dr. Angelė Lileikienė**

### Abstract

According to the literature on economic and financial analysis, profit and profitability are one of the most important criteria for evaluating a company. In order to survive in the competitive struggle by increasing profitability, company managers should have a good understanding of the structure and influence of the factors that determine profitability, as these factors help to discover the right reasons that determine the change in profitability. The scientific article defines the concepts of profit and profitability indicators, analyzes the factors determining profit and profitability, and establishes the relationship between profitability and company solvency indicators.

KEYWORDS: Profit, Profitability, Financial analysis, Company.

### Introduction

Profit is the financial benefit to be derived from earned income less expenses. Profit can be identified as the most important goal of the company. Profit trends are very important for a company as those changes affect the company's growth. However, the relative size of profitability evaluates the company's performance much more effectively. Profitability indicators show how much profit the money invested by shareholders earns. Profitability is related to future profit accumulation and it describes the capacity of a business at profit generation levels. It is not enough just to analyze the absolute indicators of the profit and loss statement. Therefore, in order to effectively manage, evaluate, forecast and control profitability, the company must perform a comparative analysis of the structure, dynamics, profitability and determine the relationship with solvency ratios. It is important to assess the factors that determine changes in profitability and forecast the future of the company. Continuous monitoring of profitability helps company managers to identify the factors that led to positive and negative changes, make informed decisions in a timely manner and control operational risk.

**The aim of the article** is to analyze the theoretical and practical aspects of profitability assessment, the factors determining the increase of profitability, and to provide methods for forecasting the company's profitability.

**The article discusses the methods** of analysis of scientific literature - systematization, logical and comparative analysis; methods of profitability analysis - vertical, horizontal, segmental, regression analysis, Du Ponto pyramid analysis, qualitative and quantitative methods of profitability forecasting, methods of increasing profitability.

### Theoretical analysis of the concept of profit and profitability

Profit is at the heart of any organization (Slywotzky, 2004). It best summarizes all the activities of the company. Profit is related to all indicators of the company's performance, such as assets, capital, income, expenses, liabilities. The profit shows the activity of the whole team of the company, the internal relations of economic phenomena: the efficiency of the application of new equipment and technology, the increase of labor productivity, the reduction of the cost of production. For these reasons, profit is considered a measure of a company's work efficiency and performance evaluation (Mackevičius, 2014). However, in order to objectively assess the efficiency of the company's activities in various aspects, its competitiveness and development opportunities, it is not enough to analyze the absolute profit indicators and make certain decisions based on them. As a result, various relative indicators are calculated, their relationships and dependencies are determined, which help company managers to solve important operational tasks (Mackevičius et al., 2014). L. Juozaitienė (2007), V. Gronskas (2007), J. Mackevičius and others. (2014) analyze the performance of companies mostly based on profitability indicators. They point out that these indicators best summarize a company's ultimate achievements and show the benefits that shareholders and investors can derive from the risk of investing their capital. It is important to establish the relationship between profitability and the solvency of the company, because companies can operate profitably but be insolvent, unable to meet obligations on time.

Profit is an important indicator of economic performance, so it is given a lot of attention in financial analysis. L. Juozaitienė (2007) states that profit is calculated as the difference between the income earned by a company and the costs incurred to earn that income. In financial management, profit is assessed in two ways: on the one hand, profit shows the company's performance, on the other hand, it is the most important factor in the company's development. Naturally, businesses acquire assets as a means to make a profit, and the latter in

turn is the main source of increasing the company's assets (own funds). Stakeholders have different assessments of the economic significance of profits:

- capital owners seek to increase profits by expecting more return on invested capital;
- the state (region) is interested in profitable business activities, as it leads to economic growth and higher state budget revenues;
- for managers, higher profits show good management skills;
- For business partners, high company profits provide security and greater reliability of economic transactions.

All production, commercial and financial companies are interested in making a profit and increasing it (Žaptorius, 2015; Juozaitienė, 2007). Some are doing better than others. If a company makes higher profits, it can develop the business, introduce new technologies, encourage and motivate employees, allocate funds to improve their qualifications. In this way, the company's competitive opportunities are increased.

In the most general sense, profit is the difference between gross income and costs (Snieska, Ambrasienė, Bernatonytė, 2000). It is important to know when profits are made. The nature of profit is explained by the following theories:

- Risk theory states that a return in excess of interest or an average level of return is a charge to the owner of capital for the risks he faces when investing capital in different areas of risk activity;
- Wholesale equilibrium theory states that there is a long-term equilibrium of the average profit rate that guarantees average profit. However, there are deviations from the average during certain periods, so that the profit margin of some firms exceeds it or is lower than average;
- Monopoly theory states that over long periods of time, the profit margins of various firms may exceed the average rate. This is determined by economies of scale in production, state control of natural resources, patent purity or competition, state measures regulating activities;
- The theory of effective management considers the exceptional ability of management staff to organize product production and product movement in the market to be the reason for the emergence of excess profit (Andrijauskienė, 2004).

Thus, in order to make a profit, an entrepreneur must think of a useful product or service, find an efficient way to produce and finance it, sell that product or perform a service at a higher cost than the cost, and be willing to take risks. There is no business without risk. Profit is a reward that entrepreneurs receive for risk, new ideas and efforts put into business (Martinkus, Žilinskas, 2007).

According to the authors V. Kvedaraitė (1996), B. Martinkaus, V. Žilinskas (2007), R. Kanapickienė, K. Rudžionienė, B. Jefimovas (2008), D. Bego and others. (Begg, 2014), H. G. Lutz (Lutz, 2010), D. Andriušaitienė et al. (2016), profit is calculated as the difference between a firm's income and the costs (costs) incurred to earn that income. In general, profit is a residual indicator calculated as the difference between the income received by a company during the reporting period and the expenses incurred during the reporting period. J. Žaptorius and D. Poškaitė (2009) name the profit as an acquired asset, the fair value of which is higher than the book value. So it is worth remembering for entrepreneurs that what matters is not what assets the company has at its disposal, but how efficiently those assets are used. Continuing the idea, the authors V. Gronskas (2007), L. Juozaitienė (2010) emphasize that profit is one of the most important indicators of a company's performance, indicating the company's financial capabilities: company's development, achievements, introduction of new products, technologies or services. Considering that profit has a strong impact on the company's development prospects, its value increases (decreases), affects the expectations and actions of owners, employees, investors, the state and society, the correct recognition and determination of income and costs is very important and needs special attention. (Žaptorius, Poškaitė, 2009).

The concept of profit is understood and interpreted in various ways in the scientific literature. Foreign and Lithuanian authors provide different definitions of the concept of profit (Table 1).

Table 1

*Definitions of profit* (compiled by the author, based on the analyzed literature)

Author, year	Profit description
Martinkus, Žilinskas (2007)	Difference between gross income and total costs
Andriušaitienė, Drejeris, Jakutis, Petraškevičius, Stepanovas (2016)	The difference between a company's income and expenses
Kvedaraitė (1996)	Financial benefits, difference between income received and expenses incurred to earn it, income surplus
Žaptorius, Poškaitė (2009)	Profit - when the fair value of the exchanged asset on the day of the exchange transaction exceeds it is carrying amount
Kanapickienė, Rudžionienė, Jefimovas (2008)	Company's operating result, which is calculated from income minus expenses
Akram, Rashid (2019)	Profit is what remains after investing time, talent and money
Rutkauskas, Stankevičius (2004)	The difference between the selling price of production inventories and the production cost
Begg, Vernasca, Fischer, Dornbusch (2014)	Profit is a surplus of income in excess of expenditure



Andrijauskienė (2004)	The difference between the income received from sales and services and the cost of goods sold and work performed
Aukščiūnas, Ginevičius (2011)	Income that a company must receive for the use of its resources
Snieska, Baumilienė, Bernatonytė, Čiburienė (2006)	Profit is the net income of various types of firms remaining after covering production costs
Lutz (2010)	The difference between a firm's gross income and expenses
Juozaitytė (2007)	Profit shows the company's performance and is the most important factor in the company's development
Heather (2006)	Money earned from sales that is greater than expenses
Gronskas (2007)	Profit is an indicator of a company's performance, showing how much the company can develop and improve
Mackevičius, Giriūnas, Valkauskas (2014)	An important indicator of the company's performance evaluation, which determines the company's opportunities to expand its activities, invest, develop new products, provide services

According to the authors V. Kvedaraitė (1996), B. Martinkaus, V. Žilinskas (2007), R. Kanapickienė, K. Rudžionienė, B. Jefimovas (2008), D. Bego and others. (Begg, 2014), H. G. Lutz (Lutz, 2010), D. Andriušaitienė et al. (2016), profit is calculated as the difference between a firm's income and the costs (costs) incurred to earn that income. In general, profit is a residual indicator calculated as the difference between the income received by a company during the reporting period and the expenses incurred during the reporting period. J. Žaptorius and D. Poškaitė (2009) name the profit as an acquired asset, the fair value of which is higher than the book value. So it is worth remembering for entrepreneurs that what matters is not what assets the company has at its disposal, but how efficiently those assets are used. Continuing the idea, the authors V. Gronskas (2007), L. Juozaitienė (2010) emphasize that profit is one of the most important indicators of a company's performance, indicating the company's financial capabilities: company's development, achievements, introduction of new products, technologies or services. Considering that profit has a strong impact on the company's development prospects, its value increases (decreases), affects the expectations and actions of owners, employees, investors, the state and society, the correct recognition and determination of income and costs is very important and needs special attention. (Žaptorius, Poškaitė, 2009).

Summarizing the authors' definitions of profit, it can be argued that profit is the difference between gross income and gross costs. Profit can be interpreted as the difference between what a firm puts into the production of a product or service and what it receives from sales. Profit can be described as an indicator of a company's success. It is also identified as the financial benefit that the enterprise expects to receive and that is required to maintain its financial capacity. Profit is a factor that ensures the company's economic development, expansion and business continuity. It is a reward for entrepreneurship, a risk that affects the continued success of a company. L. Juozaitienė (2007), analyzing the profit and its tendencies of change, notes that the analysis of the profit composition must be performed first. The income statement presents data on income earned and expenses incurred to earn that income during the reporting period.

The concepts of income and expenses are precisely defined in the Business Accounting Standards [10 IAS, 2015]. Revenue is defined as an increase in economic benefits and value due to the use, disposal, sale or decrease in liabilities of an asset during the period, when it results in an increase in equity, excluding additional contributions from owners. This is how the concept of income is named by R. Kanapickienė et al. (2008) and J. Žaptorius and D. Poškaitė (2009). They note that revenue arises when it is earned and is considered only as an increase in the economic benefits to the enterprise. Revenue is recognized when it is earned, regardless of when the cash is received.

Costs are the reduction in the economic benefits arising from the consumption, disposal, sale or impairment of an asset and the incurrence of a liability during the period that results in a decrease in equity other than a direct reduction [11 VAS, 2015]. An enterprise considers as expenses only that part which is intended for the production of sold products, provision of services, sale of goods, i. that part which is required to earn income in the reporting period and is recorded when it is incurred, regardless of the expenditure of money (Kanapickienė, 2008; Žaptorius, Poškaitė, 2009). "According to the purpose, costs are divided into selling expenses, general and administrative expenses, selling, other operating expenses, financial and investment activities and income tax expenses" [11 VAS, 2015, p. 3]. G. Černius (2014) emphasizes that the movement of money is also a relevant aspect of corporate finance. Business leaders need to know where the money is coming from and where it is being spent. In the long run, revenue and expenditure take the form of cash inflows and outflows over time (Figure 1).

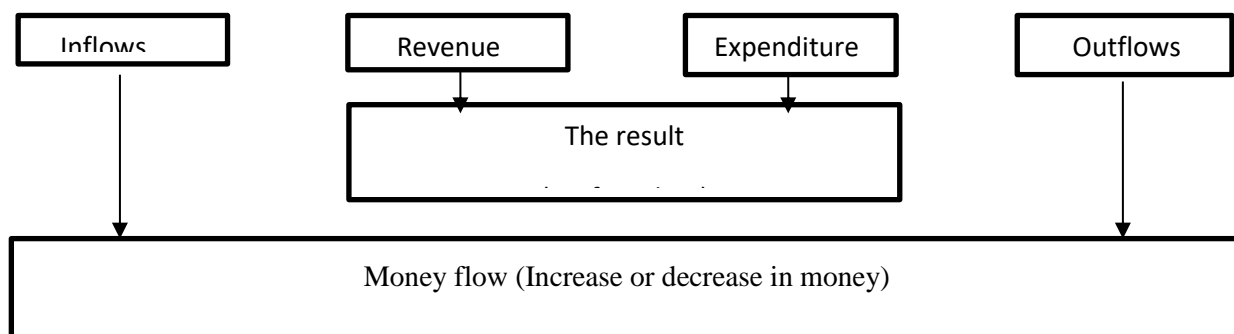


Fig. 1. Operating result and cash flow (Černius, 2014, 85 p.)

Cash flow is the inflow of cash and cash equivalents during the period. During the financial year, the cash flow may not coincide with the operating result. Thus, there are often situations when a profitable company lacks the money necessary to maintain normal operations. Cost reduction relevant to the company (Černius, 2014). Expenditure is defined as a decrease in assets (usually cash) during the period. To know exactly how much and what resources need to be consumed, it is important for a company to analyze its costs. It is first proposed to perform a full cost analysis. Then analyze the costs of each unit and their performance, perform a cost analysis of a specific area of activity. After analyzing the costs and the reasons for their changes, the company can decide which costs should be reduced, thus increasing the company's profit (Juozaitienė, 2007).

Market conditions focus on the forecasting and analysis of profit indicators. According to L. Juozaitienė (2007), in market conditions the company's profit depends on the scale of activity, business environment, accounting system principles, demand, purchasing power of the population and other economic conditions, such as:

- the method of calculating the depreciation of fixed assets;
- method of property valuation;
- inventory accounting method;
- a provision has been made to cover doubtful debts;
- credit interest.

Obviously, a company will not be able to survive if its average revenue (revenue per unit of product) is lower than the average variable cost. The system of interaction and price of supply and demand determines what, how and for whom to produce. The market encourages producers to produce those goods, service providers to provide those services that consumers want, to acquire useful knowledge and skills that would encourage consumers to use limited resources sparingly (Andriušaitienė et al., 2016). Consequently, production and services must be profitable. The company must see the perspectives of its activities (Juozaitienė, 2007; Mackevičius et al., 2014).

Profit is obtained when the company's activities are profitable, i. receives income in excess of the company's costs. The quality of the service provided is important in the service company. When a customer receives a service, he compares it to the expected value, which determines the customer's satisfaction and behavior when re-choosing the service. Finally, the amount of profit received by the company will depend on the service provided by the customer (Sūdžius, 2011). Shareholders are investing in the business because they expect it to be profitable. Profit is also needed for the company (not only for the shareholders), for the expansion of its activities. However, the absolute profit ratio does not sufficiently reflect the efficiency of the company's activities (Gronskas, 2007). The success of a company's activities is often described not by the size of the company's profit, but by its profitability (Gudaitis, Žagūnytė, 2013). The ultimate goal of any business is maximum profit and profitability, which allows it to increase investor wealth (Paramasivan, Subramanian, 2009). The success of a company is often described not by the size of the company's profit, but by its profitability. The ultimate goal of any business is maximum profit and profitability, which allows for an increase in investor wealth. Profitable companies can afford to do what they want and some of them can turn out to be quite capricious (Vernimmen, 2005). According to J. Mackevičius et al. (2014), it is not enough just to analyze the absolute profit indicators in order to objectively assess the efficiency, competitiveness and development opportunities of the company. The profit figures presented in the company's financial statements do not yet indicate at what price the net income is received. It is important to know how much is needed to sell products and services and how much money to invest in order to make a profit (Kvedaraitė, 1996). The final

results of the company's operations are best revealed by the relative values of profit, i. profitability indicators (Aukščiūnas, Ginevičius, 2011). They are measures of the rate of return (payback) of assets and capital. Profitability indicators also help to assess the ability of company managers to make a profit from the funds invested in the company (Poškaitė, 1993; Mackevičius et al., 2014). They best show the final result of operational efficiency and these indicators are used to decide what benefits can be obtained by risking to invest one's capital (Gudaitis, Žagūnytė, 2013). The financial analysis and management literature presents various concepts of profitability. According to Fabozzi and Drake (2009), profitability helps determine the value of a firm. First of all, it can be treated as an indicator that indicates the efficiency of the use of any factor of the company - goods, capital, labor. Profitability concepts are used in the analyzed scientific literature (Table 2).

Table 2

*Definitions of the concept of profitability* (compiled by the author, based on the analyzed literature)

Author, year	The concept of profitability
Bukevičius, Burkšaitienė, Paliulis, Žaptorius, (2009)	Profit analysis to determine the cost-benefit ratio
Vernimmen, (2005)	The ratio of profit to capital required to invest to generate profit
Livingstone, Grossman, (2002)	A source of business life, showing business development prospects
Bottazzi, (2008)	An indicator of a company's growth
Fabozzi, Drake, (2009)	Helping investors assess risk when investing their capital
Gronskas, (2007)	The ratio of profit to a certain performance indicator of a company that is related to profit
Mackevičius, Poškaitė, Villis, (2011)	The ratio of profit (gross, net) and a certain performance indicator of the company related to profit - sales revenue, assets, capital
Andrijauskienė, (2004)	Indicators showing the efficiency of the company's investment activities
Martinkus, Žilinskas, (2007)	Ability to use economic resources efficiently, to obtain at least an average profit rate for the amount of resources used
Mackevičius, Giriūnas, Valkauskas (2014)	An indicator of a company's efforts to generate more revenue than with the resources used as a return on investment
Černius, (2014)	An indicator of how much primary profit is made up of one euro of sales

Based on Table 2, it can be seen that foreign authors describe profitability as an important factor in a company's investment and growth. Profitability indicators provide an opportunity to assess the real benefits of the company to investors and shareholders. This helps to orientate whether it is worth investing in the company. Meanwhile, the authors of the Lithuanian financial analysis and management literature link profitability with specific factors - capital, assets, sales revenue. In a general sense, profitability can be defined as the ratio of profit to a certain performance indicator of a company, related to capital, assets, sales. Profitability shows how effectively profits are earned, how well a company makes financial and investment decisions.

According to B. Martinkus and V. Žilinskas (2007), profitability is named as a return on investment, calculated as a percentage. However, only firms with a strategy will be more profitable than other firms operating in the same sector (Vernimmen, 2005). The analysis of profitability indicators provides the manager with additional information that allows him to choose different and viable investment alternatives (Helfert, 2001). A wise investor always avoids risk, therefore, when making financial decisions, he knows that as profitability increases, so does risk (Gaidienė, 1998). Thus, it can be said that the investor must be able to analyze profitability indicators in order to be able to use them in making decisions.

Operating profit can be understood as the difference between the income earned by an enterprise and the expense incurred to earn that income, and a profit and loss statement is a financial statement showing all income earned, expenses incurred and results obtained during the reporting period. Profit consists of various indicators of the company's performance, the main ones being sales revenue, capital, assets, gross and net profit of the company. Profitability, meanwhile, is the ratio of profit to a particular performance indicator of a company that reveals whether a company's resources are being used efficiently, and profitability analysis is important to assess a company's financial development potential and reliability.

### Profitability indicators and their classification

Profitability is the ratio of pre-tax profit (loss) to income from the sale of goods and / or services, showing how many pre-tax profit (loss) cents per euro of income [Lietuvos statistikos departamentas, 2021]. Profitability is the lifeblood of a business. Income-earning businesses can survive, grow and prosper. Loss-making companies cannot continue to operate and will only survive until their cash runs out. Therefore, to assess business viability, it is important to analyze profitability (Livingstone and Grossman, 2002). According to J. Mackevičius (2006), in order to assess the financial condition of a company, it is necessary to analyze the indicators related to capital, assets and liabilities. However, in order to examine the company's performance, it is necessary to pay attention to the analysis of profitability indicators. According to these indicators, it is decided what benefits a company can receive by risking to invest capital (Andrijauskienė, 2004). It can be

stated that profitability indicators basically determine the business situation (Rutkauskas, Stankevičius, 2004). The coefficients of gross profitability and net profitability are most often named in the literature of economic theory (Bukevičius et al., 2009; Mackevičius et al., 2014). “These indicators are calculated by dividing gross and net profit from sales revenue, respectively” (Mackevičius et al., 2014, p. 324). They would therefore have to be referred to as gross margin on sales and net profitability on sales. Profitability can be described as the ratio of profit to a certain performance indicator of a company. Of course, profit is mostly related to sales, assets and capital (Kvedaraitė, 1996; Mackevičius et al., 2014).

Many authors of financial analysis and management literature (Juozaitienė, 2007; Smalenskas, 2007; Livingstone, Grossman, 2002; Bukevičius et al., 2009; Mackevičius et al., 2014; Labonaitė, Subačienė, 2014) name sales profitability indicators as the most important, as they are of particular interest to all business market participants. These are usually investors for whom it is important to know whether their investment projects will pay off. Sales profitability is studied by managers to evaluate performance and efficiency (Gronskas, 2007). The scientific literature suggests calculating such sales profitability indicators (Table 3).

Table 3

*Sales profitability indicators and their calculation* (Mackevičius et al., 2014, p. 326)

Indicators	Calculation formulas	Content of the indicator
Gross profit margin	$\frac{\text{Gross profit}}{\text{Sales revenue}}$	The indicator shows the marginal profitability of sales, how businesses would work if they did not have administrative management costs. Helps control the cost of goods sold and pricing policies.
Profitability of typical activities	$\frac{\text{Typical operating profit (loss)}}{\text{Sales revenue}}$	The indicator shows the ability of companies to control the formation of operating costs. It best describes management effectiveness.
Profitability of financial and investment activities	$\frac{(\text{Profit (loss) on financial and investment activities})}{\text{Sales revenue}}$	The indicator shows the significance of financial and investment activities in terms of sales revenue.
Profitability from ordinary activities	$\frac{\text{Profit (loss) before tax}}{\text{Sales revenue}}$	The indicator shows the profitability of pre-tax sales.
Net profitability	$\frac{\text{Net profit}}{\text{Sales revenue}}$	The indicator shows the profitability of sales, taking into account all revenues and expenses, how much net profit goes to the euro after deducting management costs and taxes.

Summarizing the profitability indicators of sales, it can be said that they are all important for managers and other stakeholders who are interested in the company. Each sales profitability indicator allows the company to assess the profitability of its operations and the potential value in the market. All these indicators are calculated using data from the income statement. The calculation of the profitability of sales ratios is based on the company's profit and they reflect the sales efficiency at various stages of the company's operations. However, it should be borne in mind that a thorough analysis of the profitability indicators of sales should be carried out in order to reveal the changes in these indicators, their determinants and reasons.

Return on assets is the second component of a company's overall profitability. Return on total assets (ROA) determines whether a company uses its assets efficiently (Helfert, 2001; Šakienė, Puleikienė, 2009; Andrijauskienė, 2004). “A company has assets at its disposal to earn income” (Bukevičius et al., 2009, p. 281). Assets are the value of an enterprise's economic resources. It can be material - it is land, buildings, equipment, vehicles. Intangible assets do not have a specific materialized form, but are used for a long time. Financial assets are the company's investments in shares, bonds or securities. Companies use their assets in the hope of obtaining economic benefits (Juozaitienė, 2007; Helfert, 2001). J. Mackevičius et al. (2014) state that investors are very interested in asset profitability. They will refuse to invest in a company after finding out that assets are being used inefficiently, improperly stored or even looted. Return on assets are usually calculated as the ratio of net profit to assets. However, profit before interest and taxes can be used to calculate it, so that the profitability of the assets is not affected by the company's financial activities but only by its economic production activities. Return on assets are most often calculated (Table 4).

Table 4

*Return on assets* (compiled by the author)

Indicator name	Calculation formula
Return on total assets	$\frac{\text{Net profit}}{\text{Assets}}$
Return on fixed assets	$\frac{\text{Net profit}}{\text{Fixed assets}}$
Return on current assets	$\frac{\text{Net profit}}{\text{Current assets}}$

The profitability of an asset measures the return on a € 1 invested in a company. Asset profitability indicators are calculated as the ratio of net profit to a certain type of assets (Gudaitis, Žagūnytė, 2013). Asset profitability indicators are significant because they show the efficiency of the use of the company's long-term and short-term assets and the ability of managers to manage those assets (Aglinskaitė, Kazakevičius, 2018). The return on total assets indicator shows whether the company uses the assets efficiently. The profitability of fixed assets reflects the net profit attributable to the euro of fixed assets. This indicator may decrease if the company has inoperable or unused equipment or when the company acquires other technological equipment with a higher book value. Short-term return on assets shows the net return on current assets in euros.

Investors, creditors are most interested in the return on capital. This indicator most objectively shows the efficiency of the company's financial activities (Juozaitytė, 2007; Paramasivan, Subramanian, 2009; Mackevičius et al., 2014). After analyzing the return on capital, it is known whether it is worth buying or selling securities. The indicators of return on equity, equity and fixed capital are most often calculated by dividing the net profit from the capital, the efficiency of the use of which is to be known (Mackevičius et al., 2014). Return on capital ratios are distinguished (Table 5).

Table 5  
*Return on capital ratios and their calculation* (compiled by the authors)

Indicator name	Calculation formula	Indicator content
Return on Equity	$\frac{\text{Net profit}}{\text{Share capital}}$	This indicator shows the amount of net profit invested by shareholders per euro
Return on Investments	$\frac{\text{Net profit}}{(\text{Net equity} + \text{Long-term liabilities})}$	Shows how much profit the company receives from fixed capital
Earnings per share	$\frac{\text{Net profit}}{\text{Number of shares}}$	Indicates net earnings per share

„Profitability of share capital shows the efficiency of the use of share capital” (Gudaitis, Žagūnytė, 2013, p. 92). The return on fixed capital ratio measures the level of utilization of fixed capital (that is, equity plus long-term liabilities) and allows it to be compared with a similar indicator for other companies. An analysis of the return on capital indicators suggests that these indicators are also important. Assessing return on capital ratios helps determine how equity, equity, and fixed capital contribute to earning net profit (Livingstone, Grossman, 2002). The profitability of a firm is highly dependent on capital investment (Livingstone, Grossman, 2002). Fabozzi and Drake (2009) state that profitability indicators most accurately show whether a company effectively manages costs, makes it possible to compare them with the income received, and to identify opportunities to increase profitability. However, in order to achieve better results, companies need to analyze the relationship between profitability and solvency. The company's solvency is the company's ability to meet its long-term and short-term obligations to banks, partners, tax inspectorates, etc. (Gronskas, 2007). When the company's assets are less than long-term and short-term liabilities, then the company is insolvent (Andrijauskienė, 2004).

By analyzing profitability and solvency indicators and changes in their values, it is possible to create a business strategy and make the right decisions that would help the company achieve the greatest benefits (Mackevičius et al., 2014). Profitability determines, as shown earlier, the efficiency of the company's operations, and solvency indicates the financial condition of the company. The relationship between the company's profitability and solvency can be illustrated (Figure 2).

	Solvency	Insolvency
Profitable	1	2
Unprofitable	3	4

Fig. 2. Company 's solvency and profitability (Mackevičius ir kt., 2014, 346 p.)

The example shows that companies that are both profitable and solvent should enter the first box (Vernimmen, 2005). These are successful companies that are attractive to investors. The fourth situation shows the opposite, as the company is insolvent and unprofitable. Such a company is in danger of bankruptcy (Juozaitytė, 2007). The second box shows that the company is profitable but insolvent, and the third shows that the company is solvent but unprofitable. In these cases, the company must improve its activities and develop new business strategies, provide measures to eliminate shortcomings (Mackevičius et al., 2014).

The solvency and liquidity ratios of a company are often inseparable. A. Andrijauskienė (2004) points out that solvency is the ability to meet obligations, and liquidity is the ability of a company to convert securities and tangible assets into money. In the financial analysis literature, liquidity ratios are identified with short-term solvency ratios (Table 6).

Table 6

*Main liquidity (solvency) indicators* (Šakienė, Puleikienė, 2009, p. 36)

Indicator	Formula	Explanation of the formula
Gross short-term solvency (BTM), sometimes	$BTM = \frac{TT}{Tl}$	TT – current assets Tl – current liabilities
Quick short-term solvency (GTM), sometimes	$GTM = \frac{(TT - A)}{Tl}$	TT – current assets A – stocks Tl – current liabilities
Net working capital (GAK), in euro	$GAK = TT - Tl$	TT – current assets Tl – current liabilities
Cash coverage ratio (PGPin <sub>koef</sub> ), sometimes	$PGPin_{koef} = \frac{GP_{in}}{Tl}$	GP <sub>in</sub> – cash Tl – current liabilities

The general short-term solvency ratio is also called the current solvency ratio and shows the company's ability to cover short-term liabilities by using its available current assets. The safety margin for this indicator is set at 1.2. It is necessary to find out the share of inventories in current assets, as the company's solvency deteriorates when the share of inventories is high (Šakienė, Puleikienė, 2009). The quick solvency ratio is calculated as the ratio of the value of the most liquid assets to the short-term indebtedness. This indicator shows the company's ability to meet the requirements of borrowers immediately (Juozaitienė, 2007). According to Šakienė, Puleikienė (2009), net working capital is suitable for measuring the total liquidity of a company and should be positive. The cash coverage ratio shows the proportion of current liabilities that can be settled immediately. It is important to be interested in the long-term and overall solvency of the company. According to L. Juozaitienė (2007), these indicators show whether the company will survive after a few years, will be able to repay debts and pay interest (Table 7).

Table 7

*Long-term and general solvency indicators* (compiled by the author)

Indicator	Calculation formula	Indicator content
Long-term debt ratio	$\frac{\text{Long-term liabilities}}{\text{Equity}}$	Shows the company's ability to meet long-term liabilities on time
Reliability of long-term commitments	$\frac{\text{Fixed assets}}{\text{Long-term liabilities}}$	Shows how much fixed assets a company has per unit of long-term liabilities. A high rate indicates a low probability of bankruptcy
Gross solvency	$\frac{\text{Average annual value of the company's assets}}{\text{Total liabilities of the company}}$	The higher the ratio, the higher the company's solvency level, the lower the financial risk and the risk of bankruptcy. Good when the value of the indicator is 2
Gross Debt Ratio	$\frac{\text{Company's total liabilities}}{\text{Average annual value of the company's assets}}$	Indicates the share of the company's assets financed by borrowed funds. Used to substantiate decisions on possible borrowing, to finance the development of the company
Long-term credit repayment rate	$\frac{\text{Net profit}}{(\text{Annual loan repayment installment} + \text{annual interest})}$	Shows how many times the net profit is higher than the annual repayable credit installment and interest. Evaluates the security of the credit and guarantees its repayment from the profits made

In order to compare the efficiency of companies, different profitability ratios are calculated, and in order to assess the stability of a company, it is necessary to calculate solvency ratios and their relationship with profitability. The classification of profitability and solvency ratios into groups helps to understand the methodology of their calculation. Therefore, information users can make fairer decisions (Mackevičius et al., 2014). Entrepreneurs can perform financial analysis, prepare business plans, and substantiate business strategy by calculating return on assets, sales and return on equity (Juozaitienė, 2007). When calculating solvency ratios, it will be clear to company managers whether the company can cover its liabilities (debts). According to V. Rutkauskas and P. Stankevičius (2004), the financial indicators of a company do not explain anything in themselves. They acquire economic meaning only by comparing these indicators with similar indicators of the previous or even previous years, indicators of other companies, or recommended reference values.

### The profitability factors of change

After reviewing the concepts of profit and profitability and profitability indicators, it is possible to perform a profitability analysis. However, in order for the performed analysis to be informative, it is first necessary to take into account the factors influencing profit and profitability (Černius, 2014). G. Labonaitė and R. Subačienė (2014) note that in order to assess the efficiency of the whole company, it is expedient to examine various factors. Most authors of financial analysis literature (Juozaitienė, 2007; Gronskas, 2007; Paramasivan,

Subramanian, 2009; Mackevičius et al., 2014) name the same factors influencing profitability: quantity of goods sold, cost price, assortment, price change. However, A. Andrijauskienė (2004) singles out such factors as: scientific and technical progress, managerial competence, product competitiveness. According to V. Sūdžius (2011), profitability is affected by the quality of provided services, breadth and complexity of supply, service modification. Effective corporate governance helps to improve profitability (Paramasivan, Subramanian, 2009). Therefore, the profitability indicators of companies are strongly linked to the activities of the company's managers and their subordinates. Employees who know their field of activity must be properly selected, their qualifications raised and the planned business strategies should be not only optimistic, but also other scenarios of the company's business should be considered. It is important to assess the influence of each factor (Juozaitienė, 2007). In order to maximize profits and profitability, companies must examine their financial performance and strive for an optimal balance between income and expenses and resource efficiency. All this is combined with corporate governance, which should be focused and based on appropriate methods to be able to plan and predict the success of the company and assess risk factors (Gronskas, 2007). Business partners, company's goals, use of resources, advertising activities, employee potential and qualifications, competitive strategy, production costs - by being able to operate these factors in the desired direction, the company will be able to manage (Gudaitis, Žagūnytė, 2013).

The factors that determine a company's profitability can be divided into internal and external. External (macro-environmental) factors should first be considered in order to make appropriate decisions. They are independent of the company's operations, but have an impact on the company's operations. Macro-environmental factors are related to demographic, legal, political, economic, technical processes. According to J. Mackevičius et al. (2008), firms do not conduct in-depth analysis to reveal the influence and causes of the factors that affect it. It is important that external factors: economic, legal, political, demographic, etc., strongly influence the development of the company. They partly shape prices, supply and demand. It can also have an impact on reduced costs, shorter delivery times, improved inventory management, and the value creation process (Andrijauskienė, 2004). The assessment of external factors is necessary in order to effectively manage the company's resources in making financial and investment decisions (Gronskas, 2007).

According to T. Gudaitis and U. Žagūnytė (2013), the internal factors determining the company's profitability directly depend on the company's own actions and are related to its material resources. In order to assess the economic efficiency of economic activity, the priority remains to identify the factors that determine the company's activities. The scientific literature usually reviews the internal factors that affect the company's profit and profitability (Table 8).

Table 8

*Internal factors affecting the company's profit and profitability (Gudaitis, Žagūnytė, 2013, p. 91)*

Factors	Relationship to profitability
Product quality	Indirect link. Profits are said to be a consequence of the good quality of products or services
Customer size	Indirect link. The profit generated by the customer for the company grows along with the size of the customer
Sales volume	Direct dependence. With increasing sales (if they are profitable) and no change in other factors, profits increase, and vice versa
Selling price	Direct dependence. Products sold at a higher price generate higher profits under the same conditions and vice versa
Cost of sales	Reverse dependence. As the company's costs increase, profits "melt" and vice versa
Product range, structure	Indirect connection. As the relative weight of more profitable output increases, profits increase, and vice versa

Based on Table 8, it can be stated that the main internal factors are sales volume, price and cost. They have a clear link to the company's profits, and most other factors are indirectly related to profits and profitability. It is important to find out the reasons for the negative factors and to submit proposals for the use of the disclosed reserves. Every company works to make a profit (Slywotzky, 2004). One can think that a company can achieve its goal - profit, by producing as much as possible and selling its products at the highest possible price. This would be the case if the producer's activities were not limited by market economy conditions (Martinkus, Žilinskas, 2007). When analyzing profits, demand and supply also need to be discussed. Demand and supply is the most important feature of a market economy, which determines the expansion and reduction of production, price changes, and the level of satisfaction of needs (Andriušaitienė et al., 2016). It is therefore recommended that:

- to analyze the level of sales of products in the analyzed period;
- to determine the sales dynamics for a certain period of time and to predict its volume;
- describe the factors influencing demand and plan which factors may affect the future;
- to study the influence of factors on the composition and demand dynamics of production demand.



During the demand survey, a statistical comparative analysis of factors is performed. It is performed to find out the qualitative changes in the size of demand (Andriušaitienė et al., 2016). Demand is most influenced by the price of a good or service and its change, changes in buyers' income and savings, and changes in consumption traditions. The analysis of supply-side factors seeks to determine the impact of those factors on a company's production capacity. Such analysis includes the analysis of the quality of the company's products in comparison with its own and other countries' import and export volumes; examining the renewal of production in comparison with other countries; market access for new products. Factors influencing supply: costs, technology, natural climatic conditions, prices of interconnected goods, future expectations. A producer is interested in selling a product or service at a price that would cover production costs and ensure profit (Martinkus, Žilinskas, 2007).

In the modern market, the lifestyle, pace, consumer and his needs are changing (Labanauskaitė, Šturalo, 2014). Consumers want to meet their needs by receiving high quality services. The service can be provided as a direct service or as a component of a product (Sūdžius, 2011). If the consumer is not satisfied with the quality of the service provided, he can choose the services of another company because of the high level of competition. All this affects the profitability of the company. In order to receive more revenue and generate the highest possible net profit, a company must monitor its customer and his changing needs (Labanauskaitė, Šturalo, 2014). A company can remain profitable only by knowing the needs of the user and being able to offer him a high quality service. An organization will not be able to remain profitable without improving its services. The quality of services in the company is a very important factor influencing the company's profitability (Sūdžius, 2011; Labanauskaitė, Šturalo, 2014). The content of services as an activity places the greatest emphasis on consumer satisfaction or the benefits for which he has to pay.

The high quality of the provided service allows the organization to successfully compete in the market. This is one of the parts of the organization's image that affects the productivity and profitability of the activity (Labanauskaitė, Šturalo, 2014). Thus, the quality of services provided is a significant factor in determining a company's profitability.

### **Ways to increase profitability**

Increasing profitability is the main goal of every company (Paramasivan, Subramanian, 2009). Analysis of past and present profitability and planning for the future is relevant for all organizations, it is a tool to anticipate opportunities to increase profitability. Company profitability indicators are considered important because they are the ones that show the return that the money invested by shareholders earns (Vernimmen, 2005). The analysis of profit, profitability and their development trends should assess the size, composition and factors that contributed to the increase in profit and profitability.

According to L. Juozaitienė (2007) and J. Mackevičius et al. (2014) one of the most important ways to increase profitability is its continuous and comprehensive analysis. Various methods of profit analysis are mentioned, but the most commonly used are:

- analysis of the structure and dynamics of the income statement;
- Analysis of gross profit change factors;
- Profit segment analysis;
- Analysis of projected profit.

Structure (vertical) analysis is performed when the relevant indicator of a financial statement is compared with the overall base indicator of that report, and the resulting amount is expressed as a percentage of the base amount (Paramasivan, Subramanian, 2009). The purpose of this analysis is to determine the comparative share of a particular indicator in a given whole. A multi-year analysis identifies how the indicators have changed and the reasons for those changes. This analysis shows changes in the structure of various indicators. According to Mackevičius et al. (2014), the goal of vertical analysis is to calculate the relative weights of indicators. Structural analysis identifies the relationship and influence of specific indicators, which allows conclusions to be drawn about the changes and the causes of those indicators, as any change in the state of one element of the system affects others. This allows company managers to decide which element has the greatest impact on the size of profitability and how to deal with that element: change, reduce, eliminate.

For higher profitability, a dynamic analysis is proposed. Dynamic (horizontal) analysis is performed when the sizes of financial statements are compared with the data of the previous period (Paramasivan, Subramanian, 2009). The deviation is expressed in absolute or relative terms. When using dynamic analysis, it is important to choose the appropriate reference period and base year to compare with. It can measure changes in equity, non-current and current liabilities, income and expenses, cash flows, non-current and current assets and other indicators. This shows the results that had the greatest impact on the increase in profit and profitability. Horizontal analysis will help to assess the rates of change (dynamics) of factors, their change

over time (Mackevičius et al., 2014). Horizontal analysis can assess the change in the level of income and expenses, the size and condition of the company's fixed assets, calculate the amount of working capital, cash balances.

All business market participants are interested in the profitability of sales. In terms of gross profitability, changes in costs and income will have the strongest impact on its growth. It is necessary to evaluate the cost structure, main costs, identify trends and reasons for change (Juozaitienė, 2007). Selling more will increase gross profit. At the same time, overall profitability will increase. The higher the overall profitability, the more profitable the company should be.

The factors determining of asset profitability can be examined according to the Du Ponto Pyramid (Helfert, 2001; Mackevičius et al., 2014). Different authors apply the pyramid analysis of return on assets differently, but its essence is the same - it is the division of the return on assets into multipliers, which are then broken down into relative indicators or absolute elements of indicators. According to J. Mackevičius et al. (2014) presented in the Du Ponto Asset Yield Pyramid, it is clear that there is some relationship between net sales profitability and asset turnover. The Du Ponto Pyramid break down the various factors that determine the increase in the profitability of a company's assets. The scheme becomes more informative when it is supplemented with several years or estimated, planned, reporting data. This analysis not only shows certain regularities, but also helps in making appropriate decisions (Juozaitienė, 2007). The return on capital is particularly important for shareholders. According to this indicator, it is possible to make decisions about possible capital investment, expected profitability efficiency and the possibility to receive higher dividends (Juozaitienė, 2007; Gronskas, 2007).

The factors determining the increase in profitability can be determined by applying the Du Ponto return on equity pyramid. This pyramid shows how the factors of net sales profitability, asset turnover and capital structure are formed. The influence of assets, sales revenue and long-term and short-term liabilities on these factors is determined (Mackevičius et al., 2014). The return on equity measures the company's economic potential and the ability of managers to make the highest possible return.

Segment analysis is very important for profitable operations. This analysis is an analysis of the profit of a certain division of the company, field of activity, phenomenon, product. Segmental analysis provides quite a lot of information for the preparation of plans and forecasts for future periods and guarantees the profitable operation of the company (Mackevičius et al., 2014). It is especially important for a company to perform segment analysis when it does not know how much marketing costs are incurred for each product or service. This analysis provides some basic data for calculations and helps to identify opportunities to increase the profitability of products, to use market capacity. In order for a company to be profitable, it is necessary to analyze income and expenses at the level of all segments. The data from such an analysis will allow managers to look for more profitable markets, confining themselves to the production and sale of products that bring higher revenue to the company. For segments where it is not possible to determine the net profit, a marginal profit ratio should be used, which allows to ensure the highest possible profit and profitability ratios. To do this, the company must know marginal income and marginal costs (Martinkus, Žilinskas, 2007, Smalenskas, 2007). Marginal profit is the change in profit as production increases by one unit. This is the difference between marginal revenue and marginal cost (1).

$$RP = RI - RK \quad (1)$$

here:

RP - marginal profit;

RI - marginal revenue;

RK - marginal cost.

The increase in profit is reported as a condition when the firm's marginal revenue is equal to the sum of the marginal costs ( $RI = RK$ ). Therefore, the company must choose a production scale that would satisfy this condition (Martinkus, Žilinskas, 2007; Andriušaitienė et al., 2016). Increasing profitability is one of the main goals of the company. To achieve those goals, it makes sense to plan everything in life. According to V. Rutkauskas and P. Stankevičius (2004), planning is the key to success. Attempting to anticipate future events in the event of a change in business strategy is significant for the development of the company's operations. Profit and profitability forecasting consists of many researched stages, the common goal of which is to obtain information about future profit and profitability (Mackevičius et al., 2014). This is a clear probabilistic decision about the future of the company, based on certain data (Gudaitis, Žagūnytė, 2013). Forecast-based solutions are especially valuable for companies. They can strongly affect the size of a company's profitability.

Forecasting can be performed using qualitative and quantitative forecasting methods (Kvedaraitė, 1996; Gudaitis, Žagūnytė, 2013; Mackevičius et al. 2014). Qualitative methods are the survey of people's opinions by means of a questionnaire. These can be consumer surveys, managers' evaluations, research of the

administration's opinion, opinion of external experts (Kvedaraitė, 1996). Quantitative analysis is superior to qualitative analysis, as it can be used to analyze the main indicators of analogous companies and compare them with possible company indicators (Gudaitis, Žagūnytė, 2013). The most common methods for quantitative analysis are trend extrapolation, exponential smoothing and regression analysis. Quantitative studies are performed when accurate, reliable numerical data are required. Qualitative analysis is like a supplement to formulate initial hypotheses, and quantitative analysis is confronted with numbers and logic, allowing more accurate assumptions to be made.

Extrapolation methods are methods of smoothing dynamics series of various complexity, using which current regularities are transferred to the future (Mackevičius et al., 2014). This is a fairly efficient method for making initial variants of profit forecasts. The planned variant of any trend function is superior because it shows the expected profit and the conditions necessary to achieve it (Gudaitis, Žagūnytė, 2013; Mackevičius et al., 2014).

Exponential smoothing is a forecasting method that uses a weighted average of the analyzed values for the forecast. The advantages of the exponential smoothing method are the simple procedure and the small amount of past data required for the calculations.

All companies are interested in increasing profitability. And it doesn't matter the size or scope of the company (Akram, Rashid, 2019). In order to increase profitability, it is important to find the most efficient way to get the highest return. It is most appropriate to predict based on regression analysis. Using this method, the existence of a relationship of variables and the law of this relationship are determined. Regression analysis is used when it is necessary to predict a dependent variable based on the value of one or more independent variables. According to V. Rutkauskas and P. Stankevičius (2004), using regression analysis, it is possible to obtain an equation showing the statistical relationship between the two variables (2).

$$y = a + bx \quad (2)$$

here:

y – dependent variable;

x – independent variable;

a and b – regression parameters.

The resulting equation means that y depends on the variable x. Regression models are used not only to describe but also to predict the relationship of variables. The regression equation first expresses the dependence between the considered indicators and provides an opportunity to find the estimate of the y mean for a specific value of x.

In summary, it can be stated that the analysis of profit and profitability indicators and the factors influencing it, provides an opportunity to calculate and predict the prospects for increasing profitability in companies. The most effective way to increase profitability is to calculate the absolute change in all components of profitability. Then, in the horizontal analysis, it is necessary to compare the dynamics of the various components of profitability both in terms of value and their relative weights. Only after calculating the factors determining profitability, finding out the factors that had a negative impact and their reasons, make suggestions on how to eliminate them. Increasing profit and profitability is associated with increasing the volume of profitable products sold, reducing costs, increasing prices, improving quality, optimizing sales terms, searching for new and better sales markets.

## Conclusions

After analyzing and summarizing the sources of financial analysis and management literature, it can be stated that the evaluation of profit and profitability is an important aspect of the company's efficiency. Profit-seeking is the main business goal and is associated with business development. The company's profitability shows the efficiency of the company's activities, the ability to work profitably. Different concepts make it clear that profitability indicators are characterized by the abundance of factors that determine it, such as sales price, quantity, quality, cost. Profitability can be assessed as a result of the relationship between the result and the means used to achieve it. Profitability ratios are classified into return on sales, assets and capital. Such classification simplifies the methodology of calculation of these indicators, helps to make better decisions on the issues of the company's operations and profitability.

The methods of profitability research presented in the scientific literature highlight the significance of financial analysis. The methods of increasing the profitability chosen for companies depend on the structure of profitability, dynamic and detailed analysis of specific factors that determine the change in profitability. The increase in the profitability of companies is also influenced by the forecasting of activities. With the help of forecasting, companies can plan their activities for the future on the basis of information, make logical plans that will have a positive impact on profits, help assess losses and potential risks in the future.

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## UAB „OMNIVA LT“ MARKETING COMPLEX ANALYSIS

**Justina Valionė, Karolina Znakovaitė**

*Lithuania Business University of Applied Science*

**Assoc. prof. Remigijus Dailidė**

### Abstract

The article discusses the marketing complex and its application. A study of the marketing complex and its application in the company was performed by UAB Omniva LT. The results of the research showed that UAB Omniva LT has a 7P marketing complex, which is very important for the successful development of the company's logistics services.

Keywords: marketing complex, management, marketing

### Introduction

The scale of service development is growing rapidly and is playing an increasingly important role. It is in the services sector that the demand for human resources has grown more than in other areas. Thus, for a company to become successful, it is necessary to focus on marketing, whose role in the organization is one of the most important. The elements of the marketing complex that are specific to the service area need to be coordinated with each other and act as one unit because they are all equally important. It is essential to have a good understanding of consumer expectations and needs, to react quickly to market changes and to adapt to them. Marketing complex helps to find out all this information.

**Relevance of the topic.** The modern world provides a large supply of services and goods, which is also constantly growing. That is why in the market aggressive competition is often met. This encourages companies to improve, grow and constantly look for ways to achieve their goals as effectively as possible. The goal and strategy of a frequent company is to create a service or product that is attractive and meets the needs of many consumers. The goal of being a profitable company is also inseparable from this.

**Work problem.** The market of logistics services is constantly highly competitive. The best tool to work on competition is a properly coordinated and effectively used service marketing complex. To survive in the market, it is necessary to use all possible tools. Only in this way the needs and expectations of consumers will be met. From all this, there is a problem - to find out what is the marketing complex applied by UAB Omniva LT and how it is used.

**The object of the work.** Analysis UAB Omniva LT marketing complex.

**The aim of the work.** Analyze the marketing complex of UAB Omniva LT.

#### Work tasks:

1. To review the scientific literature of the marketing complex.
2. To carry out a research of the marketing complex of UAB Omniva LT.

**Research methods:** review of scientific literature and other sources, statistical analysis, data analysis.

### The concept of marketing complex

Business activities are constantly surrounded by a changing environment. The market is undergoing changes that need to be noticed and responded. Only in this way company can be successful and survive for a long time. (Pranulis et al., 2012).

In everyday life, according to V. Pranulis et al. (2012), marketing is quite widespread and is generally perceived as one of the ways in which businesses operate. But it is not just businesses and organizations that use marketing. It is widely used by public, political or even state government and religious organizations and institutions to provoke the responses of the people.

According to researchers, most ordinary people are also involved in marketing processes and are personally affected by them as buyers of goods or services. According to P. Kotler (2015), marketing can be of 10 types: services, goods, events, experiences, individuals, locations, property, organizations, information, and ideas.

So according to the scientific concept of marketing, it is a very important social process that affects both the activities of companies and institutions, as well as every person, buyer, or consumer. To meet the needs of consumers through, marketing achieves the seller's goals.

The user is the center of the organization's marketing activities. His needs are paramount, and every effort is made to meet them. They are implemented based on certain decisions and actions. Related to the consumer is the product or service produced, its price, distribution, and sponsorship. This is called the

traditional marketing complex (4P) consisting of four groups of solutions and actions. 1960 E. J. McCarthy proposed this complex based on the idea of the American scientist N. Borden (Pranulis et al., 2012).

So, the focus is consumer. All the forces of the company are mobilized to meet customer needs. Decisions are made regarding the product produced, its price, distribution, and sponsorship. As mentioned, these four elements form a marketing complex (Juozaitytė, Staponkienė, 2010).

The marketing complex consists of a set of interrelated factors and solutions. They are used to achieve business goals and meet the needs of consumers. The goal of the company is to well analyze and evaluate a certain environment in which the marketing complex operates.

Lately, it has often been heard that the traditional 4P approach to the marketing complex is too narrow and insufficient, outdated. This indicates that these four marketing elements are no longer sufficient to describe the full range of marketing activities (especially in service companies). That is why it is most often argued that the service marketing complex consists of seven elements. According to L. Bagdonienė, R. Hopenienė (2015) they are described as follows:

- **PRODUCT (service).** The service product is related to the analysis of its range, level and quality. Services describe more an action than an object because they are intangible and short-lived.
- **PRICE.** According to V. Kinduris (1998), the determination of the price of the service is related to their level, discounts, commissions, payment terms and so on. As author thinks, price influences the differentiation of services and how client understands value and quality.
- **PLACE** (place of supply). According to V. Kinduris (1998), from the consumer's point of view, the place of provision of services and its accessibility are the accessibility of the place and convenient contacts with suppliers.
- **PROMOTION** (integrated marketing communications). It links various forms of communication between the service provider and customers in the marketplace using traditional methods of stimulation: advertising, advertising agents, personal selling, sales promotion, promotion and public relations.
- **PHYSICAL EVIDENCE** (physical environment). Elements that make physical visibility: the physical environment (furniture, surrounding environment, noise, opening hours, color of walls, ceilings, etc.) and items that provide convenience in using the service. The service is difficult to evaluate, so physical visibility becomes another important criterion for quality assessment.
- **PROCESS.** Coordinating the elements of the marketing complex in providing customer needs is a process that includes company policy, sequence of actions, employee responsibility, and more.
- **PEOPLE** (personal of service provision). According to V. Kinduris (1998), the element "people" describes all participants in the interaction: both customers and service providers. Particular attention should be paid to staff selection, training and motivation, as staff activities and interrelationships are crucial and have an impact on the success of a service.

Table 1

**Description of the elements of the service marketing complex**

Year	Author	Elements number	Service marketing complex elements
1982	Ch. Grönroos	5	Service, price, location, sponsorship, interaction.
1984	P. Kotler	4	Traditional marketing complex "4P" - product (service), price, distribution, sponsorship.
1984	D. Cowell	7P	Product, price, location, sponsorship, people, physical visibility, process.
1987	R. Judd	5P	Service, price, location, sponsorship, people.
1987	J. Wilters, C. Wiperman	6	Service, price, location, information about the service, consumers, sales.
1990	R. Dow	4P	People, people, people, people.
1996	K. Irons	5	Consumers, staff, core product, image, provision.
1999	Ch. Lovelock, S. Vandermerwe, B. Lewis	8	Service, price, location, sponsorship, people, process, physical visibility, productivity and quality.

\* Made by author using source of Bagdonienė, Hopenienė, 2015.

For a company to succeed and achieve good results, all these elements of the marketing complex must be equally important and closely interrelated and implemented consistently, one after the other. Because all companies operate differently, these elements can be changed (Zineldin, Philipson, 2007).

## Results

A marketing complex is a combination of marketing tools that meet the needs of consumers and at the same time the goals and objectives of the organization. In non-service companies, consumer needs are usually met through a marketing complex of 4 elements (4P): product, price, distribution, and sponsorship. However, service organizations additionally use a 3-element set of marketing services (3P): people, processes, and physical visibility. The company UAB Omniva LT is providing services. So, a marketing complex of 7P elements will be used for the study. Each element of the complex will be discussed according to the current situation of the company.

**PRODUCT (service).** The product of the investigated company UAB Omniva LT is service - the transportation of urgent shipments and cargo in Lithuania and abroad. This service is used by both business (business to business, abbreviated as B2B) and individuals (business to consumer, abbreviated as B2C). UAB Omniva LT post machines are classified as short-term services, as this service is intended to deliver a parcel to the selected location. The parcel is delivered within 1-3 working days, depending on the season and the chosen delivery place, which can be in Lithuania, Latvia and Estonia. The company also delivers items by courier, but the customer interest of this service is low. The organization goal is to grow post machine usage and remain a leader in the field, and in the long run to provide only B2B services.

UAB Omniva LT is not the only company providing such services. The company already has several competitors, such as: Lietuvos Paštas, DPD, Itella, Venipak and others.

The company can send parcels up to 30 kg. Maximum height, width and length of consignments up to 1.5 m. Parcel are divided into XS, S, M, L sizes. Each size is charged a different shipping cost.

The company is constantly expanding post machine quantity in many places, opens new logistics distribution and sorting warehouses, establishes new departments in the administration, develops additional services for customers, such as the return solution FLIPO, the payment solution "Makecommerce", the start-up academy, etc.

**PRICE.** After the exchange process, the product reaches the consumer. A characteristic attribute of all of them is the price that makes the exchange possible. When conditions of sale differ, service providers can sell the same product to consumers at different prices, resulting in several price levels for service providers. Thus, service users can purchase the same service from different service providers at different prices.

The price level is determined by several factors. In addition to the impact of the company's goals, opportunities, and other elements of the marketing complex, it is necessary to assess external influences, which is one of the most important for consumers. It is necessary to find out the importance of the price for a certain group of consumers, as well as to determine its sensitivity to price changes. It is the approach that determines the limits within which the prices of these services can fluctuate. There is a case that consumer reacts better to a price increase than to a price reduction. This happens because the consumer associates the price drop with the deteriorating quality.

When UAB Omniva LT decides for the price, they consider the quality question. To maximize profits, the most optimal price is offered, according to the ratio of speed of delivery and payment. There are constantly monitored prices in a competitive environment. Ensuring that the company always leads not only in price but also in quality. In the company, various discounts, added value for the customer is an incentive that helps to grow profits. Discounts can attract new customers from competitors or maintain the loyalty of existing customers.

**PLACE.** UAB Omniva LT provides its services through the simplest - direct distribution. Intermediaries are not involved in these processes. Only the company receives remuneration for the services provided when the parcel is transported to a specific company or person to the chosen place. The company's services are used by consumers who need and benefit from this service. That is why post machines of UAB Omniva LT are built in strategically pre-planned places, which are often indicated by the users themselves. In this way, the user is involved in the process of searching for new post machine locations. The goal of the company is to reach any customer and be able to quickly and unrestrictedly use the service provided. As a result, all post offices are built not only in places where consumers want them to be, but also where there is a large flow of people - such as shopping or entertainment centers. UAB Omniva LT provides services to both companies and individuals. Distribution, as an element of the marketing complex, functions smoothly: quality services are provided at an attractive price; employees are encouraged to work in a high-quality and responsible manner at competitive salaries and bonuses and fringe benefits. Customers are encouraged to use the company's services by attracting them at optimal prices and additional benefits and impeccable service.

**PROMOTION.** The target users of Omniva LT, who most often use the post machine service, are young and middle-aged people. Interval is around 18-35 age. Also, companies use post machine services in serving their customers. Post machines are easy to use, all information about how to use them is easily found on the



website of UAB Omniva LT, in social media and at any post machine screen. All information is presented in a clear, comprehensible manner. It is possible to enter the shipment data both on the self-service website and at the post office. The information provided on the website is complete and accurate - what weight the consignment must be, what is its storage period in the post office, what is the price of the consignment.

UAB Omniva LT uses its post machines and vehicles for advertising, affixing brightly colored company logos to be noticed, visible and recognizable. The company also advertises on television and social networks, using not only standard forms of advertising, but also influencers. Compared to the services of competitors, UAB Omniva LT strongly emphasizes the advantage of the service, exceptional achievements, and ambitions to be achieved, which is a pull strategy that is focused on the end user. This strategy requires a lot of investment, but the impact lasts for long term and it pays off.

So UAB Omniva LT uses the following support action groups - advertising and popularization.

The effectiveness of support is influenced not only by the individual elements, but also by their compatibility, so this is one of the main goals of the company in the support process.

**PHYSICAL EVIDENCE.** The consumer often checks the reliability of the company, the provided and available benefits. UAB Omniva LT communicates in the public space that it is an international capital company and transports shipments not only in the Lithuanian region, but also abroad, which gives the company international solidity.

The company emphasizes that it has the largest post machines network in the Baltic States and shows exclusivity in front of the competitors. It also announces successful achievements in the field of provided services: what the company aims for and how they stand out from others; what they did and where exceeded expectations; what great professionals work in the company and how much they achieve; how the company is valued in the business environment and among people.

Also, UAB Omniva LT, in cooperation with its customers, disseminates information about the company's largest and most important customers to whom it provides services.

All these actions promote trust in the company and its image in the public space is created as a reliable, stable, growing and promising company.

**PROCESS AND PEOPLE.** The process is the coordination of all elements of the marketing complex. People and the process of providing services are closely related, because all processes always involve a person. In the organization works more than 400 people every day. Employees are constantly encouraged to improve and learn. Most employees have long-term experience in the field of logistics services, so all processes run smoothly, quickly and with high quality. UAB Omniva LT strives to retain and motivate employees and provide the best possible working conditions.

Replacing people with automated systems can save a lot of money and speed up the company's work. This would save both financial and physical resources.

Information technology-based solutions can successfully change people. OMNIVA perfectly adapts and successfully implements them:

- **chatbots** – a programmed service that, in accordance with established rules and created artificial intelligence, performs assigned and scheduled tasks, as well as provides answers to received forms filled in online, messenger, e-mail. emails, emails inquiries.
- **el. information messages** (el. post, short mobile text messages (SMS) - automatically generated by providing current news related to the customer's shipment information, for example, that the shipment has already been picked up, delivered, delays for some reason.
- **request form** – used when the customer fills in the appropriate form, which indicates all the problem or questions, as well as immediately provides all information about the sender and recipient, contact details.
- **frequently Asked Questions (F.A.Q.)** - the answers to the most frequently asked questions are placed on the website and constantly updated, to avoid unnecessary additional questions, which are often asked by both new and current customers.
- **page search engines** - help customers find answers to their questions faster.
- **el. contract signing form** - an online form is used in which, after entering the data, the automatically generated data is sent to the manager, who contacts the prospective client and signs the contract.
- **el. claims submission form** - used to submit and manage claims. Completed all the necessary data is transferred to the quality department, which promptly processes the data and handles claims.
- **el. return platform** - the return platform allows customers to administer the return of goods more conveniently and quickly, and buyers to return them.

All these IT solutions in cyberspace must be compatible with real space. It may not be enough to provide an automatic response to customer. If there is this kind of situation then employee should give extra attention for this kind of customers.

## Conclusions

There are several different marketing complexes, they consist of different numbers of elements. The authors do not single out one marketing complex that would be most relevant and effective. According to them, the most important thing is to connect them all and for each organization to find the most suitable complex which would meet the needs of that company.

The company UAB Omniva LT is classified as a service provider. The benefit of the service provided by this company is fast delivery of the shipment through quality, speed and image. The analysis of the organization's activities showed that the elements of the marketing complex in the company are successfully applied in accordance with the 7P elements of the marketing complex.

Thus, after reviewing the scientific literature and conducting research, it can be stated that the 7P marketing complex is very important for the successful development of the company's logistics services.

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## SOCIAL MEDIA MARKETING OF MINI COOPER

**Indre Sveikauskiene**

*Lithuania Business University of Applied Sciences*

**Lect. Remigijus Dailide**

### Abstract

This is a report about Mini Cooper's social media marketing. The aim of this report is to analyse and examine its social media marketing approach & effectiveness. Mini Cooper's communication with its audience was investigated using the content analysis method. The dominant Mini Cooper's social media site was analysed in a detail to determine the follower engagement and the social media post content.

Keywords: Social Media Marketing, Digital Marketing, Marketing

### Introduction

Today the Internet is the backbone of our society. Widespread access to connected devices like personal computers, digital video and audio recorders, webcams, smartphones, and wearables like smartwatches ensures that consumers who live in virtually any part of the world can create and share content (Tuten, 2021). This way of marketing has a huge impact on corporations, which need an effective social media plan to succeed in the rapidly changing environment (Saravanakumar, SuganthaLakshmi, 2012).

Both Lithuanian and foreign writers are keen to research social media marketing as it is a new way of marketing in this century. S.Svidinskas (2014) wrote about the influence of social media networks on the development of organizational marketing, V. Kneitaitė (2012) researched business communication on social media networks, L. Karsokas (2019) looked at different ways to use social media marketing in communication of cultural events, R.Krutovaitė (2016) researched on how companies could use social media marketing to communicate with its customers, S. Kšenavičiūtė (2011) conducted a study of social media networking site user behavior, and D. Venciūtė (2018) researched the overall opportunities of social media marketing.

Foreign authors S. Vinerean (2017) wrote about the importance of having a strategy plan for social network marketing, C. Shen, T. Luong, J. Ho, I. Djailani (2020) wrote on how social network marketing is used by IT companies, B.Rugova, B. Prenaj (2016) Social Network Marketing as a Marketing Tool in Small and Medium-Sized Enterprises, F.B. Bekoglu, C. Onayli (2016) Social Network Marketing Strategy and Successful Use of Facebook Platform. Thus, the topic of social network marketing is actively researched both in Lithuania and abroad: the effectiveness of social network marketing, how various companies are able to use this method of marketing, the benefits and harms of social network marketing.

This research is focused on the social media marketing of Mini Cooper.

The aim of this research is to analyse the social media marketing campaigns of Mini Cooper during the period of 2020-10-01 – 2020-11-31.

Objectives:

1. To find out on which social networks does Mini Cooper communicate with its customers?
2. To determine what is the dominant Mini Cooper's social network?
3. To find out the frequency of Mini Cooper's posts on social media sites?
4. To establish on what type of posts dominate on Mini Cooper's social media sites?
5. To determine the level of engagement of Mini Cooper's followers on its social media?

### Data

Table 1

**Research evaluation criteria, objectives and scope of evaluation**

	Criteria type	Criteria	Aim	Scope of evaluation
1.	Social network.	Number of social networks used, names of social networks used.	To determine the number and variety of social networks used by Mini Cooper.	All social media networks.
2.	The most popular social network.	Number of followers.	To determine which Mini Cooper's social media network is dominant.	All social media networks.
3.	The frequency of posts.	Number of messages.	To determine the frequency of publishing posts on the dominant social network.	The most popular social network.
4.	The content of posts.	Text only, text with photos, text with video.	Identify the dominant type of posts published on the dominant social network.	The most popular social network.

5.	The engagement of followers.	Number of likes, comments and shares.	Evaluate the engagement of followers on the dominant social network	The most popular social network.
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*\*Source: source or made by author*

The research goal was to find out what social media sites are used by Mini Cooper, its most popular social media network, the frequency of its posts, the content of posts and the level of engagement of its followers. First of all, it was needed to identify what social media sites are used by Mini Cooper. Later, taking into account a number of followers, decide what Mini Cooper's social media site is the most popular. Then, observe the frequency of posts published on Mini Cooper's most popular social network and examine their content. Finally, evaluate the level of engagement of its followers based on a number of likes, comments and shares received.

## Results

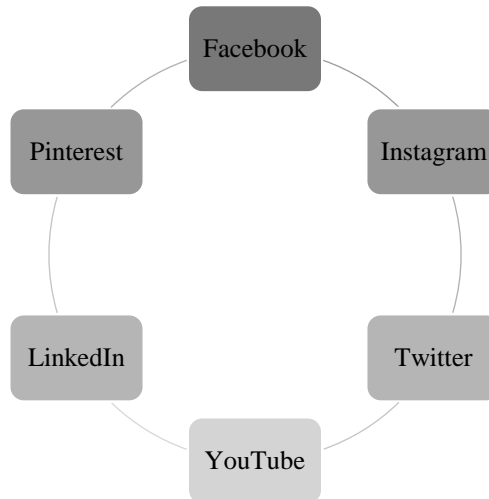


Fig 1. Diversity of Mini Cooper's social media networks.

*\*Source: made by author*

1. Mini Cooper communicates with its customers on Facebook, Instagram, Twitter, YouTube, LinkedIn and Pinterest.

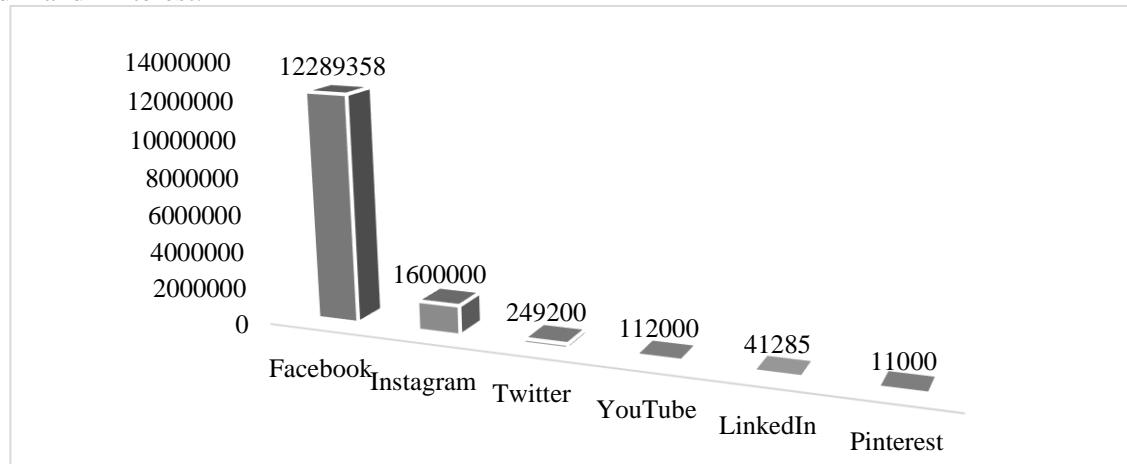


Fig 2. The popularity of a social media accounts based on its number of followers.

*\*Source: made by author*

2. The most popular social media account of Mini Cooper based on its number of followers is Facebook (12 289 358 followers). Other social media accounts: Instagram, Twitter, YouTube, LinkedIn and Pinterest have 1 600 000, 249 200, 112 000, 41 285, 11 000 followers accordingly.

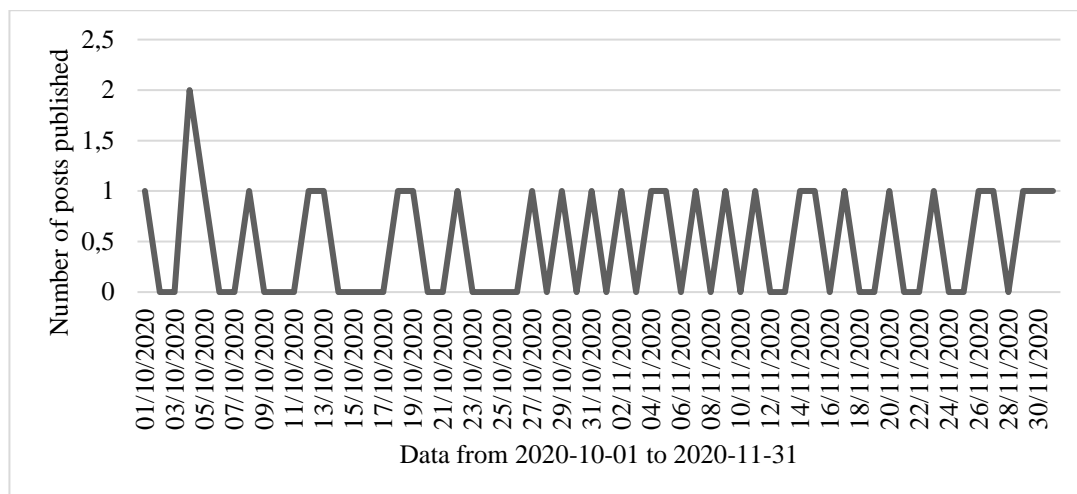


Fig 3. The frequency of posts Mini Cooper published on its Facebook page in the period of 2020-10-01 - 2020-11-31.

*\*Source: made by author*

3. According to Facebook data for the period of 2020-10-01 - 2020-11-31, Mini Cooper published 28 messages during the 61-day period. Mini Cooper published a maximum of 2 messages per day and a minimum of 0. On average, Mini Cooper published between 0-1 messages per day and 1 message every two days.

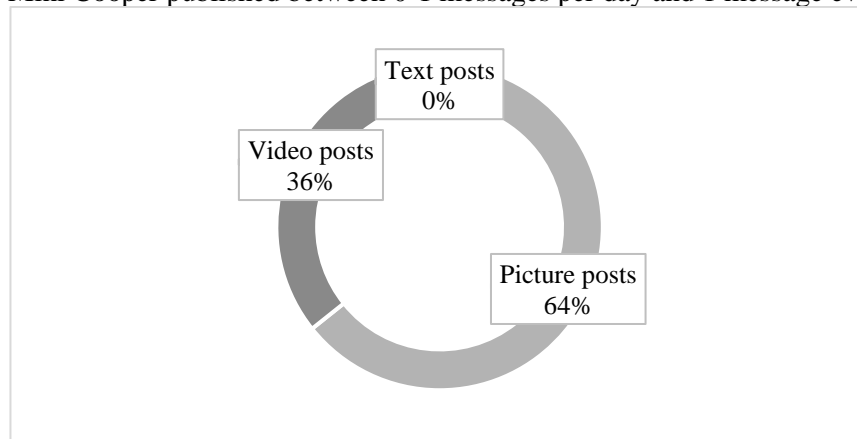
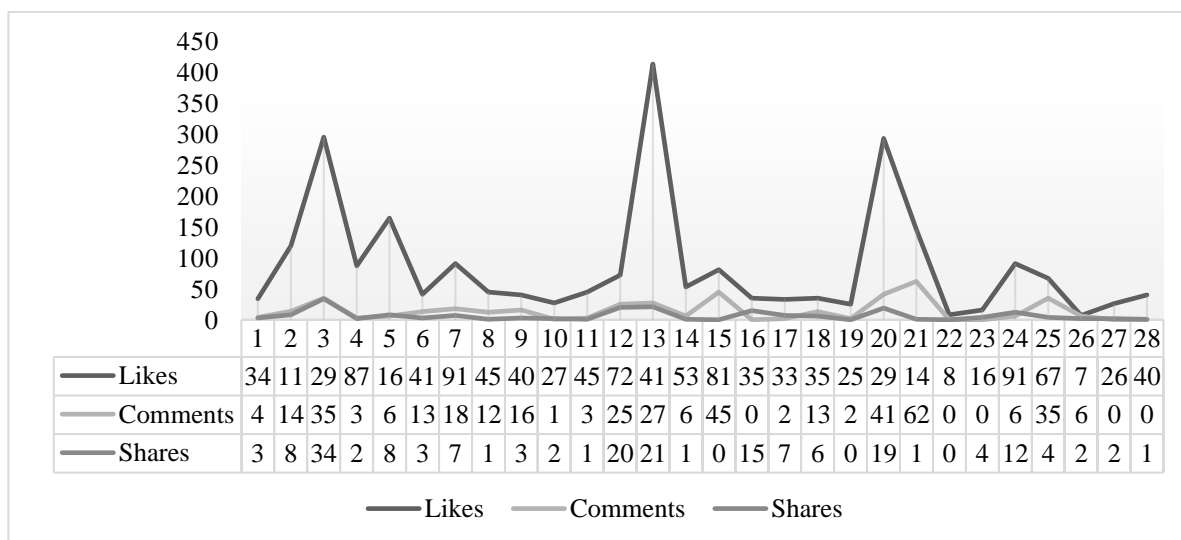


Fig 4. The percentage of the type of Mini Cooper's posts on Facebook.

*\*Source: made by author*

4. 64% of the Mini Cooper posts are text with pictures, 36% of the posts are text with video. There are no text messages without any visual content.



5. Based on the 28 posts on the Mini Cooper's Facebook page between 2020-10-01 and 2020-11-31, the biggest number of likes received was 413 and the lowest was 7 likes. The biggest number of comments

was 62 and the lowest 0. The highest number of shares was 34 and the lowest number was 0. On average a post received 87 like clicks, 14 comments, and 7 shares.

## **Conclusion**

The study reveals that Mini Cooper uses Facebook, Instagram, Twitter, YouTube, LinkedIn and Pinterest social network sites. It is found that the most popular Mini Cooper's social network is Facebook, where Mini Cooper has 12,289,358 followers. According to Facebook data for the period of 2020-10-01 - 2020-11-31, Mini Cooper published on average 1 message per 2 days. The biggest number of posts published were twice a day and the lowest was 0. Mini Cooper's main posts are text messages with professional, high-quality photos. Based on the period of 01/10/2020 - 31/11/2020, posts on Facebook on average, received 87 likes, 14 comments, and 7 shares. Based on the fact that Mini Cooper has 12,289,358 followers on Facebook, and received on average of 87 likes (0.0007% of all followers), 14 comments (0.0001% of all followers), 7 shares (0.00006% of all followers), we can make a conclusion that only a very small audience is active. Even though Mini Cooper published high quality and valuable posts, it should aim for higher audience engagement. This could be achieved through paid advertising campaigns that allow adverts to be targeted to a desired audience by choosing their age, location, hobbies, etc.

## **References**

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