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Turiba University
Telephone: +371 67622551
e-mail: turiba@turiba.lv

2025. gada 19. martā Biznesa augstskola Turība pulcēja plašu pētnieku, uzņēmēju, politikas veidotāju un studentu loku XXVI Starptautiskajā zinātniskajā konferencē "Uzņēmējdarbības attīstības radars 2025", ko organizēja Uzņēmējdarbības vadības fakultāte. Konference tika veidota kā krustpunkts starp zinātni un uzņēmējdarbību, globālajiem un lokālajiem procesiem, privāto un publisko sektoru, radot platformu diskusijām, pieredzes apmaiņai un jaunu sadarbības modeļu iniciēšanai starp zinātniekiem, uzņēmējiem un politikas veidotājiem.

Zinātniskās pētniecības un uzņēmējdarbības sinerģija izglītībā nozīmē ciešu sadarbību starp pētniecības un uzņēmējdarbības jomām, lai veicinātu kvalitatīvu, inovatīvu un praktiski pielietojamu izglītību, ietverot zināšanu pārnesi no pētniecības uz izglītību un no pētniecības uz uzņēmējdarbību. Zinātnes un uzņēmējdarbības partnerība izglītības pilnveidē nodrošina sadarbību starp izglītības iestādēm un uzņēmumiem, lai kopīgi izstrādātu izglītības programmas, kas atbilst darba tirgus prasībām un tehnoloģiskajām izmaiņām, savukārt inovāciju veicināšana rada vidi, kurā izglītības iestādēs attīstās idejas, balstītas uz jaunākajiem zinātnes atklājumiem, kas var tikt komercializētas vai pielietotas uzņēmējdarbībā.

Konferences tematiskās sekcijas aptvēra plašu nozaru spektru – uzņēmējdarbība un vadība, informācijas tehnoloģijas un komunikācija, tūrisms un viesmīlība, veselības aprūpe, izglītība un valodas, piedāvājot daudzveidīgu ieskatu aktuālajos pētniecības un attīstības jautājumos. Katra sekcija ietvēra vairākus pētījumus un pieredzes apmaiņu gan no Latvijas, gan ārvalstu ekspertiem, īpaši akcentējot ilgtspēju, digitalizāciju, mākslīgā intelekta ietekmi un sociāli ekonomiskās pārmaiņas. Šī tematiskā daudzveidība atspoguļoja konferences mērķi – veicināt starpdisciplināru zināšanu apmaiņu un atbalstīt biznesa vides attīstību nākotnes izaicinājumu kontekstā.

Konferences ietvaros norisinājās arī paneļdiskusija "Zināšanu pārnese publiskajā un privātajā sektorā Latvijas konkurētspējas paaugstināšanai", pulcējot vadošos Latvijas ekspertus un politikas veidotājus, lai padziļināti izvērtētu zināšanu pārneses potenciālu un identificētu šķēršļus tās efektīvākai integrācijai uzņēmējdarbībā un publiskajā sektorā. Diskusijā tika aplūkotas arī dažādu sektoru savstarpējās gaidas un atbildības, cenšoties rast risinājumus tam, kā mazināt plaisu starp zinātniekiem un uzņēmējiem. Eksperti pievērsās arī izaicinājumiem, ar kuriem saskaras Latvijas uzņēmēji, cenšoties ieviest inovācijas un zinātniskos atklājumus praksē, kā arī skaidroja, kādas iniciatīvas jau tiek īstenotas, lai veicinātu sadarbības efektivitāti un zināšanu praktisku pielietojumu.

2025. gada Biznesa augstskolas Turība starptautiskā zinātniskā konference bija dzīvs apliecinājums zinātnes komunikācijas praksei, zinātniskās pētniecības un uzņēmējdarbības sinerģijai augstākās izglītības telpā, lai radītu ilgtspējīgus risinājumus gan nacionālā, gan starptautiskā mērogā.

Evija Kļave
Biznesa augstskolas *Turība*
Uzņēmējdarbības vadības fakultātes dekāne

On March 19, 2025, Turiba University brought together a wide range of researchers, entrepreneurs, policymakers and students at the XXVI International Scientific Conference "Entrepreneurship Development Radar 2025", organized by the Faculty of Business Administration. The conference was designed as an intersection of science and entrepreneurship, global and local processes, private and public sectors, creating a platform for discussions, exchange of experiences and initiation of new models of cooperation between scientists, entrepreneurs and policymakers.

The synergy of scientific research and entrepreneurship in education means the close cooperation between the fields of research and entrepreneurship to promote high-quality, innovative and practically applicable education, including the transfer of knowledge from research to education and from research to entrepreneurship. Science and entrepreneurship partnerships in education development ensure cooperation between educational institutions and enterprises to jointly develop educational programs that meet the requirements of the labor market and technological changes, while the promotion of innovation creates an environment in which ideas developed in educational institutions based on the latest scientific discoveries can be commercialized or applied in business.

The thematic sections of the conference covered a wide range of sectors – entrepreneurship and management, information technology and communication, tourism and hospitality, healthcare, education and languages, offering diverse insights into current research and development issues. Each section included several studies and exchange of experiences from both Latvian and foreign experts, with a special emphasis on sustainability, digitalization, the impact of artificial intelligence, and socio-economic changes. This thematic diversity reflected the conference's goal – to promote interdisciplinary knowledge exchange and support the development of the business environment in the context of future challenges.

The conference also featured a panel discussion on "Knowledge transfer in the public and private sectors to enhance Latvia's competitiveness" that brought together leading Latvian experts and policymakers to assess in-depth the potential for knowledge transfer and identify obstacles to its more effective integration into business and the public sector. The discussion also addressed the mutual expectations and responsibilities of different sectors, seeking to find solutions to reduce the gap between researchers and entrepreneurs. The experts also addressed the challenges faced by Latvian entrepreneurs in trying to implement innovations and scientific discoveries in practice, and explained what initiatives are already being implemented to promote the effectiveness of cooperation and the practical application of knowledge.

The 2025 International Scientific Conference of Turiba University was a living testament to the practice of science communication, the synergy of scientific research and entrepreneurship in the higher education space to create sustainable solutions both nationally and internationally.

Evija Kļave
Turiba University
Dean of the Faculty of Business Administration

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THE IMPACT OF ARTIFICIAL INTELLIGENCE IN BALTIC STATES ON PERSONALIZED LEARNING IN HIGHER EDUCATION: OPPORTUNITIES AND CHALLENGES

Saranya Kanna Baskar
Turiba University, Latvia
saranyakannan85@gmail.com

Abstract

Education is one of the many industries that have seen revolutionary changes as a result of the quick development of artificial intelligence (AI). AI is being used more and more in higher education to support customized learning, which adjusts course content to each student's requirements, interests, and learning style. With their emphasis on digital transformation, innovation, and digital literacy, the Baltic States – Estonia, Latvia, and Lithuania – are leading this digital revolution. The influence of artificial intelligence (AI) on customized learning in higher education throughout the Baltic States is examined in this study, along with the possibilities and problems that need to be resolved to reach its full potential.

The implementation of AI in higher education has been made easier by the Baltic States' dedication to digital transformation. Estonia has adopted AI-powered learning tools like "EduTech," which provide students tailored recommendations based on their learning styles. Estonia is frequently recognized as one of the world's most technologically advanced countries. Virtual learning assistants that employ natural language processing to respond to student inquiries and offer immediate feedback have been launched in Latvia. Lithuania has created adaptive assessment systems that provide a more accurate gauge of knowledge and abilities by modifying the questions' level of difficulty in response to student performance. These programs demonstrate how the area might be used as a template for using AI into education.

Using particular examples and case studies from the Baltic States, this study offers a thorough analysis of these prospects and difficulties. In order to guarantee the moral and successful integration of AI in higher education, it also provides practical suggestions for legislators, instructors, and tech companies. The Baltic States can lead the world in the effective use of AI-driven customized learning by tackling these obstacles and seizing the possibilities, thereby advancing education in the digital era.

Keywords: Artificial Intelligence, Personalized Learning, Higher Education, Baltic States, Digital Transformation, Adaptive Learning, Ethical Challenges, Data Privacy, Algorithmic Bias

Introduction

The Baltic States have become leaders in this field, and the digital transformation of education is a worldwide phenomenon. The countries of Estonia, Latvia, and Lithuania are in a unique position to use AI for individualized learning in higher education because of their strong emphasis on digital literacy, e-governance, and innovation. Long-standing issues in education, such student disengagement, uneven access to resources, and different learning speeds, may be resolved by personalized learning, which adjusts instructional material and tempo to meet the requirements of each individual student.

This study explores the potential and difficulties of artificial intelligence in facilitating individualized education in the Baltic States. Additionally, it offers suggestions for legislators, instructors, and tech companies to guarantee the moral and efficient application of AI in higher education.

Literature Review

In order to produce individualized learning experiences, the conceptual framework of AI and customized learning combines ideas from cognitive research, educational philosophy, and artificial intelligence. As a pedagogical strategy, personalized learning aims to meet each learner's particular requirements, preferences, and skills. The works of educational theorists like Lev Vygotsky, whose sociocultural theory highlighted the value of scaffolding and the Zone of Proximal Development (ZPD) in promoting learning, and John Dewey, who promoted experiential and student-centred learning, are the foundation of this concept. These fundamental ideas have been further developed in the digital age, where artificial intelligence (AI) technologies allow for the development of adaptive learning systems that may dynamically modify speed, material, and teaching methods in response to real-time learner data.

AI-driven customized learning systems examine learners' performance, preferences, and behaviors using data analytics, machine learning algorithms, and natural language processing. By offering personalized comments and suggestions, AI has the potential to transform education and improve learning outcomes and engagement, according to authors like Benedikt Frey and Michael Osborne. Intelligent tutoring systems (ITS), for instance, mimic one-on-one tutoring by identifying students' strengths and weaknesses and providing tailored training, according to research by Albert Corbett and John Anderson. In a similar vein, Ryan Baker and George Siemens have emphasized how learning analytics may be used to spot trends and anticipate students' needs, allowing teachers to take proactive and successful action.

Important pedagogical and ethical questions are also brought up by the use of AI in individualized learning. Audrey Watters and Neil Selwyn warn that although AI can improve customization, it must be developed with fairness, inclusion, and transparency in mind to prevent escalating educational disparities or reinforcing biases. Additionally, Sugata Mitra's research on self-organized learning environments (SOLEs) implies that AI might encourage curiosity and creativity in students by enabling them to take charge of their education. Nonetheless, Paulo Freire's critical pedagogy serves as a reminder that technology should be used as a tool to facilitate meaningful, dialogic exchanges between students and teachers rather than as a substitute for the human aspect in education.

In conclusion, a wealth of educational ideas and technical developments provide the conceptual underpinnings of AI and individualized learning. It is clear from combining ideas from writers such as Dewey, Vygotsky, Corbett, Siemens, and others that artificial intelligence (AI) has the power to revolutionize education by enhancing learning's adaptability, engagement, and inclusivity. However, moral standards and a dedication to upholding the humanistic ideals at the core of education must serve as the compass for this change.

Digital Readiness and Innovation in the Baltic Context

The Baltic states – Estonia, Latvia, and Lithuania – have attracted a lot of attention for their digital innovation and preparedness because of their quick adoption of digital technology and their rise to prominence as a European innovation powerhouse. The Baltic nations–especially Estonia – have received praise for their progressive digital policy and strong technology foundation. Estonia has become a global pioneer in e-governance because to government projects like e-Estonia, which have digitized public services, education, and healthcare. Authors like Tarmo Kalvet and Rainer Kattel have written extensively about this digital transition. The significance of legal and regulatory frameworks in promoting innovation has also been underlined by Linas Eriksonas and Darius Štitilis, especially in Lithuania, where the fintech and blockchain sectors have thrived.

High internet penetration, digital literacy, and a focus on STEM education serve as the foundation for digital preparedness in the Baltic region. According to Marge Sassi and Tõnis Saar, Estonia's "Tiger Leap" initiative in the 1990s created a tech-savvy populace by providing schools with computers and internet connectivity, laying the foundation for digital literacy. Initiatives to improve digital infrastructure and skills, such as Latvia's "Digital Transformation Guidelines 2021–2027" and Lithuania's "Lithuania 2030" agenda, have followed suit. According to Andres Kasekamp and Daunis Auers, who contend that the Baltic nations' entry into the EU has acted as a stimulant for digital innovation, these initiatives have been aided by EU financing and cooperation.

A thriving start up environment is another factor propelling innovation in the Baltic area. Known as the "Silicon Valley of Europe," Estonia is home to well-known digital firms including Bolt, Transfer Wise (now Wise), and Skype. John Zysman and Martin Kenney have examined how Estonia's business-friendly climate, which includes e-residency initiatives and little red tape, has drawn investors and entrepreneurs. In a similar vein, Lithuania has become a fintech hotspot, with the European Central Bank's regulatory sandbox for testing cutting-edge financial innovations located in Vilnius. Vidmantas Janeliūnas and Ruta Skyriene have emphasized the need of public-private collaborations in promoting innovation, especially in fields like green technology and cyber security.

Notwithstanding these achievements, difficulties still exist. Although the Baltic states are technologically sophisticated, Kadri Ukrainski and Teele Tõnurist have noted that there are differences in digital access and proficiency, especially in rural regions. Scaling inventions is also hampered by the small size of domestic markets and competition from larger economies. However, as Andris Sprūds and Zaneta Ozolina note, the Baltic nations have used their strategic location and EU membership to overcome these restrictions.

To sum up, the Baltic states are good examples of how innovation and digital preparedness can spur economic expansion and social change. It is clear from referencing the writings of authors such as Kalvet, Kattel, Sassi, and Kenney that the region's success is based on a mix of innovative

collaboration, educational investment, and creative legislation. Other countries looking to capitalize on the promise of digital technology may learn a lot from the Baltic republics' experiences as they continue to develop.

Challenges of AI in Personalized Learning

By customizing educational experiences to each student's requirements, preferences, and learning style, artificial intelligence (AI) holds the potential to completely transform customized learning. However, there are several obstacles in the way of incorporating AI into personalized learning systems. Data security and privacy are among the main issues. The collection and analysis of enormous volumes of student data, such as academic achievement, behavioral tendencies, and even biometric data, is a key component of personalized learning systems. Because any breach might have serious repercussions for students and institutions, it is crucial to ensure the privacy and security of this sensitive data. Furthermore, there are ethical questions about who may access this data, how it is utilized, and the possibility of abuse like prejudice or profiling.

The bias and quality of AI algorithms provide yet another significant obstacle. Since AI systems can only be as good as the data they are trained on, biased or insufficient training data might cause the AI to reinforce or even worsen already-existing educational disparities. An AI system that was trained on data from a largely wealthy population, for instance, could not function effectively for pupils from underprivileged backgrounds, which would increase the educational divide. Furthermore, AI finds it challenging to completely comprehend and adjust to the subtleties of unique learning processes due to the complexity of human learning. Learning encompasses more than simply academic material; it also contains social, emotional, and cognitive components that are difficult to measure and adequately represent.

Practical obstacles to the use of AI in customized learning include the high expense of creating and maintaining AI systems, the demand for substantial processing resources, and the need for constant updates and enhancements. There may be a digital gap where only well-resourced institutions can take advantage of AI-driven customized learning since schools and educational institutions, especially those in poor locations, may find it difficult to buy these technology.

The issue of acceptability by teachers and students is another. Students may be reluctant to use AI tools that they believe to be invasive or too controlling, while teachers may feel frightened by AI systems that may eventually replace or undermine their jobs. A thorough analysis of how AI may enhance human instruction rather than replace it, as well as methods to foster user acceptance and trust, are necessary for its successful incorporation into the classroom.

The question of scalability comes last. AI may be quite useful in controlled or small-scale settings, but it can be very difficult to scale these solutions to larger, more diverse populations. It is a difficult undertaking that calls for constant study and improvement to make sure AI systems can adjust to various educational situations, languages, and cultural norms.

In conclusion, even though AI has a lot of potential for individualized education, there are a number of issues that need to be resolved to guarantee that these tools are applied in a way that is morally, practically, and fairly. To overcome these obstacles and develop AI systems that really improve learning for all children, educators, engineers, legislators, and other stakeholders must work together.

Case Studies Comparing Latvia, Lithuania, and Estonia on the Development of AI Adaptation in Higher Education

Though their methods, difficulties, and results have varied, the Baltic states of Latvia, Lithuania, and Estonia have made great progress in incorporating artificial intelligence (AI) into their higher education institutions. Despite their close proximity and similar historical background, these nations have different approaches to implementing AI technology to improve university administration, teaching, and learning. A comparative study of these countries offers important insights into the institutional preparedness, legislative frameworks, and cultural attitudes toward technology that affect the adoption of AI in higher education.

Estonia has led the way in integrating AI into higher education and is frequently praised as a digital pioneer in Europe. Universities like the University of Tartu and Tallinn University of Technology have been able to integrate AI-driven technologies into their research and courses because to the nation's excellent digital infrastructure and significant emphasis on innovation from the government. Estonia's strategy is distinguished by its emphasis on multidisciplinary cooperation and the integration of AI into disciplines including computer science, medicine, and the social sciences. The use of AI in higher education has also been aided by the government's national AI policy, which places a strong emphasis on digital literacy and AI development. There are still issues, though, like making sure all institutions have fair access to AI resources and dealing with the moral ramifications of AI in educational contexts.

Despite making steady progress, Latvia has encountered more substantial obstacles in its adaption to AI than Estonia. Higher education establishments in Latvia, including Riga Technical University and the University of Latvia, have started investigating AI applications in fields including language processing, data analytics, and administrative work automation. However, because of a dearth of specialist AI skills, a lack of financing, and less unified national policy, adoption has proceeded more slowly. Although these initiatives are still in their infancy, the Latvian government has lately started to support AI development through financing programs and collaborations with commercial sector entities. More cooperation between academic institutions and business is also required to guarantee that AI research results in useful applications that benefit society and students alike.

However, Lithuania has shown that integrating AI into higher education may be done in a balanced way. AI has been aggressively integrated into the curricula of universities such as Vilnius University and Kaunas University of Technology, especially in the fields of engineering, business, and healthcare. Universities may now test AI technologies in a supportive environment according to Lithuania's national AI plan, which places a high priority on research and innovation. In order to promote cooperation between government, business, and academia, the nation has also made investments in AI hubs and innovation centres. Despite these developments, Lithuania still has issues like Latvia, such as the need for stronger financing sources and bridging the digital divide between institutions in urban and rural areas.

The significance of national policies and financing in promoting AI adaption in higher education is a major lesson to be learned from these case studies. Latvia and Lithuania are still lagging behind in terms of resource allocation and policy coherence, but Estonia has achieved success because to its progressive policies and investments in digital infrastructure. The function of industry collaborations and multidisciplinary collaboration, which have proven crucial in Estonia and Lithuania but are yet underdeveloped in Latvia, is another important consideration. In all three

nations, ethical issues like algorithmic prejudice and data privacy are also becoming more prevalent, underscoring the necessity of thorough regulatory frameworks.

In conclusion, although having a similar commitment to incorporating AI into higher education, Estonia, Latvia, and Lithuania have made varying degrees of success because of variations in institutional preparedness, finance, and legislative support. These case studies highlight the significance of adopting AI in a comprehensive manner that takes ethical issues, multidisciplinary cooperation, and policy creation into account. The Baltic nations can improve their AI skills and make sure that their higher education institutions are competitive in the global market by sharing their expertise.

Recommendations for Future Implementation

The following suggestions are put out in order to optimize the advantages of AI in customized learning:

Make an investment in digital infrastructure to guarantee that universities have access to the tools they need.

Encourage Ethical AI Practices: Create policies to handle issues with algorithmic bias and data privacy.

Boost Digital Literacy: Train teachers and students to use AI-powered technologies efficiently.

Promote Cooperation: To spur innovation, promote alliances between governments, academic institutions, and IT firms.

Monitor and Assess: Keep an eye on how AI is affecting learning results and adapt as necessary.

Conclusion

Higher education in the Baltic states of Estonia, Latvia, and Lithuania offers a revolutionary chance to improve educational results and customize learning experiences to meet the requirements of each individual student through the use of Artificial Intelligence (AI) into customized learning. Setting the standard for the area, Estonia has become a leader in using AI for tailored learning thanks to its cutting-edge digital infrastructure and progressive regulations. Despite being a little behind, Lithuania has made encouraging strides via multidisciplinary cooperation and calculated investments in AI research. Latvia is progressively using AI to improve its higher education institutions, despite obstacles such a lack of money and a delayed implementation of policies.

AI offers a plethora of individualized learning options. Universities may now provide personalized learning routes, real-time feedback, and predicted insights into student performance thanks to AI-driven technologies like data analytics, intelligent tutoring systems, and adaptive learning platforms. By addressing a range of learning requirements and closing gaps for kids from underprivileged backgrounds, these technologies not only enhance academic results but also promote diversity. AI also makes administrative activities more efficient, freeing up teachers to concentrate on mentorship and instruction rather than mundane duties.

Adopting AI in customized learning is not without its difficulties, though. Since the gathering and examination of private student information raises moral and legal issues, data security and privacy

continue to be major considerations. Another urgent concern is ensuring that urban and rural institutions have equal access to AI resources, especially in Latvia and Lithuania where inequalities in digital infrastructure still exist. Furthermore, the necessity of transparent, moral AI systems and the possibility of algorithmic bias highlight the significance of strong regulatory frameworks and continuous monitoring.

In summary, the Baltic republics are at a critical juncture in their efforts to incorporate AI into higher education individualized learning. Although Estonia is in the forefront, Latvia and Lithuania might overtake it if they tackle their own difficulties and take use of local best practices. The Baltic republics may fully utilize AI to develop inclusive, flexible, and future-ready higher education institutions by placing a high priority on ethical issues, fair access, and multidisciplinary cooperation. In addition to helping kids and teachers, this revolutionary change enhances the area's standing as a centre for educational innovation and quality.

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VĒRTĪBĀS BALSTĪTA UZŅĒMĒJDARBĪBAS STRATĒĢIJA VESELĪBAS APRŪPĒ: INOVATĪVAS ĀRSTĒŠANAS PIEEJAS PSORIĀZES KONTEKSTĀ

VALUE-BASED BUSINESS STRATEGY IN HEALTHCARE: INNOVATIVE TREATMENT APPROACHES IN THE CONTEXT OF PSORIASIS

Uldis Bērziņš
Biznesa augstskola *Turība*, Latvija
Rīgas Tehniskā universitāte, Latvija
udlis@cst.lv

Krista Brūvele
Biznesa augstskola *Turība*, Latvija
krista.bruvele@gmail.com

Jānis Baroniņš
Rīgas Tehniskā universitāte, Latvija
janis.baronins@rtu.lv

Regnārs Kļaviņš
Vidzemes Tehnoloģiju un Dizaina tehnikums, Latvija
ipa21.r.klavins@vtdt.edu.lv

Imants Kaluga
Vidzemes Tehnoloģiju un Dizaina tehnikums, Latvija
ipa21.i.kaluga@vtdt.edu.lv

Martins Raiens Lācis
Vidzemes Tehnoloģiju un Dizaina tehnikums, Latvija
ipa21.m.lacis@vtdt.edu.lv

Rosita Zvirgzdiņa
Biznesa augstskola *Turība*, Latvija
rosita@turiba.lv

Anotācija

Psoriāze ir viena no visizplatītākajām autoimūnām slimībām pasaulē, kas ievērojami ietekmē pacientu dzīves kvalitāti un rada ilgtspējīgas terapijas izaicinājumus. Cilmes šūnu terapija ir jauns un inovatīvs risinājums, kas piedāvā potenciālu pārveidot psoriāzes ārstēšanas pieeju, piedāvājot iespēju atjaunot bojātos audus un mazināt iekaisumu. Šī pētījuma mērķis ir izpētīt cilmes šūnu terapijas potenciālu psoriāzes ārstēšanā, izvērtējot tās efektivitāti, drošību un potenciālos izaicinājumus, kas saistīti ar tās ieviešanu klīniskajā praksē. Pētījums balstās uz literatūras analīzi un klīniskajiem pētījumiem,

izmantojot kvantitatīvās un kvalitatīvās pētniecības metodes, lai sniegtu dziļu ieskatu par šo terapiju, tās pielietošanas priekšrocībām un ierobežojumiem. Pētījuma rezultāti liecina, ka cilmes šūnu terapija var piedāvāt ievērojamu progresu psoriāzes ārstēšanā, tomēr ir nepieciešami turpmāki pētījumi, lai pilnībā novērtētu tās ilgtermiņa efektivitāti un drošību. Šī darba rezultāti sniedz nozīmīgu ieguldījumu šīs ārstēšanas pieejas attīstībā, piedāvājot pamatu turpmākajām klīniskajām diskusijām un zinātniskajiem pētījumiem.

Abstract

Psoriasis is one of the most common autoimmune diseases worldwide, significantly affecting the quality of life of patients and presenting long-term therapeutic challenges. Stem cell therapy is an innovative approach with the potential to transform the treatment of psoriasis, offering the possibility to regenerate damaged tissue and reduce inflammation. The aim of this study is to explore the potential of stem cell therapy in psoriasis treatment, evaluating its efficacy, safety, and the challenges associated with its implementation in clinical practice. The research is based on a review of literature and clinical studies, utilizing both quantitative and qualitative research methods to provide a deep insight into this therapy, its advantages, and limitations. The findings suggest that stem cell therapy may offer significant progress in psoriasis treatment, but further studies are needed to fully assess its long-term effectiveness and safety. The results of this study contribute to the development of this treatment approach, providing a foundation for further clinical discussions and scientific research.

Atslēgas vārdi: cilmes šūnas, hroniska psoriāze, inovatīva ārstēšana, uzņēmējdarbības stratēģija.

Ievads

Psoriāze ir hroniska autoimūna ādas slimība, kas skar līdz pat 5–7 % cilvēku pasaulē, tai skaitā Latvijā (Parisi et al., 2020). Slimība izpaužas kā ādas šūnu pārmērīga augšana, radot zvīņu klātas sārtas plāksnītes uz ādas virsmas (Gisondi et al., 2020). Lai gan hroniska psoriāze ir labi pazīstama kā somatiska slimība, tās sekas sniedzas daudz plašāk, ietekmējot arī cilvēka emocionālo un sociālo labsajūtu. Bieži vien šie pacienti saskaras ar dzīves kvalitātes pasliktināšanos, depresiju un sociālu izolāciju, kas būtiski ietekmē viņu ikdienas dzīvi un spēju pilnvērtīgi piedalīties sabiedrības dzīvē (Kimball et al., 2005; Mustaţă et al., 2025; Yıldırım et al., 2025) .

Pašlaik hroniskās psoriāzes ārstēšanas pieejas galvenokārt balstās uz simptomu mazināšanu, izmantojot tradicionālas metodes, piemēram, lokālas terapijas, fototerapiju un sistēmiskos medikamentus. Tomēr šīs metodes bieži vien nespēj nodrošināt ilgtspējīgus rezultātus (Behlock et al., 2025; Li et al., 2025), kas rada nepieciešamību pēc jaunām, inovatīvām ārstēšanas pieejām. Viens no perspektīvākajiem risinājumiem, kas šobrīd iegūst lielu uzmanību, ir cilmes šūnu terapija, kas piedāvā iespēju ne tikai mazināt simptomus, bet arī atjaunot bojāto ādu, veicinot tās pilnīgu dziedināšanu. Pētījumi liecina, ka cilmes šūnas var pozitīvi ietekmēt imūnsistēmas darbību un veicināt ādas šūnu reģenerāciju, tādējādi piedāvājot ilgtspējīgus rezultātus psoriāzes ārstēšanā (Kuang et al., 2024).

Šī pētījuma mērķis ir izvērtēt cilmes šūnu terapijas ieviešanas pretestības iemeslus Latvijā psoriāzes ārstēšanā, analizējot ierobežojumus un meklējot iespējas integrēt šo jauno ārstēšanas metodi Latvijas veselības aprūpes sistēmā. Tiks veikta padziļināta literatūras analīze par esošajiem cilmes šūnu inovatīvas terapijas ieviešanas pretestības iemesliem (0 % tolerances iemesliem). Pētījuma ietvaros tiks piedāvāti praktiski ieteikumi, kas palīdzēs ieviest inovatīvu cilmes šūnu terapiju veselības aprūpes sistēmā un padarīt šo terapiju pieejamāku sabiedrībai. Analīze tiks balstīta uz aktuāliem klīniskajiem pētījumiem un normatīvajiem aktiem, kas noteiks, kā šādas inovatīvas ārstēšanas metodes var tikt veiksmīgi ieviestas Latvijas tirgū.

Lai gan cilmes šūnu terapija solās būt nākotnes ārstēšanas metode hroniskas psoriāzes pacientiem, tās ieviešana prasa rūpīgu pieeju, ņemot vērā ne tikai medicīniskos aspektus, bet arī uzņēmējdarbības stratēģijas, kas veicinātu terapijas pieejamību un ilgtspēju tirgū. Pētījuma rezultāti var sniegt vērtīgu ieguldījumu gan zinātniskajā, gan praktiskajā laukā, palīdzot veidot efektīvas stratēģijas jaunu ārstēšanas pieeju integrācijai veselības aprūpē.

Hroniskas psoriāzes konvencionālā un inovatīvā ārstēšana

Tradicionālās hroniskas psoriāzes ārstēšanas metodes ir balstītas uz simptomu mazināšanu, slimības uzliesmojumu kontrolēšanu un tās attīstības aizkavēšanu (Naime et al., 2025). Tomēr šīs metodes bieži vien neizraisa pilnīgu izārstēšanu, un pacientiem ir nepieciešama nepārtraukta ārstēšana, kas var radīt gan finansiālu slogu, gan blakusparādības (Häbel et al., 2021).

Inovatīva ārstēšana, kurā tiek izmantotas cilmes šūnas (jaunieviestās terapijas zāles), piedāvā iespēju ne tikai atvieglot slimības simptomus, bet arī risināt tās pamatproblēmu, atjaunojot veselīgas ādas šūnas un uzlabojot pacienta imūnsistēmu. Klīniskie pētījumi pierāda cilmes šūnu terapijas potenciālu psoriāzes ārstēšanā, nodrošinot ievērojamu uzlabojumu slimības gaitā un ilgstošus izārstēšanos liecinošus rezultātus pēc terapijas (Naik, 2022).

Vērtībās balstīta uzņēmējdarbības vadība un inovāciju ieviešana psoriāzes ārstēšanas tirgū

Vērtībās balstīta uzņēmējdarbības vadības stratēģija ir koncentrēta uz uzņēmuma spēju radīt pievienoto vērtību tirgū, balstoties uz ilgtermiņa mērķiem un sociālām atbildībām. Psoriāzes ārstēšanas tirgus ir piesātināts ar tradicionālām ārstēšanas metodēm, kas galvenokārt koncentrējas uz simptomu mazināšanu. Savukārt inovatīvās ārstēšanas pieejas, piemēram, cilmes šūnu terapija, piedāvā potenciālu izārstēt pacientu un uzlabot viņa dzīves kvalitāti.

Vērtībās balstīta uzņēmējdarbības stratēģija uzsver zināšanu ekonomiku, sadarbību un intelektuālo kapitālu, kas ir būtiski elementi, ieviešot jaunas ārstēšanas metodes tirgū (Gans et al., 2005). Vērtībās balstīta pieeja arī uzsver nepieciešamību integrēt sociāli atbildīgas prakses, kas palīdz veidot ilgtspējīgu un efektīvu uzņēmējdarbību, ieviešot jaunas, uz pacienta vajadzībām balstītas terapijas.

Vērtībās balstīta uzņēmējdarbības vadības stratēģija

Vērtībās balstīta uzņēmējdarbības vadība, ko definē (Brandenburger & Stuart Jr., 1996), koncentrējas uz uzņēmuma spēju radīt pievienoto vērtību tirgū. Hroniskas psoriāzes ārstēšanas

kontekstā tas nozīmē ne tikai efektīvu un ilgtspējīgu terapiju nodrošināšanu, bet arī pacienta dzīves kvalitātes uzlabošanu un veselības aprūpes izmaksu samazināšanu. Tādējādi uzņēmumi, kas piedāvā cilmes šūnu terapiju, ne tikai palīdzēs pacientiem, bet arī samazinās valsts budžeta slogu, kas tiek novērots saistībā ar neefektīviem un ilgstošiem ārstēšanas kursiem.

Sociāli atbildīgas uzņēmējdarbības vadības stratēģija un ilgtermiņa ieguldījumi psoriāzes ārstēšanā

Sociāli atbildīga uzņēmējdarbība ir stratēģija, kas ņem vērā gan pacienta, gan sabiedrības intereses. Saskaņā ar dažādiem pētījumiem, piemēram, (Porter, 2011), sabiedrības veselība ir galvenais elements, kas nosaka ilgtspējīgu un efektīvu ārstēšanu. Psoriāzes gadījumā, ja tiek izmantota neefektīva terapija, valsts izmaksas var sasniegt līdz pat 10 000 eiro gadā vienam pacientam, ņemot vērā komplikāciju ārstēšanu, invaliditātes pabalstus un slimības pabalstus. Pāreja uz inovatīvu ārstēšanu ar cilmes šūnām var palīdzēt samazināt šos izdevumus un uzlabot pacientu dzīves kvalitāti.

Ilgtermiņā, ņemot vērā ārstēšanas izmaksas, šķiet daudz izdevīgāk veikt vienreizēju ieguldījumu, piemēram, 25 000 eiro, nekā maksāt 10 000 eiro katru gadu visu psoriāzes pacienta dzīvi, kas var ilgt desmitiem gadu. Ja šodien ir iespēja izārstēt pacientu, tas ne tikai uzlabos viņa dzīves kvalitāti, bet arī ievērojami samazinās ilgtermiņa valsts izdevumus, kas saistīti ar hroniskām ārstēšanas izmaksām. Šādas pieejas īstenošana ne tikai palīdzētu veicināt veselības aprūpes ilgtspējību, bet arī atbilstu sociāli atbildīgas uzņēmējdarbības principiem, kas uzsver efektivitāti un pacientu vajadzību apmierināšanu.

Šādai pārmaiņai nepieciešama birokrātiskā atbalsta un līderības īstenošana. Birokrātiem jābūt kā iniciatīvas līderiem, kas spēj noteikt stratēģiju, kas ir gan sabiedrības, gan valsts interesēs. Viņiem ir jāspēj risināt izaicinājumus un pielāgot normatīvos aktus tā, lai atbalstītu inovatīvu ārstēšanas metožu ieviešanu, nodrošinot ilgtspējīgu attīstību un samazinot ilgtermiņa izmaksas. Tikai ar birokrātijas pretimnākšanu un stratēģisku domāšanu mēs varam nodrošināt, ka inovatīvas terapijas kļūst pieejamas pacientiem, tādējādi veicinot ne tikai ekonomisku, bet arī sociāli atbildīgu pārvaldi.

Birokrātija starp efektivitāti un elastību: stratēģija, inovācija un domāšana ārpus sistēmas

Gadsimtiem ilgi birokrātija ir bijusi kā divpusējs zobens –, no vienas puses, tā nodrošina stabilitāti, kārtību un efektīvu resursu sadali, bet, no otras, tā nereti kļūst par smagnēju mehānismu, kas pats sevi apēd ar formalitātēm. Vācu sociologs Makss Vēbers savā fundamentālajā darbā "Ekonomika un sabiedrība" aprakstīja birokrātiju kā ideālu racionālas organizācijas formu (Weber, 2013). Tomēr šodienas dinamiskajā vidē rodas jautājums: vai klasiskā birokrātija spēj būt pietiekami elastīga, lai pielāgotos inovācijām un mainīgajiem apstākļiem? Savukārt citi autori vērš uzmanību uz publiskās pārvaldes juridiski nostiprināto dabu, norādot, ka Eiropas valstu tradicionālo valsts pārvaldi ar tās juridisko un birokrātisko mantojumu raksturo tādas pamatvērtības kā taisnīgums, profesionalitāte, sabiedrības intereses, procesuālās garantijas, pakļaušanās pārraudzībai un subordinācijai, objektivitāte un neitralitāte. Tādējādi publiskā pārvalde darbojas uz birokrātiska un juridiski nostiprināta pamata un procesiem, koncentrējoties uz stabilitāti, neitralitāti, objektivitāti likuma

ietvaros. Ņemot vērā, ka hierarhija ir galvenais, tāpat kā pārraudzība (Pollitt & Bouckaert, 2011), valsts pārvaldes loģiku raksturo no augšas uz leju vērsta birokrātija, turklāt konkurētspēja, sniegums un rezultāti parasti tiek uzskatīti par pakārtotiem rutīnas, noteikumu un procedūru ievērošanai pretēji konkurencei, konkurētspējai un uz rezultātiem balstītai veiktspējai, kas pamatā efektivitātei un lietderīgumam, kas ir tirgus pārvaldības loģikas iezīmes (Hyndman et al., 2014). Tādējādi secināms, ka valsts pārvaldei, ko raksturo birokrātija un procesu pārregulēšana, var trūkt elastības un motivācijas ieviest inovācijas, iespējams, tā nespēj paskatīties ārpus rāmjiem un uzņemties atbildību. Ministru kabineta 2018. gada 21. novembra ieteikumos Nr. 1 "Valsts pārvaldes vērtības un ētikas pamatprincipi" (4.1. un 5.1. apakšpunktos) noteikts, ka nodarbinātais rīkojas saskaņā ar valsts pārvaldes vērtībām – profesionalitāte un efektivitāte – un ievēro minētajās vērtībās balstītus ētikas pamatprincipus, tai skaitā pārņem privātā sektora labo praksi un starptautisko pieredzi, ir orientēts uz rezultātu; nodarbinātā rīcība, lēmumi un viedokļi ir pamatoti un izsvērti, balstīti situācijas analīzē, objektīvos faktos un datos; nodarbinātais ir atvērts pārmaiņām un iesaistās jaunu pieeju un inovāciju izmantošanā valsts pārvaldē (Valsts pārvaldes vērtības un ētikas pamatprincipi, 2018). Minētajos Ministru kabineta ieteikumos ietvertā pieeja var radīt sistēmisku inovāciju plānošanu, kurā iekļauti gan stratēģiskie mērķi, gan regulāri pašnovērtējumi un attīstības cikli, kas palīdzētu identificēt problēmas un ieviest uzlabojumus laicīgi, tomēr vienlaikus valsts pārvaldes loģika, kas balstās uz hierarhiju un noteikumu stingru ievērošanu, var kavēt inovāciju un jaunu risinājumu pielietošanu, kas ir īpaši svarīgi strauji mainīgā tehnoloģiskā vidē. Tādējādi būtu ieviešama sistemātiska un mērķtiecīga inovāciju plānošana, apskatot citu valstu labās prakses piemērus un inovāciju rādītājus un virzienus, izveidojot inovāciju ieviešanas plānu un informējot sabiedrību par plānotajiem inovāciju attīstības scenārijiem. Ieviešot ikgadēju pašnovērtējuma un attīstības ciklu, diagnosticējot problēmas un pārskatot gan stratēģiskās plānošanas dokumentos nospraustos mērķus un izpildes rādītājus, gan attīstības un inovāciju prioritātes, varētu virzīties uz pārvaldību, kas vērsta uz attīstību, nevis orientēta birokrātiskos un pārregulētos procesos. Iekšējā pašnovērtēšana un regulāri attīstības cikli būtu noderīgi, lai pastāvīgi pielāgotu pārvaldes praksi un reaģētu uz jauniem izaicinājumiem, kā arī nodrošinātu jaunu tehnoloģiju, tostarp jaunieviestās terapijas zāļu, veiksmīgu ieviešanu.

Iedomājieties stratēģi, kas dodas kaujā. Viņam ir divas izvēles: akli sekot iepriekš izstrādātam plānam vai reaģēt uz situāciju reāllaikā. Te parādās Džona Boida izstrādātā OODA cilpa – novērot (*Observe*), orientēties (*Orient*), lemt (*Decide*) un rīkoties (*Act*). Birokrātija tradicionāli tiek uztverta kā sistēma, kas darbojas pēc stingri definētiem noteikumiem, taču OODA cilpa piedāvā alternatīvu – tā ļauj organizācijām būt ne tikai efektīvām, bet arī ātrām un adaptīvām (Ryder & Downs, 2022). Vai tas ir iespējams? Atbilde slēpjas stratēģijā un spējā apvienot struktūru ar elastību.

Senais stratēģis Suns Dzī (*Suņdzi*) reiz sacīja: "Stratēģija bez taktikām ir lēns ceļš uz uzvaru. Taktika bez stratēģijas ir tikai trokšņošana pirms sakāves." (Batrouni et al., 2018) Šo principu var attiecināt arī uz birokrātiju. Ja organizācija koncentrējas tikai uz noteikumiem un procedūrām, tā kļūst stagnējoša – dokuments pēc dokumenta, apstiprinājums pēc apstiprinājuma, līdz kustība vispār apstājas. Taču, ja šai struktūrai pievieno stratēģisku redzējumu, birokrātija pārtop par sistēmu, kas spēj vadīt izaugsmi un inovācijas.

Viktora Suvorova grāmatā "Akvārijs" ir spilgta epizode par tankistu, kurš, saskaroties ar šauriem vārtiem, izlauž žogu, lai nokļūtu galamērķī. Daļa komandieru viņu sodīja par noteikumu pārkāpšanu, bet citi pieņēma savā vienībā, novērtējot viņa spēju domāt ārpus rāmjiem (Suvorov, 1985). Šis stāsts simbolizē dilemmu, ar kuru saskaras birokrātija – vai mēs dodam priekšroku stingrai pakļaušanai procedūrām vai arī atbalstām elastību un domāšanu ārpus sistēmas?

Šajā kontekstā inovācijas un efektīva pārvaldība neizslēdz viena otru. Līderi, kas saprot, kā balansēt starp noteikumu ievērošanu un stratēģisko elastību, var radīt birokrātiju, kas nav tikai administratīvs aparāts, bet gan dzinējspēks progresam. Galu galā jautājums nav par to, vai birokrātija ir laba vai slikta – jautājums ir par to, kā mēs to izmantojam: vai tā kļūst par šķērsli, kas kavē izaugsmi, vai arī par spēku, kas virza uz attīstību. Izvēle ir mūsu rokās.

Mākslīgā intelekta loma adaptīvās birokrātijas veidošanā: datu vadīta pieeja pārvaldes efektivitātei

Mākslīgā intelekta loma birokrātijas transformācijā ir kļuvusi par būtisku jautājumu mūsdienu pārvaldē. Tāpat kā cilvēka ķermenī, birokrātijai ir nepieciešams spējīgs nervu tīkls, kas veic lēmumu pieņemšanas procesu, un muskulatūra, kas sastāv no iestādēm, kas veic darbības. Taču, kā jebkurš bioloģisks organisms, birokrātija var kļūt inerta, nevajadzīgi smagnēja un grūti pielāgojama izmaiņām, radot lielas problēmas efektivitātē un sabiedrības apmierinātībā. Šajā kontekstā rodas jautājums: vai ir iespējams birokrātiju attīstīt par dzīvu, adaptīvu un dinamisku sistēmu, kas spēj efektīvi atbildēt uz pārmaiņām un prasībām?

Iedomāsimies pārmaiņu iespējas, kas rodas, pielietojot zinātnisku pieeju birokrātijas analīzei. Te vairs nerunājam par statiskām struktūrām, bet gan par dzīvām sistēmām, kurās katrs ierēdnis darbojas kā aģents, kuram ir konkrētas lomas, kas pakļautas nemitīgai uzlabošanai. Mākslīgais intelekts kļūst par šīs sistēmas galveno "smadzenēm", spējot analizēt milzīgus datu apjomus un identificēt birokrātijas nepilnības, kuras līdz šim varēja palikt neredzamas. Piemēram, ja kādā birokrātijas posmā lēmumu pieņemšanas process ir nesamērīgi lēns, MI var identificēt šo problēmu un izstrādāt rekomendācijas optimizācijai. Algoritmi spēj piedāvāt pat tādas stratēģijas kā aģentu rotāciju vai birokrātisko procedūru vienkāršošanu, kas būtiski uzlabo darba ritmu un palielina efektivitāti.

Bet vai tas ir tikai teorētisks iespējamais solis, vai arī mēs tiešām spējam redzēt dzīves pieredzi, kur birokrātija var kļūt dzīvotspējīga un dinamiska? Ar MI palīdzību birokrātija kļūst elastīga, pielāgojama ne tikai mūsdienu izaicinājumiem, bet arī novērš stagnāciju, kas raksturīga tradicionālajām birokrātijām. Piemēram, ja MI spēj identificēt inovāciju potenciālu konkrētā ierēdņa uzvedībā, tā piedāvā viņam iespējas izmantot šīs prasmes citos projektos, kur tās būtu visefektīvāk izmantot. Tādējādi birokrātija vairs nav tikai smagnēja institūcija, kas aizkavē inovācijas, bet kļūst par dinamisku, progresīvu spēku, kas veicina attīstību un izmaiņas.

Mākslīgā intelekta pielietojums var būt arī veids, kā sekot līdzi sabiedrības vajadzībām un nodrošināt to apmierināšanu. Pielāgojoties sabiedrības vajadzībām, birokrātija var kļūt ne tikai efektīvāka, bet arī daudz tuvāka pilsoņiem. Tā jau vairs nav kā stacionārs, grūti maināms mehānisms, bet gan dinamiska sistēma, kas ļauj pielāgoties izmaiņām, ko veicina ne tikai iekšējie faktori, bet arī ārējie izaicinājumi. Šāda pieeja var radīt ne tikai efektīvu, bet arī labi organizētu un sociāli atbildīgu birokrātiju.

Mēs stāvam pie jaunas ēras sliekšņa, kur mēs varam reāli pārveidot birokrātiju. Tā, kas līdz šim tika uztverta kā pārvaldības sistēma, kas kavē progresu, tagad var kļūt par dzīvotspējīgu, adaptīvu un uz datiem balstītu mehānismu, kas ne tikai atbilst sabiedrības vajadzībām, bet arī spēj prognozēt tās nākotnes prasības. Mākslīgais intelekts nodrošina iespējas, kas atver pilnīgi jaunu pieeju birokrātijas efektivitātes un dinamiskās attīstības veidošanā, kas nav tikai atbilde uz šodienas izaicinājumiem, bet arī ilgtermiņa mērķu sasniegšanai.

Tādējādi šī pieeja pārveido birokrātiju no smagnējas un stagnējošas sistēmas par dzīvotspējīgu un efektīvu instrumentu. Mēs vairs nevaram tikai skatīties uz birokrātiju kā stabilitātes garantu. Tagad birokrātija var kļūt par dzīvotspējīgu mehānismu, kas nodrošina progresu un inovāciju, turpinot kalpot sabiedrības labumam. Mūsu laiks ir pienācis, lai šīs idejas pārvērstu dzīvē.

Juridiskās un ētiskās prasības cilmes šūnu terapijas ieviešanai Latvijā: Eiropas un nacionālie regulējumi

Ieviešot cilmes šūnu terapiju Latvijā, ir jāņem vērā gan Eiropas Parlamenta un Padomes 2007. gada 13. novembra regula (EK) Nr. 1394/2007 par uzlabotas terapijas zālēm un ar ko groza direktīvu 2001/83/EK un regulu (EK) Nr. 726/2004 (nosaka precīzus nosacījumus uzlabotas terapijas zāļu izmantošanai), gan arī Farmācijas likumā, Ministru kabineta 2006. gada 9. maija noteikumos Nr. 376 "Zāļu reģistrēšanas kārtība" un Ministru kabineta 2006. gada 18. aprīļa noteikumos Nr. 304 "Noteikumi par zāļu ražošanas un kontroles kārtību, par zāļu ražošanu atbildīgās amatpersonas kvalifikācijas prasībām un profesionālo pieredzi un kārtību, kādā zāļu ražošanas uzņēmumam izsniedz labas ražošanas prakses sertifikātu" ietvertā kārtība, tāpat kā Eiropas Komisijas apstiprinātās Labas ražošanas prakses (LRP) vadlīnijas, kas īpaši izstrādātas jaunievestās terapijas zālēm *(Advanced Therapy Medicinal Products)*.

Eiropas Parlamenta un Padomes Direktīvas 2001/83 1) 3. pants ir grozīts ar Eiropas Parlamenta un Padomes Regulu 1394/2007 4) 28. panta 2. punkta normu, kas papildina Eiropas Parlamenta un Padomes Direktīvas 2001/83 1) 3. pantu ar jaunu 7. punktu, un nosaka, ka Eiropas Parlamenta un Padomes Direktīvu 2001/83 1) nepiemēro jebkādām jaunievestās terapijas zālēm, kas ir sagatavotas dalībvalstī, balstoties uz neierastu procesu (izņēmums ārstniecības iestādēm), un saskaņā ar īpašiem kvalitātes standartiem (ar ko saprotama, piemēram, laba ražošanas prakse) tiek izmantotas ārstniecības iestādē tajā pašā dalībvalstī, ārstniecības personai uzņemoties ekskluzīvu profesionālo atbildību, lai nodrošinātu atbilsmi konkrētai receptei pēc pasūtījuma izgatavojamam produktam konkrētam pacientam.

Ar Saeimā 2024. gada 20. jūnijā pieņemtajiem grozījumiem *Farmācijas likumā*, kas stājās spēkā 2024. gada 18. jūlijā, *Farmācijas likums* papildināts ar regulējumu attiecībā uz jaunievestās terapijas zālēm, kas atbilst Eiropas Parlamenta un Padomes 2007. gada 13. novembra regulā (EK) Nr. 1394/2007 par uzlabotas terapijas zālēm, un ar ko groza direktīvu 2001/83/EK un regulu (EK) Nr. 726/2004 lietotajiem terminiem "uzlabotas terapijas zāles" un "kombinētas uzlabotas terapijas zāles".

Atbilstoši *Farmācijas likuma* 20. panta 7. punktam zāļu un vielu reģistrācija nav nepieciešama, ja tās ir ārstniecības iestādē izmantojamās izņēmuma jaunievestās terapijas zāles, kas tiek ražotas neierastā procesā pēc ārstējošā ārsta norādījuma un nozīmētas (izrakstītas) konkrētam pacientam, kurš tās lieto Latvijas Republikas ārstniecības iestādē, kurai ir tiesības lietot izņēmuma jaunievestās terapijas zāles ārstniecībā un kurai piemēro izņēmumu attiecībā uz šo zāļu reģistrāciju (Farmācijas likums, 1997, 20. panta 7. punkts).

Saskaņā ar *Farmācijas likuma* 32.[1] pantā noteikto izņēmuma jaunievestās terapijas zāles drīkst lietot ārstniecībā, ja ārstniecības iestāde ir saņēmusi Zāļu valsts aģentūras atļauju šo zāļu lietošanai ārstniecībā. Zāļu valsts aģentūra, pamatojoties uz šo zāļu un zāļu klīnisko pētījumu ētikas komitejas veikto ētisko aspektu novērtēšanu, izsniedz atļauju izņēmuma jaunievestās terapijas zāļu lietošanai ārstniecībā atbilstoši normatīvajiem aktiem par izņēmuma jaunievestās terapijas zālēm,

ja šo zāļu ražotājs ir saņēmis *Farmācijas likuma* 51.[3] panta pirmajā daļā noteikto speciālo atļauju (licenci) izņēmuma jaunieviestās terapijas zāļu ražošanai (Farmācijas likums, 1997, 32.[1] pants).

Papildu grozījumi *Farmācijas likumā* ietver jaunu IV[1] nodaļu, kurā paredzēts, ka ārstniecības iestādes varēs izmantot izņēmuma jaunieviestās terapijas zāles tikai pēc tam, kad būs saņēmušas Zāļu valsts aģentūras izdotu atļauju šo zāļu lietošanai konkrētam pacientam. Vienlaikus ir noteikts, ka gadījumos, kad pacientam rodas veselības vai dzīvības apdraudējums šo zāļu lietošanas dēļ, viņam būs iespēja saņemt kompensāciju par radīto kaitējumu.

Atbilstoši likumprojekta "Grozījumi Farmācijas likumā" (22-TA-1054) sākotnējās ietekmes novērtējuma ziņojumā norādītajam šīs jaunieviestās terapijas zāles ir noderīga iespēja, kas ļauj pacientiem saņemt jaunieviestās terapijas zāles kontrolētos apstākļos gadījumos, kad nav pieejamas apstiprinātas (reģistrētas) jaunieviestās terapijas zāles indikācijai ar augstu medicīnisku vajadzību. Jauni zinātnes sasniegumi šūnu un molekulārajā biotehnoloģijā veicina uzlaboto terapiju, piemēram, gēnu terapijas, somatisko šūnu terapijas un audu inženierijas attīstību. Šī jaunā biomedicīnas joma piedāvā jaunas iespējas cilvēka organisma slimību un disfunkciju ārstēšanā (Likumprojekta "Grozījumi Farmācijas likumā" sākotnējās ietekmes novērtējuma ziņojums, 2024).

Turklāt ar grozījumiem *Farmācijas likumā* tiek noteikts arī tiesību deleģējums Ministru kabinetam noteikt prasības izņēmuma jaunieviestās terapijas zāļu lietošanai ārstniecībā un atļaujas izsniegšanai ārstniecības iestādei šo zāļu lietošanai, kā arī noteikt civiltiesiskās atbildības apdrošināšanas kārtību, apdrošināšanas līguma minimālo atbildības limitu un obligātos riskus, kurus apdrošina ārstniecības iestāde, kurai ir tiesības lietot izņēmuma jaunieviestās terapijas zāles (Farmācijas likums, 1997). Plānots, ka līdz 2025. gada 1. jūlijam Ministru kabinets izstrādās noteikumus, kas reglamentēs minētās prasības (Farmācijas likuma pārejas noteikumi, 1997, 37. punkts), tomēr atzīmējams, ka šobrīd attiecīgie noteikumi ir vēl tikai izstrādes stadijā. Likumprojekta "Grozījumi Farmācijas likumā" (22-TA-1054) sākotnējās ietekmes novērtējuma ziņojuma 83. lpp. noteikts arī, ka minētajā tiesību aktā paredzēts ietvert arī kritērijus, piemēram, izņēmuma jaunieviestās terapijas zāļu tipu un lietošanas veidu un prasības par pacientu vai pacientu grupu, kurai nepieciešama ārstēšana ar izņēmuma jaunieviestās terapijas zālēm, piemēram, diagnoze, iekļaušanas kritēriji, zāļu iedarbības veids (Likumprojekta "Grozījumi Farmācijas likumā" sākotnējās ietekmes novērtējuma ziņojums, 2024).

Arī Eiropas zaļais kurss, kas paredz ilgtspējīgas un klimata neitrālas ekonomikas veidošanu līdz 2050. gadam, ietekmē veselības aprūpes nozari, tostarp jaunieviestās terapijas zāļu jomu, uzsvaru liekot uz ilgtspējīgu ražošanu un inovācijām, resursu efektivitāti un iespējamām inovācijām veselības aprūpes jomā. Zaļā kursa ietvaros varētu tikt veicināta zinātniskā un tehnoloģiskā attīstība plašākā mērogā, radot papildu atbalstu jaunu tehnoloģiju, tostarp cilmes šūnu terapijas, pētījumiem un attīstībai, kas ilgtermiņā uzlabos ārstēšanas iespējas un pacientu aprūpi. Veselības aprūpes risinājumi, piemēram, cilmes šūnu terapija psoriāzes ārstēšanā, var tikt papildināti ar ilgtspējas principiem, kas atbilst Eiropas zaļā kursa mērķiem. Kopumā var secināt, ka Eiropas zaļais kurss ne tikai virza pāreju uz ilgtspējīgu ekonomiku, bet arī veicina veselības aprūpes inovācijas, tostarp jaunieviestās terapijas zāļu attīstību, radot labvēlīgu vidi jauniem terapijas risinājumiem, tostarp cilmes šūnu terapijai psoriāzes ārstēšanai, apvienojot medicīnisko progresu ar videi draudzīgām ražošanas praksēm.

Ievērojot minēto, secināms, ka izmaiņas normatīvajos aktos pēdējo gadu laikā, tai skaitā nacionālos tiesību aktus harmonizējot ar Eiropas Savienības tiesību normām, rada iespēju ārstniecības iestādēm izmantot ārstniecībā izņēmuma jaunieviestās terapijas zāles, tostarp cilmes šūnu terapiju

īpašos gadījumos, ievērojot stingrus kvalitātes standartus, ar grozījumiem *Farmācijas likumā* un ar to saistītajiem Ministru kabineta noteikumiem atvieglojot šādas terapijas izmantošanu, īpaši gadījumos, kad nav pieejamas reģistrētas alternatīvas vai šādas alternatīvas, skatoties ilgtermiņā, ir dārgākas. Lai gan normatīvie akti paver iespējas jaunām ārstniecības metodēm, tie vienlaikus nosaka arī stingru uzraudzības mehānismu. Izņēmuma jaunieviestās terapijas zāles drīkst lietot tikai pēc Zāļu valsts aģentūras atļaujas saņemšanas, un ārstniecības iestādēm tiek noteiktas papildu prasības, tostarp civiltiesiskās atbildības apdrošināšana pacientu aizsardzībai. 2025. gadā izstrādes procesā ir Ministru kabineta noteikumi, kas detalizēti reglamentēs jaunieviestās terapijas zāļu lietošanas kārtību, tai skaitā specifiskus kritērijus, kas attiektos uz pacientiem ar psoriāzi un citām slimībām. Šis solis ir būtisks, lai nodrošinātu terapijas drošību, efektivitāti un pieejamību.

Secinājumi

Psoriāze ir hroniska autoimūna ādas slimība, kas ietekmē miljoniem cilvēku pasaulē, tostarp Latvijā. Tās ārstēšanas metodes līdz šim galvenokārt balstījušās uz simptomu mazināšanu un slimības uzliesmojumu kontrolēšanu, taču šīs pieejas bieži vien nesniedz ilgtspējīgus rezultātus. Inovatīvā cilmes šūnu terapija piedāvā jaunas cerības psoriāzes ārstēšanā, ļaujot ne tikai mazināt simptomus, bet arī atjaunot bojāto ādu un uzlabot pacienta imūnsistēmu, nodrošinot ilgstošus uzlabojumus slimības gaitā. Pētījuma rezultāti norāda uz cilmes šūnu terapijas potenciālu, tomēr tās ieviešana veselības aprūpes sistēmā Latvijā saskaras ar vairākiem izaicinājumiem, tostarp birokrātiskajiem un normatīvajiem ierobežojumiem. Šie izaicinājumi prasa rūpīgu pieeju, lai nodrošinātu, ka inovatīvās ārstēšanas metodes kļūst pieejamas pacientiem un iekļaujas pastāvošajā veselības aprūpes sistēmā.

Vērtībās balstīta uzņēmējdarbības vadība, kas koncentrējas uz ilgtspējīgu attīstību, sociālo atbildību un pacienta vajadzību apmierināšanu, spēlē būtisku lomu cilmes šūnu terapijas ieviešanā. Šāda pieeja palīdzētu nodrošināt ne tikai efektīvu ārstēšanu, bet arī samazināt valsts izdevumus, kas saistīti ar ilgstošām un neefektīvām ārstēšanas metodēm. Tādējādi cilmes šūnu terapija, kas piedāvā izārstēt pacientus, var ievērojami samazināt ilgtermiņa ārstēšanas izmaksas un uzlabot pacientu dzīves kvalitāti. Ilgtspējīgi ieguldījumi šādās inovatīvās ārstēšanas metodēs ne tikai veicinātu veselības aprūpes efektivitāti, bet arī atbilstu sociāli atbildīgas uzņēmējdarbības principiem.

Turklāt nepieciešama arī birokrātiska un likumdošanas atbalsta ieviešana, lai nodrošinātu šādu jaunu terapiju pieejamību. Birokrātiskā sistēma jāspēj pielāgot jaunām inovācijām un jānodrošina, ka normatīvie akti atbalsta inovatīvu ārstēšanas metožu ieviešanu. Tāpat jāatbalsta sadarbība starp uzņēmējiem, veselības aprūpes institūcijām un valsts struktūrām, lai radītu apstākļus, kas veicinātu šo terapiju pieejamību. Mākslīgā intelekta izmantošana pārvaldes efektivitātes uzlabošanai var palīdzēt novērst birokrātijas stagnāciju un ļaut ātrāk pielāgot sistēmu, atbildot uz sabiedrības vajadzībām un inovāciju izaicinājumiem.

Noslēgumā, lai nodrošinātu cilmes šūnu terapijas efektīvu ieviešanu Latvijā, ir jāņem vērā gan medicīniskie, gan ekonomiskie, gan arī juridiskie aspekti. Ar pareizu stratēģiju, kas apvieno inovācijas ar ilgtspējīgu uzņēmējdarbību un sociāli atbildīgu pārvaldību, ir iespējams radīt veselības aprūpes sistēmu, kas ne tikai atbilst pacientu vajadzībām, bet arī nodrošina ilgtermiņa pozitīvus rezultātus gan sabiedrībai, gan valsts budžetam.

Nobeigums

Psoriāze ir vairāk nekā tikai ādas slimība; tā ir ciešanas, kas ietekmē cilvēku dzīves kvalitāti, emocionālo labklājību un viņu spēju piedalīties sabiedrībā. Tā ir hroniska, neparedzama slimība, kuras ārstēšana līdz šim lielā mērā koncentrējusies uz simptomu mazināšanu un īstermiņa rezultātiem, bieži vien nepiedāvājot ilgtspējīgu risinājumu. Tomēr, kad cilmes šūnu terapija nonāk uzmanības centrā, atklājas neticami potenciāli — ne tikai kā jauna terapija, bet arī kā reāls risinājums, kas maina spēles noteikumus psoriāzes ārstēšanā.

Mūsu izpratne par cilmes šūnām un to spēju ietekmēt ādas atjaunošanos sniedz cerības, kas pārsniedz medicīniskos ierobežojumus. Šī terapija piedāvā daudzsološas iespējas: no ādas šūnu reģenerācijas līdz imūnsistēmas izlīdzināšanai. Tā ir zinātniski pamatota un pielietojama metode, kas, savienojot inovācijas ar ilgtspējīgu uzņēmējdarbības vadību, var ievērojami samazināt ārstēšanas izmaksas un uzlabot pacientu dzīves kvalitāti.

Tomēr šo jauno metodi nevar ieviest bez izaicinājumiem. Birokrātiskie ierobežojumi un normatīvie jautājumi ir šķērslis, kas jārisina, lai šī ārstēšana kļūtu pieejama Latvijas pacientiem. Lielākā pārsteidzošā atklāsme ir tas, cik lielā mērā valsts veselības aprūpes sistēma ir gatava pielāgoties šādām inovācijām. Patiesībā šī ir ne tikai medicīniska, bet arī sociāli atbildīga pieeja, kas var mainīt to, kā mēs domājam par veselības aprūpes efektivitāti ilgtermiņā.

Lai sasniegtu šos mērķus, nepieciešama apvienota pieeja — no veselības aprūpes politikas un uzņēmējdarbības līdz sabiedrības un valsts atbalstam. Cilmju šūnu terapijas ieviešana ir ne tikai ārstniecības progresa solis, bet arī sociāli nozīmīga pārmaiņa, kas var padarīt Latviju par pionieri inovatīvās medicīnas laukā. Ieguldījumi šajās jaunajās ārstēšanas metodēs būs ilgtermiņa ieguldījums veselības aprūpes sistēmas attīstībā, sniedzot vērtīgus rezultātus gan pacientiem, gan sabiedrībai kopumā.

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GEORGIAN COMMERCIAL BANKS ACTIVITIES, THE ESSENCE AND RISKS AT THE MODERN STAGE

Ani Bibiluri
Georgian Technical University, Tbilisi, Georgia
anibibiluri@gmail.com

Abstract

Georgia has historically gone through a long and difficult path of development. This small state located on the Eurasian continent is constantly faced with a choice between Europe and Asia, however, with such a location, it has great opportunities and can exploit many markets, such as: European integration in the near future and a wide area of cooperation in Asia. Commercial banks are the leading figures of the Georgian economy, therefore their role in the development of the financial sector is infinitely great, because they themselves create this system and represent the central connecting link between various structures. The proper functioning of banks, the right vision and innovations bring about turning points in the economy, which is why the financial sphere is built on and oriented towards their activities. Accordingly, the range of services of banks is constantly developing and updating, this is a process that accompanies any organization, improvement and striving for perfection. Georgian commercial banks, however, have been able to overcome numerous obstacles with dignity, step by step, and reach the milestone where they are today.

Keywords: National Bank of Georgia, Commercial Bank, Banking-Financial Sector, Activity Risks.

Introduction

By its very nature, a commercial bank is a non-state credit organization that performs universal banking operations for individuals and legal entities, such as: operations on deposits and loans, settlement operations, transactions in the securities market, and brokerage operations.

The term "commercial" is conditional in relation to a bank and implies that the main goal of the organization's activities is to obtain maximum profit, which, as a rule, is obtained from interest rates, commissions, etc. Accordingly, interest rates on loans issued are always higher than interest rates on deposits, thus the difference between these indicators gives us the bank's profit margin.

Modern commercial banks are mainly focused on the following types of banking services:

- Lending and deposit operations of individuals and legal entities;
- Operations related to the stock exchange and precious metals;
- Management of settlement accounts of economic entities;
- Exchange of damaged currency (torn, burnt, washed banknotes) for new banknotes;
- Conversions, etc.

Research results and discussion

Historically, the world's first known commercial bank was founded in the Italian city of Genoa in 1407. The oldest bank still operating today, as well as the Italian Bank, is the Monte dei Paschi di Siena, which has existed since 1472.

The history of commercial banks in Georgia dates back to the first half of the 19th century. However, the closest to the modern banking model was the Tbilisi Estates Bank, founded in 1875 by Ilia Chavchavadze, whose operating principle involved the pledging of lands by nobles and the assistance of peasants in redeeming these lands, even with a loan from the same bank. This bank existed until 1909. Then came 70 years of Soviet rule, during which not only Georgian banks, but even the existence of a private banking system in general, was considered unacceptable, and the concept of "commercial" was foreign to everyone during this period, since there were only state banks, the main role of which was to store money. (Tsaava, G., & Bibiluri, A., 2023)

The formation of the modern Georgian banking system began in the 1990s, when the National Bank of Georgia finally took the reins of bank regulation into its own hands and in 1995 the "Organic Law on the National Bank" was issued, the new edition of which dates back to 2009. This fact laid the foundation for the formation of a functioning Georgian banking system, which resulted in the Law of Georgia "On the Activities of Commercial Banks" in 1996. These two laws are the foundation on which the banking and financial system functions.

According to the law, the National Bank of Georgia is the supreme governing body, the main function of which is to ensure price stability. Its goal is to ensure the country's stable financial development and efficient functioning. Simply put, the National Bank is concerned with promoting the long-term growth of the Georgian economy, as well as strengthening the national currency and increasing confidence in it. The National Bank of Georgia, in order to fulfill its mission, acts as a key player in the financial sector, that is, it is a bank of banks, which, in compliance with the principles of transparency, periodically publishes statistical information on inflation, refinancing rates and other indicators in the country. Data on commercial banks is public and any interested person can review information on 17 commercial banks. It is worth noting that the 102 banks operating in Georgia in 1995 were too many for the given period, although over time, their number rapidly decreased with the introduction of regulations and refinement of banking legislation. However, against this backdrop, the number of bank branches and service centers has gradually increased, and many customers are using internet/mobile banking, self-service terminals, and ATMs, as a result of which the once-overcrowded bank tellers have been replaced by deposit machines. That is why banks are an integral part of the modern monetary economy, their activities are closely related to the needs of production. They are located at the center of economic life, serving the interests of producers, connecting industry and trade, agriculture and the population with cash flows. (Mosiashvili, V., & Bibiluri, A., 2023)

In modern society, banks are engaged in the most diverse types of operations. They not only organize monetary circulation and credit relations, but also finance the national economy, carry out insurance operations, purchase and sale of securities, and in some cases, carry out brokerage and property management. Credit organizations act as consultants, participate in the discussion of national economic programs, produce statistics, and have their own subsidiaries.

Modern commercial banks directly serve enterprises and organizations, as well as the population – their clients. Commercial banks act as the main link in the banking system. Commercial banks are

independent economic entities, but the legislation defines the rules for their creation, principles of activity and organizational and legal form – a joint-stock company. Their attitude towards the client is commercial in nature, therefore the purpose of the functioning of commercial banks is to obtain maximum profit.

According to banking legislation, a bank is a credit organization that has the right to attract funds from individuals and legal entities, place them on their behalf and in their accounts on a repayable basis, subject to payment, and carry out payment operations on behalf of the client. Thus, commercial banks provide a comprehensive range of services to clients, which distinguishes them from non-banking special credit organizations that perform a narrow range of financial operations and services. (Tsaava, G., Burdiashvili, R., & Bibiluri, A., 2023)

A commercial bank bases its activities on the principle of profitability, receiving income from each operation, taking into account the impact of risk factors. The founders and shareholders (participants) of a commercial bank may be legal entities and citizens, with the exception of representatives of state bodies of all levels, political organizations, and specialized public funds. The bodies of the bank must be governed in accordance with the legislation, existing economic regulations and the implementation of monetary and settlement rules. As mentioned, the activities of commercial banks are regulated by the Law of Georgia "On the Activities of Commercial Banks". Commercial banks operate on the basis of a license to conduct banking operations issued by the National Bank of Georgia.

The status of the National Bank of Georgia is defined by the Constitution and its independence is guaranteed. The first central bank in our country was established in 1919, and it has existed in its current form since 1991.

The National Bank of Georgia is independent according to the law and no one has the right to interfere in its activities, neither representatives of the legislative nor the executive bodies. It is a central bank, which means the existence of certain rights and obligations. In particular, the National Bank conducts monetary policy, manages the official international reserves in the country. It acts as the banker of our government and at the same time is a fiscal agent. The National Bank is the only one in the country that has the right to issue money and mint coins (including collectible ones). (Bibiluri, (2024, March).)

One of the best indicators for assessing the development of the Georgian banking sector is the trend of changes in bank assets. If we look at the information since 2004, it is worth noting that in fact, great progress has been achieved over the last 20 years, which was partly due to the fact that in 2004, the total assets of banks were 1.7 billion, and by January 1, 2018, they reached 34.6 billion GEL, or 13.35 billion dollars. As of September 1, 2023, the total assets of Georgian commercial banks amounted to 72.1 billion GEL, and at the end of July 2024, the total assets of Georgian commercial banks amounted to 86.8 billion GEL. As of July 2024, the Georgian banking sector is represented by 17 commercial banks, 13 of which have foreign capital in their authorized capital. It is noteworthy that the first Georgian digital bank in Georgia is "Paysera Bank Georgia", which operates directly on the basis of a license issued by the National Bank, while previously existing digital banks operated directly on the basis of existing commercial banks or foreign licenses. It is also noteworthy that the largest share of the total bank assets is held by "Bank of Georgia" and "TBC Bank". We can conclude that the number of banks is decreasing, but their role in the country's economy is increasing. In general, the capital of the banking sector today is 13 billion GEL, which is 15% of the assets of commercial banks.

A necessary condition for the development of the banking sector is the growth of deposits. In this regard, significant progress has been observed in recent years. In 1996, the total deposits in all banks amounted to 56 million GEL (1.5% of GDP), as of February 2018, they amounted to 20 billion GEL, as of the end of 2023, approximately 43.64 billion GEL, and by the end of September 2024, deposits of 29,748.39 million GEL were deposited in commercial banks, which meant an annual increase of 20%. It is noteworthy that for the first time in history, mandatory deposit insurance was introduced by order of the National Bank of Georgia on January 1, 2018, which is another step forward.

The fact is that with the growth of deposits, the number of loans issued also increases. In 2003, 746 million GEL of loans were issued, by February 2018 the volume of credit investments reached 22 billion GEL, the volume of lending in GEL increased within the framework of the „LARI program" and the share of loans issued in foreign currency decreased accordingly, and according to 2023 data, the total was 50.12 billion GEL. As of December 2024, the volume of loans issued by commercial banks amounted to 62.23 billion GEL. Similar to deposits and credit portfolios, the largest share of total assets falls on 2 commercial banks. (Mosiashvili & Bibiluri, 2022)

Along with the growth of bank assets, deposits and loans, the interest rate on loans is decreasing. In 1996, the average annual interest rate on loans from commercial banks was 61%, and in 2018 this figure dropped to 9%, although at the end of 2019 it was equal to 11%. The interest rate was decreasing especially rapidly until 2006, in 2007 it was hindered by high inflation, and in 2008–2009 – by the global financial crisis. Since 2012, rates have returned to a downward trend, which has been stopped by the risk of financial instability arising from the significant depreciation of the lari since 2015. Since 2015, monetary policy has been significantly tightened, which was directly reflected in the interest rates on loans issued and to be issued in lari. Banks have their credit resources mainly in foreign currency, because foreign currency is more stable and they prefer to issue large loans for a period of five years or more. However, the National Bank of Georgia has taken a serious step in this direction, when it regulated the term, currency and limits of loans. For example: from 2024, it is planned to impose a 500,000 GEL limit on mortgage loans in foreign currency for those who have income only in GEL, but at the same time remove restrictions for those customers whose income is in foreign currency.

The reduction in the number of banks, the increase in deposits and loans, and most importantly, the reduction in interest rates, shows how important the level of development and quality of service of banks is, and not their number, in terms of competition. The more commercial banks there are in Georgia, the better, but the great achievement called the stability of the banking sector must be maintained. Some banks were sold, some merged with larger banks, some were liquidated, but these events developed in such a way that no one was harmed, which further preserved trust in banks.

Over the past 20 years, there has been clear progress. In the context of globalization, there are many demands on banks, they need to be brought closer to modern world trends, which the Georgian banking system is successfully implementing, as evidenced by the fact that Georgia is distinguished in the region by its high-level banking system. An important example of globalization is the entry of Georgian banks into the world stock market, when in 2006 the "Bank of Georgia" appeared on the London Stock Exchange, and in 2012 it was included in the premium listing. In 2014, "TBC Bank" was also added to the London Stock Exchange. This marked the beginning of a new, world-class history of the banking sector.

Any organization, especially banks, faces a number of types of risks that can affect the bank's activities. PWC and CSFI – two centers for studying financial innovations – regularly conduct a

survey of specialists to identify and rank risks by importance and growth rate, in order to determine what banking leaders consider to be the greatest threats and obstacles to their activities. The survey is conducted periodically and, in addition to standard, common financial, market, credit and other risks, other indicators were also identified:

1) Macroeconomic environment and the threat of political interference;
2) Crime levels and regulations;
3) Technological risk and the quality of risk management;
4) The impact of social media;
5) Corporate governance and reputation;
6) Human resources and management incentives;
7) Emerging markets and shadow banking, etc.

The study was conducted in about 50 countries around the world, based on communication with about 700 bankers. The study included Great Britain, the USA, Canada, etc. During the study, respondents noted that political interference and the imposition of restrictions can lead to an increase in costs in the banking sector.

The reliability of a bank is determined by its stability. The rating agency Fitch Ratings, which evaluates commercial banks based on their long-term and credit stability ratings, assigned a "positive" rating to most commercial banks in Georgia in 2024.

Conclusion

In general, we can draw the following conclusion from the above issues: currently, the Georgian banking system is experiencing rapid development and the market consists of 17 commercial banks, at the same time there is a tendency for large banks to merge with small banks. From the 90s of the last century to the present, the banking sector has gone through a long and difficult path of development, during which its functions and responsibilities have changed many times, developed and we have a much more streamlined banking sector, where consumers receive products and services without any disruption.

The role and importance of commercial banks in the financial sector of Georgia is great, as they are the central link in the mentioned sphere. A flexible system of supervision and regulation of commercial banks has been created, they face various types of risks in their activities, but they cope with them with dignity.

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ENHANCING BUSINESS EDUCATION FOR SUSTAINABILITY: THE ROLE OF THE EU GREEN DEAL

Ieva Brence
Turiba University, Latvia
ieva.brence@turiba.lv

Ilona Beizitere
Latvia University of Life Sciences and Technologies, Latvia
ilona.beizitere@gmail.com

Abstract

The European Union's Green Deal (GD) is crucial in shaping future business practices through sustainability principles. This paper examines potential improvements in higher education curricula to support the GD as a catalyst for business transformation. A quantitative study assessed entrepreneurship students' knowledge and expectations of the GD, using T-tests and factor analysis. The findings indicate that while sustainable development courses are in business curricula, students' understanding of the GD can be improved. The results emphasize the need for more robust educational initiatives that equip students with practical insights into EU sustainability policies. Three components were identified through Principal Components Analysis: Business Growth & Competitiveness – Differentiating optimistic businesses (expecting revenue and productivity growth) from those anticipating revenue decline; Financial Burden & Cost Expectations – Reflecting concerns over rising expenses versus expectations of cost savings; Competitive Advantage & Survival – Capturing confidence in businesses' future market position in response to the GD.

Cost concerns are a significant factor, with businesses divided between those expecting efficiency-driven cost reductions and those anticipating increased expenses. The role of education is paramount in bridging these gaps. Higher education curricula should enable students to integrate green practices into future business models and contribute effectively to a sustainable economy.

Keywords: EU Green Deal, higher education, business students, sustainability, curriculum development

Introduction

Sustainability, green growth, and the principles of the European Union Green Deal (GD) (European Commission, 2019) represent fundamental pillars poised to influence various aspects of modern life. In the context of the GD, Member States must implement a diverse array of programmes and instruments to achieve the ambitious target of net-zero greenhouse gas emissions by 2050. This directive extends beyond reducing emissions within the transport or industrial sector. This requires improving carbon sequestration processes, promoting greater sustainability in urban and rural environments and agricultural practices, and enhancing biodiversity. Moreover, it

underscores the importance of ensuring citizens' access to nutritious and healthy food while promoting the development of the bioeconomy to achieve these goals. Thus, green business thinking and implementing sustainability principles affect very diverse areas of the national economy. This indicates an increasing role of business education in the national economy.

The European Commission (EC) views education as a principal element in the broader global efforts to advance sustainability and mitigate the impacts of climate change. As articulated in its Communication on Achieving the European Education Area by 2025, the EC emphasizes that education and training systems tailored to promote an inclusive green and digital transition are critical to Europe's long-term resilience and economic prosperity (European Commission, 2020). This perspective highlights the pressing need to revise and enhance educational curricula, particularly those related to the GD, to equip the younger generation with the necessary knowledge and skills. These curricula must impart theoretical understanding and prepare students to become active contributors in the practical application of the GD's principles, thereby driving tangible changes in the transition to a sustainable economy.

Potential enhancements to higher education programmes to foster the effective implementation of the GD, viewed as a critical driver of change within the business sector. This study is grounded in examining entrepreneurship students' understanding of the GD. It should be taken into account that today's students can be the leading influencers and decision-makers of economic direction in the future, and the development of the national economy can depend on their understanding and attitude towards sustainability. Some studies suggest that businesses may not be sufficiently informed about the objectives of the Green Deal and the implementation of its measures, for example, rural companies (Rus, 2022). Krajnc et al. (2022) identified a significant gap in young students' knowledge regarding the circular economy, which is crucial for achieving the GD's objectives. Despite supporting the circular economy, students were not adequately trained to devise solutions for its implementation. Research indicates that entrepreneurs in several European countries continue to face challenges in understanding and applying the goals of the GD in practice (Lamenta & Grzybowska, 2023). This underscores the growing importance of both awareness and formal education in creating and implementing a green economy in future business practices. Existing and future entrepreneurs studying at Latvian universities have general awareness and understanding of the long-term and medium-term goals of the GD, however, in-depth knowledge is insufficient (Beizitere et al., 2024). Raising awareness among entrepreneurs is crucial to improving the transition to a circular economy (Batista-Canino et al., 2025). It is emphasized that the role of education in promoting economic growth requires special attention to knowledge capital and skills (Hanushek & Woessmann, 2020). Higher education provides many benefits to society, including higher incomes, lower unemployment and government dependency rates, an increased tax base, and greater civic engagement (Fahim et al., 2021).

A thorough theoretical analysis of existing literature and policy documents was conducted to develop a comprehensive questionnaire designed specifically for surveying Latvian university students.

The survey results show that students learn courses in the entrepreneurship curriculum that focus on sustainable development. Thus, university students generally have a general idea of the sustainability strategies included in the GD concept. However, students' knowledge is partial and can be improved. This highlights the importance of reinforcing and diversifying educational content to ensure that business transformation in alignment with the GD is both successful and sustainable.

To this end, it is recommended that curricula be further refined to enable students to gain a deeper understanding of EU and global trends aimed at environmental preservation. This approach will equip them with valuable knowledge and empower them to apply these insights within their future entrepreneurial ventures.

Literature review

The research objectives of EU scholars in the field of education extend beyond merely enhancing learners' awareness of the GD. To promote education on environmental sustainability within the EU and the GD, the European Sustainability Competence Framework was developed (Bianchi et al., 2022). This framework is designed to provide guidelines for the development of sustainability competencies, which should be integrated into educational programmes across the EU. According to the framework, the authors provide recommendations for educational schemes that promote sustainability as a competence. Four interrelated competence areas are proposed for the educational system to develop. These are 'embodying sustainability values', 'embracing complexity in sustainability', 'envisioning sustainable futures', and 'acting for sustainability'. The green transformation requires not only specific knowledge and skills but also all twelve sustainability competencies mention in this framework (Zotti, 2022) Zotti (2022) underscores that the strategic objective of the EU's education reform extends far beyond mere incremental modifications to existing curricula; rather, it positions sustainability as the cornerstone of the European education policy reform agenda. According to Zotti (2022), this reform aims to enhance education and training systems that support environmental sustainability and embrace a broader conceptualization of sustainability. This aligns with political agendas seeking to foster better, more inclusive, and higher-quality education across Europe.

The introduction of the GD aims to realign the EU's economic development with the United Nations' 2030 Agenda and the Sustainable Development Goals. The GD incorporates various strategies and policies with a particular focus on biodiversity, circular economy, climate change, food systems, forest protection and restoration, and renewable energy. It is emphasized that there is a need to develop approaches, methods, and tools that could help higher education institutions systematically implement the Sustainable Development Goals (SDGs) in educational programs as an integral part (Leal Filho et al., 2021). In addition, there is a need to understand better how sustainability education can be improved rather than simply teaching the topic of sustainability (Annelin & Boström, 2023). For the sustainable development of higher education, curriculum and practice largely depend on a better understanding of existing gaps and differences in educational programs and the target areas to be achieved (Franco et al., 2019). The role of higher education institutions in promoting sustainable development is growing. However, the growth of understanding of sustainability depends on teachers' contributions and students' perceptions in this regard. Although most students care about climate change, support sustainable development through reuse, reduction, and recycling practices, and participate in organized activities to promote environmental or community protection, a small percentage of students remain skeptical about climate change and support less environmentally friendly practices (Aleixo et al., 2021).

A comprehensive approach to implementing bioeconomic strategies requires knowledge generation and dissemination. The transformative potential of bioeconomic business activity underscores the need for improvements in business education (Kuckertz, 2020). Additionally, digitalization plays a critical role in supporting the bioeconomy, but it also introduces risks related

to technological disruptions, cybersecurity, and regulatory challenges (Zeverte-Rivza, Brence, & Rivza, 2023).

A study that surveyed young people across five EU countries revealed significant gaps in knowledge regarding GD priorities and circular economy principles, particularly in their application to business activities. Furthermore, formal education inadequately prepares young people for successful involvement in the green transformation of business (Krajnc et al., 2022). A separate study by Tooman and Piirman (2019) on micro-enterprises in Estonia, Finland, Latvia, and Sweden identified the essential skills and knowledge needed for green entrepreneurship. Despite having strong business ideas, micro-entrepreneurs often lacked the skills required to transform these ideas into profitable green businesses, highlighting the critical need for practical skills.

Researchers advocate for an interdisciplinary approach to the bioeconomy entrepreneurial ecosystem, emphasizing the importance of collaboration between bioeconomy start-ups and universities (Kuckertz et al., 2020). To enhance education in the bioeconomy, universities should focus on increasing students' individual motivation and offering educational activities that foster entrepreneurial behaviours among students and faculty (Borge & Bröring, 2020).

The Green SCENT project, funded by the European Union's Horizon 2020 research and innovation programme, aims to develop a competence framework in line with the European Qualifications Framework and the European GD. The research team assessed such a competence framework (Tomassi et al., 2024) as an environmentally friendly model. Importantly, it focuses on the GD education and is a way to promote sustainability. Education about sustainable practices, such as reducing energy consumption, recycling, and the use of renewable energy sources, is emphasized. The model encourages individuals to act in a way that reduces their environmental impact.

The study critically examines the EU-funded alliance "Start for Future", which encompasses a mega-ecosystem of entrepreneurship and innovation and brings together universities to deliver entrepreneurship education in areas related to the Sustainable Development Goals. The authors recommend paying attention to this new model of entrepreneurship education, as it is based on the principles of responsible entrepreneurship, reciprocity, mutual learning, co-creation, and experimentation (Henry et al., 2025).

Methodology

The survey questions were based on the literature sources and the EU and Latvian strategies and policy documents related to the GD, including the GD strategy adopted by the European Commission in 2019 and the Latvian Common Agricultural Policy Strategic Plan 2023–2027.

The primary purpose of the questionnaire was to determine the potential entrepreneurs 'awareness of the GD's overarching goal.

The SPSS platform was used to process the results.

Both males (n=60 and females (n=118) participated in the survey, resulting in approximately 33.7% males and 66.3% females.. In Latvia's higher education system, women constitute a significant majority of students across various fields. In the 2024/25 academic year, 58.8% of all higher education students were women (CSB, 2025). An independent samples T-test was performed to find the differences between the genders, concluding that most other variables (Revenue will increase; Expenses will increase; Productivity will increase; Competitiveness will increase;

Revenue will decrease; Expenses will decrease; Competitiveness will decrease) do not show meaningful differences, implying that the groups are similar and will not distributed in the research.

The research is based on our previous research confirming that most of the respondents (72%) had an idea of the main goal of the GD – for Europe to become a climate-neutral part of the world and to achieve zero greenhouse gas (GHG) emissions by 2050. The majority (60%) knew that the Green Deal also had an intermediate target of reducing GHGs by at least 55% by 2030 compared with 1990 levels. Notably, 70% of students with experience in business management and 55% without experience were aware of this specific target, which resulted in the EU regulatory package 'Fit for 55' in 2021 (Beizitere, Brence, Rivza, 2024).

To explore the research further, we used the Principal Component Analysis (PCA) to reduce a set of correlated variables into a smaller number of uncorrelated components (factors) that capture the main patterns in the data. Each component represents a latent dimension explaining variance in the data.

In your results:

- Component 1 captures the most variance (most substantial pattern).
- Component 2 captures another independent dimension.
- Component 3 captures an additional, weaker pattern.

Each variable (question) has loadings (correlations) with each component. Higher absolute values (closer to ±1) indicate strong relationships with that component.

Research results

We define three components through the Principal Component Analysis (PCA).

1. Business Growth & Competitiveness (Component 1)

This component divides respondents into two groups:

Optimistic businesses: Expecting increased revenue and productivity (negative loadings).

Pessimistic businesses: Anticipating revenue decline (favorable loading).

2. Financial Burden & Cost Expectations (Component 2)

This component reflects expectations about financial burden or relief:

Negative scores indicate concerns about rising expenses.

Positive scores reflect expectations of cost savings.

3. Competitive Advantage & Survival (Component 3)

This component captures businesses' confidence in their future competitiveness:

High positive scores suggest businesses that see the Green Deal as an opportunity to strengthen competitiveness.

Lower scores indicate concerns about losing market position.

Before starting the calculations, we checked the variance explained by each component, leading to the results in Table 1.

Table 1

Variance Explained Within Each Component (survey data)

Component	Variance Explained
1	40%
2	30%
3	20%

Source: Survey of the entrepreneurship students, 2024, n=178

The following table represents the calculations performed in the Principal Components analysis frames, leading to positive and negative factors.

Table 2

Factor Loadings of Business Expectations Regarding the Green Deal (survey data)

Variable	Component 1: Business Growth & Competitiveness)	Component 2: Financial Burden & Cost Expectations	Component 3: Competitive Advantage & Survival
Revenue will increase	**-0.521**	0.137	0.115
Expenses will increase	0.255	**-0.681**	-0.325
Productivity will increase	**-0.705**	-0.030	0.030
Competitiveness will increase	-0.083	0.011	**0.809**
Revenue will decrease	**0.594**	-0.196	0.289
Expenses will decrease	0.181	**0.840**	-0.121
Competitiveness will decrease	0.451	-0.123	**0.574**

Source: Survey of the entrepreneurship students, 2024, n=178

Component 1 (Business Growth & Competitiveness)

Negative loadings on "revenue increase" and "productivity increase" suggest this component represents a group optimistic about growth (more negative = growth).

Favourable loading on "revenue will decrease" means that those who expect revenue declines are on the opposite side of this dimension.

Component 1 contrasts those who expect positive business growth with revenue declines.

Component 2 (Financial Burden & Cost Expectations)

Expenses increasing has a strong negative loading, while expenses decreasing has a strong favourable loading.

This component represents financial expectations:

Negative values mean people expect costs to rise.

Positive values mean people expect costs to decrease.

Businesses worried about cost increases will score low on this component, while those who see cost savings will score high.

Component 3 (Competitive Advantage & Survival)

The dimension reflected confidence (or concern) about how businesses will perform compared to competitors.

High positive scores on this component mean people believe competitiveness will increase.

Lower scores indicate expectations of declining competitiveness.

Conclusions and discussion

The Green Deal is perceived either as an opportunity for innovation or a challenge for business survival. Higher education institutions must enhance curricula to ensure students understand sustainability trends comprehensively and develop the skills needed for implementing GD principles. Policymakers should provide targeted support, including financial incentives.

1. Two main business mindsets emerge on the Green Deal:

Growth-Oriented Innovators (low Component 1 score, negative loadings on "revenue decrease" & "productivity decrease"):

Expect increased revenue and productivity – more adaptable businesses are already investing in green technologies.

See the Green Deal as a chance to expand, attract customers, and innovate.

Risk-Averse Businesses (high Component 1 score, positive loading on "revenue decrease") – fear revenue loss and operational difficulties – businesses with limited investment capacity.

View the Green Deal as a regulatory burden rather than an opportunity.

2. Cost Concerns Are a Major Factor, as businesses are split on financial expectations:

Efficiency-Seekers (high Component 2 score, positive loading on "expenses decrease") who believe that costs will decrease through energy savings, digitalization, and optimized processes.

Typically innovative businesses or those in service-oriented, tech-based sectors.

Already exploring grants, tax reliefs, and efficiency investments.

Cost-Burdened Businesses (low Component 2 score, negative loading on "expenses increase") that expect rising operational costs due to compliance with sustainability regulations, as they are concerned about expensive upgrades (e.g., new equipment, waste management, certification costs).

3. Competitiveness Is at Stake

Green Leaders (high Component 3 score, positive loading on "competitiveness increase"):

Expect the Green Deal to boost their competitive advantage.

Market Survivors (lower Component 3 score, positive loading on "competitiveness decrease"):

Fear losing market share due to higher costs or new competitors.

The Green Deal is seen as either an opportunity for growth or a threat to business survival, depending on financial outlook and market positioning. Therefore the study courses related to the Green Deal should take into account the following aspects:

Cost Concerns are a Major Factor: Many businesses anticipate rising expenses, but some expect cost reductions through efficiency improvements.

Competitiveness is at Stake: Some businesses believe the transition will boost their market position, while others fear losing their competitive edge.

Implications for Policy and Business Strategy

Targeted Support: Businesses expecting financial burden (low Component 2 scores) may require financial aid, tax incentives, or cost-mitigation strategies.

Encouraging Competitiveness: Policies should support businesses in leveraging Green Deal compliance as a competitive advantage (e.g., green certifications, innovation funding).

Bridging the Optimism Gap: Awareness campaigns and training may help skeptical businesses see opportunities in sustainability rather than just regulatory challenges.

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THE IMPACT OF LEADERSHIP ON HUMAN RESOURCES IN IT COMPANIES IN KERALA, INDIA

Zane Driņķe
Turiba University, Latvia
Zane.Drinke@turiba.lv

Neethu Raju
Turiba University, Latvia
neethur41@gmail.com

Abstract

Any organization's human resources are seen as essential, and their function in accomplishing organizational objectives has transformed from being limited to providing labor to being a valued source of success known as human capital. In order to fully utilize human resources, effective leadership is essential for ensuring that staff members are driven, efficient, and in line with company goals. This study investigates how leadership affects the development of human resources in Kerala, India-based IT enterprises. The study specifically seeks to comprehend the ways in which various leadership philosophies impact the industry's ethical decision-making procedures, employee engagement, and skill development.

The lived experiences of leaders and workers in Kerala's IT industry were the main focus of a qualitative phenomenological approach that was employed to accomplish this. 15 participants including staff members, project managers, and team leaders were interviewed from five businesses located in Trivandrum's Technopark IT district. To find important themes and patterns in the data, thematic analysis was used. The results indicate that leadership has a major impact on employee engagement, employment satisfaction, human capital development, and ethical behavior, all of which are essential for the expansion and prosperity of Kerala IT enterprises. This study offers perceptive information about leadership styles that can encourage creativity, output, and worker dedication in Kerala's rapidly growing IT industry.

Keywords: employee motivation, human resources, IT companies, Kerala, leadership

Introduction

Human resources (HR) are the important component to every organization, be business or an organization, they play a crucial role in the process of its development. In this study HR refers to the employees who run and work for the organization. At the same time employees should not consider their employment as mere source of income but they should consider themselves as the support system for the organization in which they work. They also should acknowledge the fact that they are the main sources to achieve the organization's goals and mission. This evolution of human resources from mere employees to valuable sources of organization's success has led to the creation

of a new term called human capital which is beyond human resources. Organizations now consider them as investment to success (Vanesa et al., 2024).

For human resources to work efficiently and feel valued in an organization, it is very important to manage the human resources in an efficient way. This is called Human Resources Management (HRM). To manage HRM an effective leadership is a crucial component. The effective leader can ensure that human resources are feeling valued and working efficiently in an organization. Leadership ensures that employees feel satisfied and productive at their duties in the organization (Biggs et al., 2023).

Talent acquisition and retention in an organization in modern day constantly changing business world so business leaders are constantly updating their leadership styles. Globalization has led to increased demand for most skilled employees this has been a challenge for the organizations. Even though they have acquired a skilled workforce it has been difficult to keep motivating the employees and retain them in the organization. So motivating employees has become an important factor to improve individual employee performance which in turn will help the organizations grow (Alghazo, & Al-Anazi, 2016).

Leaders and managers play a crucial role in creating motivational and productive environment in an organization (Alghazo, & Al-Anazi, 2016). Leadership plays a critical role in creating attitudes and conditions that will help to build innovative work behaviour among their team members. Leadership is constantly considered as the important factor which will inspire the employees' creative capabilities (Alheet et al., 2021).

The relationship between leadership and its impact on several organizational factors has been widely studied. For example, a 2022 study examined how leadership styles combined with high-involvement HR practices influence employee performance in SMEs during the digital era (Cahyadi et al., 2022). Another study highlighted the significant role of leadership support in encouraging team creativity and enhancing HR outcomes (Okolie et al., 2021).Research findings show leadership can positively or negatively impact organizational element depending upon the factors analyzed. The research on leadership of Kerala IT enterprises have been overlooked, studying about Kerala IT companies is important because the state is emerging as the most promising IT hub of India. The development of leadership practices among Kerala companies, such Thiruvananthapuram, Kochi has been overshadowed by studies about Bangalore Hyderabad IT industries. In order to understand the situation, this research aims to understand effective leaders and the ideal leadership traits for IT companies in Kerala, with help of managers and employees perception.

Leaders are important in improving productivity and innovations within the organizations. Effective leadership is important to improve employee engagement and motivation, which are important factors to measure the job satisfaction of the employees. Reduced job satisfaction can lead to decreased productivity, higher leaves, increased employee turnover, and reduced commitment to organizational goals (Bedoya, 2021). An ethical leadership style is critical to promote ethical behaviour among the employees in the organization. This ethical behaviour of the employees can improve the employees' commitment to organization (Ashfaq et al., 2021).

A significant 63 % of executives view leadership development as the key to their organizations' success. This underscores the crucial role that strong leadership plays in guiding businesses toward achieving their goals. Despite this emphasis on leadership, a concerning 13% of employees worldwide report feeling engaged in their work, highlighting a gap that effective leadership could address. Moreover, 58% of employees would trust a stranger over their boss if the stranger

demonstrated better leadership abilities, revealing a lack of confidence in the leadership currently in place. This gap in trust further emphasizes the importance of cultivating leadership skills within organizations (Mirah, 2025).

In fact, 86% of executives agree that leadership development programs are essential for the long-term success of their organizations, acknowledging that investing in leadership is not just a short-term necessity but a long-term strategic advantage. Additionally, 88% of organizations recognize that leadership has a profound impact on business outcomes, reinforcing the direct connection between effective leadership and organizational performance (Mirah, 2025).

This shows leaders are the ones who improve motivation and productivity in any business organization. Leaders are the ones who manage work demands and create the environment for the employees to feel fulfilled and committed to their work. Hence this article will analyze how leadership will impact behaviour, by examining how different leadership styles influence the employee ethical decision-making process and their behaviour towards the organization.
The aim of this study is to explore how leadership impacts human capital development in IT companies in Kerala, India. The research question of the study is: What is the role of leadership in shaping employee behavior, motivation, and skill development in IT companies in Kerala?

Literature Review

Human Resources

Employees are not mere sources of income for the companies, they are the valuable possession of the companies that can improve their organizations in every dimension. Until the 1950's employees were seen as the means of income by the companies, later they started perceiving employees as the asset that can be used to improve their revenue, so the economists coined the word 'human capital'. Human capital comprises of skills and talent that the employees have in the organization. In modern times companies are regards these skills and talents as the great assets and named them as human talents and they started to invest more in educating, training, development and health of their employees. These investments tend to improve their productivity. This proves employees are not mere sources of income, but a promising investment and they are needed to be treated fairly (Nazir et al., 2020).

For years leaders in the organizations have been striving to improve their human capital to get better outcome for the organizations. Human resources strategies are built around the employees and their wellbeing in every company nowadays. Organizations are working hard to find new talents and retain them for a long time. It is a well-known fact that employee behavior in the organization and commitment towards the organization will depend upon how organizations treat them, so the leaders in the companies are trying to treat their employees as the valuable resources, rather than treating them as money making machines. This has brought a lot of positive outcomes for organizations, like reduced employee turnover, increased employee productivity, improved organizational performance etc. This shows that companies have been investing more into human capital (Goldin, 2021).

As stated above, positive or negative outcomes for any organization depend upon the employee behavior and commitment towards the organization. If the employees work with dedication towards the company their productivity will be increased, and in turn organizational performance

will be increased. If any employee behaves irresponsibly, they are likely to be working irresponsibly. For example, if an employee has been consistently missing deadlines of the project and fails to follow the project protocols, the product delivery can be delayed, which will cause dissatisfaction among the clients. This will damage the company reputation and brand image. This proves that employee behavior is extremely crucial to the success of an organization and companies must make sure that their employees work and behave according to the company standards (Subramony et al., 2018).

Leadership

Strong leaders are needed for the organizations to manage employee behaviors, to create and manage the business strategies, to improve team dynamics and to drive the company to success. The importance of leadership is also reflected in how stock markets react when companies appoint leaders who have been trained well, suggesting that good leadership can boost a company's performance.

Additionally, companies continue to invest heavily in leadership development, even during tough economic times. For example, in 2012, the U.S. firms spent $13.6 billion on leadership programs. The increase in spending on leadership development in Europe and Asia also shows that companies worldwide recognize the value of investing in their leaders to stay competitive. This shows the leadership impact on the organization (Subramony et al., 2018).

Al Khajeh describes leadership style as the combination of traits, behaviors, and approaches that leaders use to guide and interact with their team members. It involves balancing the goals of the organization with the needs of employees to achieve specific objectives. The way leaders act is influenced by both their personal qualities, like charisma or decisiveness, and the behaviors they demonstrate, such as how they communicate or make decisions. Successful leadership comes from the mix of these traits and actions effectively to address the needs of the organization and its people. Leadership is both strategic and relational, focusing on achieving results while encouraging collaboration and motivation among team members. Modern leadership styles include several approaches (Al Khajeh, 2018).

Managing employee behavior, creating and carrying out company plans, improving team chemistry, and guiding organizations toward success all depend on effective leadership. Corporate investments in leadership development serve as additional evidence of the importance of leadership. For instance, the global market for corporate leadership training was estimated to be worth $33.90 billion in 2023 and is expected to grow at a Compound Annual Growth Rate (CAGR) of 8.95% to reach $72.65 billion by 2032 (Garad et al., 2022). This large expenditure demonstrates the understanding that a key factor in determining an organization's effectiveness is competent leadership.

Transformational leaders inspire and motivate employees to perform beyond expectations and embrace change. Transactional leaders focus on structured tasks, rewards, and penalties to maintain order and efficiency. Culture-based leaders adapt their methods to suit the cultural dynamics of their teams. Charismatic leaders rely on their personal charm to influence others, while visionary leaders concentrate on building a clear and inspiring long-term direction for the organization. These styles show that leaders must have flexibility to meet different challenges and team dynamics (Al Khajeh, 2018). The type of leadership style is decided by the characteristics and business context of the firm.

For example, a study conducted on IT companies in Kerala, India, proved that Transformational leadership which is characterized by intellectual stimulation and individual consideration is likely to improve the employee desire to work more and harder for the organization. Leadership styles impact employee behavior through several strategies, such as they are recruitment, training, development, and retention strategies. This study also states that leadership style can influence employee motivation, engagement and encourage their creativity.

Empirical research has shown how leadership styles affect worker performance. Transformational leadership, for example, has been shown to have a favorable impact on organizational commitment and work performance. According to a study conducted with 405 workers from Pakistani SMEs, transformational leadership improves overall performance by increasing employee participation in voluntary tasks (Qalati et al., 2022). In order to attain better organizational results, it is crucial to implement leadership philosophies that encourage staff dedication and inspiration. The impact of leadership on human resources is given in Figure 1.

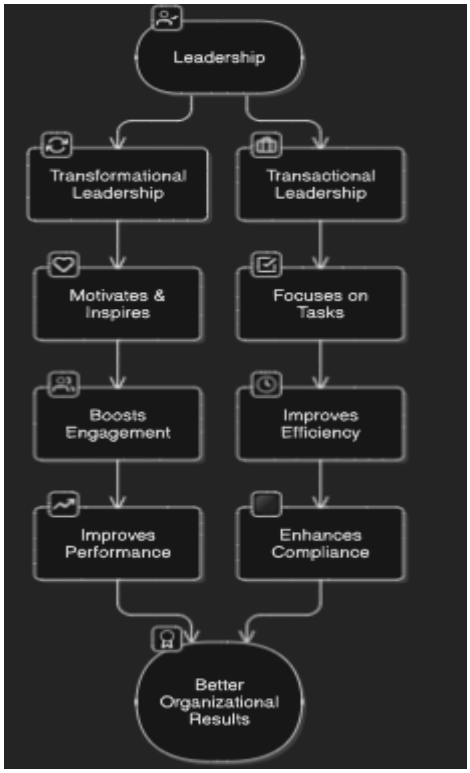

Figure 1. **Impact of leadership on Human resources**

This shows that leadership influences the employees in every way, and it is important for the businesses to nurture the best leaders and leadership qualities to improve their organizational performance (Sabu & Manoj, 2020). Kerala is the least studied state about the IT sector in India, most of the studies on Indian IT sector concentrate on Bangalore and Hyderabad, but Kerala has the promising feature in IT industry so studying about leadership impact on the state's IT sector is extremely essential in present context.

Research Methodology

To study the impact of leadership on human capital development in Kerala IT industries the author has used the qualitative phenomenological study. The researcher's goal is to describe the

phenomenon as accurately as possible while avoiding any pre-determined framework and remaining true to the facts (Groenewald, 2004). The author choose this method because it helps to gain deeper understanding about the lived experiences of the leaders and employees in Kerala IT industry. This quality of the method helps the author to understand the ways leadership influences the employee growth skill development and engagement in the industry. The outline map of research methodology is given in Figure 2.

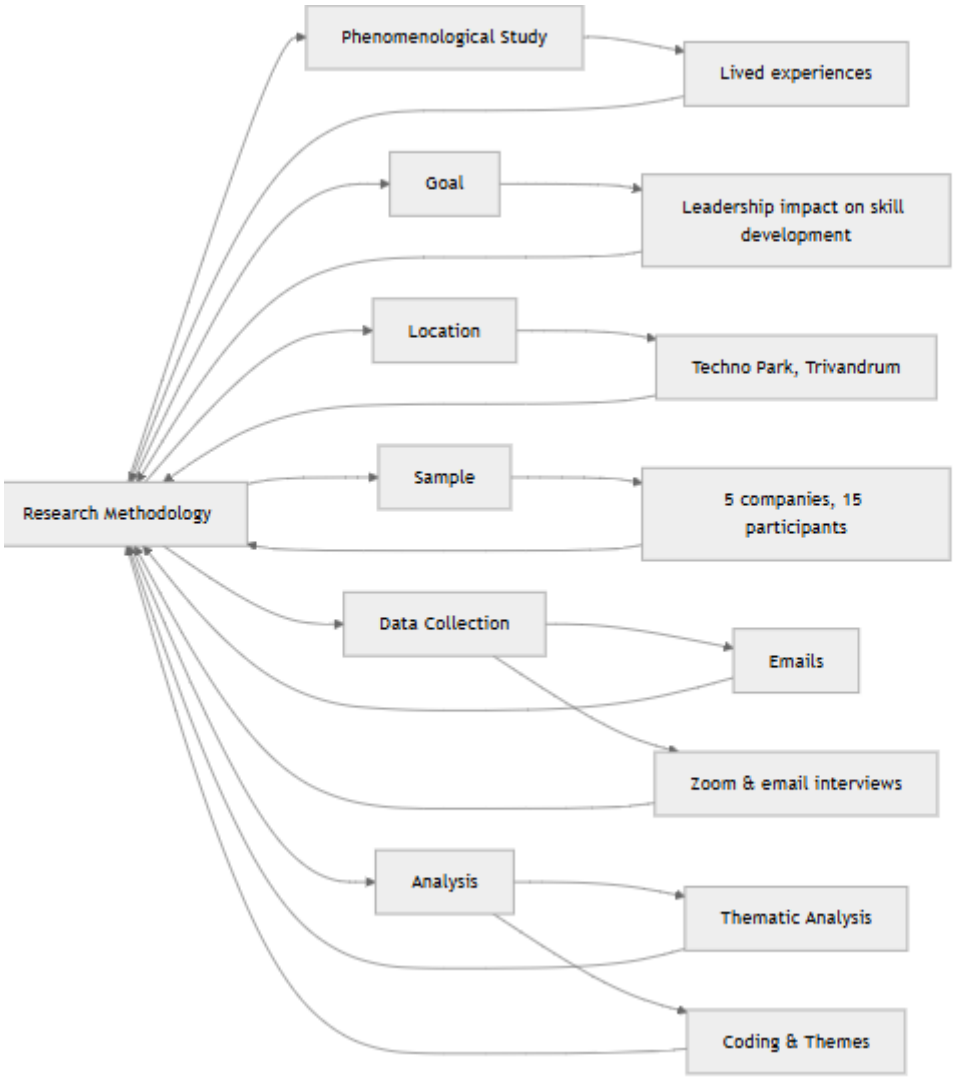

Figure 2. **Research map of the study**

To conduct this study the author has chosen Techno Park in Trivandrum, the capital city of Kerala state which is also considered as the IT hub of Kerala. In Techno Park 5 companies were chosen, and a total 15 members were interviewed from these companies. The interview participants consists of employees, team managers and project managers. These diverse participants are to understand the perspectives of employees and leaders at different hierarchy levels. The initial contact to the companies is taken place through the emails for seeking permission for the research. The author has explained the purpose of the study after getting the positive response, the author has set the time of the interviews according to the convenience of the participants. Some interviews were conducted on Zoom platform and some sent answers to the questions through email.

After gathering the interview data it is analyzed by using Thematic analysis to identify, analyze, and interpret meaning patterns ('themes') in qualitative data (Clarke & Hayfield,2015). By recognizing terms and phrases from the information gathered during the interviews, the researchers could employ coding to extract the most pertinent information and boost the data analysis process. This choice of strategy is intended to take advantage of its adaptability and capability to offer a thorough and complete explanation of complex data, making it suited for this study.

Results of the Study

Organization's leadership according to employees

Employees' opinions of and expectations for their managers' leadership are key factors in how they perceive the leadership of the organization. In the context of IT companies in Kerala, employees have mixed experiences regarding leadership. While some employees believe their leaders are effective in completing tasks, others feel that their leaders fall short in providing adequate supervision or guidance. The participants expressed a variety of perceptions about their leaders qualities the themes and their impact is given in Figure 3.

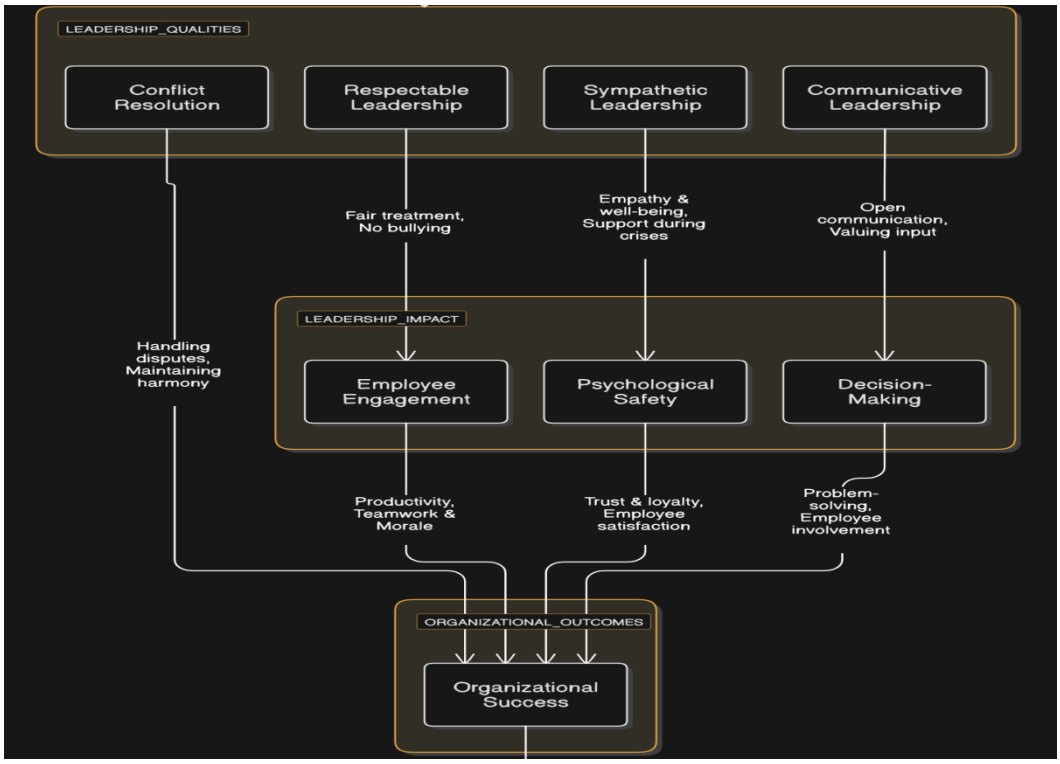

Figure 3. **Organization's leadership according to employees**

Respectable

One of the best qualities of a great leader is being respectable to all the employees and not talking them down or insulting the workers. During the interviews many participants said that they have been treated fairly one of the informant stated that there will be less mistakes from the staff part if they are not under constant stress of being ordered around

Our boss always smiles when he meets us he never spoke down to anyone even to the lowest employee in the company that is really so good of him. He never orders us around he would explain the urgency and importance of the situation and how it needs to be handled as a result it was never stress-full to work for him I understand his suggestions and try to work accordingly – informant-5

It is a well-established fact that established employee satisfaction can increase their commitment to the organization. The first step of employee satisfaction can be simply achieved by addressing the employees in a respected manner. This point is stated by some participants of the interview

Bosses often tend to look down on the entry level workers in IT companies. At my previous workplace the boss used to treat me very badly, but that is not the case our manager will never tolerate workplace bullying to anyone here I feel valued here – (informant-3)

Participants have a different opinion about their managers or owners being respectable or the feeling being valued in the organization. Some of participants have expressed their opinions in the following way:

My manager thinks he is the leader only he can pass the ultimatum so many times he shouted at me when the my colleagues are present. It is really hurt-full – (informant-8)

But another participant from the same company explained leadership and their manager in a different way. They explained in the following way

He has flexible leadership. Very flexible. He changes his behaviour according to the situation and in my opinion it is great. A good leader should act according to the situations – (informant-7)

The difference in the opinion is participants' personal opinion, but after observing all the positive opinions it can be said that leaders are effective in providing their employees with strong guidance and constructive criticism whenever it is needed. This can be seen as one of the positive signs for leadership success in Kerala IT companies.

Communicative

Effective communication is crucial in IT companies, where teams are often diverse and geographically distributed. Many employees reported that their managers promote open communication and actively seek feedback from staff. One participant mentioned that open communication allows for better problem-solving and decision-making:

Whenever I have an idea or concern, I feel comfortable discussing it with my manager. We don't always agree, but we can usually find a middle ground. This openness makes me feel like my voice is heard. – (informant-12)

Effective communication can not only benefit the employees but also organization on many levels. One of the participants explained this point with an example in the following way

My manager or the boss is always good at listening they listen very patiently what their subordinates have to say, and I can tell you it benefited them in many ways I can share an example with you My

manager is great at listening. Once, I suggested a new approach to a project. After discussing it with the team, we implemented it, and it improved our work flow significantly. In every team meeting they will always encourage us to share our thoughts regarding any issue about the project – (informant-3)

The effectiveness of the employee behaviour and employee engagement are significantly impacted by leadership in IT companies in Kerala. Employees can freely exchange ideas, offer criticism, and raise issues when there are open lines of communication because they promote a sense of belonging and trust. This improves decision-making and problem-solving procedures from different point of views. This leads to creative solutions and more efficient workflow. By actively listening to their employees and valuing their opinions, leaders nurtured a sense of empowerment and belonging that can improve morale, output, and job satisfaction. Furthermore, by integrating employee input into decision-making, companies show flexibility and sensitivity, putting them in a position to handle obstacles and stay ahead of the competition.

Sympathetic

Another quality that participants mentioned that their leaders have or should have is their leaders being compassionate. Several people related their encounters In the companies, where work can be demanding and stressful, employees value compassionate leaders who show empathy and care for their well-being. Many participants spoke about leaders who offered support during difficult personal or professional times:

When the pandemic hit, our manager checked in on us regularly, ensuring we were okay both professionally and personally. It was a small gesture, but it made a huge difference to our morale. – (informant-14)

Another participant shared an instance where a manager demonstrated compassion during a challenging interaction:

Once, my team manager was really rude to me. My project manager immediately intervened, and made sure I was okay afterward. That care made me feel valued and safe in my workplace. – (informant-2)

Workplace dynamic is significantly impacted by company's importance on empathetic leadership. A supportive work environment is created by leaders who show compassion and understanding during trying or stressful times, which improves workers mental health and job satisfaction. By showing employees that their worth goes beyond their work performance, compassionate behaviors like frequent check-ins and resolving interpersonal problems promote a culture of psychological safety and trust. This increases devotion and loyalty to the company in addition to raising morale. Furthermore, creating a compassionate work environment helps reduce stress and burnout, which enhances output, teamwork, and organizational performance particularly in times of crisis or high demand.

Conflict resolution

In IT companies, where teams often need to collaborate on complex projects, effective conflict resolution is essential. Employees described leaders who handled conflicts with a focus on maintaining team harmony and achieving positive outcomes. One employee described a conflict with a co-worker and how the manager helped resolve it:

I had a disagreement with a colleague, but our manager stepped in, facilitated a discussion, and helped us work through our differences. By the end of the day, we were back on track and our relationship improved. – (informant-10)

Another example illustrated how a manager resolved a potential customer-related conflict while maintaining professionalism and protecting the team's reputation:

Once, a client was unhappy with our service. My manager handled the situation calmly and assured the client we would rectify the problem. This prevented a bigger issue and allowed us to maintain a positive relationship with the client. – (informant-14)

IT companies leadership must include conflict resolution since it promotes a positive workplace culture, increases collaboration and productivity, and raises customer satisfaction. A toxic workplace can have a detrimental impact on employee morale, engagement, and job satisfaction. Conflicts can contribute to the creation of such a toxic workplace. Leaders can promote a healthy and effective work environment by resolving issues in a fair and constructive way. Conflicts can hinder job progress, reduce output, and cause tension among coworkers. Early dispute resolution can boost teamwork, increase production, and encourage collaboration among workers. In this research both managers and employees agreed that one of the most important quality of the good leader is conflict solving. Conflicts in the businesses can affect the team work and it will affect the business.

Organization's leadership from the perceptions of managers

Employers' perception and employees' perception may differ about the leadership in an organization, so studying about employers views and ideas about leadership is important. All managers agreed that leadership is important for the success of the business, stating that it significantly influences employees' decisions. This understanding of the importance of leadership to employees and its potential impact on the success or failure of the business was obtained from leaders of IT companies the leaders think that following can make a good leader.

Mentoring

The art of team leadership through successful mentoring of its members is known as mentorship. The best leaders of the future can be developed using this tried-and-true strategy.

We appoint senior employees as mentors to guide junior staff. This ensures that the knowledge is passed on, and it creates a culture of collaboration. – (informant-4)

Any person in a position of experience can mentor others successfully. The mentor's sole responsibility is to encourage the mentee to learn, develop, and improve skills. This gives individuals the ability to advance professionally in addition to doing better in their current position. Effective company management necessitates mentorship leadership. It comprises the process of forming a relationship between a mentee, a new or aspiring business leader, and a mentor, an experienced business leader, in order to provide guidance, support, and advice on matters pertaining to the business world. According to this study, being a leader is a lonely experience, and they frequently yearn for a mentor.

Participative leadership

The democratic leadership style, also known as participatory leadership, involves all team members in the process of establishing important goals and developing strategies and tactics to achieve them. Even if they still have the last say in decisions, House and Mitchell (1974) claim that a participatory leader engages in consultative behaviors, such as asking for input from subordinates before making a decision. The participatory leader assigns tasks to team members by involving them in the processes of planning, decision-making, and execution. Employee involvement in decision-making processes that affect the staff and their employment is one psychologically stimulating activity that can be used to increase employee morale and productivity. Almost every manager in the interviews expressed that participative leadership is the most effective leadership they explained in the following ways:

We have team meetings for every two months here. During the team meetings the problems of the project and staff will be addressed. I encourage every person in that meeting to share their ideas and thoughts. I feel in that way everyone in the organization can be valued. – (informant-1)

The response above was supported by the employee of the same company in theme-1 under the sub-theme of leader being communicative. This shows that leadership efficient in both employees and leaders. Leadership efficiency is constant and there is no communication gap in the context of leadership.

Appreciation

Appreciation is a critical aspect of leadership in IT companies. Managers discussed how showing appreciation for employees' work leads to increased motivation and job satisfaction. One manager shared their approach:

Whenever an employee does something outstanding, I make sure to recognize them publicly. It boosts their confidence and encourages others to perform well. – (informant-6)

Leaders also acknowledged that appreciating employees for their contributions creates a positive organizational culture:

Recognizing small achievements helps employees feel valued. It creates a sense of being valued. – (informant-6)

The manager's practice of openly praising exceptional work shows how much recognition may increase an employee's self-esteem. The acknowledged employee is motivated to continue or enhance their performance by this encouraging feedback. Showing their efforts would be recognized and appreciated inspires other staff members. When their accomplishments are acknowledged, employees are more likely to aim for perfection. Because of this a supportive yet competitive atmosphere is created. Leaders can help employees feel a sense of purpose and belonging by praising even the small accomplishments. Workers are more likely to collaborate well, show interest in innovative thinking, and stay with the company if they feel appreciated. Employee turnover is reduced, and job satisfaction is increased when the achievements are celebrated. Additionally, it creates an atmosphere where workers are at ease offering suggestions and giving suggestions, this promotes innovation as well as effectiveness.

Leadership Role in Employee Welfare

Employee welfare remains most important in Kerala's IT sector, where the leaders' role in employee satisfaction and retention is critical. Many IT company leaders emphasize how they prioritize employees' well-being as the foundation of their business operations. The role of leadership in nurturing a supportive environment is crucial to ensure a productive and engaged workforce. Employees' needs, particularly in the fast-paced and demanding environment of IT, are not limited to salary but extend to personal development, job satisfaction, and a sense of belonging.

Leadership in IT companies is challenging at times, I crave mentorship. But one of the key focuses in our company is ensuring that employees are happy and feel secure in their positions. If employees are dissatisfied or constantly leave, it will directly impact our performance as an IT service provider (informant-1).

Another participant from a growing IT firm in Kerala shares,

One of our employees was facing a personal crisis, and we offered financial assistance. The employee worked extra hours, showing immense gratitude and dedication. This gesture not only resolved an issue but resulted in enhanced productivity and commitment from the employee it's a win situation for the employee and company (informant-11).

Many IT managers in Kerala believe that offering work flexibility, wellness programs, and recognizing employees' hard work strengthens the organization.

Regular check-ins, listening to employee concerns, and offering support during personal crises are practices that ensure employees feel valued, thus contributing to long-term retention. Longing and loyalty to the company. - (informant-9)

The opinions of employees demonstrate that putting employee wellbeing first in the company is not just the right thing to do, but also strategically important to gain economically sustainable success for the businesses. Leaders understand that meeting both personal and professional demands promotes loyalty of the workers, employee satisfaction, and increased productivity, all of which have a direct impact on the performance of the organization. Empathetic leadership techniques, such as providing work flexibility, helping staff members through personal crises, and implementing wellness initiatives, creates the culture of trust where staff members feel safe and appreciated. Organizations are set for long-term growth in a highly competitive IT sector when regular communication and regular motivation is implemented properly.

Leadership Role in Employee Retention

Retention of employees in Kerala's IT industry hinges on effective leadership, which directly impacts employee engagement and satisfaction. In a region known for a competitive IT landscape, employees are often in demand. Leaders must create a culture that promotes loyalty and belonging, encouraging employees to stay and contribute to the company's growth.

In our company, there is zero tolerance for workplace bullying. Respect for every individual is a core value, and we have strong policies against harassment. This has created a culture where everyone feels safe and valued, and no employee feels like just a number (informant-5).

An employee shared their perspective: *"While the salary could be similar at another company, the respect and appreciation I get here are unmatched. This is why I love working here and don't want to leave" (informant-7).*

An employee shared their perspective*, I feel valued because of the recognition I receive for my ideas. This company treats employees well we get flexible work schedules, personal development programs,*

and even family support in terms health benefits. The level of respect we get is something I haven't seen elsewhere (informant-4).

The ability of any business to implement its plans and achieve its goals is largely dependent on its human capital. The ability of a company to retain important employees is known as retention. If this ability is weakened, there may be a retention problem. Recognizing workers and unique abilities is crucial, but it's just as crucial to understand how important it is to keep them on board. Organizational culture is the primary determinant of employee retention and commitment. It is believed to be easy to learn, but the difficult part is practice. In this context the leadership in the Kerala IT companies have succeeded. They have recognized employees' talents and encouraged them in that direction.

Leadership Role in Motivation

In Kerala's IT companies, motivation plays a pivotal role in retaining talent and enhancing productivity. Recognition for outstanding performance, creating opportunities for growth, and acknowledging personal contributions to the organization's success are key strategies employed by leadership to maintain a motivated workforce.

Our most successful project was a result of one of our employee's suggestions. We recognized their effort by offering a bonus and sending them and their family on a trip. This not only motivated the employee but also encouraged others to share their innovative ideas, knowing they will be recognized (informant-6).

One employee commented*, I suggested a feature based on my hometown's technology, and the manager allowed it immediately. I received a bonus and a free meal for my family on our company's anniversary. This kind of recognition makes you feel appreciated and encourages you to contribute more (informant-3).*

IT company leaders in Kerala stress that constructive criticism is important, but it should be delivered in a positive, encouraging manner. Public recognition through team emails, internal newsletters, and reward programs reinforces positive behavior, boosting employee morale.

Leadership Role in Company's Success

The success of an IT company depends largely on the leadership's ability to create efficient, motivated teams who feel a sense of purpose. Leaders are expected to encourage employees to innovate, contribute ideas, and feel accountable for the success of the organization.

Our company, believes in empowering us to make decisions. Our manager encourages us to be part of the brainstorming sessions, where we are encouraged to express our views. This approach has not only increased innovation but also our personal investment in the company's success (informant-3).
One employee shared, *our manager allowed me to lead a project from concept to delivery. This responsibility gave me the confidence to make decisions and be accountable. He worked with me and have become an example for me. This trust has made me more committed to the company's success, and I am now focused on helping the company grow (informant-14).*

Employee confusion and annoyance could result from an unbalanced organizational structure caused by careless leadership tactics. For every business to be successful, effective leadership

is essential. Leadership performs a variety of tasks to guarantee a business runs effectively. Leaders in Kerala's IT companies often emphasize that showing employees that their decisions matter enhances the organizational culture, leading to a more collaborative and productive work environment.

Discussion

The results of the study support the findings of research by Nazir et al. that views workers as important resources rather than just sources of income (Nazir et al., 2020). Respectful leadership is essential to job satisfaction and efficiency, according to participants in Kerala's IT industry. When their leaders exhibited empathy, active listening, and fair treatment, employees reported better levels of engagement and a deeper sense of belonging. This is consistent with the ideas of human capital theory, which contends that businesses that invest in their workforce via training, education, and encouraging leadership see gains in long-term success and productivity. Additionally, the research supports Goldin's (2021) claim that companies that prioritize employee well-being as a strategic priority not only retain talent but also improve overall performance.

The Impact of Leadership on Organizational Performance and Employee Behavior This study supports the study on how leadership affects employee conduct and corporate loyalty (Subramony et al., 2018). Workers in Kerala's IT industry said that managers who promoted open communication, honesty, and respect for one another created a productive workplace, which in turn improved output and job satisfaction. On the other hand, those who encountered negative leadership such as humiliation in front of others or harsh criticism reported feeling more stressed and unhappy at work. This is consistent with earlier studies that show that companies who invest in leadership development see increased organizational outcomes, better morale, and lower turnover rates. By showing how leadership styles have a direct impact on employee motivation and retention in Kerala's IT industry, the study offers solid empirical proof in support of these statements.

In accordance with other research, the results of this study validate the importance of leadership development and training for company success (Subramony et al., 2018). Employees and managers in Kerala's IT industry recognized the importance of ongoing leadership development and emphasized how adaptable leadership styles greatly enhanced communication, conflict resolution, and motivation. According to the report, businesses that invested in leadership development showed higher levels of engagement and staff retention. This bolsters the worldwide trend of businesses giving leadership development top priority in order to stay competitive. According to the study's findings, leadership investment is a crucial factor in the long-term viability and success of Kerala's expanding IT industry.

The Impact of Leadership Styles on Employee Engagement By showing that transformational leadership has a favorable impact on employee engagement, motivation, and performance, this study lends further credence to Al Khajeh (2018). Participants often stated that a more engaged and dynamic workforce was a result of leaders who motivated and encouraged their workers. Workers admired transformative leaders who created a more welcoming and inspiring workplace culture, which increased job satisfaction. The study also revealed that leaders who modified their approaches to suit various work environments had higher employee engagement, supporting the notion that adaptable leadership is essential to the success of a business. These results support Sabu

and Manoj's (2020) assertion that transformative leadership stimulates creativity and improves performance in IT firms.

The study's participants emphasized the importance of supporting leadership, especially in times of personal crisis and adversity like the COVID-19 pandemic. Stronger workplace loyalty and greater retention rates were linked to managers who showed sincere care for the welfare of their staff. The study supports earlier findings that firms that put employee welfare first see increases in productivity and decreased attrition. The IT industry in Kerala is a prime example of this, as businesses that offered flexible work schedules, wellness initiatives, and mental health support had increases in worker dedication and output.

This study demonstrates how important leadership is to worker engagement and motivation (Sabu & Manoj, 2020). Workers stated that morale and job satisfaction were greatly increased by managers who acknowledged and appreciated contributions. Participants emphasized the value of appreciation campaigns and reward programs in creating a feeling of achievement and inspiration. The study supports studies that indicates higher levels of engagement and performance are attained by firms that implement leadership methods centered on employee recognition and motivation. The IT industry in Kerala makes a strong case for the benefits of leadership-driven motivation, reaffirming the notion that encouragement and acknowledgment are critical to the success of any organization.

Conclusion

In Kerala IT companies' employees have different opinions about leadership qualities. Employers thought that leaders should have qualities like mentorship, appreciative towards employees, taking care of employees etc., team managers and project managers feel that leaders should always look after the employees they should encourage workers participate to take part in critical decision making, they feel that even leaders should have mentors to guide them in critical situations, and they feel that mentorship leadership style will create more leaders and improve leadership qualities in the employees.

Leaders made sure to appreciate the employees even for the small achievement publicly. This boosted the working morale of the employees in the company. Leaders in the companies promoted the best organizational culture by promoting bully free workplace. They took care of the employees, even in a crisis situation like pandemic they made sure to check on their employees. Leaders in these companies did not follow the hierarchical order even when the team manager is making an issue with the employee, project manager intervened and solved the issue. This maintained the team dynamics in the company very well.

Employers in the companies felt very valued in the company because of leaders. They felt that leaders are treated them with respect and they were open to suggestions from the employees. Even though employees and managers did not always agree with each other, they tried to find common ground. Leaders encouraged employees to lead the project, and when they got profits out of the project, they shared them with the employees. Employees also shared that their leaders always compassionate with them as a result they felt valued and respected in the company, this made them feel they can work in the company for the long term even with less salary. Employees felt that conflicts are resolved well in the company, they felt that even in conflict situations they had been heard and the leaders did not judge by listening to one side of the argument.

Team managers and project managers were maintaining the team dynamics by solving the conflicts between the team members very quickly. As mentioned above, employees felt the compassion of their managers even with small gestures. Leadership in IT companies is not only useful for the employees but also has great impact on their organizations itself. The leadership helped the organizations to improve employee retention, motivation, and leaders also played a great role in employee welfare. While the employees felt that they had not been treated well in the past workplace, they felt safe and secure in their current position in the company, so they decided to stay in the same company even after getting the better offer, in this way the leadership style helped in employee retention.

Leaders shared that they were giving the credit to right persons and no one in their company was taking credit for others' efforts. This feeling resonated with employees also. Employees shared that got bonus and a free meal for whole family, and that made him want to work more for the company. This is the way leaders are improving the employee motivation. The companies even offered the financial help for employees who are in financial difficulties. This made the employees extremely thankful and work overtime for the company. They offered counselling to employees when the employees were through personal crisis. This made the employees feel that they were well taken care of.

Since they want to see their team succeed, many leaders find it easy to be an inspiration to the group. A leader needs to know how to inspire the group, spur them on to action, and help them realize their greatest potential. When a leader can serve as a mentor to their team, employees are motivated to put in more effort, do better work, and pursue greater responsibility at work. According to this study, managers believed that motivated workers could produce more, and workers themselves acknowledged that their employers' support enabled them to develop their creative side. It is always beneficial to support and appreciate the greatest work.

When workers believe their efforts are appreciated and acknowledged, they are more likely to stay with a company. The enjoyment and involvement of employees at work leads to increased productivity. Strong corporate cultures promote a positive work environment where creativity, teamwork, and collaboration may all increase productivity. Participants in this study reported feeling appreciated at work. They added that their supervisors or bosses have included them in the success of the company and that they are a part of it.

Leading by example is a leadership strategy that involves setting an example for the behavior one wishes to see in their team members. Instead of only encouraging excellence, one actively demonstrate it when one leads by example. Those who lead by example aggressively demonstrate to their colleagues how much they appreciate their work by bearing some of the burden themselves. This leadership style generates high levels of engagement and buy-in since the leaders actively show their dedication to the work of their team. Because their leader works alongside them and teaches them how to operate, several participants have said that they look up to them.

The leaders in IT companies Kerala can say that they are leading the employees well. The leadership in Kerala IT companies can be characterized as respective, sympathetic, and participative. The leaders are preparing new leaders and improving the leadership qualities among the employees, this can help in the personal development of the employees.

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PASTĀVĒTSPĒJĪGA UZŅĒMUMA JĒDZIENS UN TĀ INTERPRETĀCIJA BALTIJAS VALSTĪS SAISTĪBĀ AR DIREKTĪVU (ES) 2019/1023

THE CONCEPT OF A VIABLE ENTERPRISE AND ITS INTERPRETATION IN THE BALTIC STATES IN RELATION TO DIRECTIVE (EU) 2019/1023

Jana Dzene
Biznesa augstskola Turība, Latvija
jana.dzene@gmail.com

Anotācija

Eiropas Parlamenta un Padomes Direktīvā (ES) 2019/1023 par preventīvās pārstrukturēšanas regulējumu, parādsaistību dzēšanu un diskvalifikāciju un ar pārstrukturēšanu, maksātnespēju un parādsaistību dzēšanu saistīto procedūru efektivitātes palielināšanas pasākumiem, un ar ko groza Direktīvu (ES) 2017/1132 (Direktīva par pārstrukturēšanu un maksātnespēju), turpmāk – Direktīva 2019/1023, kā viens no mērķiem ir sniegt maksātnespējīgiem uzņēmējiem "otro" iespēju, tādējādi finanšu grūtībās nonākušiem dzīvotspējīgiem uzņēmumiem jau agrīnā stadijā tiek atvieglota piekļuve pārstrukturēšanas pasākumiem, lai novērstu to maksātnespēju.

Direktīvā vienpadsmit reizes ir norādīts termins "pastāvētspējīgs" kontekstā ar uzņēmumu, tā nevajadzīgu likvidāciju, ekonomisko pamatotību. Lai gan Direktīva (ES) 2019/1023 vairākas reizes atsaucas uz terminu "pastāvētspējīgs uzņēmums", tā nesniedz tiešu tā definīciju. Skaidrojumu un interpretāciju šim jēdzienam var meklēt vairākos citos avotos.

***Pētījuma mērķis:** analizēt Pastāvētspējīga uzņēmuma jēdzienu un tā interpretāciju Baltijas valstīs saistībā ar Direktīvu (ES) 2019/1023.*

***Izmantotās metodes:** pētnieciskās metodes – analīzes, indukcijas un dedukcijas, dogmātiskā, loģiski konstruktīvā, vēsturiskā, tiesību normu interpretācijas metodes – gramatiskā, sistēmiskā, teleoloģiskā un vēsturiskā.*

***Secinājumi:** Pastāvētspējīga uzņēmuma jēdziens Baltijas normatīvajā regulējumā nav iestrādāts. Šāda situācija norāda uz vienota tiesiskā standarta trūkumu Baltijas valstīs attiecībā uz pastāvētspējīga uzņēmuma jēdzienu.*

Atslēgas vārdi: maksātnespēja, pastāvētspējas izvērtējums, tiesiskās aizsardzības process.

Abstract

The Directive (EU) 2019/1023 of the European Parliament and of the Council on preventive restructuring frameworks, discharge of debt and disqualifications and measures to increase the efficiency of procedures relating to restructuring, insolvency and discharge of debt and amending Directive (EU) 2017/1132 (Directive on restructuring and insolvency), hereinafter referred to as Directive 2019/1023, aims to provide insolvent entrepreneurs with a "second chance", thereby facilitating access to restructuring

measures at an early stage for viable companies in financial difficulties in order to prevent their insolvency.

The Directive uses the term viable eleven times in the context of the company, its unnecessary liquidation and its economic viability. Although Directive (EU) 2019/1023 refers to the term "viable company" several times, it does not provide a direct definition of it. The explanation and interpretation of this concept can be found in several other sources.

***Research objective**: to analyse the concept of a viable enterprise and its interpretation in the Baltic States in relation to Directive (EU) 2019/1023.*

***Methods used**: research methods – analysis, induction and deduction, dogmatic, logically constructive, historical, methods of interpretation of legal norms – grammatical, systemic, teleological and historical.*

***Conclusions:** The concept of a viable enterprise is not incorporated into the Baltic regulatory framework. This situation indicates the lack of a single legal standard in the Baltic States regarding the concept of a viable enterprise.*

Keywords: insolvency, viability assessment, legal protection process.

Ievads

Kļūst atklāts jautājums, ja dzīvotspēju lielā mērā nosaka uzņēmuma īpašnieku un vadītāju spēja tikt galā ar grūtībām, nevis ārējie apstākļi, kā motivēt uzņēmumu īpašniekus izmantot normatīvajos aktos pieejamos instrumentus? Tiesiskās aizsardzības procesu (turpmāk – TAP) iespējams veiksmīgi realizēt tikai tad, ja uzņēmums, kuram tiek piemērots TAP, ir dzīvotspējīgs, t.i., izmantojot TAP, ir iespējams atjaunot uzņēmuma maksātspēju.[1] Direktīva 2019/1023 atbalsta preventīvas pārstrukturēšanas mehānismus, kas ļauj ar minimālu iejaukšanos saglabāt pastāvētspējīgu uzņēmumu, un tādējādi Latvijas likumdevējs ir izveidojis mehānismu, kas ļauj tiesai uzticēties ekonomiskajam vērtējumam, nevis tikai juridiskajām formalitātēm.

TAP plānam ir jāpievieno saimnieciskās darbības novērtējums, t.i., *Maksātnespējas likuma* 37.[2] panta otrajā daļā minētās personas sagatavots parādnieka saimnieciskās darbības novērtējums, ja kreditoru iebildumi norāda uz pasākumu plāna neatbilstību *Maksātnespējas likuma* 40. panta ceturtās daļas 15. punktam, tikai, ja kreditori norāda uz šādu neatbilstību, tad šis dokuments ir obligāti nepieciešams. Pēc tam, kad saimnieciskais novērtējums ir veikts, tiesa pieņem gala lēmumu par TAP. Autores ieskatā, nebūtu pieļaujama atkāpe – **ja kreditori norāda uz šādu neatbilstību.** Vērtējams un izdalāms būtu uzņēmuma lielums, TAP plānoto līgumu izpilde. Uzņēmumu lielums būtu izdalāms, jo, nozīmējot veikt saimnieciskās darbības izvērtējumu, ir jārēķinās ar papildu izmaksām. Papildu izmaksas gulstas vai nu uz parādnieku, vai kreditoru, atkarībā no tā, kādam mērķim tas tiek veikts.

Skatoties plašāk, saimnieciskā darbība var būt arī viena līguma saistību izpilde, kas dod iespēju, piemērojot TAP metodes, apmierināt kreditoru prasījumus. Saimnieciskās darbības novērtējumam

[1] Helmuts, J., Zandersons, A. (2018) Pētījums Par tiesiskās aizsardzības procesa regulējuma efektivitāti. Iegūts no chrome–extension://efaidnbmnnnibpcajpcglclefindmkaj/https://petijumi.mk.gov.lv/sites/default/files/title_file/Zinojums_Par_tiesiskas_aizsardzibas_procesa_efektivitati.pdf

būtu jābūt kā obligātam pielikumam, kurš tad parādītu, vai uzņēmuma pamata finanšu rādītāji ir pietiekoši stabili, lai veiktu restrukturizāciju, turpinātu darbību un nākotnē būtu vērsts uz attīstību.

Modelējot situāciju, var apskatīt šādu piemēru. Uzņēmums SIA "Celtniecība" ir nokļuvis finanšu grūtībās, jo tam ir uzkrājušies parādi piegādātājiem un ir nodokļu parāds valstij. Tā kopējās parādsaistības ir 500 000 EUR. Bankas kontā šobrīd nav pietiekamu līdzekļu, un piegādātāji draud ar tiesvedību.

Tomēr SIA "Celtniecība" ir noslēgts līgums ar pašvaldību par jaunas skolas ēkas būvniecību 2 miljonu EUR apmērā. Līgums paredz: maksājumus veikt pa daļām atbilstoši paveiktajam darbam, pirmo maksājumu 300 000 EUR apmērā pēc pamatu izbūves, atlikušos maksājumus pakāpeniski – līdz skolas nodošanai ekspluatācijā.

Uzņēmums TAP nepieciešamības argumentācijā norāda, SIA "Celtniecība" vēlas uzsākt TAP, lai pārstrukturētu esošās saistības un turpinātu darbu. Ja uzņēmums pabeigs skolas būvniecību, tas saņems naudas plūsmu, kas ļaus atmaksāt parādus un segt saistības pret kreditoriem. Pārtraucot darbību, pašvaldības līgums tiks lauzts un uzņēmums zaudēs iespēju atgūt naudu. Uzņēmumam ir pietiekami daudz resursu, lai pabeigtu skolas būvniecību, bet nepieciešams TAP, lai atliktu esošo parādu maksājumus.

Tiesa, izskatot TAP pieteikumu, var ņemt vērā: vai pastāv reāla iespēja pabeigt būvdarbus un saņemt līguma maksājumus, vai šī naudas plūsma būs pietiekama, lai segtu parādus, vai uzņēmuma darbība ir dzīvotspējīga, ja tiek atjaunota stabila naudas plūsma.

Šajā piemērā viena līguma izpilde var būt pietiekams iemesls, lai atzītu uzņēmuma pastāvētspēju, jo tā nodrošina ilgtermiņa naudas plūsmu un iespēju atjaunot maksātspēju, nevis tūlītēja finanšu situācija. Tādējādi, ja TAP ļauj uzņēmumam pabeigt līgumsaistības, kreditoru prasījumi var tikt apmierināti bez uzņēmuma likvidācijas.

Nereti uzņēmumam ir finansiālās grūtības, taču TAP tiek uzsākts bez reāla nodoma restrukturizēt uzņēmumu TAP ietvaros (piemēram, lai novilcinātu piedziņu, noslēptu aktīvus, iegūtu maksātnespējas procesā vēlamo administratoru u.tml.).[2] Šāda prakse norāda uz TAP iespējamiem ļaunprātīgas izmantošanas gadījumiem. Ja TAP tiek uzsākts bez reāla nodoma restrukturizēt uzņēmumu, bet tikai lai kavētu kreditoru tiesību īstenošanu vai panāktu sev labvēlīgus apstākļus maksātnespējas procesā, tas var radīt negatīvas sekas ne tikai konkrētajiem kreditoriem, bet arī kopējam tiesiskās aizsardzības procesa institūta uzticamībai. Šādi gadījumi parāda nepieciešamību pēc stingrākiem kontroles mehānismiem un rūpīgākas uzņēmuma dzīvotspējas izvērtēšanas jau TAP sākumposmā.

Lietuvā restrukturizāciju regulē 2021. gada pieņemtais likums *Par Juridisko personu maksātnespēju*.

Lietuvā 2021. gada tiesību akti tika pieņemti globālās pandēmijas un imigrācijas krīzes apstākļos, līdz ar ko var uzskatīt, ka likumdevēji, transponējot direktīvu, izdarīja tikai “minimālo minimumu”. [3]

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[2] Helmuts, J., Zandersons, A. (2018) Pētījums Par tiesiskās aizsardzības procesa regulējuma efektivitāti. Iegūts no chrome–extension://efaidnbmnnnibpcajpcglclefindmkaj/https://petijumi.mk.gov.lv/sites/default/files/title_file/Zinojums_Par_tiesiskas_aizsardzibas_procesa_efektivitati.pdf

[3] Implementation of the Directive on Restructuring and Insolvency: Experience of Lithuania. 2022. Retrieved from https://blogs.law.ox.ac.uk/business–law–blog/blog/2022/03/implementation–directive–restructuring–and–insolvency–experience

Igaunijā, atšķirībā no Latvijas un Lietuvas, uzņēmumu maksātnespēja tiek regulēta ar diviem atsevišķiem normatīvajiem aktiem, proti, 2004. gadā pieņemto *Bankrota likumu* un 2008. gadā pieņemto *Likumu par reorganizāciju*, kas pēc savas būtības, velkot paralēles, atbilst TAP Latvijas izpratnē.

2022. gada jūlijā stājās spēkā vairāki grozījumi Igaunijas tiesību aktos, lai nodrošinātu atbilstību Direktīvai 2019/1023. Likumprojekts tika izstrādāts, veicot vērienīgu Igaunijas maksātnespējas likumu pārskatīšanu, pieņemot Direktīvu 2019/1023[4]. Lai pārņemtu Direktīvas noteikumus par juridisko personu restrukturizācijas procedūru, grozījumi tika veikti *Reorganizācijas likumā*, *Bankrota likumā*.

Aktualitāte: Direktīva (ES) 2019/1023 paredz preventīvās restrukturizācijas mehānismus, lai uzņēmumi varētu savlaicīgi novērst maksātnespēju un atjaunot savu finanšu stabilitāti. Taču direktīva nenosaka skaidru kritēriju vai definīciju pastāvētspējīgam uzņēmumam, tādējādi atstājot šo interpretāciju katras dalībvalsts ziņā.

Latvijā, Lietuvā un Igaunijā nav vienotas definīcijas, kā novērtēt uzņēmuma dzīvotspēju restrukturizācijas ietvaros. Galvenā problēma ir atšķirīgi kritēriji uzņēmuma spējas atjaunot maksātspēju noteikšanai – vai pietiek ar finanšu stabilitātes novērtējumu, vai jāņem vērā arī uzņēmuma ekonomiskās perspektīvas, tirgus situācija un vadības stratēģija. Šī nenoteiktība var radīt situācijas, kurās līdzīgi gadījumi dažādās Baltijas valstīs tiek vērtēti atšķirīgi, radot tiesisko nenoteiktību gan uzņēmumiem, gan kreditoriem.

Pētījuma mērķis: analizēt Pastāvētspējīga uzņēmuma jēdzienu un tā interpretāciju Baltijas valstīs saistībā ar Direktīvu (ES) 2019/1023.

Izmantotās metodes: pētnieciskās metodes – analīzes, indukcijas un dedukcijas, dogmātiskā, loģiski konstruktīvā, vēsturiskā, tiesību normu interpretācijas metodes – gramatiskā, sistēmiskā, teleoloģiskā un vēsturiskā.

Pastāvētspējīga uzņēmuma jēdziens un tā nozīme tiesiskajā regulējumā

Direktīva 2019/1023 neparedz precīzu pastāvētspējīga uzņēmuma definīciju, atstājot dalībvalstu ziņā to interpretēt. Bieži tiek izmantoti finanšu un juridiskie kritēriji, kas ietver maksātspējas atjaunošanas iespējas, uzņēmuma ekonomisko dzīvotspēju un restrukturizācijas plāna ilgtspējību. Starptautiskajā grāmatvedībā tiek izmantots *"going concern*" princips, kas nosaka, vai uzņēmums var turpināt darbību ilgtermiņā.

Ar pastāvētspēju jeb dzīvotspēju saprotams tāds, kas spēj pastāvēt un attīstīties. Ja, runājam par uzņēmumu, tad parasti dzīvotspējīgs uzņēmums ir pastāvošs uzņēmums, kas var darboties autonomi.

Lai gūtu pilnvērtīgu vērtējumu par uzņēmuma dzīvotspēju, parasti ir nepieciešams veikt padziļinātu un neatkarīgu tā biznesa, finanšu un nozares izvērtējumu (*due diligence*). Tomēr šādas izpētes veikšana prasa speciālistu piesaisti, ir laikietilpīga un prasa ievērojamus finanšu līdzekļus. Tomēr daži no visbiežāk izmantotajiem faktoriem, kas norāda uz uzņēmuma dzīvotspēju un kurus var izvērtēt uzņēmuma īpašnieki un vadība, ir šādi:

[4] INSOL Europe/LexisPSL joint project on the implementation analysis of the Directive (EU) 2019/1023 in the EU Member States. 2022. Retrieved from file:///C:/Users/jana.dzene/Downloads/IELN_Directive_ESTONIA_update%20(4).pdf

- produktu vai pakalpojumu pieprasījuma potenciāls – vai, turpinot piedāvāt produktus vai pakalpojumus, pēc tiem būs pietiekošs pieprasījums, lai uzņēmums gūtu darbības nodrošināšanai nepieciešamos līdzekļus;
- finanšu rādītāju stabilitāte – vai uzņēmuma pamata finanšu rādītāji ir pietiekoši stabili, lai veiktu restrukturizāciju, turpinātu darbību un nākotnē arī attīstītos;
- darbības sabalansētība – vai uzņēmums nav pārāk atkarīgs no konkrēta piegādātāja vai klienta, kas var radīt augstu darbības risku nākotnē.[5]

Nav tā, ka praksē nebūtu izstrādāti kritēriji, pēc kuriem pārbaudīt uzņēmuma pastāvētspēju, lielākās neērtības sagādā laiks, kurš ir jāvelta, lai veiktu šo izvērtējumu un, protams, finanšu līdzekļi, kuriem ir jābūt, lai veiktu izvērtējumu.

Ņemot vērā ES vadlīnijas un starptautisko praksi, pastāvētspējīgu uzņēmumu varētu definēt kā: "Uzņēmums tiek uzskatīts par pastāvētspējīgu, ja tas, neraugoties uz īslaicīgām finansiālām grūtībām, ar restrukturizācijas palīdzību spēj atjaunot maksātspēju, nodrošinot ilgtspējīgu naudas plūsmu, konkurētspēju un spēj pildīt saistības pret kreditoriem noteiktā termiņā." Šī definīcija ietvertu gan finansiālās dzīvotspējas, gan ekonomiskās dzīvotspējas aspektus.

Baltijas valstu pieeja pastāvētspējīga uzņēmuma novērtēšanā

Latvija

Latvijas *Maksātnespējas likumā* nav tiešas pastāvētspējīga uzņēmuma definīcijas, taču tiesu prakse norāda uz vairākiem kritērijiem, piemēram, uzņēmuma spēju pildīt saistības, restrukturizācijas iespējamību un finansiālās situācijas stabilizācijas iespējas.

Maksātnespējas likums paredz kreditoram tiesības prasīt saimnieciskās darbības novērtējumu, proti, saimnieciskās darbības novērtējuma mērķis ir noteikt, vai tiesiskās aizsardzības procesa pasākumu plāns nostāda nepiekrītošo kreditoru sliktākā situācijā nekā cits risinājums, ja kreditora iebildumos par tiesiskās aizsardzības procesa pasākumu plānu norādīts uz tā neatbilstību šā likuma 40. panta ceturtās daļas 15. punktam[6], pamatojumu tam, ka tiesiskās aizsardzības procesa pasākumu plāns atbilst kreditoru interešu ievērošanas kritērijam vai ka tiesiskās aizsardzības procesa pasākumu plānu nesaskaņojušo kreditoru ieguvums, īstenojot tiesiskās aizsardzības procesu, ir vismaz tikpat liels, kā būtu gadījumā, ja minētā plāna apstiprināšanas brīdī parādniekam tiktu pasludināts maksātnespējas process, vai gadījumā, ja tiktu piemērots nākamais labākais alternatīvais scenārijs un ja netiktu īstenots tiesiskās aizsardzības process.[7] TAP pasākumu plāna atbilstība kreditoru interešu ievērošanas kritērijam un nesaskaņojušo kreditoru ieguvums ir būtiski elementi, kas nosaka saimnieciskās darbības novērtējuma nepieciešamību. Ja pastāv pamatotas šaubas par to, vai TAP pasākumu plāns kreditoriem nerada sliktāku situāciju nekā alternatīvie risinājumi (piemēram, maksātnespējas process), nepieciešams objektīvs un profesionāls uzņēmuma ekonomiskā stāvokļa un nākotnes perspektīvu izvērtējums. Tieši

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5 Helmuts, J., Zandersons, A. (2018) Pētījums "Par tiesiskās aizsardzības procesa regulējuma efektivitāti. Iegūts no chrome–extension://efaidnbmnnnibpcajpcglclefindmkaj/https://petijumi.mk.gov.lv/sites/default/files/title_file/Zinojums_Par_tiesiskas_aizsardzibas_procesa_efektivitati.pdf

6 Maksātnespējas likums. Pieņemts: 26.07.2010. Publicēts: *Latvijas Vēstnesis*, 124, 06.08.2010. Pēdējie grozījumi 20.06.2024.

7 Turpat, 40. panta ceturtās daļas 15. punkts

saimnieciskās darbības novērtējums sniedz atbildi uz to, vai uzņēmumam ir reālas iespējas atjaunot maksātspēju un turpināt darbību, vienlaikus nodrošinot kreditoru interešu aizsardzību. *Maksātnespējas likumā* tika veikti grozījumi, lai nodrošinātu ne tikai Direktīvas 2019/1023 10. panta 2. punkta izpildāmību, bet arī tās 14. panta izpildāmību, uzraugošajai personai nosakāms pienākums sagatavot parādnieka saimnieciskās darbības novērtējumu.

Šie grozījumi stiprina tiesiskās aizsardzības procesa uzraudzību un nodrošina lielāku caurspīdību uzņēmumu restrukturizācijas procesā. Uzraugošās personas pienākums sagatavot saimnieciskās darbības novērtējumu ļauj objektīvi izvērtēt parādnieka reālās iespējas atjaunot maksātspēju un turpināt darbību. Tas palīdz nodrošināt, ka tiesiskās aizsardzības process tiek izmantots atbilstoši tā patiesajam mērķim – restrukturizācijai, nevis procesuālu priekšrocību iegūšanai. Rezultātā šie pasākumi veicina kreditoru interešu aizsardzību un samazina TAP iespējamu ļaunprātīgu izmantošanu.

Igaunija

Igaunijas tiesību aktos ir paredzētas trīs dažādas maksātnespējas procedūras: bankrota procedūra, reorganizācijas procedūra un parāda pārstrukturēšanas procedūra. Uz bankrota pieteikumu iesniegšanu un apstrādi, kā arī juridiskas personas bankrota procedūras norisi attiecas *Likums par bankrotu*. Uz reorganizācijas procedūru, kuru juridiska persona var izmantot, lai pārstrukturētu savas saistības, attiecas *Reorganizācijas likums*. Uz fiziskas personas maksātnespējas procedūras uzsākšanu un norisi neatkarīgi no tā, vai šī persona ir pašnodarbināta, attiecas *Fizisko personu maksātnespējas likums*.[8] Igaunijas *Restrukturizācijas likums* (*Restruktureerimisseadus*) neietver tiešu definīciju terminam "pastāvētspējīgs" vai "dzīvotspējīgs" uzņēmums. Tomēr likuma 8. pantā ir noteikti priekšnoteikumi restrukturizācijas procesa uzsākšanai, kas ietver uzņēmuma spēju atjaunot rentabilitāti un nodrošināt turpmāku darbību. Tas nozīmē, ka uzņēmumam jābūt potenciālam kļūt finansiāli stabilam pēc restrukturizācijas pasākumu īstenošanas.

Kā reorganizācijas procesa uzsākšanas priekšnoteikumi tiek noteikti, ka uzņēmumam ir jāpamato, vai uzņēmums nākotnē varētu kļūt maksātnespējīgs, kāpēc uzņēmumam nepieciešama reorganizācija, kā arī jānorāda, vai pēc reorganizācijas ir iespējama uzņēmuma ilgtspējīga pārvaldība.[9]

Reorganizācijas likuma 8. punkts nosaka, ka tiesa uzsāk restrukturizācijas lietu, ja restrukturizācijas pieteikums atbilst *Civilprocesa kodeksā* noteiktajām prasībām (formālie kritēriji) un Sanācijas aktu un ja parādnieks vai kreditors ir pierādījis, ka:

- parādnieks nav pastāvīgi maksātnespējīgs, taču ir iespējama maksātnespējas iestāšanās nākotnē;
- parādniekam nepieciešama pārstrukturēšana;
- pēc pārstrukturēšanas, visticamāk, būs iespējama ilgtspējīga parādnieka pārvaldība.[10]

Igaunijā pārstrukturēšanas process (“saneerimismenetlus”) juridiskām personām sākas ar parādnieka vai kreditora pieteikuma iesniegšanu Igaunijas apgabaltiesā (pirmā līmeņa tiesas

[8] Maksātnespēja un bankrots. Igaunija. Iegūts no https://e–justice.europa.eu/content_insolvency–447–ee–lv.do?init=true&utm_source=chatgpt.com

[9] Saneerimisseadus[Reorganizācijas likums]: Igaunijas republikas likums. 8. panta pirmā daļa. Retrieved from https://www.riigiteataja.ee/en/eli/ee/510072017002/consolide/current

[10] Ibid.

instancē).[11] Atšķirībā no Latvijas arī kreditoram ir tiesības iesniegt pieteikumu parādu pārstrukturizēšanai jeb Latvijā TAP.

Saskaņā ar Igaunijas likumu reorganizācijas konsultantu ieceļ tiesa un tas var būt ne tikai zvērināts advokāts, maksātnespējas procesa administrators vai auditors, bet arī cita fiziskā persona, kurai piemīt labas zināšanas ekonomikā, kā arī nepieciešamās juridiskās zināšanas un attiecīga izglītība.[12] Reorganizācijas konsultants cita starpā arī palīdz izstrādāt restrukturizācijas plānu, palīdz pārrunās ar kreditoriem, pamatojoties uz iegūto informāciju par ekonomisko situāciju un plānoto uzņēmuma reorganizāciju. [13]

Lai gan likums nesniedz tiešu definīciju, tas uzsver nepieciešamību izvērtēt uzņēmuma spēju atjaunot maksātspēju un turpināt darbību pēc restrukturizācijas, kas faktiski atbilst pastāvētspējīga uzņēmuma jēdzienam.

Lietuva

Lietuvas pieeja ir līdzīga Latvijas praksei, taču tā vairāk uzsver tiesas pienākumu izvērtēt, vai pastāvētspējīgs uzņēmums var pildīt līgumsaistības un atjaunot maksātspēju, pamatojoties uz ekonomisko analīzi.

Lietuvas likums par *Juridisko personu maksātnespēju*[14] reglamentē uzņēmumu restrukturizācijas un maksātnespējas procesus. Lai gan likumā nav tiešas definīcijas terminam "pastāvētspējīgs" vai "dzīvotspējīgs" uzņēmums, uzņēmumam ir jāveic noteikti pasākumi, lai atjaunotu juridiskās personas maksātspēju un nodrošinātu tās turpmāko saimniecisko darbību. Tas nozīmē, ka uzņēmumam jāspēj atjaunot maksātspēju un turpināt darbību pēc restrukturizācijas pasākumu īstenošanas.

Tiesības ierosināt restrukturizācijas procesu ir: gan uzņēmuma vadītājam vai citai saskaņā ar uzņēmuma dibināšanas dokumentiem pilnvarotai personai, gan kreditoram, kura nokavētie prasījumi pārsniedz 10 minimālās mēnešalgas (saskaņā ar Lietuvas valdības apstiprinājumu no 2023. gada 1. janvāra viena minimālā mēneša darba alga ir 840 eiro).[15]

Sabiedrībai, iesniedzot tiesā pieteikumu par restrukturizācijas lietas ierosināšanu, jāiesniedz arī sagatavotais restrukturizācijas plāna priekšlikums un juridiskās personas akcionāru sapulces lēmums par restrukturizācijas plāna ierosinājuma apstiprināšanu.[16]

Viens no nosacījumiem ir tāds, ka uzņēmumam ir jābūt maksātnespējīgā stāvoklī vai alternatīvi "maksātnespējas iespējamības" stāvoklī. Lietuvas tiesiskajā regulējumā kopīgs pamats maksātnespējas procesa uzsākšanai ir uzņēmuma maksātnespēja, kas tiek definēta kā uzņēmuma

11 INSOL Europe/LexisPSL joint project on the implementation analysis of the Directive (EU) 2019/1023 in the EU Member States. 2022. Retrieved from file:///C:/Users/jana.dzene/Downloads/IELN_Directive_ESTONIA_update%20(4).pdf

12 Ibid, Article 15

13 Ibid, Article 20

14 The Law on Insolvency of Legal Entities (Law No. XIII–2221, published in the Register of Legal Acts on 27 June 2019, Nr. 10324, the date of coming into force: 1 January 020)

15 The Law on Insolvency of Legal Entities (Law No. XIII–2221, published in the Register of Legal Acts on 27 June 2019, Nr. 10324, the date of coming into force: 1 January 020)

16 Ibid, Article 17 (3)

stāvoklis, kad tas nespēj izpildīt saistības, kas ir maksājamas (naudas plūsmas tests), vai tā kopējās saistības pārsniedz tā aktīvu vērtību (bilances pārbaude).[17]

Ar jaunajām izmaiņām Lietuvas likumdevējs no jēdziena "finansiālās grūtības" vienkārši izdalīja kategoriju "maksātnespējas iespējamība" kā atsevišķu juridisku definīciju un definēja to kā "situāciju, kurā tuvāko trīs mēnešu laikā ir reāli iespējama maksātnespēja". Šāda pieeja, kas ierobežo maksātnespējas iespējamības jēdzienu uz īsu trīs mēnešu termiņu, nepiedāvā piekļuvi preventīvajiem pārstrukturēšanas pasākumiem agrākos posmos.[18]

Nosacījums ir uzņēmuma dzīvotspēja, kas tiek saprasts kā "uzņēmuma stāvoklis, kad tas turpina saimniecisko un komerciālo darbību, kas ļauj pildīt savas saistības nākotnē".[19] Aktīva iesaistīšanās saimnieciskās un komerciālās darbībās ir nepieciešama, lai saglabātu uzņēmējdarbības nepārtrauktību un atjaunotu rentabilitāti. Līdz ar to uzņēmuma dzīvotspēja ir būtisks priekšnosacījums restrukturizācijas procesa uzsākšanai, jo likums paredz, ka uzņēmums, kurš jau ir pārtraucis savu komercdarbību, vairs nav uzskatāms par dzīvotspējīgu un līdz ar to var pieteikties tikai bankrota procedūrai. [20]

Saskaņā ar statistiku pēdējo 20 gadu laikā Lietuvas uzņēmumi ir lēni izmantojuši pārstrukturēšanas procedūras (sāktas tikai 550 procedūras), un tikai divpadsmit procenti no tām ir veiksmīgi pabeigti.[21] Tiek uzskatīts, ka Direktīvā 2019/1023 izvirzītie mērķi vērtējami atzinīgi un kopumā tiks palielināta procedūru efektivitāte.

Tiek norādīts, ka Lietuvā likumdevējam būtu nopietni jāapsver valsts uzņēmumu vajadzības un iemesli par nevēlēšanos izmantot pārstrukturēšanas procedūras. Kā iespējamais iemesls ir tas, ka, kā minēts iepriekš, Lietuvā nav nekādu ārpustiesas nepublisku procedūru, bet gan tikai universāls tiesas maksātnespējas process, kas paredzēts lieliem uzņēmumiem un ietver visas iespējamās garantijas. Ir vajadzīgas specializētākas procedūras, kas pielāgotas mikrouzņēmumiem, kā arī uzņēmumiem, kas vēlas lielāku konfidencialitāti.[22] Secināms, ka Lietuva domā par uzņēmumu izdalīšanu pēc lieluma, lai vieglāk varētu veikt uzņēmumu pārstrukturizēšanu.

Pastāvētspējīga uzņēmuma noteikšanas problēmas un iespējamie risinājumi

ES direktīvas vispārīgais formulējums rada interpretācijas problēmas, kas noved pie atšķirīgām pieejām Baltijas valstīs. Viena no galvenajām problēmām ir pastāvētspējas noteikšanas metodoloģija – vai to vērtēt tikai pēc finanšu datiem, vai arī ņemt vērā ārējos ekonomiskos faktorus,

17 Ibid, Article 2 (7)

18 SPECIAL ISSUE PREVENTIVE RESTRUCTURING 13. The New Corporate Restructuring Regime in Lithuania. Retrieved from https://www.online-hero.nl/art/4742/special-issue-preventive-restructuring-13-the-new-corporate-restructuring-regime-in-lithuania#_edn8

19 The Law on Insolvency of Legal Entities (Law No. XIII-2221, published in the Register of Legal Acts on 27 June 2019, Nr. 10324, the date of coming into force: 1 January 020).

20 Ibid

21 Implementation of the Directive on Restructuring and Insolvency: Experience of Lithuania. 2022. Retrieved from https://blogs.law.ox.ac.uk/business-law-blog/blog/2022/03/implementation-directive-restructuring-and-insolvency-experience

22 Implementation of the Directive on Restructuring and Insolvency: Experience of Lithuania. 2022. Retrieved from https://blogs.law.ox.ac.uk/business-law-blog/blog/2022/03/implementation-directive-restructuring-and-insolvency-experience

tirgus tendences un vadības spējas īstenot restrukturizāciju. Lai risinātu šīs problēmas, nepieciešama vienotāka pieeja un papildu vadlīnijas no ES līmeņa institūcijām.

Dzīvotspēja ir sarežģīts jēdziens; tai vispirms var būt divējāda nozīme, kas tiek raksturota gan kā "finansiālā dzīvotspēja" (un tās pretstats – finansiālās grūtības), gan kā "ekonomiskā dzīvotspēja" (un tās pretstats – ekonomiskie traucējumi). Otrkārt, tai var būt divējāda loma, kas kalpo gan kā uzņēmuma parāda pārstrukturēšanas procedūras galvenais mērķis, gan kā tās nepieciešamais priekšnoteikums. "Izpratne par to, ka finansiālās un ekonomiskās grūtības konceptuāli atšķiras viena no otras, ir būtiska".[23] Un šeit tad arī sākas problēmas, ja nav konkrēti definēts un noteikts, kādi tad kritēriji ir jāņem vērā.

Maksātnespējas politikas attīstības pamatnostādņu 2016.–2020. gadam TAP politikas apakšmērķis bija veicināt dzīvotspējīgu uzņēmumu atgriešanos ekonomiskajā apritē, tādējādi nodrošinot kreditoru aizsardzību, ilgtermiņā iegūstot vairāk nekā maksātnespējas gadījumā.[24]

Vairākos nesenos pētījumos secināts, ka uzņēmumu pārstrukturēšana Latvijā ir vāji attīstīta.[25] Piemēram, SVF ekspertu grupa secina: maksātnespējīgu vai finansiālās grūtībās nonākušu juridisko personu reorganizācija (rehabilitācija) Latvijā ir izņēmuma gadījums. Praksē lielākajā daļā maksātnespējas procedūras beidzas ar aktīvu likvidāciju, jo TAP/ĀTAP nav darbotiesspējīgs mehānisms, lai atjaunotu finanšu stabilitāti grūtībās nonākušiem uzņēmumiem.[26]

Oficiāla pārstrukturēšana varētu efektīvi un faktiski palīdzēt uzņēmumiem, ja to vietā nebūtu vienkāršu alternatīvu, piemēram, aktīvu nelikumīga nodošana.[27] Būtu jāņem vērā, katras valsts uzņēmējdarbības vides īpatnības. Uzņēmumu pastāvētspējas vērtēšanai būtu jāpiesaista profesionāli eksperti vai arī jāapmāca tiesneši.

Attiecībā uz piekļuvi TAP būtu jānosaka daži pastāvētspējas novērtēšanas kritēriji un jānodefinē pastāvētspējīga uzņēmuma jēdziens.

Dzīvotspēju bieži definē, kā spēju izdzīvot, un tā ir saistīta ar konkrēta parādnieka finanšu rezultātiem un stāvokli tirgū. Uzņēmums ir dzīvotspējīgs, ja uzņēmuma vai uzņēmuma darbības nesenā un iespējamā attīstība un tā ekonomiskā situācija liecina par potenciālu gūt peļņu, kas ir pietiekama, lai nodrošinātu atdošanu uzņēmuma īpašniekam, vienlaikus arī izpildot savas saistības pret uzņēmuma kreditoriem, un/vai, ja tam ir pietiekami naudas resursi, lai uzturētu sevi periodā, kad tas negūst peļņu.[28]

Lai TAP būtu veiksmīgs, ir nepieciešami divi galvenie elementi: Pārstrukturēšanas plānam ir jābūt skaidram un reālistiskam par to, kā parādnieks, kuram ir parādi, var atkal gūt peļņu, un kreditoriem

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23 Barry E. Adler, Douglas G. Baird and Thomas H. Jackson. *Bankruptcy: Cases, Problems, and Materials* (4th edn, Foundation Press 2007), 28.

24 Maksātnespējas politikas attīstības pamatnostādnes 2016. – 2020. gadam. Iegūts no https://likumi.lv/ta/id/284925–par–maksatnespejaspolitikas–attistibas–pamatnostadnem–2016–2020–gadam–un–to–istenosanas–planu

25 Jauja, H., Zandersons, A. Par tiesiskās aizsardzības procesa regulējuma efektivitāti, 2018. Iegūts no http://petijumi.mk.gov.lv/sites/default/files/title_file/Zinojums_Par_tiesiskas_aizsardzibas_procesa_efektivitati.pdf

26 Garrido, J. M., Rasekh, A., Rouillon, A., Latvijas Republika: Maksātnespējas sistēmas novērtējums (SVF, 2019. gada janvāris, 28. lpp.). Iegūts no https://www.ta.gov.lv/UserFiles/Faili/Latvia_–_Technical_Assistance_Report_on_Evaluation_of_the_Insolvency_FrameworkFINAL_ENG.pdf.

27 Galveno reformējamo jomu analīze esošajā Latvijas parādu pārstrukturēšanas ietvarā. 2020. Iegūts no https://www.tm.gov.lv/sites/tm/files/content/zinojums_paradu_parstrukturesana.pdf

28 Galveno reformējamo jomu analīze esošajā Latvijas parādu pārstrukturēšanas ietvarā. 2020. Iegūts no https://www.tm.gov.lv/sites/tm/files/content/zinojums_paradu_parstrukturesana.pdf

jāatbalsta parādnieka komercdarbības turpināšana un ne tikai jātic parādnieka dzīvotspējai, bet arī jābūt gataviem pārstrukturēt savus prasījumus (...). No praktiskā viedokļa TAP ir iespēja gūt panākumus tikai tad, ja lielākie un svarīgākie kreditori ir iesaistīti parādnieka glābšanā un ja starp pusēm pastāv savstarpēja uzticība. [29] Savstarpējās pušu sarunas būtu jāuzsāk jau pirms problēmu iestāšanās.

Piemēram, tiesa ir norādījusi uz tiesas pienākumu ne tikai pārskatīt Pārstrukturēšanas plānu un Uzraugošās personas atzinumu, bet arī kreditoru iebildumus, ja tādi ir izteikti. [30] Tiesai ir pienākums pārbaudīt, vai parādnieks, iesniedzot pieteikumu par TAP, ir rīkojies labticīgi, it īpaši, ja šādu pārskatīšanu ir lūdzis kreditors. Turklāt tiesai ir pienākums noteikt, vai starp kreditoriem un parādnieku pastāv reāli prasījumi, lai nepieļautu fiktīvu rīcību.[31] Fiktīvu kreditoru izmantošana pati par sevi ir prettiesiska un negodprātīga rīcība, taču, kā atzina atsevišķu kreditoru pārstāvji, ne vienmēr tas ir saistīts ar vēlmi izvairīties no saistību izpildes. Fiktīvu kreditoru izmantošana var būt arī saistīta ar parādnieka vēlmi turpināt saimniecisko darbību un nokārtot saistības, taču parādniekam nav pārliecības, ka TAP plānam piekritīs kreditori, vai arī kreditori kādu apsvērumu dēļ patiešām nepiekrīt.[32]

Parādnieka uzņēmējdarbības dzīvotspējas izvērtējumam jābūt neatņemamai restrukturizācijas procesa sastāvdaļai, nevis tikai formālai procedūrai. Tiesām būtu jāspēj ne tikai pārbaudīt restrukturizācijas plāna atbilstību prasībām, bet arī aktīvi izvērtēt, vai tam ir reālas iespējas nodrošināt uzņēmuma maksātspējas atjaunošanu. Tas nozīmē, ka nepieciešama padziļināta uzņēmuma finansiālā un ekonomiskā analīze, kas sniedz objektīvu pamatu lēmuma pieņemšanai. Šādam izvērtējumam nepieciešama papildu kompetence, jo tas prasa izpratni ne tikai par juridiskiem aspektiem, bet arī par uzņēmējdarbības ilgtspējas kritērijiem un ekonomiskajām tendencēm.

Secinājumi

1. Pastāvētspējīga uzņēmuma jēdziens Baltijas normatīvajā regulējumā nav iestrādāts. Šāda situācija norāda uz vienota tiesiskā standarta trūkumu Baltijas valstīs attiecībā uz pastāvētspējīga uzņēmuma jēdzienu. Lai gan Direktīva (ES) 2019/1023 paredz preventīvos restrukturizācijas pasākumus, tā neatstāj obligātu prasību dalībvalstīm noteikt vienotu kritēriju uzņēmuma dzīvotspējas novērtēšanai. Rezultātā katra valsts šo konceptu interpretē atšķirīgi, balstoties uz vietējo tiesisko regulējumu un tiesu praksi.
2. Lai veicinātu vienotu un skaidru praksi, būtu nepieciešams vai nu ES līmenī izstrādāt detalizētākas vadlīnijas, vai arī Baltijas valstīm savstarpēji harmonizēt pastāvētspējīga uzņēmuma noteikšanas kritērijus, lai mazinātu iespējamos interpretācijas riskus un nodrošinātu lielāku paredzamību restrukturizācijas procesos.

[29] Latvijas Republikas Augstākās tiesas Civillietu departaments, lieta SPC–5/2015, 2015. gada 20. februāris

[30] Latvijas Republikas Augstākās tiesas Civillietu departaments, lieta SPC–5/2015, 2015. gada 20. februāris

[31] Galveno reformējamo jomu analīze esošajā Latvijas parādu pārstrukturēšanas ietvarā. 2020. Iegūts no https://www.tm.gov.lv/sites/tm/files/content/zinojums_paradu_parstrukturesana.pdf

[32] Helmuts, J., Zandersons, A. (2018) Pētījums "Par tiesiskās aizsardzības procesa regulējuma efektivitāti. Iegūts no chrome–extension://efaidnbmnnnibpcajpcglclefindmkaj/https://petijumi.mk.gov.lv/sites/default/files/title_file/Zinojums_Par_tiesiskas_aizsardzibas_procesa_efektivitati.pdf

3. Latvijā, Igaunijā un Lietuvā uzņēmuma restrukturizācijas iespējas tiek vērtētas, ņemot vērā finanšu rādītājus, juridisko regulējumu un ekonomisko perspektīvu. Šāda pieeja nodrošina kompleksu uzņēmuma dzīvotspējas izvērtējumu, kas balstās ne tikai uz uzņēmuma pašreizējo finansiālo stāvokli, bet arī uz tā spēju nākotnē atjaunot maksātspēju un turpināt darbību. Finanšu rādītāji, juridiskais regulējums un ekonomiskā perspektīva kopumā veido objektīvu kritēriju kopumu, kas ļauj izvērtēt restrukturizācijas procesa lietderību un kreditoru interešu aizsardzību.

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ESG AS A VITAL FACET IN SUSTAINABLE BUSINESS MANAGEMENT AND POLITICAL ECONOMY

Eugene Eteris
Turiba University, Latvia
European Integration Institute/Denmark
eueget@integrin.dk

Abstract

Since the beginning of this century, political-economy patterns in national growth and that of business management have been both under severe stress and subject to transformations imposed by the global challenges. The countries' response has been so far both rather inactive and controversial producing generally plausible and often negative results. It's becoming evident that the UN Agenda-2030 initiatives and 17 SDGs (sustainable development goals) from 2015 are in deep crisis, i.e. about a third of the SDG targets will not be achieved in Europe by the deadline; hence there is a need for some "assistance tools". Academic community has been widely discussing recently the ways in which the ESG (environment, social and governance) could serve as a savior; both for the corporate sector and for national growth models that are facing unprecedented pressures and risks related to developmental uncertainties. Thus, imposing ESG rating system, the corporate facilities are equipped with necessary tools to tackle climate mitigation and environmental threats, wellbeing and sustainability.

The paper provides analysis of the ESG triangle's vital elements and makes a valuable insight into the complexities that companies face in publicly revealing corporate agenda: i.e. in employment, sustainability of supply chain, products safety and eco-quality, etc.

Additionally, the research examines the ESG's contributions to many investors' increasing interest in assessing and measuring companies' progress in sustainability and national political-economy patterns by using ESG ratings, which are already compulsory in several states around the world and in Europe. Finally, the paper provides overview of recent ESG's pros and cons, as well as makes some practical outcomes in ESGs progressive implementation. The author concludes that the attention to the ESG triangle components in the revamp corporate strategies would contribute to more sustainable, clean and resilient growth; hence, the paper's main contribution to theoretical and conceptual impetus into ESG's advance knowledge and acceleration.

Keywords: ESG, business management, political economy

Introduction

Crossing the UN-2030 deadline to achieve the SDGs and acknowledging all the mischief, there is a growing need to accelerate the necessary transformative actions: i.e. some include a number of fundamental politic-economic changes, others suggest following new designs in modern national and corporate growth patterns to involve the ESG-approaches, which are composed of environmental, social and governance components.

The future of ESG is full of opportunities for businesses to differentiate themselves and create long-term value. Companies that embrace sustainability, social responsibility, and good governance practices will be well-positioned to attract investment, build trust with consumers, and mitigate risks.

To make ESG easily applicable and adaptable by corporate and policy makers, ESG must be quantifiable, measurable, comparable and accountable. The main reasons for the non-achievement of the ESG by the corporate may be ESG is not easy to quantifiable, measurable, comparable, and accountable. Policy makers and administrators also find this as hurdle to make proper policies, rules and regulations. [1]

It has to be noted the inherent connections between the SDGs and ESGs: although the time differences (the former was adopted in 2015 and the latter in 2004) the two concepts are generally regarded both by the academic community and decision-makers as a "unified tool" in modern political economy. The UN Global Compact was published in 2004 as the report titled "Who Cares Wins" aimed to discuss the concept of environmental, social and governance factors (ESGs) to describe some vital non-financial issues; actually, since then the term ESG became "officially" recognized by the political-economy's structures.

Quite notable, that from the outset, the "winning idea" has been that of "connecting financial markets to a changing world"; hence, the Compact's suggested some "recommendations by the financial industry to better integrate environmental, social and governance issues in analysis, asset management and securities brokerage". Twenty financial institutions from 9 countries with total assets under management of over $6 trillion have participated in developing the compact.

Thus, e.g. financial institutions should commit to integrating environmental, social and governance factors in a more systematic way in research and investment processes. These moves shall be supported by strong commitment of the boards and senior management by formulating long-term goals through introduction of ESG concepts. Then, the companies were supposed to take a leading role in implementing ESG principles/polices and providing information/reports on the related corporate performance "in a more consistent and standardised format". Companies should identify and communicate key challenges by "prioritizing environmental, social and governance issues". [2]

Literature review

The ESG issues are becoming increasingly relevant in academic literature due to complex approach in resolving modern challenges, reformed national political economy's patterns and that of the corporate development. In great extent also partly because the themes covered by ESG are aimed at dealing with the multiple social, environmental and regulatory issues.

However, there are still varied approaches to the ESG concept, the rating systems and other measures.

One of the most thorough literature review appeared in March 2023 which identified over four thousand (!) academic literature sources, including 342 articles from influential peer-reviewed journals. Researchers noted several different thematic definitions on how scholars have used ESG issues: i.e. sustainability, corporate social responsibility, disclosure, finances and the analysis of ESG's scores. As some reviewers note, present approaches "represent financially adjusted risk-return for some and also used to express business sustainability for others". [3]

Also in 2023, the British Accounting Review mentioned 149 references (!) and attracted attention to a specific ESG's aspect – corporate social responsibility – referring to the "commitment of businesses to contribute to sustainable economic development by working with employees, their families, the local community and society at large to improve their lives in ways that are good for business and for development". [4]

A special issue of a prominent Sustainability's magazine has been devoted to analysing complex ESG issues (within the SDG-concept), which needs additional attention. In the editorial to the magazine's special issue, researchers from Finland, Estonia and Lithuania referring to the famous so-called Brundtland Report "Our common future" underlined that "meeting the needs of our generation in human society should not compromise the ability of future generations to meet their own". [5]

However, some authors argue, that "the distinction between social interactions with technology or with nature is somewhat of a false dichotomy"; it's true, modern challenges require an appropriate interaction of social, environmental and technological means in national political economies. Therefore, the special issue covered "three key research streams": corporate sustainability and corporate social liability, as well as the environmental management. The three "streams" were analyzed in a "responsible business as a dynamic, circularly operating and multilevel system framework", consisting of global and national macro- and –micro level approaches. [6]

The special "Sustainability" issue also publishes two Chinese researchers' outcomes revealing corporate "response" to modern achievements in artificial intelligence application and fintech tools for ESG implementation. [7]

Other researchers' findings in the special issue indicate that strong ESG performance significantly enhances "green innovations" (the GIs); and noted that the effect was "more pronounced in state-owned firms and non-high-tech sectors, demonstrating heterogeneity across firm types". The authors' analysis reveals that ESG performance facilitates GI by mitigating financing constraints and boosting research; the authors also identify a "non-linear relationship, wherein the effect of ESG on GI varies with firm size and environmental regulation intensity". This study not only deepens the theoretical framework linking corporate ESG performance with GI but also uncovers the practical mechanisms through which ESG performance drives GTI, providing both practical insights and theoretical foundations for governments to formulate corporate green transition policies. [8]

Besides, several articles are devoted to contemporary ESG's state-of-the-art issues: thus, e.g. researchers from Qingdao University of Technology Business School in China underline importance of the ESG ratings as a significant factor influencing audit fees for businesses. However, presently the ESG ratings are typically assessed by multiple agencies or rating firms and, due to differences in evaluation criteria and data sources, the ratings vary considerably. Therefore, research on the impact of discrepancies in ESG ratings on audit fees is of great significance now. [9]

Sustainable development has not only become an important component of national political economy's transformation; it has become a focal element in academic research as well with attention to ESG with such components as green economy, corporate social responsibility, responsible investment and an important element in wellbeing. Specifically, the European ESG market has shown significant growth in recent years, becoming a leading region for ESG investment in the world. According to Ukrainian researchers in recent European Journal of Sustainable Development (2024), the European ESG-oriented asset management market has grown by 172% since 2021 and is expected to grow further by 50% in 2026, showing investors' strong demand for sustainable development, nature protection and wellbeing. [10]

Additionally, since 2014, as researchers pointed out, that ESG investment has shown "significant performance" of governance and social factors affecting investment performance. Thus, a continued growth of the European ESG market reflects public policy support and investors' confidence in sustainable finance and the ESG-type investment in the years to come. Therefore, institutional investors, asset management companies and financial institutions are increasingly relying on ESG reporting to evaluate and measure company's sustainability's performance. So, compared to previous situations, corporate ESG reports and ratings will become an important part of the investment process with growing concern in sustainable investment and corporate social impact. [11]

The ESG principles help investors and the society at large to evaluate corporate strategies adequate to changing global priorities and challenges. Thus, a bid transformation occurred in firms' mission statements: while previously shareholders used to focus on making as much profit as possible in the short term, they are presently focusing on creating long-term value by promoting sustainability and ESG; hence, the ESG has become a "measure of sustainable company". A complex research of over 2000 studies demonstrates a positive relationship between ESG practices and financial performance, indicating that sustainability efforts benefit both companies and their stakeholders. [12]

Some researchers attract attention to using structural equation modeling (SEM) to test the ESG performance in multi-national enterprises, MNEs. The empirical results demonstrate that ESG strategies significantly enhance sustainable organizational performance, with internal market oriented culture (IMOC) serving as a "critical mediator" linking ESG and corporate outcomes. Furthermore, job crafting strengthens the positive relationship between IMOC and sustainable performance, indicating that when employees proactively reshape their tasks and roles to align with ESG objectives, organizational sustainability is enhanced. The findings reveal that the effects of IMOC and job crafting are more pronounced in collectivist cultures (e.g. in China and Japan), while in individualist cultures (e.g. in the US and Germany), performance improvements rely more heavily on individual incentives and feedback mechanisms. These insights provide practical guidance for MNE's managers on how to tailor ESG strategies and employment to specific regional and cultural settings. This study contributes to a better understanding of how ESG strategies interact with internal cultural and behavioral mechanisms to drive MNEs sustainable performance. [13]

ESG analysis: methods and concept

Although in existence for about two decades, the environmental, social and governance concepts (the so-called ESGs) have gained importance only recently both for the national-regional political economy and corporate spheres.

The ESG-triangle also follows other most urgent global challenges, such as sustainability, climate mitigation and digitalisation; hence, the ESG concept goes beyond "purely" environmental connotation: i.e. the emphasis is placed on social and governance issues too.

The ESG importance for modern political economy is based on the following presumptions in the triangle concept: e.g. a) *in environmental criteria* it explains the ways the public-private entities and numerous corporate units have "to safeguard human environment" and nature equilibrium; b) *in social criteria* it examines how companies and states are managing the relationships with employees, suppliers, customers and communities; and c) *in the governance measures* the ESG criteria are aimed at revealing available public/private instruments in evolving national political economy's basics, including the role of political leadership, corporate executive abilities, legislation, as well as audits, internal controls and shareholder rights.

Global challenges are fundamentally changing present political economy's patterns in most of the states around the world as well as in the European Union.

For example the attention towards some most vital aspects in EU-wide political economy's transformations including such spheres as the "green deal", competitiveness, digitalisation, renewable energy, etc. has been quite fundamental. [14]

A vital methodological element is to understand the inherent components that unite the political economy's patterns in SDGs with the ESG in corporate sectors' strategy. For example, leading SDG researchers and supporters, while pointing to the requirement of "complementary actions by governments, civil society, science and business" in the proper SDG implementation, already in 2019 were talking about the need of some "leveraging tools". They introduced initially six SDG's "transformations as modular building-blocks for the SDG achievement": a) education and training; b) health and well-being; c) energy decarbonization and sustainable industry; d) sustainable food, land and water; e) sustainable cities and communities; and f) digital revolution for sustainable development. [15]

Profit and appetite for risk are no longer the sole factor considered in investment decisions; i.e. the ESG standards are at the heart of strategy's shift. Besides, global climate disasters, increasing social and environmental activism, sustainability factors force businesses to alternate financial forecasts and growth factors.

Since their inception at the turn of the century, the market and demand for ESG expertise and practices has skyrocketed. For example, some research suggests that the vast majority of consumers and employers appreciate the standards: about 83% of the 5,000 consumers polled in Europe and America think companies should be shaping ESG best practices. It also found that 76% of the 1,250 employees it surveyed across two continents would prefer to work for or support companies that share their social and environmental views. Thus, many think that the ESG is a "strategic imperative for any organisation that wants to remain competitive and retain customers and employees". [16]

Thus, methodologically, the practical ESG value is in mitigating corporate risks and facilitate investment; hence the main differences between the SDG and ESG is that the latter measures environmental, social and governance practice in a company's operations, while the SDGs apply primarily to countries and national political-economy's strategies.

Therefore, the practical ESG's "instruments", like ESG reporting, certificates and disclosers are in increasing the corporate sustainability and mitigating possible risks.

For example, world-wide recognition of environmental issues has led to a couple of standards (i.e. ISO 14001 and ISO 37301). The former, the ISO 14001 is an internationally agreed standard that sets out the requirements for an environmental management system (so-called EMS): it is aimed at assisting organizations improve their environmental performance through more efficient use of resources and reduction of waste, applying circular economy's approaches, etc. and consequently gaining a competitive advantage, trust of stakeholders and increase in profitability.

Thus, the standard "stands as a testament to an organization's dedication to a sustainable future, blending environmental responsibility with strategic business growth". [17]

The ISO 37301 standard is a part of international regulations for compliance management systems, so-called CMS; it provides guidelines for establishing, developing, implementing, evaluating, maintaining and improving an effective and responsive compliance management system within organizations. Implementing ISO 37301 is vital for companies (both private and public) striving to

ensure adherence to laws, regulations and ethical standards within their operational context: i.e. it helps in mitigating risks, fostering a culture of integrity and enhancing organizational governance and reputation. The standard is generally used in "governance", as it promotes ethical business practices and reduces the risk of non-compliance, enhances trust among stakeholders, improves management processes and operational efficiency, as well as supports corporate governance and responsibility. [18]

In the EU there is a "regional" analogy: so-called ESRS – European sustainability reporting standards (former CRSP directive) requiring companies with 250-500 employees to submit necessary disclosers. At the end of 2023, the Commission published a delegated regulation (2023/2772) supplementing the previous CRSP regarding sustainability reporting standards.

Specifically, ESRS specify the information that an undertaking shall disclose about its material impacts, risks and opportunities in relation to environmental, social and governance sustainability matters. ESRS do not require undertakings to disclose any information on environmental, social and governance topics covered by ESRS.

The information disclosed in accordance with ESRS enables users of the sustainability statement to understand the undertaking's material impacts on society, people and environment and the material effects of sustainability matters on the undertaking's development, performance and position. [19]

Finance and sustainability in business: reporting in ESG

The EU-wide rules on corporate sustainability reporting have been initially adopted in 2001 by the Corporate Sustainability Reporting Directive, CSRD which modernized and strengthened the rules concerning the social and environmental information that companies have to report. The Directive 2013/34 requires large undertakings, as well as SMEs with securities admitted to trading on the EU regulated markets (including parent undertakings of large groups) to include in a "dedicated section" of their management report or consolidated management report the information necessary to understand the undertaking's impacts on sustainability matters, and the information necessary to understand how sustainability matters affect the undertaking's development, performance and position. Undertakings are to prepare this information in accordance with sustainability reporting standards starting from the 2024 financial year. The Commission initially required adopting by June 2023 a first set of standards specifying the information that undertakings are to report including at least the information that financial market participants need in order to comply with the disclosure obligations. [20]

A broader set of large companies, as well as listed SMEs are now required to report on sustainability; some non-EU companies will also have to report if they generate over €150 million on the EU market. In July 2022, the co-legislators reached agreement on the CSRD; the deadline for national transposition of the CSRD was 6 July 2024. The centerpiece of the CSRD is a common mandatory European Sustainability Reporting Standards, ESRS for companies to report comparable and relevant information required by investors and other stakeholders.

However, a first set of ESRS entered into force at the end of 2023; so large public-interest entities with more than 500 employees were the first to apply ESRS and publish their first sustainability statements in 2025, covering financial year 2024.

The CSRD and the accompanying ESRS will help companies in the transition to a more sustainable business. The sustainability statements will give investors information on the sustainability risks their investments may be exposed to. These statements will facilitate financial flows to companies with positive sustainability impacts and to companies making credible efforts towards transition. Sustainability reports will allow companies to understand and manage their sustainability performance and to communicate clearly with stakeholders.

The CSRD provides a single set of common standards for companies to use, rather than the current situation where companies use multiple overlapping and inconsistent voluntary standards and frameworks. The new rules will ensure that investors and other stakeholders have access to the information they need to assess the impact of companies on people and the environment and for investors to assess financial risks and opportunities arising from climate change and other sustainability issues. Finally, reporting costs will be reduced for companies over the medium to long term by harmonizing the information to be provided. [21]

The first companies that were obliged to apply the new reporting rules for the first time in the 2024 financial year, for reports published in 2025. The first set of ESRS was published in the Official Journal on 22 December 2023 in the form of a delegated regulation. [22]

These standards apply to companies under the scope of the CSRD regardless of which sector they operate it. They are tailored to EU policies, while building on and contributing to international standardization initiatives. [23]

Companies subject to reporting (generally, non-listed SMEs) will have to report according to the mentioned ESRS, which are mostly of financial and sustainability discloser. These standards are developed in a draft form by the EFRAG, previously known as the European Financial Reporting Advisory Group, an independent body bringing together various different stakeholders. [24]

The new discloser pattern also requires assurance on the sustainability information that companies report and will provide for the digital taxonomy of sustainability information. In September 2024, former Commissioner for Financial Services, Financial Stability and Capital Markets Union reminded the member states about the EU's measures (to be executed by the European Commission) towards proportionate ESRS implementation and inviting the states to take practical steps in minimizing "the burden on companies associated with the new reporting requirements". [25]

Conclusion

With the help of the global academic and corporate communities, international and local organisations the national growth patterns have acquires during last couple of decades two vital "instruments" to streamline contemporary recasting political economy's facets: these are the 17 SDGs (sustainable development goals) and ESGs (environmental, social and governance).

Although the two are looking seemingly alike, in essence they are fundamentally different guiding macro-economic (the SDGs and a couple of ISOs) and micro-economic (the ESGs) aspects in modern development; this, the former apply, principally to countries and nation's growth strategies, while the latter represents a "measure" of environmental, social and governance factors in corporate sustainability practices. Therefore, it is presently so vital to see how the corporate entities are unlocking the values of ESG and mitigate the risks in business and accommodate the value chains.

The ESG principles help investors and the society at large to evaluate corporate strategies adequate to changing global priorities and challenges. Thus, a bid transformation occurred in firms' mission

statements: while previously shareholders used to focus on making as much profit as possible in the short term, they are presently focusing on creating long-term value by promoting sustainability and ESG; hence, the ESG has become a "measure of sustainable company".

Important concluding remark is in "bridging" the SDGs and ESG, both in national political economy and in corporate strategies. However, there is still a lot of work to be dome in properly implementing the ESG reporting and discloser; both because of their recent "invention" (at least in the EU) and the ways they are transforming the age-old traditional patterns in corporate sustainability and national growth patterns.

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RESEARCH ON THE OFDI RISK OF CHINESE ENTERPRISES IN EU COUNTRIES UNDER THE BELT AND ROAD INITIATIVE

Pan Yanhua
Daugavpils University, Latvia
yanhua.pan@outlook.com

Abstract

Amidst the wave of the Belt and Road initiative, economic cooperation between China and EU countries is intensifying. Chinese enterprises' outward foreign direct investment (OFDI) in EU countries is on the rise, demonstrating a booming trend. The investment scale continues to expand, ranging from infrastructure construction to high and new technology industries, from energy development to financial services, and other fields. The diversification of investments not only provides Chinese enterprises with new opportunities to explore international markets but also injects strong momentum into the economic development of EU nations, bringing broad cooperative opportunities for both parties.

Nevertheless, as the frequency of investment activities increases, Chinese companies face numerous risks when conducting OFDI in the EU. At the political level, the political situation in some EU countries is somewhat unstable, and the lack of continuity and predictability in policies may lead to risks of policy changes for investment projects. Economically, the uneven development levels and unique economic structures of EU countries, along with exchange rate fluctuations and debt risks, introduce uncertainty to the investment returns of enterprises. In terms of the legal environment, the existence of different legal systems across countries, along with varying enforcement intensity and transparency of laws and regulations, complicates compliance operations for enterprises. Moreover, cultural differences may lead to management conflicts and market cognitive discrepancies, affecting the normal operations of enterprises.

This paper aims to provide a comprehensive and scientific reference for Chinese enterprises' investment decisions in EU countries through in-depth and systematic analysis of risk factors. It aims to help Chinese enterprises more accurately identify and evaluate various risks in the Belt and Road construction, develop effective risk response strategies, and achieve steady and sustainable overseas investment development, thereby promoting the construction of the Belt and Road.

Keywords: Outward Foreign Direct Investment(OFDI); EU countries; Belt and Road; Risk identification and assessment.

Introduction

Research Background

Economic cooperation with European Union countries, situated at a pivotal point on the European continent, not only connects Eurasian traffic but also boasts abundant natural resources and a vast consumer market. These unique advantages have secured a significant position for these countries

within the Belt and Road initiative framework, naturally attracting many Chinese enterprises to invest outward foreign direct investment (OFDI) in the region.

Over recent years, the investment scale of Chinese enterprises in the EU has exhibited a marked growth trend. From large-scale infrastructure projects such as expressways and railways to cooperation in energy and resources development, and to the transfer of production capacity and technology exchanges in manufacturing industries, the depth and breadth of cooperation have been continuously expanding. However, opportunities and challenges are always intertwined. As investment activities become more frequent, the OFDI activities of Chinese enterprises in EU countries have gradually revealed a series of risks that cannot be overlooked.

At the political level, the political situation in some EU countries is somewhat volatile. The interplay between different political forces and policy shifts resulting from regime changes introduce significant uncertainty to corporate investment projects. For instance, in 2021, Lithuania declared its withdrawal from the "17 + 1" cooperation mechanism. This could lead to substantial adjustments in China's foreign investment policies, making it challenging for enterprises to accurately predict future policy directions during the investment process, thereby affecting the long-term planning and stable operation of projects. All these factors are not conducive to fostering economic cooperation between China and other EU countries.

Economic risks are also quite pronounced. The economic development levels among EU countries are uneven, and some have relatively simplistic economic structures, heavily reliant on external markets and funds. In the context of an unstable global economic situation, exchange rate fluctuations have become commonplace, directly impacting the conversion of enterprise investment income and the repatriation of funds. Additionally, the debt risk in some countries is gradually escalating, which could lead to instability in the domestic financial market and significantly increase the financing difficulty and cost for enterprises.

From the perspective of the legal environment, the legal systems of various EU countries are intricate, with notable differences in business law, labor law, environmental protection law, and other areas. Furthermore, some countries exhibit insufficient enforcement intensity and transparency, which poses compliance challenges for Chinese companies during the investment process. A moment of carelessness could lead to legal disputes, consuming substantial time and energy, and potentially resulting in significant economic losses.

The risks associated with cultural differences should not be underestimated. The EU region has a unique historical and cultural background and social customs, which are quite distinct from Chinese culture. In the process of enterprise management, such cultural differences may lead to poor communication and conflicts in management concepts, further affecting the operational efficiency and team cohesion of the enterprise. In terms of market development, cultural differences may cause enterprises to misjudge the needs and preferences of local consumers, making it difficult for products or services to gain market acceptance.

In this paper, Chinese enterprises should meticulously identify, calculate, and evaluate the investment risks of EU countries when engaging in outbound direct investment. They should take appropriate prevention and control measures tailored to each country to promote the establishment of friendly economic and trade relations between China and EU countries and to foster the development of regional economic integration.

Research Significance

Conducting OFDI risk research on Chinese enterprises in EU countries is of significant importance. From the enterprise perspective, the outcomes of this research can assist Chinese enterprises in thoroughly evaluating risks prior to investment, devising proactive response strategies, avoiding uninformed investments, effectively decreasing the likelihood of investment failure, ensuring the security of corporate assets, bolstering their competitive edge in the EU market, and achieving sustainable development. In terms of regional cooperation, the study will aid governments in refining policies and regulations based on identified risk factors, enhancing communication and coordination, optimizing the investment climate, facilitating the smooth execution of the Belt and Road initiative within the EU region, fostering the expansion of bilateral trade and investment, and achieving mutual benefit and win-win outcomes. From an academic standpoint, despite the numerous studies on enterprise OFDI risks by scholars both domestically and internationally, there remains a substantial gap in systematic and thorough research on the risks associated with Chinese enterprises' OFDI in the EU. This paper aims to enrich the theory of international investment risk, offer reference cases for subsequent related research, and foster the advancement of the discipline.

Research Purpose and Problems

The OFDI risk research of Chinese enterprises in EU countries aims to comprehensively analyze the complex risk situation faced by enterprises. On the one hand, it seeks to accurately identify all kinds of risks, ranging from the instability of the political situation, the impact of economic fluctuations, the dilemma of legal compliance, to the communication barriers caused by cultural differences and the potential pressure brought by public opinion, to draw a detailed risk map for enterprises. This helps enterprises to prevent risks in advance. On the other hand, through the establishment of a scientific evaluation system, the research delves into the risk generation mechanism and then proposes feasible coping strategies to reduce investment losses, improve the success rate of investment, and promote the economic cooperation between China and EU countries to a new height under the Belt and Road initiative.

In the process of research, a series of urgent problems need to be addressed. Firstly, it is essential to clarify the main risk types encountered by enterprises in different EU countries and industries, as national conditions and industry characteristics vary significantly among countries. Secondly, the root causes of these risks and their interaction relationships need to be studied in depth to grasp the laws governing risk evolution. Additionally, the applicability of the existing risk assessment methods in the unique investment environment of the EU must be re-examined to identify a more suitable assessment method. Finally, considering the different scales and industries of enterprises, developing targeted and operable coping strategies is also a key focus of the research.

Research Methodologies

Considering the current situation, this study aims to conduct a comprehensive and in-depth analysis of the risks faced by Chinese enterprises during their outward direct investment (OFDI) in EU countries. Utilizing extensive data collection and literature research methods, the study sorts through relevant research findings both domestically and internationally, identifying the shortcomings and gaps in existing research. Furthermore, the data analysis method is employed to synthesize macroeconomic data, industry data, and enterprise micro data, revealing the risk situation in an intuitive and precise manner, and offering solid data support for the research.

Concurrently, through case analysis, representative Chinese enterprises engaged in EU OFDI are selected. Ultimately, this study seeks to explore the underlying causes of these risks and propose highly targeted and actionable risk response strategies. The goal is to provide robust theoretical support and practical guidance for the investment decisions and risk management of Chinese enterprises in the EU region, thereby aiding the steady progress of the Belt and Road initiative within the EU.

Literature Reviews

Related Theories of OFDI Risk Management

Research on OFDI Risk Identification

International scholars generally classify outward foreign direct investment (OFDI) risks into two categories, political and economic risks. Regarding political risks, scholars note that factors such as national interests and political corruption can impact enterprises' overseas investments. For instance, Boddewyn and Cracco (1972) found that the activities of multinational companies are often significantly influenced by the sovereignty and national interests of the host country. Don Haendel (1976), Anthony M. Bertelli (2006), and Matthias (2008) demonstrated that political risks, including those from political corruption, government systems, and social responsibility, are key factors leading to the failure of many multinational companies' overseas investments. Jo Jakobsen (2010) even emphasized that political risk is the most significant factor affecting OFDI activities. As for economic risks, foreign scholars consider exchange rate fluctuations and the stability of the financial system as critical economic factors influencing OFDI. Linda and Charles (1995) pointed out that the investment activities of multinational companies are susceptible to frequent fluctuations in the foreign exchange market, as these can lead to uncertainty in future cash flows, thereby increasing investment risk. A study by Choi and Namjin (2016) also found that fluctuations in the real exchange rate can affect the investment efficiency of enterprises. Additionally, some scholars argue that cultural differences and legal risks are important factors affecting investment benefits. For example, Eilnaz Kashefi-Purf et al. (2020) suggest that special attention should be paid to cultural differences and legal risks when making international investments.

Research on OFDI Risk Assessment

International scholars began exploring risk quantitative research early on. Starting from the middle of the 20th century, many advocated for the construction of risk assessment models. In 1971, Robock developed the Robock model, selecting specific variables to quantify a country's political risk. Subsequently, in 1996, Miller expanded upon the Robock model, creating the International Risk Perception model (PEU), which incorporated 35 additional indicators, including market, technology, and policy. The PEU model's index system is more comprehensive, allowing for the assessment of a host country's overall risk. Building on the PEU model, the Dutch scholar Brouthers et al. (1996) further improved and innovated, proposing the PEU 2 model. The PEU 2 model specifically emphasizes the interaction between risk perception and strategic choice.

Research on OFDI Risk Prevention and Control

International scholars recommend reinforcing the prevention and control of political and economic risks from the standpoints of national relations, risk early warning, and operational management. Root (1968) proposed that selecting the appropriate market entry strategy is key to preventing and controlling risks associated with overseas investments; Anne (2007) suggested, on one hand,

choosing countries with stable political relations for investment, and on the other hand, establishing a political risk warning system to identify potential risks proactively; Jensen et al. (2011) emphasized the importance of reducing risks through standardized management and recommended strengthening preliminary research and utilizing financial instruments and systems to mitigate risks.

Chinese scholars, in recent years, have proposed various risk prevention and control measures based on the Belt and Road Initiative and China's national context, from multiple dimensions including the prevention and control system, decision-making, personnel training, enterprise management, and institutional guarantees. Xia Minghua and Zhang Peng believe that Chinese enterprises should establish outward foreign direct investment (OFDI) risk identification and dynamic early warning system tailored to their own characteristics and propose targeted risk prevention and control strategies; Zhu Xinglong (2016) pointed out that the limitations of the investment system are a significant factor contributing to investment risks and suggested improving the insurance system to enhance the property protection of overseas investors; Zhou Cong (2018) analyzed the case of CITS, discussed the risks faced by Chinese tourism enterprises in foreign investments, and advocated for risk prevention and control through information research and system construction.

Related Studies on Chinese OFDI Risk in the EU Region

The research conducted by scholars both domestically and internationally on the European Union primarily concentrates on exploring the influencing factors, efficiency, potential, opportunities, and challenges of China's outward foreign direct investment (OFDI) within the EU region. However, there is a relative scarcity of studies on the risks associated with China's OFDI in the EU, which predominantly focus on the identification, assessment, and prevention and control of political risks or specific industries, such as major projects in transportation and energy. Wang Lijie (2023) posits that Chinese enterprises should reevaluate the risk issues present in the EU market. Yuan Qigang (2019) examined the four dimensions of political risk, discussed its impact on OFDI, and emphasized that Chinese enterprises should pay close attention to research on the political risks of the host country during the investment process, conducting professional risk assessments.

Research Status and Gaps

From the perspective of research content, both domestic and international academic circles have achieved significant breakthroughs in the study of OPEI risk. This includes identifying various risks that multinational enterprises may encounter during OFDI, establishing relevant risk measurement models, and forming a relatively comprehensive risk control system. In the study of OFDI in EU countries, many scholars have investigated the influence factors, efficiency, potential, and possible risks of China's OFDI in the EU region. In recent years, domestic scholars have focused their research on the EU countries' direct investment risks, particularly on political and industry risk identification, assessment, and prevention and control. However, there is limited literature specifically studying China's investment risks in EU countries.

From the perspective of development trends, research on OFDI risk both domestically and internationally is expected to deepen further. The types of risks that may be encountered during OFDI will be refined and improved. Domestic and foreign scholars will establish additional risk measurement indicators, and the research outcomes will concentrate on how to further enhance the risk prevention and control system.

Overview of the Economic and Investment Environment in EU Countries

As a significant global economy, the European Union's economic and investment environment has garnered considerable attention. The economic and investment climate of EU nations is crucial for shaping foreign economic policies and multinational investments by corporations.

Scholars generally agree that the EU economy exhibits characteristics of diversification and pronounced regional disparities. Core countries, such as Germany and France, exert considerable influence over the EU economy through their advanced manufacturing and service sectors. Newer EU member states, while displaying a developmental gap compared to traditional powers, possess significant economic growth potential. Research has indicated that the EU economy has encountered numerous challenges in recent years, including a shrinking labor force due to an aging population and inadequate investment in technological innovation, which have impeded further economic expansion (Acemoglu, D., & Robinson, J. A., 2012).

Regarding investment policy, the EU's Foreign Direct Investment Policy (2023) reveals that the EU has established a set of unified investment regulations aimed at facilitating the free movement of capital within the internal market, while also offering a relatively open and transparent policy environment for foreign investors. However, there are variations in the specific implementation rules among member states, such as differing thresholds for foreign investment entry and preferential tax policies in certain industries. Some studies emphasize that the EU's investment policy is heavily influenced by political considerations, with a stricter investment review process in some key sectors.

Sapir, A., & Wolff, G. B. (2008) noted that from a market environment perspective, the EU boasts a large and mature consumer market with a robust demand for high-quality products and services. The EU's comprehensive legal system and regulatory framework ensure fair competition in the marketplace. Nonetheless, certain studies have pointed out that there are still obstacles to the integration of the EU's internal market, such as disparities in standards across different countries, as well as language and cultural barriers, which can increase the operational costs for businesses to some extent.

While existing literature offers a comprehensive examination of the economy and investment environment of EU countries, there remain areas for improvement. Future research could further concentrate on the coordinated development of the regional economy during the process of economic integration within the EU and the impact of emerging technologies on the investment environment in the EU. Additionally, comparative studies on the investment environments of various member states also present opportunities for further exploration (Baldwin, R., & Venables, A. J., 2013).

Analysis of the current situation of OFDI in EU countries

Current Status of the Belt and Road Initiative with the EU

In the context of globalization, the cooperation between the Belt and Road initiative and the EU is gradually becoming a focal point in the field of international cooperation. Since its inception, the Belt and Road initiative has upheld the principle of extensive consultation, joint contribution, and shared benefits, and is committed to strengthening infrastructure construction, promoting trade, and deepening people-to-people exchanges in countries along the Belt and Road (Xi Jinping, 2017).

As an important economy and political alliance in the world, the EU plays a pivotal role in European and even global affairs.

From the perspective of economic and trade exchanges, the bilateral cooperation has achieved remarkable results. The EU has maintained its position as China's largest trading partner for many years, and China is also an important trading partner of the EU. The China-Europe freight train, known as the "steel camel caravan", is a vivid manifestation of bilateral cooperation. More than 10,000 China-Europe freight trains have been operated, connecting many Chinese cities with cities in European countries and transporting an increasingly diverse range of goods, which has greatly promoted trade circulation between China and Europe. For instance, in Germany, DBO Railway operator facilitates the transport of more European goods to China with the help of China-Europe freight trains; in Spain, the "Yiwu-Xinjiang-Europe" freight train not only connects Madrid with Yiwu in China but also creates more market opportunities for enterprises of both countries (Dong Yan, Li Xiaomiao, Wu Qunqi, etc., 2023).

There have also been numerous successes in infrastructure construction. The port of Piraeus, Greece, invested and operated by COSCO Shipping Group, has become a model of Belt and Road cooperation. The involvement of Chinese enterprises has revitalized the port, enhanced its economic vitality, and created a large number of jobs (Zhao Xiaochen & Guo Qing, 2022). The agreement between COSCO Shipping and the Piraeus Port Authority has made a significant contribution to the Greek economy, as reported by the Greek Economic and Industrial Research Foundation. The bridge and the first phase of the connection line, built by Chinese enterprises, have also attracted much attention, reflecting the strong cooperative relationship between the two countries (Zhang Huifang & Wang Yilin, 2023).

However, there are also challenges to our cooperation. In terms of policy coordination, the varying national policies within the EU may affect the efficiency of the Belt and Road initiative and the overall EU strategy. In terms of standard specifications, there are also some differences between China and Europe (2023), which requires further communication and coordination.

Huang Yongming and Li Yutong pointed out that with the deepening of exchanges between the two sides, the cooperation with the EU is promising. The two sides can strengthen cooperation in emerging areas such as green energy and the digital economy and jointly promote global sustainable development. We believe that with the joint efforts of both sides, the Belt and Road initiative and EU cooperation will bring more benefits to the people of China and Europe and inject new impetus into world economic development.

Analysis of the Current Situation of OFDI in EU Countries

Investment Flow and Enterprises Overview

In 2023, China's investment flow into the EU amounted to US $6.48 billion, a decrease of 6.1% year-on-year, representing 3.7% of the total flow. By the end of 2023, China had established over 2,800 direct investment enterprises in the EU, spanning 27 member states and employing more than 270,000 foreign employees.

Investment Flow to Major Countries

The top three EU countries receiving the most investment from China are Luxembourg, the Netherlands, and Sweden. Luxembourg led with US $2.33 billion, a 28.3% decrease, primarily in finance and other sectors; the Netherlands ranked second with US $900 million in 2022, constituting 13.8%, mainly in wholesale and retail; Sweden came in third with US $740 million, a 59.8% year-on-year decrease, representing 11.5%, primarily in manufacturing.

Industry Distribution of Investment Flow

In 2023, finance topped the list in the EU with an investment of US $2.52 billion, an increase of 27.7% compared to the previous year, accounting for 38.9%; manufacturing followed with US $1.87 billion, a 51.7% decrease, representing 28.8%; wholesale and retail came in third with US $1.73 billion, a 167.7% increase, accounting for 26.7%; and leasing, business services, mining, and other industries had varying investment figures.

Investment Stock Situation

By the end of 2023, the stock of China's direct investment in the EU reached US $102.42 billion, constituting 3.5% of China's total outbound direct investment stock. The investment stock of the Netherlands, Luxembourg, Germany, and Sweden exceeded US $10 billion, with the Netherlands leading at US $31.89 billion, followed by Luxembourg and Germany.

Distribution of Stock Industries

Manufacturing investment stock amounted to $36.07 billion, constituting 35.2%; the mining industry accounted for $18.37 billion, or 17.9%; the financial industry was valued at $17.1 billion, or 16.7%; the leasing and business services industry reached $8.68 billion, or 8.5%; and the information transmission, software, and information technology services industry.

Risk Identification of Chinese Enterprises' OFDI in EU Countries

As economic globalization continues to deepen, Chinese enterprises are actively expanding into overseas markets and becoming increasingly engaged in outward foreign direct investment (OFDI) in EU countries. While recognizing the vast investment opportunities and significant growth potential, Chinese enterprises must also be acutely aware of the potential risks. This awareness is crucial for planning ahead, responding effectively, and ensuring the steady and sustainable growth of their investments (Jiang Guanhong & Jiang Dianchun, 2014).

Policy and Regulatory Risk

Since 2017, the European Union and some of its member states have tightened their foreign investment review policies to protect key industries and national security. The EU's Legal Framework Act for Foreign Investment Review will further expand the scope of the review beyond traditional sensitive industries, such as defense and energy, to include advanced technology and infrastructure. Investment projects undertaken by Chinese companies, particularly those involving cutting-edge technologies like 5G communication technology, artificial intelligence, and biomedicine, often become the focus of the review.

For instance, in 2016, China General Nuclear Power Corporation (CGN), a Chinese state-owned nuclear power company, proposed to form a joint venture with Électricité de France (EDF) to

develop the Hinkley Point C nuclear power plant project in the UK. This project is of significant importance for advancing nuclear power energy development in the UK and ensuring the stability of its energy supply. For CGN, it also represents a crucial opportunity to expand into the overseas nuclear power market and export China's nuclear power technology and construction expertise.

Upon reviewing the proposed joint venture, the European Commission determined that CGN was not affiliated with the State-owned Assets Supervision and Administration Commission (SASAC), an independent central authority separate from Chinese state-owned enterprises. Consequently, the committee deliberated whether the deal fell within its purview, taking into account not only CGN's revenue but also the aggregated revenue of all Chinese state-owned energy companies. This assessment resulted in CGN's turnover automatically surpassing the minimum threshold for EU merger approval.

Although the joint venture was ultimately approved by the European Commission in March 2016, the review process established a precedent. This signifies that Chinese state-owned enterprises will encounter more stringent regulatory oversight when acquiring assets in Europe. Even if their individual size does not meet specific European benchmarks, they might still be required to seek approval for EU mergers due to their industry's collective standing. The outcome of this review serves as a warning to other Chinese state-owned enterprises contemplating asset acquisitions in Europe, heightening the investment process's uncertainty and complexity, and elevating the investment threshold and costs.

Recent cases, on July 4,2024, the EU launched a countervailing investigation against Chinese electric vehicles and imposed temporary countervailing duties, Its Foreign Subsidy Regulations also bring uncertainty to Chinese electric vehicle companies' investment in Europe. On June 14,2024, the EU launched an anti-dumping investigation against China decorative paper, 2025 on 14 February 2025, Seriously affect the profit and order volume of Chinese decorative paper enterprises in the EU market; On 21 May 2024, China's AI big model, automotive, biomedicine, e-commerce platforms and other related enterprises are facing compliance challenges, Need to adjust the business model to meet the Act requirements, Otherwise, they will face high fines and other penalties.

Moreover, there are substantial disparities in tax policies across EU member states, encompassing a variety of taxes such as corporate income tax, value-added tax, consumption tax, property tax, and more, along with differing tax rates. For instance, Ireland imposes a corporate income tax rate of just 12.5%, in contrast to France's rate of approximately 32%. Additionally, some countries frequently adjust their tax policies in response to their own economic conditions, fiscal revenue and expenditure statuses, and changes in international tax policies.

Market Risk

In recent years, the global trade protectionism wave has risen, and the EU has not remained detached. Investigations into Chinese products and enterprises for anti-dumping and countervailing purposes have been on the rise. With its intricate trade remedy legal framework, the EU has frequently initiated trade investigations into Chinese photovoltaic products, steel products, and textiles, imposing high tariffs.

Take the photovoltaic industry, for instance. The EU has conducted a "double anti-dumping" investigation against Chinese photovoltaic products and ultimately decided to impose anti-dumping duties of up to 47.6% and countervailing duties of 11.8% on them. Consequently, the price competitiveness of Chinese photovoltaic enterprises in the EU market has significantly diminished,

and export volumes have plummeted. Many enterprises that have invested in the EU are now facing the dilemma of overcapacity, making it difficult to achieve a return on investment. Some have even had to suspend or cancel their subsequent investment plans in the EU. Trade protectionism not only directly reduces the profit margins of Chinese enterprises in the EU market but also undermines the market environment for fair competition, increasing the difficulty of market expansion and operational risks.

Furthermore, the EU market is mature and highly developed, boasting numerous strong local enterprises, as well as multinational companies from other developed nations, such as Japan. These enterprises hold significant advantages in technology research and development, brand building, and sales channels. Upon entering the EU market, Chinese companies encounter substantial challenges in competing for market share. For example, in high-end manufacturing, Germany's automobile manufacturing and mechanical engineering, and France's aerospace industry have established robust industrial clusters and technical barriers. For Chinese companies to secure a share in these sectors, they will need to invest heavily in technology research and development and equipment upgrades, and also dedicate significant time and effort to brand building and market development. In the service sector, the EU's finance, logistics, consulting, and other industries are also well-developed. Chinese enterprises face a certain gap compared to local enterprises in terms of service quality and professional talent reserves, necessitating additional efforts to establish themselves in the fiercely competitive market.

Cultural Risk

European and Chinese cultures have significant differences in management concepts. European enterprises typically emphasize individual rights and work-life balance for employees. They often employ a democratic approach in decision-making to encourage broad employee participation, resulting in a relatively lengthy decision-making cycle. In contrast, Chinese enterprises may prioritize efficiency and execution, leading to more centralized decision-making, with management playing a leading role. This divergence in management philosophy can result in numerous conflicts during the daily operations of enterprises.

For instance, in 2014, State Grid of China acquired a 35% stake in cdpreti, an Italian company, marking the entry of Chinese state-owned enterprises into Italy's State Grid. cdpreti operates Italian electricity and gas infrastructure through its subsidiaries, with terna managing 99.6% of the Italian national high-voltage power transmission network and responsible for constructing and operating the Italy-Montenegro Internet network, which controls the transmission of renewable energy from the Balkans to Central Europe. From a cultural and conceptual standpoint, although the Chinese acquisition adhered to business rules and implemented numerous safeguard measures, such as forgoing information acquisition and work participation in cases of conflicts of interest, there remains bias and concern about Chinese corporate investments among some EU countries and their citizens. Based on their own geopolitical and traditional energy security concepts, they perceive Chinese corporate investments as potential security threats, despite these concerns being unfounded from the perspective of actual transactions, technology, and operational control. For example, under the Italian Civil Code and the shareholder agreement, Chinese-nominated directors have limited access to confidential information and no direct control over the company's operations. However, this cultural cognitive difference leads to additional public opinion pressure and potential policy obstacles during the investment process, reflecting that Chinese enterprises

may still face risks due to differing cultural concepts in EU OFDI, even when operating within the legal and compliant framework.

Simultaneously, EU member states have unique cultural customs, and these differences are particularly evident in marketing, business negotiations, and other areas. If Chinese enterprises do not understand local culture and customs, they may make errors in advertising, product design, and other aspects, causing aversion among local consumers, damaging their corporate image, and subsequently affecting product sales and corporate development.

For example, Huawei's promotion of 5G technology and products in Italy initially focused too heavily on technological aspects, using excessive flashing lights and complex circuit patterns without fully considering the local humanistic and artistic aesthetic preferences. The direct translation of slogans led to a lack of understanding and emotional resonance among local consumers, resulting in poor brand promotion effects and slow market share growth. Subsequently, Huawei made timely adjustments, involving local advertising companies and artists, and integrated Italian cultural elements such as classical architecture into their redesigned slogan, thereby improving the brand image and gradually increasing market share.

In business negotiations, the styles and etiquette of different countries also vary significantly. For example, Germans emphasize rigor and efficiency, focusing on details and data during negotiations, while Italians place more emphasis on interpersonal and emotional communication, adopting a relatively flexible negotiation style. If Chinese enterprises do not understand these differences, misunderstandings may arise during negotiations, which can affect the smooth progress of cooperation.

Exchange rate risk

Chinese companies face the risk of euro exchange rate fluctuations. When the euro depreciates, the value of Chinese companies' assets in the EU, when converted into renminbi, shrinks, and the profits repatriated are reduced accordingly.

Take Geely Auto as an example. In 2010, Geely successfully acquired the Swedish auto brand Volvo, a typical case of Chinese auto companies making OFDI in EU countries. At the time of the acquisition, the euro/RMB exchange rate was in a relatively stable range, and calculated at the current exchange rate, the acquisition cost and subsequent operating budget were within the expected range of Geely. However, in the subsequent operation process, the euro exchange rate fluctuated sharply. From 2010 to 2015, the euro traded at 9.49 yuan, and at 6.69 yuan. During the production process of Volvo, the cost of equipment purchase and parts import are denominated in euro, and when the euro rises, the RMB invested by Geely becomes euro, the cost increases significantly; while the European cars are sold in euro, and when the euro falls, the sales revenue converted into RMB decreases. For example, the sales volume of Volvo cars in the European market is 1 billion euros. If the exchange rate of the euro against RMB at the beginning of the year is 8 billion yuan; 1:7 by the end of the year, 1 billion euros is only 7 billion yuan, Geely Auto bears huge financial pressure due to exchange rate fluctuations, which seriously affects the investment income and overall operating benefit.

The exchange rate policies of EU countries are not immutable, and once the policy adjusts, it may have a significant impact on the investment returns of Chinese enterprises. In addition, trade frictions and currency wars between the EU and other countries or regions may also indirectly lead to the fluctuation of the euro exchange rate and increase the exchange rate risk of Chinese enterprises.

Wanxiang Group is a well-known auto parts manufacturer in China. As early as 2010, Wanxiang Group acquired A123 Systems, and then set up a subsidiary in Germany, mainly engaged in the research and development, production and sales of new energy vehicle batteries, with a certain share in the European market.

In 2022, the EU adopted a relatively loose monetary policy in order to cope with the pressure of economic recovery, which led to the sharp fluctuations in the exchange rate of the euro and the RMB. At the beginning of the year, the euro was about 1:7.8 against the yuan, falling to about 1:7.2 by the end of the year.

Wanxiang's German subsidiary earns sales in euros, paying yuan for purchasing raw materials and components from China. The change of exchange rate increases the procurement cost of the subsidiary, and the procurement funds of the original budget need to spend more due to the depreciation of the euro. At the same time, when converting the euro income into RMB for the consolidated financial statements, the exchange loss is also very obvious, which affects the overall profit level of the group. In addition, the local financing costs of German subsidiaries have also increased due to exchange rate fluctuations, increasing the financial pressure on enterprises. It is estimated that in 2022 alone, Wanxiang Group has lost tens of millions of yuan in its European business due to currency fluctuations.

In summary, Chinese enterprises conducting OFDI in EU countries face many risks, including those of policies, regulations, market, culture, exchange rate, and other aspects (Huang Lingyun & Liu Yaming, 2007). Enterprises should conduct a full risk assessment and due diligence before investment, develop scientific and reasonable risk response strategies, including strengthening communication and cooperation with the local government and enterprises, optimizing the investment structure, cultivating cross-cultural management personnel, using financial instruments for exchange rate risk management, etc., to reduce the risk loss and realize the investment target.

Conclusion and Suggestions

Conclusions

Against the backdrop of the current global economic landscape, the scale of outward foreign direct investment (OFDI) by Chinese enterprises in the 27 EU member states is continuously growing, with investment activities becoming increasingly frequent. Upon further examination, however, it has been observed that the OFDI risk for Chinese enterprises in these 27 EU countries exhibits significant regional disparities.

Due to their distinctive geographical locations, Eastern European countries lie at the crossroads of numerous geopolitical influences, resulting in elevated geopolitical risks. For instance, some Eastern European nations harbor historical territorial disputes with neighboring countries, leading to an unstable regional situation. This instability poses risks to Chinese enterprises investing in these countries, as political conflicts could disrupt their investment projects and threaten the security of their assets.

Conversely, Western European countries, being regions with a relatively advanced global economy and established rule of law, boast a more stable political climate. Nevertheless, their legal systems are exceedingly intricate, and the economic conditions are volatile. The legal framework is detailed, encompassing labor, environmental, and competition regulations, among others. A slight oversight

could lead to legal entanglements for the enterprise. Economically, factors such as the restructuring of the economy and fluctuations in the economic cycle in Western European countries introduce uncertainties for Chinese investments. These factors may result in market demand shifts, causing products to become unsellable and creating challenges in capital recovery for enterprises.

Further investigation reveals that the institutional quality and economic policies of the host country are pivotal determinants of the OFDI risk for Chinese enterprises. Countries with robust institutional frameworks, comprehensive legal systems, efficient government administration, and transparent market environments can offer a stable guarantee for corporate investments. Moreover, the stability and openness of economic policies, along with the attitude towards foreign investment, are directly correlated with the local investment income and the development prospects of enterprises.

Suggestions

Enhance Risk Assessment

Before making investment decisions, enterprises should establish a professional risk assessment team or engage a professional consulting agency to conduct a comprehensive and in-depth evaluation of the political, economic, legal, and cultural risks of the host country. For political risk, attention should be paid to the political stability, international relations, and political situation of the host country; for economic risk, the growth trend, inflation rate, and exchange rate fluctuations should be considered; for legal risk, local laws and regulations, particularly those related to investment and operation, should be examined; and for cultural risk assessment, local customs, values, and business culture should be understood to avoid operational and management issues stemming from cultural differences. Based on the evaluation results, detailed and targeted risk response strategies should be formulated, such as purchasing political risk insurance and developing emergency plans.

Optimize the Investment Structure

To reduce investment risk, enterprises should increase investment in countries with high institutional quality, which typically offer a more stable business environment and more opportunities for development. At the same time, the principle of diversified investment should be adhered to, spreading investment risks across regions to avoid excessive concentration in a particular area. Investments can be allocated across countries with varying levels of economic development and risk profiles; within industries, diversification should be pursued by investing in manufacturing, service industries, and other fields to create a complementary investment portfolio. This approach reduces the impact of adverse factors in a specific region or industry on the overall investment returns.

Improve Compliance Capabilities

As the EU intensifies its scrutiny of foreign investments and continuously adjusts its economic security policies, Chinese enterprises must actively respond. On one hand, enterprises should establish and improve compliance management systems, set up dedicated compliance management departments or positions, and provide professional compliance management personnel to strengthen compliance supervision throughout the investment and business activities. On the other hand, they should enhance their understanding of the EU's foreign capital review and economic security policies, stay abreast of policy trends, and ensure that the investment and business

activities of the enterprise comply with local policy and regulatory requirements. Additionally, active communication with local governments and industry associations should be maintained to establish a positive corporate image, strive for a more favorable investment and business environment, and thereby reduce legal risks.

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KEY MANAGERIAL DILEMMAS DURING DIGITAL TRANSFORMATION OF ORGANIZATIONS: SYSTEMATIC LITERATURE REVIEW

Rafael Yusubov
Turiba University, Latvia

Abstract

Digital transformation significantly reshapes business operations, globalization, management practices, and business processes, while also posing new challenges in corporate culture, leadership, and resource management. When strategically designed, the efficiency and effectiveness provided by digital technologies increase competitiveness, creating both short-term and long-term benefits and challenges depending on the firm's market position. This transformation enables companies to deliver value to both the corporate culture and end users in various ways. However, the digital transformation process involves multiple critical decision-making stages that are crucial to a company's future and require compliance with new standards and strategies. This research conducts a systematic literature review to outline and classify the key managerial dilemmas faced by firms, thereby complicating the digital transformation process for each organization.

Keywords: digital transformation, digitalization, literature review, managerial dilemmas, transformation of firms

Introduction

In the digital time-lapse and the environment, we are living in, the advancement and fast development of technologies are changing the approaches in the business world as it is affecting daily life. The pace of the developments in digitalization and technologies in the recent years makes it mandatory for the companies to keep up with this process. Innovations in digital technologies such as artificial intelligence, automation, hybrid cloud technology and other novelties are making digital transformation a necessity for the businesses and world economy rather than options.

Digital transformation is also deeply intertwined with organizational management. It is a key update of operational management of the company. The goal of digital transformation should be to create a competitive advantage by continuously leveraging technology at scale to improve customer experience and reduce costs. Successful digital transformation requires a variety of coordinated actions, including creating a clear strategy focused on business value, having a strong talent pool with in-house engineers, and developing organizational and technology-based capabilities that allow a company to continuously improve customer experience and reduce unit costs (Helmy et al., 2017). Therefore, when an organization undergoes digital transformation, it not only changes its business processes and models, but also impacts its international business strategy and overall organizational management. This transformation can lead to improved efficiency, cost savings, enhanced customer experience, and a stronger competitive position in the global marketplace.

As outlined in the European Commission's latest report on "Shaping the Digital Transformation in Europe", the profound impact of the digital transition requires a multifaceted approach encompassing comprehensive actions and policies at various levels. Within its digital strategy and

the previous Digital Single Market, the European Commission is working to implement a wide range of policies that foster an optimal environment for the digital economy. This supports innovation, infrastructure investment and consumer protection. The Commission is ready to further strengthen its digital policy by considering new measures to support the principles of a human-centric digital path for Europe, with an emphasis on market integration and the removal of barriers (European Commission: Directorate-General for Communications Networks, 2020).

Pursuing digital transformation in corporate governance is both necessary and challenging. One of the key issues lies in the often-fragmented nature of digital initiatives within companies, resulting in meaningless efforts that hinder the smooth integration of transformative technologies. This incompatibility can lead to inefficiencies, redundant systems, and failure to leverage the full potential of digital tools. Furthermore, resistance to change among employees and management can be a significant barrier. Embracing digital transformation requires a cultural shift that fosters a mindset of continuous learning and adaptation.

While the reasons and processes of digital transformation, which has become an indispensable agenda in almost every area of corporate activities and discourses, are frequently discussed, the post-transformation results and the effects of these results are not focused on at the same rate. Rather than seeing digital transformation, which we have been trying to define and implement for years and in which we all struggle with different challenges, as a "trend" or the use of cutting-edge technology products, it is more accurate to see it as a radical change in business management methods at a philosophical level.

There are quite high costs and penalties for constructing rapidly changing processes with predictive analytical solutions, or even algorithms that include artificial intelligence. Therefore, the dilemmas that many managers will encounter when they enter the digital transformation process play a major role in whether the process will be successful or not. Because of the importance of the topic Digital Transformation and its complexity of the decision-making process in this period, in this research a question has been set: What are the dilemmas that organizations are encountering with when they transform the businesses digitally? The current available articles and researches include the different challenges and problems and other issues but they do not offer systematically reviewed literature in matter of dilemmas. However, other researchers are investigating the issues and problems that are being faced by the companies during this procedure.

The structure of the paper is as follows: Firstly, methodological framework is designed based on the literature review. Secondly, literature review has been executed in several steps: Defining goals, keywords, time frame and concepts of the research; outlining the mentioned dilemmas in the articles; classifying the dilemmas into the umbrella groups and finishing it with systematic analysis of "dilemmas". In the final stage discussion of the results and the conclusion was done to summarize and synthesize the results and conclude the research with recommendations.

Methodological Framework

The articles navigation is done based on following query: "managerial dilemmas", and "digital transformation" or "change management", or "digitalization" and "managerial challenges" in the title of the published papers with the year limit 2022-present on database ScienceDirect, in order to get the insight on related articles which is has been written on this topic. The ScienceDirect database has been chosen for the search because it includes peer reviewed open-source papers and

is the most suitable dataset for this topic and field with the compatible export options with abstracts of the papers for the reviewing. The set period for the search is based on the popularity of the topic, as digital transformation has become trend after the force major situation during the Covid-19 pandemic, the papers written after that period cover more practical issues and challenges that which has been faced and companies still have been encountering during the transformation.

This is a common scenario in many organizations undergoing digital transformation. The key to success lies in balancing technical skills with emotional intelligence, change management, and leadership skills. highly skilled IT staff. Its also companies with highly knowledgeable management staff, which can manage the finance, time, risk and other resources. With One can observe that most companies that successfully implement digital transformation and observe the results of these changes are not only companies with focused goal and can shape the company in order to make it ready for the challenges of the market and stay in competition even in the during transformation of the market. And each company chooses the most suitable approach depending on the situation of the company.

Regardless of the approach, there are many dilemmas that need to be decided when embarking on the path of digital transformation. In order to investigate those dilemmas, the author's strategy was research driven and described in five stages in Figure 1.

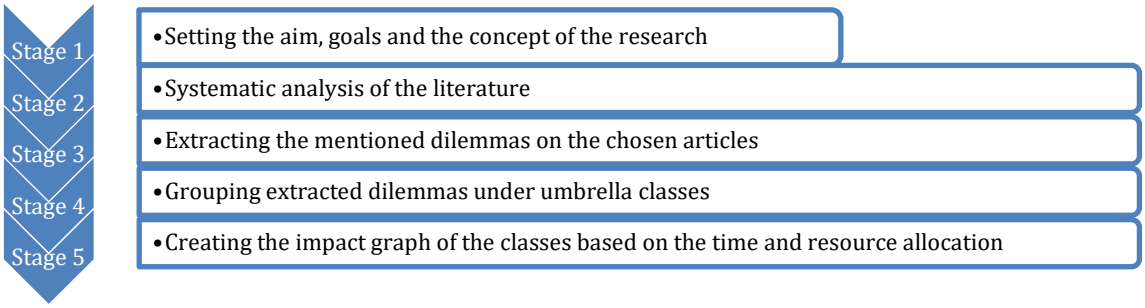

Figure 1. **Stages of the literature review** (created by author)

The articles search resulted with n = 460 articles in total which before the screening in total of 65 duplicates has been excluded. During the first screening review 395 articles were selected for the full text screening, 16 of which missed the text. In total, 233 articles have been reviewed in full text screening. During the full text screening 171 articles were excluded for various reasons, the detailed view of the results can be found in Figure 2 above. At the end of reviewing, a total of 47 articles had been included for the systematic literature review.

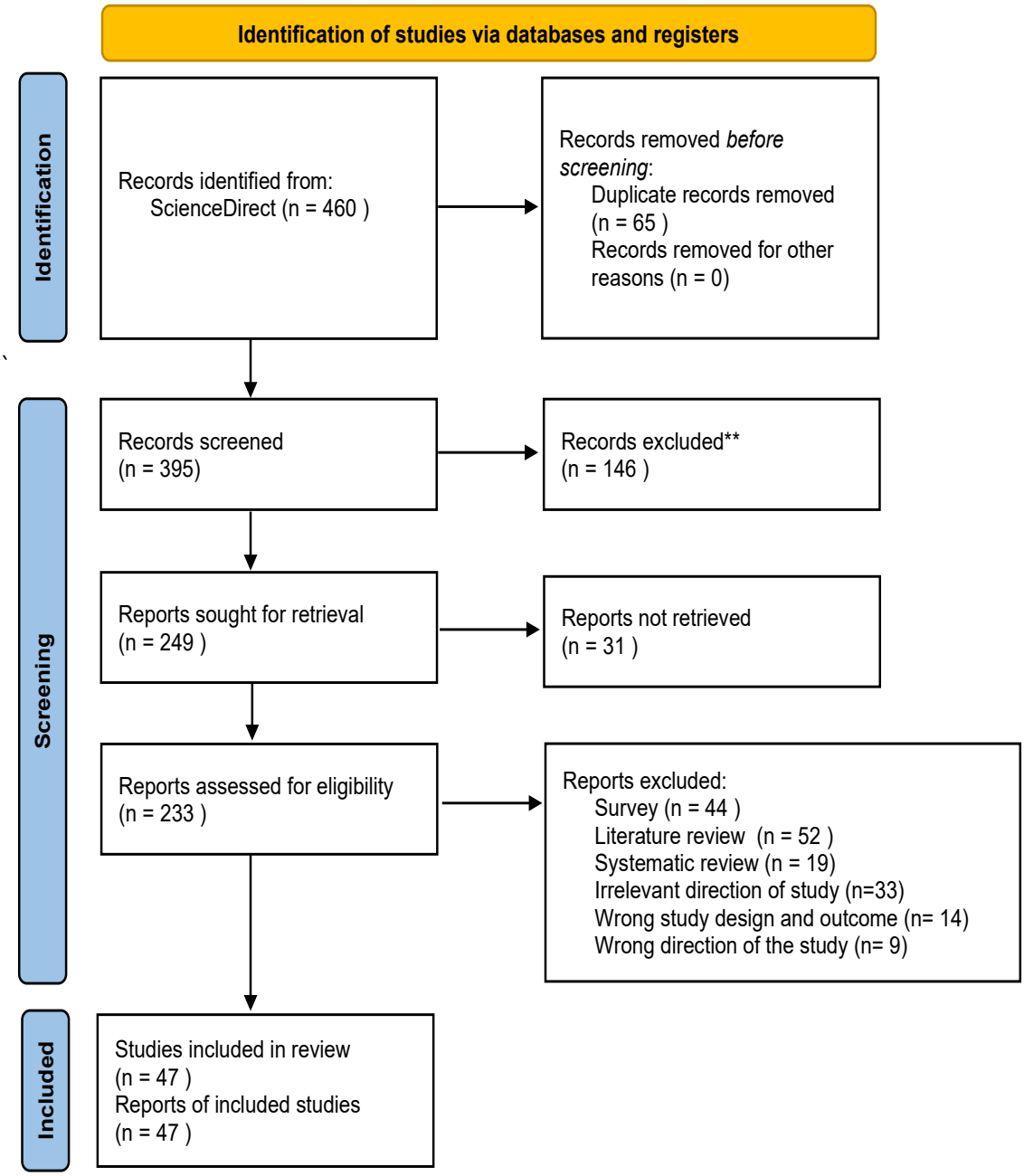

Figure 2. **PRISMA flow diagram** (created by author)

Results based on literature review

The aim of the research is to identify the dilemmas mentioned in the selected articles by the authors. The research showed that despite generalized concepts there are a lot of different dilemmas which are faced by the different companies when they are digitally transforming. These dilemmas are caused by the focus, resource, goals, level, the size and other factors of the companies. Therefore, after extracting the dilemmas the classification and impact graph of these classes is created.

Systematic research analysis of the literature

To remain competitive, and even exist, it is now vital for institutions to determine and implement the right digital transformation processes and institutions must navigate various dilemmas during their digital transformation (DT) journeys. Two primary approaches guide this transformation process. The first sees digital transformation as rebuilding core structures of institutions such as *Customer Experience, Operational Processes and Business Models*. The second, with a slightly newer approach, defines digital transformation as an integrated application of digital technologies influencing all aspects of society and businesses.

Table 1

Literature analysis: extraction of possible managerial dilemmas during DT

No.	Title of the Article	Mentioned dilemmas
1	A. Hallin et al. (2022). Digital Transformation And Power Relations. Interpretative Repertoires Of Digitalization In The Swedish Steel Industry.	Vulnerability of workers against DT
2	A. Hallin et al. (2022). Digital Transformation And Power Relations. Interpretative Repertoires Of Digitalization In The Swedish Steel Industry.	Job loss vs Closing gap on positions
3	A. Hallin et al. (2022). Digital Transformation And Power Relations. Interpretative Repertoires Of Digitalization In The Swedish Steel Industry.	Organizational traditions vs Demands of technological advancement
4	Afef Khalil et al. (2022). Do Digital Technologies Influence The Relationship Between The COVID-19 Crisis And SMEs' Resilience In Developing Countries?	Costs of high technology vs connectivity and DT
5	Afef Khalil et al. (2022). Do Digital Technologies Influence The Relationship Between The COVID-19 Crisis And SMEs' Resilience In Developing Countries?	Lack of governmental prioritizations vs DT requirement
6	Afef Khalil et al. (2022). Do Digital Technologies Influence The Relationship Between The COVID-19 Crisis And SMEs' Resilience In Developing Countries?	Advanced High-technology ideas vs compatibility of small business
7	Afef Khalil et al. (2022). Do Digital Technologies Influence The Relationship Between The COVID-19 Crisis And SMEs' Resilience In Developing Countries?	Financial investment on human resource vs technology.
8	S. Kraus et al. (2023). Digital Entrepreneurship: The Role Of Entrepreneurial Orientation And Digitalization For Disruptive Innovation.	Resistance in entrepreneurial firms vs application on not entrepreneurial firms
9	Celia Rangel-PéRez et al. (2023). Study On The Strategic Influence Of Corporate Social Responsibility In The World'S Most Digitised Banks.	Traditional service vs digital service and fintech
10	Celia Rangel-PéRez et al. (2023). Study On The Strategic Influence Of Corporate Social Responsibility In The World'S Most Digitised Banks.	Ethical governance vs end to end digital process
	Celia Rangel-PéRez et al. (2023). Study On The Strategic Influence Of Corporate Social Responsibility In The World'S Most Digitised Banks..	Improvement of traditional service vs competing with competitors for DT
.....		
111	Feng Zhang et al. (2021). Organizational Unlearning, Knowledge Generation Strategies And Radical Innovation Performance: Evidence From A Transitional Economy.	Unlearning previous experience vs employee resistance to change

Despite any of the chosen approach businesses face various types of dilemmas in every step of the transformation and in the following sections, the author will delve into the key dilemmas mentioned in the literature that the organizations face during the digital transformation. These include

balancing financial investment with uncertainties, managing innovation versus established practices, and addressing the impact of technological advancements on employees and organizational culture.

In this phase, based on detailed analysis of the chosen (n = 47) articles 111 dilemmas related to the application of digital technologies were discovered. Table 1 includes those dilemmas.

The rapid development of digital transformation brings significant managerial challenges, particularly in balancing financial investments with the uncertainties and competitive pressures. As highlighted by (Qiao et al., 2024), organizations must allocate resources towards digital development while managing these risks. The role of the transformation leaders is crucial in navigating these trial phases, ensuring innovative approaches are effectively implemented. Concurrently, as discussed by (Dieste et al., 2022), organizations face the dilemma of achieving financial returns from digital investments while maintaining effective digital governance and decentralization of decision-making.

Employee impact and resistance to digital transformation pose additional challenges. (Hallin et al., 2022) discuss the vulnerability of workers against digital technologies and the need to balance traditional practices with the demands of technological advancements. Similarly, (Tóth et al., 2022) highlight the professional dilemmas between core business practices and the skills required for digital adaptation. These tensions underline the importance of addressing employee concerns and organizing a culture that supports digital change.

Technological infrastructure and cultural differences further complicate the digital transformation landscape. (Khalil et al., 2022) emphasize the high costs of technology against the need for connectivity and digital transmission, particularly in the context of SMEs in developing countries. The inconsistency between advanced high-tech ideas from developed regions and the capabilities of smaller companies in other areas add another layer of complexity, requiring a nuanced approach to digital implementation. Besides the challenges of data sharing versus cybersecurity(Tóth et al., 2022) and the legal basis versus urgency of digital transformation, (Sumbal et al., 2024) highlight the critical balance between innovation and regulatory compliance.

Organizational change and governance are pivotal in digital transformation. As (Leal-Rodríguez et al., 2023) note, aligning organizational culture with new digital transformation efforts is essential for success. This alignment is further complicated by the need to unlearn previous practices (Zhang et al., 2022) and the resistance to change often encountered during digital transformations. Moreover, balance between managerial control and worker empowerment (Monod et al., 2024) and the strategic importance of maintaining financial investments while integrating new technologies (Oliveira et al., 2022) are necessary considerations for leaders.

Innovation and competitiveness drive many digital transformation initiatives. Companies must navigate the tension between improving traditional methods and competing with modern digital strategies, as discussed by (Rangel-Pérez et al., 2023)). The drive for innovation versus value creation (Sjödin et al., 2020) and exploration of new technologies versus leveraging proven ones (Volberda et al., 2021) are key dilemmas that organizations must address to stay competitive in a rapidly evolving market.

Finally, the impact of digital transformation on sustainability and ethics is increasingly important. (Chen et al., 2024) emphasize the need to balance sustainable market strategies with digital adaptation, while also considering the broader implications of digital operations on business

performance. These considerations are vital for ensuring that digital transformation efforts contribute positively to both organizational goals and societal well-being.

Systemization of the dilemmas

After detailed analysis of the chosen articles based on the context of managerial dilemmas, a total of 111 dilemmas faced by the organizations have been discovered in researches. Those dilemmas based on the area and object of the dilemmas have been classified under 15 groups:

1) Collaboration and partnerships: the dilemmas which are caused by including partnership, collaborations and ecosystem integration.
2) Cultural and regional differences: The dilemma occurs when the innovation is being transferred from abroad.
3) Customer experience: The dilemma is how customer will perceive the innovative solutions or the cycle the provider company is in.
4) Cybersecurity: The big data and necessity of collecting and sharing the data brings the security concerns of these processes.
5) Data management: collecting, merging, storing and using this data requires systematic and complex data management strategies.
6) Digital leadership and strategic prioritization: Digital world and working environments require a well skilled new digital leaders which can cause to sacrifice traditional leaders who are important for the operations
7) Employee influence and resilience: This dilemma is about the issues faced to manage cooperation with the employees and their inclusion into the change, also the resistance of the workers against the change
8) Financial and resource allocation: This is the main dilemma when the allocation of the finance and human resources of the company requires well assessed decision making and risk management
9) Innovation and competitiveness: Applying digital transformation while competing in the market is the main point for the companies
10) Organizational change and governance: Digitally being transformed and keeping the over control of the company
11) Regulations and compliance: Applying digital environment and keeping it aligned with the internal and external regulations.
12) Sustainability and ethics: keeping the balance between digitalization and ethical and environment considerations
13) Talent and skills: Issues on acquiring and developing necessary skills and recruiting skilled people.
14) Technological challenges: Issues faced by the companies on adaptation and integration of new technologies
15) Workforce adaptation: Struggles with ensuring user acceptance and effective transformation of digital tools.

Table 2 shows dilemmas mentioned in the chosen literature as well as their classification under the umbrella groups.

Table 2

Classification of mentioned dilemmas under umbrella groups

No.	Mentioned dilemmas	Classification of dilemmas
2	Job loss vs closing gap on positions	Employee impact and resistance
4	Costs of high technology vs connectivity and DT	Technological challenges and financial and resource allocation
5	Lack of governmental prioritizations vs DT requirement	Digital leadership and strategic prioritization
6	Advanced High-technology ideas vs compatibility of small business	Cultural and regional differences
7	Financial investment on human resource vs technology.	Financial and resource allocation
	Drive innovation vs value creation	Innovation and competitiveness
14	Organizational culture/stability vs new digital transformation	Organizational change and governance
19	Decentralizations vs benefits of communication	Digital leadership and strategic prioritization
28	DT vs non digital perspectives to meet customer expectation	Customer experience
31	Business interests vs vast amount of customer data	Data management
34	Mass learning vs real time connectivity of adaptation	Talent and skills
…….		
42	Lack of knowledge vs exploration of new opportunities	Workforce adaptation
50	Pace of technological advancements vs scalability and measuring of societal impacts	Technological challenges
53	Legal basis vs an urge of the digital transformation	Regulations and compliance
54	Digital transformation vs data security	Cybersecurity

As it has been discussed in the literature analysis above the background of the hard decision-making process, in other words, managerial dilemmas occur because of competitiveness in the market. Controlling the product (service) process, predictability of digital transformation, uncertainty of application of new tools and etc. play a crucial role and create the ground for companies to think more than once to bring it up and continue digitalization. Digital transformation can take years to be hundred percent compatible with the organizations, also the adaptation of the organizations and the employees and employers are crucial in this procedure. Taking into account the two most important indicators for companies: time and resources, the author has created the impact graphs of these dilemmas. The impact graph shows in which time dimension and resource dimension those dilemmas are effective, and why it is creating a dilemma for the organizations to take a path. In time dimension they have been separated into short term and long term, which covers the area, where the application of new innovations and putting everything to the new rails could take years or could happen in months. From a resource perspective which includes the assets,

financial, human, and products of the companies and which can happen with less resources or could require more resources from every department. The detailed graph impact is in Figure 3.

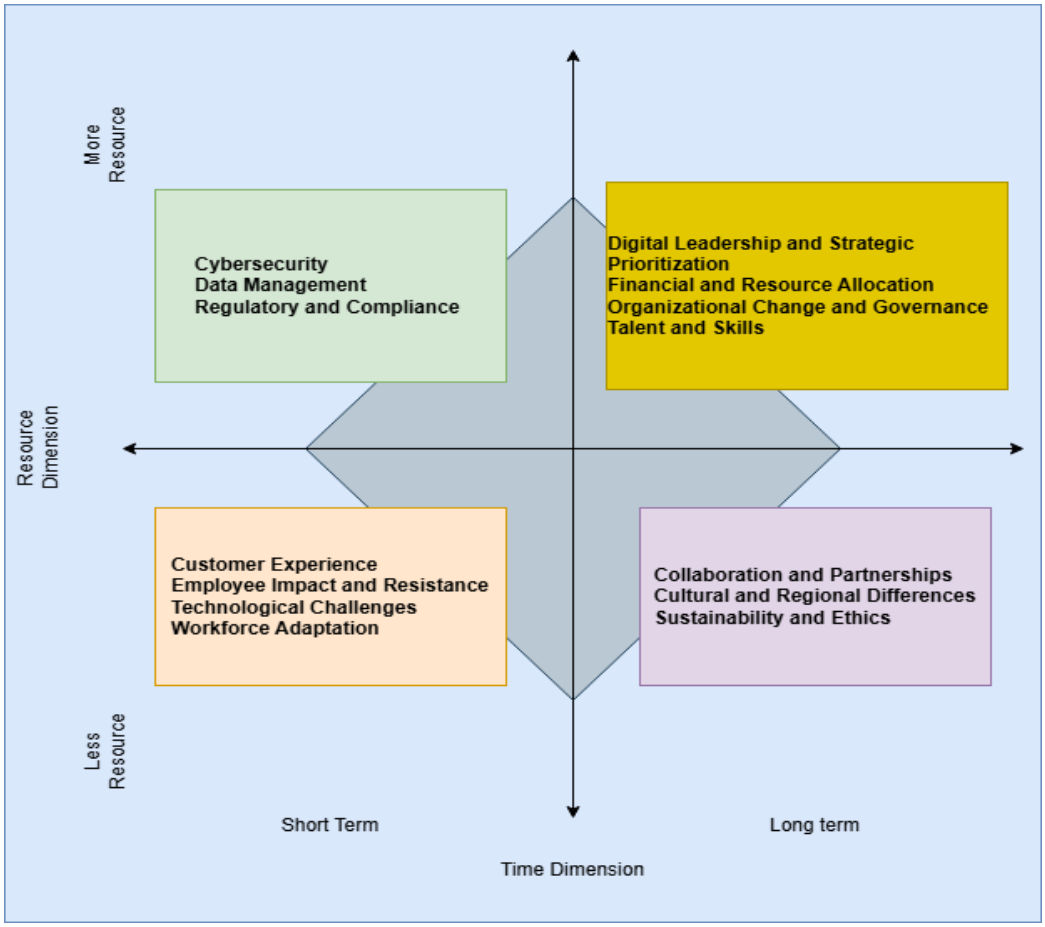

Figure 3. **Impact graph of dilemmas on the dimensions of Resource and Time** (created by author)

Discussion and Conclusions

Digital transformation could be not the term of today, but digital transformation is taking place today and climbing other stairs towards the innovative world with fully digitalized business processes. If previously it was an option, now it has become an essential and unavoidable step that companies should take in order to continue their operations and stay competitive in the market. Although digitalization is a total self-awareness journey for organizations which happens inside of the priorities and dynamics of each company with their organizational culture, all discussed these dilemmas are the common point for them. It could differentiate from company to company as to the context of the market, field positioning, and etc. but each company faces those dilemmas; different shape in this self-awareness adventure which they have to take a path or make a critical decision to follow and make the organization ready for the future.

It could seem that the technologies used is at the center of the digital transformation, but those technologies, innovations and novelties are just a single part or the just the only independence of this journey which is known and visible and its just a part of the entire strategy. Human resources,

financial resources, corporate culture, choosing the correct approach, correct strategic planning and others play a critical role in successful digital transformation (see Figure 4).

This paper touches detailed explanations, classification and systemization of the dilemmas faced or could be faced by the companies during digital transformation. It is based on detailed literature review of 47 selected scientific papers on the topic. The author made the classification of 111 outlined dilemmas in Table 2 during digital transformation process explored.

Organizations that know the two cultures, culture they have and the culture they want to have, they can base the transformation process on the right foundations and can make it a part of their new culture. With digital transformation, it is possible to solve problems or add new ones to the existing problems. The benefit of a successful digital transformation project to the companies starts with creating an innovative culture that will provide change and development in the long term.

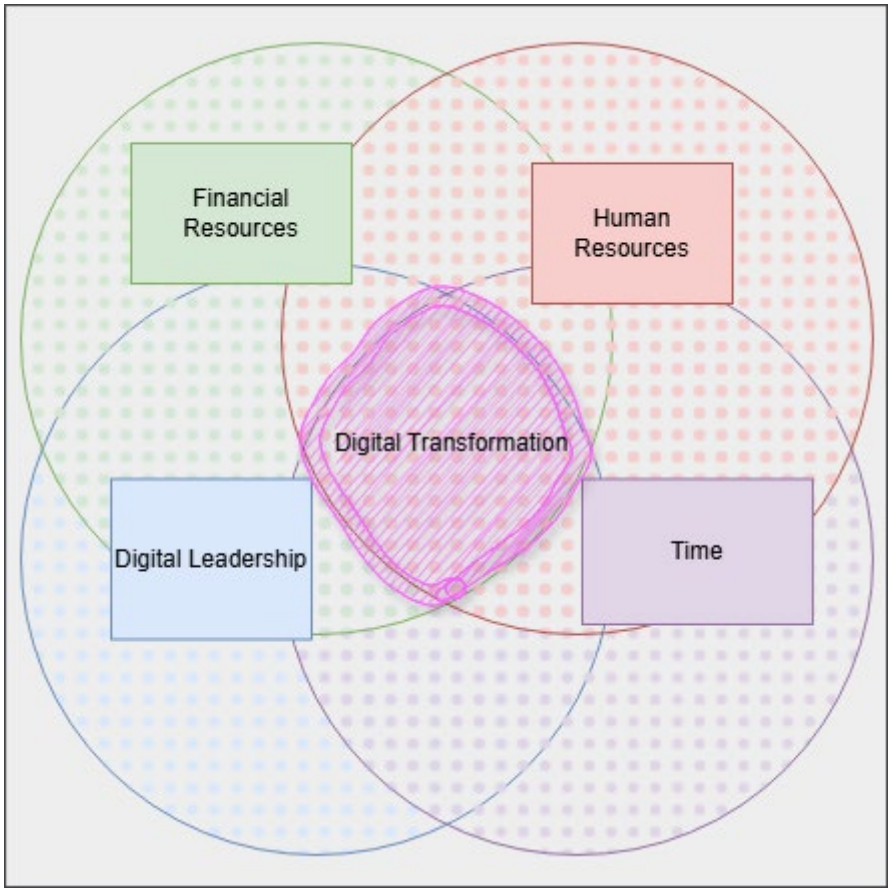

Figure 4. **Requirements to successfully digitally transform the organization** (created by author).

This literature analysis provides several opportunities for further research on managerial dilemmas during digital transformation and related topics. Future research could focus on identifying the impact of financial and human resource dilemmas in specific industries during digital transformation periods. Such studies would provide deeper insights into how these challenges affect the overall success and sustainability of digital initiatives.

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MANAGEMENT STRATEGIES TO IMPROVE GREEN TRANSPORTATION PERFORMANCE IN COLOMBO: STRATEGIC, QUALITY, AND RISK REVIEW

Pallage Jayathilaka
Turiba University, Latvia
tharindujayathilaka@hotmail.com

Abstract

The growing urbanization of Colombo has put a burden on its transportation infrastructure, resulting in congestion, pollution, and inefficiency. This study investigates the importance of strategic, quality, and risk management in building sustainable green transportation systems. While global research demonstrates the environmental and economic benefits of green mobility, Colombo faces barriers like fragmented policies, funding limits, and regulatory shortages. The report underlines the importance of strategic management in aligning transportation goals with sustainability, quality management to improve service reliability, and risk management to reduce financial and operational uncertainty. Based on international best practices from cities such as Copenhagen and Singapore, this study presents a comprehensive framework for improving Colombo's transportation network. Colombo can build a robust, eco-friendly transportation system that meets global sustainability targets while addressing local infrastructure and governance difficulties by embracing strategic foresight, quality control measures, and proactive risk mitigation.

Keyeords: Green transportation**,** Smart mobility solutions, Sustainable urban mobility

Introduction

The growing urbanization of Colombo poses a huge strain on its transportation infrastructure, resulting in traffic congestion, pollution, and economic inefficiency. The implementation of green transportation systems, such as electric vehicles (EVs), automobile infrastructure, and enhanced public transportation options, are a critical step toward sustainable urban mobility. However, success implies a strong organizational structure that includes strategic, quality, and risk dimensions as a result (Chowdhury & Ceder, 2016; Dimitriou & Thompson, 2020).

Previous research has thoroughly investigated the purpose of green transportation in urban mobility, emphasizing its ability to minimize environmental impact while increasing economic efficiency. According to studies, communities that implement sustainable transportation policies benefit from lower emissions, better public health, and increased economic output (Taniguchi, 2018; Dimitriou & Thompson, 2020). However, there is still a considerable deficit in research on the integration of strategic, quality, and risk management frameworks into the construction of green transportation systems, particularly in developing cities like Colombo. While most existing research focuses on technology breakthroughs and policy recommendations, there is little discussion about the systematic use of management principles to ensure the successful implementation and sustainability of these projects.

Strategic management is critical for aligning long-term goals with the resources required to construct green transportation networks. Effective planning, policymaking, and stakeholder participation are critical for creating an effective and efficient system. International studies show that including sustainability goals into urban planning is critical for improving transportation infrastructure and lowering carbon footprints (Taniguchi, 2018; Dimitriou & Thompson, 2020). Despite its potential, Colombo's green transportation programs have been hampered by fragmented legislation, insufficient finance, and lax regulatory enforcement, necessitating a comprehensive and integrated approach.

Implementing quality management and risk mitigation techniques is also critical for assuring the dependability, accessibility, and safety of green transportation systems. Total Quality Management (TQM) frameworks have been shown to enhance service delivery, customer satisfaction, and operational efficiency in international transportation projects (Currie and Rose, 2018; Ramos et al., 2019). At the same time, proactive risk management is required to address financial uncertainties, technological constraints, and the effects of climate change. Incorporating global best practices and learning from cities like Copenhagen and Singapore will help Colombo create a sustainable and resilient green transportation system (Fan et al., 2019; Miro, 2018).

To effectively leverage these technologies, Colombo must establish an integrated approach that incorporates quality, risk, and strategic management approaches. Strategic alignment ensures that resources are allocated to address urban transportation issues while prioritizing environmental goals. Quality management frameworks, which include performance benchmarking and user feedback systems, can help to improve commuter satisfaction and sustain service levels. At the same time, risk management approaches such as public-private partnerships and climate-resilient infrastructure have the potential to minimize uncertainty while ensuring long-term profitability. In addition to increasing system performance, these activities contribute to international sustainable development goals (Chowdhury & Ceder, 2016; Katsikouli et al., 2020).

Furthermore, customized solutions based on global best practices are necessary to solve Colombo's unique socioeconomic and environmental challenges. Overcoming problems such as financial constraints, community opposition, and technological gaps necessitates applying lessons from international success stories to Colombo's urban environment. To promote innovation and accountability, government agencies, business investors, and civil society organizations must collaborate.

This study will look at the role of strategic, quality, and risk management in the effective deployment of green transportation in Colombo. By examining existing difficulties and investigating international best practices, this study aims to provide a systematic framework for improving Colombo's urban transport sustainability while addressing its particular infrastructure and legislative restrictions. Finally, the findings of this study will help to design a more connected and resilient transportation system that is consistent with global sustainability goals.

Literature Review

This chapter will review existing research on management techniques for increasing green transportation performance, with an emphasis on strategic, quality, and risk management implications. The review will emphasize best practices, difficulties, and lessons from worldwide case studies as a framework for comprehending Colombo's distinct atmosphere.

Strategic Management in Green Transportation

Strategic management plays a critical role in aligning green transportation systems with long-term environmental and urban development goals. Studies indicate that well-defined strategic objectives enable cities to design transportation systems that balance environmental sustainability with economic growth and social well-being (Dimitriou & Thompson, 2020; Taniguchi, 2018). A strategic approach helps integrate green technologies, such as electric vehicles and improved public transport infrastructure, which can minimize carbon emissions in high-density areas. Furthermore, a well-structured strategic management plan can facilitate stakeholder alignment, ensuring that public and private entities collaborate effectively (Sperling & Gordon, 2019). Colombo's green transportation strategy, therefore, could benefit from clear, actionable goals focused on reducing emissions and increasing public transportation usage, as well as incorporating green policies, incentives, and public education.

Quality Management for Green Transportation Performance

Quality management has been recognized as a significant factor in enhancing the operational efficiency and user satisfaction of green transportation systems. Quality initiatives in transportation often focus on improving service reliability, safety, and accessibility, which are essential for increasing public adoption (Ramos et al., 2019; Currie & Rose, 2018). Research suggests that quality management frameworks, such as Total Quality Management (TQM), can effectively streamline processes, reduce waste, and enhance the overall performance of public transportation systems (Chowdhury & Ceder, 2016). For Colombo, incorporating quality management practices could help address challenges in service reliability and improve the commuter experience, encouraging a shift from private vehicles to sustainable alternatives like buses or bicycles. Implementing quality control processes could also support maintenance and scheduling, both crucial for the consistent operation of eco-friendly transport modes.

Risk Management in Green Transportation Systems

Risk management is another essential component in the successful implementation of green transportation systems, particularly in urban areas prone to socio-political and environmental challenges (Katsikouli et al., 2020). In the context of green transportation, risk management helps identify and mitigate various types of risks, including operational risks (such as system downtime), financial risks, and regulatory uncertainties (Fan et al., 2019). Urban transportation systems in Colombo face unique risks related to rapid urbanization, economic constraints, and regulatory compliance. Research has shown that adopting a proactive risk management approach enables transportation planners to respond swiftly to disruptions and minimize potential losses (Miro, 2018). For Colombo, implementing comprehensive risk assessment tools can mitigate the negative impacts of infrastructure development and operational challenges on the green transportation initiative.

Integrated Management Approaches and Green Transportation Outcomes

The integration of strategic, quality, and risk management practices is essential for enhancing the performance of green transportation systems, as each area addresses a distinct aspect of operational effectiveness and sustainability. An integrated approach that leverages these three

management types has been demonstrated to improve system efficiency, reduce environmental impacts, and foster user trust in public transportation (Gonzalez et al., 2017; Ferrer & Thurston, 2020). Such approaches promote adaptability and innovation in response to changing urban transportation needs and enable cities to better navigate the complexities associated with green infrastructure. Colombo's green transportation initiatives would likely benefit from a holistic management framework that combines these three dimensions, thereby enhancing not only the performance but also the resilience of the city's transportation network.

Integration of Green and Intelligent Mobility

In order to promote sustainable mobility, Sun (2022) emphasizes the significance of integrating green energy and intelligent transportation systems. According to Kaleem et al. (2024), the study illustrates that enhancing the efficiency of Colombo's green transportation systems requires using hybrid models and leveraging smart technologies.

In conclusion, enhancing the performance of green transportation systems in Colombo, Sri Lanka, requires strategic management, quality management, and risk management. In order to promote green mobility solutions, these factors—which have been supported by recent research—highlight the necessity of an integrated approach that incorporates risk mitigation techniques, sustainable habits, and technology advancements.

Strategic Management's Contribution to the Development of Green Transportation Systems: Learnings from International Best Practices

By coordinating technology developments with sustainable development objectives, strategic management plays a critical role in the advancement of green transportation systems. In order to ensure long-term sustainability and efficiency, Ball and Weeda (2015) stress the significance of strategic foresight in the hydrogen economy, which can be extended to green transportation systems. According to Jia et al. (2024), the digital economy may strengthen the transportation industry and support green efforts by implementing creative tactics that improve efficiency and lessen their negative effects on the environment.

Additionally, according to Ding and Liu (2024), combining strategic management aids in developing a roadmap for combining intelligent systems with renewable energy. Their empirical study from China shows how green economic growth is fueled by strategic planning that prioritizes sustainable infrastructure. Furthermore, as examined by Kaleem et al. (2024), the application of hybrid models and federated learning emphasizes the significance of a strategic approach to risk management and energy efficiency optimization in green transportation systems.

Ultimately, strategic management guarantees that green transportation systems in Colombo and comparable areas are prepared to satisfy changing environmental criteria, utilizing sustainable methods and smart technologies to attain long-term achievement.

Approaches for Quality Assurance in Sustainable Transportation

For green transportation systems to be implemented and run effectively, quality management is essential. According to actual data from China, Ding and Liu (2024) show how infrastructure development that prioritizes quality improves the efficiency of green transportation systems. Their

research shows that dependable, sustainable, and effective mobility solutions are the result of upholding high standards in both construction and maintenance.

Furthermore, the integration of Green Internet of Things (IoT) technology is covered by Kaleem et al. (2024), and it significantly depends on quality management to guarantee data accuracy and system dependability. This strategy supports the objectives of sustainable transportation systems by lowering operating risks and increasing energy efficiency.

In intelligent transportation systems, where smart technologies are used to develop seamless, environmentally friendly mobility solutions, Sun (2022) highlights the necessity of quality control. Green transportation systems can satisfy the requirements for environmental sustainability, performance, and safety by maintaining high standards.

In outcome, by guaranteeing the dependability, security, and general effectiveness of green transportation systems, quality management is crucial to their optimization. Green transport infrastructure in Colombo and other comparable areas can meet better performance criteria that support sustainable urban mobility by integrating empirical research and technology developments.

Strategies for Risk Management in Eco-Friendly Transportation Systems: Connecting Theory and Practice

For green transportation systems to be successful and sustainable, risk management is essential. In their hybrid model for energy-efficient Green IoT-enabled intelligent transportation systems, Kaleem et al. (2024) stress the significance of controlling risks related to data reliability and technical integration. In green transport networks, this strategy reduces uncertainty and fosters resilience.

According to Jia et al. (2024), risk management is crucial for enabling industries to increase green total factor productivity, especially in digital and intelligent transportation systems. Effective risk management helps firms minimize any disruptions and guarantee a more seamless adoption of sustainable technologies.

The necessity of strategic risk assessment in intricate and dynamic systems is also highlighted by Ball and Weeda (2015), who discuss risk management in the context of the hydrogen economy. For green transportation systems, where unpredictable elements like environmental difficulties, technical advancements, and legislative changes must be taken into consideration, this viewpoint is essential.

In addition to reducing uncertainty, integrating risk management into green transportation improves the overall effectiveness oqf sustainable mobility solutions. Colombo and other areas may create robust transportation systems that strike a balance between operational effectiveness and environmental objectives by employing cutting-edge models and tactics.

Methodology

Research Aim

This study examines thoroughly at how risk, quality, and strategic management may help improve public and private transportation systems in Colombo using green energy sources. Through a comprehensive literature review, the study emphasizes the advantages and benefits of moving from

fuel-based to green transportation while taking into account challenges, developing technologies, and changing mobility patterns. This study provides a comprehensive understanding of a management framework adapted to Colombo's specific socioeconomic and environmental conditions, thereby promoting the development of a sustainable green transportation system in Sri Lanka.

Research Question

How have risk, quality, and strategic management influenced the development of the green transportation system in Colombo, Sri Lanka?

Research Methods

Data Collection

This study did a comprehensive literature review to gather relevant articles about the transformative influence of green energy sources in the transportation industry in Colombo, Sri Lanka. The main databases used in this study were scientific ones such as Science Direct, Research Gate, and Scopus, which supplied information about green energy transportation in Europe and neighboring countries. The search included only publications published between 2015 and 2024, with a focus on recent advancements made during the previous nine years. Articles for study were chosen using a thorough screening approach. While the key phrases used for the search were green energy, green energy sources, sustainable public transit, biofuel transportation, and smart mobility solutions, they all produced relevant information to the topic. A refined set of publications satisfying the research requirements was also discovered after removing a considerable number of papers from the initial search, as well as duplicates, meaningless studies, and items published outside of the authorized time frame.

Data Analysis

The selected articles were initially evaluated using theme analysis. The impacts of green transportation, complete collaboration, policies, sustainable transportation modes, decision-making in green transportation development, and the transition's risks. The analysis involved identifying reciting themes, transport patterns, and insights in the collected literature. The use of theme analysis enabled the extraction of significant data and insights, allowing for a complete understanding of the managerial changes occurring within quality, risk and strategies of the green transportation in Colombo, Sri Lanka.

Findings and Discussion

The findings provide insights into management aspect of risk, quality, and strategies towards green transportation development, policies, sustainable transportation modes and public transport patterns.

Table 1

Key findings on sustainable transportation, Risk, Quality and Strategic management approaches related green transportation

Category	Cognitions	Sources
Decision-Making in Green Transportation Development	Framework for optimizing transport networks	Chowdhury & C.A. (2016), Sperling & G.D. (2019)
Sustainable Transportation Modes	Role of green energy and technological advancements	Ferrer & T.H. (2020), Sun (2022), Miro (2018)
Policies Supporting Green Transportation	Best practices, regulatory frameworks, and policy recommendations	Currie & R.J. (2018), Ramos et al. (2019), Taniguchi (2018)
Complete Collaboration in Transportation Development	Integrated management practices and technological advancements	Gonzalez et al. (2017), Katsikouli et al. (2020), Kaleem et al. (2024)
Risks Associated with the Transition to Green Transportation	Challenges, financial and operational risks, and infrastructure impact	Dimitriou & T.R. (2020), Fan et al. (2019), Xiuying Ding & X.L. (2024), Ball & W. (2015)

The table 1 proves significant topics of green transportation research into five major categories. Chowdhury & C.A. (2016) and Sperling & G.D. (2019) both emphasize the importance of decision-making in green transportation development for improving transport networks. Sustainable transportation options are investigated via the lens of green energy and technological improvements, as addressed by Ferrer & T.H. (2020), Sun (2022), and Miro (2018). Currie and R.J. (2018), Ramos et al. (2019), and Taniguchi (2018) underline the importance of policies in promoting green transportation by outlining best practices and regulatory frameworks. Gonzalez et al. (2017), Katsikouli et al. (2020), and Kaleem et al. (2024) all emphasize the importance of complete collaboration in transportation development for integrated management techniques. At last, Dimitriou & T.R. (2020), Fan et al. (2019), Xiuying Ding & X.L. (2024), and Ball & W. (2015) discuss the hazards associated with the transition to green transportation, which include financial, operational, and infrastructure problems. These findings provide a thorough understanding of sustainable transportation and the methods required to advance its growth.

Conclusion

To successfully deploy green transportation systems in Colombo, Sri Lanka, an integrated strategy involving proactive risk reduction, quality management, and strategic planning is necessary. A well-structured transportation framework will ensure that the transition to sustainable mobility is smooth and adaptable to changing demands. This necessitates coordination among government agencies, business stakeholders, and urban planners to create legislation, infrastructure, and financial models that promote green activities.

Risk management is crucial in protecting Colombo's green transportation initiatives from financial, technological, and environmental difficulties. Financial sustainability can be achieved through a variety of funding sources, including public-private partnerships, government subsidies, and international grants. To increase efficiency and reliability, technological improvements such as the use of electric vehicles, smart transit systems, and the integration of renewable energy must be promoted. Managing environmental risks include implementing climate-resilient infrastructure,

reducing carbon emissions, and incorporating nature-based solutions into urban transportation design.

By tackling these risks, Colombo will be able to build an efficient transportation infrastructure capable of adapting to future difficulties and outages. The city should also establish ongoing monitoring and evaluation processes to analyze the impact of green transportation policies and improve them as needed. Encouraging public behavior changes, such as boosting the use of public transportation, cycling, and walking, will help to achieve sustainability goals.

By integrating quality, risk, and strategic management strategies, Colombo may set a standard for sustainable urban mobility in Sri Lanka. These initiatives will not only enhance the city's economic efficiency by reducing congestion and fuel costs but will also significantly improve the quality of life for its residents. A well-planned green transportation network will contribute to lower pollution levels, reduced traffic-related health issues, and overall environmental conservation. Moreover, it will position Colombo as a leader in green transportation initiatives, encouraging other urban centers in Sri Lanka to adopt similar sustainable mobility solutions.

Research Limitations

The shortage of primary data collecting, surveys, or interviews may limit the depth of the study and make it more difficult to examine varied viewpoints from passengers and transportation agency owners.

The databases employed in the literature study, which include Science Direct, Scopus, and Research Gate, may have an inherent bias toward academic sources. Furthermore, the study's temporal focus article, published between 2015 and 2024, may overlook fresh breakthroughs in green transportation and emerging trends.

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A COMPARATIVE ANALYSIS OF WOMEN'S RIGHTS IN INTERNATIONAL LAW AND ISLAMIC JURISPRUDENCE: CONVERGENCES, DIVERGENCES, AND PATHWAYS FOR HARMONIZATION

Sahibzada Yasir Jamal
Turiba University, Latvia
-sahibzada_yasir@yahoo.com

Abstract

The study compares how international law and Islamic jurisprudence deal with specific women's rights, including education, inheritance, marital rights, and finally, violence against women. Drawing on a doctrinal and comparative methodology based on primary sources such as the Quran, Hadith, and international treaties-e.g., CEDAW-the paper will draw from secondary literature and case studies such as Opuz v. Turkey and the Shah Bano Case. Analysis of general principles of respect for dignity and education, non-discrimination, protection from violence was also covered against some key divergence areas. Some jurisdictions, for instance, grant a specific number of shares related to gender under Islamic jurisprudence in a country's inheritance law, which works against the stand of international law on equality. Similarly, the concept of marital rights reflects different methods of approach concerning gender roles and divorce. Some results have placed stress on the problems witnessed at some places against cultural misinterpretation and an inflexible adherence to traditional historical texts. The paper, therefore, goes on to propose pathways to harmonization through the use of ijtihad for contextual reinterpretation, legal pluralism, education, and awareness. The approaches can bridge gaps between the two systems to ensure that women's rights are protected while making considerations for cultural and religious traditions. Therefore, this research calls not only for a pluralistic, inclusive framework but also one in which equity and equality are balanced in advancing gender justice globally.

Keywords: Women's Rights, Islamic Jurisprudence, International Law, Gender Justice, Legal Pluralism

Introduction

Women's rights have long been central to global discussions on equality and justice, with international law and Islamic jurisprudence offering distinct yet occasionally overlapping frameworks for addressing these issues. International law, guided by key treaties such as the *Convention on the Elimination of All Forms of Discrimination Against Women* (*CEDAW*, 1979), has sought to establish universal standards for gender equality (United Nations, 1979). However, the Islamic principles of jurisprudence, arising out of Quran and Hadith themselves, reflect approaches based on right yet lean towards equity sometimes over equality (Esposito, 2001).

The point of juncture of the two systems has been the subject of tremendous debate, where cultural and religious norms seem to flout international legal obligations (Freeman et al., 2012). For instance, the Quran grants women rights to inheritance (Quran 4:7) and education (Sahih

al-Bukhari, Vol. 1, Book 3, Hadith 59), which are in line with international standards, while at the same time certain interpretations of Islamic law have been criticized for perpetuating patriarchal structures (Wadud, 1999). This divergence gives rise to critical questions of compatibility, reform, and the potential for harmonization.

The article attempts to overview the convergences and divergences between them on three core issues, namely education, work, and family law; see whether it can accommodate the reconciliation between the universalist imperatives of international law with context-specific prescriptions that Islamic jurisprudence alone has been able to offer; weighs the various arguments, using case laws, legal instruments, and scholarly works in making an informed and critical assessment of the opportunities and obstacles presented to worldwide feminist goals.

Literature Review

The literature review goes through existing research on women's rights in both international law and Islamic jurisprudence, discussing major legal frameworks, their principles, and their actual applications.

Women's Rights in International Law

The seminal treaties and conventions on the question of women's rights within international law have been pivotal in shaping the discourse on what is required. The *Universal Declaration of Human Rights* (UDHR, 1948) provided the foundation for the universal recognition of human rights with a principle of gender equality. Later, the *Convention on the Elimination of All Forms of Discrimination Against Women* (*CEDAW*, 1979) through its far-reaching aspirations, it provided the foundation on which women rights' advocacy developed at the global plane. CEDAW mentions disallowing discriminations in areas of education, labor, health concerns, and in matters under the family code. Articles 2 and 5 are particularly very noteworthy because through them, states parties are invited even to revise existing discriminatory practices that have been created by them apart from confronting generally culturally accepted practices that condone gender inequities. (United Nations, 1979).

Implementation challenges, however, persist. Many countries have entered reservations to CEDAW, citing conflicts with cultural and religious practices (UN Women, 2015). For instance, Muslim-majority states often highlight the perceived incompatibility of certain CEDAW provisions with Islamic principles. Scholars such as Charlesworth and Chinkin (2000) argue that international law has historically marginalized women's experiences, pointing to the need for an inclusive and intersectional framework. Additionally, landmark cases such as *Opuz v. Turkey* (2009) underscore the importance of enforcing state obligations to protect women from gender-based violence under international law.

Women's Rights in Islamic Jurisprudence

Islamic jurisprudence (fiqh) provides a rights-based framework grounded in primary sources: the Quran and Hadith. The Quran explicitly grants women rights to inheritance (Quran 4:7), education, and economic independence, which were revolutionary for 7th-century Arabia (Esposito, 2001).

For example, the Hadith emphasizes the importance of education, stating that seeking knowledge is an obligation for both men and women (Sahih al-Bukhari, Vol. 1, Book 3, Hadith 59).

However, the application of these principles varies across cultural and historical contexts. Classical interpretations of Islamic law often reflect patriarchal societal norms, resulting in restrictions on women's rights in areas such as divorce, guardianship, and public participation (Hidayatullah, 2014). Legal cases such as the *Shah Bano Case* (1985) illustrate the tensions between traditional Islamic law and modern legal frameworks in addressing women's rights.

Contemporary scholars advocate for the reinterpretation of Islamic texts through ijtihad (independent reasoning). Reformists like Amina Wadud (1999) argue for gender-egalitarian readings of the Quran, emphasizing the distinction between divine principles and human interpretations. An-Naim (2008) similarly asserts that Islamic principles can align with international human rights norms when contextualized appropriately.

Convergences and Divergences

Despite their distinct foundations, international law and Islamic jurisprudence share common ground in recognizing women's rights. For instance, both frameworks emphasize the right to education. CEDAW's Article 10 requires states to eliminate discrimination in education (United Nations, 1979), while Islamic jurisprudence emphasizes the importance of knowledge for all individuals (Sahih al-Bukhari, Vol. 1, Book 3, Hadith 59). Similarly, both systems condemn violence against women, as seen in cases like *Opuz v. Turkey* (2009) under international law and Islamic injunctions against harm within families (Quran 4:19).

Nevertheless, significant divergences remain. While international law is universalist in nature and hence holds on to formal equality, Islamic jurisprudence, on many occasions, gives substantive equity and at times totally contextual and gendered-roles-based equity (Esposito, 2001). While, for example, international law would provide equal inheritance, the Quran determines women receive half share in comparison with men in such circumstances (Quran 4:11). These differences, therefore, underline the need for dialogue and reform which can bridge gaps between the two systems.

The reformist approaches do bring in hope for harmonization. Scholars like Wadud (1999) and Barlas (2002) call for an interpretive contextual approach to Islamic principles to conform to contemporary gender justice. Such attempts exemplify how harmonization between Islamic jurisprudence and international law can indeed be made possible and become essential to progress toward a more gender-sensitive world.

Conceptual Framework

The framework for comparative analysis adopted by this study compares the positions of women's rights under international law with those in Islamic jurisprudence. In developing the concept, the core of this paper is based on three important concepts:

1. **Equality vs. Equity**: International law emphasizes formal equality, treating men and women identically, while Islamic jurisprudence focuses on equity, addressing the different roles and responsibilities of genders to ensure fairness.

2. **Universalism vs. Contextualism**: International legal norms boast of universality, while Islamic jurisprudence in practice embeds cultural and historical contexts.
3. **Harmonization Potential**: Locating points of convergence-for example, common emphases on education and protection from violence-and points of divergence-inheritance laws, for instance-to suggest routes to alignment.

It is within this framework that one gets the lens to understand how these systems interact, align, and diverge to identify practical solutions that can move forward on women's rights.

Methodology

The approach adopted in this research is doctrinal and comparative:

Doctrinal Analysis: Primary sources include international treaties, for example, CEDAW, Quranic verses, Hadiths, while secondary sources include scholarly interpretations, case law, and commentaries.

Comparative Analysis: Examines similarities and differences between international law and Islamic jurisprudence on key issues such as education, inheritance, and marital rights.

Case Studies: Selected cases, such as *Opuz v. Turkey* (2009) are used to illustrate practical applications and tensions between these systems. Other cases such as *White v. White* (2000) in the UK, *Brande v. Brande* (1976) in the UK and *Shah Bano Begum v. Union of India* (1985) are used to illustrate the tensions and reform opportunities in financial settlements.

This approach eschews complex quantitative methods in favor of qualitative analysis to derive at meaningful insights.

Analysis

The analysis makes a critical comparison between the similarities and differences of the two legal systems in regard to specific areas: marriage, inheritance, and battery rights, and sheds light on some limitations each system faces in its application.

Education

Both international law and Islamic jurisprudence emphasize the right to education, with significant alignment in principles. Article 10 of CEDAW mandates the elimination of gender discrimination in education, requiring equal access to quality education at all levels (United Nations, 1979). Similarly, the Hadith declares, “Seeking knowledge is an obligation upon every Muslim” (Sahih al-Bukhari, Vol. 1, Book 3, Hadith 59).

However, challenges arise in implementation. In many Muslim-majority countries, cultural practices or socio-economic factors limit women’s access to education. For instance, Pakistan has ratified CEDAW but faces low female literacy rates due to systemic issues, including patriarchal norms and limited resources (UN Women, 2015). Islamic jurisprudence, when applied in its true spirit, supports education for women as a means of empowerment and societal betterment. Reformist scholars argue that prioritizing education aligns with both religious and international principles (Wadud, 1999).

Inheritance

Inheritance laws demonstrate one of the starkest divergences. International law, under Article 16 of CEDAW, prohibits discrimination in inheritance rights, emphasizing equality (United Nations, 1979). In contrast, the Quran specifies gender-based inheritance shares, granting women half the share of men in specific contexts (Quran 4:11).

This difference often invites criticism of Islamic jurisprudence as being inequitable. However, Islamic scholars argue that these laws consider broader financial responsibilities assigned to men, such as the duty to provide for the family (Esposito, 2001). Critics counter that these provisions reflect historical contexts and call for reinterpretation through ijtihad to align with contemporary gender justice (Barlas, 2002).

Marital Rights and Family Law

One of the starkest divergences between international law and Islamic jurisprudence lies in financial settlements following divorce. International law, as seen in many Western legal systems, often entitles women to a significant share of marital assets and ongoing alimony. This reflects an equality-based principle, recognizing the contributions of both partners, whether financial or non-financial, during the marriage. For example, in the landmark case of *White v. White* [2000] UKHL 54, the UK courts upheld the principle of fairness in asset distribution, ensuring a near-equal division of property to avoid gender-based financial disparities. Similarly, in the United States, *Brande v. Brande*, 535 S.W.2d 558 (Ky. 1976), emphasized the spouse's right to alimony when economic disparity exists post-divorce.

Islamic jurisprudence, on the other hand, adopts an equity-based approach. Women are entitled to their *mahr* (dowry) as a contractual right, along with financial maintenance during the waiting period (*iddah*), as stipulated in the Quran: *"And for divorced women is a provision according to what is acceptable – a duty upon the righteous"* (Quran 2:241). The case of *Shah Bano Begum v. Union of India* (1985) illustrates the tension between Islamic law and secular legal systems. Here, the Indian Supreme Court granted alimony under secular law, sparking debates about the sufficiency of Islamic provisions in modern contexts. Reformist scholars, such as Wadud (1999), argue that Islamic principles allow for broader interpretations to align with contemporary realities, where women often contribute significantly to household wealth.

While international law prioritizes equality in marital rights, Islamic jurisprudence emphasizes specific roles and responsibilities. Critics argue for harmonizing these approaches by reinterpreting Islamic principles through *ijtihad* to ensure fairness in cases where women's economic contributions are substantial. This would reflect the broader Quranic ethos of justice and mutual respect in marriage (Quran 30:21).

Violence Against Women

Both frameworks strongly condemn violence against women. International law provides comprehensive protections, such as the Declaration on the Elimination of Violence Against Women (1993) and CEDAW's general recommendations. Cases like *Opuz v. Turkey* (2009) highlight state responsibility for preventing domestic violence.

Islamic jurisprudence prohibits harm, as the Prophet Muhammad says: "The best of you is the one who is best to his family" (Sunan al-Tirmidhi, Hadith 1162). At the same time, certain abusive

practices are justified by misinterpretation of cultural ideas in the name of religion. Scholars argue that cultural behaviors must be separated from those explicitly enshrined by Islam and urge proponents to enforce firm protections through the Islamic legal system (Esposito, 2001).

Pathways for Harmonization

Harmonizing international law and Islamic jurisprudence requires addressing divergences without undermining the foundational principles of either framework. Potential pathways include:

Contextual Reinterpretation: Employing ijtihad in reinterpreting Islamic precepts within contemporary realities, for example, considering the realities of modified societal roles when reassessing the division of inheritance to better meet a standard of equity (Wadud, 1999).

Legal Pluralism: Coexistence of international and religious legal systems-let individuals decide on frameworks in which to exist, depending upon their belief and context (An-Naim, 2008).

Education and Awareness: Fostering accurate perceptions of both Islamic teachings and international principles to overcome all misconceptions in order to help achieve a step toward convergence.

Findings

The findings show commonality in objectives on how women's rights are advanced but great divergence in means between the two systems since international law seeks to promote equality while Islamic jurisprudence is more about equity and faces huge challenges in application and cultural acceptability.

Shared Principles

Both international law and Islamic jurisprudence are committed to the protection of the dignity of women, promotion of education, and condemnation of violence against women. Such alignments reflect universal ethical values, showing the possibility of collaboration in these areas.

Key Divergences

Inheritance Laws: Islamic jurisprudence allocates the shares based on gender roles, while international law provides for equal distribution.

Marital Rights: Islamic law permits unilateral male divorce, or talaq, that contradicts the international call for gender equality.

Gender Roles: On the basis of equity, Islamic jurisprudence has often preserved gendered roles, while international law attempts to get rid of such gender-based distinctions altogether.

Implementation Challenges

In fact, Islamic principles and cultural practices are often misinterpreted, which results in a failure to correctly apply women's rights in most Muslim countries. On the other hand, international law also faces difficulties in applying its universalist approach to different cultural and religious contexts.

Opportunities for Reform

Islamic jurisprudence provides methods like ijtihad, or independent reasoning, through which reinterpretation of the laws in the context of modern realities can be done. International law can learn from identifying context-specific applications as a method for guaranteed better adoptions in diverse societies.

Building on Shared Principles: Both systems stress female dignity and education and protection from violence. These shared points can be the base for cooperation.

Legal Pluralism: The pluralistic approach would be that the individual can decide between the secular and religious legal frameworks, a factor that encourages inclusivity and respect for diversity.

Public Awareness and Dialogue: This requires a collaborative effort from governments and scholars in the education of the public on the principles of both systems, addressing misconceptions to ensure informed reform. Conflicts can be resolved and consensus built through collaborative dialogues between Islamic scholars and international legal experts.

This approach can bridge gaps, ensuring that women's rights are protected while respecting cultural and religious traditions.

Conclusion

Greater integration of their respective strengths in Islamic jurisprudence and international law can allow for a more holistic legal framework with regard to the rights of women to emerge. While Islamic jurisprudence espouses fairness and moral rectitude, as evident within specifically contextual solutions that it offers, the letter and spirit of international law make for universal values and strong implementation mechanisms. Their partial reconciliation can thus usher in a scheme that respects cultural diversity while serving the ends of justice and engendering gender equality. This harmonization calls for collaboration between religious scholars, legal experts, and policy thinkers. Both systems can learn from each other by a reinterpretation-ijtihad, so to say-in Islamic law and a context-sensitive application of international norms. This would foster a pluralistic legal framework that upholds human rights while being sensitive toward cultural and religious values.

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THE HARMONIZATION OF INTERNATIONAL LAW AND NATIONAL LAW SYSTEMS IN ENSURING A HIGH-LEVEL PROTECTION OF HUMAN RIGHTS

Marius Kailius Orcid
Turiba University, Latvia
m.kailius@gmail.com

Abstract

The harmonization of international and national legal systems plays a crucial role in ensuring a high level of human rights protection. This article explores the mechanisms through which international law influences domestic legal frameworks and vice versa. Particular attention is given to the role of regional human rights courts, inter-jurisdictional dialogue, and the challenges posed by legal fragmentation. By examining judicial decisions and legal developments across different regions, the article highlights the increasing convergence of human rights norms and their implementation at the national level.

Keywords: International law; protection of human rights

Introduction

Legal systems and traditions play a crucial role in shaping the protection and enforcement of human rights globally. Different legal systems—such as common law, civil law, religious law, and customary law–affect how human rights principles are interpreted, applied, and enforced within national jurisdictions. Civil law systems, found in many European and Latin American countries, rely on codified statutes and comprehensive legal frameworks that integrate human rights protections into national constitutions and legal codes. Common law systems, prevalent in countries like the United States and the United Kingdom, emphasize judicial precedents and case law, allowing courts to develop human rights protections dynamically. Religious legal systems, such as Islamic law (Sharia), incorporate religious principles into legal frameworks, influencing human rights practices based on religious doctrines. Customary law, often observed in indigenous and local communities, can either support or conflict with international human rights norms, depending on cultural traditions and legal evolution.

Fragmentation[33] and constitutionalizing[34] have been regarded as two contradictory discourses in international law.[35] Furthermore, regionalization of human rights protection and proliferation of judicial organs have been considered to hinder consistency of human rights norms. Given that truth lies somewhere in between, this paper discusses harmonization of human rights norms through judicial interpretation by regional courts in indigenous rights cases. It first demonstrates the

[33] International Law Commission, Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law, UN Doc A/CN.4/L.682, 13 April 2006.

[34] J Klabbers, A Peters & G Ulfstein (eds), The Constitutionalization of International Law (2009).

[35] H G Cohen, `From Fragmentation to Constitutionalization' (2011) 24 Pacific McGeorge Global Business & Development Law Journal; UGA Legal Studies Research Paper No 11–14.

multiplication of regional human rights courts and their law-making function in general, and then turns to the case of indigenous peoples. It concludes that a dialectic interpretation of indigenous rights has been developed through regional jurisprudence.

The relationship between international law and national legal systems plays a crucial role in safeguarding human rights. As globalization accelerates and cross-border interactions intensify, the harmonization of international legal norms with domestic legislation becomes increasingly significant in ensuring a high level of human rights protection. International treaties, conventions, and customary principles establish universal standards, yet their implementation depends on national legal frameworks that vary across jurisdictions. The effectiveness of human rights protection hinges on how well international legal obligations are translated into national laws and judicial practices, ensuring that individuals can effectively exercise their rights within their domestic legal system.

Despite these challenges, legal harmonization has proven to be a powerful tool in strengthening human rights protections. Supranational institutions, such as the United Nations, the European Court of Human Rights, and regional human rights bodies, play a key role in promoting compliance and fostering uniformity in legal interpretations. Moreover, comparative legal analysis, judicial dialogue, and international cooperation have emerged as effective strategies to reconcile differences and enhance the implementation of human rights law.

The **main aim** of this article is to analyse the process of harmonization between international human rights law and national legal systems, identifying key challenges, best practices, and legal mechanisms that contribute to a higher level of human rights protection. By evaluating the effectiveness of legal harmonization, this study seeks to provide insights into how national jurisdictions can better implement international human rights obligations while maintaining their legal sovereignty[36].

Methodology: to get the necessary information and data for research complement, the author used independent internet resources and knowledge gained by Lithuanian and EU regulation

The recommendations are made based on the personal evaluation of legal regulation in EU and other researchers. Also it includes doctrinal Legal Research: Analyzing primary sources such as international treaties, human rights conventions, national constitutions, and judicial decisions to understand legal provisions and their application. Also, comparative Legal Analysis: Examining how different countries incorporate international human rights law into their domestic legal systems, highlighting effective strategies and existing challenges.

Objectives of the research are:

1. To analyze the legal frameworks governing the harmonization of international human rights law and national legal systems, identifying the strengths and weaknesses of monist and dualist approaches in ensuring effective human rights protection.
2. To examine the key challenges and obstacles that hinder the integration of international human rights norms into domestic legal frameworks, including issues related to sovereignty, political resistance, legal pluralism, and inconsistent enforcement mechanisms.

[36] See for example, Owens, M., Reflection on Future War, Naval War College Review 2008, p.61-76; Glenn, R., All Glory is Fleeting: Insights from the Second Lebanon War, RAND, Santa Monica 2012; Jordan l., Hybrid War: Is the US Army Ready for the Face of 21st Century Warfare, US Army Command and General Staff, 2008.

3. To evaluate successful models and best practices from different jurisdictions that have effectively harmonized their national laws with international human rights obligations, providing recommendations for improving legal alignment and enhancing human rights protections globally.

The Role of Legal Systems and Legal Traditions for Human Rights Protection

Legal systems and traditions play a crucial role in shaping the protection and enforcement of human rights globally. Different legal systems—such as common law, civil law, religious law, and customary law—affect how human rights principles are interpreted, applied, and enforced within national jurisdictions. Civil law systems, found in many European and Latin American countries, rely on codified statutes and comprehensive legal frameworks that integrate human rights protections into national constitutions and legal codes. Common law systems, prevalent in countries like the United States and the United Kingdom, emphasize judicial precedents and case law, allowing courts to develop human rights protections dynamically. Religious legal systems, such as Islamic law (Sharia), incorporate religious principles into legal frameworks, influencing human rights practices based on religious doctrines. Customary law, often observed in indigenous and local communities, can either support or conflict with international human rights norms, depending on cultural traditions and legal evolution.

Despite these differences, international human rights treaties, such as the International Bill of Human Rights, serve as a unifying framework that influences national legal traditions and promotes universal human rights standards. Regional human rights mechanisms, such as the European Court of Human Rights and the Inter-American Court of Human Rights, further reinforce human rights protections across different legal traditions. However, challenges remain, including conflicts between national sovereignty and international human rights obligations, as well as the need for stronger enforcement mechanisms to ensure compliance[37]. Ultimately, the effectiveness of human rights protection depends on the interaction between legal traditions, judicial independence, and the willingness of states to uphold international norms within their legal frameworks.

International Bill of Human Rights as a Universal Legal Instrument Relevant to Crisis Situations

The International Bill of Human Rights, comprising the Universal Declaration of Human Rights (UDHR), the International Covenant on Civil and Political Rights (ICCPR), and the International Covenant on Economic, Social and Cultural Rights (ICESCR), establishes fundamental principles for human rights protection. These instruments provide a universal legal foundation, particularly relevant during crises when governments may impose restrictions on civil liberties. Their provisions, such as non-derogable rights, offer guidance on permissible limitations and state responsibilities in emergencies. The International Bill of Human Rights, composed of the Universal Declaration of Human Rights (UDHR), the International Covenant on Civil and Political Rights (ICCPR), and the International Covenant on Economic, Social and Cultural Rights (ICESCR), serves

[37] Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR), 4 November 1950, 213 UNTS 221, Art 19; Protocol to the African Charter on Human and Peoples' Rights on the Establishment of an African Court on Human and Peoples' Rights, 9 June 1998, 1001 UNTS 45, Art 3.

as a fundamental framework for the protection of human rights. This legal corpus gains particular relevance in times of crisis, including armed conflicts, pandemics, economic downturns, and humanitarian emergencies, ensuring the protection of fundamental freedoms and human dignity.

Legal Foundations and Universality The International Bill of Human Rights establishes universally recognized norms that underpin international human rights law. While the UDHR, adopted in 1948, is not legally binding, it has attained the status of customary international law. The ICCPR and ICESCR, adopted in 1966 and entered into force in 1976, are legally binding treaties that impose obligations on state parties to respect, protect, and fulfill human rights. The universality of these instruments is reinforced through their widespread ratification and incorporation into domestic legal systems[38]. They establish minimum standards that states must uphold even in emergencies, reflecting their adaptability to various crisis scenarios.

Relevance in Crisis Situations:

1. Armed Conflicts and Humanitarian Emergencies Armed conflicts and humanitarian emergencies pose significant threats to fundamental human rights. The ICCPR remains applicable during such crises, though states may invoke derogations in limited circumstances. However, non-derogable rights, including the right to life, the prohibition of torture, and the principles of non-discrimination, must always be upheld. The Geneva Conventions further complement these provisions by establishing rules to protect civilians, prisoners of war, and non-combatants. Additionally, ICESCR obligations ensure that individuals affected by conflict have access to essential services such as healthcare, food, and housing. International humanitarian organizations, such as the International Committee of the Red Cross, play a crucial role in monitoring compliance and delivering humanitarian aid.
2. Pandemics and Health Crises Health crises, such as pandemics, place immense strain on governments and public health systems[39]. The ICESCR, particularly Article 12, obligates states to take measures to prevent, treat, and control epidemic diseases. Governments must ensure equitable access to healthcare services, including vaccinations, medical treatment, and mental health support. The ICCPR, meanwhile, guarantees civil liberties, including freedom of movement and expression. However, public health measures—such as lockdowns, quarantines, and mandatory vaccinations—must be proportional, lawful, and non-discriminatory. The COVID-19 pandemic highlighted the tension between public health concerns and civil liberties, underscoring the necessity of balancing emergency responses with fundamental rights protections.[40]
3. Economic Crises and Social Protection Economic downturns jeopardize the fulfillment of socio-economic rights protected under the ICESCR. Job losses, inflation, and financial instability exacerbate poverty and inequality, disproportionately affecting marginalized

[38] An integrated pan-African court offers opportunities for developing a unified, integrated, cohesive, and hopefully, indigenous jurisprudence for Africa. Years later, this jurisprudence will be used as a yardstick for determining `whether or not one can talk of a regionally peculiar corpus of African international law'. K Kindiki, `The Proposed Integration of the African Court of Justice and the African Court of Human and Peoples' Rights: Legal Difficulties and Merits' (2007) 15 Af JICL 145.

[39] The Right to Information on Consular Assistance in the Framework of the Guarantees of the Due Process of Law (1999) IACtHR Ser A No 16, paras 114–15.

[40] K. Oellers-Frahm, `Multiplication of International Courts and Tribunals and Conflicting Jurisdiction – Problems and Possible Solutions' (2001) 5 Max Planck UNYB 67.

groups. States are obligated to implement policies that uphold the right to work, social security, and an adequate standard of living. Measures such as unemployment benefits, minimum wage regulations, and affordable housing programs serve as crucial safeguards. Additionally, international financial institutions and human rights bodies encourage economic policies that prioritize human dignity over austerity measures. Governments must also ensure that financial relief packages and stimulus measures are distributed fairly, without discrimination or corruption.

4. Natural Disasters and Climate-Related Crises Climate change and environmental disasters, such as hurricanes, wildfires, and rising sea levels, significantly impact human rights. The International Bill of Human Rights establishes state responsibilities to protect individuals from displacement, food insecurity, and water scarcity. The right to a healthy environment, increasingly recognized in international law, underscores the duty of states to adopt climate adaptation and mitigation policies.[41] Vulnerable populations, including indigenous communities and low-income households, often face the greatest risks. Governments must integrate human rights considerations into disaster preparedness plans, ensure access to relief assistance, and prevent forced displacement. International cooperation and adherence to climate agreements, such as the Paris Agreement, are essential in addressing these global challenges.

The International Bill of Human Rights remains a cornerstone of legal protection in times of crisis. Its principles provide guidance for states to navigate emergencies while upholding human dignity and rights. Strengthening enforcement mechanisms and international cooperation is essential to ensure that human rights are not compromised during crises but rather serve as a foundation for resilience and recovery.

Regional Legal Frameworks – European, Inter-American, African, Asia

Regional legal frameworks complement universal human rights instruments by addressing region-specific challenges. The European Convention on Human Rights (ECHR), the American Convention on Human Rights (ACHR), and the African Charter on Human and Peoples' Rights (ACHPR)[42] provide legally binding commitments for member states. While Asia lacks a unified human rights treaty, the ASEAN Human Rights Declaration serves as a guiding framework for Southeast Asian nations. These regional instruments reinforce human rights protections by ensuring accountability and providing enforcement mechanisms through regional courts and commissions.

The protection of human rights has been a central focus of international and regional legal frameworks. While international treaties, such as the Universal Declaration of Human Rights (UDHR) and various United Nations conventions, establish fundamental principles, regional human

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41 P. Dupuy, `The Danger of Fragmentation or Unification of the International Legal System and the International Court of Justice' (1999) 31 NYUJILP 791, 791-792; J I Charney, `Is International Law Threatened by Multiple International Tribunals?' (1998) 271 RCADI 162; R Higgins, `Respecting Sovereign States and Running a Tight Courtroom' (2001) 50 ICLQ.

42 In Purohit v The Gambia, the African Commission affirms that: `In interpreting and applying the African Charter, the African Commission relies on its own jurisprudence, and as provided by articles 60 and 61 of the African Charter, on appropriate and relevant international and regional human rights instruments, principles and standards. The African Commission is, therefore, more than willing to accept legal arguments with the support of appropriate and relevant international and regional human rights instruments, principles, norms and standards taking into account the well recognized principle of universality.' Purohit v The Gambia, ACmHPR Comm No 241/2001, paras 47–48.

rights systems provide mechanisms for enforcement and adaptation to specific cultural, political, and historical contexts. These regional legal frameworks play a critical role in reinforcing human rights by addressing local challenges, offering judicial and quasi-judicial remedies, and promoting accountability among states.

This study examines the legal structures and mechanisms of human rights protection within four major regional systems: the European, Inter-American, African, and Asian frameworks. While Europe, the Americas, and Africa have well-established regional human rights systems with courts and commissions, Asia presents a fragmented approach, reflecting diverse legal traditions and political systems[43]. By analyzing these frameworks, this research seeks to highlight their effectiveness, challenges, and prospects for harmonization with global human rights norms.

The European Human Rights System is among the most developed and influential in the world. It is primarily governed by:

1. The European Convention on Human Rights (ECHR) (1950), enforced by the European Court of Human Rights (ECtHR).
2. The European Union Charter of Fundamental Rights (2000), which binds EU institutions and member states when implementing EU law.
3. The Council of Europe as a key regional body for human rights governance.

Enforcement Mechanisms includes: the European Court of Human Rights (ECtHR) allows individuals and states to bring cases against member states for human rights violations. The European Committee for the Prevention of Torture (CPT) monitors detention conditions. The European Court of Justice (ECJ) ensures the application of human rights principles in EU law. In this scope strengths and challenges that strengths: Strong enforcement mechanisms, legally binding judgments, and high compliance rates, but in such a case we have some challenges: overburdened court system, political resistance from some states, and tensions between EU law and national sovereignty.

The Inter-American human rights system is a key regional mechanism for the protection and promotion of human rights in the Americas. Established under the framework of the Organization of American States (OAS), it provides legal and institutional mechanisms to address human rights violations and ensure state accountability[44]. The system is based on the principles outlined in the American Declaration of the Rights and Duties of Man (1948) and the American Convention on Human Rights (ACHR) (1969), among other treaties[45].

The Inter-American human rights system is primarily composed of two main bodies:

1. The Inter-American Commission on Human Rights (IACHR) – Established in 1959 and headquartered in Washington, D.C., the IACHR monitors human rights conditions, receives petitions from individuals and groups, and makes recommendations to states regarding human rights violations.

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[43] Benin, Burkina Faso, Congo, Libya and Mali. See African Court Coalition, `Ratification Status: Protocol on the Statute of the African Court of Justice and Human Rights.

[44] As of October 2012, only five countries have made such a Declaration. Those countries are Burkina Faso, Ghana, Malawi, Mali, and Tanzania. The African Union Commission, `The African Court on Human and Peoples' Rights'.

[45] African Union Assembly, Decision on the Merger of the African Court on Human and Peoples' Rights and the Court of Justice of the African Union, AU Doc Assembly/AU/Dec.83(V), July 2005.

2. The Inter-American Court of Human Rights (IACtHR) – Established in 1979 and based in San José, Costa Rica, the IACtHR adjudicates cases of human rights violations and issues binding rulings for countries that have ratified the American Convention on Human Rights (ACHR) and accepted the Court's jurisdiction.

Furthermore, additional protocols and treaties under the Inter-American system strengthen the protection of various rights, including:

- The Additional Protocol to the ACHR in the Area of Economic, Social, and Cultural Rights (Protocol of San Salvador, 1988)
- The Inter-American Convention to Prevent and Punish Torture (1985)
- The Inter-American Convention on Forced Disappearance of Persons (1994)
- The Inter-American Convention on Protecting the Human Rights of Older Persons (2015)

The African human rights system serves as a critical mechanism for the protection and promotion of human rights across the continent. Established within the framework of the African Union (AU), this system operates through legal instruments and institutions designed to address human rights violations, ensure state accountability, and promote justice[46]. Unlike other regional human rights frameworks, the African system uniquely emphasizes collective rights, such as the right to self-determination, development, and cultural identity, alongside individual rights.

The African legal framework and Institutional system is primarily governed by the African Charter on Human and Peoples' Rights (Banjul Charter, 1981), which serves as the cornerstone of human rights protection in Africa. To oversee the implementation of the African Charter, three main institutions have been established:

1. The African Commission on Human and Peoples' Rights (ACHPR): Established in 1987 and headquartered in Banjul, The Gambia, the ACHPR is the primary monitoring body responsible for overseeing compliance with the Charter. The Commission consists of 11 independent experts who review complaints of human rights violations, conduct fact-finding missions, and provide advisory opinions. However, its recommendations are non-binding, which limits its ability to enforce decisions[47].
2. The African Court on Human and Peoples' Rights (AfCHPR): Created in 1998 and based in Arusha, Tanzania, the AfCHPR is the judicial arm of the African human rights system. The Court has the authority to issue binding rulings on states that have ratified its protocol, requiring them to take corrective actions in cases of human rights violations. However, only 31 of the 55 AU member states have accepted the Court's jurisdiction, and even fewer (only 8 countries) allow individuals and NGOs to file cases directly.
3. The African Committee of Experts on the Rights and Welfare of the Child (ACERWC): Established in 1999, this body oversees the implementation of the African Charter on the

[46] Hubert D. and Weiss Th., The Responsibility to Protect: Supplementary Volume to the Report of the International Commission on Intervention and State Sovereignty, International Development Research Centre, Canada 2001.

[47] L Burgorgue-Larsen, `The Indirect Contentious Jurisdiction of the Court', in L BurgorgueLarsen & A Ubeda de Torres (eds), The Inter-American Court of Human Rights: Case Law and Commentary (2011) 25, 28. 24 African Charter on Hum

Rights and Welfare of the Child (1990)[48]. It plays a vital role in protecting the rights of children, investigating violations, and issuing recommendations to AU member states.[49]

The African human rights system relies on both judicial and non-judicial enforcement mechanisms, while the institutions within the system provide important legal avenues for addressing human rights violations, their effectiveness remains limited by weak state cooperation and institutional constraints[50]. The African Commission on Human and Peoples' Rights (ACHPR) primarily functions as a quasi-judicial body that investigates human rights abuses and issues non-binding recommendations to states. Individuals, NGOs, and even states can file complaints before the Commission, which then examines the case and advises governments on corrective actions. However, because its decisions lack legal enforceability, many states disregard or delay implementation of the Commission's recommendations.

Despite its binding nature, the Court faces challenges in enforcing its judgments, as many governments simply refuse to comply. Some states, such as Rwanda, Tanzania, and Benin, have even withdrawn from the Court's jurisdiction to avoid scrutiny. This undermines the effectiveness of the Court as a tool for justice and accountability. The African Union (AU), as the governing body of the system, has the potential to enforce compliance through diplomatic measures and political pressure. However, the AU has historically been reluctant to impose sanctions on member states that violate human rights rulings. Instead, enforcement often relies on external actors, such as civil society organizations, international human rights bodies, and regional economic communities.

The system has also played an increasing role in conflict resolution and transitional justice. The Commission and Court have investigated human rights abuses in conflict zones, including Sudan, Ethiopia, and the Democratic Republic of Congo. Their efforts have helped bring international attention to war crimes and human rights violations, contributing to post-conflict justice initiatives. In recent years, the AfCHPR has issued landmark rulings on freedom of expression, political rights, and indigenous land rights. The case of Konaté v. Burkina Faso (2014), for example, strengthened press freedom in Africa by ruling that criminal defamation laws should not be used to suppress journalism. Such decisions have influenced national legal systems, encouraging African courts to adopt progressive human rights interpretations.

Despite these achievements, the African human rights system faces serious obstacles that hinder its effectiveness[51]. One of the biggest challenges is weak enforcement. Many African governments simply ignore rulings from the ACHPR and AfCHPR, citing national sovereignty as justification[52]. Without a strong enforcement mechanism, compliance remains inconsistent, weakening the credibility of the system.[53]

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48 An integrated pan-African court offers opportunities for developing a unified, integrated, cohesive, and hopefully, indigenous jurisprudence for Africa. Years later, this jurisprudence will be used as a yardstick for determining `whether or not one can talk of a regionally peculiar corpus of African international law'. K Kindiki, `The Proposed Integration of the African Court of Justice and the African Court of Human and Peoples' Rights: Legal Difficulties and Merits' (2007) 15 Af JICL 145.

49 See V O Orlu Nmehielle, The African Human Rights System: Its Laws, Practice, and Institutions (2001).

50 African Charter on Human Rights and Peoples' Rights (Banjul Charter), 28 June 1981, 1520 UNTS 217.

51 Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) notwithstanding Security Council Resolution 276 (1970), ICJ Reports 1971 p 16, 31.

52 G L Neuman, `Import, Export, and Regional Consent in the Inter-American Court of Human Rights' (2008) 19 EJIL 101, 111.

53 M Killander, `Interpreting Regional Human Rights Treaties' (2011) 7 SUR IJHR 145, 154.

Political interference and state withdrawals have also undermined the Court's authority. Some governments, such as Rwanda and Tanzania, have withdrawn from the Court's jurisdiction after facing adverse rulings. Others have restricted civil society participation, preventing individuals and NGOs from bringing cases before the Court. This resistance to human rights scrutiny limits access to justice for victims. Another significant issue is the limited accessibility of the Court for individuals. Unlike the European Court of Human Rights, which allows direct petitions from any citizen of a member state, the AfCHPR only accepts cases from individuals in countries that have explicitly accepted its jurisdiction. As a result, millions of Africans are unable to seek justice at the regional level, weakening the Court's ability to serve as an effective human rights watchdog.

Unlike other regions such as Europe, the Americas, and Africa, Asia lacks a unified and binding regional human rights system. The continent's vast political, cultural, and legal diversity has resulted in a fragmented approach to human rights governance, where human rights protections are primarily handled at the national level, supplemented by regional declarations and frameworks that have limited legal enforceability[54]. The absence of a regional human rights court or a binding human rights treaty means that human rights issues in Asia are largely managed within individual state legal systems, leading to inconsistencies in protection, enforcement, and accountability[55].

The region's human rights landscape is shaped by subregional organizations such as the Association of Southeast Asian Nations (ASEAN) and the South Asian Association for Regional Cooperation (SAARC). While these organizations have adopted human rights declarations and charters, their frameworks emphasize non-interference in domestic affairs, which significantly weakens their enforcement power. Additionally, some countries in Asia have established National Human Rights Institutions (NHRIs) to provide domestic oversight, but their effectiveness varies widely depending on the political environment and legal independence of these bodies.

The absence of a comprehensive regional human rights system in Asia is largely due to geopolitical complexities, cultural differences, and varying levels of commitment to human rights among states. While ASEAN and SAARC have attempted to introduce regional human rights frameworks, these remain largely declaratory, lacking strong legal enforcement mechanisms. The ASEAN Human Rights Declaration (2012) is the most significant regional human rights document in Asia. Adopted by the Association of Southeast Asian Nations (ASEAN), it sets out fundamental human rights principles but is not legally binding, meaning it relies on voluntary compliance from member states. ASEAN's commitment to the principle of non-interference in domestic affairs has led to minimal accountability mechanisms, with governments resisting external scrutiny of their human rights records.

Another key organization, the South Asian Association for Regional Cooperation (SAARC), has expressed commitments to human rights in its founding documents, but it has no formal human rights treaty or enforcement body. SAARC primarily focuses on economic and regional cooperation rather than human rights protection, and political tensions between major member states—such as India and Pakistan—have further weakened its ability to foster a unified human rights agenda. Outside of ASEAN and SAARC, bilateral agreements, trade partnerships, and individual state policies

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54 Convention concerning the Protection and Integration of Indigenous and Other Tribal and Semi-Tribal Populations in Independent Countries, 26 June 1957, 328 UNTS 247.

55 Kevin Mgwanga Gunme v Cameroon (2003) ACmHPR Comm No 266/03, para 176 (`The Commission deduces [...] that peoples' rights are equally important as are individual rights. They deserve, and must be given protection').

influence human rights governance in Asia. Countries such as Japan, South Korea, and India have independent national legal frameworks that uphold human rights principles, while others, such as China and Myanmar, face ongoing international criticism for human rights abuses.

Additionally, the role of National Human Rights Institutions (NHRIs) varies significantly across Asia. Some countries, like Indonesia and the Philippines, have strong and independent NHRIs that investigate abuses and make recommendations to the government, while others, like Vietnam and China, either lack independent bodies or operate state-controlled institutions that offer limited protection for victims of human rights violations.

Within SAARC, no institutional mechanism exists for human rights enforcement. Although SAARC has recognized the importance of human rights, political disputes between member states have prevented the establishment of a regional human rights court or monitoring body[56]. Without a judicial or quasi-judicial enforcement mechanism, human rights protections in South Asia remain heavily dependent on national legal systems, which vary significantly in their effectiveness. At the domestic level, National Human Rights Institutions (NHRIs) play an essential role in monitoring and advocating for human rights, but their influence depends on their level of independence from the state. For example, the National Human Rights Commission of South Korea is regarded as one of the strongest in the region due to its ability to operate independently and issue recommendations. In contrast, other NHRIs, such as those in China, Myanmar, and Vietnam, are state-controlled and lack meaningful autonomy, serving more as government agencies than independent watchdogs.

Despite its weaknesses, the Asian human rights framework has made notable progress in some areas, particularly through national-level human rights protections and growing regional dialogues. One of the key strengths of the system is that many Asian countries have incorporated human rights protections into their national constitutions and legal frameworks. For instance, Japan, India, South Korea, and Indonesia have established strong legal protections for civil liberties, freedom of expression, and political rights. These countries also allow judicial review, where national courts can challenge government policies that violate constitutional rights.

One of the biggest obstacles is the lack of a legally binding regional human rights treaty or enforcement body. Unlike in Europe or the Americas, where human rights courts can hold states accountable, Asian governments remain resistant to external legal scrutiny, prioritizing national sovereignty over regional accountability. State sovereignty concerns continue to undermine regional cooperation on human rights[57]. Many Asian governments—especially in authoritarian states such as China, North Korea, and Myanmar—reject external criticism of their human rights records and actively suppress dissent. Even within democratic states, human rights protections are often selectively applied or compromised for political stability[58].

Another major challenge is weak enforcement mechanisms within existing regional bodies. AICHR lacks the power to investigate violations or sanction non-compliant states, while SAARC has failed to establish any human rights monitoring system[59]. Without enforcement tools, these organizations

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56 United Nations General Assembly Resolution 3314 (XXIX), A/RES/3314, (UNGAR 3314), 14 December 1974.

57 Hsiao A., Is China's Policy to Use Force against Taiwan a violation of the Principle of Non-Use of Force under International Law, New England Law Review, 1998, Vol. 32.

58 Valek P., Is Unilateral Humanitarian Intervention Compatible with the UN. Charter, Michigan Journal of International Law, 2005, vol. 26.

59 V. Orlu Nmehielle, The African Human Rights System: Its Laws, Practice, and Institutions (2001).

remain largely symbolic. Political conflicts and tensions between member states also hinder human rights cooperation. Ongoing disputes between India and Pakistan, China's influence over ASEAN, and authoritarian rule in several countries prevent meaningful progress in regional human rights enforcement. The Asian human rights framework remains underdeveloped compared to other regions, primarily due to the lack of a binding regional treaty, a human rights court, and strong enforcement mechanisms. While progress has been made in certain national contexts, the overall system suffers from fragmentation, state sovereignty concerns, and limited accountability mechanisms.

Conclusions

1. Based on the above analysis, it is important to note that The research highlights significant disparities in human rights protection across regional systems. While Europe and the Americas have established strong legal frameworks with binding enforcement mechanisms, Africa and Asia continue to struggle with weak enforcement, state resistance, and political interference.
2. Despite the existence of regional human rights bodies, enforcement remains a major challenge in all systems except Europe. In Africa and the Americas, states often refuse to comply with rulings from human rights courts, undermining the effectiveness of judicial decisions.
3. Although international law is far from achieving a constitutionalist order, legal norms are subject to judicial interaction. Accordingly, judicial interpretation enables the development of common standards within regions systems.

Recommendations

1. Regional human rights systems must be strengthened by enhancing the independence, jurisdiction, and enforcement mechanisms of human rights courts while ensuring that states fully comply with their rulings. This requires expanding the jurisdiction of existing courts, such as the African Court on Human and Peoples' Rights (AfCHPR) and the Inter-American Court of Human Rights (IACtHR), to prevent selective recognition or withdrawal by states seeking to avoid accountability. In Asia, the establishment of a regional human rights court is crucial to addressing the lack of a binding enforcement mechanism.
2. To ensure long-term effectiveness, greater collaboration between regional human rights institutions, national courts, and civil society organizations is essential in reinforcing accountability and human rights promotion. National Human Rights Institutions (NHRIs) must be granted greater independence and resources to investigate violations, while civil society organizations (CSOs) and the media should be given an expanded role in monitoring, reporting, and pressuring governments to uphold human rights commitments. Governments should be encouraged to ratify key regional human rights treaties and remove reservations that limit individual and NGO access to regional courts, particularly in Africa and Asia.

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A SYSTEMATIC REVIEW OF DRIVER SHORTAGES IN TRANSPORTATION SECTOR

Alona Kokina
Turiba University, Latvia
kokina.alona@gmail.com

Abstract

The global transportation sector is the one of the main components of commerce, ensuring goods and services reach their destinations efficiently. However, the industry is fighting with a severe driver shortage, which threatens supply chain stability and economic growth. This review explores the causes of the crisis, including hard working conditions, insufficient wages, an aging workforce, and long-standing disruptions from the COVID-19 pandemic. Using a scoping review methodology aligned with PRISMA guidelines, this study synthesizes findings from major academic databases to identify key themes and proposed solutions. The analysis reveals that a negative job perception, a lack of career growth, and regulatory barriers have further worsened the workforce shortage. Solutions such as improving wages and working conditions, implementing favorable labor policies, and advancing automation technologies are proposed to mitigate the crisis. While automation offers long-term possibilities, immediate reforms are necessary to attract and retain a skilled workforce. This study provides valuable insights for policymakers, industry leaders, and researchers trying to address this pressing challenge.

Keywords: Driver shortage, truck drivers, transportation, labor shortage

Introduction

The transportation sector is fundamental to modern economies, ensuring the smooth movement of goods and people across local and international markets. It encompasses diverse industries such as air freight, logistics, airlines, marine transport, road and rail systems, and infrastructure. These industries, in turn, include specific segments such as trucking, airport operations, marine ports, and highway networks. Over time, transportation has evolved from a basic means of delivery to an industry where efficiency, cost-effectiveness, and sustainability are most important. Among various transportation modes, road freight remains dominant due to its flexibility and well-established infrastructure.

Despite its crucial role, the transportation sector faces persistent challenges, with labor shortages ranking among the most pressing concerns. Factors such as high fuel costs, stringent regulations, demanding work environments, and an aging workforce have significantly strained the industry. Companies are seeking innovative solutions, such as optimizing delivery routes and integrating electric vehicles for short-haul urban transport. However, for long-haul logistics, freight trucking remains irreplaceable.

The trucking industry, in particular, relies on a workforce with low to mid-level educational qualifications, offering limited career growth opportunities. This lack of advancement, coupled with the physically and mentally demanding nature of the job, has resulted in high turnover rates. Long

hours behind the wheel, limited access to nutritious meals, and inadequate sleeping arrangements contribute to health concerns that drive workers away from the profession. Furthermore, truck drivers often experience prolonged isolation from family, increased mental health struggles that make retention more difficult.

The COVID-19 pandemic intensified the workforce crisis, forcing many employees to seek alternative employment. The resulting labor shifts have disrupted supply chains, yet limited academic research has explored the full impact of these changes and potential solutions.

This systematic review aims to analyze the existing literature on driver shortages, identifying their causes and assessing potential strategies to address the ongoing workforce crisis. Through this study, industry stakeholders can gain a clearer understanding of the challenges at hand and explore solutions to ensure long-term stability in the transportation sector.

Methodology

This study employs a scoping review (ScR) methodology, following the framework established by Peters et al. (2020). A scoping review provides a comprehensive synthesis of existing research, facilitating an understanding of key trends and gaps in knowledge. To ensure systematic data collection and reporting, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed.

The PRISMA flowchart illustrates the systematic process undertaken to identify, screen, and select studies for this research (see Figure 1). The process begins with the identification phase, where records were collected from two primary sources: ScienceDirect (n = 9523) and Scopus (n = 4299), resulting in a total of 13,822 records.

In the screening phase, these records were assessed based on predefined inclusion criteria, including publication years (2022-2024), research type (Research Articles and Review Articles), and subject area (Social Sciences). As a result, 13,744 records were excluded for not meeting the criteria. The remaining 78 records were screened further by reviewing their titles and abstracts, and 2 duplicate records were removed.

The eligibility phase involved conducting a full-text review of the 76 remaining articles to evaluate their alignment with the study's objectives. Following this assessment, 71 articles were excluded because their titles and abstracts were not significantly related to the research focus.

In the final inclusion phase, 5 articles were selected for analysis, out of which 2 studies were identified as key sources for an in-depth review. This structured selection process ensures that only high-quality and methodologically sound studies contribute to the findings of this systematic review, providing a strong foundation for understanding the driver shortage crisis in the transportation sector.

To ensure a systematic and structured approach, this research followed a multi-step process:

Defining the research scope: the initial step involved identifying key themes related to driver shortages, such as causes, effects, and potential solutions.

Database selection: two well-established academic databases, Scopus and ScienceDirect, were chosen due to their extensive coverage of peer-reviewed literature in social sciences and transportation studies.

Search query formulation: a comprehensive keyword strategy was developed, using terms such as "driver shortage" OR "truck drivers" to maximize relevant search results.

Initial screening: retrieved articles were filtered by applying specific criteria, including publication years (2022–2024), research type (research and review articles), and subject area (social sciences).

Duplicate removal: the EndNote platform was used to eliminate duplicate records and refine the dataset.

Title and Abstract Screening: studies were evaluated for relevance based on their titles and abstracts. Articles unrelated to the research objective were excluded.

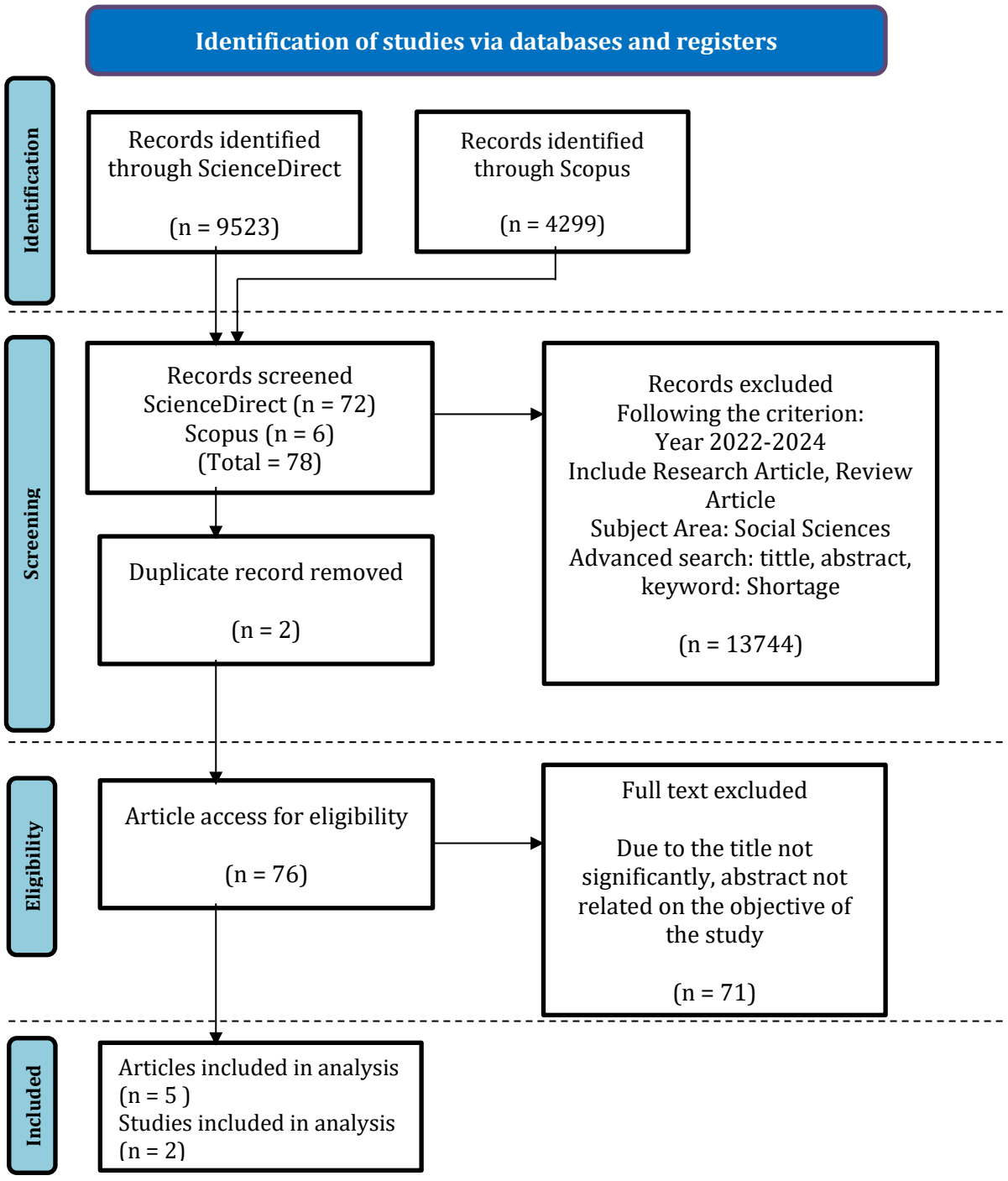

Figure 1. **Meta-Analysis** (PRISMA)

Full-Text review: selected articles underwent an in-depth review to ensure their relevance to the study objectives.

Data extraction: key themes, methodologies, and findings were extracted and categorised for analysis.

The final dataset was carefully curated to ensure high-quality and relevant sources were included in the systematic review. The literature search was conducted on October 6, 2024, using two electronic databases: Scopus (search field: article title, abstract, keywords), ScienceDirect (search field: full-text articles containing the relevant terms). The search was limited to articles published between 2022 and 2024. The following filters were applied: research type (research articles, review articles), subject area (social sciences), advanced search keywords - "driver shortage," "truck drivers". Articles were screened based on title and abstract relevance. Eligible articles underwent full-text review to ensure alignment with the study objectives.

Literature search strategy and data collection

The search results should include the following terms “driver shortage” OR “truck drivers”. Research articles search was conducted on October 6th 2024, using two electronic databases: Scopus - search field = Article title, abstract, keywords, Science Direct – search field = Find articles with these terms. The findings were cleaned of duplicates using EndNote platform designed by Clarivate. Additional search filters were applied to the obtained results to select suitable studies in this sector:

- By year: 2022,2023,2024 (till October 6th 2024)
- Research type: Research Article, Review Article
- Subject area: Social Sciences
- Advanced search: title, abstract: by keyword “Shortage”
- Research type: Research Article, Review Article

After conducted research by presented criteria, results were screened by reading title and abstract to evaluate articles relevance to the research topic. Each article that has passed screening by article and abstract was selected for full reading.

The selection process also required that articles explicitly mention the keyword "shortage" in the title or abstract. After applying these filters, the remaining studies underwent a more detailed screening, during which the titles and abstracts were reviewed to determine their relevance. Only those articles that directly addressed issues related to driver shortages were selected for full-text review.

The research process followed a structured and systematic approach to ensure a comprehensive analysis of the existing literature on driver shortages. The first step involved defining the study's scope by establishing the primary objectives and formulating key research questions. This phase helped narrow the focus of the study and set clear inclusion criteria for selecting relevant literature.

Following the initial search, a strict data collection process was implemented. The screened articles were examined in greater depth to extract key insights. Each selected study was assessed based on its research scope and relevance to the research objectives. This involved identifying recurring themes, the research methodologies employed, and the main findings reported. To bring clarity to the findings, those were collected in one structured Table 1, Key studies on driver shortages.

Once the data was systematically categorised, the next phase involved drawing meaningful conclusions from the findings. By comparing various studies, the research identified common themes, gaps in the literature, and areas that require further investigation. This comparative analysis allowed for a more nuanced understanding of the challenges contributing to driver shortages, as well as potential strategies to address these issues.

The final step in the research process was compiling the extracted data into a cohesive and structured review. The findings were synthesised into clear sections, summarising the key challenges, proposed solutions, and future research directions. By following this structured approach, the study ensures a reliable and well-founded synthesis of existing knowledge, contributing valuable insights to help address driver shortages in the transportation sector.

Results and findings

The table 1 presents a comprehensive analysis of recent studies on truck driver shortages, drawing from various academic sources. Each study examines the contributing factors behind the crisis and explores potential solutions for mitigating its impact.

The research extends to multiple countries, including the United States, India, France, China, Australia, Belgium, and Germany, showcasing a global perspective on the challenges facing the trucking industry. The primary causes of driver shortages identified in these studies include low wages, poor working conditions, long hours away from home, strict work regulations, occupational health risks, and a negative public perception of the profession. Additional barriers such as age restrictions, workplace discrimination, and limited access to proper facilities further exacerbate the issue.

Some studies highlight the role of automation in addressing driver shortages. For instance, the research published in Technology in Society (2023) suggests that automated vehicles may help alleviate shortages in the long term, though immediate challenges remain. Other studies emphasise improving the industry's image, enhancing welfare conditions, and implementing better training programs to attract and retain skilled drivers.

In Europe, non-standard employment policies and labor market reforms are proposed as potential solutions, while in Australia, high licensing fees and psychological stressors are noted as significant deterrents to new driver recruitment. A study published in Transport Policy (2023) underscores the importance of industry-wide collaboration and government intervention to ensure long-term sustainability.

Overall, these studies suggest a multi-faceted approach to solving the truck driver shortage crisis. While automation offers a long-term alternative, immediate efforts must focus on improving wages, working conditions, and job appeal to attract new talent and maintain a stable workforce. The findings serve as a valuable resource for policymakers, industry stakeholders, and researchers working towards a more sustainable transportation sector.

Table 1

The results of key studies on driver shortages

No.	Database	Year	Country	Source	Authors	Title	Reasons of shortage	Findings
1.	Science Direct	2023	USA	Technology in Society 74 (2023)	Amy M. Schuster a, Shubham Agrawal a,*, Noah Britt b, Danielle Sperry a, Jenna A. Van Fossen c, Sicheng Wang d, Elizabeth A. Mack e, Jessica Liberman f, Shelia R. Cotten	Will automated vehicles solve the truck driver shortages? Perspectives from the trucking industry	Inability to attract younger workers, requirement of 2 years of experience, lifestyle issues, male dominance, safety risks, low pay rate, e-commerce rapid development, hours of service regulations, COVID-19	1. The driver shortage is a constant issue over the years. 2. Automated vehicles can help to reduce the shortage in future
2.	Science Direct	2023	India, France, China, Australia	Transport Policy 130 (2023)	P. Chandiran a, M. Ramasubramaniam a, V.G. Venkatesh b, Venkatesh Mani c, Yangyan Shi	Can driver supply disruption alleviate driver shortages? A systems approach	Low pay, poor working conditions, occupational choice, work hour regulations, poor public image, long hours from home, lack of skilled personnel, intense competition in the sector.	1. Improve truck industry image 2. Improve welfare conditions 3. Train more specialists
3.	Science Direct	2022	Australia	Heliyon 8 (2022)	Michael Wang a, Lincoln C. Wood b,c,*, Bill Wang d	Transportation capacity shortage influences on logistics performance: evidence from the driver shortage	Low pay rates, poor working conditions, expensive licensing fees, increased logistic demand, psychological stressors, aging drivers, lack of respect and support	1. Replacing human drivers with autonomous trucks can reduce the lack of drivers
4.	Scopus	2022	Belgium, France	Int. J. Production Economics 257 (2023) 108764	Bram J. De Moor , Stefan Creemers, Robert N. Boute	Breaking truck dominance in supply chains: Proactive freight consolidation and modal split transport		1. Consolidating freight; 2. Horizontal collaboration with competitors; 3. Alternative shipment methods
5.	Scopus	2024	Germany, Belgium	European Transport Studies 1 (2024) 100007	Lucia Meija Dorantes, Heather Allen	A review of the future transport labour market: A EU approach	Age restrictions from 24 years old in Europe, lack of skilled personnel, shift and weekend work, violence, bullying, poor pay, lack of sanitary, rest infrastructure	1. Non-standard employment regulations, 2. Effective active labour market policies and modern social security systems 3. Improve truck industry image 4. Improve working conditions 5. Reduce workplace violence and discrimination 6. Attract young recruits and foster diversity and gender to the profession

Conclusion

The systematic review highlights several factors contributing to driver shortages, including unfavorable working conditions, low wages, an aging workforce, and long hours spent away from home. Additionally, the COVID-19 pandemic has accelerated shifts in the labor market, further exacerbating workforce shortages. The ongoing driver deficit presents serious challenges for the transportation sector, disrupting supply chains, increasing operational costs, and placing additional pressure on existing drivers. The lack of sufficient workforce inflow has also led to increased work-related stress, job dissatisfaction, and weakening rates among truck drivers.

Addressing these challenges requires a multi-dimensional approach. Several potential solutions have been proposed in academic research and industry reports. Enhancing the image of the trucking industry and improving working conditions may attract younger workers to the profession. Increasing wages and implementing better welfare policies can also contribute to workforce retention. Investments in autonomous driving technologies present a long-term solution, particularly for long-haul transport, reducing dependency on human drivers. Additionally, implementing labor policies that address workplace discrimination, promote gender diversity, and ensure fair employment practices can create a more inclusive and sustainable workforce.

While automation offers future possibilities, immediate interventions are necessary to mitigate the declining workforce numbers. Policy reforms, technological advancements, and better employment conditions should be prioritized to stabilize the industry. Furthermore, this research highlights a significant gap in academic studies on truck driver shortages, revealing an underexplored field with substantial potential for further investigation. Future research should focus on analyzing the effectiveness of proposed solutions, exploring workforce retention strategies, and evaluating the role of emerging technologies in alleviating driver shortages.

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INNOVATIVE IT SOLUTIONS AS A DRIVER OF INTELLECTUAL DEVELOPMENT OF SOCIETY

Halyna Kryshtal
Interregional Academy of Personnel Management, Ukraine
gkryshtal@ukr.net

Abstract

The article explores the role of innovative IT solutions in enhancing the intellectual potential of society, particularly in the context of education and professional development. The relevance of this study is driven by the rapid advancement of digital technologies, which are significantly transforming traditional methods of learning, communication, and professional activities. The objective of this research is to assess the impact of digital technologies on the intellectual development of individuals and society as a whole, as well as to identify key trends and challenges associated with digital transformation.

To achieve this goal, the study employs methods such as the analysis of scientific publications, surveys conducted among students, educators, and IT professionals, and a comparative analysis of the collected data. The findings indicate that digital platforms significantly enhance learning efficiency by providing new opportunities for self-education, personalized learning experiences, and the development of critical thinking skills. However, alongside these benefits, challenges such as digital inequality and information overload emerge, requiring attention when integrating new technologies into educational and professional training systems.

The article offers recommendations to bridge the digital divide and improve digital literacy, which can contribute to the development of intellectual potential at all levels of society.

Keywords: innovative IT solutions, digitalization, intellectual development, education.

Introduction

The modern world is undergoing rapid technological changes that impact all aspects of life, particularly the intellectual development of society. Innovative information technologies not only provide access to knowledge but also shape new approaches to learning, analytics, scientific research, and professional development. In the era of digital transformation, a society's ability to effectively utilize IT solutions becomes a key determinant of its competitiveness and sustainable growth.

The relevance of this study is driven by the need to analyze the impact of modern IT solutions on the formation of new cognitive skills, the expansion of educational opportunities, and the enhancement of intellectual potential. At the same time, the rapid advancement of technology introduces new challenges, including digital inequality, the potential decline of critical thinking skills, and information overload.

The central research problem lies in determining how innovative IT solutions can serve as a driving force for intellectual growth and which implementation methods are most effective.

The objective of this study is to analyze and assess the impact of modern IT solutions on the intellectual development of society, as well as to identify key areas of their application for enhancing knowledge, creativity, and critical thinking.

The research methodology includes the analysis of scientific publications, statistical data, and case studies on the use of IT technologies across various fields. A comparative approach is also applied to evaluate the effectiveness of different digital solutions in fostering intellectual development.

Thus, the study aims to identify the opportunities and challenges associated with the application of innovative IT solutions and to develop recommendations for their effective use in education, science, and professional development.

Body of the Article

Literature review. The issue of digital innovations and their impact on society has been the subject of research by many scholars. Contemporary literature explores both the opportunities and challenges associated with digital transformation.

Rohm, Stefl, and Saint Clair (Rohm et al., 2018) emphasize the necessity of updating educational programs to align with the demands of the digital era. They highlight that modern digital technologies are transforming traditional learning approaches, influencing students' cognitive development, and shaping new behavioral models. This transformation has a significant impact on the intellectual development of society, as digital tools not only facilitate access to knowledge but also stimulate critical thinking, creativity, and adaptability. However, to maximize these benefits, educational institutions must meet new demands and integrate innovative technologies into the learning process.

Desai, Chauhan, and Kudtarkar (Desai et al., 2019) examine changes in consumer behavior driven by digitalization, pointing to its substantial impact on the education sector and information consumption culture. They note that digital platforms and online resources enable rapid access to diverse knowledge and materials, expanding learning and development opportunities. However, these technologies also introduce challenges related to information overload, as the volume of available data continues to grow. Consequently, strategies must be developed to manage information flows effectively, preventing overstimulation and ensuring adequate processing and comprehension of acquired data.

Legner (Legner, 2017) underscores that digitalization is a process that simultaneously presents new opportunities and serious challenges for society. The researcher states that the implementation of IT solutions across various sectors, including education, business, and social domains, has the potential to significantly enhance public knowledge and skills. For instance, digital technologies can improve access to quality education, support personalized learning approaches, and foster new forms of collaboration.

However, it is also crucial to consider potential risks such as digital inequality, which may restrict access to these opportunities for certain social groups, as well as concerns related to data protection and cybersecurity. Therefore, effective utilization of digital technologies requires a comprehensive approach that encompasses not only technical solutions but also social, economic, and ethical considerations.

Kane et al. (Kane et al., 2015) argue that a strategic approach to digital transformation is more critical than the technologies themselves. This perspective highlights that the intellectual

development of society depends not only on the availability of digital tools but also on how they are applied. It is essential to recognize that digital technologies must be integrated into broader strategies for education, professional training, and social development.

Simply having access to technology without a clear strategy and objective may not yield the desired outcomes. For example, even the most advanced online learning platforms or artificial intelligence solutions cannot realize their full potential without a structured support system ensuring their effective use at all levels—from governmental institutions to individual users. Therefore, to maximize intellectual development, digital technologies must be implemented within comprehensive strategies aimed at improving education, enhancing professional skills, and increasing digital literacy across society.

Heilig, Lalla-Ruiz, and Voß (Heilig et al., 2017) explore digital transformation in the context of seaports— a specific yet highly significant sector where technology is fundamentally reshaping traditional processes. Their approach to analyzing the interaction between technology and human resources can be effectively adapted to other fields, including education and science. For example, digital technologies such as automation, artificial intelligence, and big data are already being actively integrated into educational processes, transforming learning methods and knowledge management.

Therefore, modeling the interaction between new technologies and the human factor—whether in education or science—is crucial. Equally important is the ability of educators, researchers, and students to adapt to new tools and approaches to ensure the effective use of digital technologies while maintaining critical thinking and a creative approach to problem-solving. Technologies should complement rather than replace human resources, which is a key aspect of transformational processes.

Valenduc and Vendramin (Valenduc et al., 2017) highlight that digitalization creates new opportunities for professional competency development; however, it also requires continuous knowledge updates and the ability to adapt to a rapidly changing environment. This is a critical factor for both education and the labor market, as traditional education often struggles to keep pace with the rapid technological advancements.

The researchers emphasize the necessity of integrating lifelong learning and retraining into educational programs and professional development. As digital technologies continue to evolve, the key aspect of developing modern professionals is not only their ability to use the latest tools but also their willingness to continuously refine their skills. Enhancing digital literacy and creating opportunities for lifelong learning should become the foundation of professional training strategies at all levels. At the same time, ensuring the effective integration of digital technologies into professional activities requires maintaining a balance between technical skills and the development of soft skills, such as critical thinking, creativity, and teamwork capabilities.

Thus, the review of scientific literature confirms that innovative IT solutions play a crucial role in developing the intellectual potential of society. They create new learning opportunities, increase knowledge accessibility, and foster the development of new competencies. However, digitalization also presents new challenges, such as the need for critical thinking, adaptation to rapid changes, and the development of effective strategies for utilizing digital resources.

Additionally, digitalization poses certain challenges, including the risk of information overload, digital inequality, and the need for improved digital literacy. Therefore, it is essential to develop

comprehensive approaches to the use of IT solutions that not only ensure access to information but also promote its effective application for the intellectual advancement of society.

Promising directions for further research include analyzing the effectiveness of various digital educational platforms, assessing the impact of digital technologies on workforce competencies across different industries, and studying the long-term consequences of digital transformation for societal development.

Methodology. This study employs a comprehensive approach to analyzing the impact of innovative IT solutions on the intellectual development of society. The methodology integrates both qualitative and quantitative research methods, ensuring objective and reliable results.

To achieve the research objectives, the following analytical tools were utilized:

1. Content analysis of scientific publications related to digitalization and its influence on education, research activities, and professional training.
2. Comparative analysis of modern IT solutions used in education, science, and business to assess their effectiveness.
3. Surveys and expert interviews involving IT professionals, educators, and users of digital educational platforms to identify trends in IT adoption and its impact on intellectual development.

Research Methods:

1. Statistical analysis – evaluation of quantitative indicators reflecting the impact of digital technologies on education and professional training.
2. Classification and generalization – systematization of collected data on IT applications across various societal sectors.
3. Synthesis of results – formulation of conclusions based on the analysis of digital transformation trends.

The application of a comprehensive approach to data collection and analysis has provided an in-depth understanding of how IT solutions influence intellectual development and has allowed for the identification of key trends in this field.

Research results. The general trends in digital development reflect significant changes in many areas of life, particularly in education, science, and professional training. The digitalization of education and science is becoming global, ensuring the growing integration of technology into the learning process. Modern learning platforms, interactive learning tools, digital resources, and open knowledge bases significantly improve the accessibility and quality of education anywhere in the world. This fosters the creation of new innovative teaching methods focused on active use of technologies that not only transfer information but also stimulate the development of critical thinking, creativity, and practical skills. Thanks to digital tools, students can learn at their own pace, mastering new topics, completing practical tasks, and testing their knowledge online. This opens up new learning opportunities in the form of flexible courses, webinars, interactive lectures, and online discussions, which contribute to more effective knowledge acquisition.

One of the key areas of digital development is the advancement of artificial intelligence, which opens up new possibilities for personalizing educational processes. AI systems can analyze students' individual needs, identify weaknesses in material comprehension, and offer tailored tasks to improve learning outcomes. These technologies not only optimize learning processes but also create personalized learning paths that best align with each student’s interests and needs. Through artificial intelligence, learning systems can provide recommendations, generate tests and exercises

based on previous learning results, and use data to improve teaching strategies. This helps enhance learning effectiveness and ensures a deeper understanding of the material, which is especially important at various educational levels.

Equally important is the growing necessity of digital literacy, which has become an integral component of modern education and professional training. As digital technologies play an increasingly vital role in professional life, it is crucial for future specialists to possess the skills necessary for the effective use of modern tools. Digital literacy encompasses not only the ability to work with computer programs and internet resources but also the ability to critically assess information, communicate effectively through digital channels, and use cutting-edge technologies to solve professional tasks. This serves as the foundation for career development in a constantly changing technological environment. Moreover, digital literacy has become a prerequisite for competitiveness in the labor market, as many modern professions require employees not only to have traditional professional skills but also to work with new digital tools.

Thus, the general trends in digital development indicate that technologies are becoming an essential part of education, scientific activity, and professional growth. Digitalization provides new opportunities for learning, while the development of artificial intelligence opens up prospects for personalizing educational processes. Digital literacy, in turn, has become a necessary condition for a successful career and adaptation to a rapidly changing world.

The results of the study confirmed that innovative IT solutions play a key role in developing the intellectual potential of society. The analysis of the obtained data allowed for identifying the main trends in digital transformation and its impact on the educational process, professional development, and public consciousness.

In particular, the introduction of digital technologies into the educational sphere significantly enhances the quality of learning, making it more accessible, interactive, and adaptive to users' needs. It is noteworthy that 76% of surveyed students and educators reported improved material comprehension through the use of digital platforms such as Coursera, Udemy, Google Classroom, and others. This indicates that digital educational resources contribute to increased learning effectiveness, particularly through multimedia content, interactive tasks, and the ability to learn at one's own pace.

The results also showed that 63% of respondents noted an increase in self-learning opportunities through online resources and open knowledge bases. Open access to information contributes to the enhancement of self-education levels among the population, which is especially important in today’s rapidly changing technological world. People now have the ability to independently acquire new knowledge, take professional courses, earn certifications, and adapt their competencies to the current labor market demands. It is important to highlight that the main advantages of using IT solutions in education include interactivity, personalized learning approaches, and the availability of materials at any time.

Interactive platforms allow students and instructors to interact in real-time, discuss materials, participate in virtual discussions, and collaborate on joint projects. This fosters the development of communication skills, analytical thinking, and teamwork abilities. Meanwhile, a personalized learning approach enables the adaptation of educational materials according to the individual learner’s level of knowledge and pace of information absorption, making the learning process more effective and motivating.

The availability of educational materials at any time and from anywhere in the world is another key factor driving intellectual development within society. Thanks to digital platforms, students can learn without being tied to a specific location or rigid class schedules, which is particularly relevant for those who combine work with study or live in remote areas. Thus, the implementation of IT solutions into the educational process not only enhances knowledge levels but also creates new learning models that meet the demands of the modern digital society.

In today's world, where technological progress is happening rapidly, workers are compelled to constantly update their knowledge and skills to remain competitive. According to the survey results, 70% of IT experts emphasize that using digital platforms for learning and professional development has become a necessity for career growth. Online courses, webinars, interactive training sessions, and certification programs provide workers with up-to-date knowledge aligned with the latest market trends, without the need to leave their workplaces.

Automated learning systems, which utilize artificial intelligence and machine learning technologies, also have a significant impact on professional development. These systems personalize the educational process by tailoring content to each user's knowledge level, needs, and career goals. They analyze learning progress, offer adaptive materials, and even predict future knowledge requirements, significantly improving professional training effectiveness. Additionally, the use of automated systems in education helps reduce the time spent searching for necessary information and ensures more efficient material absorption, which facilitates quicker adaptation to new professional challenges.

The implementation of IT solutions in the business environment also greatly contributes to employee professional development, as it allows them to enhance analytical skills and improve digital literacy.

Modern companies increasingly use big data technologies, artificial intelligence, and automated management systems for decision-making, which requires employees to acquire new competencies. By using these technologies, professionals can analyze large volumes of information more quickly, predict trends, optimize business processes, and make informed decisions. Therefore, digital technologies not only simplify access to knowledge but also stimulate the development of professional skills that meet the demands of the modern labor market.

Digitalization opens up new opportunities not only for remote work and international collaboration but also for the creation of a new type of work environment based on flexibility, mobility, and responsiveness. The use of cloud technologies, collaborative platforms, and digital communication tools enables professionals to work on projects regardless of their geographical location and to quickly adapt to changes in workflows, optimize resource allocation, and automate routine tasks.

Thanks to digital technologies, companies can attract specialists from different parts of the world, forming multinational teams that work on innovative solutions. This not only fosters the exchange of experiences and knowledge on a global level but also stimulates the development of new approaches to solving complex problems.

Moreover, digitalization supports the development of professional education and self-improvement. Remote courses, webinars, and interactive learning platforms allow professionals to expand their competencies, access the most up-to-date knowledge, and quickly respond to changes in their field. Thus, digital technologies not only provide new opportunities for work and international cooperation but also contribute to the continuous development of human capital, which, in the long term, enhances the intellectual potential of society and its competitiveness.

Therefore, digital technologies have become an integral part of professional development, as they provide opportunities for continuous learning, automated adaptation of educational content, and the development of analytical skills. They not only improve employees' competencies but also promote the formation of new work approaches that align with the challenges of the digital age.

While digitalization has a significant positive impact on society's development, it also brings a number of challenges and risks that can limit its effectiveness and lead to unforeseen consequences.

One of the major challenges is the issue of information overload, as noted by 48% of respondents. In today's world, where information flows are becoming increasingly intense, users find it difficult to navigate the vast amounts of constantly updated content. This not only complicates the process of selecting quality and reliable information sources but also increases the risk of receiving false or incomplete data, which can lead to decision-making errors. The difficulty in choosing appropriate content is also associated with the large number of platforms and formats that do not always ensure the necessary level of quality or relevance of the information.

Another important risk related to digitalization is digital inequality, highlighted by 54% of respondents. This means that not all social groups have equal access to modern technologies, including the Internet, computing devices, and cutting-edge educational platforms. This can result in certain segments of the population, particularly those in remote areas or with low incomes, being disconnected from the opportunities provided by digital development. Digital inequality has long-term consequences, including limited access to education, professional opportunities, and social services, which in turn increases social inequality and causes a divide between different segments of society.

Another critical aspect of digital transformation is the decline in critical thinking skills. With the widespread use of algorithms and automated solutions, many people begin to rely on ready-made answers provided by technologies without considering their accuracy or validity. This may lead to the loss of the ability to independently analyze situations, form judgments, and make informed decisions.

The use of automated systems without proper verification of results can lead to incorrect or incomplete decisions, which can have serious consequences both for individuals and society at large. Moreover, excessive reliance on technology may reduce the level of creative thinking and innovation, as more people become accustomed to having algorithms perform complex calculations and analyses instead of them.

Thus, the challenges and risks of digitalization cannot be ignored, as they may significantly limit the positive impact of innovative technologies. It is necessary to take measures to reduce information overload, ensure equal access to technologies, and preserve critical thinking skills in order to ensure the sustainable and secure development of the digital society.

Conclusions

Based on the conducted research, several important conclusions can be made that highlight the profound impact of innovative IT solutions on the development of society, particularly in the context of education, professional development, and overall intellectual potential.

Firstly, the research results confirm that the digitalization of education has enormous potential for enhancing the quality of learning and access to knowledge. The implementation of innovative IT solutions, such as online platforms, interactive learning systems, and digital resources, significantly simplifies the learning process, allowing education to be accessed anytime and from anywhere in the world. Students and instructors report increased learning efficiency due to the availability of interactive tools, personalized courses, and open knowledge bases, which contribute to a deeper understanding of the material and the development of critical thinking skills.

Secondly, the development of artificial intelligence and automated systems has become a key factor in professional development. IT solutions not only create new opportunities for learning and retraining but also help adapt learning content to the individual needs of each user. The use of machine learning and artificial intelligence technologies allows educational processes to be optimized, making them more efficient and personalized. As a result, workers can improve their skills according to the new requirements of the labor market, which contributes to their professional growth and competitiveness.

Thirdly, an important conclusion is that digitalization has a significant impact on the development of digital literacy, which has become a key requirement for modern professionals. The ability to work with cutting-edge technologies, critically assess information, and communicate effectively through digital channels has become a necessary condition for a successful career. Digital literacy is no longer a supplementary advantage but an essential element of professional training, ensuring the ability to work effectively in conditions of constant change and rapid technological advancement.

However, despite numerous advantages, digitalization also brings certain challenges and risks. Information overload, digital inequality, and the decline of critical thinking skills are important issues that require attention and resolution. Strategies need to be implemented to overcome these difficulties, including creating effective content filtering mechanisms, ensuring equal access to digital technologies for all segments of the population, and encouraging the development of critical thinking skills among participants in educational and professional processes.

Overall, the research results show that innovative IT solutions are a crucial driver of intellectual development in society, providing new opportunities for education, professional development, and skills enhancement. However, to fully realize the potential of digital technologies, it is necessary to consider their risks and implement effective strategies to ensure equitable access to these technologies and their ethical implementation.

Innovative IT solutions have a significant impact on the development of the economy, transforming business models, labor markets, and financial systems. Further research could focus on the following key aspects:

1. Examining the processes of business digitalization, the development of e-commerce, and the integration of innovative technologies into the global economy. Special attention should be given to the impact of artificial intelligence and automation on company competitiveness and the dynamics of international markets.

2. Investigating the effects of digitalization on employment structures, the transformation of traditional professions, and the emergence of new specialties. It is also important to explore the opportunities for workforce adaptation through training programs and retraining.
3. Analyzing the application of blockchain in finance, its potential to reduce operational costs, increase the transparency of financial transactions, and prevent fraud. Research on the use of smart contracts and digital currencies in the corporate and public sectors is particularly important.
4. Artificial intelligence is increasingly used in forecasting macroeconomic indicators, analyzing investment risks, and optimizing business processes. Further research could evaluate its effectiveness in financial decision-making.
5. Assessing the risks related to cybercrime, the loss of confidential data, and information warfare. Research could focus on developing strategies to protect businesses and government institutions from cyberattacks.
6. Studying how digitalization contributes to the development of small and medium-sized businesses, particularly through process automation, online business management platforms, and access to digital financial tools.
7. Analyzing the use of big data to effectively manage economic resources, predict crises, and develop sustainable development policies.

Research in these areas will help uncover the potential of innovative IT solutions for the economy, ensuring its efficient and stable development in the digital age.

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REVOLUTIONIZING THE INDIAN MARKET WITH THE RISE OF DIGITAL MEDIA OVER CONVENTIONAL MEDIA

Amarjeet Kumar
Turiba University, Latvia
Amarjeet25121994@gmail.com

Abstract

The fast pace growth in digital media has brought a new light to the landscape of Indian media where it changes the fundamentals of consuming contents, their productions and the manner in which it is distributed. India has over 850 million consumers using mobile internet services and this poses a challenge for traditional media outlets as they are experiencing a new shift with the rise in digital media taking over the market domain. The contribution to the paradigm shifts from traditional to modern media are the demands for smartphones, with affordable data plans and easily accessible video-on demand (VOD). This study highlights the impact of digital disruption on traditional media analyzing the changes in the preferences of the consumer, the consequences of the economy, and strategic responses of legal media houses. Despite traditional media retaining some credibility, it has difficulties in competing with the digital media's personalized and dynamic digital content. The finding focuses on the need for traditional media to adopt strategies of hybrid media to sustain their existence in a growing society of digitalization.

Keywords: Traditional Media, Digital Media, Consumer Behavior, OTT Platforms, and Media Transformation

Introduction

The evolution in the coming of digital media has sparked a fundamental deviation in the landscape of Indian market and the way entertainment and information are received and consumed has also been reshaped due to the challenges posed to conventional media channels. With the advent of affordable smartphones and low-cost internet services, digital platforms such as social media, online news portals, and over-the-top (OTT) streaming services have gained widespread popularity (Verma & Dawar, 2019). As a result, traditional media, including print newspapers, television, and radio, has experienced a decline in audience engagement and advertising revenue (Dentsu, 2021). The increasing penetration of digital technology has not only transformed media consumption patterns but also redefined business models and content strategies across the industry (IAMAI, 2022).

India, one of the world's fastest-growing digital hubs, has witnessed a remarkable surge in internet users, reaching a staggering 850 million in 2022 (IAMAI, 2022). The proliferation of digital platforms has encouraged consumers to move away from traditional media, gravitating towards interactive and on-demand content that caters to their unique preferences (Statista, 2022). Particularly, the younger generation is drawn to social media, short-form videos, and streaming platforms, rendering the one-way communication model of traditional media increasingly obsolete (Thute, 2013; The Changing Face of Media Landscape in India, n.d.). Even the most established media houses have been compelled to adapt, establishing digital divisions, launching online news

platforms, and adopting hybrid distribution strategies to retain their audience base (Lessons in Transitioning From Legacy Media to Digital: Expert Tips From Asia, n.d.). This dynamic shift in the media landscape has presented both challenges and opportunities, as consumers seek content that resonates with their evolving digital lifestyles.

The Indian media industry's economic environment is also changing as a result of this digital revolution. Digital advertising now accounts for a sizable portion of all ad spend surpassing even traditional television advertising (GroupM 2022). Digital platforms are appealing to advertisers and businesses because they offer quantifiable performance metrics real-time engagement and precise targeting (PwC 2021). Due to financial strain traditional media companies have resorted to cost-cutting strategies like investing in digital infrastructure and reducing print operations (Saragih and Harahap 2020). Despite these initiatives successfully monetizing digital content while upholding journalistic integrity and credibility is still difficult (Al-Quran 2022).

Digital disruption does not however come without difficulties. Growing concerns about disinformation, a loss of faith in news outlets and moral conundrums pertaining to data privacy have resulted from the proliferation of unregulated online content (Mukerjee 2022). Even though traditional media is still seen as credible, it cannot match digital contents quick distribution and individualized approach. The fundamental question still stands as the sector develops further: how can traditional media stay relevant and financially viable in the digital age?

The purpose of this paper is to examine how digital disruption has affected traditional media in India. It looks at the shifting tastes of Indian consumers, the effects this has on the economy and the tactics used by established media companies to remain competitive. By examining these crucial elements, the study sheds light on how the media sector is continuing to change as well as the opportunities and problems that the digital age will present.

Literature Review

Transformation of Conventional Media Due to Digital Media

In India digital media has drastically upended traditional media companies changing the dynamics of content production distribution and consumption. The Internet and Mobile Association of India [IAMAI] reports that this change has been fueled by the country's internet penetration which reached over 850 million users in 2022. The transition to digital platforms has been expedited by the introduction of low-cost data plans and cheap smartphones by companies such as Reliance Jio (Verma and Dawar 2019). As a result, both readership and advertising revenue are dropping for traditional print and broadcast media outlets. For example, digital media advertising in India increased by more than 30% yearly between 2019 and 2021 while print media's advertising revenue decreased by about 25% during that same period (Dentsu 2021).

User's expectations have also been redefined by the real-time content delivery and interactive features made possible by digital media platforms (Thute 2013). Younger audiences are less interested in the one-way communication model of traditional media and are more interested in the dynamic and interactive experiences provided by digital platforms such as YouTube, Instagram and Twitter (*The Changing Face of Media Landscape in India*, n.d.). Even after attempting to adjust by introducing digital newspapers and on-demand TV applications, legacy media companies are unable to match the inventiveness and agility of their native digital rivals (*Lessons in Transitioning From Legacy Media to Digital: Expert Tips From Asia*, n.d.).

Shift in Consumer Behavior and Preferences

Since the introduction of digital media consumer behavior in India has changed significantly. VOD services like Netflix Amazon Prime and Hotstar which together had over 100 million active users in 2022 are becoming more and more popular among viewers (Statista 2022). For traditional television broadcasters this preference for convenience combined with AI-powered personalized content recommendations has presented a serious obstacle (Nijhawan and Dahiya 2020). According to a KPMG report from 2021 almost 75% of Indian urban consumers now get their news and entertainment primarily from digital platforms.

With websites like Facebook, WhatsApp and YouTube consuming a significant portion of daily screen time, social media has also become a vital channel for content consumption (IAMAI 2022). Because of this shift audiences have become more dispersed which has decreased the reach and power of traditional media sources (Mukerjee 2022). Furthermore, India's diverse linguistic and cultural landscape has benefited from digital platforms capacity to deliver localized and vernacular content (Kumar 2014). It is challenging for traditional media outlets to compete with this hyper-localized strategy because they have historically catered to larger audiences.

Economic and Strategic Impacts on Conventional Media

Digital disruption has significant effects on the economy, and because digital platforms offer better targeting options and quantifiable performance metrics, advertising a major source of income for traditional media is shifting more and more toward them (PwC 2021). For example, in 2022 digital advertising outspent television advertising in India making up 48% of the total ad spend (GroupM 2022). Traditional media companies have been forced to reconsider their business plans as a result of this change which frequently results in cost-cutting actions like laying off employees and reducing the size of print editions (Saragih and Harahap 2020).

To remain relevant many traditional media companies are strategically branching out into digital endeavors. For instance, the Times Group introduced Times Internet a digital platform with over 400 million active users each month (Inc 2024). For smaller regional players these adaptations can be difficult because they frequently call for significant investments in skills and technology (Pal et al. 2024). Furthermore, worries about false information and fake news on digital platforms have somewhat increased confidence in traditional media; nevertheless this benefit of trust is not enough to make up for monetary losses (Al-Quran 2022).

Methodology

Research Aim

With an emphasis on changing consumer behavior, economic sustainability and the tactical adjustments made by legacy media companies this study attempts to investigate how digital media is transforming traditional media in India. This study aims to shed light on the opportunities and difficulties faced by traditional media in the digital age by examining evolving media consumption patterns, the emergence of user-generated content and digital disruption.

Research Question

How have traditional media consumption been affected by the emergence of digital media in the Indian market?

Research Methods

Data Collection

The study makes use of both primary and secondary data sources to guarantee a thorough comprehension of how digital media affects traditional media in India. A structured questionnaire survey that targeted media consumers from a variety of age and demographic groups was used to gather primary data. In order to measure media consumption habits, preferences and opinions about both digital and traditional media the survey contained both multiple-choice and Likert-scale questions. The target audience also includes general media consumers including Indian citizens who are employed or unemployed as well as students.

A range of reliable sources including government publications industry reports academic research papers and market analysis reports from Google Scholars, JSTORE, Scopus, and ScienceDirect were used to collect secondary data. The study was able to place its findings within the body of existing research on media transformation crediting to the theoretical underpinnings provided by literature reviews from reputable journals and articles.

Data Analysis

A quantitative approach was used for the analysis of the gathered data. In order to find trends, correlations, and patterns in consumer behavior, statistical tools like SPSS and Excel were used to process questionnaire survey responses for the quantitative analysis. In order to reach the intended population, the survey was also created using Google Form and disseminated via Facebook and WhatsApp.

Findings and Discussion

The questionnaire's main results are shown in the table below, which also includes information on the demographics, media consumption patterns, and opinions of respondents about the demise and flexibility of traditional media. With the majority of respondents consuming online information on a regular basis and conventional media engagement continuing to fall, the results show a significant shift towards digital media. There is also disagreement over whether traditional media can effectively adjust to digital advances.

Table 1

Media Consumption Trends and Perceptions Based on Questionnaire Responses

Question	Response Option	Percentage of Respondents
Age Group	18–25 years	40%
	26–35 years	35%
	36–50 years	15%
	50+ years	10%
Gender	Male	55%
	Female	45%
Employment Status	Employed	60%
	Unemployed/Student	40%
How frequently do you consume traditional media?	Daily	20%
	Few times a week	35%
	Rarely/Never	45%
How frequently do you consume digital media?	Daily	85%
	Few times a week	10%
	Rarely/Never	5%
How much time do you spend on digital media daily?	Less than 1 hour	5%
	1–3 hours	30%
	3–6 hours	40%
	More than 6 hours	25%
Do you think traditional media is declining due to digital media?	Strongly Disagree	5%
	Disagree	10%
	Neutral	15%
	Agree	35%
	Strongly Agree	35%
Do you believe traditional media can adapt to digital trends successfully?	Strongly Disagree	15%
	Disagree	20%
	Neutral	30%
	Agree	20%
	Strongly Agree	15%

It is evident from the examination of the questionnaire answers and Table 1 that consumer preferences for media consumption are changing. According to the respondent's demographic distribution 75% of them are between the ages of 18 and 35 and the gender ratio is almost equal (45% female 55% male). 60% of respondents said they were employed compared to 40% who said they were either unemployed or students. Given that younger digitally savvy people are more likely to use online platforms while older people may still rely on traditional media these demographic factors are essential to comprehending the differences in media consumption.

Comparing the consumption of traditional and digital media reveals a startling pattern. Although 85% of those surveyed said they regularly consume digital media only 20% said they regularly consume traditional media such as radio newspapers or television. There has also been a noticeable drop in the percentage of respondents who said they use traditional media infrequently or never. When it comes to digital platform usage 40% of respondents said they use digital media for 3–6 hours every day and 25% said they use it for more than 6 hours. This is consistent with more general industry trends which show that social media digital news platforms and video-on-demand (VOD) services control media consumption in India.

Evaluating public opinion on the demise of traditional media was a crucial component of the research. Seventy percent of respondents (those who gave either a 4 or a 5 on the Likert scale) agreed with the statement that traditional media is dwindling because of digital alternatives.

According to the mean score of 3.85, the majority of consumers are aware of the difficulties traditional media has competing with digital platforms. Industry data supports this view indicating that while print advertising revenue fell by 25% during the same period digital media advertising in India increased by 30% annually between 2019 and 2021 (Dentsu 2021). Traditional media engagement is rapidly declining as a result of the substantial influence of digital platforms personalized interactive and real-time content on consumer choices.

Divergent views exist regarding the ability of traditional media to effectively adjust to digital trends despite this decline. Of those surveyed 35% (ratings 4 or 5) were optimistic about traditional media's ability to make a successful transition to digital media while 55% (ratings 1 or 2) were sceptical. A mean score of 3.00 denotes an overall neutral position. Smaller regional players face difficulties because of high investment costs and technological barriers while major media companies like the Times Group have ventured into digital spaces and launched platforms with over 400 million active users. Given that digital advertising now makes up 48% of all ad spending in India surpassing television, the financial viability of traditional media is still a significant concern (GroupM 2022).

These results support the idea that digital disruption has radically changed how people consume media and are consistent with other scholarly works on the topic. Credibility is still a strength of traditional media but innovation and monetization present a challenge. According to the study traditional media is becoming less and less regarded as being relevant while younger audiences are more drawn to digital platforms because of their interactive features. The data indicates that traditional media's decline will continue unless it implements aggressive digital strategies such as online subscriptions, hybrid business models and targeted content. To learn more about the evolution of media in India, future studies should also examine consumption patterns in urban and rural areas and use larger sample sizes.

Conclusion

The rapid ascent of digital media has drastically changed the media landscape in India affecting economic systems, consumer preferences and the tactical methods used by established media outlets. This study emphasizes how the move toward digital platforms has been accelerated by elements like reasonably priced smartphones, inexpensive data plans and the rising demand for video-on-demand (VOD) services. The dynamic interactive and highly personalized nature of digital content makes it difficult for traditional media to compete, even though it still maintains credibility and a following of devoted customers. In order to remain relevant legacy media companies must implement hybrid strategies as a result of the disruption caused by the move in advertising revenue from traditional platforms to digital channels.

Traditional media is not totally out of date despite the difficulties. It still has an advantage over digital media in terms of credibility and trust which are occasionally lacking because of worries about false information and uncontrolled content. However, substantial adaptation is necessary for survival in this changing environment. According to the study findings, legacy media must fully embrace digital transformation by incorporating online platforms using AI to deliver content in a personalized way and investigating fresh revenue streams like targeted advertising and digital subscriptions. Digital and traditional media platforms will probably coexist in Indian media in the future but the long-term viability of traditional media will depend on its capacity to adapt to changing consumer demands and innovate.

Research Limitations

Although this study provides insightful information it has some limitations. Due to its small size and predominately urban focus the sample may not accurately reflect media consumption patterns in rural areas. More diverse demographics should be included in future studies. Furthermore, because the study uses self-reported survey data response bias may exist which could compromise the validity of the results. Finally, a thorough examination of how governmental laws and regulations influence media trends is lacking in this study. Future studies should examine the effects of policy changes on the sustainability of traditional and digital media.

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QUADCOPTER PROTOTYPING FOR TEACHING UNIVERSITY STUDENTS

Dmytro Mamchur
Turiba University, Latvia
Kremenchuk Mykhailo Ostrohradskyi National University, Ukraine
dgmamchur@gmail.com

Antons Kolodinskis
Turiba University, Latvia
antons.kolodinskis@turiba.lv

Abstract

The rapid advancement of drone technology has led to its widespread adoption in education and research, offering students hands-on experience in aerodynamics, robotics, and automation. This study aims to identify the most suitable quadcopter prototype for university research by analyzing different drone types, hardware components, flight control software, and autonomous navigation solutions. The research employs a comparative approach, evaluating various technologies based on performance, cost, and educational relevance. Results indicate that multi-rotor drones, particularly quadcopters, provide the best balance between usability and research potential. A combination of brushless motors, Li-Po batteries, carbon fiber frames, and PX4 or ArduPilot software is recommended for an optimal learning platform. Furthermore, integrating GPS and computer vision enhances autonomy, allowing students to explore AI-driven navigation. These findings contribute to the development of an efficient and cost-effective drone prototype tailored for university-level experimentation and innovation.

Keywords: quadcopter, autopilot, practical learning, navigation, robotics

Introduction

Unmanned aerial vehicles (UAVs), commonly known as drones, have significantly impacted various industries, including agriculture, surveillance, logistics, and disaster response. Their versatility and growing affordability have led to their increasing adoption in academic environments, where they serve as a valuable educational and research tool. Universities worldwide are leveraging drone technology to teach students about aerodynamics, control systems, embedded programming, and artificial intelligence (AI). By integrating drones into engineering curricula, students gain practical experience in designing, programming, and optimizing UAVs for real-world applications.

The relevance of this research stems from the growing demand for practical, hands-on experience in engineering education. While theoretical knowledge is essential, students benefit greatly from experimental learning with cutting-edge technologies. Quadcopter platforms, in particular, offer an accessible entry point into drone research, allowing students to explore topics such as flight dynamics, automation, and computer vision. Given the rapid evolution of UAV technology, universities require a cost-effective, reliable, and modular drone system suitable for research and experimentation.

Despite the potential benefits, selecting the appropriate drone configuration presents a challenge. The choice of drone type, hardware components, and control software must align with educational objectives while remaining budget-friendly. This research addresses the need for a structured approach to selecting a quadcopter prototype optimized for university-level research and teaching.

The purpose of this study is to evaluate various drone configurations, assess their suitability for academic applications, and propose an optimal quadcopter prototype for university research. The research is guided by the following objectives:

- Analyze different drone types to determine their advantages and limitations in an academic setting.
- Examine essential hardware components, including frame materials, motors, propellers, batteries, and communication modules, to identify the best choices for university research drones.
- Evaluate flight control software to determine the most effective platforms for controlling and automating drone operations.
- Explore self-driving capabilities and assess potential solutions for autonomous navigation.
- Propose a comprehensive quadcopter solution that balances affordability, ease of use, and research potential.

This study employs a comparative methodology, systematically analyzing different drone types, hardware components, and software solutions. Data is gathered from academic sources, industry reports, and technical evaluations, ensuring that recommendations are based on empirical evidence. Each component is assessed based on key performance metrics such as durability, efficiency, adaptability, and cost. The research culminates in a detailed comparison table summarizing the best hardware and software choices for university-level drone research.

The results of this study highlight the superiority of multi-rotor drones, particularly quadcopters, as an optimal choice for academic applications. Among the various hardware options, carbon fiber frames, brushless motors, Li-Po batteries, and RF-based communication modules emerge as the most suitable components for research-oriented drones. Regarding software, platforms such as PX4 and ArduPilot provide extensive flexibility and customization options for students experimenting with flight automation and control algorithms.

Furthermore, the study explores emerging trends in autonomous drone technology, such as AI-driven navigation, GPS-assisted flight, and computer vision-based obstacle avoidance. These technologies enhance the capabilities of research drones, allowing students to develop and test advanced automation techniques. The findings of this study contribute to the development of an effective drone research platform that supports university-level education in engineering, robotics, and AI.

So, this research offers a structured framework for selecting an optimal quadcopter prototype tailored to academic needs. By integrating the best available hardware and software solutions, universities can provide students with a powerful learning tool that fosters innovation and technological advancement.

Body of the Article

This section reviews existing research and developments in drone technology, emphasizing applications in university-level education. Various studies have explored the benefits of using

drones as a teaching tool, providing students with practical experience in aerodynamics, embedded systems, and artificial intelligence. Research has shown that UAVs improve engagement and comprehension of complex engineering concepts.

A study [1] discusses a quadcopter testing platform designed for educational environments. The study highlights how modular and programmable drones provide a hands-on approach for students, improving their understanding of flight control and aerodynamics. Similarly, [2] examine the role of programmable drones in educational competitions, emphasizing their role in developing STEM skills.

Another research [3] presents an open-source, low-cost drone developed for mechatronics courses, providing insights into cost-effective UAV designs. The work [4] proposes a modular UAV approach for engineering education, demonstrating how flexibility in design benefits research projects.

A systematic review presented in [5] explores various UAV applications in education, while the paper [6] analyze trends in drone-integrated STEM education. Furthermore, [7] provide case studies on open-source UAVs in STEAM education.

Overall, these studies indicate that modular, programmable, and cost-effective drones provide the best solutions for university education. The integration of open-source flight software and AI-based navigation is essential for fostering innovative research.

Methodology

This study adopts a comparative analysis approach, evaluating drone technologies based on performance, cost, and educational value. Data was collected from academic sources, technical specifications, and expert recommendations. The study sample includes various drone types, hardware configurations, and software platforms, ensuring a comprehensive evaluation.

A systematic comparison framework was applied, assessing components such as drone frames, motors, batteries, flight control software, and autonomous navigation systems. Quantitative metrics such as efficiency, durability, and cost-effectiveness were considered. The methodology ensures that recommendations are data-driven and aligned with university research needs.

The research findings contribute to the development of an optimal quadcopter prototype tailored to university education. The proposed model integrates the best hardware and software choices, ensuring a balance of affordability, reliability, and research potential.

Research results

At first, we've analysed available drone types for university research and study projects. Upon provided literature analysis, drones can be classified into three main categories based on their flight mechanism: Fixed-wing Drones, Single-rotor Helicopters and Multi-rotor drones.

Fixed-wing Drones operate similarly to airplanes, using a fixed wing for lift. They can cover long distances and have higher endurance but require a takeoff and landing area. These drones are ideal for surveying and mapping projects.

Single-rotor drones (helicopters) use a single large rotor for lift and a tail rotor for stability. They offer better flight efficiency and higher payload capacity than multi-rotor drones. However, they are complex to operate and maintain.

Multi-rotor drones, including quadcopters, hexacopters, and octocopters, use multiple rotors for stability and maneuverability. They are widely used for research due to their ease of control and ability to hover [8].

Thus, fixed-wing drones are ideal for large-area surveys and mapping due to their long flight endurance but need significant space for takeoff and landing. Single-rotor drones offer high efficiency and payload capacity, making them suitable for carrying research equipment, yet their complexity in operation and maintenance is a drawback. Multi-rotor drones excel in maneuverability and hovering, making them the most versatile for university research, though they have limited endurance and payload capacity.

Analysis of the pros and cons of each solution in terms of university educational purpose is summarized in Table 1.

Table 1

Drone types pros and cons

Type	Pros	Cons
Fixed-wing	Long endurance, high efficiency	Needs runway, limited maneuverability
Single-rotor	High payload, efficient flight	Expensive, complex controls
Multi-rotor	Stable, easy to operate, good for research	Shorter flight time, limited payload capacity

Basing on provided analysis, we may conclude, that multi-rotor drones, specifically quadcopters, provide the best balance of cost, ease of use, and flexibility for university research projects.

Next step, we analysed hardware components used to build a drone. The performance of a quadcopter depends heavily on the following components: drone frame type, motors, propellers, batteries, communication modules and camera systems [9].

The frame houses all components and influences the drone's durability and weight. Among typical solutions for the frame material, we may choose among:

- Carbon fiber: Lightweight, high strength, expensive.
- Aluminum: Durable, heavier, and cost-effective.
- Plastic: Low weight, less durable.

Depending on the frame shape we may have the following multi-rotor drone types.

- Quadcopters (I4 “+” and X4 “x”) are the most common type of multi-rotor drones used in research and education. The “+” and “x” configurations differ mainly in control dynamics. The “+” configuration simplifies flight control for forward motion but limits maneuverability. The “x” configuration is more intuitive for control and provides better stability, making it a preferred choice in educational settings. However, quadcopters lack redundancy—if one motor fails, the drone will crash.
- Hexacopters (I6 “+”, X6 “x”) offer greater stability, higher payload capacity, and motor redundancy. The “+” configuration provides a straightforward control scheme but is less agile. The “x” configuration improves maneuverability and stability, making it preferable for applications requiring precise movements. Hexacopters are ideal for carrying heavier sensors and cameras, making them useful for aerial imaging and research projects requiring additional payload. However, they consume more power than quadcopters.
- Coaxial hexacopters (IY6 “+”, Y6 “x”) use a stacked rotor design, improving lift while maintaining a smaller frame. The “+” configuration offers a simpler control scheme, while the

"x" design enhances stability. These designs provide redundancy and increased thrust but are mechanically more complex and less efficient due to airflow interference between stacked rotors.

- Octocopters (I8 "+", V8 "x") are suited for carrying heavy payloads and maintaining flight stability. The "+" design prioritizes straightforward control, while the "x" configuration improves maneuverability. Their high redundancy allows continued flight even if one or two motors fail. However, their power consumption is high, making them less efficient for long-duration educational projects.
- Coaxial Octocopter (X8). The X8 design offers high payload capacity and redundancy in a compact frame, making it excellent for research requiring heavy equipment. However, it suffers from aerodynamic inefficiency due to rotor stacking and higher power consumption.

The judgement on pros and cons for each analysed frame shape is summarized in Table 2.

Table 2

Comparison on multi-rotor drone frame types

Design	Stability	Maneuverability	Payload Capacity	Redundancy	Complexity	Power Efficiency	Best Use Case
I4 " +" Quadcopter	Moderate	Limited	Low	None	Simple	High	Basic flight control training
X4 " x" Quadcopter	Good	High	Low	None	Simple	High	General educational research, aerial imaging
I6 " +" Hexacopter	High	Moderate	Medium	Moderate	Moderate	Medium	Mapping, aerial imaging, sensor deployment
X6 " x" Hexacopter	Very High	High	Medium	Moderate	Moderate	Medium	Precision control research, robotics projects
IY6 " +" Coaxial Hexacopter	High	Moderate	Medium-High	High	High	Low	Medium-payload research, compact sensor platforms
Y6 " x" Coaxial Hexacopter	High	High	Medium-High	High	High	Low	Compact research projects needing redundancy

I8 " +" Octocopter	Very High	Moderate	High	High	High	Low	Heavy payload research, stability-critical applications
V8 " x" Octocopter	Very High	High	High	High	High	Low	High-precision maneuvering with heavy payloads
X8 Coaxial Octocopter	Extreme	High	Very High	Very High	Very High	Low	High-payload research requiring maximum redundancy

Provided analysis allowed us to conclude, that for an educational drone project, quadcopters (X4) are the best starting point due to their simplicity, affordability, and ease of use. Hexacopters (X6) offer a balance between stability, redundancy, and payload capacity, making them a good choice for research applications requiring additional sensors. For projects requiring heavy payloads, octocopters (V8, X8) provide the best stability and redundancy but come with higher costs and power requirements.

Next component needed for project are motors. Motors are needed to drive all the construction, and we may choose between the following motor types for this educational purpose:

- Brushed motors: Lower cost, shorter lifespan.
- Brushless motors: High efficiency, longer lifespan, ideal for research applications.

For low-cost university project available propeller sets are:

- Plastic propellers: Affordable but fragile.
- Carbon fiber propellers: More efficient, durable, recommended for research projects.

Batteries recommended for drone projects could be chosen between:

- Li-Po (Lithium Polymer): Lightweight, high discharge rate, ideal for drones.
- Li-ion (Lithium-Ion): Longer lifespan but heavier.

For control aims also communication modules are needed. Specifically, following:

- Radio Frequency (RF) modules: Reliable for short distances, needed to be used for drone remote control.
- GSM Modules (3G, 4G, 5G): Allow long-distance control and telemetry data transmission.

Finally, to provide more options for educational and research purpose, it is desirable to equip drone with camera module. We've chosen two camera types for this project:

- Standard camera: Used for visual monitoring.
- Thermal camera: Useful for search and rescue or environmental monitoring.

Basing on the necessary components for the project, we've summarized possible options indicating the most suitable to be used in this project, in Table 3.

Table 3

Drone hardware components choice options

Component	Options	Best Choice for University Research
Frame	Carbon fiber, Aluminum	Carbon fiber
Motors	Brushed, Brushless	Brushless
Propellers	Plastic, Carbon fiber	Carbon fiber
Battery	Li-Po, Li-ion	Li-Po
Radio Module	Wi-Fi, RF, Bluetooth	RF-based module
GSM Module	3G, 4G, 5G	4G
Camera	Standard, Thermal	Standard (for general research)

After quadcopter hardware is assembled, the next step is to develop control system software for flight control. Quadcopters require sophisticated software for flight control and autonomous operation. The most common platforms are:

- ArduPilot: Open-source, widely used in academia.
- PX4: Open-source, with support for advanced features.
- Betaflight: Focused on racing drones.
- DroneKit: Python-based, excellent for custom research projects.

Table 4 provides comparison analysis on these platforms.

Table 4

Comparison on flight control platforms

Software	Features	Best for University Research
ArduPilot	Open-source, versatile	Yes
PX4	Open-source, advanced features	Yes
Betaflight	Racing drone-oriented	No
DroneKit	Python-based, research-focused	Yes

In order to increase the range of research options, and the range of technologies used for educational purpose, the drone should also be able to flight in autonomous mode. In this regard, we have explored available options to build autonomous flight system. Key approaches include:

- Computer Vision-based Navigation: Uses cameras and AI models for obstacle avoidance.
- LiDAR-based Navigation: Uses laser sensors for depth mapping.
- GPS-based Navigation: Relies on satellite positioning.
- Sensor Fusion: Combines multiple data sources for optimal navigation.

Each of the listed approaches has its own pros and cons summarized in Table 5.

Table 5

Methods used to build autonomous flight systems

Method	Pros	Cons
Computer Vision	High accuracy	Needs powerful processing
LiDAR	Precise 3D mapping	Expensive
GPS	Simple, widely used	Less accurate in urban areas
Sensor Fusion	Best accuracy	High complexity

Finally, based on the analysis provided, we've decided that the most suitable quadcopter prototype for university research should include:

- Frame: Carbon fiber for durability and lightweight performance.
- Motors: Brushless motors for high efficiency.
- Propellers: Carbon fiber for better stability and durability.
- Battery: Li-Po for optimal power-to-weight ratio.
- Flight Controller: PX4 or ArduPilot for flexibility in research applications.
- Communication: RF-based modules for short-range control and 4G GSM for long-range telemetry.
- Sensors: GPS for positioning, computer vision for obstacle avoidance.
- Camera: Standard HD camera for general research, with the option to add thermal imaging for advanced studies.

This setup ensures cost-effectiveness, ease of control, and flexibility for various research applications.

As result, a prototype of quadcopter drone was created basing on provided analysis (Fig. 1) and successfully tested for initial flight capabilities.

Figure 1. **External appearance of developed quadcopter prototype**

Conclusion

This study has highlighted the importance of integrating drone technology into university education and research. The findings confirm that quadcopters provide an optimal balance between cost, performance, and accessibility, making them a suitable platform for teaching aerodynamics, automation, and AI applications. By systematically analyzing drone types, hardware components, flight control software, and autonomous navigation technologies, this study has provided a structured framework for selecting an ideal drone prototype for academic use.

Key conclusions include:

1. Quadcopters are the most suitable UAV type due to their stability, affordability, and ease of use.
2. Carbon fiber frames, brushless motors, and Li-Po batteries provide the best trade-off between durability, efficiency, and performance.
3. PX4 and ArduPilot software offer the most flexible and adaptable solutions for educational drone applications.
4. Autonomous navigation using GPS and computer vision enhances research opportunities by enabling AI-driven drone applications.

By implementing the proposed quadcopter prototype, universities can create a robust educational platform that fosters hands-on learning and innovation. Future research should explore advancements in AI-driven flight control and swarm robotics to expand the scope of educational drone applications.

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PĀRDZIVOTĀS TRAUMATISKĀS PIEREDZES BĒRNĪBĀ SAISTĪBA AR PALĪDZĪBAS MEKLĒŠANAS STIGMATIZĀCIJU UN DZĪVES KVALITĀTI PIEAUGUŠĀ VECUMĀ

RELATIONSHIP OF CHILDHOOD TRAUMATIC EXPERIENCES WITH HELP-SEEKING STIGMA AND QUALITY OF LIFE IN ADULTHOOD

Aleksandra Molohovska
Latvijas Universitāte, Latvija
alexgrode444@gmail.com

Alla Plaude-Demidova
Latvijas Universitāte
alla.plaude@lu.lv

Anotācija

Pētījuma mērķis bija izpētīt saistības starp pārdzīvoto traumatisko pieredzi bērnībā, dzīves kvalitāti un palīdzības meklēšanas stigmatizāciju pieaugušā vecumā.

Tika izmantota Bērnības traumas aptauja (Bernstein & Fink, 1998), Palīdzības meklēšanas internalizētās stigmas aptauja (Vogel, Wade & Haake, 2006), Pasaules Veselības organizācijas dzīves kvalitātes novērtējuma aptauja (WHoQoL-BREF, īsā versija), kā arī demogrāfiskie jautājumi par vecumu, veselību, izglītību un ģimenes stāvokli. Pētījuma ietvaros tika atklātas dzimumatšķirības stigmatizācijas, pamestības sajūtas un emocionālās vardarbības pieredzē. Rezultāti parāda, ka sievietes biežāk ziņo par emocionālo vardarbību un pamestības sajūtu, savukārt vīrieši ziņo par augstāku stigmatizācijas līmeni. Negatīva bērnības pieredze tika saistīta ar zemāku fizisko, psiholoģisko un vides dzīves kvalitāti. Statistiski nozīmīga saistība tika konstatēta starp negatīvo bērnības pieredzi un veselības stāvokli. Izglītības līmenis bija saistīts ar stigmatizāciju un psiholoģisko dzīves kvalitāti.

Atslēgas vārdi: bērnības pieredze, dzīves kvalitāte, stigmatizācija

Abstract

The aim of the study was to explore the relationship between traumatic experiences in childhood and the stigma of seeking help in adulthood. For data collection, the Childhood Trauma Questionnaire (Bernstein & Fink, 1998), the Internalized Stigma of Seeking Help Scale (Vogel, Wade & Haake, 2006), the World Health organization Quality of Life Assessment (WHoQoL-BREF, short version), as well as demographic questions about age, health, education, and marital status, were used. Within the framework of the study, gender differences in stigma, feelings of abandonment and experience of emotional abuse were found. The results show that women more frequently report emotional abuse and feelings of abandonment, whereas men report higher levels of stigma. Adverse childhood experiences were associated with lower physical, psychological, and environmental

quality of life. A statistically significant relationship was found between adverse childhood experiences and health status. Education level was linked to stigma and psychological quality of life.

Keywords: childhood experiences, stigma, quality of life

Ievads

Bērnība ir unikāls periods cilvēka dzīvē. Šajā laikā veidojas rakstura pamatīpašības, veidojas attiecības ar apkārtējo pasauli un attīstās galvenās garīgās un sociālās prasmes. Bērnība var būt gan spilgtāko atmiņu avots, gan diemžēl arī daudz grūtību pilns periods. Traumatiska pieredze bērnībā var atstāt sekas cilvēka psihē.

Neatrisinātas bērnībā psiholoģiskās traumas bieži vien rada nopietnas sekas uz fizisko un mentālo veselību. Beilharz un kolēģi (Beilharz & Vollmer-Conna, 2020) atklājuši, ka bērnības traumas var radīt ilgstošas negatīvas sekas uz emocionālo un fizisko veselību, tās var izraisīt neefektīvas pārvarēšanas stratēģijas un pazeminātu dzīves kvalitāti pieaugušā vecumā.

Mūsdienu sabiedrībā psiholoģiska mentāla un fiziska veselība ir viens no galvenajiem faktoriem, kas nosaka cilvēka dzīves kvalitāti. Dzīves kvalitātes jēdziens ir salīdzinoši jauns un tiek aktīvi lietots kopš 20. gadsimta 60. gadiem, lai raksturotu dzīves apstākļus sabiedrībā (Wolfensberg, 1994). Dzīves kvalitāte ietver tādus būtiskus aspektus kā veselības stāvoklis (fiziskais, psiholoģisks un garīgais), attiecības, izglītības līmenis, darba apstākļi, sociālais stāvoklis, materiālā labklājība, drošības sajūta, brīvība un neatkarība lēmumu pieņemšanā, piederība sociālajai grupai un vide.

Tomēr, neraugoties uz progresu psiholoģisko traumu izpratnē un ārstēšanā, daudzi cilvēki turpina ignorēt vai slēpt savas problēmas, noliedzot palīdzības un ārstēšanas līdzekļu plašu pieejamību. Problēmu ignorēšana var ievērojami samazināt cilvēka iespējas dažādās dzīves jomās – sākot no kvalitatīvas izglītības iegūšanas un veiksmīgas karjeras veidošanas līdz pat spēcīgu sociālo saišu veidošanai un veselīgām attiecībām ar partneriem, fiziskie un mentālas veselības traucējumi var būtiski pasliktināt dzīves kvalitāti, ietekmējot vairākus cilvēka ikdienas funkcionēšanas aspektus (Penner-Goeke & Katz, 2015). Visas nelabvēlīgās sekas pastiprina izolētība no sabiedrības, diskriminācija un aizspriedumi, ar ko saskaras cilvēki ar mentāliem traucējumiem un grūtībām. Turklāt bailes būt saistītam ar psihiskiem traucējumiem samazina iespēju, ka cilvēki meklēs atbilstošu palīdzību (Angermeyer, Holzinger & Matschinger, 2009). Kopumā stigma palielina negatīvos faktorus psiholoģiskajā veselībā un traucē piekļuvi kvalitatīvai aprūpei, norādot uz nepieciešamību mainīt attieksmi un uzlabot izpratni par šo sociālo fenomenu (Shrivastava, Johnston & Bureau, 2012).

2018. gada pētījumā (Yokoya & Maeno, 2018), aptaujājot vairāk nekā tūkstoš dalībnieku ikgadējā veselības pārbaudē, tika pētīta izpratne par depresiju un tās stigmatizāciju. Vairāk nekā 30 % respondentu uzskatīja, ka depresiju izraisa vāja personība.

Ņemot vērā stigmatizācijas tēmas joprojām lielo aktualitāti mūsdienās, pētījuma mērķis ir pārbaudīt saistības starp pārdzīvoto traumatisko pieredzi bērnībā, dzīves kvalitāti un palīdzības meklēšanas stigmatizāciju pieaugušā vecumā.

Pētījuma jautājumi

1. Vai pastāv saistība starp traumatisko bērnības pieredzi, stigmatizētu palīdzības meklēšanu un dzīves kvalitāti pieaugušo vecumā?
2. Vai pastāv statistiski nozīmīgas atšķirības sieviešu un vīriešu izlasēs stigmatizētu palīdzības meklēšanu, traumatisko bērnības pieredzi un dzīves kvalitāti?
3. Vai pastāv statistiski nozīmīgas atšķirības attiecībā uz stigmatizētu palīdzības meklēšanu un dzīves kvalitāti starp cilvēkiem ar vidējo un augstāko izglītību, cilvēkiem ar un bez hroniskām slimībām, dažādiem ģimenes stāvokļiem un vecuma grupām, ņemot vērā traumatisku bērnības pieredzi?

Pētījuma dizains un datu ievākšanas metodes

Pētījums ir neeksperimentāls ar korelatīvi aprakstošo dizainu, nosakot traumatisko bērnības pieredzes, dzīves kvalitāti un palīdzības meklēšanas stigmatizāciju savstarpējās saistības. Pētījuma izlasi veidoja 76 latviski runājoši dalībnieki no 18 līdz 55 gadiem. Vecuma grupu izmantošana tika izvēlēta, jo pētījuma mērķis bija analizēt saistības dažādās paaudzes grupās.

Datu iegūšanai tika izmantoti sekojoši pētījuma instrumenti:

- Bērnības traumas aptauja (Bernstein & Foote, 1994). Aptaujā tiek novērtēta bērnībā piedzīvotā vardarbība, iekļaujot emocionālo, fizisko, seksuālo vardarbību, pamešanu novārtā. Aptaujā ir 37 apgalvojumi, kurus novērtē pēc 5 punktu Likerta skalas. Latviešu valodā 2004. gadā adaptēja Sebre, Ļebedeva un Trapenciere.
- Palīdzības meklēšanas internalizētās stigmas aptauja (Vogel et al., 2006).

Aptauja sastāv no 10 apgalvojumiem, kas mēra, cik spēcīgi cilvēks izjūt internalizēto stigmu saistībā ar palīdzības meklēšanu jeb pašstigmu līmeni. Latviešu valodā 2020. gadā adaptēja Iveta Brence.

- Pasaules Veselības organizācijas dzīves kvalitāte novērtējuma aptauja (WHoQoL-BREF) (Pasaules Veselības organizācijas, 2012).

Pasaules Veselības organizācijas dzīves kvalitātes (WHoQoL) instruments ir izstrādāts sadarbībā ar piecpadsmit starptautiskiem pētījumu centriem, ar mērķi izveidot novērtēšanas rīku, kas būtu piemērots dažādām kultūrām. *WHoQoL-BREF* ir saīsināta *WHoQoL* novērtēšanas instrumenta versija, kas izstrādāta, lai praktiskākā formātā novērtētu dzīves kvalitāti dažādās jomās. Aptauja sastāv no 26 jautājumiem, kas mēra dzīves kvalitāti, novērtējot fizisko veselību, psiholoģisko stāvokli, sociālās attiecības un vides faktorus.

Aptauja ir papildināta ar demogrāfiskiem jautājumiem par dzimumu, vecumu, veselības stāvokli, izglītību un ģimenes stāvokli.

Psiholoģiskās traumas koncepts

Pašlaik DSM-5 (The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition) trauma ir definēta kā "Faktiska vai draudoša nāve, nopietni ievainojumi vai seksuāla vardarbība vienā vai vairākos no četriem veidiem: (a) tieša notikuma pieredze; (b) personīgs novērojums, ka notikums noticis ar citiem; (c) stāstījums, ka šāds notikums noticis ar tuvu ģimenes locekli vai draugu; un (d)

atkārtota vai ārkārtēja saskare ar šādu notikumu šausminošām detaļām, piemēram, strādājot ar pirmās palīdzības sniedzējiem" (DSM-5, 2022).
Citiem vārdiem sakot, trauma ir emocionāla reakcija, ko izraisa smagi, stresa pilni notikumi, kas pārsniedz parasto cilvēka pieredzi. Cilvēks tos uztver kā tiešus nāves, smagu miesas bojājumu vai seksuālas vardarbības draudus sev vai saviem tuviniekiem. Psiholoģiskā trauma bieži ietver tādus jēdzienus kā mentālā trauma, psihotrauma un emocionālā trauma.

Hroniska trauma ("atkārtots" jeb "II tipa") attīstās ilgstošas vai atkārtotas saskares ar traumatiskiem notikumiem rezultātā. Atšķirībā no akūtas traumas, kas rodas pēc vienreizēja negadījuma, hroniskā trauma ir saistīta ar ilgstošu stresu un traumatisku pieredzi, kas turpinās laika gaitā. Hronisku traumu var izraisīt atkārtota fiziska vardarbība, kad agresors izmanto spēku, lai kontrolētu savu upuri. Tas var ietvert atkārtoto fizisko, emocionālo, seksuālo vardarbību. Fiziskās vardarbības upuri bieži vien dzīvo pastāvīgās bailēs, jo vardarbība un draudi kļūst par viņu ikdienas dzīves sastāvdaļu un kompleksa traumas veids, ko izraisa atkārtota vai ilgstoša saskarsme ar dažādiem traumatiskiem notikumiem. Tā atšķiras no hroniskas traumas ar to, ka tā ietver daudzus dažādus traumatiskus notikumus, kas var notikt vienlaicīgi vai secīgi ilgā laika periodā. Kompleksā trauma visbiežāk sastopama cilvēkiem, kuri bērnībā ir cietuši no vardarbības vai nolaidības, taču tā var skart arī pieaugušos (Perrotta, 2020).

Bērnībā pārdzīvotā traumatiskā pieredze un tās saistība ar veselības stāvokli

Psiholoģiskā trauma pieaugušajam bieži vien ir grūts pārdzīvojums, taču bērnības traumas tiek nodalītas kā atsevišķa pozīcija un tiek izceltas kā daudzu psiholoģisko problēmu cēlonis. Pasaules Veselības organizācijas (WHO, 2022) oficiālajā tīmekļa vietnē atrodamie statistikas dati ziņo:

Katrs trešais no četriem bērniem regulāri cieš no fiziskas vardarbības, katra piektā sieviete un katrs 13 vīrietis ziņo, ka bērnībā no 0 līdz 17 gadu vecumam ir piedzīvojis seksuālu vardarbību, 120 miljoni meiteņu un jaunu sieviešu, kas jaunākas par 20 gadiem, ir saskārušās ar kādu no piespiedu dzimumakta veidiem.

Arī Amerikas Sociālās kopienas pozitīvai bērnu aprūpei (American SPCC, 2022) statistikas dati liecina par šādiem statistikas faktiem: 2022. gadā saņemti 4,276 miljoni ziņojumu par ļaunprātīgu izturēšanos pret bērniem, ziņojumi par vardarbību pret bērniem attiecas uz 7,5 miljoniem bērnu, 89,0 % cietušo ir cietuši no viena vai abu vecāku sliktas izturēšanās, tikai 3,096 miljoni bērnu ir saņēmuši profilakses un pēcnoziegumu novēršanas pakalpojumus.

Saskaņā ar Latvijas Centrālās statistikas pārvaldes (LCP) veiktā pētījuma datiem 37,4 % iedzīvotāju ziņoja, ka bērnībā ir piedzīvojuši fizisku vai psiholoģisku vardarbību, no kuriem 36,3 % ir bijuši liecinieki vardarbībai vecāku starpā.

Bērnībā piedzīvotā trauma nereti atstāj smagas sekas, jo bērnu psihe, atšķirībā no pieaugušo, nav pilnībā izveidojusies, viņiem bieži trūkst prasmju, lai prastu apstrādāt pārdzīvotās emocijas un traumatiskos notikumus.

Traumas ietekme uz veselību un dzīves kvalitāti

Trauma ir sākums daudziem simptomiem, kas var ievērojami pasliktināt dzīves kvalitāti un novest pie emocionālas disregulācijas un disociācijas. Smadzeņu attīstība bērniem atšķiras no

pieaugušajiem, un traumas var ievērojami ietekmēt šo procesu. Pētījumi liecina, ka bērnības traumas ir saistītas ar paaugstinātu smadzeņu nestabilitāti un palielina psihisko traucējumu risku pieaugušā vecumā (Huang D., et al., 2021). Trauma ir plašs riska faktors garīgās veselības problēmām (Hogg et al., 2023), īpaši, ja iegūta fiziskas, seksuālas un emocionālas vardarbības rezultātā. Cilvēkam pieaugot, var rasties vielu lietošanas problēmas (Center for Substance Abuse Treatment, 2014), fiziskas vardarbības rezultātā var paaugstināties uzmanības deficīta un hiperaktivitātes sindroms (UDHS), pēctraumatiskais stresa sindroms (PTSS), bipolāru traucējumu risks u.c. (Sugaya et al., 2012). Vēlākos dzīves posmos traumas veicina trauksmi, depresiju un negatīvu dzīvesveidu, pasliktinot gan mentālo, gan fizisko veselību (Kuzminskaite et al., 2021). Citā pētījumā tiek norādīts, ka bērnības traumas, piemēram, vardarbība un nolaidība, palielina psihozes un šizofrēnijas attīstības risku, jo tās izmaina smadzeņu attīstību un paaugstina neaizsargātību pret stresu (Setién-Suero et al., 2020), kā arī ir cieši saistītas ar robežlīnijas personības traucējumiem (RPT) (Turki et al., 2022). Vardarbība bērnībā bieži veicina arī bipolāro traucējumu attīstību, uzsverot biopsihosociālā modeļa nozīmi šajos procesos (Aas et al., 2016). Bērnības traumas var izraisīt veģetatīvās nervu sistēmas traucējumus un spēcīgu stresa reakciju, piemēram, izmaiņas sirdsdarbības ritmā. Trauma veicina neefektīvas pārvarēšanas stratēģijas un pazemina dzīves kvalitāti. Pēc piesaistes teorijām agrīnas traumas var radīt nedrošu piesaistes stilu, kas saglabājas visu mūžu un var ietekmēt nākamās paaudzes (Serafini et al., 2017).

Visas iepriekš minētās saistības var būt šķērslis veidot veselīgu ģimeni un dzīvot ar augstāku dzīves kvalitāti, kas savukārt veicina veselīgāku sabiedrību ar mazāku vardarbību ģimenēs pret bērniem un pieaugušo starpā. Tomēr daudzi cilvēki dažādu iemeslu dēl joprojām nemeklē palīdzību pieaugušā vecumā, kas norāda, ka stigmatizācija joprojām pastāv, kavējot cilvēkus meklēt palīdzību un spert pirmo soli, lai uzlabotu savu veselību un labklājību.

Stigmas koncepts psiholoģiskajos pētījumos

Stigmatizācija, neskatoties uz progresu psihiskās veselības aprūpē pēdējo gadu laikā, joprojām ir globāla problēma, kas būtiski ietekmē gan indivīdu, gan sabiedrības veselību.

Pasaules Veselības organizācijas oficiālais stigmas jēdziens tiek skaidrots, ka stigma ir negatīva sociāla attieksme pret kādu indivīda īpašību, darbību, ko var uzskatīt par garīgu, fizisku vai sociālu trūkumu (WHO, 2024).

Erving Goffmans (Erving Goffman, 1963) savā darbā stigmatizāciju raksturoja kā īpašību, kas dziļi diskreditē personu. Šī īpašība var būt gan viegli pamanāma (piemēram, tautība, ādas krāsa, svars un citi fiziski un redzami parametri), gan slēpta (piemēram, slimība, sodāmība, sociālais stāvoklis un citi parametri). Stigma ir izplatīts sociālās dzīves aspekts, kas var sarežģīt ikdienas mijiedarbību ar pasauli mikrolīmenī.

Pētījumi liecina arī par dzimumatšķirībām, piemēram, vīrieši piedzīvo augstāku pašstigmas un sociālās stigmas līmeni nekā sievietes, vecums un dzimums ietekmē attieksmi pret palīdzības meklēšanu, izmantojot pašstigmas starpnieka lomu (Topkaya, 2014).

Pašstigmatizācija ir negatīvu stereotipu internalizācija (NAMI, 2021). Tā var radīt dziļāku emocionālo ietekmi nekā pati slimība vai dzīves grūtības, graujot pašcieņu un pašvērtējumu. Biežāk sastopamie pašstigmas veidi ir atsvešinātība, stereotipu apstiprināšana, diskriminācijas pieredze un sociālā noslēgtība, kas katrs veicina mazvērtības un izolētības sajūtu. Pašstigmatizācijas sekas ir smagas, tostarp pastiprināta depresija, pazemināta pašvērtība un pašsakropļojoša uzvedība,

piemēram, izvairīšanās no ārstēšanās vai attiecībām. Tas var izraisīt arī negatīvu domu pārdomas un galējos gadījumos – domas par pašnāvību.

Palīdzības meklēšanas stigmatizācija pieaugušajiem

Stigma ir atzīta par palīdzības meklēšanas veselības jomā "galveno cēloni", jo tā ierobežo piekļuvi veselības aprūpes resursiem, ietekmē cilvēka veselību un prognozē sliktākus veselības rezultātus pat tad, ja mainās citi intervences mehānismi (Hatzenbuehler, Phelan & Link, 2013).

Stigma palielina negatīvos faktorus psihiatriskās veselības jomā, traucē piekļuvi kvalitatīvai aprūpei, norādot uz nepieciešamību mainīt attieksmi un uzlabot izpratni par šo sociālo fenomenu (Shrivastava, Johnston & Bureau, 2012). Stigma ietekmē ne tikai indivīdu, bet arī viņa ģimeni un draugus. Samari un kolēģi (Samari et al., 2022) pierādīja, ka izjustā stigma var ievērojami ietekmēt jauniešu palīdzības meklēšanas uzvedību depresijas gadījumā, veicinot nevēlēšanos meklēt palīdzību un kavējot atveseļošanos. Nepietiekama izpratne un atbalsts no ģimenes un draugiem var izraisīt barjeras palīdzības meklēšanai, kā rezultātā daudzi cilvēki izvairās no nepieciešamās ārstēšanas vai atbalsta.

Tāpat, balstoties uz pēdējo gadu pētījumiem, var arī atzīmēt, ka gan uztvertā, gan internalizētā stigma būtiski samazina veiksmīgas atveseļošanās iespējamību, apgrūtinot rehabilitācijas procesus un ietekmējot cilvēka dzīves kvalitāti (Chan et al., 2022). Saskaņā ar jaunākajiem Pasaules Veselības organizācijas datiem vairāk nekā 200 miljoni cilvēku pašlaik cieš no depresijas, kas ir vairāk nekā 18 % laika posmā no 2005. līdz 2015. gadam. Atbalsta trūkums cilvēkiem ar mentālās veselības traucējumiem kopā ar bažām par stigmatizāciju daudziem neļauj saņemt nepieciešamo ārstēšanu, lai dzīvotu veselīgi un produktīvi, tāpēc hipotētiski slimnieku skaits varētu būt daudz lielāks (WHo, 2022).

Problēmu stigmatizēšanas sekas

Problēmu stigmatizēšana var ievērojami samazināt cilvēka iespējas dažādās dzīves jomās, sākot no kvalitatīvas izglītības iegūšanas un veiksmīgas karjeras veidošanas, līdz pat spēcīgu sociālo saišu veidošanai un veselīgām attiecībām ar partneriem, bieži sastopamie mentālās veselības traucējumi var būtiski pasliktināt dzīves kvalitāti, ietekmējot vairākus cilvēka ikdienas funkcionēšanas aspektus (Penner-Goeke et al., 2015).

Pētījumos tiek norādīts, ka stigma tieši ietekmē stigmatizētos indivīdus, radot diskrimināciju, nostiprinot stereotipus un aktivizējot automātiskas stereotipu reakcijas. Netieši stigma ietekmē personisko un sociālo identitāti, kas rodas, kad ar stigmatizāciju saistītie stresa faktori tiek uztverti kā potenciāli kaitīgi personiskajai un/vai sociālajai identitātei. Tā rezultātā tiek ietekmēti svarīgi aspekti, piemēram, pašvērtējums, panākumi un vispārējā veselība (Major & o'Brien, 2005).

Reinka un kolēģu (Reinka et al., 2020) pētījumā tika aplūkots, kā vairākas slēptas stigmatizējošas identitātes ietekmē cilvēka dzīves kvalitāti. Slēptās stigmatizējošās identitātes ir aspekti cilvēka personībā vai dzīves apstākļos, kurus cilvēks izvēlas slēpt, baidoties no negatīvas uztveres vai diskriminācijas. Pētījums parādīja, ka vairāku slēptu stigmatizētu identitāšu klātbūtne ir saistīta ar augstāku stresa līmeni, sliktāku fizisko un mentālo veselību un kopumā sliktāku dzīves kvalitāti. Cilvēkiem ar vairākām identitātēm bieži vien ir lielākas negatīvās sekas nekā tiem, kuriem ir tikai

viena stigmatizēta identitāte. Kā piemērus var minēt seksuālo orientāciju, psiholoģiskus traucējumus, hroniskas slimības un citas personiskās īpašības, kas var tikt stigmatizētas.

Stigmatizācijas un negatīvās attieksmes dēļ sabiedrībā pacienti bieži nevēlas atzīt savu saistību ar jebkādiem psihiskiem traucējumiem vai saņemt palīdzību no psihisko veselības speciālistiem. Tika veikts naratīvais pārskats par literatūru, kas publicēta no 1999. līdz 2021. gadam. Rezultāti parādīja, ka stigma joprojām ir būtiska problēma cilvēkiem ar dažāda veida psihiskiem traucējumiem, kas var mazināt ārstēšanas pozitīvo ietekmi, pasliktinot dzīves kvalitāti un samazinot sociāli profesionālo funkcionēšanu (Ciobanu et al., 2021).

Stigma palielina izvairīšanos no mentālo slimību ārstēšanas jauniešu vidū. Kanādā veiktais pētījums, kurā piedalījās jaunieši ar trauksmi, atklāja, ka viņi saskārās ar stigmu trīs līmeņos: (a) starppersonu, (b) intrapersonu un (c) strukturālā līmenī. Šie stigmu veidi izraisīja sliktākas attiecības ar ģimeni un vienaudžiem, zemu pašvērtējumu un pašefektivitāti, samazinātu vēlmi meklēt palīdzību, diskrimināciju skolā, darbā un veselības aprūpes iestādēs (Woodgate et al., 2020).

Kopsavilkumā – stigmatizācija ievērojami ietekmē cilvēku dzīves kvalitāti, pašvērtējumu un sociālo integrāciju, radot sarežģījumus gan ikdienas funkcionalitātē, gan mentālā veselībā. Pētījumi atklāj, ka stigma var izraisīt diskrimināciju, sociālo atstumtību un dažādu psiholoģisku problēmu pasliktināšanos, īpaši, ja persona cenšas slēpt savas stigmatizētās identitātes. Ņemot vērā šo stigmas ietekmi, ir būtiski pievērsties anti-stigmatiskām iniciatīvām, lai mazinātu šo negatīvo ietekmi un uzlabotu cilvēku ar psihiskām slimībām dzīves kvalitāti. Nākamajā nodaļā aplūkosim efektīvas stratēģijas un pasākumus, kas tiek īstenoti, lai samazinātu stigmatizāciju un atbalstītu iekļaujošāku sabiedrību.

Anti-stigmas pasākumi Latvijā un pasaulē

2020. gadā Veselības ministrija Latvijā uzsāka sociālo kampaņu "Viss ir norm.a", kuras mērķis ir izglītot sabiedrību par mentālām un psiholoģiskām problēmām, lai novērstu šo problēmu stigmatizāciju. Kampaņas ietvaros ir uzsvars, ka nav kauns meklēt palīdzību (Veselības Ministrija, Viss ir norm.a, 2020), bet ir jāmazina ar psihisko veselību saistītie aizspriedumi, sabiedrība ir jāinformē par biežāk sastopamajiem psihiskās veselības sarežģījumiem un to, kā ar tiem sadzīvot. Kampaņa aicina rūpēties par savu un citu cilvēku psihisko veselību un katru mēnesi visa gada garumā dalīties ar viena cilvēka pieredzes stāstu, kurš ikdienā dzīvo ar psihiskās veselības problēmām vai izjūt tās simptomus.

Savukārt Pasaules Veselības organizācija (WHo) cenšas izskaust mītus, stigmu un diskrimināciju, kas saistīti ar mentālo veselību, izstrādājot visaptverošu veselības aizsardzības rīcības plānu 2013.–2030. gadam, aicinot dalībvalstis ieviest stratēģijas, lai samazinātu stigmatizāciju, diskrimināciju un cilvēktiesību pārkāpumus attiecībā pret cilvēkiem ar mentāliem traucējumiem.

Dzīves kvalitāte

Dzīves kvalitāte ietver tādus būtiskus aspektus kā veselības stāvokli (fizisko, psiholoģisko un garīgo), attiecības, izglītības līmeni, darba apstākļus, sociālo stāvokli, materiālo labklājību, drošības izjūtu, brīvību, neatkarību lēmumu pieņemšanā, piederību sociālajai grupai un videi. Kā definējusi Pasaules Veselības organizācija, dzīves kvalitāte ir personas subjektīvs vērtējums par savu stāvokli dzīvē, kas balstīts uz personas mērķiem un vērtībām, ņemot vērā kultūras kontekstu (PVO, 2023).

Dzīves kvalitāte ir daudzšķautņains cilvēka vispārējās labklājības raksturojums, kas ietver vērtības, vidi, kultūru un sociālos apstākļus.

Dzīves kvalitāte ir ciešā saistībā ar cilvēka fizisko un psihisko veselību, piemēram, pētījumā, aplūkojot dzīves kvalitātes aspektus saistībā ar psihiskiem traucējumiem, uzklausot pašu cilvēku stāstus par savu dzīvi, tika atklāts, ka cilvēki ar psihiskiem traucējumiem bieži vien slimības simptomus uzskata par svarīgu savas dzīves sastāvdaļu, viņiem ir izjūta, ka tiek kontrolēta sava slimība, viņi jūtas nozīmīgi, ar piederības izjūtu, kas nereti tiek raksturots, kā sekundārais izdevīgums, jo, pieņemot savas slimības realitāti, cilvēkam var nākties sastapties ar ciešanām, kontroles trūkumu, kas var ietekmēt pašvērtējumu, paaugstināt izolētību un bezcerību (Connell et al., 2012).

Kopumā trauma un stigma būtiski ietekmē cilvēku dzīves kvalitāti un slimības gaitu. Stigmatizācija ne tikai pasliktina emocionālo un fizisko veselību, bet arī kavē savlaicīgu palīdzības meklēšanu un ārstēšanos, kas ir kritiski svarīgi veiksmīgai atveseļošanai. Ņemot vērā dziļo ietekmi, ko stigma un trauma var atstāt uz indivīdu un sabiedrību kopumā, ir būtiski turpināt un paplašināt anti-stigmatiskos pasākumus. Šīs iniciatīvas, piemēram, kampaņas un izglītojošas programmas, ne tikai veicina izpratni, bet arī, mazinot aizspriedumus, palīdz veidot atvērtāku un iekļaujošāku sabiedrību, kas atbalsta cilvēkus ar psihiskām veselības problēmām.

Metodoloģija

Pētījuma mērķis bija izpētīt, vai pastāv saistība starp pārdzīvoto traumatisko pieredzi bērnībā, dzīves kvalitāti un palīdzības meklēšanas stigmatizāciju pieaugušā vecumā.

Pētījumā piedalījās pieaugušie vecumā no 18 gadiem, kuri tika atlasīti pēc pieejamības principa. Kopumā izlasi veidoja 76 respondenti: 28 vīrieši (40 %) un 48 sievietes (60 %). Respondentu vecums no 18 līdz 55. Vecuma grupu izmantošana tika izvēlēta, jo pētījuma mērķis ir analizēt saistības dažādās paaudzes grupās.

Pētījuma ietvaros tika lietota interneta vidē izvietota anketa, kas sastāvēja no četrām daļām – bērnības pieredze, dzīves kvalitāte, stigmatizācija un demogrāfisko rādītāju aptaujas.

Lai novērtētu bērnībā piedzīvotu traumu, tika lietota Bērnības traumas aptauja *(Bernstein & Fink, 1998).* Latviešu valodā 2004. gadā adaptēja Sebre, Ļebedeva un Trapenciere. Aptaujā ir 37 apgalvojumi, kurus novērtē pēc 5 punktu Likerta skalas (1 – nemaz nepiekrītu – 5 pilnībā piekrītu). Aptaujā tiek novērtēta bērnībā piedzīvotā vardarbība, iekļaujot emocionālo, fizisko, seksuālo vardarbību, pamešanu novārtā un ģimenes emocionālās attiecības. Bērnības pieredzes skalu rādītāji: fiziska vardarbība (α = 0,90), emocionāla vardarbība (α = 0,94), seksuāla vardarbība (α = 0,83) un pamestība novārtā (α = 0,66).

Palīdzības meklēšanas internalizētās stigmas aptauja (Vogel et al., 2006), latviešu valodā 2020. gadā adaptēja Brence. Aptauja mēra, cik spēcīgi cilvēks izjūt internalizēto stigmu saistībā ar palīdzības meklēšanu jeb pašstigmu līmeni. Atbildot uz apgalvojumiem, tika piedāvāti pieci atbilžu varianti no 1 – nemaz nepiekrītu līdz 2 – pilnībā piekrītu. Augstāks punktu skaits liecina par augstāku stigmatizāciju. Latviski adaptētā aptauja uzrāda arī augstu ticamības rādītāju. Stigmatizācijas palīdzības meklēšanā ticamības rādītājs ir (α = 0,71), kas norāda uz pieņemamu ticamību.

Dzīves kvalitātes mērījumam tika izmantota "Pasaules Veselības organizācijas dzīves kvalitātes BREF" (WHOQOL-BREF) aptauja (Pasaules Veselības organizācija, 2012), kas

izstrādāta, lai novērtētu dzīves kvalitāti dažādās jomās. Aptaujā ir 26 jautājumi, kas novērtē dzīves kvalitāti, ietverot tādas dimensijas kā fiziskā veselība, psiholoģiskais stāvoklis, sociālās attiecības un vides faktori. Atbildes tiek sniegtas piecu ballu skalā. Dzīves kvalitātes apakšskalu ticamības rādītāji ir: psiholoģiskais stāvoklis (α = 0,78), fiziskā veselība (α = 0,82), sociālās attiecības (α = 0,71) un vide (α = 0,77). Fiziskās veselības apakšskala uzrāda labu ticamību, savukārt pārējām apakšskalām ticamība ir pieņemama.

Pētījuma gaitā tika fiksēti arī demogrāfiskie dati: vecuma grupa, dzimums, ģimenes stāvoklis, veselības stāvoklis un izglītība. Dati tika ievākti interneta vidē, izmantojot *Google*.

Aptaujās iegūtie dati tika apkopoti, izmantojot *Google Sheet* programmu, un pēc tam tika apstrādāti, izmantojot statistisko datu apstrādes programmu *SPSS Statistics 28*.

Pētījuma rezultāti

Pēc katras aptaujas atslēgas tika veikta pārbaude par aptauju ticamību un atbilstību normālam sadalījumam, kā arī tika veikti aprēķini aprakstošās statistikas datu ieguvei.

Atbilstība normālam sadalījumam tika noteikta, izmantojot Kolmogorova-Smirnova testu. Statistikas analīzei tika izmantotas 76 respondentu atbildes.

No Kolmogorova–Smirnova testa rezultātiem tika secināts, ka normālam sadalījumam neatbilst visas skalas, izņemot sociālās un psiholoģisko dzīves kvalitātes un vardarbības skalas, kurām p > 0,05. Kronbaha alfa izmantotajām aptaujām un to apakšskalām variē no 0,66 līdz 0,94. Datus var uzskatīt par ticamiem un izmantot turpmākajai apstrādei.

Pārbaudot saistību starp traumatisko bērnības pieredzi, stigmatizētu palīdzības meklēšanu un dzīves kvalitāti pieaugušo vecumā, – tika izmantots Spīrmena korelācijas koeficients (skat. 1. tabulu).

Rezultāti parāda, ka bērnības pieredzes rādītāji negatīvi korelē ar fiziskās dzīves kvalitātes rādītājiem, psiholoģiskās dzīves kvalitātes rādītājiem un vides dzīves kvalitātes rādītājiem. Stigmatizācijas skalai nav konstatētas nozīmīgas saistības ar dzīves kvalitātes rādītājiem un bērnības pieredzi (skat. 1. tabulu).

Pārbaudot statistiski nozīmīgas atšķirības starp sieviešu un vīriešu izlasēm (skat. 2. tabulu), rezultāti parāda, ka sievietēm ir augstāks rādītājs bērnības pieredzē un emocionālās vardarbības pieredzē, kā arī augstāki rādītāji pamešanu novārtā skalā. Savukārt vīriešu grupā tika iegūti augstāki stigmatizācijas rezultāti nekā sievietēm.

Aplūkojot statistiski nozīmīgas atšķirības attiecībā uz stigmatizētu palīdzības meklēšanu un dzīves kvalitāti starp cilvēkiem ar vidējo un augstāko izglītību, cilvēkiem ar vidējo izglītību ir augstāks stigmatizācijas līmenis nekā tiem, kas ir ieguvuši augstāko izglītību, dzīves kvalitāte ir augstāka cilvēkiem ar augstāko izglītību, salīdzinot ar tiem, kam ir vidējā izglītība (skat. 3. tabulu).

1. tabula

Negatīvās bērnības pieredzes, dzīves kvalitātes un stigmatizācijas korelācijas koeficienti pieaugušo izlasē (N=76)

NBP		Stigmatizācija	Dzīves kvalitāte			
			FDZ	PDZ	SDZ	VDZ
Negatīva bērnības pieredze (NBP)	-	0,01	-0,49**	-0,29**	0,21	-0,48**
Stigmatizācija	0,01	-	-0,03	-0,03	0,02	-0,14
Fiziska dzīves kvalitāte(FDZ)	-0,49**	-0,03	-	0.71**	0,61**	0,73**
Psiholoģiska dzīves kvalitāte (PDZ)	-0,29**	-0,03	0,71**	-	0,57**	0,55**
Sociāla dzīves kvalitāte (SDZ)	0,21	0,02	0,61**	0,57**	-	0,56**
Vides dzīves kvalitāte (DZ)	-0,49**	-0,49**	0,61**	0,57**	0,56**	-

2. tabula

***Mann-Whitney U* testa rezultāti sieviešu un vīriešu izlases atšķirībām (N=76)**

Kategorija / Dzimums	Sievietes (N=48)		Vīrieši(N=28)		p
	M	SD	M	SD	
Bērnības pieredze	67,1	19,3	57,7	19,3	0,03
Fiziska vardarbība	15,7	06,7	16,1	7,86	0,68
Emocionāla vardarbība	25,5	10,7	18,4	7,10	0,001
Seksuāla vardarbība	11,6	3,35	11,2	4,95	0,14
Pamešana novartā	14,1	4,18	12,0	3,47	0,02
Stigmatizācija	20,3	7,77	22,6	7,10	0,02
Fiziska dzīves kvalitāte	55,2	14,9	57,8	8,7	0,17
Psiholoģiska dzīves kvalitāte	57,1	16,6	56,2	11,2	0,91
Sociāla dzīves kvalitāte	63,0	20,3	65,1	16,2	0,66
Vides dzīves kvalitāte	6766	15,5	69,0	12,6	0,82

3. tabula

***Mann-Whitney U* un T-testa rezultāti izglītības līmeņu izlases atšķirībām (N=76)**

Kategorija / Izglītība	Vidējā (N=46)		Augstākā (N=30)		t-p
	M	SD	M	SD	
Bērnības pieredze	66,3	20,5	59,6	17,9	0,17
Stigmatizācija	23,4	7,39	19,7	6,74	0,03
Psiholoģiskā dzīves kvalitāte	53,8	14,7	61,2	14,1	0,03
Vides dzīves kvalitāte	65,6	14,5	71,9	13,7	0,06
Fiziskā dzīves kvalitāte	54,4	11,1	58,9	15,1	0,13
Sociālā dzīves kvalitāte	62,2	20,1	66,2	16,7	0,36

Diskusija

Pētījuma mērķis bija izpētīt saistības starp bērnības pieredzi, stigmatizāciju un dzīves kvalitāti pieaugušā vecumā. Lai gan pētījumā neapstiprinājās, ka negatīvā bērnības pieredze ir saistīta ar stigmatizāciju, rezultāti atklāja citas būtiskas tendences, kas tiek apstiprinātas arī līdzīgu pētījumu atziņās, piemēram, ka vīrieši biežāk sastopas ar augstāku pašstigmas un sociālās stigmas līmeni nekā sievietes (Topkaya, 2014). Turklāt vecums un dzimums var ietekmēt attieksmi pret palīdzības meklēšanu, kur nozīmīgu lomu spēlē pašstigmas starpniecība (Yee et al., 2020). Šī tendence tika apstiprināta arī šī pētījuma ietvaros, jo vīrieši biežāk ziņoja par stigmatizāciju, savukārt vecumu grupas šoreiz neparādīja nozīmīgas atšķirības. Attiecībā uz dzīves kvalitāti tika iegūti statistiski nozīmīgi rādītāji, apliecinot bērnības pieredzes saistību ar dzīves kvalitāti, t.i., ar tās psiholoģiskiem, sociāliem, fiziskiem un vides dzīves kvalitātes aspektiem, kas sasaucas ar citu pētījumu atziņām (piemēram, Dhungana et al., 2022). Runājot par bērnības negatīvās pieredzes ar fizisko un psiholoģisko veselību saistību, jautājumi, kas tika iekļauti aptaujā un aptvēra tēmas par fizisko veselību, sāpēm un psiholoģiskām grūtībām, uzrāda līdzības ar pētījuma rezultātiem, kuros konstatēts, ka bērnības traumas ir saistītas ar negatīvām veselības sekām. Tās ietver psiholoģisko stresu, miega traucējumus un emocionālās labklājības pasliktināšanos. Turklāt bērnības traumas var izraisīt veģetatīvās nervu sistēmas traucējumus un spēcīgas stresa reakcijas, piemēram, izmaiņas sirdsdarbības ritmā (Serafini et al., 2017). Šī saistība norāda uz bērnības traumu ilgtermiņa ietekmi ne tikai emocionālājā sfērā, bet arī uz fizisko veselību.

Pētījums norāda, ka pašstigmatizācijas līmenis samazinās līdz ar ģimenes izglītības līmeņa pieaugumu (Onie et al., 2021). Pētījuma dati norāda arī uz izglītības un sociālekonomisko faktoru būtisko lomu cīņā pret stigmatizāciju, kas savukārt veicina izpratni par efektīviem iejaukšanās mehānismiem. Pārbaudot citus rakstā neatspoguļotus datus par ģimenes stāvokli, hroniskām vai bez hroniskām saslimšanām, netika iegūtas nozīmīgas atšķirības. Tajā pašā laikā par dzīves kvalitātes rādītāju atšķirībām saistībā ar vecuma grupām tika iegūti nozīmīgi rezultāti, kas liecina par pieaugumu līdz ar vecumu 25–34 gadu vecumā. Tas var norādīt uz tendenci cilvēkiem ar vecumu uzlabot savus dzīves kvalitātes apstākļus, ietverot gan fizisko, gan psiholoģisko labklājību. *Pētījuma ierobežojumi* ietver vairākus svarīgus aspektus, piemēram, nelielo respondentu izlasi, kas var ietekmēt rezultātu vispārināšanu, kā arī padziļinātas pieejas trūkumu katram dzīves kvalitātes aspektam. Tāpat respondenti ar atšķirīgu bērnības pieredzi tika apkopoti korelācijas pētījumā, kas nenodrošina detalizētu izpratni par katras grupas specifiku. Pētījumā tika izmantotas tikai pašnovērtējuma anketas, tas varētu radīt atbildes izkropļojumus, jo respondenti varētu būt tendēti sniegt sabiedrībā pieņemamākas vai "pareizākas" atbildes, kas varētu ietekmēt pētījuma rezultātu precizitāti.

Būtiski uzsvērt izglītības un izglītojošu projektu nozīmi stigmatizācijas mazināšanai sabiedrībā, jo informētība un izpratne par psihisko veselību var palīdzēt samazināt negatīvo attieksmi. Turpmākajos pētījumos būtu padziļināti jāizpēta dzīves kvalitātes ietekme uz cilvēkiem ar negatīvu bērnības pieredzi.

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PAR LATVIJAS REPUBLIKAS CIVILLIKUMA 181. PANTA UN 182. PANTA PIEMĒROŠANAS PROBLĒMASPEKTIEM

THE PROBLEMATIC ASPECTS OF PRACTICAL REALISATION OF THE RIGHTS PRESCRIBED BY ARTICLES 181 AND 182 OF THE CIVIL LAW OF THE REPUBLIC OF LATVIA

Kristīne Neimane
Biznesa augstskola *Turība*, Latvija
Kristine.Neimane.TZK@turiba.lv

Oksana Rosovska
Individuāli praktizējoša zvērināta advokāte, Latvija
rosovska@inbox.lv

Anotācija

Raksta autores, vadoties no praktiskā darbā identificētajām problēmām, pievērsušās Civillikuma 181. pantā un 182. pantā paredzēto bērna un vecāku tiesību uz saskarsmi realizācijai strīdus gadījumā, proti, to praktiskās realizācijas iespējām, kā arī šo tiesību robežām. Autores centīsies rast atbildi uz pētījuma jautājumu, kas dotajā gadījumā pilnībā raksturo identificēto un tālāk rakstā analizēto problēmu. Pētījuma jautājums: vai kopā nedzīvojošā vecāka un bērna saskarsmes tiesība ietver tikai tiesas noteikto kārtību (grafiku), vai tā ietver plašākas saskarsmes tiesības, un kā tās realizējamas. Autoru skatījumā praksē identificētās problēmas saistītas ar iespējamo materiālās normas nepietiekamo regulējumu un secīgi procesuālās realizācijas problēmām. Vai ir iespējams strīdus gadījumā, t.i., kad lietu izšķir tiesa ar spriedumu, realizēt saskarsmes tiesības ārpus tiesas sprieduma grafika, vai kopā nedzīvojošam vecākam jāsamierinās ar tiesas noteikto un kopā dzīvojošā vecāka dominanti, lai gan šāds apgalvojums ir pretrunā ar Civillikuma 178. pantā noteikto abu vecāku kopīgu aizgādību. Tēmas aktualitāte pamatojas bērna un vecāka tiesību un vecāka pienākumu mijiedarbībā, jautājuma sensitivitātē, kas, autoru skatījumā, pieprasa vispusīgāku regulējumu materiālajās un procesuālajās normās, kā arī autores aktualizē samērā maz pētītu jautājumu. Raksta mērķis: materiālo un procesuālo normu pilnveide, analizējot prakses problēmas. Izmantotās pētniecības metodes: analīzes, kritiskās analīzes, vēsturiskā, salīdzinošās, aprakstošās un aspektu analīzes metodes.

Keywords: *Civil law, family law, access rights, civil procedure*

Abstract

The authors of the article, guided by the problems identified in practical work, have focused on the implementation of the rights of children and parents to contact in the event of a dispute, provided for in Articles 181 and 182 of the Civil Law, namely, the possibilities of their practical implementation, as well as the limits of these rights. The authors will try to find an answer to the research question that in this case fully

characterizes the problem identified and analyzed further in the article. Research question: does the right of contact between a parent and a child who does not live together include only the procedure (schedule) determined by the court, or does it include broader rights of contact and how can they be implemented. In the authors' opinion, the problems identified in practice are related to the possible insufficient regulation of the substantive norm and, consequently, to the problems of procedural implementation. Is it possible in the event of a dispute, i.e. when the case is decided by a court with a judgment, to exercise access rights outside the court judgment schedule, or the non-cohabiting parent must accept the dominance of the cohabiting parent determined by the court, although such a statement contradicts the joint custody of both parents stipulated in Article 178 of the Civil Law. The topicality of the research is based on the interaction of the rights of the child and the parent and the parent's obligations, the sensitivity of the issue, which, in the authors' opinion, requires more comprehensive regulation in substantive and procedural norms, as well as the fact that authors update a relatively little-studied issue.

The purpose of the article: improvement of substantive and procedural norms by analyzing practice problems.

Research methods used: analysis, critical analysis, historical, comparative, descriptive and aspect analysis methods.

Atslēgas vārdi: *Civillikums*, ģimenes tiesības, saskarsmes tiesības, civilprocess.

Ievads

Pirms izklāstīt praksē identificētās problēmas saistībā ar *Civillikuma*[60] 181. pantā un 182. pantā noteikto tiesību realizāciju, autores akcentēs tos pamatjautājumus, par kuriem diskusijām nevajadzētu pastāvēt, un tie būtu trīs, t.i., pirmais – tiesību kopums, kuru kā vecākam, tā bērnam paredz *Civillikuma* 181. pants, t.i., tiesības uz saskarsmi; otrais, ka šīs tiesības ietilpst cilvēka pamattiesību tvērumā un tās aizsargā *Latvijas Republikas Satversmes*[61] 8. nodaļas 110. pants (turpmāk tekstā arī *Satversmes* 110. p.), kur teikts: *Valsts aizsargā un atbalsta laulību – savienību starp vīrieti un sievieti, ģimeni, vecāku un bērna tiesības. Valsts īpaši palīdz bērniem invalīdiem, bērniem, kas palikuši bez vecāku gādības vai cietuši no varmācības*. S. Osipova pētījumā par ģimenes tiesībām Latvijas Republikā, to attīstību un vēsturi norādījusi: *"(..) likumdevējs turpināja laulības institūta un bērnu tiesību nostiprināšanu, iestrādājot konstitucionālu aizsardzību laulībai, 2005. gada 15. decembrī Satversmē tika iekļauts 110. pants (..)"*[62]. Savukārt vēl citā pētījumā par konstitucionālajām tiesībām norādīts, ka: *"(..) Satversmes tekstā tieši nav paredzēta iespēja ierobežot vairākas Satversmē noteiktās cilvēktiesības (piemēram, Satversmes 90., 110–115. pants) (..)"*.[63] Raksta autores uzmanību velta *Civillikuma* 181. un 182. panta problemātikai strīdu gadījumā, tāpēc šeit papildus paskaidrojams, ka Latvijas Republikas Satversmes tiesa nav skatījusi lietas saistībā ar *Civillikuma* 181. panta un/vai 182. panta vai kādas to daļas atbilstību *Latvijas Republikas Satversmes* 110. pantam, līdz ar to šādā aspektā Latvijas Republikas Satversmes tiesa nav devusi 110. panta

60 Latvijas Republikas Civillikums, 28.01.1937., *Valdības Vēstnesis*, 41, 20.02.1937. Pēdējie grozījumi 21.03.2024.

61 Latvijas Republikas Satversme, 15.02.1922., *Latvijas Vēstnesis*, 43, 01.07.1993., Pēdējie grozījumi 04.10.2018.

62 Osipova, S. (2020). *Nācija, valoda, tiesiska valsts: ceļā uz rītdienu*. Rīga: Tiesu namu aģentūra, 154. lpp.

63 Pleps, J., Pastars, E., Plakane, I.(2021). *Konstitucionālās tiesības*. Rīga: Latvijas Vēstnesis, 208. lpp.

skaidrojumu, tomēr *Satversmes* 110. panta tvērumu Latvijas Republikas Satversmes tiesa skaidrojusi, lemjot par Latvijas Republikas *Civillikuma* 155. panta sestās daļas atbilstību Satversmes 110. pantam lietā Nr. 2004-02-0106[64], kur Satversmes tiesa secinājumu daļas 10. punktā konstatējusi, ka *Satversmes* 110. pantā lakoniski formulēts, ko valsts aizsargā, taču nav konkretizēti veidi, kā šī aizsardzība var tikt īstenota[65]. Minētajā lietā Nr. 2004-02-0106 Satversmes tiesa, piemērojot ANO *Konvencijas par bērna tiesībām* 3. panta pirmo daļu[66], kas noteic bērna interešu prioritāti, kā arī *Bērnu tiesību aizsardzības likuma* 6. panta pirmo daļu[67], secinājusi, ka bērna tiesības un intereses ir prioritāras un no šī principa izriet, ka tiesiskajās attiecībās, kas skar bērnu, kā arī visās darbībās attiecībā uz bērnu prioritāras ir bērna tiesības un intereses un šo interešu aizsardzība visos līmeņos iespējami labākajā veidā.[68] Identiski Latvijas Republikas Satversmes tiesa norādījusi arī savā 2016. gada 16. jūnija spriedumā lietā Nr. 2015-18-01[69] "Par Uzturlīdzekļu garantiju fonda likuma 5.[1] panta atbilstību Latvijas Republikas *Satversmes* 96. pantam", īpaši šī sprieduma secinājuma daļas [11.2] punktā, [14] un [14.1] punktā, akcentējot, ka ir jāievēro bērna interešu prioritātes princips, un atzīstot, ka bērna intereses tiek skartas ne tikai tad, ja lēmums tiek pieņemts tieši attiecībā uz bērnu, bet arī tad, kad tas var tikt attiecināts uz bērnu, t.i., skart viņu netieši. Savukārt Latvijas Republikas Augstākās tiesas Senāta 2024. gada spriedumā anonimizētā lietā SKC-[C]/2024[70], kur cita starpā Augstākās tiesas Senāts pievērsies jautājumam par tiesas sprieduma saturu, kas nodrošina saskarsmes kārtības izpildāmību, sprieduma motīvu daļā Augstākās tiesas Senāts akcentē, ka: *"(..) Saskarsmes tiesība ir viena no cilvēktiesībām, un tās izpausme Eiropas Cilvēktiesību tiesas (turpmāk – ECT) praksē tiek apskatīta kā tiesības uz privāto dzīvi un ģimenes dzīves neaizskaramību, kas garantētas Eiropas Cilvēktiesību un pamatbrīvību aizsardzības konvencijas 8. pantā. ECT ir uzsvērusi, ka "vecāku un bērnu iespēja baudīt vienam otra sabiedrību ir viens no ģimenes dzīves pamatelementiem" (..)"*[71], savukārt, apskatot *Latvijas Republikas Civillikuma* izveidi, rašanos un iekļautās normas no vēsturiskā aspekta, zinātniski pētnieciskajā literatūrā tiek uzsvērts: *"(..)viena no būtiskākajām jaunā Civillikuma (domāts 1937.g. Civillikums – autoru piezīme) iezīmēm, jāatzīst, ka tā uzmanības centrā atrodas nevis indivīds, bet gan ģimene*[72]*, un, turpinot šo domu, tiek norādīts, ka ģimene ir saistelements starp indivīdu un valsti, kā arī tas, ka Latvijas likumdevējs ģimenei piegriezis sevišķu vērību jaunajā Civillikumā (..)*[73]. Ievērojot iepriekš minēto, autoru ieskatā nav nepieciešams vēl kā īpaši argumentēt šo tiesību nozīmīgumu ikkatra vecāka un bērna attiecībās, kā arī bērna attīstībā; un kā trešais būtiskais norādāms fakts, ka gadījumā, ja nepastāvēs strīds par saskarsmes tiesību realizāciju, t.i., netiks iesaistīta tiesa vai nebūs nepieciešams lietu izlemt ar tiesas spriedumu, tad neaktualizēsies šī raksta autoru turpmāk apskatītās un analizētās problēmas.

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64 *Latvijas Republikas Satversmes tiesas spriedumi 2004* (2006). Rīga: Tiesu namu aģentūra, 27.-37. lpp.

65 *Turpat*, 33. lpp., t.i., 10. punkts sprieduma secinājumu daļā

66 Apvienoto Nāciju organizācijas 1989. gada 20. novembra Bērnu tiesību konvencija. Latvijas Republika pievienojusies 1992. gada 14. maijā

67 Bērnu tiesību aizsardzības likums, 19.06.1998., *Latvijas Vēstnesis*, 199/200. Pēdējie grozījumi 28.11.2024.

68 *Turpat,* 33. lpp., t.i., 11. punkts sprieduma secinājumu daļā

69 Pieejams: https://www.satv.tiesa.gov.lv/web/viewer.html?file=/wp-content/uploads/2015/07/2015-18-01_Spriedums.pdf#search=; iegūts: 19.02.2025.

70 Pieejams: https://www.at.gov.lv/lv/tiesu-prakse/judikaturas-nolemumu-arhivs/civillietu-departaments/hronologiska-seciba?lawfilter=0&year=2024; iegūts: 17.02.2025.

71 Pieejams: https://www.at.gov.lv/lv/tiesu-prakse/judikaturas-nolemumu-arhivs/civillietu-departaments/hronologiska-seciba?lawfilter=0&year=2024; iegūts: 17.02.2025. skat. [12.1] punkts

72 Švarcs, F. (2011). *Latvijas 1937. gada 28. janvāra Civillikums un tā rašanās vēsture*. Rīga: Tiesu namu aģentūra, 177. lpp.

73 *Turpat*., 177. lpp.

Turpmākajās raksta nodaļās autores pievērsīsies to problēmu analīzei un izpētei, kuras rodas *Civillikuma* 181., 182. panta piemērošanas sakarā, tieši tādā aspektā, cik daudz tiesību uz saskarsmi strīdus gadījumā ir kopā nedzīvojošam vecākam; kā risināt situāciju, kuru ietekmē kopā dzīvojošā vecāka attieksme un arī bērna viedoklis, kas ir būtībā atsevišķs temats, bet autores tam nedaudz pieskarsies, lai akcentētu ietekmes faktorus šo kategoriju lietām. Autoru skatījumā šī tēma ir nepietiekami apskatīta juridiskajā literatūrā un pavisam virspusēji apskatīta no kopā nedzīvojošā vecāka tiesību ierobežojošiem aspektiem, kuri faktiski pastāv un izpaužas reālajos prakses gadījumos, t.sk. arī raksta autoru praksē, un kuru pamats saskatāms esošajā materiālajā un procesuālajā regulējumā, un autori sliecas uzskatīt, ka arī regulējuma nepilnībās. Autoru skatījumā šis pētījums, kura veikšanu iniciējuši prakses novērojumi un situāciju analīze, aizsāk aktuālu diskusiju attiecībā ar bērna un kopā nedzīvojošā vecāka tiesībām uz savstarpējo komunikāciju visos tās iespējamos veidos, kam ir būtiska nozīme gan bērna un vecāku tiesību nodrošināšanā un pilnveidē, kā arī šis pētījums autoru ieskatā varētu būt interesants un noderīgs materiāls ikviena praktizējoša profesionāļa ikdienas darbā, turklāt arī tālākiem zinātniskiem pētījumiem, lai rosinātu diskusiju, pievērstu uzmanību problēmas pastāvēšanai un meklētu sekmīgus risinājumus.

Sprieduma izpildāmība saskarsmes tiesību strīdos, konfliktējošo attiecību ietekme un ārpustiesas komunikācijas nozīme bērnu interesēs

Bāzējoties uz šī raksta ievadā norādīto, autores turpinās analizēt to, kāda ietekme uz kopā nedzīvojošā vecāka saskarsmes tiesībām rodas strīdus gadījumā un kā tas ietekmē šīs tiesības realizācijas iespējas un kvalitāti, kā arī vecāka un bērna visa veida komunikācijas brīvību. Tātad, ja pastāvēs strīds un tam nebūs iespējams vai netiks panākts izlīguma vai mediācijas vienošanās risinājums, tas secīgi nozīmēs lietas izspriešanu ar tiesas spriedumu. Tiklīdz situācija jautājumā par bērna un kopā nedzīvojošā vecāka saskarsmi pārvietojas t.s. **strīdus laukā**, vienlaicīgi aktualizējas jautājums par to, – ko pēc būtības ietver saskarsmes tiesība (t.i., cik plaša tā ir), un vai strīdus gadījumā, t.i., kad šo tiesību izmantošanu nosaka tiesa ar spriedumu, kā to paredz *Civillikuma* 182. pantā pirmais teikums, kopā nedzīvojošais vecāks tomēr ir tiesīgs realizēt saskarsmi vai īslaicīgu komunikāciju ar bērnu arī ārpus tā grafika, kāds noteikts tiesas spriedumā, vai tomēr šīs tiesības tiek strikti ierobežotas, ietverot tās tiesas spriedumā noteiktā grafika robežās, tāpat pastāv jautājums – vai kopā nedzīvojošais vecāks ir tiesīgs prasīt tiesu atzīt, ka vecākam ir tiesības uz pastāvīgu un patstāvīgu jebkāda veida komunikāciju ar bērnu ārpus tiesas noteiktā grafika robežām un bez otra vecāka (t.i., kopā dzīvojošā vecāka) kontroles. Šis jautājums izriet no praktiskās ikdienas dzīves norises gaitas un, kas nav mazsvarīgi, arī no mūsdienu ikdienā pieejamām attālinātas komunikācijas iespējām un to ievērojamo klātbūtni ikdienas gaitās, tāpēc tas ir loģisks un pamatots ikvienam vecākam, kurš patiešām vēlas piedalīties sava bērna dzīvē un kvalitatīvi komunicēt, lai arī ikdienā nedzīvo ar bērnu kopā; tieši tāpēc minētais jautājums izvirzās kā nozīmīgs strīdus gadījumos, jo tad var runāt par šīs tiesības ierobežojošiem elementiem, kas savukārt izriet no procesuālajām normām, kopsakarībā ar *Civillikuma* 182. panta pirmo teikumu un secīgi sprieduma izpildāmības nepieciešamību.

Augstākās tiesas Senāts konsekventi norādījis, ka spriedumam jābūt izpildāmam, kas izriet no *Civilprocesa likuma* 197. panta[74]. Jau pieminētajā Augstākās tiesas Spriedumā lietā Nr. SKC-[C]/2024 (skat. 11. atsaucē) Senāts norādījis uz sprieduma izpildāmībai nepieciešamajiem

[74] Civilprocesa likums, 14.10.1998. *Latvijas Vēstnesis*, 326/330, 03.11.1998. Pēdējie grozījumi 20.06.2024.

kritērijiem, kā arī īpaši akcentējis problemātiku saistībā ar pušu konfliktējošām attiecībām, kas pieprasa tiesai, taisot spriedumu par saskarsmes tiesībām, to ņemt vērā un konkretizēt specifiskus momentus, tā, piemēram: *"(..) spriedumā par saskarsmes tiesības izmantošanas kārtību, ievērojot pušu konfliktējošās attiecības, ir jābūt noteiktam ne tikai saskarsmes laikam, bet arī tam, kā saskarsme tiek organizēta, paredzot pušu pienākumus, saziņu u. tml., jo atbilstoši Civilprocesa likuma 197. pantam spriedumam ir jābūt izpildāmam un pēc iespējas konkrētam (sk., piemēram, Senāta 2020. gada [..] sprieduma slēgta statusa lietā Nr. SKC-[C]/2020, ECLI: [..], 7. punktu, 2023. gada [..] sprieduma slēgta statusa lietā Nr. SKC-[C]/2023, ECLI:LV:AT:2023:[..], 8.3. punktu, pieejami Augstākās tiesas judikatūras nolēmumu arhīvā).(..)"*.[75] Sprieduma izpildāmība un secīgi arī tā konkrētības pakāpe šo kategoriju lietās ir pamatproblēma, ko arī pierāda Augstākās tiesas Senāta spriedumu un lēmumu saturs un tajos norādītie vērā ņemamie aspekti, t.sk. arī Augstākās tiesas Senāta lēmums lietā Nr. [..], SKC-[G]/2022[76], kur Augstākās tiesas Senāts cita starpā norādījis: "(..) *Tiesas sprieduma kā procesuāla dokumenta izteiksmei jābūt precīzai, konkrētai un nepārprotamai. Tiesas spriedumam jābūt sastādītam tā, lai tā saturs būtu saprotams gan lietas dalībniekiem, gan visiem tiesas sēžu zālē klātesošajiem, kā arī citām personām, kurām nāksies izpildīt vai ievērot spriedumā noteikto(..)"*.[77] Tomēr no saskarsmes tiesību kvalitātes skata punkta ir apšaubāms, ka spriedumā var noteikt pilnīgi visu saskarsmes realizāciju, kā tas būtu situācijā, ja strīds nepastāvētu.

Uz nepieciešamību risināt ārpus tiesas kārtībā strīdus, kas skar bērnu intereses, Augstākās tiesas Senāts norādījis 2020. gada 17. septembra Rīcības sēdes lēmumā lietā SKA-1345/2020, akcentējot: "(..) *Senatoru kolēģija obiter dictum vēlas norādīt, ka lietās, kas saistītas ar bērnu tiesību ievērošanu, ļoti liela nozīme ir tam, kā notiek komunikācija vecāku starpā. Strīdi šādās lietās pamatā būtu atrisināmi ārpus tiesas, ja bērna vecāki savstarpēji komunicētu tikai ar vienu mērķi – nodrošināt bērna vislabāko interešu ievērošanu. Tādējādi šādā komunikācijā vecāku ambīcijas un taisnīguma izjūta noliekama pie malas. Nenoliedzami komunikācija šādos strīdos nav emocionāli viegls process. Tomēr konstruktīva un objektīva komunikācija dod ilgtermiņa rezultātu – bērna pilnvērtīgu attīstību, tostarp emocionālo stabilitāti (..) Tādējādi vecākiem šādās lietās saprātīgi ir izmantot visus iespējamos ārpustiesas līdzekļus komunikācijas veicināšanai* (..)".[78] Neskatoties uz Augstākās tiesas Senāta lēmumā ietverto visnotaļ vērtīgo atziņu, tomēr jāatzīst, ka praktiskā lietu kārtība daudzos gadījumos ir citāda, un, pat tad, ja vecāku vienošanās sākotnēji ir bijusi, tā itin viegli var pārvērsties konfliktsituācijā, bet ļoti bieži tādas vienošanās nemaz nav, un puses tādu nevar panākt sakarā ar augstu konfliktējošo attiecību dominanti, turklāt ne materiālā, ne procesuālā norma neparedz (un secīgi arī neveicina), ka vecākiem pirms vēršanās tiesā par saskarsmes kārtības izmantošanu ar bērnu vai jebkuru citu strīdus jautājumu, kas skar bērna intereses vai tiesības, jārealizē noteikta ārpustiesas strīda risināšanas procedūra, iesniedzot tiesai par to pierādījumus. Līdz ar to jāsecina, ka situācijā, kad ārpustiesas ievērošanas kārtība nav noteikta ar likumu, situācija nav atrisināma tikai ar Augstākās tiesas Senāta *obiter dictum* atziņām, jo *Civilprocesa likuma*[79] 129. panta otrās daļas 2) punkts nosaka, ka prasības pieteikumam pievienojams dokuments par lietas ārpustiesas

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75 Pieejams: https://www.at.gov.lv/lv/tiesu-prakse/judikaturas-nolemumu-arhivs/civillietu-departaments/hronologiska-seciba?lawfilter=0&year=2024; skat. sprieduma motīvu daļā [12.2] punktā, iegūts: 17.02.2025.

76 Pieejams: https://www.at.gov.lv/lv/tiesu-prakse/judikaturas-nolemumu-arhivs/civillietu-departaments/hronologiska-seciba?lawfilter=0&year=2022; iegūts: 18.02.2025., skat. motīvu daļa [9] un [9.1.] punktu

77 *Turpat.,* skat. Lēmuma lietā Nr. [..], SKC-[G]/2022 motīvu daļas [9] punktu

78 Pieejams: https://www.at.gov.lv/lv/tiesu-prakse/judikaturas-nolemumu-arhivs/administrativo-lietu-departaments/klasifikators-pec-lietu-kategorijam/bernu-tiesibas-vecaku-tiesibas, iegūts:17.02.2025.

79 Civilprocesa likums, 14.10.1998. *Latvijas Vēstnesis*, 326/330, 03.11.1998. Pēdējie grozījumi 20.06.2024.

izskatīšanas kārtības ievērošanu, ja tāda noteikta likumā (t.s. atslēgas vārds šajā gadījumā ir – *noteikta likumā*), bet šobrīd tāda likuma prasība nav. Ja tāda būtu, tad attiecīga pierādījuma nepievienošana ir pamats tiesai pieņemt lēmumu par prasības pieteikuma atstāšanu bez virzības, pamatojoties uz *Civilprocesa likuma* 133. panta pirmās daļas 2) punktu, kas attiecīgi nodrošina kontroli pār ārpustiesas kārtības ievērošanu un strīdu risināšanas veicināšanai tieši tādā veidā, kādā to ieteicis Augstākās tiesas Senāts.

Kā jau secināts, *Civillikumā* attiecībā uz vecāka un bērna saskarsmes jautājumu risināšanu ārpustiesas strīdu risināšanas kārtības ievērošana nav noteikta, līdz ar to personām nepastāv pienākums to ievērot, ne arī iesniegt tiesai par to pierādījumus, tādējādi personas nonāk tiesā (līdz ar to strīdus procesā) daudz ātrāk, nekā tas būtu, realizējot ārpustiesas procedūras. No minētā izriet loģisks secinājums, ka normatīvā regulējuma pilnveidošana, piemēram, paredzot ārpustiesas procedūras obligātu ievērošanu, būtu viens no iespējamiem risinājumiem, lai pēc iespējas saudzīgākā veidā risinātu strīdus situācijas, kuras nešaubīgi ir attiecināmas un tieši skar bērnu, kā arī var radīt psiholoģiski traumatiskas situācijas, ievērojot šo kategoriju lietu augsto emocionālo spriedzi, īpaši tad, ja vecākiem ir konfliktējošas attiecības. Obligātais mediācijas process bērna un vecāka saskarsmes tiesību realizācijas jautājumos, autoru skatījumā, būtu atbalstāms un vēlams. Tā, piemēram, raugoties kaimiņvalstu pieredzē, Lietuvas Republikā no 2020. gada mediācijas process ģimenes strīdos ir noteikts kā obligāts, un valsts sniedz atbalstu šajā procesā.[80] Attiecībā uz mediācijas procesa nozīmi un viedokli par obligātā mediācijas procesa ieviešanu Dr.iur. G. Litvins norādījis:*"(..) mediācijas izmantošanas veicināšanai un tiesu sistēmas atslogošanai likumā var noteikt obligātu mediācijas izmantošanu (..)*", kā arī uzsvēris: " *(..) Mediācijas attīstībai Latvijā būtiska nozīme ir skaidra un mērķtiecīga valsts politika strīdu risināšanas jomā, tajā skaitā mediācijas izmantošanu atsevišķos gadījumos likumā nosakot par obligātu, radot atbalsta un mudināšanas (nudging – angļu val.) paņēmienus(..).*"[81]

Turpinot prakses problēmjautājumu analīzi saistībā ar saskarsmes tiesību faktisko apjomu strīdus gadījumos, autores arī identificēs, ka strīds par kopā nedzīvojošā vecāka saskarsmi ar bērnu savā būtībā pastāv starp abiem vecākiem, nevis starp bērnu un vecāku. Kā norādījušas Rīgas apgabaltiesas tiesnese I. Celmiņa un Tieslietu ministrijas Civiltiesību departamenta juriste D. Daugule savā rakstā 2019. gadā: *"(..) konflikta par bērna saskarsmi ar otru vecāku gadījumā saduras abu vecāku intereses (..),* kā arī minētā raksta autores norāda*: "(..) tiesas procesā mēdz dominēt vecāku intereses un vajadzības (..)*".[82] Šī darba autores pilnībā pievienojas teiktajam, jo raksta autoru prakses novērojumi liecina, ka bērna un kopā nedzīvojošā vecāka savstarpējās attiecības, bērna attieksme pret kopā nedzīvojošo vecāku var tikt ļoti ietekmēta un vairākumā dzīves gadījumu tiek ietekmēta no kopā dzīvojošā vecāka attieksmes. Tā, piemēram, kopā dzīvojošais vecāks var rīkoties diametrāli pretēji *Civillikuma* 181. panta pēdējā teikumā ietvertajam aizliegumam, bet pret to nav efektīvi aizsardzības līdzekļi. Tādējādi, pat ja kopā nedzīvojošam vecākam ir bijušas labas un draudzīgas, saprotošas un citādi pozitīvas attiecības ar bērnu pirms tiesvedības, tad tās var būtiski pasliktināties tiesvedības procesa laikā, un pasliktinājums būs tieši proporcionāli tam, kā uz notiekošo procesu reaģēs ar bērnu kopā dzīvojošais vecāks. Autoru novērojumi praksē liecina, ka

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80 Pieejams: https://e-justice.europa.eu/372/LV/family_mediation?LITHUANIA&member=1 ; iegūts: 20.02.2025.; skat. arī: https://tm.lrv.lt/en/fields-of-activity/mediation/; iegūts: 20.02.2025.

81 Litvins, G. Mediācijas attīstības virzieni un perspektīvas. Pieejams: https://www.apgads.lu.lv/fileadmin/user_upload/lu_portal/apgads/PDF/Juridiskas-konferences/LUJFZK-7-2019/iscflul-7_2019_Ties-zin-uzd-noz-nak_23.pdf; https://doi.org/10.22364/iscflul.7.23; iegūts: 20.02.2025.

82 Celmiņa, I., Daugule, D. (2019). Saskarsmes tiesību īstenošanas problemātika. *Jurista Vārds*, Nr. 46 (1104), 19.11.2019., 10–24. lpp.

bērni bieži vien kļūst par kopā dzīvojošā vecāka "instrumentu", kuru pielietot pret otru vecāku, t.i., bijušo laulāto vai agrāko faktiskās kopdzīves partneri, bet tas nebūtu pieļaujams. Augstākās tiesas Senāts lietā SKC-[E]-2023 sprieduma motīvu daļā, [9.4.] punktā norādījis, ka piekrīt tam, ka vecāku strīdi un konflikti vispārīgi neatbilst bērnu interesēm[83].

Rezumējot nodaļā apskatīto, autores secina, ka obligātās mediācijas procesa noteikšana būtu praktiski jūtams un ievērojams atbalsts saskarsmes strīdu risināšanas procesa norises uzlabošanai tieši no bērnu interešu ievērošanas aspekta, t.sk. iespējamā psiholoģiskā kaitējuma rašanās riska samazināšanas viedokļa, tāpat šī raksta autores saskata, ka obligātās mediācijas process paredzami veicinātu un mudinātu vecākus neattīstīt konfliktus, bet risināt tos konstruktīvi, kā arī vienlaikus tādā veidā praktiskajā dzīvē un ar redzamu praktisku pielietojumu (*autoru ieskatā, ar paredzamu pozitīvu pieredzi daudziem cilvēkiem viņu sarežģīto vai grūto dzīves situāciju risināšanā*) tiktu iedzīvināta mediācija kā strīdu risināšanas metode. Vēl akcentējams, ka ir mazināma un pat izslēdzama kopā dzīvojošā vecāka spēja tieši (t.i., liekot šķēršļus, ietekmējot bērna viedokli u.tml.) ietekmēt bērna saskarsmi ar kopā nedzīvojošo vecāku, kā arī šīs saskarsmes gaitu un/vai kvalitāti. Arī iespējamā kopā dzīvojošā vecāka rīcība, kas vērsta uz kopā nedzīvojošā vecāka noniecināšanu bērna acīs, nav atbalstāma. Savukārt tādu aizsardzības līdzekļu ieviešana, lai izslēgtu kopā dzīvojošā vecāka kontroli un ietekmi pār otra, t.i., kopā nedzīvojošā vecāka ar vienādām vecāka tiesībām *Civillikuma* 178. panta izpratnē, saskarsmes tiesību realizāciju un šo tiesību pilnvērtīgu realizāciju visās tās izpausmēs, autoru ieskatā nepieciešams ieviest tādus mehānismus, ar kuriem tiktu nodrošināts, ka vecāks, kurš pārkāpj *Civillikuma* 181. panta pēdējā teikumā noteikto aizliegumu, tomēr apzinās, ka pret viņu var tikt vērstas likumā paredzētās sankcijas un ka ir praktiskas iespējas to realizēt. Šobrīd ir zināms, ka šādas iespējas nav, kas attiecīgi veicina negatīvas rīcības brīvību.

Kopā nedzīvojošā vecāka saskarsmes tiesību tvērums un praktiskā izpausme

Kā jau tika minēts iepriekš, jautājumā par saskarsmes tiesību īstenošanu un ar to saistītajām problēmām 2019. gadā rakstu publicējušas Rīgas apgabaltiesas tiesnese I. Celmiņa un Tieslietu ministrijas Civiltiesību departamenta juriste D. Daugule, cita starpā uzsverot, ka saskarsmes tiesību tvērumā *Civillikums* ietilpina arī vecāka tiesības būt informētam par bērna ikdienas gaitām.[84] Šī raksta autores akcentē, ka kopā nedzīvojošā vecāka informētību par bērna ikdienas gaitām var panākt ar attiecīgas prasības celšanu, lūdzot tiesu uzlikt pienākumu otram vecākam, t.i., ar kuru bērns ikdienā kopā dzīvo, regulāri iesniegt (nosakot periodus) otram vecākam ziņas par bērna attīstību, veselību, sekmēm, interesēm un sadzīves apstākļiem. Šādu prasījumu var ietvert prasības pieteikumā, un tas izriet no materiālās normas, kā arī tas ir praktiski izpildāms. Līdz ar to paredzami tiesai būtu jānosaka šāds pienākums otram vecākam, t.i., vecākam, pie kura bērns ikdienā dzīvo.

Citāda situācija ir ar tām komunikācijas un saziņas tiesībām, kuras kopā nedzīvojošais vecāks varētu vēlēties realizēt ar savu bērnu brīvā veidā un ārpus tiesas noteiktā saskarsmes grafika, jo

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83 Pieejams: https://likumi.lv/ta/id/90223-civillikums-pirma-dala-gimenes-tiesibas; pie Civillikuma 182. panta iegūts: 17.02.2025., skat. motīvu daļas [10.1] punktu

84 Celmiņa, I., Daugule, D. (2019). Saskarsmes tiesību īstenošanas problemātika. *Jurista Vārds*, Nr. 46 (1104), 19.11.2019., 10–24. lpp.

tiesas noteiktais saskarsmes grafiks jebkurā gadījumā ir saskarsmes tiesību ierobežojums un tieši kā ierobežojums tas arī darbojas praktiskajā dzīvē.

Autores akcentē, ka viņu praksē nereti jāsastopas ar jautājumu, ka kopā nedzīvojošais vecāks vēlas realizēt saskarsmi, arī komunicējot ar bērnu paralēli saskarsmes tiesības grafikam, bet to liedz vai pret to iebilst kopā dzīvojošais vecāks, uzskatot, ka kopā nedzīvojošā vecāka tiesību apjoms ir tikai tiesas sprieduma ietvarā un nekādā gadījumā ārpus tā. Un šādā aspektā ir jārunā par saskarsmes tiesību būtību un tvērumu. Vēl jāatzīmē, ka kopā dzīvojošam vecākam ir priviliģēta situācija, jo pastāv praktiskas iespējas ietekmēt lietu gaitu, īpaši tad, ja bērns vēl ir salīdzinoši mazs, piemēram, vecāks var atņemt vai nedot bērnam mobilo tālruni, izslēgt to, kontrolēt, ko bērns runā ar otru vecāku, pārtraukt sarunu u.tml., bet visu šādu darbību kopums novedīs pie kopā nedzīvojošā vecāka konsekventas izslēgšanas no bērna dzīves. Judikatūrā ir atzīts, ka bērna harmoniskai attīstībai ir nepieciešams kontakts ar abiem vecākiem, un minētā atziņa tā vai citādi ir atrodama ikvienā no autoru apskatītajiem Augstākās tiesas Senāta spriedumiem. Kā norāda I. Celmiņa un D. Daugule: *"(..) saskarsmes tiesības ietver ne tikai dažādu kontaktu uzturēšanu ar vecāku, kas ikdienā bērnu neaprūpē, proti, gan īslaicīgas klātienes tikšanās, gan, piemēram, sarunas, izmantojot telefonu vai citus saziņas līdzekļus (..)*".[85] Šī raksta autores pilnībā pievienojas teiktajam, tomēr paliek neatbildēts jautājums – kā to praktiski realizēt, ja kopā nedzīvojošā vecāka tiesības un saskarsmes kārtība tiek noteiktas tiesas spriedumā.

Autoru ieskatā, kopā nedzīvojošam vecākam nebūtu jāsaskaras ar praktiskām problēmām komunicēt ar bērnu īslaicīgi klātienē vai izmantojot mūsdienās plaši pieejamās tehniskās iespējas arī attālināti, jo šīs tiesības pastāv *Satversmes* 110. panta tvērumā, un tās nav ierobežojamas, tomēr praktiskā pieredze liecina, ka kopā nedzīvojošais vecāks tieši saskaras ar otra vecāka pārmetumiem, ka netiek ievērots noteiktais grafiks, jo kopā nedzīvojošais vecāks ir atļāvies (piemēram) piezvanīt savam bērnam vai aiziet uz skolu un sagaidīt bērnu pēc stundām, aprunāties, pavadīt uz mājām vai piedalīties 1. septembra svinīgajā skolas pasākumā u.tml. Šādas kopā nedzīvojošā vecāka darbības tiek pat uzskatītas kā bērnu traumējošas un bērna psiholoģiskā ietekmēšana, savukārt uz šī pamata tiek veidoti un "būvēti" jauni konflikti. Autoru skatījumā, attiecīgas situācijas nevarētu veidoties, bet, ja tādas veidojas, tad tas norāda uz materiālo un/vai procesuālo normu nepilnību, kas ir jānovērš, un šajā gadījumā primārās ir bērna intereses, kā jau tas tika pamatots iepriekš. Minētā sakarā autores akcentē, ka pastāv arī praktiska problēma prasīt šādu iespēju vecākam noteikt ar tiesas spriedumu, jo uzreiz aktualizējas jautājums par sprieduma konkrētību, saprotamību un izpildāmību, kam arī nav praktisks risinājums, ja nu vienīgi vispārīga šo tiesību atzīšana ar tiesas spriedumu, kas attiecīgi dotu iespēju kopā nedzīvojošam vecākam komunikācijas un īslaicīgas saskares ar bērnu zināmai brīvībai. Autoru skatījumā, ar bērnu kopā dzīvojošais vecāks nevarētu automātiski iegūt lielākas vai dominējošas tiesības nekā kopā nedzīvojošais vecāks, un tāds secinājums arī neizriet no piemērojamās materiālās tiesību normas.

Tiesai nosakot saskarsmes tiesību izmantošanas kārtību ar spriedumu (*t.i., kad ir strīds un tas netiek atrisināts citādā veidā*), tiek noteikta konkrēta kārtība, pie kuras noteikti un nešaubīgi pieturēsies ar bērnu kopā dzīvojošais vecāks, lai realizētu savas priekšrocības pār kopā nedzīvojošo vecāku. Apsvērumus un iemeslus šādai rīcībai autores jau minēja iepriekš, un tieši šī iemesla dēļ autores uzskata, ka kopā nedzīvojošais vecāks praktiski tomēr atrodas sliktākā situācijā, un šī situācija pastāv nemainīgi, tāpēc var rasties iespaids (un tas izrietēs tieši no praktiskās ikdienas lietu

[85] Celmiņa, I., Daugule, D. (2019). Saskarsmes tiesību īstenošanas problemātika. *Jurista Vārds*, Nr. 46 (1104), 19.11.2019., 10–24. lpp.

kārtības), ka kopā nedzīvojošā vecāka tiesības ir *it kā* mazākas vai maznozīmīgākas, nekā tās ir ar bērnu ikdienā kopā dzīvojošam vecākam. Augstākās tiesas Senāts savā 2023. gada spriedumā anonimizētā lietā Nr. SKC-[E]/2023 norādījis: *"(..) vecāks, kurš ikdienā dzīvo atsevišķi no bērniem, nosakot saskarsmes tiesību izmantošanas laiku, kas ir būtiski mazāks salīdzinājumā ar otru vecāku, nedrīkst tikt nostādīts neizdevīgākā situācijā. Ir būtiski un bērnu interesēm atbilstoši nodrošināt pēc iespējas vienādu iespēju abiem vecākiem iesaistīties bērna dzīvē un pavadīt laiku kopā. Pretējā gadījumā tiek pieļauts tiesību uz ģimenes dzīvi aizskārums, kas nav pieļaujams, ja netiek pamatots ar nozīmīgu bērnu tiesību (interešu) pārkāpumu(..)."*[86] Lai arī Augstākās tiesas Senāta atziņa ir absolūti taisnīga savā būtībā, tomēr praktiskās dzīves situācijas liecina par citādu izpratni šajā jautājumā, līdz ar to tiesas spriedums par saskarsmes izmantošanas kārtību jebkurā gadījumā būs ierobežojums kopā nedzīvojošam vecākam, tāpēc arī saskarsmes tiesības un to izmantošana itin viegli kļūst par t.s. *instrumentu*, kuru pielietot pret kopā nedzīvojošo vecāku, jo nešaubīgi, ka vairākumā gadījumu šāds strīds izcelsies un risināsies starp kopā nedzīvojošiem vecākiem un tādiem, kuri atrodas laulības šķiršanas procesa ietvaros, ņemot vērā *Civillikuma* 77. pantā noteikto un *Civilprocesa likuma* 238. pantu, līdz ar to šajos procesos būs augsta emocionālā elementa piesaiste, kas ir vispāratzīts, un ko arī apliecina raksta autoru veiktā izpēte tiesu praksē un judikatūrā, līdz ar to šo lietu kategorijas ir atzīstamas par specifiskām un attiecīgi arī jāpielieto specifiskus t.s. *instrumentus* šādu konfliktu risināšanā vai konfliktu rašanās un ilgstošas pastāvēšanas maksimālā izslēgšanā.

Kā viena no tādām metodēm varētu būt konfliktējošo vecāku savstarpējās komunikācijas minimizēšana vai izslēgšana bērna saskarsmes realizācijas procesā. Autoru skatījumā, kā procesuāli nozīmīgs instruments būtu saskarsmes personas izmantošana tieši konfliktējošo vecāku komunikācijas nodrošināšanai bērna saskarsmes jautājumos. Autores pieļauj, ka saskarsmes personas nozīme varētu būt ne tikai vecāka un bērna saskarsmes realizācijas procesā, t.i., šīs personas faktiskā klātesamībā, kā tas ir šobrīd, bet saskarsmes personas varētu nodrošināt tikai komunikāciju un praktisku bērna pārvietošanu, t.i., paņemšanā no bērna dzīvesvietas vai citas atrašanās vietas, nogādāšanā pie otra vecāka saskarsmes izmantošanai, kā arī pēc tās beigām nogādāšanā atpakaļ bērna dzīvesvietā. Tāpat saskarsmes persona varētu ņemt dalību kā sava veida starpnieks starp vecākiem saskarsmes laiku koriģēšanā, ja tāda nepieciešamība rastos, u.tml. situāciju praktiskā realizācijā. Tāpēc, autoru ieskatā, saskarsmes personas nozīme būtu paplašināma tieši konfliktējošo attiecību mazināšanas un izslēgšanas nolūkā. Augstākās tiesas Senāts lietā Nr. [..] SKC-[H]/2021[87] saskarsmes personas izmantošanas nozīmi vecāku konfliktējošo attiecību gadījumā ir pētījis, norādot uz saskarsmes personas nozīmi un uz iespējamiem risinājumiem, kas, autoru skatījumā, būtu attīstāmi un pilnveidojami, iestrādājot likuma normās, piemēram, *Civilprocesa likumā*.

Bērna viedokli par saskarsmi var noskaidrot, tas izriet no *Civillikuma* 178.[1] panta tvēruma un *Bērnu tiesību aizsardzības likuma* 20. panta otrās daļas, tomēr tā ietekme uz procesu var būt ne tik nozīmīga, īpaši ņemot vērā to, ka bērna viedoklis tiek vērtēts kopsakarībā ar bērna vecumu un brieduma pakāpi, kas arī izriet no *Civillikuma* 178.[1] pantā ietvertā regulējuma. Tāpat pastāv vēl viena būtiska atšķirība, kas tieši izriet no materiālās tiesību normas, ka bērnam saskarsmes tiesības ir tiesība, nevis pienākums, savukārt vecākam tā ir gan tiesība, gan pienākums. Iepriekš teiktā

[86] Pieejams: https://likumi.lv/ta/id/90223-civillikums-pirma-dala-gimenes-tiesibas; pie Civillikuma 182. panta iegūts: 17.02.2025., skat. motīvu daļas [9.4.] punktu

[87] Pieejams: https://likumi.lv/ta/id/90223-civillikums-pirma-dala-gimenes-tiesibas; pie Civillikuma 181. panta; iegūts: 18.02.2025., skat. tēzes virsrakstu un sprieduma motīvu daļas [12] punktu

sakarā autores akcentē Augstākās tiesas Senāta Administratīvo lietu departamenta 2024. gada 19. jūnija spriedumu lietā SKA-317/2024 motīvu daļas [13] punktā teikto: *"(..)bērna viedoklis pats par sevi nav noteicošs, lai nepildītu tiesas nolēmumu. Bērna viedoklis jāvērtē, kā arī jāvērtē bērna intereses, tostarp uz ģimenes saites uzturēšanu ar vecāku, kurš dzīvo atsevišķi(..)".*[88] Raksta autores šajā aspektā saskata problēmu, turklāt grūti identificējamu, pārbaudāmu un pierādāmu, jo tā tieši saistīta ar bērna vēlmi (t.i., viedokli par tikšanos un saskarsmi ar vecāku), bet bērna vēlme (griba) var tikt ietekmēta un līdz ar to izmantota kā arguments (izmantotājs būs kopā dzīvojošais vecāks) bērna un kopā nedzīvojošā vecāka saskarsmes liegšanai vai maksimālai tās ierobežošanai, un pret to nav efektīvu aizsardzības instrumentu, jo praktiski kopā nedzīvojošam vecākam par to nebūs pieejami nekādi pierādījumi, kurus "likt priekšā tiesai". Augstākās tiesas Senāta Administratīvo lietu departamenta 2022. gada 17. janvāra spriedumā lietā Nr. SKA-343/2022[89]cita starpā ietverta atziņa, ka saskarsmes ar vecāku ir bērna tiesība, nevis pienākums, tāpēc bērnu nevar piespiest izmantot saskarsmi ar vecāku. Arī 2021. gada anonimizētā lietā SKC-[H]/2021 spriedumā Augstākās tiesas Senāts Civillietu departaments norādījis: *"(..) jo ilgāk bērns atrodas kopā tikai ar vienu vecāku, jo lielāka pieķeršanās bērnam rodas tieši ar šo vecāku, un bērns vairāk pakļauts konkrētā vecāka ietekmei, tostarp tas atstāj arī tiešu ietekmi uz bērna viedokli par vecākiem (..)."*[90] Ietekmējamais bērna viedoklis un tā izmaiņas (*piemēram, arī ļoti krasas un it kā bez ārēji redzama vai loģiski izsecināma iemesla*) attiecībā uz kopā nedzīvojošo vecāku un bērna vēlmi komunicēt ar šo vecāku ir praktiska un secīgi arī juridiska problēma, bet tās "sakne" ļoti bieži ir meklējama kopā dzīvojošā vecāka iespējamā negodprātīgā attieksmē un rīcībā, kas pretēja *Civillikuma* 181. panta pēdējam teikumam. To, ka šādas situācijas un bērna iesaiste konfliktos vai bērna izmantošana instrumenta nozīmē ir reālās dzīves norises sastāvdaļa, saprata un apzinājās arī likumdevējs, par ko detalizētu ieskatu var rast Augstākās tiesas Senāta Administratīvo lietu departamenta 2018. gada 21. decembra lietā SKA-1598/2018[91], kuras ietvaros cita starpā tiek norādīts, ka *Civillikuma* 203. pants tika grozīts, jo likumdevējs apzinājās, ka normatīvajā regulējumā nepastāv mehānismi, kas paredzētu vecāka atbildību par tiesas nolēmuma nepildīšanu saskarsmes un aizgādības lietās. Šajā spriedumā Augstākās tiesas Senāts plaši citē likumdevēja viedokļu apmaiņu, diskutējot par normas ieviešanu, un kādas praktiskās dzīves situācijas ar šīs normas ieviešanu tiek mēģināts risināt, t.i., novērst, līdz ar to no minētā sprieduma ir gūstams priekšstats par problēmas būtību visos tās aspektos. Turklāt šajā lietā Augstākās tiesas Senāta Administratīvo lietu departaments arī norādījis, ka: *"(..) tiesas nolēmuma ilgstošas neizpildes rezultātā tiek radītas nepamatotas priekšrocības tam vecākam, kurš prettiesiski nepilda spēkā stājušos tiesas nolēmumu. Tomēr šāda pieeja nav savienojama ar tiesiskas valsts principu (Senāta 2018. gada 21. februāra blakus lēmuma lietā Nr. SKA-681/2018 (680074717) 5. punkts) (..),"*[92] savukārt jau pieminētajā Augstākās tiesas Senāta Administratīvo lietu departamenta 2022. gada 17. janvāra spriedumā lietā Nr. SKA-343/2022 norādīts: *"(..)Ja ar tiesas lēmumu bērnam ar pieteicēju ir noteikta saskarsmes kārtība, tā ir jāpilda. Ja tiesas lēmums netiek pildīts, tiesības kļūst iluzoras (..)"*[93]. Tādējādi, autoru skatījumā, ir pamats viedoklim, ka kopā nedzīvojošā vecāka saskarsmes tiesību apjoms un ar to saistītā rīcības

88 Augstākās tiesas Senāta Administratīvo lietu departamenta 2024. gada 19. jūnija spriedumu lietā SKA-317/2024; Pieejams: https://at.gov.lv; iegūts: 18.02.2025.

89 Pieejams: https://at.gov.lv; iegūts: 20.02.2025.; skat. sprieduma motīvu daļā [24] punktu

90 Pieejams: https://likumi.lv/ta/id/90223-civillikums-pirma-dala-gimenes-tiesibas; pie Civillikuma 181. panta; iegūts: 18.02.2025., skat. sprieduma motīvu daļas [10.2] punktu

91 Pieejams: https://at.gov.lv; iegūts: 19.02.2025.; skat. sprieduma motīvu daļā [13] punktu

92 *Turpat*, skat. sprieduma motīvu daļā [17] punktu

93 Pieejams: https://at.gov.lv; iegūts: 20.02.2025.; skat. sprieduma motīvu daļā [23] punktu

brīvība tomēr ir atzīstama kā ierobežota. Tāpat, neskatoties uz likumdevēja agrāk izdarītajiem grozījumiem, līdz šim turpina pastāvēt tā problēma, kas izriet no praktisko aizsardzības līdzekļu un/vai noteikta veida sankciju neesamības normatīvajā regulējumā, ja vecāks rīkojas pretēji *Civillikuma* 181. panta pēdējā teikumā ietvertajam aizliegumam, turklāt pierādījumu iegūšana par tādu rīcību ir komplicēta un bieži vien praktiski nerealizējama tam vecākam, kurš ar bērnu kopā nedzīvo.

Apkopojot minēto, secināms, ka nevajadzētu pastāvēt šaubām par kopā nedzīvojošā vecāka tiesībām realizēt saskarsmi ar bērnu visdažādākajos tās izpausmes veidos, kas izriet tieši no *Latvijas Republikas Satversmes* 110. pantā garantēto tiesību kopuma, tomēr šo tiesību praktiskā izmantošana tieši strīdus situācijās ir saistīta ar procesuāla rakstura problēmām, t.i., tiesas sprieduma saturu un izpildāmību, kur problēmsituācijas tiek fiksētas un risinātas tiesā līdz pat kasācijas instances tiesai, t.sk. identificējot tādus ietekmes faktorus kā bērna viedoklis un tā ietekmēšanas iespējas, kopā dzīvojošā vecāka praktiskās ietekmes dominante un ietekmes līdzekļu vai piemērojamo sankciju neesamība saistībā ar *Civillikuma* 181. panta pēdējā teikumā ietvertā aizlieguma pārkāpumu, kā arī šāda pārkāpuma praktiskās pierādīšanas iespējām.

Secinājumi

Autores sava pētījuma kopsavilkumā norādīja pētījuma jautājumu – vai kopā nedzīvojošā vecāka un bērna saskarsmes tiesība ietver tikai tiesas noteikto kārtību (grafiku), vai tā ietver plašākas saskarsmes tiesības, un kā tās realizējamas. Autores, vadoties no veiktās izpētes, secina, ka praktiskā lietu izpausmē ikdienā kopā nedzīvojošā vecāka tiesības uz saskarsmi ar bērnu ietver tikai to, kas ir noteikts ar tiesas spriedumu, kā arī tad to izmantošanā var saskarties (un personas saskarās) ar ievērojamām problēmām, par ko arī liecina autoru izpētītie Augstākās tiesas Senāta nolēmumi. Tomēr, vadoties no Latvijas Republikas Satversmes tiesas skaidrojumiem attiecībā uz *Satversmes* 110. panta tvērumu un bērna interesēm, kā arī citu autoru darbos atrodamajām atziņām un judikatūras atziņām, kopā nedzīvojošā vecāka tiesības uz saskarsmi un kontaktiem ar bērnu ir neierobežojamas tiesības un tās nevarētu būt atkarīgas no kopā dzīvojošā vecāka kontroles vai ieskatiem par lietu kārtību. Ir saskatāmas praktiskas problēmas, lai kopā nedzīvojošais vecāks strīdus gadījumā caur tiesu iegūtu izpildāmu spriedumu, ar kuru tiktu nodrošināts, ka vecāks vismaz var pamatot savas tiesības uz īslaicīgu saskarsmi, komunikāciju ar bērnu un tas nebūtu pakļauts otra vecāka kontrolei vai liegumiem. Vienlaikus autores secina, ka augsta riska zona ir bērna viedoklis un kopā dzīvojošā vecāka ietekme uz bērna viedokli un attieksmi pret otru vecāku. Aizsardzības instrumenti normatīvajā regulējumā šobrīd nepastāv, kas tikai veicina iespēju nesodīti rīkoties pretēji likumā ietvertajam aizliegumam. Par to, kā praktiski šo jautājumu risināt normatīvo aktu ietvaros, autoru skatījumā ir jāturpina diskutēt, meklējot piemērotākos risinājumus.

Savukārt no praktiski un pietiekami ātri realizējamiem risinājumiem kopā nedzīvojošā vecāka un bērna netraucētai un neierobežotai saskarsmei, t.sk. komunikācijai, vienlaikus mazinot bērna iesaisti vecāku konfliktos, kā arī šo konfliktu maksimālai izslēgšanai, būtu tādi praktiski instrumenti kā:

- obligātā mediācija saskarsmes un aizgādības lietās;
- saskarsmes personas nozīmes un uzdevumu paplašināšana, nodrošinot, ka saskarsmes persona darbojas kā vidutājs vecāka un bērna saskarsmes praktiskā nodrošināšanā, organizēšanā, izslēdzot konfliktējošo vecāku komunikāciju.

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THE CHALLENGES AND PROSPECTS OF STRENGTHENING THE PROCEDURAL ROLE OF THE PRE-TRIAL INVESTIGATION OFFICER IN LITHUANIAN LAW

Giedrius Nemeikšis
The Institute of Law and Technology of Kazimieras Simonavičius University, Lithuania
The Social Science Faculty of Panevėžys University of Applied Sciences, Lithuania
giedrius.nemeiksis@yahoo.com

Abstract

The situation with the powers of pre-trial investigation officers in Lithuanian criminal proceedings has not changed for more than two decades, so this necessitates the need to systematically analyse the limits of the procedural autonomy of the pre-trial investigation officer at the pre-trial investigation stage, as well as possible levers that encourage this subject of criminal proceedings to strive for the quality and efficiency of criminal investigation. Therefore, the purpose of this research paper is to analyse the possibilities of regulating the procedural status of the pre-trial investigation officer and expanding it in Lithuanian criminal processes, in order to optimize and accelerate the pre-trial investigation. So, this study aims to analyse the possibilities of expanding the procedural functions of the pre-trial investigation officer in three different areas of pre-trial investigation in Lithuanian criminal proceedings: in the area of initiating procedural investigative actions that are sanctioned by the pre-trial investigation judge, in the area of imposing milder preventive measures and temporary restrictions on property rights, and in the area of making final procedural decisions summarizing the pre-trial investigation. The research was carried out by employing the document analysis, the systematic analysis, the deduction analysis and the generalization method. The results of research analysis objectively substantiated the real possibilities and need to expand the functions of the pre-trial investigation officer in these areas of pre-trial investigation.

Keywords: Lithuanian law, prosecutor, pre-trial investigation officer, criminal procedure law

Introduction

After the entry into force of the new CPC in 2003, the first version of this legislation left the pre-trial investigation officer only with the right to draw up reports of investigative actions and the obligation to unconditionally comply with the prosecutor's instructions, and although the current version of the CPC provides for slightly broader functions of this subject of criminal proceedings, its status has not changed significantly in more than two decades of the Code's existence. Practitioners and academics argue that, on the one hand, the extension of the powers of the more qualified lawyer-prosecutor has a positive impact on the legality of the decisions taken during pre-trial investigations. However, given that the pre-trial investigation officer, who is the one who actually carries out most of the pre-trial investigation activities, is not in a position to make independent, rapid decisions due to his limited powers, this slows down the pre-trial investigation and may have a negative impact on the achievement of the objectives set out in Article 1 of the CPC. As a result,

this situation may have a negative impact on the speed and completeness of pre-trial investigations. The situation with the powers of pre-trial investigation officers, which has remained unchanged for more than two decades, makes it necessary to systematically analyse the limits of the procedural autonomy of the pre-trial investigation officer in the pre-trial phase of the criminal investigation, as well as the possible levers that encourage this criminal procedure subject to strive for the quality and efficiency of the investigation of a criminal offence. There are many areas where the procedural autonomy of the pre-trial investigation officer could be extended in pre-trial investigations, including the initiation of procedural investigative actions authorised by the pre-trial judge, the imposition of milder preventive measures and temporary restraint of property rights, as well as the extension of procedural functions in the process of taking final procedural decisions summarising the pre-trial investigation.

Moreover, the relevance of the topic is also due to the fact that in Lithuania the problem of the procedural position of the pre-trial investigation officer and its impact on the quality of pre-trial investigation has not been analysed by academics or practitioners. The most frequent studies and publications are about the pre-trial investigation phase and the problems of its organisation and management were analysed in general terms by Prof. P. Ancelis (2007) in his studies. The study conducted by Prof. R. Jurka and other authors, which mainly took into account the norms regulated by the CPC on the problems of organisation of pre-trial investigation, the practice of cooperation between prosecutors' offices, pre-trial investigation bodies and courts in the implementation of the objectives of the criminal procedure (2005). The procedural status of the pre-trial investigation officer and its influence on the quality and efficiency of the pre-trial investigation were mentioned only fragmentarily.

The object of the research – procedural status of a pre-trial investigation officer in Lithuanian criminal proceedings.

The purpose of the research – to examine the possibilities of regulating the procedural status of the pre-trial investigation officer and its extension in the Lithuanian criminal procedure in order to optimise and speed up pre-trial investigation.

The tasks of the research:

1) to analyse the possibilities of extending the procedural functions of the pre-trial investigation officer in the field of initiation of procedural investigative actions sanctioned by the pre-trial judge;
2) to examine the possibility of extending the procedural functions of the pre-trial investigation officer in the area of milder preventive measures and temporary restraint of property rights;
3) to examine the possibilities of extending the procedural functions of the pre-trial investigation officer in the area of final procedural decisions summarising the pre-trial investigation.

The methods of the research: depending on the topic, goals and objectives of the scientific article, the following research methods are used: the document analysis method and the systematic analysis method are used in detailing the analysed issues in legal regulation; the deduction analysis method made it possible to define specific problems arising in legal practice from the general requirements, while the generalization method helps to systematize the entire analysis and to provide structured conclusions.

Abbreviation: the CPC- the Criminal Procedure Code of the Republic of Lithuania.

Discussion

The scope of initiation of procedural investigative actions that are sanctioned by the pre-trial investigation judge

The establishment of the institution of a pre-trial judge in Lithuania is based on the efficiency of the law on criminal procedure and the protection of human rights and freedoms, i.e. it was created in order to enable an independent procedural entity to ensure the protection of the interests of the persons involved in the pre-trial investigation and to perform the function of controlling the legality of pre-trial investigation (Kukaitis, 2006). However, it is clear from the provisions of Section 5 of Article 170 and Point 6 of Section 1 of Article 173 of the CPC that only the prosecutor or the participants in the proceedings may appeal to the pre-trial judge against the actions of the investigator and the public prosecutor, and that the legislator does not provide for such a right to the pre-trial investigation officer. It is therefore appropriate to discuss whether giving the pre-trial investigation officer the discretion to directly address the pre-trial judge to carry out or approve actions falling within his/her competence would help to optimise and rationalise the criminal procedure.

According to the CPC, the prosecutor's requests to the pre-trial judge can be conditionally divided into two categories: 1) requests in the course of which the suspect, his/her representative and the defence counsel are not entitled to be present and are not aware of the initiation of the request - searches (Article 145 of the CPC), seizure (Article 147 of the CPC), seizure of postal items (Article 148 of the CPC), control of information transmitted via electronic communications networks, the procedure for its recording and storage (Article 154 of the CPC), obtaining information from institutions and organizations (Article 155 of the CPC); 2) applications in the course of which the suspect, his/her representative and defence counsel are present or are aware of their initiation - questioning of a witness (Article183 of the CPC), questioning of a suspect (Article188 of the CPC), arrest (Articles122-131 of the CPC), house arrest (Article132 of the CPC), ordering to live separately from the injured party (Article 132-1 of the CPC), extension of the pre-trial investigation period (Section 5 of Article 215 of the CPC).

The latter category of pre-trial proceedings is characterised by the implementation of the principle of adversarial proceedings before the pre-trial judge, and it is therefore natural that these applications are initiated and dealt with by lawyers of a higher calibre, i.e. prosecutors, who are in parallel competition with the lawyer of a higher calibre, the suspect's defence lawyer (Article 7 of the CPC). Therefore, there is no room for debate on the latter category of pre-trial proceedings, whether it would be appropriate to give more discretion to pre-trial officers to act in relation to the pre-trial judge. However, with regard to the first category of procedural actions mentioned above, such a discussion, the right of initiation to carry out such procedural actions could be granted not only to the prosecutor, but also to the investigator, is possible.

Under the current procedure laid down in the CPC, the pre-trial investigation officer, who is responsible for carrying out specific actions in a pre-trial investigation, must obtain the consent of the pre-trial judge to carry out procedural coercive measures falling under the first category of procedural coercive measures against a suspect, his/her representative and defence counsel are not entitled to be present and are not aware of their initiation, he/she must apply to the public prosecutor, who, on the basis of the same pre-trial investigation data submitted, shall, as practice has shown, initiate, by means of a separate application or petition, the measures authorised by the

pre-trial judge. Such mediation by the prosecutor between the two parties to the criminal proceedings not only makes the criminal proceedings and the pre-trial investigation itself unduly formal and less expeditious, but may also undermine the quality of the pre-trial investigation. Firstly, the criminal procedure law provides for the possibility for the pre-trial investigation officer to carry out a search, seizure or secret surveillance on his own in certain urgent cases (Section 1 of Article160-1 of the CPC), although the number of such situations that meet the requirements of legitimacy of an urgent case is limited. The fact that the legislator has provided for a specific procedure allowing the pre-trial investigation officer to carry out, on his or her own initiative, specific pre-trial investigative actions which require the subsequent approval of the pre-trial judge, shows the existing formal nature of the general procedure, i.e. no longer giving him or her the discretion to apply directly to the pre-trial judge in order to ask for, and justify the need for, the procedural coercive measure in question, leaving him or her with only the right of choice as to whether or not to apply to the prosecutor for the initiation of a procedural coercive measure. In particular, it should be noted that a pre-trial investigation officer is more familiar with the situation of the investigation of a criminal offence in a particular case, whereas a prosecutor, controlling dozens of pre-trial investigations, is not always in a position to quickly analyse the details of the situation presented by the investigator and to ascertain the need for the application of a specific procedural coercive measure, which is authorised by the judge (Ancelis, 2009). Secondly, such a lengthy general procedure provided by the legislator for obtaining the consent of the pre-trial judge to carry out certain procedural steps of the pre-trial investigation cannot be considered as a legal provision that promotes the expeditiousness of proceedings. It should be noted that pre-trial investigation is a dynamic process and that the outcome and the overall prospect of any investigative action, including those approved by the judge, depend on the timeliness of that action (Kukaitis, 2006). As a result, enabling the pre-trial investigation officer to initiate proceedings would shorten the procedure for obtaining the consent of the pre-trial judge. Especially when most of the investigative actions are carried out by the pre-trial investigation officer, who is the first person, after the investigative action has been carried out, to be aware of the need to carry out the procedural steps authorised by the pre-trial judge (Jurka et al, 2009).

On the other hand, there are a number of other aspects of the debate that may arise from the difficulties that may arise in practice from giving more discretion to the pre-trial investigation officer. In particular, it is doubtful whether the fact that not all pre-trial investigation officers have a legal background would undermine the quality of the requests made by these officers to the pre-trial judge (Jurka et al, 2005). However, while the low legal qualifications of some pre-trial investigators would seem to jeopardise the legal basis for such requests, the factual basis for the request would be similar if the prosecutor were to make such a request to the pre-trial judge. In this case, it is particularly important to note that the purpose of the institution of the pre-trial judge is to assess whether both grounds are present in a pre-trial investigation and to decide whether these grounds are sufficient to grant an application which would result in the restriction of human rights and freedoms (Gušauskienė, 2004). Therefore, the very existence of the institution of the pre-trial judge is a safeguard that prevents, without sufficient factual and legal grounds, specific procedural steps in pre-trial investigations that restrict human rights and freedoms. Secondly, granting the pre-trial investigation officer the right to directly address the pre-trial judge would threaten to make the prosecutor unaware of the progress of the pre-trial investigation and to remove him/her from directing and controlling the lawfulness of the pre-trial investigation, as the legislator has established by the provision of Section 1 of Article 164 of the CPC. However, in order to avoid such

a potential threat, this issue can be addressed in various practical ways, for example, by providing that the pre-trial investigation officer inform the prosecutor of his/her referral to the pre-trial judge within a short period of time, or that such a referral by the pre-trial investigation officer should be accompanied by the prosecutor's confirmation of the prosecutor's decision, etc.

Thus, it is clear that if the legislator gives the pre-trial investigation officer the right to initiate investigative actions sanctioned by the pre-trial investigation judge, in the course of which the suspect, the suspect's representative and the defence counsel are not entitled to be present and are not aware of the initiation of such actions, while at the same time ensuring the possibility of informing the prosecutor, the pre-trial investigation process will not only become more efficient and expeditious, but will also have a positive impact on the quality of pre-trial investigation.

Scope for the imposition of milder preventive measures and temporary restraint of property rights

As of October 1st, 2010, the legislator, in Section 1 of Article 121 of the CPC, empowered the pre-trial investigation officer to impose the mildest preventive measures, ranging from the seizure of the document to the surrender of the minor, in cases of urgency, however, the "urgent case" clause of the legislator complicates the pre-trial investigation itself, since under the current procedure, once a person has been served with a notice of suspicion and questioned, the pre-trial investigation officer has to present the suspect and the pre-trial investigation file to the prosecutor in order to impose a preventive measure on the suspect. This requires additional working time and material costs, and given that the prosecutor plans his/her work independently, and that the pre-trial investigation itself is fluid and the timing of procedural actions cannot always be predicted, this also has a negative impact on the efficiency of the pre-trial investigation and complicates the procedure for imposing pre-trial detention measures. In addition, the "urgent case" clause leaves room for a wide range of interpretations as to the content of this clause, which not only hampers the pre-trial investigation process, but also leads to possible breaches of the provisions of the CPC in question.

It should be noted that the preventive measure at the pre-trial stage is inseparable from the status of the suspect, which is defined in Section 2 of Article 21 of the CPC as a person detained on suspicion of having committed a criminal offence, or a person questioned about the offence he is suspected of having committed, or a person summoned for questioning and for whom a notice of suspicion has been issued, and when a person has absconded or his/her whereabouts are unknown during the pre-trial investigation, he/she shall be recognised as a suspect, pursuant to Section 3 of Article 21 of the CPC, by a decision of the public prosecutor or by a decision of the pre-trial judge, and in urgent cases - by a decision of the pre-trial investigation officer. This definition of suspect status raises the natural question of when such a person can become a suspect "suddenly", i.e., what circumstances might give rise to an "emergency" decision to impose a preventive measure order, when such a decision could already have been taken by the pre-trial judge. When assessing this problematic issue and analysing in more detail one of the cases of granting the status of a suspect - the temporary detention of a person on the basis of Article 140 of the CPC - it is necessary to draw attention to the fact that the temporary detention of a person is often the basis for the further application of arrest, which is already within the competence of the pre-trial judge. Otherwise, a temporary detention of up to 48 hours is sufficient time to decide which precautionary measure to impose. Consequently, such situations involving the temporary detention of a person do not, in

principle, fall within the criterion of "urgent case" laid down in Section 1 of Article 121 of the CPC for the selection and imposition of a preventive measure by a pre-trial investigation officer.

Meanwhile, the other situation concerning the recognition of a person as a suspect is the summoning of a person who has been issued with a notice of suspicion for questioning in accordance with the procedure laid down in Article 182 of the CPC. However, in assessing such situations, it should be noted that the pre-trial investigation officer is still obliged to first assess the sufficiency of the information to make a suspicion, after which a report of suspicion must be drawn up and only then the person concerned must be summoned for questioning. Therefore, it is natural that the pre-trial investigation officer's assessment of the data gathered during the pre-trial investigation, the drafting of the report on suspicion and the questioning of a particular person as a suspect may not coincide, and that there may be a considerable time lag between these procedural steps, which is why, in this case, there will be no criterion of an urgent case, where the decision on the most lenient preventive measure should be able to be taken by the pre-trial investigation officer without delay. Finally, in the third case, where the recognition of a person as a suspect is due to the fact that the perpetrator has absconded or his whereabouts are unknown, the pre-trial investigation officer must first collect sufficient data to prove the person's guilt and check all possible locations of the person, and, if he is not found, announce a search on the basis of Section 3 of Article 142 of the CPC. Therefore, in such situations, the selection and imposition of a preventive measure cannot be an urgent and imqmediate case, which is why the competence of the pre-trial investigation officer to make such relevant decisions is not possible under the criminal procedure law. It follows that in all three cases of the appearance of a suspect in criminal proceedings, the criterion of "urgency" laid down in Section 1 of Article 121 of the CPC is not substantially fulfilled, which, according to the legislator's regulation, generally raises doubts as to whether the pre-trial investigation officer can legitimately participate in the process of imposing milder preventive measures, and at the same time it means that the legislator's "urgent case" clause is redundant and that it is appropriate to give more powers to the pre-trial investigation officer to impose milder preventive measures. In this context, in order to justify the importance of extending the powers of pre-trial investigation officers, it is also necessary to note that some preventive measures, which are equivalent to the mildest pre-trial detention measures in terms of the degree of restriction of human freedoms and human rights, such as temporary detention in accordance with the procedure laid down in Article 140 of the CPC or bringing somebody to court in accordance with the procedure laid down in Article 142 of the CPC, are independently imposed by a pre-trial investigation officer. At the same time, it should also be noted that the most lenient pre-trial detention measures do not absolutely guarantee the objectives set out in Article 119 of the CPC, and at the same time such pre-trial detention measures restrict the rights and freedoms of individuals to a much lesser extent, as the suspect is free to leave his/her place of residence, to meet and influence the victim or a witness, and to commit new offences. Moreover, the criminal procedure law also provides for an expeditious mechanism for appealing against a decision of a pre-trial investigation officer on this matter to the public prosecutor (Article 63 of the CPC). However, in such considerations of giving the pre-trial investigation officer the right to impose the mildest preventive measures in all cases, and in order to avoid possible abuse of this procedural right, it would be appropriate to consider an additional safeguard to avoid possible unjustified and unlawful violation of human rights, by providing for a mandatory requirement to obtain the approval of the pre-trial investigation officer's order to impose the milder preventive measures from the public prosecutor supervising the pre-trial investigation.

Another area of pre-trial proceedings in which the autonomy of the pre-trial investigation officer could be considered is the temporary restriction of the right of ownership, where no such competence is provided for the officer in general (Section 6 of Article 151 of the CPC). In this case, it should be noted that, in accordance with the provisions of Articles 110 and 111 of the CPC, the pre-trial investigation officer has broad powers to decide on the validity of the civil action brought, as well as to decide on the inclusion of civil claimants and defendants in the proceedings for the damages caused by the alleged criminal offence. Moreover, the legislator provides for an even broader power to take measures to secure a civil action under Article 116 of the CPC. However, despite such broad powers of pre-trial investigators in the areas of civil action and enforcement proceedings, Section 6 of Article 151 of the CPC provides for the exclusive right of the prosecutor to take procedural decisions on the temporary restriction of property rights at the pre-trial stage of the investigation, which does not provide a clear and rational justification for the imbalance in the division of powers between the entities. It is therefore reasonable to assume that a positive result in the pre-trial investigation would be achieved if such procedural decisions could also be taken by the pre-trial investigation officer, whose powers at the earlier stages, even before the adoption of this final decision, are quite extensive, as mentioned above. This would not only be a logical solution to the current problematic situation in the legal framework, eventually harmonising the norms of Article 116 and Article 151 of the CPC, but also a measure that would speed up and make the pre-trial investigation process more efficient and help to avoid cases of concealment and loss of property, especially when the pre-trial investigation officer has a wide discretion to impose procedural coercive measures: bringing somebody to court, temporary detention (Articles 140, 141 of the CPC) which, compared to the temporary restriction of the property right, are much more stringent procedural measures, more restrictive of the individual's liberties. However, in order to avoid possible abuse of this procedural right by pre-trial investigators, it would be appropriate, as in the cases mentioned above, to consider an additional safeguard by providing for a mandatory requirement to obtain confirmation of the pre-trial investigator's decision to impose milder preventive measures from the public prosecutor supervising the pre-trial investigation.

In summary, giving the pre-trial investigation officer the possibility to impose the mildest pre-trial detention measures in all cases and the discretion to temporarily restrict the right to property would make the pre-trial investigation process more efficient and expeditious, with the safeguard of a mandatory requirement to obtain the confirmation of the public prosecutor in charge of the pre-trial investigation.

Scope of the process of taking final procedural decisions summarising the pre-trial investigation

When discussing the process of making final procedural decisions summarizing the pre-trial investigation, it is necessary to start with the fact that, according to the criminal procedure law, the termination of the pre-trial investigation (Section 1 of Article 214 of the CPC), the drafting of an indictment (Article 218 of the CPC), the release of the suspect from criminal liability on the grounds of Points 3-8 of Article 212 of the CPC (Section 2 of Article 214, of the CPC), the completion of the investigation of a criminal offense by a criminal order (Article 418 of the CPC), or the expedited procedure (Article 426 of the CPC) is the exclusive discretion of the prosecutor to either make such decisions or, respectively, to initiate the making of such decisions, when this falls within the competence of the pre-trial investigation judge. However, the pre-trial investigation officer's ability to participate in such summary final procedural decisions is limited. The legislator only gives him

the right to refuse to open a pre-trial investigation (Article 168 of the CPC) and to draw up a brief report at the request of the public prosecutor (Section 6 of Article 218 of the CPC). Therefore, it is relevant to discuss whether giving the pre-trial investigation officer the possibility to participate in the final summary procedural decisions discussed above would encourage the pre-trial investigation officer to carry out the pre-trial investigation in a focused and proactive manner, and would contribute to the achievement of a positive outcome in the investigation of a criminal offence.

It should be noted that since October 1st, 2010, with the extension of the specification of information on the criminal offence in accordance with Section 1 of Article 168 of the CPC, part of the prosecutor's competences have been transferred to the pre-trial investigation officer (Law No. 113-5742). Under the current legal framework, the pre-trial investigation officer, after having carried out a relatively large number of procedural investigative steps that do not involve procedural coercive measures, shall, when drawing up a decision to refuse to open a pre-trial investigation, organise and summarise the data collected and state the reasons for the conclusion that the information on the criminal offence is manifestly false or that there are circumstances which make criminal proceedings impossible. As a result, some of the prosecutor's decisions to discontinue a pre-trial investigation in the past have become decisions to refuse to open an investigation into a criminal offence, and although in both cases the content of such final procedural decisions is essentially identical (analysis of the data, summarisation and reasoned application of the law on criminal procedure), it is nevertheless impossible for the pre-trial investigation officer to take the same important procedural decisions on the closure of the pre-trial investigation. According to Section 6 of Article 218 of the CPC, if the prosecutor decides to draw up an indictment in a case where a pre-trial investigation or most of the investigative steps were carried out by a pre-trial investigation officer, the latter must, unless the prosecutor states otherwise, submit a brief report on the investigative steps carried out. Although the legislator provides for the submission of a report to the investigator, it may be concluded, on the basis of the Guidelines "on the preparation of a report at the conclusion of a pre-trial investigation" (Recommendations No I-47), that the content of such a report is equivalent to the content of an indictment, the requirements of which are laid down in Article 219 of the CPC. Thus, it can be seen from the data provided that the drafting of the indictment is, however, based on the reports submitted by the pre-trial investigators, which means that the time-consuming and labour-intensive summary and final documents (the report of the pre-trial investigator and the corresponding final acts of the prosecutor) are written twice in the course of the conclusion of the pre-trial investigation with a judicial perspective, therefore, there is merit in considering the extension of the competence of the pre-trial investigation officer in this area as well. Although giving the pre-trial investigation officer the right to terminate a pre-trial investigation independently risks weakening the prosecutor's functions to organise and manage the pre-trial investigation, this can be successfully addressed by introducing a minimum control mechanism for the prosecutor, i.e. by giving the pre-trial investigation officer the right to adopt a decision to discontinue the pre-trial investigation, which would have to be approved by the public prosecutor, which would be a kind of logical analogy to Section 2 of Article 168 of the CPC, where the consent of the head of the relevant pre-trial investigation body or his/her authorised representative would be necessary, and would speed up the expeditiousness of the pre-trial investigation.

While referring in more detail to the conclusion of a pre-trial investigation by drawing up an indictment in accordance with Article 218 of the CPC, it is necessary to emphasise that what is important is not the form of such a final document, but the right to conclude that the investigation

has gathered sufficient evidence to substantiate the suspect's guilt of a criminal offence. Although in this case there is a legitimate question as to whether the extension of the competences of the pre-trial investigation officer to the pre-trial investigation will not have a negative impact on the pre-trial investigation itself, i.e. unlike the pre-trial investigation officer, the prosecutor is involved in all stages of the criminal proceedings, and is therefore in a better position to objectively assess the data collected during the pre-trial investigation and to predict what data will be accepted by the court as evidence, and therefore to conclude on the adequacy of the data gathered (Goda et al, 2003). However, it should be noted that in certain narrow cases, such as in Article 187 of the CPC, the legislator gives the pre-trial investigation officer the right to decide on the sufficiency of the data for the issuing of a report on suspicion, and it seems that the officer could also be given the discretion to assess the sufficiency of the data gathered in one of the final procedural decisions. Moreover, both the indictment and the other final procedural document of the pre-trial investigation are only a structured reflection of the data collected during the pre-trial investigation, which can be seen from a comparison of the analogous requirements for pre-trial investigation officers' reports according to the Guideline "on the drafting of the report following the conclusion of the pre-trial investigation" and the indictment according to Article 219 of the CPC, and this means that the indictment does not contain any new factual information, but is based solely on the information gathered mainly by the pre-trial investigation officer. Therefore, it can be argued that the quality of the final procedural document depends not so much on its form or structure, but on the quality of the overall investigative process, which is mainly carried out by the pre-trial investigation officer rather than the prosecutor. However, this issue also raises another threat of eliminating the prosecutor's leadership of the pre-trial investigation, especially at the final stage of the investigation, thus expanding the competence of the pre-trial investigation officer, but this issue should be seen in a broader context, and not limited to the final stage of the pre-trial investigation. Taking into account the rather broad competence of the public prosecutor in relation to pre-trial investigation officers, laid down in Section 3 of Article 170 of the CPC, it can be concluded that the public prosecutor, when issuing binding instructions to a pre-trial investigation officer on the performance of certain pre-trial investigation actions, organises the investigation itself - he foresees the possible results of such an investigation, the future situation, and the amount of incriminating data to be collected against a suspect. Therefore, as can be seen, the extension of the competences of the pre-trial investigation officers in the area in question will not substantially diminish or abolish the functions of the public prosecutor, but rather, by establishing a closer relationship between the two procedural entities, the conduct of the pre-trial investigation and the outcome of the investigation should be the joint work of the two officers, who will both have to take a decision on the adequacy of the evidence collected for the preparation of a final act of pre-trial investigation, with a clear role for the public prosecutor. Therefore, substantial changes in the regulation of the final stage of the pre-trial investigation should be considered, which would give more legal force to the pre-trial investigation report prepared by the pre-trial investigation officer, as set out in Section 6 of Article 218 of the CPC, which could even be seen as a draft final act of the pre-trial investigation, which would also imply a proposal to conclude the investigation in one of the forms of closure of the pre-trial investigation, while still leaving the prosecutor with the power to approve such a decision, without which such a draft would not have legal force. Such a solution would be a rational way of not only reducing the cost of the pre-trial investigation (by completing the pre-trial investigation without the need for two time-consuming and labour-intensive summary and concluding documents) but also making it faster.

It can therefore be concluded that the pre-trial investigation would be more efficient and expeditious if more legal force were given to the pre-trial investigation report prepared by the pre-trial investigator, which could even be regarded as a specific draft of the final act of the pre-trial investigation, and which would also imply a proposal for the closure of the investigation in one of the forms of the conclusion of a pre-trial investigation, while still leaving to the prosecutor the power to approve the decision.

Conclusions

1. Having analysed the scope of initiation of procedural investigative actions that are sanctioned by the pre-trial investigation judge, it was determined that granting the pre-trial investigation officer the procedural right to initiate only such investigative actions in the examination of which the suspect, his representative and defence counsel do not have the right to participate and are not aware of their initiation, while also ensuring the possibility of informing the prosecutor about it, the pre-trial investigation process would not only become more efficient and operative, but it would also have a positive impact on the quality of the pre-trial investigation.
2. After conducting an examination of the areas of imposing milder preventive measures and temporary restriction of property rights, it was observed that the "urgent case" criterion established in all three cases of the suspect's appearance in criminal proceedings is excessive and it would be appropriate to grant the pre-trial investigation officer full powers to impose more lenient preventive measures, it could also be considered to give the pre-trial investigation officer the autonomy to take final procedural decisions on temporary restraint of possession, which would not only reconcile the contradictory legal regulation but also give this procedural coercive measure the much needed speed. And in order to avoid possible abuse of these procedural rights, an additional safeguard could be retained by making it mandatory to obtain the approval of the prosecutor supervising the pre-trial investigation.
3. Having analysed the area of the process of making final procedural decisions summarising the pre-trial investigation, substantial changes in the regulation of the final stage of the pre-trial investigation are to be considered, which would give more legal force to the report on the pre-trial investigation actions prepared by the pre-trial investigation officer and would be equivalent to even a possible draft of the final act of the pre-trial investigation, which would not acquire legal force without the approval of the public prosecutor, thus preserving the role of the public prosecutor in the pre-trial investigation, which would not only legitimise the factual situation on the matter at hand, but also reduce the cost of the pre-trial investigation.

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DOCTRINE OF NORMATIVE CONTRACT AND DIGITALISATION

Nikolajs Ozoliņš
Turība University
nikolajs.ozolins@turiba.lv

Imants Lubāns
Turiba University
Imants.lubans@turiba.lv

Abstract

The aim of the article is to prepare proposals for the application of H. Kelsen's doctrine on the application of basic norms to digital platforms for public administration. The author uses the synthesis method to assess the application of contract norms among users and officials, connecting it with the effectiveness of digitalization, modelling and legal design methods to offer predictions for the existence of legal force in the future of contracts, including a brief description of the main results of the study. Authors using modelling methods compare public contract application in Tax law and Positivistic legal theory.

Keywords: Digital platforms, H. Kelsen's, normative contracts

Introduction

The legal norm as a value is recognized in both positivism and natural law, but it differs whether the main point of the evaluations are ideological values or moral values that form the basis of legal understanding.

Smart contracts are “computer programs that automatically execute the terms of a contract when predetermined conditions are met.”

This definition is rather broad and encompasses various different types of computer programs, including the ‘smart contracts’ used in the context of the Web3 ecosystem. It recognizes the growing importance of smart contracts in the digital economy and highlights their potential to automate and streamline business processes. However, read along with the Article 30 of the Data Act, this may have significant negative implications for everyone relying on public blockchain infrastructure.[94]

The aim of the article is to prepare proposals for the application of H. Kelsen's doctrine on the application of basic norms to digital platforms in public administration, the author uses the synthesis method to assess the application of contract norms among users and officials, connecting it with the effectiveness of digitalization, modelling and legal design methods to offer predictions for the existence of legal force in the future of contracts. including a brief description of the main results of the study

[94] REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on harmonised rules on fair access to and use of data 2022/0047(COD) (Data Act) (2022) https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2022:68:FIN

In Latvia Law determines the legal status of an electronic document and an electronic signature and it applies to the provision of certification services in accordance with the requirements laid down in Regulation No 910/2014/EU.[95] Private companies are highly interested to pareticipate in public awareness campaigns and education initiatives are essential to inform citizens about the benefits and security of using smart contracts. Governments must address concerns related to data privacy, security, and the potential for misuse of technology.

Normative agreement doctrine

A normative contract is an agreement on the exercise of certain subjective rights, which creates legal consequences and is therefore also considered a legal act. Normative contracts can be concluded between the state and its organs, as well as private individuals. However, here it is necessary to take into account the differences between normative contracts and individual contracts. There are significant differences between public law contracts and private law contracts. [96]

Analyzing H. Kelsen's work in a contemporary interpretation, it revisits classical concepts familiar from the "Pure Theory of Law", such as the fundamental norm, the separation of "is" and "ought", validity and effectiveness, attribution and the concept of a legal norm. Integrating and modeling the digitalization of modern public administration with Kelsen's long-standing ideas, this article offers a new theoretical landscape, inviting new perspectives of Legal Design on Kelsen's contribution to legal theory and emphasizing its value. [97]

Can we ever build a digital computer state, that would be able to think or feel? Functionalists say yes, but according to John Searle and his famous Chinese Room argument, this would be impossible.[98]

However, if only the state and its legislative body are recognized as the creator of law, then a number of provisions socially important to people, such as general agreements or collective labor agreements in labor legal relations, are removed from the law. So, law is not only laws issued by the state, but also rules of conduct issued by entities recognized by the state:

The most important set of rights to include in digital transformation contracts are procedural rights (e.g., the process for making software changes, the process for resolving security issues, etc.).[99] Most public discussion[100] of digital rights in contracts has focused[101] on the application of rights in substance – whether privacy rights, intellectual property rights, or labor rights.

Substantive rights are an important foundation of any digital, public system, but as legal doctrine recognizes, rights are only as good as the parties' ability to enforce them. Too often, digital service

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95 Electronic Documents Law. Adoption: 31.10.2002.Entry into force: 01.01.2003. Latvian Law

96 Neimanis J. (2004) Ievads tiesībās. (Introduction to Law). 214.lpp

97 Kelsens H. (1960) Reine Rechtslehre, 2., vollst.neu beatb. u. erw. Aufl., Wien: Deuticke, , S. 112

98 Wilson and F. Keil eds. (1999), 'The Chinese Room', *The MIT Encyclopedia of the Cognitive Sciences*, Cambridge, MA: MIT Press.The Chinese Room Argument *First published Fri Mar 19, 2004; substantive revision Wed Oct 23, 2024* https://plato.stanford.edu/entries/chinese-room/

99 Erdmanis R, Mihailovs J.I. (2024) HUMAN, TECHNOLOGIES AND QUALITY OF EDUCATION, THE SPECIFITY OF THE ADMINISTRATIVE CONTRACT IN GENERAL EDUCATION Rīga Stradiņš University, Latvia Latvian Academy of Culture, Latvia 2024 166 https://doi.org/10.22364/htqe.2024.13

100 Briede, J. (2014). Administratīvā līguma noslēgšanas problemātiskie aspekti [Problematic aspects of concluding an administrative contract]. "Jurisprudence and Culture: Lessons from the Past and Challenges of the Future" (pp. 210–220). Rīga: LU Akadēmiskais apgāds.

101 Briede, J., Kovaļevska, A Danovskis, E.,. (2024). Administratīvās tiesības [Administrative law]. Rīga: Tiesu namu aģentūra

contracts are designed to be complex and unchangeable, with little provision for effective enforcement.[102]

Digital contracts (smart-contracts also) differ structurally from contracts in other industries in at least some important ways:

1) are designed to avoid the complexity of contextual use, meaning that they rarely provide affirmative guarantees or warranties about the integrity of the product or its suitability for a particular use; digital contracts are built around "all acceptable uses" as defined by the service provider;
2) tend to over-apply standard contractual clauses, extending them into a long-term context and creating unilateral amendment bodies;
3) often include provisions that refer litigation to arbitration or otherwise limit the remedies available to users. The combination of these factors can make it difficult to negotiate with digital service providers at the time of contract conclusion.

The “Basic NORM” (fundamental norm. Grund-norm) is the central element of Kelsen's concept, the source of unity of the system that "encompasses" all other elements. The fundamental norm, or initial norm, which grounds the system of the legal order, determines that there is some authority, some source of Law, whose statements will act as legally binding".[103] For example, an administrative decree must be followed because there is an act of parliament that provides for the obligation to execute the acts of the administrative authority. This act of parliament must be followed because there is a constitution that provides for the obligation to follow the acts issued by parliament. In turn, the constitution must be followed because there is a fundamental norm that provides for the observance of the other norms.[104]

The doctrine recognizes that fairness is a prerequisite for the validity of a legal norm; in the digital environment, this is expected as an explanation of the use of technology, the diversity of algorithms, and the reduction of errors.[105]

Digitalisation of The State Revenue Service

In March 2021, the Council of Europe adopted new rules (“DAC7”), under which, starting from 2023, the tax authorities of the Member States will automatically exchange information on income earned by sellers on digital platforms. This will help prevent tax evasion and avoidance related to activities on such platforms, improve tax fairness, and promote a level playing field for both platforms and sellers.

The State Revenue Service (SRS) is one of the state administration institutions that widely uses digital tools to facilitate the practical possibilities of society, especially the individual, to use digital services in a convenient and understandable way.

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[102] Danovskis, E. (2009). Iestādes lēmuma un civiltiesiska līguma mijiedarbība [The interaction between the decision of the authority and the civil law contract]. Jurista Vārds, 30 (573). https://m.juristavards.lv/ doc/195230-iestades-lemuma-un-civiltiesiska-liguma-mijiedarbiba/

[103] Kelsen H (1992), Introduction to the Problems of Legal Theory, translated by Bonnie Litschewski Paulson & Stanley L Paulson (Oxford: Clarendon Press, 1992) [Kelsen, Problems of Legal Theory].

[104] Kriviņš A. (2020) Tiesību jēdziens un būtība. Rīga: Autorizdevums, 2020 130 lpp.

[105] Veiksa,I.,Kisnica,I(2016).Consumer-friendly access to digital content by ensuring fair remuneration of creators:A Latvian study Queen Mary Journal of Intellectual Property, 6 (3), pp. 358-369.DOI:10.4337/qmjip.2016.03.05Source: Scopus, Web of Science

One of the digital tools that has been known for several years (more precisely since 2001, when it was put into operation), is the Electronic Declaration System (EDS), where it is possible to obtain various types of information.

Private individuals have the opportunity to access the system using the system username and password assigned by the SRS, as well as the opportunity to use electronic identification tools – Latvija.lv, Smart ID, eParaksts, eParaksts mobile, eID or contact the SRS by writing to the specific e-mail address.

It is no less important to emphasize that within the framework of the use of the digital service, the use of the mentioned tool is also regulated, namely, on January 9, 2024, Cabinet Regulations No. 7 "Regulations on the Electronic Declaration System of the State Revenue Service" were adopted, one of the purposes of which is to determine the information to be included in the State Revenue Service electronic declaration system (hereinafter – the system), its volume, processing rules and storage periods, as well as the conditions and procedure for storing, disclosing and issuing audit records of the system.

However, no less important is that the Cabinet Regulations also determine the procedure by which persons who submit documents electronically are identified in the system.

It must be admitted that this is only a small part of what falls within the competence of the State Revenue Service, analyzing the possibilities of using digital tools, when talking about the discovery of the research goal - the efficiency of digitalization and modeling.

It is inevitable and one could even say mandatory and imperative to mention the digital tool, which is the State Revenue Service's public database, which ensures the acquisition of publicly available information, for example, on registered persons subject to value added tax and persons excluded from this register, taxpayers whose economic activity has been suspended for violations of regulatory enactments, on natural persons who carry out economic activity, on receipts certifying transactions, micro-enterprise taxpayers, on decisions taken by the State Revenue Service that are important to society.[106]

During the operation and development of the SRS, many large-scale development projects have been implemented.[107] Although the process of improvement and development of the SRS is continuous, it should be emphasized that from an initially bureaucratic, fragmented and hierarchical organization, the SRS has gradually become a modern and client-oriented public administration institution.[108]

In turn, when viewing the issue in the context of inter-institutional cooperation (including the State Revenue Service) between state administration institutions, it is necessary to mention the regulation of Article 18 of the State Information Systems Law, from which it follows that the

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[106] Ozoliņš N., Nesrin Akin Orcid (2023) STRUCTURING OF SPECIAL PURPOSE VEHICLE (SPV) WITHIN THE SCOPE OF PUBLIC-PRIVATE PARTNERSHIPS (PPPs) UNDER LATVIAN AND TURKISH LAW
2017 Secure data exchange platform. Principles and implementation. X-Road.
https://scoop4c.eu/sites/default/files/2018-03/Overview-of-Secure%20Data-Exchange-X-Road-6.pdf

[107] Briede, J. (2014). Administratīvā līguma noslēgšanas problemātiskie aspekti [Problematic aspects of concluding an administrative contract]. "Jurisprudence and Culture: Lessons from the Past and Challenges of the Future" (pp. 210–220). Rīga: LU Akadēmiskais apgāds. Briede, J., Danovskis, E., & Kovaļevska, A. (2016). Administratīvās tiesības [Administrative law]. Rīga: Tiesu namu aģentūra.

[108] Načisčionis J., Urmonas A. (2021).Administrative Law in the Sphere of Public Policy upon Restoration of Independence of Latvia and Lithuania VIEŠOJI POLITIKA IR ADMINISTRAVIMAS ISSN 2029-2872 (online) PUBLIC POLICY AND ADMINISTRATION 2021, T 20, Nr. 1/2021, Vol. 20, Nr. 1, p.127-143

administrator of the state platform may provide the opportunity to use the state platform for private persons who have not been delegated a state administration task. A private person who has not been delegated a state administration task uses the state platform in accordance with the regulatory enactments that determine the operation of the relevant state platform.[109]

Table 1

Basic norm (grundnorm) and contract [110]

	Normative contract	**Basic norm** ***Kelsens opinion***
Anthropogeny, clear real life without gadgets	Contracts of delegation Administration contracts	Rechtsstaatlichkeit[111] Rule of law Abstract social contract though civil society
Digitalisation	Active contract windows and templates Big data usage, Common data base of contract norms (clauses)	Depends on digital platform Software providers
Mix, Augmented reality Smart cameras, smart trafic regulation Smart – city Smart – Planet Meta-modern Ideology	Monopoly of technology. The principle of effectiveness of technology is inextricably linked to the principles of legal certainty, proportionality and subsidiarity[112]	Profit interests of economics Global corporations Innovation and effectiveness of investments

Consecutively, the Cabinet of Ministers Regulation No. 624 of 31 October 2023 "Data Distribution and Management Platform Regulations", issued on the basis of the State Information Systems Law, determines the Data Distribution and Management Platform Administrator, his/her duties and responsibilities, as well as the functions and tasks, the performance of which requires the use of the Data Distribution and Management Platform, as well as the procedures for its operation, financing and use.[113]

It should be noted that the purpose of the creation of the aforementioned Cabinet of Ministers was for the Data Distribution and Management Platform to be able to collect data from potentially all state institutions on a single platform, centrally ensuring their circulation between information systems, improve data circulation between information systems, ensure data availability with

[109] Hydén H. (2011)The relation between norms and legal rules. In: Hydén H. (ed.) Norms between law and society. Lund: Lund University, Šulmane D. (2024) Tiesību normu efektivitāte koncepts, kritērijs, princips. (Efectiveness of legal norms: concept, criterion, principle) Sērija "Tiesību zinātņu bibliotēka" Nr. 44

[110] Zalewska M (2024) A Dynamic Approach to Hans Kelsen's General Theory of Norms Hart Publishing, Bloomsbury Publishing. https://www.bloomsbury.com/uk/a-dynamic-approach-to-hans-kelsens-general-theory-of-norms-9781509942787/

[110] Šulmane D. (2024) Tiesību normu efektivitāte koncepts, kritērijs, princips. (Efectiveness of legal norms: concept, criterion, principle) Sērija "Tiesību zinātņu bibliotēka" Nr. 44

[111] European Interoperability Framework https://www.eionet.europa.eu/gemet/nl/concept/1712

certain access times, and ensure that data recipients will retrieve data from the information systems of data providers with a maximum delay of 24 hours.

Therefore, the above once again confirms that the State Revenue Service, in accordance with its development strategy for 2023–2026, namely digital improvement and process automation for the provision of services, automation of SRS core business processes, implementation of automated solutions for the provision of support processes, improvement of information and communication technology (ICT) infrastructure and ensuring the continuity of core business processes, is following in the footsteps of digitalization.

It cannot be ignored that on July 1, 2017, the Account Register Law came into force and starting from September 1, 2017, the State Revenue Service ensures that the users of the register specified in the Account Register Law receive information from the account register free of charge online in accordance with the procedure and to the extent provided for in the Cabinet of Ministers' Regulations No. 186 of March 28, 2017 "Procedures by which a credit institution, a credit union and a payment service provider provide information to the account register and users of account register information receive account register information".[114]

However, it should be added that there is a misconception in society that the State Revenue Service is the institution that issues information on account statements.

In accordance with the Account Register Law and Cabinet of Ministers' Regulations No. 186 of March 28, 2017 186 “Procedures by which a credit institution, a credit union and a payment service provider provide information to the register of accounts and users of the register of account information receive information from the register of accounts” provides grounds for other state administration institutions to receive information about registered accounts in credit institutions from the Register of Accounts online, because the State Revenue Service, as the administrator, keeper and user of the Register of Accounts, does not have the right to manually process information from the register of accounts for issuance to users of the register of accounts.

Government platform effectiveness

In legal science, the term “contract” is understood as an agreement between several persons to establish, modify, or terminate a relationship. Specifically, in the Roman-Germanic legal system, a contract is understood as an agreement between two or more persons resulting in the creation, alteration, or termination of rights and obligations for these persons (and sometimes for third parties).[115]

Platform governments have played a decisive role in shaping the digital transformation in two main ways.

First, most governments now provide and leverage a main platform for digital activity in the economy and society. [116]

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[114] Account Register Law and Cabinet of Ministers' Regulations No. 186 of March 28, 2017 186 “Procedures by which a credit institution, a credit union and a payment service provider provide information to the register of accounts and users of the register of account information receive information from the register of accounts”

[115] Erdmanis R, Mihailovs J.I. (2024) HUMAN, TECHNOLOGIES AND QUALITY OF EDUCATION, THE SPECIFITY OF THE ADMINISTRATIVE CONTRACT IN GENERAL EDUCATION [2 1] Rīga Stradiņš University, Latvia [2] Latvian Academy of Culture, Latvia 2024 166 https://doi.org/10.22364/htqe.2024.13

[116] Legal design lab Standford . (2025) Legal design https://justiceinnovation.law.stanford.edu/

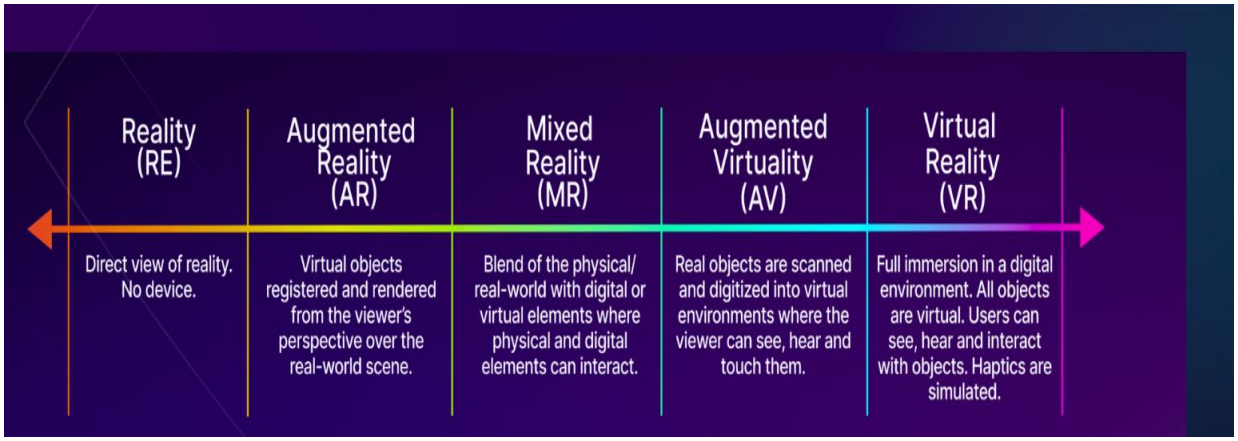
Second, many governments have become integrated into digital megaregions, openly sharing data internally while maintaining digital borders with the outside. Platform governments:

1. Governments operate highly efficient and effective online platforms that facilitate economic exchange and most other activities.
2. Most governments belong to political blocs with platforms that interact with each other but not with other blocs.
3. Infrastructure is of paramount concern in national development and security strategies. Large amounts of data under government control carry great responsibility, and necessitate checks and balances.[117]

Table 2

Types of reality

Source: Alpha3D [118]https://www.alpha3d.io/augmented-virtual-extended-mixed-reality/



Normative power is present when a number of different norms are applicable to similar situations without clear indications that one norm is preferred. A classic example of normative power on the internet is the internet principle hype. While early collections of principles contained clear commitments to central regulatory goals, such as information society premised upon international law, different groups of actors started to develop new principles that, rather than seeking to increase through reiteration the normative pull of existing principles, provided for variation on the normative content motivated by particular sectoral interests.[119]

Ross was inclined towards a socio-psychological way of observing law and criticized the concept of law based on a priori non-empirical logical postulates.[120]Insisting on the rivalry between legal theoretical realism and a normative-systemic approach to law could make any attempt to find common features between Ross on the one hand and Kelsen and Lauterpacht on the other impossible in advance. However, in this article we focus primarily on the analysis of Ross's thinking

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[117] OECD Reviews of Digital Transformation Going Digital in Latvia (2021) https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/02/going-digital-in-latvia_0cf1d1d6/8eec1828-en.pdf

Ministru kabineta 2017. gada 28. marta noteikumiem Nr. 186 "Kārtība, kādā kredītiestāde, krājaizdevu sabiedrība un maksājumu pakalpojumu sniedzējs sniedz informāciju. "Procedures for the provision of information by a credit institution, credit union and payment service provider.

[118] Types of realities (2025) *https://www.alpha3d.io/augmented-virtual-extended-mixed-reality/*

[119] C. Kettemann (2020) he Normative Order of the Internet. Forschungsverbund „Normative Ordnungen" der Goethe-Universität Frankfurt am Main www.normativeorders.net Goethe-Universität Frankfurt am Main Max-Horkheimer-Str. 2, 60323 Frankfurt am Main

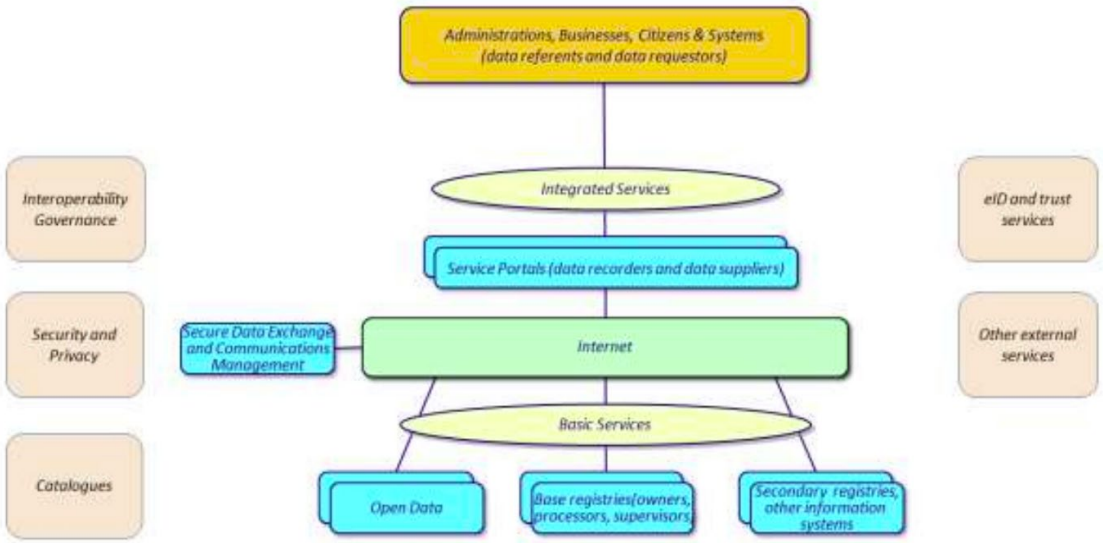
[120] Ross, A.,(2004) On Law and Justice, Lawbook Exchange, Ltd., New Jersey, 2004. str. 67. Međutim, R

on models of international law, and the comparison of the authors is made with regard to their selection of models for the shortlist, which they made on the basis of a normative-systemic way of observing law.[121] Namely, Ross's thinking about models of law does indeed start from a normative-systemic approach to law, which is reflected in his questioning of the model of international law that would best reflect the internal logic of the legal system.

After presenting models as logical wholes, Ross supplements (admittedly, at the crucial moment of choosing between the two models) the normative-systemic approach with sociological-psychological insights. It is important to point out the fact that Ross's theory of law never completely abandoned the normative-systemic approach to law.

Table 3

Secure data exchange platform



DORA, or the Digital Operational Resilience Act, is Regulation (EU) 2022/2554 of the European Parliament and of the Council on digital operational resilience for the financial sector that entered into force on 17 January 2023.

European supervisory framework – this will ensure the overall functioning of the mechanism from a cross-border perspective and the supervision[122] of critical third-party service providers by a single supervisor in cooperation with national competent authorities.

[121] Krešić M. (2014) LEGAL THEORETICAL MODELS OF INTERNATIONAL LAW BY KELSEN, LAUTERPACHT AND ROSS Faculty of Law, University of Zagreb

[122] König, K., von Oertzen, H.J., Wagener, F. (eds.) (1983). Public Administration in the Federal Republic of Germany. Deventer: Kluwer. König, K., Siedentopf, H. (eds.) (2001). Public Administration in Germany. Baden-Baden: Nomos.

Table 4

Bank of Latvia[123]

Digital resilience testing	Risk management of third-party ICT providers	Framework for the monitoring of critical service providers
RTS "Threat-Led Penetration Testing"	ITS "Supplier Information Register Form" RTS "Supplier Use Policy" RTS "Criticality Determination of Suppliers"	RTS "Harmonisation of Monitoring Conditions" Guidelines for cooperation between national competent authorities and European supervisory authorities

DORA is directly applicable, but in order to provide a legal basis for supervision, to define the supervisory authorities and their responsibilities, the relevant amendments to the national framework will be made in Latvia in 2024 and are planned to be developed and submitted to the Ministry of Finance for approval (Laws and regulations | Ministry of Finance (fm.gov.lv)).

Laws and regulations caused by DORA becoming applicable on 17 January 2025[124]

Conclusions

1. Digitalisation and legal capacity, comes from the neopositivist "pure doctrine of law" (G. Kelsen). In this case, law is considered as an order of power, as a compulsory order; any state, from this point of view, should be considered legal.
2. The importance of the principle of effectiveness in the domestic life of the state and at the international level is distinguishable not only at the theoretical, but also at the practical level. The principle of effectiveness is inextricably linked to the principles of legal certainty, proportionality and subsidiarity. In certain cases, the principle of effectiveness can be viewed as a modern variation of the principle of legal certainty.
3. Uncertainty in the area of state ownership (a potential partner interested in concluding an agreement is not sure that the authorities have the necessary powers to implement all provisions of the agreement being concluded). Mistrust of private business in the fashionable PPP instrument, as well as the inability to cover banking risks (up to 30% of the final cost of capital investments) by the initiator of a project structured on the terms of project financing.
4. The rules for budget accounting and setting tariffs do not provide the necessary guarantees to a potential private investor to determine the level of future cash flows for the payback of projects (the tariff system established by the Government Tariff Service creates additional difficulties for participants in transactions).
5. Conflict resolution systems and digital evidence and data protection of public interest is huge risk level of national small soft ware companies in competition for global innovations .

[123] Support for FinTech and innovations https://www.bank.lv/en/operational-areas/supervision/support-for-fintech-and-innovations

[124] Cyber risks DORA. https://www.bank.lv/en/operational-areas/supervision/ict-security-and-cyber-risks

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OECD Reviews of Digital Transformation Going Digital in Latvia (2021). https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/02/going-digital-in-latvia_0cf1d1d6/8eec1828-en.pdf

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INTERRELATIONSHIPS BETWEEN PAIN INTENSITY AND FUNCTIONAL CAPACITY IN PATIENTS WITH I° OR II° SPONDYLOLISTHESIS

Justyna Rdzanek
Institute of Health Sciences, University of Social Sciences in Warsaw, Poland
jrdzanek@san.edu.pl

Abstract

Objective: *The aim of this study was to investigate the correlation between pain intensity and balance mechanism performance, trunk muscle strength and disability level in patients with I° or II° spondylolisthesis treated according to two selected rehabilitation programmes.*

Material and methods*: Fifty-eight patients aged 60–75 years with spondylolisthesis I° or II° were included in the study. The subjects were randomly divided into two groups with differences in treatment programme. The following were used as treatment efficacy criteria for patients in both groups: assessment of the level of spinal pain, assessment of the level of disability, results of stabilographic tests, and muscle strength of the flexors and extensors of the trunk.*

Results*: A number of correlations were found between pain scores (VAS) and disability index (ODI), stabilographic tests (KKDO, KKDZ), muscle strength during bending (MmZg,WmmZG) and straightening (MmPr, WMmPr) of the trunk in men and women at each of the three stages of the study.*

Conclusions*: The results obtained during the study, as well as information on the state of trunk muscle strength and coordination abilities during upright posture maintenance, can be useful for correcting the physiotherapy management programme and evaluating its individual effects.*

Keywords: spondylolisthesis, spine pain, kinesiotherapy, physical therapy to treat spine pain, myofascial trigger point therapy to treat spine pain, muscle strength of trunk flexors and extensors, stabilography on two lower extremities with eyes open and closed

Introduction

Spondylolisthesis (Latin: spondylolisthesis) an anterior displacement of the front part of a vertebra in relation to the vertebra below [1]. Spondylolisthesis occurs mainly in the lumbar part of the spine. It most often occupies the motor segments L5-S1 (70–80%), less frequently L4-L5 (10–30%), the motor segments L3-L4, L2-L3 and others are affected by spondylolisthesis very rarely [2,3]. Many authors believe that vertebral spondylolisthesis occurs as a result of poor fusion of vertebral ossification points, others see the cause in perinatal trauma to the epiphyseal region of the arches, and still others explain the formation of vertebral spondylolisthesis by overloading of the vertebral node as a result of malformation of the spine [5,6,7,8]. Most commonly, however, slipped vertebrae occur as a result of *spondylolysis*, i.e. interruption of the continuity of the arch at the base of the upper articular process, while the connectivity of other vertebral elements is preserved, without

displacement of adjacent vertebrae between them [1]. All of the above-mentioned abnormalities, lead to the development of pain, due to changes in the tension of the ligamentous apparatus stabilising the motor segment of the spine, "fatigue" of the spinal muscles, stiffening of the motor segment of the spine [9,10,11,12,13].

People with sacroiliac pain, exhibit weakened deep trunk muscle function [13], leading to impaired postural control [6,14]. In people with spondylolisthesis, postural control may be impaired and therefore may hinder daily activities and cause disability [4]. Trunk muscle strength is extremely important in balance function [15]. Weakened trunk muscles can have significant negative consequences for maintaining upright posture, overall functional performance and, at the same time, can contribute to back pain [4]. Researchers emphasise that trunk muscle strength and the efficiency of the balance mechanism, in relation to chronic low back pain, should be extensively studied [13].

Given the above, it was reasonable to attempt to determine whether, at each of the three stages of the study, there was an association between the severity of pain and the disability index, the results of the stabilographic tests and the values of the muscle force moments during trunk flexion and extensibility, in the men and women participating in the study, treated according to a therapy programme that is best exemplified by daily clinical practice when treating symptoms associated with I° or II° spondylolisthesis. With reference to the literature, the most commonly used procedures are kinesiotherapeutic interventions that affect trunk muscle strength, in the form of exercises to strengthen the muscle corset. Physical therapy and myofascial trigger point therapy are most commonly used to prepare the tissues for exercise, by relaxing the muscles, and improving blood supply and flexibility of the tissues. Given the clinical benefits of the aforementioned physiotherapy methods, and suggested by our own experience, and a review of the literature, interventions contributing to pain reduction were used in this study.

Purpose of the work

The main aim of the present experiment was to investigate whether, at each of the three study stages in men and women, there was an association between pain intensity and disability index, stabilographic test results and muscle force moments during trunk flexion and extension.

Material and methods

Fifty-eight patients, men and women aged 60÷75 years, including 33 women and 25 men, were included in the study. Patients participating in the study fulfilled the conditions of the disease: degenerative spondylolisthesis or vertebrobasilar spondylolisthesis with spondylolisthesis, Iº or IIº.

Patients meeting the inclusion criteria were randomly divided into two groups, G1 and G2. Those in group G1 were treated according to the established rehabilitation programme, with physical therapy. In group G2, people were treated according to the same rehabilitation programme as group G1, but instead of physical therapy treatments, trigger point muscle and fascial therapy was applied. The rehabilitation course lasted four weeks. Physiotherapy sessions (80 minutes) were held on Mondays, Wednesdays and Fridays. During each 80-minute session, 30 minutes were devoted to kinesitherapy, including 20 minutes of strength-building exercises and 10 minutes of balance exercises. Physiotherapy treatments with a total time per patient of 16 hours were carried out in the study groups.

The examinations were conducted three times: on the day before the rehabilitation camp, on the day after the camp and 6 weeks after the end of the treatment. The examinations included: assessment of pain intensity with the use of the Visual Analogue Scale (VAS), stabilographic measurements, measurements of moments of force during trunk bending and extending in static conditions, and self-assessment of disability with the use of the OSWESTRA questionnaire. Stabilographic measurements were made using a 4P dynamometric platform from the company "JBA Staniak". The assessment of balance maintenance consisted of the subject performing two 30-second attempts to maintain a vertical body position on the stabilographic platform. The trials consisted of maintaining balance during: standing on two lower limbs with eyes open (KKDO) and standing on two lower limbs with eyes closed (KKDZ). The path length of the centre of foot-pressure on the ground [mm] was used as the result of the stabilographic test. Force moments during flexion and extension of the trunk were measured using the SPB2 stand of the company "JBA Staniak". The examination of the strength of the muscles of the flexors and extensors of the trunk was carried out according to the following protocol: informing the examined person about the purpose and course of the examination, stabilising the patient on the measuring stand, carrying out force moment measurements during the straightening and bending of the trunk in static conditions [Nm].

Approval was obtained from the Senate Committee on Research Ethics of the Józef Piłsudski Academy of Physical Education in Warsaw (SKE 01-47/2021) to conduct the present study, as well as a written declaration from the participant in each case expressing their willingness to participate in the study.

Results

During the statistical analysis, the relationship between pain (VAS) and the disability index (ODI), the results of the open-eye and closed-eye stabilographic tests (KKDO, KKDZ) and the trunk flexion and extensibility forces (MmZg, MmPr, WMmZg, WMmPr) in the women and men taking part in the experiment were tested. For this purpose, Pearson's *r* correlation coefficients were calculated separately for the measurements taken at each stage of the study (Table 1).

Table 1

Correlation between pain scores (VAS) and disability index (ODI), stabilographic tests (KKDO, KKDZ), muscle strength during bending (MmZg,WmmZG) and straightening (MmPr, WMmPr) of the trunk in men and women at each of the three study stages

		VAS					
		Stage 1		Stage 2		Stage 3	
		Women	Men	Women	Men	Women	Men
ODI	Pearson's *r*	**0,50**	**0,71**	**0,76**	**0,54**	**0,59**	**0,48**
	p	**0,003**	**< 0,001**	**< 0,001**	**0,005**	**< 0,001**	**0,015**
KKDO	Pearson's *r*	0,15	-0,03	-0,09	0,27	-0,03	0,01
	p	0,404	0,900	0,623	0,192	0,886	0,969
KKDZ	Pearson's *r*	**0,42**	**0,49**	-0,02	**0,47**	0,09	0,08
	p	**0,014**	**0,013**	0,932	**0,018**	0,631	0,706
MmZg	Pearson's *r*	**-0,35**	**-0,40**	0,01	0,17	0,11	-0,25
	p	**0,043**	**0,046**	0,944	0,427	0,551	0,221

MmPr	Pearson's *r*	**-0,54**	-0,19	-0,01	0,09	-0,08	0,03
	p	**0,001**	0,358	0,953	0,653	0,665	0,876
WMmZg	Pearson's *r*	**-0,36**	**-0,42**	-0,10	0,08	-0,10	-0,22
	p	**0,041**	**0,035**	0,589	0,687	0,567	0,289
WMmPr	Pearson's *r*	**-0,55**	-0,22	-0,14	0,05	-0,23	0,02
	p	**0,001**	0,297	0,445	0,823	0,203	0,919

A number of statistically significant correlations were found between the measured quantities. At stage 1, in women, significant correlations were observed between pain severity (VAS) and all other variables except open-eye stabilographic testing (KKDO). Correlations for disability index (ODI) and open-eye stabilography trials (KKDO) were positive and others negative. The correlations of disability index (ODI) with straightening strength MmPr and WMmPr were strong and those for stabilographic tests with eyes closed (KKDZ), flexion strength (MmZg and WMmZg) were moderate. For men, at stage 1, statistically significant correlations occurred between pain severity (VAS) and disability index (ODI), stabilographic tests with eyes closed (KKDZ), flexion strength (MmZg and WMmZg). Correlations of disability index (ODI) with closed-eye stabilographic tests (KKDZ) were positive, and those of flexion forces (MmZg and WMmZg) were negative. The association with disability index (ODI) was strong and the other associations were moderate.

At stage 2, there was one statistically significant correlation in women, which was for the disability index (ODI). The correlation between pain severity and disability index (ODI) was positive and strong. In men, the analysis showed two statistically significant associations. These concerned the disability index (ODI) and the measurement of the closed-eye stabilographic test (CSE). These associations were found to be positive. The correlation related to the disability index (ODI) was strong and that related to the closed-eye stabilography test (KKDZ) was moderate.

At stage 3, in both women and men, one statistically significant and positive correlation each was observed between the severity of pain and the disability index (ODI). For women, the association was strong, while for men it appeared to be moderate.

Discussion

Pain as a factor, contributing to impaired postural control, results in increased muscle fatigue and restricted spinal movement, regardless of the intensity of the pain. This leads to imbalance [16]. According to Brumagne et al. the impaired postural control in people with low back pain compels the search for new and better functional diagnosis methods, as well as effective treatment and rehabilitation methods for patients diagnosed with spondylolisthesis [17].

Investigating the relationship between VAS pain scores and stabilography test results, Braga et al. found that people with lower back pain may show impaired postural control performance. The study was conducted on 15 women with lower back pain and 15 healthy women. The subjects were subjected to three 30-second bipedal standing trials with eyes open on a stabilograph platform. When comparing foot-to-floor (TL) path lengths, between women with lower back pain and healthy women, it was found that healthy women performed better during the stabilography trials, compared to women with lumbar pain. Pain increased the length of the path of the centre of foot-pressure on the TL floor during the stabilography trials. The difference in the results of the stabilographic trials, between patients and healthy women, was not significant ($p<0.084$) [18].

Sipko and Kuczynski analysed the association of pain intensity with changes in postural leaning in patients with chronic low back pain. The authors studied three groups of individuals. Healthy subjects constituted the asymptomatic group (n=32), while patients with low back pain (n=36) were divided into 2 subgroups according to reported resting pain intensity on a numerical rating scale (VAS): patients with low pain (LP) and high pain (HP). It was observed that anterior-posterior pivoting, was greater in both the LP ($p<0.01$) and HP ($p<0.01$) subgroups compared to the asymptomatic group, during open-eye and closed-eye trials. No differences were found between the LP and HP groups [19].

In the present study, when analysing the correlations between pain intensity and stabilography test results, it was noted that in stage 1 of the study, open-eye stabilography test results were not significantly associated with increased pain, regardless of the gender of the subjects. Similarly, in stage 2, the correlations between these variables were also statistically insignificant in men and women. Likewise, in stage 3, for patients of both genders, the association between the results of the KKDO stabilographic trials and the VAS scale score was not significant.

Kolodziej's study found that there is a correlation between the results of stabilography tests and self-assessed pain sensation assessed using the VAS scale. In the author's study, patients with less severe pain syndrome showed less asymmetry ($p<0.001$) of lower limb loading [20].

In our own work, we found that, in stage 1 of the study, the results of closed-eye stabilography tests were significantly correlated with pain intensity, in women and men. In patients of both sexes, the correlations were positive and of moderate strength, the association between variables being stronger in men ($r=0.49$; $p<0.013$) than in women ($r=0.42$; $p<0.014$). At stage 2, after the end of therapy, the association between pain self-assessment scores using the VAS scale and the results of stabilography tests during bipedal standing with eyes closed (KKDZ) was significant only for men. As in stage 1, the correlation was positive and moderate ($r=0.47$; $p<0.018$). In stage 3 of the study, there were no statistically significant associations between pain and the results of closed-eye stabilography trials in either women or men.

According to the authors Chow et al. the incidence of pain in patients with chiropractic is significantly related to the length of the path of the centre of foot-pressure on the ground during stabilographic testing. The analysis carried out by these authors was primarily aimed at demonstrating whether unilateral pain radiating to the right lower limb causes the patient to put more weight on the left limb. The VAS pain score during trials on one KD correlates with the loading of the other lower limb. The authors found a significant correlation ($p<0.0039$), between the pain score and the result of the stabilography test with eyes closed. The VAS pain score correlates with left foot loading ($p<0.0039$) [21].

Disability index, in the present study, was significantly associated with pain severity in both women and men in stage 1 of the study. These correlations were positive. The correlation coefficient between the study variables, was higher for men ($r=0.71$; $p<0.01$) than for women ($r=0.50$; $p<0.01$). In stage 2 of the study, significant positive correlations were noted between pain intensity and disability index. In women, this association was found to be stronger ($r=0.76$; $p<0.01$) compared to men ($r=0.54$; $p<0.01$). Also in stage 3 of the study, the association between these variables was statistically significant among women. This correlation, as in stages 1 and 2, was positive ($r=0.59$; $p<0.001$). In men at stage 3, the association between pain severity and disability index, was significant and positive, among women ($r=0.48$; $p=0.015$).

In a study by Bozorgmehr et al, correlations were found between disability index and pain duration and muscle endurance in patients with lower back complaints. This correlation was found to be significant ($p<0.005$) [22]. Muscle endurance is considered an important characteristic of patients with lower back pain. It is defined as the value of strength under isometric conditions, when contraction can no longer be maintained at a certain level, or as strength under dynamic conditions, when repetitive work can no longer be sustained with a certain level of force [23]. Fatigue and pain prevent patients from performing daily activities with the muscles involved. As the trunk muscles are active in almost every human function, they should be able to work without fatigue throughout the day. Low muscular endurance may play a major role in the development of movement disorders in patients with low back pain [23].

When examining, as part of the present study, the relationship between pain severity and trunk muscle strength, in stage 1 of the study, statistically significant negative associations were noted between absolute trunk flexion strength and pain severity in both women and men, meaning that pain limited the development of strength when measured under static conditions. For both genders, correlations between trunk extensor or flexion strength and pain scores were moderate, although greater strength of association was observed in men ($r=-0.40$; $p=0.046$) than in women ($r=-0.35$; $p=0.043$). In follow-ups 2 and 3, the associations between these variables in both sexes were found to be statistically insignificant. Which may indicate that the strengthening of trunk muscle strength had an effect on pain reduction.

Relative trunk flexion moment of force (WMmZg) and pain severity significantly correlated negatively with each other in women and men in stage 1 of the study. In both sexes, the correlations of relative torso flexion moment of force with pain were negative and moderate, with greater strength of association reported for men $r=-0.42$; $p<0.035$ compared to women $r=-0.36$; $p<0.041$. In stage 2 and 3, there was no association between relative torso flexion moment of force developed in static (WMmZg) and pain on the VAS scale, in women or men.

The correlation between absolute torso straightening force moment (MmPr) and pain intensity was statistically significant in stage 1 of the study for women. The relationship was negative and strong ($r=-0.54$; $p<0.001$). No such correlation was found in men. In both stage 2 and stage 3 among men and women, no statistically significant associations were observed between moments of strength developed in statics and VAS pain scores. The reason for the lack of correlation between pain and trunk muscle strength, may have been a different response to training loads due to different baseline levels of strength capacity or a reduction in pain sensitivity due to training and physiotherapy treatments.

The association between relative trunk extensor strength (WMmPr) and pain severity was statistically significant at stage 1, for women. The correlation was negative and strong ($r=-0.55$; $p<0.001$). Perhaps women, compared to men, appeared to be more sensitive to pain, not exerting themselves, or less motivated to exercise. In stage 1 of the study, in men, the relationship between relative trunk extensor strength (WMmPr) and pain severity was found to be statistically insignificant. In subsequent study stages 2 and 3 in women, no statistically significant relationship was observed between WMmPr and VAS pain scores. Similarly, for men, no significant relationships were found between pain and relative trunk strength in stages 2 and 3.

The relationship between trunk flexion and extension force under isometric conditions and pain intensity was also reported in a study by Cho et al. [24]. The authors showed that strength was

significantly and negatively correlated with pain intensity during both trunk flexion and extension under isometric conditions.

As reported by other authors Moreno Catalá et al, patients with pain compared to healthy controls have significantly lower trunk extensor strength ($p=0.013 \div 0.023$; effect size $\eta^2 = 0.091 \div 0.108$). For isometric trunk flexion, the authors found no significant differences between patients and controls ($p=0.54 \div 0.92$) [25].

Authors Gabr and Eweda found that low trunk muscle strength was directly related to pain ($p<0.05$). After a 15-day standardised trunk strengthening exercise programme, a group of patients showed an increase in trunk extensor and flexor muscle strength ($p<0.05$). The authors indicate that an appropriately selected set of exercises to improve trunk muscle strength is an effective way to reduce pain and improve functional performance [26].

In conclusion, it seems that, regardless of the group in which programmes using physical therapy or fascial techniques were applied, the results obtained in the present study are in line with those of the few authors reporting on the relationship between pain and selected functional parameters in patients diagnosed with low-grade chiropractic. The information obtained during the study on the state of trunk muscle strength and coordination abilities during the maintenance of upright posture may be useful for correcting the physiotherapeutic management programme and assessing its individual effects.

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DETERRENCE THROUGH RESISTANCE

Mareks Runts
Turiba University, Latvia
mareks.gov@gmail.com

Abstract

Latvia's defense strategy emphasizes deterrence through resistance, leveraging societal preparedness to counter potential threats. This article explores how national resistance, strategic communication, and civil involvement contribute to deterrence. By analyzing Ukraine's resistance preparations before Russia's invasion, the research examines the effectiveness of deterrence through credibility, capability, and communication. Findings reveal that Ukraine's last-minute resistance initiatives did not prevent aggression, highlighting the need for long-term preparation. Latvia's defense policies integrate resistance into national security; however, gaps remain in implementation, public engagement, and strategic signaling. Strengthening public awareness, enhancing training, and refining deterrence communication are crucial for an effective resistance strategy. The study concludes that comprehensive preparation, explicit signaling, and societal involvement are essential for resistance-based deterrence to be credible and effective.

Keywords: deterrence, resistance, strategic communication

Introduction

Today's volatile geopolitical environment poses significant challenges to Latvia's defense. Given its location and historical context, Latvia must navigate the complexities of maintaining its sovereignty and security amidst rising regional tensions. The presence of aggressive neighboring states requires a robust defense strategy, collaboration with North Atlantic Treaty Organization (NATO) allies, and the strengthening of national resilience to ensure stability and protection against potential threats. One of the key ways to increase national resilience and defense capabilities is to prepare the whole of society for resistance. This involves educating and training civilians on emergency response, fostering a culture of readiness, and encouraging community engagement in security initiatives (NATO Special Operation Forces Headquarters [NSHQ], 2020). By involving all sectors of society—from government institutions to local communities—countries can create a more united front against potential threats. Building awareness about the importance of individual and collective responsibilities can empower citizens to actively contribute to national defense and ensure a swift response in times of crisis. Using preparation for resistance as a deterrence tool can create a security dilemma, where actions taken to communicate deterrence can compromise sensitive resistance preparation activities. The challenge lies in balancing transparency and secrecy to convey the credibility of deterrence without compromising resistance movement in advance.

Communicating intentions and capabilities without revealing overly sensitive operational details is essential to stress the credibility of deterrence. Demonstrating readiness through public drills, transparent defense policies, and engagement with allies can reassure the public and potential aggressors of a nation's commitment to its defense.

However, maintaining ambiguity about specific response strategies can also be beneficial. A deterrence posture can be strengthened by keeping adversaries uncertain about the full extent of a nation's defensive capabilities or potential countermeasures. This approach allows a country to show that it is prepared and willing to respond while also keeping adversaries guessing about the specific nature of that response.

This article examines the role of resistance in communicating a nation's deterrence strategy. It delves into how the preparation of resistance can influence a country's ability to convey its military and strategic intentions. By analyzing contemporary examples of Ukraine, the article highlights the importance of effective communication in ensuring domestic audiences and potential adversaries understand deterrent messages. It also addresses the challenges nations face in articulating their deterrence posture amidst evolving geopolitical dynamics and competing narratives. Ultimately, the piece argues that robust communication strategies and resistance preparation activities are essential for the credibility and effectiveness of a nation's deterrence efforts.

Literature Review

In the literature review, the author examines deterrence concepts and theories applicable to employing the national resistance movement as an element of the country's comprehensive defense plan to strengthen overall deterrence messaging. In addition, the concept of strategic communication (STRATCOM) is defined, and its role in deterrence is stressed.

Deterrence by punishment and denial are two key security and military strategy theories. Thomas Schelling (1966), an economist and strategist, developed the idea of deterrence by punishment in his work on nuclear strategy, especially in his book Arms and Influence. He argued that the threat of severe retaliation (like nuclear strikes) could prevent an adversary from attacking (Schelling, 1966). The concept focuses on the adversary's fear of suffering unacceptable consequences, often by targeting strategic assets and population centers. This is the key idea of deterrence according to the punishment theory. Another Cold War-era scholar who expanded the concept of deterrence is Glenn Snyder. He argues that the deterrence concept results from the development of nuclear weapons and long-range airpower. He scrutinizes the concept of deterrence through the prism of military strategy. He forms the idea of deterrence by denial, emphasizing that making an attack infeasible or too costly is a key way to deter aggression (Snyder, 1961). Snyder's work laid the foundation for modern deterrence theory, influencing Cold War nuclear strategy and contemporary security studies. Both methods can be used together for stronger deterrence. Which one is more effective depends on the situation and adversary.

The primary theories found in current military doctrines are deterrence through punishment and deterrence through denial. NATO Special Operations Headquarters Comprehensive Defence Handbook (2020, 58) defines credibility as a willingness to take action, the capability to impose a cost on the adversary, and communication as a two-way understanding of consequences. The United States Deterrence Operations Joint Operating Concept states that the main aim of deterrence operations is an adversary decision-making process. The result is achieved by a credible threat to inflict cost or deny profits from the action. The publication describes the concept of deterrence as follows: Ends, Ways, and Means, where Ends are the deterrence of the aggressor (U.S. Department of Defense [DoD] 2006, 20). The deterrence operation concept describes three ways to influence an adversary:

"The first is to threaten to deny them the benefits or gains sought credibly. The second is to threaten to impose costs considered too painful to incur credibly. The third is to encourage adversary restraint by convincing the adversary that not undertaking the action we seek to deter will result in an outcome acceptable to him" (DoD, 2006, 24).

It is essential to synergize the ways in the employment concept. Means are a toolbox in which we have tools such as STRATCOM, Forward presence, Global situation awareness, and Global strike (DoD, 2006). STRATCOM is part of a government-wide deterrence strategy aiming to influence foreign addresses. An adversary's decision calculus is stimulated toward deterrence by choosing appropriate means and effectively communicating them through STRATCOM.

In literature and documents, the definition of STRATCOM varies. In the scope of this article, STRATCOM is defined as the "strategic, planned, targeted and coordinated application of all available communication means to achieve the strategic objectives of the institution and the state" (Valsts kanceleja, 4). When carefully planned and implemented, STRATCOM can have a significant impact. For example, in NATO documents, STRATCOM plays a crucial role in deterrence by shaping perceptions, countering adversarial narratives, and reinforcing the Alliance's credibility and resolve (NATO, 2022). The urgency and significance of strategic communication in deterrence cannot be overstated. It is a vital part of the nation's comprehensive defense. The overarching concept of the messaging includes two main narratives – our population will defend itself if attacked, and the aggressor has no chance of victory because we have made ourselves indigestible (NSHQ, 2020). Linking STRATCOM to resistance, it must be stressed that resistance movements must establish secure and reliable communication channels in advance to maintain credibility. Therefore, governments should proactively develop a STRATCOM framework for their resistance preparation.

Deterrence is not solely reliant on military force. The national resistance movement can also serve as a component of the deterrence strategy. If the resistance is part of the nation's comprehensive defense strategy, it can augment deterrence by denial and support deterrence by punishment (Flanagan et al., 2019). The concept of resistance, which has a rich historical evolution, has become a topical model for national defense in NATO eastern flank countries after the Russian annexation of Crimea. In the Resistance Operating Concept, authored by Dr. Otto C. Fiala (2020, 5), resistance is defined as:

"A nation's organized, whole-of-society effort, encompassing the full range of activities from nonviolent to violent, led by a legally established government (potentially exiled/displaced) to reestablish independence and autonomy within its sovereign territory that a foreign power has wholly or partially occupied."

This definition emphasizes a comprehensive, society-wide approach to resistance. Such a societal approach makes every individual part of a larger strategy, fostering a sense of connection and shared responsibility.

Resistance is implemented through a resistance movement. The resistance movement has three main elements: underground, guerrillas, and auxiliary (United States Army, 2003). In the United States Army publication Undergrounds in Insurgent, Revolutionary, and Resistance Warfare, the term underground is defined as the covert, secretive arm of a broader movement engaged in the resistance. The underground operates in secrecy to support the larger struggle while avoiding detection by authorities or occupying forces (Tompkins, 2013). In contrast, guerrillas conduct overt military operations and are the most visible element of the resistance movement (Grdovic, 2009).

The auxiliary consists of civilian supporters who secretly aid an underground or guerrilla force by offering logistical, intelligence, and operational assistance. Unlike guerrilla fighters who engage in combat or underground operatives who work covertly, auxiliaries continue their everyday civilian routines while discreetly supporting the movement (Fiala, 2020). As defined in the concept of the resistance underground, guerrilla forces and the auxiliary operate under the leadership of a legitimate government, either functioning in exile or acting as a shadow government under occupation (U.S. Army, 2003).

Allies and Partners provide indispensable support that is essential to the resistance effort. Historically, resistance movements have struggled to be effective without external support, including political backing, material aid, or sanctuary (U.S. Army, 2003). This dependency on outside assistance highlights the need for a unified strategy. A nation's resistance capability must demonstrate to a potential aggressor that any attack would come at a high cost. Consequently, the resistance concept should be integrated with state power structures and bolstered by international allies to deter potential adversaries effectively (Fiala, 2020; Stringer & Napier, 2018). Ultimately, a coordinated and well-supported resistance strategy, combining internal efforts with external backing, is crucial for achieving long-term success in deterring hostile actions.

Methodology

This study will be conducted in two stages. First, it will analyze how Ukraine’s resistance movement was prepared before Russia’s full-scale invasion. The analysis will be structured around three key deterrence components: credibility, capability, and communication. These elements will be examined to assess how Ukraine prepared its resistance efforts in anticipation of potential aggression.

In the second stage, the findings from the Ukrainian case study will be compared to Latvia’s activities in preparing its resistance movement as part of a comprehensive defense strategy. The same deterrence components—credibility, capability, and communication—will be used to structure this comparative analysis.

The study will use qualitative methods to systematically evaluate both cases, including document analysis, expert assessments, and official policy reviews. The comparative approach will help identify similarities, differences, and potential lessons for enhancing national resistance capabilities and strengthening messaging for deterrence.

Research Results

In July 2021, Ukraine enacted the Law "On the Fundamentals of National Resistance" to bolster its defense capabilities by engaging citizens in national defense efforts (Presidential Office of Ukraine, 2021). The law, effective from January 1, 2022, encompasses three primary components:

1) Territorial Defense (TD): Establishes organized units across Ukraine's regions to protect local communities and maintain public order.
2) Resistance Movement: Develop strategies and structures for organized resistance, particularly in areas under temporary occupation, to disrupt enemy operations and gather intelligence.

3) Preparation of Citizens: Implement training programs to equip Ukrainians with the necessary skills for national defense, ensuring widespread readiness to support resistance efforts (Verkhovna Rada 2021).

This comprehensive approach is meant to deter aggression by involving the entire population in safeguarding Ukraine's sovereignty and territorial integrity (Presidential Office of Ukraine, 2021).

The enactment of Ukraine's Law "On the Fundamentals of National Resistance" has established a legislative framework for enhancing TD by securing funding, developing an administrative core, and exploring new deployment strategies for the TDF. While this approach addressed immediate security needs, some potential drawbacks were identified, hindering the effectiveness and adaptability of Ukraine's defense capabilities (Muraveinyk, 2021a). The report "The Territorial Defense System of Ukraine: New Innovations but Incomplete Approach" identifies several key challenges in Ukraine's Territorial Defense (TD) strategy:

1) Command and Control Ambiguities: While the TDF is set to become a separate branch under the Commander-in-Chief, the current overlap in command structures, particularly with the Ground Forces Command, may lead to coordination issues.
2) Integration with Civilian Components: The TD strategy includes military, military-civil, and civil components. Ensuring effective collaboration among these diverse elements poses a significant challenge.
3) Resource Allocation and Training: Establishing and maintaining a robust TDF requires substantial resources and comprehensive training programs. The article suggests that current plans may not fully address these needs.
4) Legal and Structural Framework: The successful implementation of the new TD law depends on developing detailed regulations and organizational structures. The report implies that these frameworks are not yet fully developed (Muraveinyk, 2021b).

The rapid escalation of conflict in Ukraine left limited time to address the TD system's challenges fully. Despite legislative efforts, such as the Law "On the Fundamentals of National Resistance," the swift onset of hostilities in February 2022 meant that many structural and operational aspects of the TD were still under development. Consequently, issues like command and control ambiguities, integration with civilian components, resource allocation, and comprehensive training programs were not fully resolved before the conflict intensified. This incomplete implementation underscores the impact of time constraints on Ukraine's defense preparedness.

The Law "On the Fundamentals of National Resistance" designates the Special Operations Forces (SOF) of the Armed Forces of Ukraine as the primary authority responsible for organizing, preparing, supporting, and executing resistance activities, with leadership provided by the commander of these forces. Despite these legislative efforts, the short timeframe between the law's enactment and the February 2022 invasion posed significant challenges. Ukraine had limited time to recruit, vet, and train personnel for an effective underground resistance capable of fulfilling its intended roles (Fiala, 2023). Another significant challenge to implementing this approach was the Ukrainian SOF's preparedness for creating the resistance movement. Since 2015, Estonia, Latvia, and Lithuania participated in the U.S.-led mission Joint Multinational Training Group – Ukraine, where the main task for the international SOF units was to train Ukrainian SOF according to NATO and U.S. standards (Haynes, 2022). Unconventional warfare was critical in the training pipeline (Tovo, 2024). Unfortunately, a significant amount of Ukrainian SOF-trained resistance elements were exposed and eliminated in the initial stages of the war (Murauskaite, 2024). Ukrainian SOF's approach to creating a resistance movement was based on preparing guerrilla groups and not

underground networks, which was more needed to fight what unfolded in Ukraine in early 2022 (Stringer & Hooiveld, 2023). In summary, before the 2022 invasion, Ukraine's resistance movement was rooted in a deep-seated tradition of defiance against external aggression. While proactive measures were undertaken to formalize and strengthen this movement, the rapid escalation of conflict limited the full realization of these efforts.

At the onset of Russia's invasion, Ukraine rapidly initiated civilian resistance training, though these efforts were often improvised and served as urgent measures to deter the aggressor. Media outlets showcased images of diverse groups—including men, women, older people, and teenagers—participating in military-style drills using wooden replicas of Kalashnikov rifles (Faloyin, 2022). Training sessions, conducted by instructors with combat experience, aimed to equip civilians with basic combat tactics and first aid skills (Meduza, 2022). This widespread civilian involvement underscored Ukraine's commitment to national defense amid escalating threats. Shortly after the invasion, the Ukrainian SOF distributed the “Resistance Pocket Guide” and created an internet site for widespread national resistance (National Resistance Center of Ukraine, 2022; Resistance Center, 2022). More evidence suggests that civilian preparation for resistance lacked prudent planning and organization. For illustration, after the invasion on 26 February, around 18,000 rifles were distributed to the citizens without proper oversight or mandatory prior training requirements (Szymanski, 2022). However, this swift arming of the populace introduced several significant risks:

1) Coordination Challenges and Friendly-Fire Incidents: The sudden influx of armed civilians into conflict zones complicated coordination between civilian volunteers and professional military forces. This lack of coordination heightened the risk of friendly-fire incidents as distinguishing between combatants and non-combatants became increasingly difficult. Such confusion could lead to tragic civilian and military casualties (Edwards, 2022).
2) Legal and Ethical Complications: The widespread distribution of firearms without comprehensive legal frameworks and training raised complex legal and ethical issues. Civilians engaging in armed resistance could face legal repercussions, significantly, if their actions inadvertently harmed non-combatants or violated international laws of warfare. Additionally, the blurred lines between combatants and non-combatants could lead to challenges in prosecuting war crimes and ensuring accountability (Hamilton, 2022).

These risks underscore the complexities involved in arming civilians during conflict and highlight the importance of structured training, clear legal guidelines, and coordinated strategies to mitigate potential adverse outcomes.

The war in Ukraine is an example of how the will of citizens can change in the face of existential threat. Before the invasion, the polls indicated that only 32 percent of the population was willing to fight, which increased to 80 percent after the invasion (Bukkvoll & Steder, 2024). Even though there are proposed testing models to assess a nation's will to resist, they are not always accurate. There is also a conviction that the will to resist cannot be measured (Olliviant, 2019). Many factors influence the will to fight and defend a country. Some can be assessed only when the nation has to fight an existential battle, as demonstrated in the contemporary Ukrainian and Russian war (Connable, 2022). This conflict shows that assessing and predicting a nation’s will to resist is hard. Russians based their invasion on faulty assessments that they would have widespread support in Ukraine (Denison, 2022). The war in Ukraine calls for caution against predictions about the nation's will to resist. Therefore, the results of the polls and surveys should be considered. However, at the same time, the actual situation when the nation is faced with an existential threat could considerably affect its will to resist.

The Ukrainian case study demonstrates that the preparation for the resistance did not deter Russian aggression. Nevertheless, to compare findings with preparation undertakings for resistance in Latvia, it is necessary to examine those preparation activities from three key deterrence components: credibility, capability, and communication.

Several factors may have contributed to the creation of the gap between preparation and effective deterrence:

1) Credibility Factor: For deterrence to be effective, the adversary must believe that the nation is willing and prepared to employ its capabilities. Evidence suggests that Russians underestimated the Ukrainian will to resist, and last-minute sporadic activities to prepare civil resistance were not perceived as credible threats because they demonstrated a lack of prudent preparedness.
2) Perception of Capabilities: Deterrence relies heavily on defensive forces' perceived strength and readiness. Preparation of the national resistance requires time, not months like in Ukraine's case, but years or even decades, mainly to organize such an important and complex element as an underground organization. Ukraine did not have enough time to prepare an operational and effective resistance organization because the Law "On the Fundamentals of National Resistance" was signed just short of invasion.
3) Communication and Signaling: Effective deterrence requires clear communication of capabilities and the willingness to use them. Ambiguities or misinterpretations can undermine deterrence efforts. Ukraine sent the signal by signing the Law "On the Fundamentals of National Resistance" and organizing the TDF. However, implementation shortfalls were evident not only for the international community but also for the adversary. Like the hasty preparation of the civilian resistance short before the invasion, these activities could not influence the adversary's risk calculus and assessment of potential costs and benefits. The deterrence component will be less effective if credible capabilities do not support communication.

In conclusion, Ukraine's enactment of the Law "On the Fundamentals of National Resistance" in July 2021 aimed to enhance its defense posture by establishing Territorial Defense Forces and promoting civilian involvement in national defense. However, the limited timeframe between the law's implementation and the onset of Russia's invasion in February 2022 presented significant challenges in fully operationalizing these initiatives. Key deterrence components—credibility, capability, and communication—were undermined by adversaries' underestimation of Ukrainian resolve, insufficient preparation time for effective resistance structures, and the lack of explicit signaling regarding defense readiness. These elements collectively contributed to the shortfall in achieving the intended deterrent effect, underscoring the necessity for sustained and comprehensive defense preparations to deter potential aggressors effectively.

For Latvia, resistance is an integral component of the military strategy for national defense. The role of resistance in national defense for a small country is crucial for several reasons:

1) Deterrence: A strong culture of resistance can deter potential aggressors by signaling that an invasion would be met with significant opposition and cost (Fabian, 2022).
2) Guerrilla Warfare: Small countries often lack the resources for large conventional forces. Resistance movements can employ guerrilla tactics to undermine the enemy's efforts, disrupt supply lines, and create chaos, making it difficult for a more significant military to operate effectively (Laqueur, 1976).

3) Mobilization of Society: Resistance fosters a sense of national unity and purpose, encouraging the population to rally behind the cause of defending their homeland. This collective spirit can be vital for maintaining morale during challenging times (Fiala, 2020).
4) Flexibility and Adaptability: Resistance forces can quickly adapt to changing situations and exploit vulnerabilities within occupying forces, leveraging local knowledge and terrain to their advantage (Fabian, 2022).
5) International Support: A firm resistance movement can attract international attention and support, potentially leading to diplomatic and material assistance from other nations or organizations sympathetic to their cause (Fiala, 2020).
6) Psychological Impact: The existence of an organized resistance can have a significant psychological impact on both the occupiers and the occupied, affecting the morale of the invading forces while empowering the local population (Tompkins Jr., 2012).

Overall, resistance is vital in enhancing the security and sovereignty of small nations facing external threats. By embracing the concept of resistance, small nations can bolster their defense strategies and reinforce their commitment to self-determination and collective security.

Latvia does not have a specific law for resistance, as does Ukraine. Nevertheless, resistance as one of the means for comprehensive national defense has been codified in concepts and rules. For example, the State Defense Concept enacted in 2016 introduces military and civilian resistance as part of the defense system (Aizsardzības ministrija [AM], 2016). In later documents, responsibility for organizing resistance is delegated to the National Armed Forces (NAF):

“The NAF is obliged to plan and prepare resistance measures, in which civilians are involved in counter mobility and resistance preparation voluntarily and on the basis of mutual trust. To implement this, training of the population is ensured in peacetime, an organizational structure and the necessary support infrastructure must be created” (AM, 2020).

The latest version of the State Defense Concept provides an even more detailed description of resistance:

“The success of the resistance movement depends on the population's covert support (e.g., provision, medical care, information, finance, communications, training, recruitment, intelligence) for civilian and armed resistance members, the NAF, and allied forces” (AM, 2023a).

The concept of resistance is outlined in defense planning documents and embedded in the Latvian National Security Law. This law defines the state's and society's rights and responsibilities in safeguarding Latvia’s independence, territorial integrity, and constitutional order. According to the law, every Latvian citizen must defend the country against external and internal threats. If the nation’s sovereignty is endangered, the population has both the right and the obligation to resist the aggressor by any available means, including non-violent and armed resistance (Saeima of the Republic of Latvia, 2024). This principle aligns with international norms recognizing people's right to self-defense and resistance against occupation.

However, to determine the role of the concept of resistance in the overall deterrence strategy, as well as to determine how successfully it is communicated to a potential adversary, an analysis must be conducted from the perspective of the components of deterrence:

1) Credibility Factor: For deterrence to be effective, the adversary must believe that the nation is willing and prepared to employ its capabilities. A study conducted in Latvia to assess the population's will to defend the country shows that only one-third of the military-age male population is ready to participate in armed resistance (Bērziņa & Zupa, 2020). Only half

would be prepared to support the resistance without participating in armed activities; the data indicate that Latvia's population has a relatively low will to defend the country and that poses an additional challenge to organizing popular support for the resistance movement (Bērziņa & Zupa, 2020). Although the percentage data for Latvia on the will to resist almost coincides with the data for Ukraine before the invasion, it should be noted that a similar trend is possible, where the will to resist increases exponentially when existential threats arise.

Even though the resistance concept was introduced in publicly available defense planning documents in 2016, there is little evidence regarding practical implementation. For example, starting in 2019, the Ministry of Defense (MoD) submitted yearly reports on the implementation of a comprehensive state defense system in Latvia; in initial reports, tasks for implementation of the resistance concept are identified, but in the following reports, there is no information regarding progress or completion (AM, 2021). The latest report does not mention the resistance concept (AM, 2023b).

2) Perception of Capabilities: Deterrence relies heavily on defensive forces' perceived strength and readiness. NATO and Latvian SOF units train on applying the resistance concept in international and NAF field training exercises (Friberg, 2018; Weisman, 2018). The use of unconventional tactics, integration of civilian components, and interoperability training with international forces demonstrate readiness to employ these capabilities to support the resistance strategy in the event of potential aggression (Sargs.lv, 2022).

   A strong example of defense sector cooperation with civilian organizations is the ongoing national defense partnership between the MoD and the Latvian Hunters' Union. As part of their cooperation, the MoD and the Hunters' Union aim to encourage hunters' voluntary involvement in comprehensive national defense. The collaboration includes planning regional seminars for hunters on opportunities to participate in national defense and updates on comprehensive defense strategies. Additionally, crisis tabletop exercises will enhance cooperation between hunters and state institutions in addressing national threats and facilitating information exchange on relevant issues. As part of this initiative, Latvian Hunters' Union members are expected to participate in the comprehensive national defense exercise "Namejs 2025" (AM, 2024a). Such cooperation sets an excellent example of how the defense sector can work together with the population to enhance the security and resilience of the country.

3) Communication and Signaling: Effective deterrence requires clear communication of capabilities and the willingness to use them. Besides communicating the intentions of the whole of society's resistance by implementing this concept in laws and planning documents, Latvia also pays attention to distributing practical information on how to resist to citizens. For instance, O. Fiala's Resistance Operating Concept has been published on the official MoD internet page (Rostoks, 2022). In addition, several practical publications where Ukraine's experience is integrated for households and municipalities are prepared and distributed by MoD (AM, 2024b; AM, 2024c) Finally, Latvian Hunters' Union demonstrates understanding of importance regarding communication with populace and helped produce and publish Resistance handbook which aims to inform masses how to resist the occupying power (Latvijas Mednieku savienība, 2024).

   Communication with the population is ongoing, but there is a gap in signaling our deterrence capabilities to a potential adversary. In 2023, the Prime Minister of Latvia approved a strategic medium-term policy planning document on national STRATCOM and information

space security. However, the document does not mention deterrence or how national STRATCOM will support signaling to a potential adversary, highlighting a critical oversight in strategic communication (Valsts kanceleja, 2023).

In conclusion, while Latvia has taken steps to integrate the concept of resistance into its national defense strategy, significant challenges remain in ensuring its credibility, effectiveness, and communication with the domestic population and potential adversaries. The limited public evidence of practical implementation, the relatively low initial willingness of the population to engage in resistance, and the absence of deterrence-focused messaging in strategic communication documents all indicate areas that require further attention. Strengthening public awareness, enhancing training and cooperation with civilian organizations, and ensuring that deterrence signaling is explicitly addressed in national STRATCOM policies will reinforce Latvia's overall defense posture and resilience against potential threats.

Conclusion

The case studies of Ukraine and Latvia on resistance-based deterrence underline the need for long-term preparation, strategic messaging, and societal engagement. Ukraine's efforts, though laudable, lacked time for due diligence and fell short in credibility, capability, and communication. Meanwhile, Latvia has built resistance into its national defense strategy. However, significant gaps exist between the rhetoric, the public's level of awareness, practical implementation capacities, and signaling deterrence capabilities to potential aggressors.

Resistance must be seen as a credible and integral aspect of national defense to serve as a meaningful deterrent. That takes persistent training, engagement across society, and defining recognizable, actionable strategic communication frameworks. Enhancing our nation in these domains will improve our security, deter aggressors from hostile actions, and signal that any pursuit of aggression against our interests will prove very costly. Ultimately, a resolute and well-prepared society acts as a deterrent, bolstering the sovereignty and security of smaller nations confronting external threats.

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AI AND REAL-TIME PERFORMANCE MONITORING IN HUMAN RESOURCE MANAGEMENT USING DATA SCIENCE: OPPORTUNITIES AND CHALLENGES

Saranya Sahadevan
Turiba University, Latvia
saranyanasc2015@gmail.com

Abstract

The rapid advancements in artificial intelligence (AI) have dramatically transformed Human Resource Management (HRM), offering organizations unprecedented tools to enhance the way they monitor employee performance in real-time, optimize workforce productivity, and drive sustained business success. This research explores the potential of AI-driven real-time performance monitoring systems to track, assess, and improve employee performance in dynamic, ever-changing work environments. By leveraging machine learning and advanced data analytics techniques, companies can continuously gain deep insights into employee behaviours, engagement levels, and productivity, enabling more agile decision-making and immediate corrective actions when needed. One of the key advantages of real-time performance monitoring is the ability to provide personalized feedback to employees, identify skill gaps early, and allocate resources more efficiently. However, this approach also comes with its set of challenges, such as concerns regarding employee privacy, trust in the system, and the ethical implications of ongoing surveillance. Moreover, the study explores how AI-driven monitoring impacts the overall organizational culture, leadership dynamics, and employee well-being. The findings from this research demonstrate that AI can foster a culture of continuous improvement and innovation, enabling organizations to adapt swiftly to market changes while ensuring that employee satisfaction and motivation remain high. By embracing real-time performance monitoring, companies can strategically enhance operational efficiency and make data-driven decisions that optimize talent management. This paper offers valuable insights for HR professionals, business leaders, and policymakers who aim to maximize the potential of AI technologies in real-time performance monitoring. The conclusions provide actionable recommendations for overcoming challenges and harnessing AI-driven systems to improve both individual and organizational performance, while fostering competitiveness and long-term success in an increasingly fast-paced business world.

Keywords: Artificial Intelligence (AI), Continuous Improvement, Data-Driven Decision Making, Employee Engagement, Employee Performance, Human Resource Management (HRM)

Introduction

Performance management in contemporary companies has changed significantly during the last few decades. With the use of cutting-edge technology like artificial intelligence, machine learning, and data analytics, it has moved from traditional, inflexible processes to more flexible, data-driven ways. Fundamentally, performance management refers to the procedures that businesses apply to assess, improve, and maximize worker performance in order to promote corporate success.

Performance evaluations were the main emphasis of performance management in the past, when managers evaluated staff contributions and established goals for the future. However, in today's fast-paced workplaces, where tasks are becoming more complicated and flexibility is essential for managing constantly shifting business environments, this traditional method is no longer relevant. With an emphasis on frequent feedback, real-time data analysis, and alignment with the organization's overarching goals, modern performance management has developed into a dynamic and ongoing process. "The rise of remote and hybrid work arrangements, which require more flexible and responsive performance management strategies, the growing recognition of the need for personalized employee development, tailored to individual strengths, weaknesses, and career goals, and the growing awareness that traditional annual performance reviews often fall short, failing to motivate employees or drive meaningful improvement," are some of the factors that have contributed to this shift towards a more agile and adaptive approach. With this innovative strategy, companies can cultivate a culture of ongoing learning, development, and enhancement, which eventually improves results for both workers and the company (Gruman & Saks, 2011).

Conventional performance management methods are being transformed by the AI. With real-time data analytics, organizations can reduce biases, improve performance reviews, and enable continuous feedback. AI-powered tools compile data from multiple sources, allowing for objective evaluations and the forecasting of future performance. These insights help companies identify disengaged workers, high-potential talent, and skill gaps, while improving talent management and succession planning. AI-driven performance management promotes employee development, organizational productivity, and alignment with company goals. However, research gaps remain, particularly in understanding the long-term effects of AI on employee motivation, engagement, and organizational culture, as well as addressing ethical concerns such as privacy and fairness. More exploration is needed to assess the role of AI in employee development and its impact on creativity and innovation. (Cappelli & Tavis, 2016).

Although AI’s integration into real-time performance monitoring in HRM is growing, several research gaps remain. While many studies focus on AI’s technical aspects, there is limited understanding of how employees perceive and trust AI-based performance monitoring. Ethical issues, such as employee consent, transparency, and data usage, are also underexplored. Additionally, concerns over algorithmic bias, particularly regarding gender, race, and socio-demographic factors, persist. While AI’s immediate benefits are clear, its long-term impact on organizational culture, employee engagement, and leadership styles still requires further study(Vishwakarma & Singh, 2023).

Research is needed on how AI can integrate with traditional HRM practices, like talent management and employee development, to create a more holistic approach. With the rise of remote and hybrid work, AI’s role in maintaining productivity and employee well-being requires further exploration. Additionally, the potential for AI to personalize employee development within real-time performance monitoring is underexplored. Most AI in HRM studies focus on Western contexts, highlighting the need for cross-cultural and global research. There is also a lack of studies measuring the ROI of AI-based systems, as well as further research on AI's impact on employee mental health, stress, and burnout. Addressing these gaps is key to unlocking AI’s full potential in HRM (Qamar, Agrawal, Samad, & Chiappetta Jabbour, 2021). This study will provide an in-depth examination of the transformative impact of Artificial Intelligence on performance management, encompassing a range of critical topics including the role of AI-powered tools and technologies, benefits and impact on employee development, data privacy and ethical considerations, AI-driven

performance reviews and feedback mechanisms, and the challenges of implementing AI in performance management.

Literature Review

The interdisciplinary discipline of data science uses a variety of methods, including statistical modelling, machine learning, and data visualization, to glean insights and information from both structured and unstructured data. Data science is essential in the context of employee performance management because it helps analyse large datasets to find trends, patterns, and correlations that guide performance management decisions; develop predictive models that forecast employee performance, turnover, and retention; and create data-driven performance metrics that offer a thorough understanding of employee performance, pinpoint areas for improvement, and guide strategic decisions to drive business outcomes. Organizations can take a more objective, data-driven approach to performance management that maximizes employee performance, improves business outcomes, and creates competitive advantage by utilizing data science (Marr B. , 2018). The strategic integration of data science in performance management also enables organizations to promote an open and accountable culture. Organizations can enable employees to take charge of their own development and progress by giving them access to their performance data and insights. Additionally, data science may help identify organizational inefficiencies and bottlenecks, enabling leaders to make well-informed decisions that support systemic changes and foster a high-performing workplace culture (Martin Edwards, 2019).

Finding relevant Key Performance Indicators (KPIs) that support company goals can also be made easier with the help of advanced analytics approaches. Organizations can discover intricate associations between variables and choose which indicators are most pertinent to monitor by utilizing statistical models and machine learning techniques. This makes it possible for leaders to make well-informed choices that promote a continuous improvement culture and generate strategic goals (Peral, Maté, & Marco, 2017). Since businesses that use Big Data Analytics (BDA) typically outperform their competitors, the successful integration of data science and advanced analytics into performance management can also result in better organizational performance. This is primarily because BDA helps businesses find patterns and insights in their data that are concealed, which helps them make strategic decisions and improves company results (Thirathon, Wieder, Matolcsy, & Ossimitz, 2017).

Data science plays a crucial role in employee performance management by utilizing methods such as statistical modelling, machine learning, and data visualization to analyse both structured and unstructured data. It allows organizations to identify patterns, trends, and correlations within large datasets, guiding data-driven decisions related to employee performance, retention, and turnover. By creating predictive models, data science helps forecast future performance outcomes and develop performance metrics that provide deep insights into employee performance, highlighting areas for improvement. This objective approach enhances business outcomes, maximizes employee productivity, and creates a competitive advantage. Additionally, data science promotes an open and accountable culture by providing employees access to their performance data, enabling them to take charge of their own development. It also helps identify organizational inefficiencies and bottlenecks, allowing leaders to make informed decisions that drive systemic change and foster a high-performance culture. Furthermore, data science aids in selecting relevant Key Performance Indicators (KPIs) that align with organizational goals, ensuring continuous improvement and

strategic goal setting. The integration of Big Data Analytics (BDA) into performance management is shown to result in improved organizational performance by uncovering hidden patterns and facilitating strategic decision-making.

Research Methodology

For this study, I have used qualitative research to investigate how AI-powered real-time performance monitoring is changing Human Resource Management (HRM). I reviewed academic papers, case studies, and online sources that cover AI, machine learning, and performance management in HRM. This allowed me to gather insights into how companies are using AI to monitor and improve employee performance.

Data Sources

I gathered data through secondary research, meaning I used existing materials like peer-reviewed academic articles, industry reports, and trusted online sources. I focused on literature published between 2010 and 2023. To find relevant studies, I used sources like Google Scholar, Scopus, and ResearchGate. This ensured I was using credible and high-quality publications.

Data Analysis

For analysing the data, I used a thematic analysis approach. This meant I looked for common themes around AI's impact on performance management, employee productivity, and HR practices. I also compared different AI tools and technologies to understand how they are being used in organizations. Additionally, I reviewed existing frameworks and theories in AI and performance management, such as the Technology Acceptance Model (TAM), to see how AI fits into HRM practices. This helped me identify the benefits, challenges, and gaps in the current use of AI in performance monitoring.

Ethical Considerations

I made sure to follow ethical guidelines by properly citing all the sources I used. I avoided plagiarism by giving credit to the authors of the studies and reports I reviewed. I ensured that all the information used in this study was reliable and came from trusted sources.

Limitations

One limitation of this study is that it relies only on secondary data, so I could not include firsthand experiences or current, real-time information. Some of the articles and reports I reviewed might be out of date or not cover the latest AI developments in HRM. However, despite these limitations, the study provides valuable insights into AI in performance management and highlights areas where further research is needed.

Result of the Study

This research investigates how Artificial Intelligence (AI) is being used in real-time performance monitoring within Human Resource Management (HRM), examining both the potential advantages and challenges. A review of existing studies has highlighted several important insights that relate to the goals of this research.

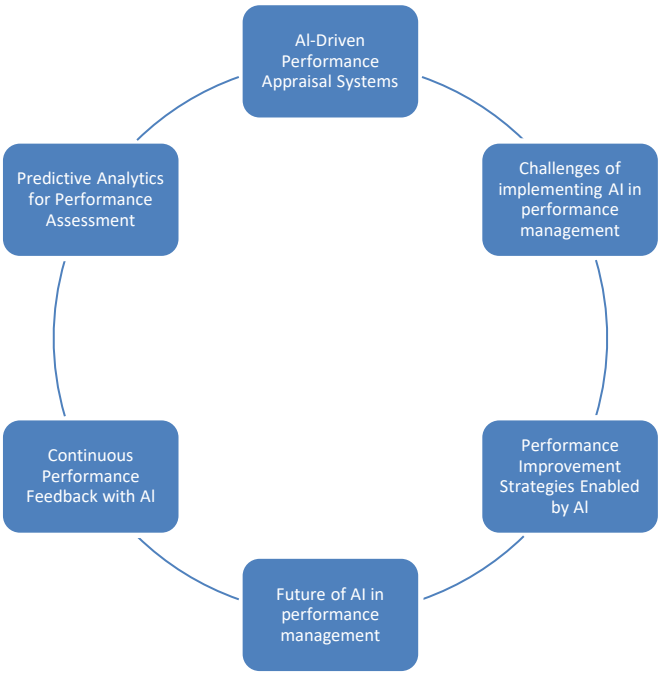

Figure 1. **Study of ai and real-time performance monitoring in human resource management using data science: opportunities and challenges**

Continuous Performance Feedback with Al

Al's continuous performance feedback transforms conventional performance management techniques by providing employees with individualized coaching and real-time insights. The frequency and efficacy of feedback are constrained by the annual or semi-annual nature of traditional performance reviews. Al-powered solutions, on the other hand, enable businesses to give workers continuous feedback based on their daily assignments, projects, and interactions. through real-time analysis of performance data. Al algorithms are able to recognize chances for growth, places for improvement, and strengths, allowing staff members to make quick changes and produce better results. (Marr B. , 2018). Continuous performance feedback with Al is more effective since it fosters an organizational culture of ongoing development and progress. Employees can address problems proactively and improve their performance over time by receiving fast and actionable feedback on their work rather of waiting for recurring performance reviews. Organizations foster open communication, trust, and cooperation between team members and management by giving employees real-time access to their performance data and comments. Moreover. To keep management and staff engaged on reaching their goals, Al-powered systems can measure and monitor progress toward performance goals and targets. All things considered, Al's continuous performance feedback is a revolutionary approach to performance management that helps businesses boost worker engagement, productivity, and success in the fast-paced, cutthroat business world of today.

Predictive Analytics for Performance Assessment

Using past data, patterns, and trends, predictive analytics for performance evaluation makes use of sophisticated data analysis techniques to project future performance results. Conventional performance evaluations frequently depend on backward analyses of prior performance, offering little insight into potential future performance. Organizations may, however, foresee performance trends, spot possible problems, and proactively handle difficulties before they affect results by integrating predictive analytics. Organizations can increase performance and organizational success by using predictive models and algorithms to influence strategic planning, resource allocation, and talent management decisions. Finding leading indicators of future performance and success is one of predictive analytics' strategic advantages for performance evaluation. Predictive analytics algorithms can find patterns and trends that forecast future performance outcomes by analysing historical performance data, including key performance indicators (KPIs), employee engagement ratings, and training results. Predictive models, for instance, can pinpoint behaviours or performance indicators that are associated with high-achieving workers or groups, allowing businesses to concentrate resources and actions where they are most likely to produce results. Additionally, predictive analytics helps businesses to foresee and reduce performance-related hazards before they become more serious problems. Predictive models can spot possible red flags and warning indications that point to a danger of poor performance or disengagement by analysing data on employee turnover, absenteeism, and performance trends. Organizations can take proactive steps, like focused coaching, using this foreknowledge. To address underlying problems and stop performance-related obstacles from affecting organizational achievement, implement skill development programs or performance improvement strategies.

Al-Driven Performance Appraisal Systems

Al-driven performance appraisal systems, which use artificial intelligence algorithms to improve accuracy, objectivity, and efficiency in the appraisal process, are a revolutionary approach to assessing employee performance. Conventional performance evaluation methods frequently have biases, subjectivity, and inconsistencies, which result in erroneous evaluations and employee discontent. However, by integrating Al, businesses can analyse vast amounts of data, automate parts of the performance review process, and offer useful insights to help with people management and decision-making. The capacity of Al-driven performance appraisal systems to reduce bias and advance equity in performance reviews is one of its advantages. Algorithms are capable of objectively analysing performance data, concentrating on quantifiable measures and results as opposed to arbitrary judgments or perceptions. by eliminating human prejudices from the evaluation procedure. Al-driven systems guarantee that workers are assessed according to their real accomplishments and contributions, resulting in more fair and accurate evaluations. Al algorithms are also capable of detecting and reducing implicit biases in performance reviews, guaranteeing that assessments are carried out impartially and consistently for teams and personnel. Additionally, Al-driven performance appraisal systems give businesses the ability to use predictive modelling and advanced analytics to find trends, patterns, and areas where employee performance could be improved. by examining past performance information. Algorithms can pinpoint elements that lead to exceptional performance, like abilities, actions, or work habits. With this knowledge, companies can offer employees focused coaching, feedback, and growth opportunities to help them reach their full potential and improve results. Al-driven systems may also pinpoint areas for improvement and performance gaps, allowing businesses to take proactive steps to fix issues and boost productivity. All things considered, Al-driven performance appraisal

systems are a wise investment for companies trying to enhance performance management procedures, promote an environment of accountability and ongoing development, and propel organizational success in the cutthroat business world.

Performance Improvement Strategies Enabled by Al

Al-enabled performance enhancement solutions are a potent way for businesses to maximize worker performance, boost output, and propel organizational success. The manual procedures, subjective evaluations, and reactive actions that are frequently used in traditional performance enhancement techniques may not adequately address the underlying causes of performance problems or optimize employee potential (Ballyan, 2018). However, by integrating Al technologies, businesses may use predictive modelling, tailored recommendations, and sophisticated analytics to find performance gaps, offer focused interventions, and help staff members reach their objectives.

Challenges of implementing AI in performance management

Businesses that use artificial intelligence (AI) in talent management can encounter opposition from managers and staff who are used to more conventional performance management systems. Fears of losing control over the decision-making process and worries about the fairness and accuracy of AI systems are the main causes of this reluctance. Workers may be concerned that AI may result in impersonal evaluations that fail to consider their unique contributions. On the other side, managers might believe AI will compromise their power and discretion. Companies must explain the advantages of AI in talent management in a straightforward and open manner to overcome this opposition. AI can assist in pinpointing areas in which workers require education or training, allowing businesses to offer focused assistance and enhance productivity(Khan, 2024). The quality of the data that artificial intelligence (AI) utilizes to inform its judgments is crucial. The AI's judgments might not be trustworthy if the data is biased, erroneous, or lacking. Unfair results, poorly informed choices, and even the exacerbation of preexisting biases may result from this. Biased information, gaps in the data, and mistakes in data collection and processing are some of the causes of incorrect data. AI systems may draw conclusions that are not true to reality if they are not built to address these problems or are not well taught to spot errors in the data. Serious repercussions may result from the improper application of AI-driven conclusions, especially when it comes to recruiting, loan approval, and medical diagnosis (Steven M. Williamson, 2024).

Due to technological constraints, integrating artificial intelligence (AI) into current human resource (HR) systems can be challenging. Many businesses continue to employ antiquated HR software that was not made to integrate with AI. The power, scalability, and flexibility required to run AI-driven applications are frequently lacking in these systems. For AI algorithms to work effectively, high-quality, clear, and structured data is necessary. Poor AI performance may result from an organization's outdated HR system's inability to efficiently organize or clean data. Organizations frequently need to replace or enhance their current HR software ecosystems to address these obstacles. Adopting more recent HR platforms made especially to integrate easily with AI tools may be one way to do this. It takes a lot of money, time, and resources to upgrade to HR systems that can use AI. Nonetheless, it is necessary to attain long-term benefits including increased productivity, more precise decision-making, and a better working environment for employees. HR teams must receive training on using AI-driven solutions to guarantee a successful integration. With the right training, HR professionals may effectively use AI insights to make well-informed decisions without interfering with current workflow. All things considered, incorporating AI into HR software ecosystems and workflows is difficult; nevertheless, these challenges may be addressed with

proper preparation, training, and investment in cutting-edge solutions. AI has the potential to greatly improve HR capabilities with the correct backing, leading to better decision-making, personnel management, and a more efficient HR function (Soumyadeb Chowdhury, 2023).

Furthermore, specific staff members, such as data scientists and AI specialists, are needed to deploy AI systems for performance management difficult (K. Rajendra Prasad, 2024). These experts are crucial to the effective development, application, and improvement of AI systems, but hiring and keeping them can be costly. It also costs money to train current employees to use AI technology efficiently. Software upgrades, data management, security, and AI model improvement are just a few of the continuous operating expenses associated with maintaining AI infrastructure over time. These recurring expenses may be split among partners in public-private partnerships, which may make choices about finance and resource distribution more

Future of AI in performance management

The way we handle employee performance is evolving due to new artificial intelligence (AI) technologies like deep learning, augmented reality (AR), and AI-enhanced decision-making. These technologies make the process more dynamic, effective, and data-driven by providing creative methods for performance analysis, evaluation, and improvement. By finding intricate patterns in big datasets, deep learning, a subset of machine learning, can improve performance management. Large volumes of data from multiple sources can be processed by this technology, offering deeper insights into each person's performance. Deep learning algorithms can identify early indicators of employee disengagement or burnout, suggest individualized development plans, and forecast future performance patterns.

Through immersive training and development experiences, augmented reality (AR) has the potential to completely transform performance management. Because AR mimics real-world situations, workers may hone their abilities, work through issues, and get quick feedback. In addition to improving employee skills, this kind of experiential learning gives managers precise, up-to-date information about workers' talents and development. Managers are assisted in making data-driven, well-informed judgments regarding employee performance via AI-enhanced decision-making. To help managers discover top performers, monitor progress, and decide on promotions, pay, or development needs, artificial intelligence (AI) technologies analyse performance data and produce actionable insights. AI-enhanced decision-making results in more transparent, consistent, and equitable assessments by lowering the dependence on subjective judgment. By integrating these cutting-edge AI technologies into performance management systems, assessments become more accurate and efficient and allow for more engaging and customized experiences for staff members. Organizations may develop comprehensive, data-driven performance management strategies that empower, inspire, and propel high-performing teams by utilizing deep learning, augmented reality, and AI-enhanced decision-making (Canals, 2019). By forecasting the kinds of positions that will be needed and the precise skill sets needed, AI-driven insights assist HR departments in their planning. AI improves talent acquisition in recruiting by automating and expediting the hiring procedure. AI-powered hiring tools can evaluate resumes fast, find the best candidates, and match qualifications to job needs. (Ballyan D. V., 2024).

The goal of combining human-centered management techniques with artificial intelligence (AI) is to develop a well-rounded strategy that makes use of both human knowledge and technological advancements. This strategy is especially pertinent considering Industry 5.0, which prioritizes human-machine cooperation. The conventional wisdom that automation can replace human labour

is called into question by Industry 5.0. Rather, it imagines a time where artificial intelligence (AI) enhances human talents, boosting creativity, productivity, and decision-making. Efficiency, data processing, and decision-making can all be enhanced by AI-driven systems, but these advantages work best when combined with human-centered management concepts that place an emphasis on strategic thinking, empathy, and creativity. Designing solutions that make use of both AI and human strengths is necessary to integrate AI with human-centered management methods. Because AI can perform repetitive jobs, human workers may concentrate on more complex problem-solving, fostering relationships, and innovating. Organizations can increase productivity and creativity by fusing AI's data analysis capabilities with human qualities like emotional intelligence and decision-making. Sustainability—including social, organizational, and environmental sustainability—is also given top priority in this strategy. AI integration must improve human well-being, empower employees, and foster a healthy work environment to be sustainable (Barbara Martini, 2024).. This necessitates tackling possible obstacles, like making sure AI systems are open, impartial, and flexible enough to meet a range of human demands. The ultimate objective is to combine AI and human management techniques in a way that improves output, creativity, and worker satisfaction. This well-rounded strategy embodies Industry's central tenet, which holds that technology may maximize human potential without undermining the importance of people in the workforce.

Discussion

This study examined the integration of Artificial Intelligence (AI) in real-time performance monitoring within Human Resource Management (HRM), focusing on its potential benefits and challenges. The findings from the literature review and the analysis of current AI-driven performance management tools suggest that AI has the potential to significantly enhance employee performance, organizational efficiency, and decision-making processes in HRM. However, despite these advantages, the study also highlighted several challenges that need to be addressed for successful implementation. AI's ability to provide continuous, real-time feedback allows organizations to monitor employee performance more effectively, unlike traditional annual evaluations. By tracking progress and suggesting personalized development plans, AI enhances employee engagement and fosters a culture of continuous improvement. The study found that AI improves decision-making in HRM by analysing data and providing predictive insights, such as forecasting employee performance and identifying top talent. AI also automates routine tasks like performance evaluations and training recommendations, reducing administrative burden, and enabling HR professionals to focus on more strategic activities. Despite the many advantages, several challenges associated with AI-driven performance monitoring systems were also identified. One of the primary concerns is the issue of employee privacy and trust. Continuous monitoring may raise ethical questions regarding the extent to which employees' personal and professional data is being collected, analyzed, and used. Concerns related to consent, transparency, and the potential for surveillance may impact employee morale and trust in the organization. It is essential for organizations to establish clear guidelines and policies to address these concerns, ensuring that employees are informed about the data collection process and that their privacy is respected (Stahl, 2021).

Additionally, the issue of algorithmic bias is another challenge that requires attention. AI systems, if not properly designed and monitored, may perpetuate biases related to gender, race, or other socio-demographic factors, leading to unfair evaluations. The potential for biased decision-making

in AI-powered systems has been well-documented. To mitigate this risk, organizations must ensure that AI algorithms are regularly tested and updated to avoid reinforcing existing biases. There is also a need for greater diversity in the development of AI models to ensure fairness and equity in performance evaluations (Aizhan Tursunbayeva, 2021). Another important aspect highlighted by the study is the integration of AI tools into existing HR practices. While AI can offer valuable insights and enhance decision-making, it should not replace human judgment and intuition. A hybrid approach, where AI tools complement the expertise of HR professionals, is likely to be the most effective in achieving optimal results. For instance, AI can assist HR managers in identifying areas for improvement, but the final decisions regarding employee development or promotions should involve human judgment to account for contextual factors that AI may not fully capture (Aizhan Tursunbayeva, 2021). The study also emphasized the need for further research on the long-term impact of AI-driven performance monitoring on organizational culture and employee well-being. While the immediate benefits of AI tools in improving productivity and efficiency are clear, the long-term effects on employee engagement, job satisfaction, and organizational culture require more exploration. Additionally, the impact of AI in remote and hybrid work environments, which have become increasingly prevalent, remains under-researched. The unique challenges of managing remote teams using AI tools warrant further investigation to ensure that AI supports rather than hinders employee well-being and productivity.

Conclusion

To Conclusion, the incorporation of artificial intelligence (AI) into performance management is revolutionizing how businesses handle decision-making, talent management, and employee development. Predictive analytics, ongoing performance feedback, and tailored development suggestions are just a few advantages of AI-driven systems. These technologies boost productivity, impartiality, and worker engagement, which boosts competitiveness and company success. But there are drawbacks to using AI in performance management as well, like integration difficulties, data quality problems, and change aversion. Furthermore, preserving trust and preventing biases in AI decision-making depend on guaranteeing transparency, accountability, and fairness. Organizations must adopt a balanced strategy that capitalizes on both the technological and human expertise capabilities as AI technologies continue to advance. AI-driven insights and human-centered management techniques can work together to improve employee satisfaction, productivity, and innovation. In the end, thorough planning, infrastructure investment, and continual assessment are necessary for the successful integration of AI in performance management. Organizations may realize AI's full potential and promote long-term success in a business environment that is changing quickly by tackling its obstacles and constraints.

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PUBLISKAS PERSONAS ĒKU UN TELPU NOMAS TIESISKAIS REGULĒJUMS LATVIJĀ

LEGAL REGULATION OF THE LEASE OF BUILDINGS AND PREMISES OF A PUBLIC PERSONS IN LATVIA

Ernests Saulītis
Biznesa augstskola *Turība*, Latvija
Ernests.Saulitis@outlook.com

Anotācija

Tiek turpināta autora iepriekšējos gados aizsāktā ar publisku personu mantas lietošanas tiesību piešķiršanu saistītā normatīvā regulējuma izpēte. Aktuālais publiskas personas mantas iznomāšanas regulējums saglabā atšķirīgu pieeju zemes iznomāšanai, bet ir vienots ēkām, telpām un kustamai mantai. Regulējuma ieviešana no civiltiesiskā aspekta ir nozīmīga ar atteikšanos no dalītas zemes un telpu iznomāšanas, ja tās ir vienots īpašums. Tiesību nošķiršanas problemātika ir plaši apskatīta tiesību doktrīnā un judikatūrā, tomēr nevar noliegt faktu, ka praksē konstatējami strīdi par lietu piekritību. Normatīvais gadījums paredz nosacīti nelielu skaitu izņēmuma gadījumu no vispārējās iznomāšanas kārtības izsoles ceļā. Izņēmumi paredzēti arī nomas maksas noteikšanai dažādiem izmantošanas mērķiem privāttiesību subjektiem. Vienlaikus par pretrunīgu ir uzskatāms regulējums par telpu nodošanu lietošanā par atlīdzību vienas publisko tiesību personas ietvaros. Pētījuma periods aptver laiku no 2007. gadam līdz šodienai. Kā galvenās pētniecības metodes izmantotas: sistēmiskā, vēsturiskā, teleoloģiskā un analītiskā.

Atslēgas vārdi: publiskas personas, publiskās lietas, nomas maksa.

Abstract

The author continues the study of the regulatory framework related to the granting of rights to use the property of public persons, which was initiated in previous years. The current regulation of the rent of property of a public person retains a different approach to the rent of land, but it is unified for buildings, premises, and movable property. The introduction of the regulation from the civil law aspect is significant with the refusal of shared land and premises lease, if they are single property. The issue of the division of the law has been widely discussed in legal doctrine and case law, however, it cannot be denied that disputes over jurisdiction of cases can be observed in practice. The regulatory framework provides for undersized number of exceptions to the general procedure for leasing by auction. Exceptions are also provided for determining the rental fee for various purposes of use by private law persons. At the same time, the regulation 2007 to the present day on the transfer of premises for use for compensation within the framework of one public law person is considered controversial. The research period covers the time from 2007 to the present day; and the main research methods used are systemic, historical, teleological, and analytical.

Key words: Public person, public things, the rental fee

Ievads

Ar E. Levita izstrādāto teorētisko pamatojumu (Levits, 2002) Latvijas tiesību un publiskās pārvaldes sistēmā ienāca mūsdienu izpratne par publisko tiesību juridisko personu un valsts pārvaldes vienotību. Lai arī tiesību doktrīnā un normatīvajā regulējumā tiek skaidri nošķirta tiešā un pastarpinātā valsts pārvalde, tiešā valsts pārvalde un likumdevējs jau ilgstoši veido normatīvo regulējumu, pārkāpjot paša noteiktos regulējumus un principus. Sistemātiski notiek pašvaldību autonomo funkciju (Pašvaldību likums, 2022) satura paplašināšana valsts līmeņa normatīvajos aktos, vietējām pašvaldībām tiek nodoti dažādi valsts pārvaldes uzdevumi bez atbilstoša finansējuma, kā to paredz normatīvais regulējums (Pašvaldību likums, 2022, 6. panta otrā daļa). No 17.09.2009. grozījumu likumā *Par valsts un pašvaldību finanšu līdzekļu un mantas izšķērdēšanas novēršanu* (turpmāk – *PPFMINL*) anotācijas (GPPFMINL, 2009) secināms, ka Saeimai izskatīšanai sākotnēji nodotais likumprojekts sastāvēja no viena panta un bija attiecināms tikai uz valsts dibinātām augstskolām. Saeimas pieņemtā likuma redakcija ir pilnībā atšķirīga, tai skaitā aptverot pilnībā citas regulējuma jomas. Iepazīstoties ar likumdošanas procesa gaitu, var secināt, ka formālā likumdošanas procedūra ir tikusi ievērota, bet tā sagatavošanā saskatāms zināms parlamentārās patvaļas elements (Likumprojekts Nr. 908/Lp9, 2008). Pēc spēkā stāšanās *PPFMINL* 6.[1] pants ir ticis grozīts vēl divas reizes, saglabājot tā trešajā daļā ietverto pilnvarojumu Ministru kabinetam (turpmāk – MK) savos noteikumos noteikt publiskas personas mantas iznomāšanas kārtību, nomas maksas noteikšanas metodiku un to izņēmumus, kā arī atsevišķus nomas līgumā ietveramos tipveida nosacījumus.

Pētījuma mērķis ir rast atbildi uz jautājumu, vai vienota publiskas personas ēku un telpu (turpmāk – manta) iznomāšanas regulējuma ieviešana ir sasniegusi sākotnēji definēto mērķi, t.i., izveidot skaidri noteiktu iznomāšanas kārtību un pretendentu izraudzīšanas kritēriju, kā arī ieviest tajā atklātības principus (MK Nr. 515, 2010). Šā mērķa sasniegšanai nepieciešams veikt normatīvā regulējuma attīstības, likumdevēja motīvu un kopējās tiesiskās situācijas izpēti ar tiesību zinātnei raksturīgajām pētniecības metodēm. Atšķirībā no tiesību nošķiršanas teorētisko aspektu izpētes tieši Latvijas kontekstā (Danovskis, 2015), publiskas personas mantas iznomāšanas praktisko aspektu izpēte tiesību doktrīnā faktiski nav sastopama vai arī tā vērsta uz tādām salīdzinoši šaurām tēmām kā nomas maksas noteikšanas principi (Matjušina, 2007). Ieviešot vienotu publisku personu mantas iznomāšanas kārtību, nav zudušas atšķirības šo procesu organizēšanā pat valsts institūcijās, kur vienota iznomāšanas kārtība tika noteikta jau 1995. gadā (MK Nr. 365, 1995). Pētījuma veikšanas laikā valsts dibināto augstskolu interneta vietnēs tikai Rīgas Tehniskā universitāte norādījusi, ka telpu noma notiek atbilstoši ar Ministru kabineta noteikumiem Nr. 97 ”Publiskas personas mantas iznomāšanas noteikumi” (MK Nr. 97, 2018) (turpmāk MK Nr. 97). Vienlaikus šie dokumenti norāda uz trūkumiem, kurus rada vienotā iznomāšanas kārtība (MK rīkojums Nr. 303, 2016). Tas liek uzdot jautājumus kā par regulējuma lietderību, tā arī reālo izmantošanu praksē, kas gan objektīvu iemeslu dēļ var būt visai dažāds. Regulējumā ietverto normu apjoms nosaka ierobežojumus pētījuma apjomam, un tajā netiks apskatīti jautājumi, kas saistīti ar MK noteikumos Nr. 97 ietvertajiem nomas līguma tipveida vispārējiem nosacījumiem, tai skaitā nepieciešamo ieguldījumu atlīdzināšanu, valsts atbalsta problemātiku un izsolēm.

Publisku personu mantas iznomāšanas normatīvais ietvars

Pamatu publisku personu mantas iznomāšanai šobrīd veido *PPFMINL* (PPFMINL, 1995) 6.[1] un 6.[5] pants. Normatīvā regulējuma ietvaros ar jēdzienu "manta" ir saprotams ar publisku personu saistītie nekustamie īpašumi un kustamā manta, kā arī tiesības. Nekustamā īpašuma iznomāšanas regulējums sadalīts atbilstoši iznomāšanas objektiem – ēkas (MK Nr. 97, 2018) vai zeme (MK Nr. 350, 2018), vai ar speciālajām pazīmēm – neizpirktā lauku apvidus zeme (MK Nr. 644, 2005), ūdenstilpju un rūpnieciskās zvejas tiesību noma, derīgo izrakteņu ieguve (MK Nr. 696, 2011). Konceptuālajā ziņojumā "Par publiskas personas mantas iznomāšanas kārtības uzlabošanu" norādīts, ka Latvijas Pašvaldību savienības (turpmāk – LPS) ieskatā, lai novērstu normatīvā regulējuma sadrumstalotību, būtu nepieciešams veidot vienotu tiesisko regulējumu par publisku personu mantas iznomāšanu (MK rīkojums Nr. 303, 2016, 1.2. apakšpunkts). Finanšu ministrija šo ierosinājumu noraidīja, norādot, ka tiesiskās skaidrības nodrošināšanai nav lietderīgi apvienot vairākus MK noteikumus, kas regulē publiskas personas mantas nomu, jo katrs no normatīvajiem aktiem regulē konkrēta veida nekustamo īpašumu iznomāšanas nosacījumus, kā arī katram no šiem noteikumiem ir cits juridiskais pamats to izdošanai un atšķirīgi ir arī iznomāšanas nosacījumi (MK rīkojums Nr. 303, 2016, 1.2. apakšpunkts). Minētajam viedoklim var piekrist daļēji, jo nevar noliegt, ka ar MK noteikumiem izveidotais regulējums jau šobrīd ir grūti pārskatāms un uztverams, kas padara regulējuma izmantošanu apgrūtinošu. Tomēr nav saprotams, kādu apsvērumu dēļ tika noraidīts LPS priekšlikums vienkāršot regulējumu un noteikt vienīgi vispārīgus principus, kas ievērojami, iznomājot pašvaldību mantu un pašu pašvaldību ziņā atstājot detalizētāku iznomāšanas nosacījumu regulēšanu (MK rīkojums Nr. 303, 2016, 1.2. apakšpunkts). Lai arī LPS priekšlikums attiecināms tikai uz pašvaldībām, ideja par regulējuma vienkāršošanu, nosakot tajā tikai vispārējus principus, ir vērtējama pozitīvi, it īpaši Finanšu ministrijas norādīto iemeslu dēļ.

Konstatējami arī gadījumi, ka publiskas personas papildus izdod savus iekšējos normatīvos aktus, kuros tiek regulēti jautājumi par telpu un citas mantas iznomāšanu. Kā piemēru var minēt Rīgas valstspilsētas pašvaldību, kur kopš 2012. gada ir spēkā Rīgas domes 03.07.2012. iekšējie noteikumi Nr. 16 "Rīgas pilsētas pašvaldībai piederošā un piekrītošā nekustamā īpašuma iznomāšanas un nomas maksas noteikšanas kārtība" (RD IN Nr. 16, 2012) (turpmāk – RD IN Nr. 16). Tādējādi rodas jautājums: vai MK noteiktais regulējums ir pietiekams un vai tiek sasniegti *PPFMINL* anotācijā norādītie mērķi? Iepazīstoties ar RD IN Nr. 16 ietvertajiem regulējumiem, tie atstāj duālu iespaidu, jo tie satur norādes uz MK Nr. 97 regulējumu piemērošanu un tādējādi arī rada jautājumu par papildu regulējuma nepieciešamību. Vienlaikus RD IN Nr. 16 regulējums atspoguļo nepieciešamību nodrošināt vienotu izpratni par MK Nr. 97 normu izpratni, ja publiskas personas mantai ir vairāki valdītāji, kas nodrošina iznomāšanas procesu (MK Nr. 97, 2018, 11.–12. p). MK Nr. 97 3. nodaļā ietvertie regulējumi, kas saistīti ar nomas maksas noteikšanas metodiku, ja nekustamo īpašumu iznomā publiskai personai vai tās iestādei, kapitālsabiedrībai vai privātpersonai publiskas funkcijas vai deleģēta valsts pārvaldes uzdevuma veikšanai, norāda, ka tiek turpināta ar MK 09.05.2006. rīkojumu Nr. 319 "Par Valsts nekustamā īpašuma vienotas pārvaldīšanas un apsaimniekošanas koncepciju" (MK rīkojums Nr. 319, 2006) legalizētā resursu pārdale publiskas personas ietvaros. Ar minēto rīkojumu apstiprinātais risinājuma variants paredzēja pakāpenisku (5–10 gadu laikā) pāreju uz vienotiem tirgus ekonomikas principiem gan valsts, gan privātā nekustamā īpašuma pārvaldīšanā un apsaimniekošanā, t.sk. ieviešot tirgus nomas maksu (MK rīkojums Nr. 319, 2006, IV nodaļa). Tomēr no regulējuma redzams, ka arī pēc 20 gadiem ir saglabājusies atšķirīga pieeja nomas maksas noteikšanā privātpersonām un publiskām personām.

Izņēmumi no vispārējās iznomāšanas kārtības

MK Nr. 97 ietvertas vairākas izņēmumu grupas no vispārējās iznomāšanas kārtības. Pirmā no tām ir MK Nr. 97 2. punktā uzskaitītie objekti, kas aptver gadījumus, kur normatīvajā regulējumā ir noteikta cita iznomāšanas vai nodošanas lietošanā kārtība (publiskas personas neapbūvēta zeme, ūdenstilpnes, zvejas un medību tiesības, nacionālā muzeju krājuma priekšmeti u.c.). Minētajā punktā ir ietverta arī objektu grupa, kuru iznomāšanas kārtības noregulējums ar MK noteikumiem varētu tikt uzskatīts par apšaubāmu – publiskas personas un citas personas kopīpašumā esoša manta. Regulējumā korekti norādīts, ka izņēmums piemērojams gadījumā, ja nav noteikta kopējās lietas dalīta lietošana. Atsevišķu izņēmumu atrašanos izņēmumu uzskatījumā var izskaidrot ar regulējuma attīstības vēsturi. Vienlaikus no publiski pieejamās informācijas nav saprotama ostas vai speciālo ekonomisko zonu pārvalžu īpašumā esošas nekustamas mantas vai to valdījumā esošas publiskas personas nekustamas mantas iznomāšanas atrašanās šo izņēmumu tvērumā kā no objektu, tā arī subjektu skatījuma.

Otra izņēmumu grupa balstīta gan izmantošanas mērķu (sociālā aizsardzība, kultūra, izglītība, zinātne, sports, vide, dzīvnieku aizsardzība un veselības aprūpes funkciju nodrošināšana), gan objektu pieejā (ielu teritoriju vai citu publiskas lietošanas objektu terminēta aizņemšana, Aizsardzības ministrijas objekti noteiktam izmantošanas mērķim). Ar šiem izņēmumiem saistītie gadījumi ietverti MK Nr. 97 4. un 6. punktā. MK Nr. 97 4. punktā ietverto gadījumu nošķiršanu no vispārējās nomas maksas noteikšanas un iznomāšanas kārtības pirmšķietami var uzskatīt par pamatotu. Šajos gadījumos iznomāšana pieļaujama bez publiskas izsoles, bet nomas maksa tiek noteikta saskaņā ar MK Nr. 97 5. punktu, t.i., atbilstoši publiskas personas nomas pakalpojumu maksas cenrādim. Pakalpojumu maksas cenrāža izmantošana atvieglo iznomāšanas kārtību tipveida iznomāšana gadījumiem, kuros individualizētas tirgus nomas maksas noteikšana nav lietderīga. Tomēr regulējums rada jautājumu, vai var pastāvēt dažādas tirgus nomas maksas vienam un tam pašam objektam atkarībā no subjekta vai izmantošanas veida? Jānodala objekta paredzētā (piemēram, ēkas vai telpas pašizklaides pasākumiem) izmantošana būvniecības tiesību izpratnē no izmantošanas mērķa, jo jebkurai darbībai var būt kā sabiedrisks (bezpeļņas), tā arī komerciāls raksturs. Var izteikt viedokli, ka pakalpojumu maksas cenrādī var tikt iekļautas atšķirīgas nomas maksas, tās diferencējot atkarībā no izmantošanas mērķa, kas var radīt situācijas, ka regulējums tiek izmantots selektīvi vai arī netiek aktualizēts.

MK Nr. 97 6. punktā ietvertie gadījumi nav viendabīgi (objekti ārvalstīs, NATO dalībvalstu bruņotie spēki, īstermiņa noma, tehniskās iekārtas vai tirdzniecības automāti, biedrības un nodibinājumi utt.) un arī var tikt grupēti gan no objektu, gan subjektu viedokļa. No MK Nr. 97 un to grozījumu anotācijām nav iespējams noskaidrot šajā punktā ietverto izņēmumu iekļaušanas pamatojumu. Var pieņemt, ka punktā apkopoti izsvērti dažādu nozaru un LPS priekšlikumi ar atbilstošu lietderības izvērtējumu (piemēram 6.7. apakšpunkts), tomēr regulējums kopumā nešķiet pārdomāts un viendabīgs. Atšķirībā no 4. punktā noteiktajiem gadījumiem tiesību piemērotāja rīcības brīvība tiek ierobežota ar tiesību nerīkot nomas tiesības izsoli, bet nomas maksa nosakāma atbilstoši MK Nr. 97 3. nodaļas (saskaņā ar metodiku) un 4. nodaļas prasībām (tirgus nomas maksa). Līdzīgi kā ar pakalpojumu maksas cenrāžiem, regulējums rada jautājumu: vai var pastāvēt dažādas tirgus nomas maksas?

MK Nr. 97 7. punktā noteikts, ka 2. nodaļas regulējumus nepiemēro, ja nomas objektu, kas ir nekustamais īpašums, iznomā publiskai personai, tās iestādei, kapitālsabiedrībai vai privātpersonai publiskas funkcijas vai deleģēta valsts pārvaldes uzdevuma nodrošināšanai. Savukārt Nr. 97 8.

punktā ietverts salīdzinoši reti praksē sastopams gadījums – papildu platības, kas nepārsniedz 10 procentus no nomniekam sākotnēji iznomātās platības, iznomāšana jau esošam nomniekam tajā pašā nekustamajā īpašumā. Nosacījums par 10 procentu normas ievērošanu tajā ietverts divreiz, papildus nosakot, ka šāds iznomājums nedrīkst radīt nepamatotus ierobežojumus nomas tiesību pretendentu konkurencei, kā arī jaunais nomas līgums slēdzams uz laiku, kas nepārsniedz atlikušo noslēgtā nomas līguma termiņu. Tādējādi nav saprotama lietderība slēgt jaunu nomas līgumu par papildu telpām, ja vien tas nav atsevišķi izmantojams objekts. Savukārt atsevišķi izmantojamam objektam šāda izņēmuma kārtība nešķiet lietderīga.

Normatīvā akta izstrādātājs ir paredzējis, ka uz MK Nr. 97 4. punktā ietvertajiem izņēmumiem tomēr ir attiecināms arī obligāti piemērojamais regulējums, t.i., ja MK Nr. 97 2., 3. un 4. nodaļas normu piemērošana ir tiesību piemērotāja izvēle, tad MK Nr. 97 12., 14., 15., 18., 19., 20., 21., 30. un 31. punkts ir piemērojami arī šajos gadījumos. Minētie punkti kā obligāti ievērojamie ir ietverti arī MK Nr. 97 6., 7. un 8. punktā. Ņemot vērā, ka normas paredzētas atvieglotai iznomāšanas kārtībai noteiktiem mērķiem, tad atkal rodas jautājums par nepieciešamā regulējama apjomu. Ir saprotams un atbalstāms nolūks izslēgt no procesa nelabticīgus nomniekus, bet atbilstošo normu apjoms – četri pēc būtības līdzīga satura apjomīgi punkti (MK Nr. 97 14., 15., 19., 20. p.) pirmšķietami norāda uz nepieciešamību pārskatīt regulējumu un padarīt to vienkāršāk uztveramu. Lai arī MK Nr. 97 ir izmantojami publisku lietu nodošanai sevišķā lietošanā par atlīdzību, pārāk detalizēta jautājuma noregulēšana norāda uz publiskās pārvaldes savstarpēju neuzticēšanos un vēlmi detalizēti noregulēt procesus jautājumos, kur, iespējams, pietiktu ar ģenerālklauzulu. Lai nodrošinātu atklātības principa ievērošanu gadījumos, kuros tas objektīvi ir iespējams, MK Nr. 97 9. punkts paredz, ka, iznomājot nomas objektus šo noteikumu 4.1., 4.4., 6.1., 6.2., 6.3., 6.4., 6.5. vai 6.8. apakšpunktā minētajos gadījumos, informāciju par nomas objekta iznomāšanu publisko tā, lai tā sasniegtu pēc iespējas plašāku nomas tiesību pretendentu loku. Informācija publiskojama iznomātāja tīmekļvietnē, bet valsts mantas iznomātāji papildus nodrošina tās bezmaksas publicēšanu valsts akciju sabiedrības "Valsts nekustamie īpašumi" tīmekļvietnē. MK Nr. 97 ietverta arī norāde, ka iznomātājs papildus var izmantot arī citus informācijas paziņošanas veidus, lai informācija sasniegtu pēc iespējas plašāku nomas tiesību pretendentu loku. Minētajās tīmekļvietnēs 10 darbdienu laikā pēc to noslēgšanas publicē arī informāciju par noslēgtajiem līgumiem (MK Nr. 97, 2018, 10. p.).

Iznomāšana publiskai personai, tās iestādei vai kapitālsabiedrībai

Nomas objektu iznomāšanas regulējums publiskai personai, tās iestādei un kapitālsabiedrībai vai privātpersonai publiskas funkcijas vai deleģēta valsts pārvaldes uzdevuma nodrošināšanai veido īpašu izņēmumu grupu regulējuma ietvaros. No *PPFMINL* laika gaitā ir izslēgts noregulējums par publiskas personas mantas nodošanu bezatlīdzības lietošanā citai publiskai personai. E. Danovskis norāda, ka nepastāv jebkāda veida ierobežojumi, ja neskaita lietderības apsvērumus, lai realizētu šādus piešķīrumus (Danovskis, 2015, 66–68). Savukārt nomas tiesisko attiecību noregulējums publisku personu gadījumā MK Nr. 97 aizņem būtisku vietu. Privāttiesisku institūtu izmantošana publiskās pārvaldes iekšienē nav uzskatāma par kaut ko ārkārtēju. Tomēr, interpretējot šādus gadījumus, ir jāatceras vēl 2007. gadā pieņemtais tiesas nolēmums, kur norādīts, ka publiski tiesiskas attiecības var dibināt arī uz līguma pamata, pat ja *prima facie* tas ir klasisks civiltiesisks līgums (SKA-78, 2007, 13. p.). Nomas tiesiskajām attiecībām ir zināmas priekšrocības, ja nepieciešams ekonomiskās lietderības izvērtējums. Publiskas personas iestāžu darbības

nodrošināšanas pamatā ir divas galvenās komponentes: darba samaksa un tehniskais nodrošinājums, tai skaitā ar telpām darbam.

Šajā kontekstā var rast pamatojumu MK Nr. 97 30. un 31. punktā ietvertajiem regulējumiem, kuru būtība ir fakts, ka publiskai personai piederošas mantas primāra funkcija ir šīs publiskās personas funkciju izpildes nodrošināšana. Regulējums paredz, ka gadījumā, ja pieteikumu par nomas objektu, kas ir publiskas personas nekustamais īpašums, iznomātājam iesniedz šīs publiskās personas iestāde vai kapitālsabiedrība, kurai nomas objekts nepieciešams publiskas funkcijas vai deleģēta valsts pārvaldes uzdevuma veikšanai, izsoli nerīko un nomas objektu iznomā minētajai šai iestādei vai kapitālsabiedrībai, un rakstiski informē par to pārējos nomas tiesību pretendentus. Ja pieteikumu iesniedz cita publiska persona, tās iestāde, kapitālsabiedrība vai privātpersona, kurai nomas objekts nepieciešams publiskas funkcijas vai deleģēta valsts pārvaldes uzdevuma veikšanai, izsoli var nerīkot un nomas objektu iznomāt šim subjektam, rakstiski informējot pārējos nomas tiesību pretendentus. Attiecībā uz privātpersonām, kurām nomas objekts nepieciešams deleģēta valsts pārvaldes uzdevuma veikšanai, iznomātāja rīcības brīvība pēc būtības ir vēl plašāka – ir tiesības iznomāt, nerīkojot izsoli, ja attiecīgais nomas objekts ir tieši piemērots attiecīgā deleģētā valsts pārvaldes uzdevuma veikšanai, bet papildus vērtējama arī situācija tirgū – pieprasījums pēc šāda veida telpām. Ņemot vērā, ka nomas maksa šajos gadījumos ir nosakāma saskaņā ar MK Nr. 97 3. nodaļu (pēc metodikas), rodas šaubas, vai publiskas personas interese saņemt lielākus ieņēmumus tiešām ir būtisks pamatojums atteikt telpu lietošanas tiesību nekustamajā īpašumā norādītajā situācijā.

MK Nr. 97 32. punkta regulējumi neparedz iznomātājam rīcības brīvību situācijā, ja uz nomas objektu, kas ir nekustamais īpašums, piesakās vairākas valsts iestādes, atvasinātas publiskas personas vai to iestādes, kapitālsabiedrības vai privātpersonas, kurām nekustamais īpašums nepieciešams publiskas funkcijas vai deleģēta valsts pārvaldes uzdevuma veikšanai. Ir noteiktas objektu iznomāšanas prioritātes: 1) subjektam, kas jau lieto tā nekustamā īpašuma daļu, kurā atrodas nomas objekts; 2) valsts iestādei, atvasinātai publiskai personai vai to iestādei, kapitālsabiedrībai vai privātpersonai, kuras funkcijas atbilst publikācijā norādītajam nomas objekta lietošanas un iznomāšanas mērķim; 3) valsts nekustamo īpašumu prioritāri iznomā valsts iestādei, kura nomas pieteikumu iesniegusi pirmā, secīgi valsts kapitālsabiedrībai vai atvasinātai publiskai personai, ja nomas pieteikumu nav iesniegusi neviena valsts iestāde; atvasinātas publiskas personas nekustamo īpašumu prioritāri iznomā atvasinātas publiskas personas iestādei, kura nomas pieteikumu iesniegusi pirmā, vai secīgi atvasinātas publiskas personas kapitālsabiedrībai vai valsts iestādei, ja nomas pieteikumu nav iesniegusi neviena atvasināta publiskas personas iestāde; 4) privātpersonai, kura nomas pieteikumu iesniegusi pirmā, objektu iznomā, ja nomas pieteikumu nav iesniegusi neviena valsts iestāde, atvasināta publiska persona, tās iestāde vai kapitālsabiedrība.

Nomas maksas noteikšana un pārskatīšana

MK Nr. 97 ietvertas trīs pieejas nomas maksas noteikšanai: 1) nomas maksa saskaņā ar nomas maksas cenrādi; 2) tirgus nomas maksa, kuru nosaka neatkarīgs vērtētājs; 3) nomas maksa, kas tiek noteikta saskaņā ar MK Nr.97 3. vai 4. nodaļā ietverto metodiku. Atbilstoši *PPFMINL* 3. panta pirmās daļas 2. punktā ietvertajam regulējumam publiskas personas manta atsavināma un nododama īpašumā vai lietošanā citai personai par iespējami augstāku cenu. Normā ietvertā ģenerālklauzula interpretējama kontekstā ar *PPFMINL* 1. pantu, kas noteic, ka likuma mērķis ir nodrošināt, lai publiskas personas finanšu līdzekļi un manta tiktu izmantota likumīgi un atbilstoši iedzīvotāju

interesēm, kā arī novērst to izšķērdēšanu un nelietderīgu izmantošanu. Tādējādi, nosakot nomas maksu par publiskas personas mantu, jāņem vērā normatīvais regulējums, lietderības un ekonomiskie apsvērumi. Publiskas personas mantas iznomāšana par tirgus nomas maksu sabiedrības vajadzībām, ja šāda izmantošana nav saistīta ar saimniecisko darbību vai komercdarbību, neatbilst iepriekš norādītajam likuma mērķim. Tādējādi dažādu pieeju saglabāšanu nomas maksas noteikšanā var uzskatīt par pamatotu un atbilstošu šā mērķa sasniegšanai.

Tirgus nomas maksa ir jēdziens, kas apzīmē hipotētisku lielumu, kura noteikšanai parasti izmanto salīdzinošo darījumu metodi. Minētā metode, kas balstīta līdzīgu nomas objektu izpētē noteiktā teritorijā, ir plaši aprobēta un ar augstu ticamības pakāpi, lai to varētu izmantot ekonomiskās prognozēs. Tai pašā laikā patieso nomas maksu var noteikt tikai reālos tirgus apstākļos konkurējošā tirgū. Jau iepriekš tika norādīts uz problemātiku nomas maksas noteikšanai dažādiem izmantošanas veidiem. Būtiska ir arī iznomātāja izšķiršanās par pieļaujamajiem objekta izmantošanas veidiem vai laiku, kad tas var tikt nodots lietošanā, kas var būtiski ierobežot nomnieku loku. *PPFMINL* 5. pantā ietvertais regulējums par bezatlīdzības lietošanu pēc savas būtības ir patapinājums, jo paredz pienākumus subjektam, kuram nodota manta bezatlīdzības lietošanā, nodrošināt attiecīgās mantas uzturēšanu un segt ar to saistītos izdevumus. Tādējādi var izteikt viedokli, ka vispārējā gadījumā nomas maksa nevar būt zemāka par iznomātāja faktiskajiem izdevumiem, kas saistīti ar nomas objektu un tā uzturēšanu. Uz šāda viedokļa pamatotību norāda MK Nr. 97 vairākos punktos ietvertais nosacījums, ka objektu iznomā par nomas maksu, kas ir zemāka par nomas maksu, kas noteikta saskaņā ar minēto noteikumu 3. nodaļu (piemēram, 50. p.).

MK Nr. 97 3. nodaļā ietvertie regulējumi izmantojami gadījumos, ja nekustamo īpašumu iznomā publiskai personai vai tās iestādei, kapitālsabiedrībai vai privātpersonai publiskas funkcijas vai deleģēta valsts pārvaldes uzdevuma veikšanai. MK Nr. 97 69. punkts paredz, ka nomas maksu un visas pārējās izmaksas nosakāmas tā, lai tās pilnībā segtu iznomātāja izdevumus, kas saistīti ar iznomājamā objekta pārvaldīšanu iznomāšanas periodā. Saskaņā ar MK Nr. 97 73. punktu mēneša nomas maksu mēnesī aprēķina, izmantojot formulu:

$$NM= ((Tizm/NĪpl + Nizm) \times IZNpl))/12,$$

kur

NM – nomas objekta nomas maksa mēnesī (bez pievienotās vērtības nodokļa);

Tizm – tā nekustamā īpašuma tiešās izmaksas gadā, kurā atrodas nomas objekts (aprēķina saskaņā ar noteikumu 74. punktu);

NĪpl – nekustamā īpašuma sastāvā esošās būves kopējā iznomājamā platība, kurā atrodas nomas objekts (kvadrātmetri);

Nizm – netiešās izmaksas gadā uz vienu kvadrātmetru (aprēķina saskaņā ar noteikumu 76. punktu);

IZNpl – nekustamā īpašuma sastāvā esošās būves (nomas objekta) iznomājamā platība (kvadrātmetri).

Izvērtējot metodikā iekļautās komponentes, var izdarīt secinājumu, ka faktiski tas ir pašizmaksas aprēķins, kas gan ļauj tajā iekļaut arī peļņu kā vispārējo administratīvo izmaksu sadaļu (netiešo izmaksu). Var izteikt viedokli, ka šādi aprēķināta nomas maksa var būt gan lielāka par nosacīto tirgus nomas maksu, gan arī būtiski samazināta. Uz šo problemātiku norāda arī VK kontroles revīzijas materiāli (VK revīzija Nr. 2.4.1-8/2021, 2023, 17.–36. lpp.), kur kritiski tiek vērtēta šīs metodikas nosaukšana par nomas maksas aprēķinu. No praktiskā viedokļa metodika sniedz skaidru un ekonomiski pamatu pārskatu par tās komponentēm, kā arī ļauj korekti attiecināt pamatlīdzekļu uzturēšanas izmaksas.

MK Nr. 97 paredz, gadījumā, ja pieaug metodikas komponentes izmaksas, palielinājuma segšanai iznomātājs līdz kārtējā gada 1. aprīlim iesniedz nomniekam detalizētu pamatojumu nomas maksas un papildu maksājumu pieaugumam, un nomnieks, pamatojoties uz sniegto informāciju, atbilstoši apstiprinātajam valsts budžeta sagatavošanas grafikam kārtējam gadam veic nepieciešamās darbības attiecīgā papildu finansējuma pieprasīšanai. Ja nepieciešamais papildu finansējums no valsts budžeta netiek piešķirts vai netiek piešķirts pilnā apmērā, iznomātājs, vienojoties ar nomnieku, samazina nekustamā īpašuma lietotājam sniegto apsaimniekošanas papildu pakalpojumu apjomu. Tādējādi var izdarīt secinājumu, ka nepieciešamais finansējums tiek iekļauts nākamā gada budžetā un iznomātājs tā arī var nesaņemt kompensāciju par radušos izdevumu palielinājumu. Regulējumā kā uz risinājumu norāda uz papildu pakalpojumu samazināšanu. Nav gan saprotams, kas būtu darāms, ja šādu papildu pakalpojumu nav, un kā kompensējami jau radušies izdevumi. Publiski nav pieejama informācija par gadījumiem, kur iznomātāji būtu piemērojuši MK Nr. 97 ietvertos nomnieku nelabticības nosacījumus attiecībā uz publiskām personām vai to kapitālsabiedrībām.

Nomas objektu iznomājot privāto tiesību subjektam, MK Nr. 97 paredz divas alternatīvas pieejas nomas maksas noteikšanai. Tā MK Nr. 97 79. punkts paredz, ka nomas objekta nosacītās nomas maksas noteikšanai iznomātājs organizē nomas objekta apsekošanu un faktiskā stāvokļa novērtēšanu. Regulējums paredz, ka nosacīto nomas maksu nosaka, ievērojot nomas objekta tehnisko stāvokli, atrašanās vietu, izmantošanas iespējas un citus apstākļus. Iznomājot nomas objektu, kas sastāv no būves un zemes vienības, papildu maksājumos iekļauj arī maksu par zemes nomu, kas noteikta atbilstoši MK noteikumiem par publiskas personas zemes nomu. Šāda pieeja paredz zināmu iznomātāja kompetenci nekustamā īpašuma pārvaldības un iznomāšanas jautājumos. Otra pieeja noteic, ka nosacītās nomas maksas noteikšanai iznomātājs var pieaicināt neatkarīgu vērtētāju. Izmaksas par neatkarīga vērtētāja atlīdzību vispārējā gadījumā attiecina uz nomnieku. Neviens no risinājumiem nav pilnībā pasargāts no subjektīvā elementa. Vienlaikus no MK Nr. 97 81. punkta secināms, ka regulējumā ir ietverts arī kontroles mehānisms nomas maksai, kas objektam noteikta saskaņā ar MK Nr. 97 3. nodaļu.

MK Nr. 97 50. punktā ietverts risinājums situācijai, ja nomas objekts tiek iznomāts par nomas maksu, kas ir zemāka par nomas maksu, kas noteikta saskaņā ar šo noteikumu 3. nodaļu. Šajos gadījumos nomas līgumu drīkst slēgt uz laiku līdz vienam gadam. Atsauce uz MK Nr. 97 3. nodaļā aprēķināto nomas maksu kā minimālās nomas maksas kritēriju ir ietverta arī 83. punktā ar norādi, ka tā izmantojam 6.5. apakšpunktā paredzētajā gadījumā (ēdināšanas pakalpojuma nodrošināšanai publiskas personas iestādēs, ja pakalpojumam ir ierobežota publiska pieejamība). MK Nr. 97 ietvertie regulējumi nesniedz skaidru atbildi, vai saskaņā ar 3. nodaļu aprēķinātā nomas maksa kā minimālās nomas maksas kritērijs ir izmantojams arī attiecībā uz nomas maksu, kas noteikta saskaņā ar pakalpojumu cenrādi. Var izteikt viedokli, ka pakalpojumu cenrāža izstrādei, ja tas netiek noteikts atbilstoši neatkarīga vērtētāja vērtējumam, ir piemērojami MK Nr. 97 3. nodaļā ietvertie principi, t.i., šī maksa vispārējā gadījumā nevar būt zemāka par telpu lietošanas faktiskajām izmaksām. Regulējums tiešā veidā pieļauj atkāpes no iepriekš minētājiem principiem ļoti ierobežotā skaitā gadījumu. Viens no šiem gadījumiem ir iznomāšana atkārtotas nesekmīgas izsoles gadījumā (MK Nr. 97 67. p.) – iznomātājs var pazemināt nomas objekta nosacīto nomas maksu ne vairāk kā par 20 procentiem. Jā arī otrā izsole ir nesekmīga, izsoles sākumcenu var samazināt ne vairāk kā par 60 procentiem no sākotnējā nosacītā nomas maksas apmēra. Kā jau tika norādīts iepriekš, šajos gadījumos nomas līguma termiņš nevar pārsniegt vienu gadu.

Bez šāda ierobežojuma iznomātājs var samazināt nekustamās mantas nosacīto nomas maksu objektam ieslodzījumu vietā komersantam, kas nodarbina notiesātos ieslodzījuma vietas teritorijā. Nomas maksas samazinājums gradēts atkarībā no nodarbināto ieslodzīto skaita (MK Nr. 97 85. p. – 3 procenti, ja nodarbina līdz 20 notiesātajiem; 5 procenti, ja nodarbina no 20 līdz 50 notiesātajiem; 7 procenti, ja nodarbina no 50 līdz 100 notiesātajiem; 10 procenti, ja komersants nodarbina vairāk nekā 100 notiesāto). Iznomātājam un nomniekam savstarpēji vienojoties, uz noteiktu laikposmu nomas maksu var samazināt līdz 50 procentiem no noteiktā nomas maksas apmēra. Šajā gadījumā MK Nr. 97 87. punkts satur tiešu norādi, ka šāds samazinājums ir uzskatāms par valsts atbalstu. Atbalstu var sniegt, pusēm savstarpēji vienojoties par atbalsta sniegšanas sākuma datumu, un ja nomnieks ir uzņēmies vismaz vienu šādu pienākumu: 1) radīt jaunas darba vietas; 2) veikt nozīmīgus finansiālus ieguldījumus, kas nodrošinās saimnieciskās darbības paplašināšanu vai dažādošanu; 3) veikt finansiālus ieguldījumus, kas sekmēs inovāciju vai jaundibinātu ražošanas uzņēmumu veidošanos; 4) veikt ieguldījumus nomas objekta infrastruktūras attīstībā; 5) nomas objektu izmantot sociālās aizsardzības, kultūras, izglītības, zinātnes, sporta, vides un dzīvnieku aizsardzības vai veselības aprūpes funkciju nodrošināšanai. Uz noteiktu laikposmu nomas maksu var samazināt līdz 90 procentiem no noteiktā nomas maksas apmēra, ja nomas objekts atrodas teritorijā, kas vietējās pašvaldības teritorijas attīstības plānošanas dokumentos ir noteikta kā degradētā teritorija, un nomnieks apņemas ievērot vismaz vienu no šo noteikumu 87. punktā noteiktajiem nosacījumiem. Lai piemērotu MK Nr. 97 87. un 88. punktā noteiktos nomas maksas samazinājumu, iznomātājam ir jāizstrādā kritērijus nomas maksas samazinājuma gradācijai un piemērošanai. Pašvaldībām savos saistošajos noteikumos ir tiesības noteikt nosacījumus, kas jāievēro papildus MK Nr. 97 noteiktajiem kritērijiem un kas piemērojami pašvaldības nekustamajiem īpašumiem.

MK Nr. 97 90. punktā ir ietverts regulējums, kuram pēc būtības nav vietas šajos noteikumos, bet to var uztvert kā sava veida prezumpciju, kas gan attiecināma uz citu normatīvā regulējama jomu. Minētais regulējums paredz, ka sabiedriskā labuma organizācijai vai sociālajam uzņēmumam, kas nomas objektā veic saimniecisko darbību un kam samazinātas nomas maksas, piemērošanas gadījumā atbalsts kvalificējams kā komercdarbības atbalsts, iznomātājs komercdarbības atbalstu samazinātas nomas maksas veidā 100 procentu apmērā sniedz, ja ir pieņemts *PPFLML* 5. pantā minētais lēmums par publiskas personas mantas nodošanu bezatlīdzības lietošanā sabiedriskā labuma organizācijai vai sociālajam uzņēmumam. Vispirms jau bezatlīdzības lietošana *PPFMINL* 5. panta izpratnē nav nomas tiesiskās attiecības, bet gan patapinājums. Otrkārt, norma pilnībā neiederas MK Nr. 97 kontekstā, jo nav tieši attiecināma uz regulējuma priekšmetu. Iespējams šo pretrunu var novērst, normu izsakot redakcijā, kas vismaz atbilst regulējuma priekšmetam, piemēram, nomas maksas atlaide 100 procentu apmērā ir piemērojama, ja objekts ir nodots bezatlīdzības lietošanā saskaņā ar *PPFMINL* 5. pantu, un atbrīvojums no nomas maksas ir kvalificējams kā komercdarbības atbalsts.

Nomas maksas pārskatīšanas pamatnosacījumi šobrīd ir ietverti *PPFMINL* $6.^1$ panta (1^1) daļā, kas paredz, ka publiskas personas nekustamā īpašuma iznomātājs nomas maksas apmēru vienpusēji pārskata ne retāk kā reizi sešos gados. Ņemot vērā, ka privāto iznomātāju nekustamā īpašuma nomas līgumos tiek ietverti nosacījumi par regulāru indeksāciju, vienpusēja nomas maksas pārskatīšana nav uzskatāma par netipisku nomas līguma nosacījumu. MK Nr. 97 paredz trīs vispārējos gadījumus, kuros nomas maksa ir jāpārskata: 1) vismaz reizi sešos gados, ja nomas līguma termiņš ir ilgāks par sešiem gadiem; 2) pārjaunojot esošu nomas līgumu; 3) pagarinot esošā nomas līguma termiņu. Regulējumā nomas maksas pārskatīšanas pienākums ir saistīts ar nomas objekta izmantošanu saimnieciskai darbībai, lai novērstu iespējami prettiesiskus komercdarbības

atbalsta piešķīrumus. Nomas līguma darbības laikā iznomātājam, pamatojoties uz nomnieka ierosinājumu, ir tiesības samazināt nomas maksu, ja nekustamā īpašuma tirgus segmentā pastāv nomas objektu pieprasījuma un nomas maksu samazinājuma tendence. Tomēr regulējums paredz, ka nomas maksa netiek samazināta pirmo trīs gadu laikā pēc nomas līguma noslēgšanas.

Secinājumi

1. Lai arī vienotais publiskas personas mantas iznomāšanas normatīvais regulējums ir attīstījies kopš 2007. gada, kad MK tika pilnvarots izdot šādu regulējumu, tas joprojām nav pilnībā efektīvs – tā piemērošanas praksē pastāv atšķirības un dažādas interpretācijas par atbilstošo normu piemērošanu. No civiltiesiskā aspekta nozīmīgi, ka ar regulējuma ieviešanu notiek atteikšanās no dalītas zemes un telpu iznomāšanas, ja tās veido vienotu nekustamo īpašumu. MK Nr. 97 ir iekļauts liels izņēmumu skaits, kas dažkārt rada neskaidrības un grūtības to praktiskajā piemērošanā. Lai novērstu normatīvā regulējuma sadrumstalotību, tas būtu veidojams mazāk detalizēts, izmantojot ģenerālklauzas un vispārējos principus, kas palīdzētu uzlabot regulējuma saprotamību un pielietojamību praksē, tai skaitā nepieciešams pārskatīt un samazināt izņēmumu skaitu.
2. Pretrunīga ir regulējumā ietvertā ideja par telpu nodošanu lietošanā par atlīdzību vienas publisko tiesību personas ietvaros. Jāveicina publisko telpu un ēku efektīvāka pārvaldība, tomēr nepieciešams novērst faktiski fiktīvu naudas plūsmu – nomas maksas samaksa tiek veikta no viena valsts vai pašvaldības budžeta posteņa citam. Publiskas personas mantas iznomāšana savām iestādēm rada arī pārmērīgas nomas maksas risku, kuru var radīt nepamatoti paaugstinātas iznomātāja administratīvās izmaksas un neprofesionāla mantas pārvaldība. MK Nr. 97 ietvertais nomas regulējums publiskām iestādēm pēc savas būtības nav noma civiltiesiskā izpratnē, bet gan modificēts patapinājums. Līdz ar to nav saprotama šā regulējuma ietveršana normatīvajā aktā, kas pēc būtības domāts publiskas personas mantas nodošanai privātpersonu lietošanā.
3. Publiskas personas primārais mērķis nav peļņas gūšana, tomēr jānodrošina, ka tās mantas pārvaldība ir ilgtspējīga un ekonomiski pamatota. Pārmērīga komercializācija var nonākt pretrunā ar publisko interešu ievērošanu, tāpēc nepieciešams līdzsvars starp ekonomisko ilgtspēju un sabiedrības interesēm. Vienlaikus jānodrošina, ka, iznomājot publiskas personas mantu, konsekventi tiek ievēroti *PPFMINL* noteiktie principi, un tās nodošana trešo personu lietošanā notiek ekonomiski pamatoti un ilgtspējīgi, tai skaitā nodrošinot iespēju šo mantu izmantot ilgtermiņā. Normatīvo regulējumu un tā piemērošanu praksē iespējams uzlabot, optimizējot izsoles procedūras, veidojot saprotamākus atlaižu piešķiršanas nosacījumus un digitālo rīku ieviešanu, tādējādi samazinot administratīvo slogu un padarot procesu efektīvāku.

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PAPILDATVAĻINĀJUMA TIESISKAIS REGULĒJUMS UN PRAKTISKĀ PIEMĒROŠANA LATVIJĀ: IZAICINĀJUMI UN RISINĀJUMI

LEGAL REGULATION AND PRACTICAL APPLICATION OF ADDITIONAL LEAVE IN LATVIA: CHALLENGES AND SOLUTIONS

Jūlija Šulce
Biznesa augstskola *Turība*, Latvija
julijakor@inbox.lv

Anotācija

Darbinieku labklājība un darba un privātās dzīves līdzsvars ir kļuvuši par būtiskām tēmām mūsdienu darba vidē. Papildatvaļinājums ir viens no svarīgākajiem instrumentiem, kas palīdz saglabāt šo līdzsvaru, nodrošinot darbiniekiem nepieciešamo atpūtu un veicinot augstāku produktivitāti darba vietā.

Latvijā Darba likums paredz papildatvaļinājuma piešķiršanu noteiktām darbinieku grupām, taču, lai arī šī norma ir juridiski nostiprināta, praksē tās izmantošana sastop vairākas problēmas. Trūkstošā darbinieku informētība, darba devēju nevēlēšanās piešķirt papildu atpūtas dienas un neskaidrības normatīvo aktu interpretācijās ir tikai daži no šķēršļiem, kas kavē efektīvu papildatvaļinājuma izmantošanu.

Šīs raksta mērķis ir izvērtēt papildatvaļinājuma piešķiršanas un izmantošanas juridiskos un praktiskos aspektus Latvijā, kā arī sniegt priekšlikumus normatīvā regulējuma pilnveidošanai. Autore analizē Darba likuma normas, kas regulē papildatvaļinājuma piešķiršanu, aplūko ar to saistītās problēmas un piedāvā risinājumus to efektīvākai piemērošanai.

Viens no galvenajiem jautājumiem ir darbinieku un darba devēju tiesības un pienākumi, kas saistīti ar papildatvaļinājumu, tostarp tā piešķiršanas nosacījumi, iespējamā uzkrāšana, dalīšana un kompensācija. Īpaša uzmanība tiek pievērsta tam, vai pastāvošais regulējums pietiekami aizsargā darbinieku intereses un nodrošina taisnīgu attieksmi darba attiecībās.

Tāpat tiek analizētas darba devēju atbildība un pienākumi, izvērtējot darba vides riskus un nodrošinot papildatvaļinājuma piešķiršanu noteiktām darbinieku grupām. Raksts skar arī jautājumu par tiesību normu neskaidrībām un nepieciešamību veikt grozījumus Darba likumā, lai precizētu papildatvaļinājuma regulējumu, tā nodrošinot lielāku tiesisko noteiktību un aizsardzību darbiniekiem.

Lai sasniegtu izvirzītos mērķus, autore izmanto vēsturisko, analītisko un tiesību salīdzināšanas metodi, analizējot spēkā esošos normatīvos aktus, tiesu praksi un starptautiskos standartus, kā arī apskata dažādus risinājumus efektīvākai papildatvaļinājuma piemērošanai Latvijas darba tirgū.

Atslēgas vārdi: papildatvaļinājums, darba tiesības, sociālās garantijas, darbinieku tiesības

Abstract

Employee well-being and work-life balance have become essential topics in today's work environment. Additional leave is one of the key instruments that help maintain this balance by providing employees with the necessary rest and promoting higher productivity in the workplace.

In Latvia, the Labour Law provides for the granting of additional leave to certain groups of employees. However, despite this legal provision, its practical application faces several challenges. Lack of employee awareness, reluctance of employers to grant additional rest days, and ambiguities in the interpretation of legal norms are just a few of the obstacles that hinder the effective use of additional leave.

The purpose of this article is to evaluate the legal and practical aspects of granting and using additional leave in Latvia and to propose improvements to the regulatory framework. The author analyzes the provisions of the Labour Law that govern additional leave, examines the related challenges, and offers solutions for its more effective implementation.

One of the main issues addressed is the rights and obligations of employees and employers concerning additional leave, including conditions for granting, possible accumulation, division, and compensation. Special attention is given to whether the existing regulations sufficiently protect employee interests and ensure fair treatment in employment relations.

The article also examines the responsibilities and obligations of employers in assessing workplace risks and ensuring the granting of additional leave to specific groups of employees. Furthermore, it discusses legal uncertainties and the need for amendments to the Labour Law to clarify the regulation of additional leave, thereby ensuring greater legal certainty and protection for employees.

To achieve the outlined objectives, the author employs historical, analytical, and comparative legal methods, analyzing existing legal acts, case law, and international standards while also exploring various solutions for the more efficient application of additional leave in the Latvian labor market.

Keywords: Additional leave, labor law, social guarantees, employee rights.

Papildatvaļinājums un papildatvaļinājuma nozīme

Fiziskās un garīgās veselības uzlabošana

Atpūta ir būtisks faktors, kas palīdz saglabāt labu fizisko un garīgo veselību. Pasaules Veselības organizācijas (PVO) pētījumi rāda, ka pārmērīgs stress un nepietiekama atpūta palielina dažādu slimību, tostarp sirds un asinsvadu saslimšanu un depresijas risku.

Darbinieki, kas strādā smagos un kaitīgos apstākļos (piemēram, maiņu darbā, darbā ar ķīmiskām vielām, augstumā vai troksnī), ir pakļauti lielākam riskam, tāpēc papildatvaļinājums viņiem palīdz atgūties un saglabāt darba spējas ilgtermiņā.

Uzņēmumu ieguvumi

Uzņēmumi, kas piedāvā papildatvaļinājumu un veicina tā izmantošanu, bieži vien iegūst motivētākus un efektīvākus darbiniekus. Atpūtušies darbinieki ir enerģiskāki, labāk pieņem lēmumus un strādā efektīvāk.

Papildatvaļinājums var kalpot arī kā konkurētspējīgs bonuss darba tirgū, palīdzot uzņēmumiem piesaistīt un noturēt kvalificētus darbiniekus.

Papildatvaļinājuma definīcija

Papildatvaļinājuma definīcija *Darba likumā* nav minēta *expressis verbis*, taču tā izriet no *Darba likuma* 151. panta, kurā ir norādīti papildatvaļinājuma piešķiršanas kritēriji.

Dr.iur. Valija Ulmane terminu skaidrojošā vārdnīcā sniedza skaidrojumu terminam "papildatvaļinājums", norādot, ka papildatvaļinājums ir papildu atpūtas laiks darbiniekam, kuru piešķir darba devējs saskaņā ar *Darba likuma* 151. pantu.

Autore piedāvā savu papildatvaļinājuma definīciju, proti, papildatvaļinājums ir atpūtas laiks, ko darba devējs piešķir darbiniekam par īpašiem apstākļiem, kas izriet no *Darba likuma* 151. panta.

Papildatvaļinājuma attīstība Latvijā un pasaulē

Papildatvaļinājuma koncepcija aizsākās 19. gadsimtā līdz ar industriālās revolūcijas radītajām pārmaiņām darba tirgū.

Svarīgākie attīstības posmi darba tiesībās

Pirmie mēģinājumi noregulēt darba attiecības algota darba jomā tika veikti industriālās revolūcijas laikmetā – 19. gs. Anglijā un Francijā. Sabiedrībā atnāca izpratne par nepieciešamību pasargāt algotus darbiniekus no pārmērīgas ekspluatācijas.

Pirmais starptautiskais līgums, kas noslēgts par cilvēktiesību jautājumiem, saistīts tieši ar tiesībām uz darbu un piespiedu darba aizliegumu. Tiesības uz darbu pirmo reizi tika nostiprinātas Francijas konstitūcijā 1848. gadā. Konstitūcijas 6. un 13. pants garantēja verdzības aizliegumu Francijas teritorijā un tiesības uz darbu.

Vidzemes zemnieku likums (1822. gadā) – pirmais darba tiesību avots darba tiesībās, kas noteica maksimālo darba stundu skaitu, kas paredzēja, ka stundu skaits nedrīkst pārsniegt 12 stundas diennaktī.

Papildatvaļinājuma attīstība dažādās valstīs

Francijā (1936. gads) pēc spēcīgas strādnieku kustības un Tautas frontes nākšanas pie varas 1936. gadā tika pieņemts likums "Loi sur les conges payes" (*Likums par apmaksāto atvaļinājumu*), kas piešķīra visiem darbiniekiem tiesības uz apmaksātu atvaļinājumu. Šis likums noteica divu nedēļu ikgadējo atvaļinājumu, kā arī uzstādīja precedentu dažādiem papildu atvaļinājumiem, kas nākotnē kļuva par pamatu darbinieku tiesību paplašināšanai.
Vācijā 1963. gadā tika pieņemts likums "Gesetz über den Zusatzurlaub für Arbeitnehmer in besonders belastenden Arbeitsverhältnissen" (*Likums par papildatvaļinājumu darbiniekiem*

īpaši smagos darba apstākļos), kas noteica tiesības darbiniekiem, kuri strādā kaitīgā ražošanā, saņemt papildu atvaļinājumu, lai saglabātu veselību.

Padomju Savienībā (1970. gadi) darba atvaļinājumu tiesiskā regulējuma ieviešana sākās ievērojami agrāk, taču oficiāla tiesību nostiprināšana uz papildu atvaļinājumu dažādos gadījumos, tostarp darba apstākļu un ģimenes apstākļu dēļ, sāka veidoties no 1960. gadu beigām un 1970. gados. PSRS *Darba likumu kodeksā* (DLK) bija paredzēti arī papildu atvaļinājumi darbiniekiem, kuri strādā smagās un kaitīgās nozarēs, un tas kļuva par standartu sociālistiskajās valstīs.

Attīstība Latvijā

Latvijā papildatvaļinājums kļuva par daļu no *Darba likuma* 2002. gadā. Ar *Darba likumu* ir ieviesti jauni uzlabojumi papildatvaļinājuma piešķiršanā.

Norma vairs nebija attiecināma tikai uz sievietēm, kas paredzēja, ka arī vīriešiem ir tiesības uz ikgadējo atvaļinājumu – ceļš uz diskriminācijas aizliegumu.

Nemainīgs palika:

- bērnu vecums – līdz 16 (sešpadsmit) gadiem;
- bērnu daudzums – 3 (trīs) un vairāk;
- nosacījums par bērnu ar invaliditāti.

Attiecībā uz darbiniekiem, kuri pakļauti īpašam riskam, tad ar 2002. gadu *Darba likums* paredzēja papildatvaļinājuma ilgumu – 3 (trīs) darba dienas.

Mūsdienu redakcijā, proti, "Ikgadējo apmaksāto papildatvaļinājumu piešķir:

- darbiniekiem, kuru aprūpē ir trīs vai vairāki bērni vecumā līdz 16 gadiem vai bērns ar invaliditāti līdz 18 gadu vecumam, – trīs darba dienas;
- darbiniekiem, kuru darbs saistīts ar īpašu risku, – ne mazāk kā trīs darba dienas;
- darbiniekiem, kuru aprūpē ir mazāk par trim bērniem vecumā līdz 14 gadiem, – ne mazāk par vienu darba dienu" ir grozīts panta pirmais apakšpunkts, proti, ir precizēts, ka darbiniekam ir tiesības uz papildatvaļinājumu, ja viņa aprūpē ir trīs vai vairāki bērni vecumā līdz 16 gadiem vai bērns ar invaliditāti līdz 18 gadu vecumam, – 3 (trīs) darba dienas. Savukārt vārds "aprūpe" paplašināja darbinieku sarakstu, kam būtu tiesības uz papildatvaļinājumu, jo norma vairs neparedz, ka tiesības uz papildatvaļinājumu ir tikai bērnu tēvam un mātei, bet arī bērna aizbildnim, adoptētājam, audžuģimenei.

Papildatvaļinājuma piešķiršanas kritēriji

Vispārīgie nosacījumi

Gan darba devējam, gan darbiniekam savi pienākumi un tiesības jāpilda godprātīgi. Ja darbinieks vēlas izmantot papildatvaļinājumu, normālā situācijā viņam būtu jāinformē, ka viņam ir šādas tiesības uz papildatvaļinājumu.

Ja darba devējs ir informēts, ka darbinieka aprūpē ir bērns, bet darbinieks nav lūdzis papildatvaļinājuma piešķiršanu (piemēram, pirmajā gadā to lūdza, savukārt otrajā gadā neprasa), darba devējam būtu jārīkojas godprātīgi un jānoskaidro, vai darbinieks šādu papildatvaļinājumu izmantos.

Šādu viedokli var pamatot, izmantojot analoģiju ar Augstākās tiesas 18.05.2017. spriedumā lietā Nr. SKC-769/2017 izteikto atziņu, ka "no darba tiesisko attiecību regulējuma izriet, ka viena no pusēm – darbinieks – atrodas ekonomiskajā ziņā vājākā pozīcijā iepretim otrai pusei – darba devējam. Tas nozīmē, ka darba devējs varēja norādīt, kādi dokumenti iesniedzami vai uzrādāmi".

Īpašā riska kritēriji

Papildatvaļinājums pienākas tiem darbiniekiem, kuru darbs saistīts ar īpašu risku.

Īpašā riska definīcija. Termins "īpašs risks" ir definēts *Darba aizsardzības likuma* 1. panta 19. punktā, t.i., darba vides risks, kas saistīts ar tādu paaugstinātu psiholoģisko vai fizisko slodzi vai tādu paaugstinātu risku nodarbinātā drošībai un veselībai, ko nevar novērst vai līdz pieļaujamam līmenim samazināt ar citiem darba aizsardzības pasākumiem, kā vien saīsinot darba laiku, kurā nodarbinātais pakļauts šim riskam.

Darbu saraksts, kuros nodarbinātajiem darbā ir īpaši apstākļi, sniegts MK 2009. gada 12. marta noteikumu Nr. 219 "Kārtība, kādā veicama obligātā veselības pārbaude" 2. pielikumā "Darbi īpašos apstākļos" (piemēram, darbs augstumā, zem spiediena esošu bīstamu iekārtu apkalpošana, darbs ar sprāgstvielām u.c.). Līdz ar to darba devēja pienākums ir nodrošināt darba vides iekšējo uzraudzību un sastādīt sarakstu par tām profesijām (amatiem), kurās nodarbinātajam darbā ir īpaši apstākļi.

Papildatvaļinājuma ilgums

Darba likums nosaka minimālo papildatvaļinājuma dienu skaitu (izņemot 1. apakšpunktu). Savukārt uzņēmums iekšējos normatīvajos dokumentos, uzlabojot darbinieku tiesisko stāvokli, var piešķirt lielāku papildatvaļinājuma dienu skaitu. Atšķirībā no ikgadējā atvaļinājuma papildatvaļinājuma dienas ir skaitāmas darba dienās, nevis kalendāra dienās (piemēram, darbiniekam pienākas ikgadējais atvaļinājums 28 (divdesmit astoņas) dienas un papildatvaļinājums 3 (trīs) darba dienas).

Papildatvaļinājuma problēmas Latvijā

Nepietiekama darbinieku informētība

Diemžēl praksē konstatēts, ka daudzi darbinieki nav informēti par savām tiesībām uz papildatvaļinājumu. Viens no galvenajiem iemesliem ir tas, ka darba devēji bieži vien nesniedz darbiniekiem attiecīgo informāciju. Tādēļ būtu nepieciešams noteikt darba devējam pienākumu informēt darbiniekus par viņu tiesībām izmantot papildatvaļinājumu.

Darba likuma 40. pants nosaka, ka darba līgumā obligāti jāietver informācija par ikgadējā apmaksātā atvaļinājuma ilgumu.

Normatīvā regulējuma neskaidrības

Viena no neskaidrībām, ar ko saskaras darba devēji un darbinieki, ir jautājums par to, vai papildatvaļinājumu var sadalīt daļās. Izvērtējot *Darba likuma* normas, secināms, ka likums tieši neaizliedz šādu sadalīšanu. Šajā gadījumā būtu piemērojams princips "Atļauts viss, kas nav aizliegts", kas nozīmē, ka, ja likumā nav noteikts aizliegums, rīcība ir pieļaujama.

Darba likums expressis verbis neparedz ne aizliegumu, ne atļauju papildatvaļinājuma sadalīšanai, bet drīzāk vispār nereglamentē šo jautājumu. Savukārt, ja normatīvais akts konkrētu situāciju neregulē, tas parasti dod rīcības brīvību pašiem izvēlēties piemērotāko risinājumu. Tādējādi darbiniekam un darba devējam ir tiesības savstarpēji vienoties par papildatvaļinājuma sadalīšanas kārtību atbilstoši savām vajadzībām un interesēm.

Nav iespējas uzkrāt nākamajiem gadiem

Mūsdienu oficiālais viedoklis par papildatvaļinājuma uzkrāšanu balstās uz *Darba likuma* 151. panta ceturto daļu, kas nosaka, ka ikgadējais apmaksātais papildatvaļinājums par kārtējo darba gadu ir jāpiešķir un jāizmanto līdz nākamā gada ikgadējam atvaļinājumam. Tas nozīmē, ka papildatvaļinājumu nedrīkst uzkrāt vai pārcelt uz citiem gadiem. Tāpat, izbeidzot darba tiesiskās attiecības, neizmantotais papildatvaļinājums par visu nostrādāto periodu nevar tikt kompensēts naudā.

Autore uzskata, ka šī norma ir pretrunā ar *Darba likuma* 31. pantu, kas nosaka divu gadu noilguma termiņu visām prasībām, kas izriet no darba tiesiskajām attiecībām. Līdz 2015. gadam *Darba likums* paredzēja darba devējam pienākumu atlīdzināt neizmantoto ikgadējo atvaļinājumu par pēdējiem diviem gadiem. Pēc tam šī norma tika grozīta, un pašreizējā redakcija nosaka, ka darba devējam jāatlīdzina neizmantotais ikgadējais atvaļinājums par visu nostrādāto periodu.

Šajā kontekstā Valsts darba inspekcijas nostāja par papildatvaļinājuma neuzkrāšanu un atlīdzināšanu naudā tikai par esošo periodu nav skaidra. Autore uzskata, ka papildatvaļinājumam vajadzētu būt uzkrājamam un izmantojamam divu gadu laikā no brīža, kad darbiniekam rodas tiesības uz tā izmantošanu. Tas attiektos arī uz atlīdzības piešķiršanu par diviem pēdējiem darba gadiem pirms darba tiesisko attiecību izbeigšanas.

Tāpēc būtu nepieciešams veikt grozījumus *Darba likuma* 151. pantā, paredzot iespēju pārcelt, uzkrāt un atlīdzināt naudā neizmantoto papildatvaļinājumu par pēdējiem diviem gadiem (vai par visu nostrādāto laiku), ja darbiniekam bija tiesības uz papildatvaļinājumu, bet viņš to nebija izmantojis.

Galvenās atziņas: papildatvaļinājuma piemērošanas un regulējuma problemātika

Pēdējā sadaļā tiek apkopoti galvenie jautājumi un neskaidrības, kas saistīti ar papildatvaļinājuma piešķiršanu un izmantošanu. Tiek analizētas darba devēju un darbinieku tiesības un pienākumi, kā arī iespējami juridiskie risinājumi neskaidru situāciju gadījumā. Sadaļa aptver jautājumus par informācijas sniegšanu, atvaļinājuma piešķiršanas kritērijiem, iespēju sadalīt papildatvaļinājumu daļās un tā uzkrāšanas iespējām.

1. Darbinieka pienākums informēt darba devēju – tiesības vai tomēr pienākums?

Vai darbiniekam ir ne tikai tiesības, bet arī pienākums informēt darba devēju par papildatvaļinājuma nepieciešamību? Vai darbinieks vispār ir informējis darba devēju, ka viņam ir tiesības uz papildatvaļinājumu? Šajā gadījumā būtiski saprast, vai darbiniekam ir tikai tiesības uz papildatvaļinājumu vai arī pienākums to izmantot.

Autoresprāt, šeit var runāt gan par tiesībām, gan par pienākumu. No vienas puses, darba devējam ir pienākums informēt darbinieku par viņa tiesībām uz papildatvaļinājumu. No otras puses,

darbiniekam ir tiesības uz papildatvaļinājumu, tajā pašā laikā ir pienākums paziņot darba devējam par tiem apstākļiem, kas dot viņam tiesības izmantot papildatvaļinājumu.

Taču vai darba devējs ir atbildīgs par to, ka darbinieks nav izmantojis šo iespēju? Autore uzskata, ka nē, jo papildatvaļinājuma izmantošana ir darbinieka tiesības, nevis pienākums. Tāpēc, ja darbinieks pats neizmanto savas tiesības, darba devējam par to nav jāuzņemas atbildība.

2. Vai darbiniekam būtu jāinformē darba devējs par viņa bērna veselības stāvokli, iesniedzot vai uzrādot apliecību vai izziņu par bērna invaliditāti?

Ja darbiniekam ir bērns ar invaliditāti un apliecība par invaliditāti ir izsniegta uz noteiktu laiku, rodas jautājums – kā darba devējs var pārliecināties, ka darbiniekam joprojām ir tiesības uz papildatvaļinājumu pēc šī termiņa beigām?

Šādā situācijā svarīgi saprast, kur ir robeža starp darba devēja tiesībām pārbaudīt informāciju un darbinieka tiesībām uz privātumu. Darba devējs nevar pieprasīt informāciju par darbinieka bērna veselības stāvokli, jo tā ir sensitīva personas informācija, kas ir īpaši aizsargājama saskaņā ar Vispārīgo datu aizsardzības regulu (GDPR).

Tomēr darba devējam ir tiesības pieprasīt dokumentu, kas apliecina tiesības uz papildatvaļinājumu, piemēram, jaunāko invaliditātes apliecību. Šādā situācijā darbiniekam pašam ir pienākums informēt darba devēju un iesniegt nepieciešamos dokumentus, lai pierādītu, ka viņa tiesības uz papildatvaļinājumu joprojām ir spēkā. Savukārt, ja šāda informācija netiek sniegta, darba devējs var pamatoti atteikt papildatvaļinājuma piešķiršanu. Līdz ar to šajā jautājumā nevar paļauties tikai uz darbinieka godprātību – ir jābūt dokumentāram apstiprinājumam, ko darbiniekam būtu jāuzrāda darba devējam.

3. Vai darba līgumā būtu iekļaujama informācija par tiesībām uz papildatvaļinājumu un papildatvaļinājuma ilgumu?

Autore uzskata, ka darba līgumā būtu jāiekļauj skaidrs punkts par darbinieka tiesībām uz papildatvaļinājumu, precīzi norādot tam pienākošos dienu skaitu. Tas nodrošinātu gan darbinieka informētību, gan skaidrību darba devējam, novēršot iespējamos strīdus par papildatvaļinājuma piešķiršanas nosacījumiem un apmēru. Kā jau iepriekš tika norādīts, autore piedāvā papildināt *Darba likuma* 40. panta otrās daļas 8. punktu, nosakot, ka darba līgumā obligāti jāietver arī informācija par darbinieka tiesībām uz papildatvaļinājumu un tā ilgumu. Šo tiesību un ilguma noteikšana jāveic individuāli, ņemot vērā konkrētā darbinieka situāciju. Tas paredz arī darbinieka pienākumu sniegt informāciju par viņa aprūpē esošajiem bērniem un to vecumu.

Savukārt, ja darbinieks iegūst tiesības uz papildatvaļinājumu saistībā ar bērna piedzimšanu, būdams darba tiesiskajās attiecībās ar esošo darba devēju, tad darba devējam būtu jāveic atbilstoši grozījumi līgumā, lai iekļautu jaunas tiesības un prasības, kas attiecas uz šiem apstākļiem. Tas veicinātu skaidrību un novērstu iespējamās nesaskaņas, kas var rasties darba attiecībās.

4. Darba devējs ir atbildīgs par darba vides riska faktoru izvērtēšanu, nosakot darbinieku kategorijas, kuru darbs ir pakļauts īpašam riskam un kas dod tiesības uz papildatvaļinājumu.

Ja darbiniekam papildatvaļinājums pienākas saistībā ar to, ka viņš veic darbu, kas saistīts ar īpašu risku, būtiski ir nodrošināt, ka darba devējs ir rūpīgi izvērtējis darba vides riskus. Ir svarīgi, lai šie riski būtu novērtēti atbilstoši un korekti, ņemot vērā gan normatīvo regulējumu, gan faktiskos darba apstākļus. Turklāt darba devējam jānodrošina, ka visos risku izvērtējumos ir skaidri noteikti visi darbi, kas tiek veikti īpašos apstākļos, lai nerastos nepamatotas interpretācijas un lai darbiniekiem tiktu piešķirtas atbilstošas tiesības uz papildatvaļinājumu.

5. Vai *Darba likums* paredz dalīt papildatvaļinājuma dienas?

Kā jau iepriekš tika norādīts, autores viedoklis – jā. Tomēr, ņemot vērā, ka *Darba likums* šo situāciju tieši neregulē, tas nodrošina rīcības brīvību pašiem izvēlēties piemērotāko risinājumu. Tādējādi darbiniekam un darba devējam ir tiesības savstarpēji vienoties par papildatvaļinājuma sadalīšanas kārtību, pielāgojot to savām vajadzībām un interesēm. Šāda pieeja ļauj elastīgāk organizēt darba un atpūtas laiku, vienlaikus nodrošinot abu pušu tiesību ievērošanu.

6. Vai papildatvaļinājuma dienas var izmantot pirms ikgadējā atvaļinājuma?

Ir darba devēji, kas darbiniekiem aizliedz izmantot papildu atvaļinājumu, kamēr nav izmantots ikgadējais atvaļinājums par tekošo periodu. Kas notiek ar tiesībām uz papildatvaļinājuma izmantošanu gadījumā, ja darbinieks nav izmantojis atvaļinājumu pilnā apmērā? Ja darbinieks objektīvu iemeslu dēļ nav izmantojis ikgadējo atvaļinājumu pilnā apmērā un, vienojoties ar darba devēju, atvaļinājuma daļa tiek pārcelta uz nākamo gadu, rodas jautājums: vai tas automātiski nozīmē, ka darbiniekam tiesības uz ikgadējo papildatvaļinājumu zūd? Šajā gadījumā autore uzskata, ka nē – papildatvaļinājums saglabājas. Tas nozīmē, ka, pat ja daļa no ikgadējā atvaļinājuma tiek pārcelta uz nākamo gadu, tas nenozīmē, ka darbiniekam tiek atņemtas tiesības uz papildatvaļinājumu. Autore uzskata, ka papildatvaļinājums ir atsevišķas tiesības, kas ir saistītas ar darbinieka specifiskām situācijām (piemēram, bērns ar invaliditāti vai darbs īpaša riska apstākļos), un šīs tiesības saglabājas neatkarīgi no tā, kā tiek izmantots ikgadējais atvaļinājums. Tātad papildatvaļinājumu nedrīkst atņemt tikai tādēļ, ka atvaļinājuma daļa tika pārcelta uz nākamo gadu.

7. Kāpēc nav piemērots divu gadu noilguma termiņš jautājumā par papildatvaļinājuma atlīdzināšanu? Un kāpēc papildatvaļinājums netiek pārcelts uz nākamo gadu? Vai šāda interpretācija nepasliktina darbinieka tiesisko stāvokli?

Iepriekš minētie jautājumi izriet no neskaidrībām par papildatvaļinājuma piešķiršanas un izmantošanas kārtību. Kā jau iepriekš tika norādīts, šajā jautājumā būtu nepieciešams veikt grozījumus *Darba likuma* 151. pantā, lai nodrošinātu iespēju pārcelt, uzkrāt un, ja nepieciešams, atlīdzināt naudā neizmantoto papildatvaļinājumu par pēdējiem diviem gadiem vai par visu nostrādāto laiku, ja darbinieks bija tiesīgs izmantot papildatvaļinājumu, bet to nebija izmantojis.

Šāda pieeja ļautu darbiniekiem saglabāt tiesības uz papildatvaļinājumu pat tad, ja to nav iespējams izmantot noteiktajā periodā, un novērstu nevajadzīgu tiesisko neskaidrību, kas varētu pasliktināt darbinieka situāciju. Pārcelšanas un uzkrāšanas iespēja nodrošinātu, ka darbinieka tiesības netiek zaudētas tikai tādēļ, ka viņam nebija iespējas izmantot papildatvaļinājumu laikā, kad tas tika piešķirts.

Secinājumi

Papildatvaļinājuma tēma darbiniekiem ir svarīgs un aktuāls jautājums, kas skar ne tikai darbinieku tiesības, bet arī organizāciju efektivitāti kopumā.

Lai nodrošinātu efektīvu papildatvaļinājuma izmantošanu, nepieciešams veikt grozījumus *Darba likumā*. Ir jāparedz iespēja pārcelt, uzkrāt un atlīdzināt naudā neizmantoto papildatvaļinājumu, ņemot vērā darbinieka tiesības, kā arī jāprecizē darba devēja saistības, lai novērstu neskaidrības un pārpratumus. Šādi grozījumi veicinātu darbinieku labklājību, uzlabojot gan viņu veselību, gan darba produktivitāti, kas ir svarīgs solis, lai veidotu motivētu un efektīvu darba spēku. Pamatā papildu atvaļinājums ir ne tikai tiesiskā norma, bet arī svarīga daļa no korporatīvās kultūras, kurai jābūt vērstai uz veselīga un motivēta kolektīva veidošanu.

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POLYPHENOL PROFILE OF FLOWERS, FRUITS AND FOOD SUPPLEMENTS OF *SAMBUCUS NIGRA*

Silvia Tsanova-Savova
Medical College Yordanka Filaretova, Medical University- Sofia
s.tsanova-savova@mc.mu-sofia.bg

Slaveyka Paneva-Dimitrova
Medical College Yordanka Filaretova, Medical University- Sofia
spaneva@mc.mu-sofia.bg

Liyana Simeonova
Medical College Yordanka Filaretova, Medical University- Sofia
122502@students.mu-sofia.bg

Ivelina Lulcheva
Medical College Yordanka Filaretova, Medical University- Sofia
116525@students.mu-sofia.bg

Petya Koleva
Medical College Yordanka Filaretova, Medical University- Sofia
s.tsanova-savova@mc.mu-sofia.bg

Abstract

Currently, a wide variety of food supplements derived from Sambucus nigra is available on the market, claiming to have powerful antioxidant effects, due to their high level of polyphenols. However, quantitative data for their polyphenolic content is sporadic and inconsistent. In the present study, water and methanol extracts of Sambucus nigra flower and fruits, as well as food supplements containing them, were analyzed for their Total Phenols and Total Flavonoid content, along with HPLC analysis for the levels of individual flavonoids (+)-Catechin, (-)-Epicatechin, and Rutin. The results show that the Total Phenols and Total Flavonoids are highest in infusions from the plant's flowers. Of the individual flavonoids, significant amounts were only found for Rutin. Conclusion: Sambucus nigra is a significant source of antioxidant polyphenolic compounds, with levels in its flowers exceeding those in its fruits. At the same time, the polyphenol levels in various Black Elderberry based food supplements can vary significantly, primarily depending on whether standardized extracts are used in the formulations.

Keywords: Polyphenols, Total Phenols, Total Flavonoids, *Sambusus nigra*

Introduction

Black Elderberry (Sambucus nigra), also known as European Elder, is a small tree or shrub whose fruits and flowers are a valuable source of nutritional and pharmacological substances. It is found in natural habitats across Bulgaria, typically in open areas. The flowers and fruits of Elderberry are

popular natural sources of bioactive compounds with high antioxidant activity (Schumacher, 2015). Black Elderberry contains a wide range of beneficial nutrients, including various minerals such as iron, potassium, phosphorus, and copper; vitamins A, B, and C, dietary fiber, and organic compounds (Ferreira et al., 2020). The flowers (*Sambucus Flos*) and fruits (*Sambucus Fructus*) are particularly rich in polyphenolic compounds, primarily flavonols, phenolic acids, and anthocyanins, which are responsible for their antioxidant and anti-inflammatory properties.

The presence of phenolic compounds in plant extracts determines their antioxidant and pharmacological properties. Polyphenols can counteract the harmful effects of free radicals in the body through three different mechanisms: as preventive antioxidants at the initiation stage of lipid peroxidation by chelating transition metal ions, thereby inactivating their catalytic role in chain radical reactions; by quenching singlet oxygen; and through their potent radical-scavenging ability, acting as free radical scavengers and breaking the chain of peroxidation (Rudrapal, 2022). Polyphenolic compounds in Black Elderberry extracts can interact with chain radical reactions generated reactive oxygen species (ROS) and deactivate them. Under normal homeostatic conditions, ROS play an important role in various physiological processes, regulating key cellular functions such as proliferation, differentiation, and apoptosis, and participating in the defense against pathogens, however at the same time express harmful oxidative affect *in vivo* towards biomolecules like proteins, lipids and DNA (Nakamura&Takada, 2021). Numerous studies confirm the high antioxidant capacity of *Sambucus nigra* fruits (Dawidowicz et al., 2006; Li et al, 2021; Olejnik et al., 2016).

Anti-inflammatory activity

In addition to their high antioxidant capacity, Elderberry extracts are associated with strong anti-inflammatory properties (Studzinska-Sroka et al., 2024). Current research shows that inflammation is among the primary factors contributing to various chronic diseases, including certain cancers, hypertension, cardiovascular diseases, dyslipidemia, metabolic syndrome, insulin resistance, allergies, inflammatory bowel disease, chronic asthma, neurodegenerative diseases, rheumatoid arthritis, multiple sclerosis, and more. Due to their high anthocyanin content, *Sambucus nigra* fruit extracts exhibit powerful anti-inflammatory effects by inhibiting prostaglandin activity (Mena et al., 2014). It has also been found that the anti-inflammatory activity of Elderberry extracts increases proportionally with their antioxidant activity and their polyphenol content (Stępien, et al., 2023).

Antibacterial activity

The antibacterial activity of *S. nigra* extracts is linked to their phenolic acid and flavonoid content. The compounds that have the greatest impact on antibacterial activity include kaempferol, apigenin, ferulic acid, and p-coumaric acid. Studies show that bacteria most sensitive to *S. nigra* phenolic compound extracts include *Micrococcus luteus*, *Proteus mirabilis*, *Pseudomonas fragi*, and *Escherichia coli* (Przybylska-Balcerek et al., 2021). For instance, a study by Hearst and colleagues demonstrated that lyophilized Elderberry extracts have a strong antibacterial effect against most of the 13 nosocomial pathogens tested, including methicillin-resistant *Staphylococcus aureus* (MRSA), as well as *Staphylococcus sp.*, *Bacillus cereus* (gram-positive), *Salmonella poona*, and *Pseudomonas aeruginosa* (gram-negative) (Hearst et al., 2010). Additionally, Chatterjee and colleagues showed that Elderberry inhibits *Helicobacter pylori* with approximately 30% effectiveness (Chatterjee et al., 2004).

Antiviral properties

Numerous studies reveal that compounds such as kaempferol-3-Rutinoside, isorhamnetin-3-Rutinoside, isorhamnetin-3-glucoside, and cyanidin derivatives exhibit antiviral properties (Ren et al, 2024). Scientific literature describes that *Sambucus nigra* extracts bind phenolic compounds to the H1N1 virus, rendering it incapable of infecting host cells (Roschek et al, 2009). Experimental data from various in vitro and in vivo studies demonstrate the ability of Elderberry extracts to inhibit the replication of influenza A and B viruses (Tiralomgo et al., 2016; Zakay-Rones et al., 1995). Additionally, some studies show that Elderberry stimulates the immune response and effectively suppresses viral replication (Torabian, 2019). These findings support the health claims of various food supplements made from *Sambucus nigra* and *Sambucus ebulus* for use in flu treatments.

Antidiabetic properties

Over the past decade, scientific publications have increasingly shown that anthocyanins in *Sambucus nigra* extracts, particularly cyanidin-3-glucoside, procyanidins, and their metabolites, enhance glucose uptake in human skeletal muscle cells. Black Elderberry inhibits fat and sugar absorption in the gastrointestinal tract, positively influencing obesity and demonstrating antidiabetic effects in metabolic dysfunctions (Ho et al., 2017). Elderberry extracts are rich in anthocyanins, which alleviate systemic inflammation and insulin resistance (Zima et al., 2024). Recent studies emphasize the beneficial effects of flavonoids in improving glucose metabolism, preventing, and managing diabetes and its complications. Research on cell lines and animal models suggests that all flavonoid classes possess antidiabetic activity, improve β-cell function and insulin action (Yi et al., 2023), enhance glucose utilization, and reduce cholesterol and triglyceride synthesis (Thompson et al., 2024).

Currently, a rich palette of nutritional supplements from *Sambucus nigra*, with claims of powerful antioxidant action, is available on the global and Bulgarian markets. However, quantitative data for their evaluation is sporadic and inconsistent. The aim of the present study is to characterize the quantitative content of Total Phenols compounds, Total Flavonoids, and individual flavonoids representatives – (+)-Catechin, (-)-Epicatechi, and the flavonol Rutin in Bulgarian food supplements as well as flowers and fruits from *Sambucus nigra,* which are widely used for the preparation of herbal infusions and decocts.

Methodology

In the present study, the flowers and fruits of Bulgarian *Sambucus nigra*, purchased from retail shops in Sofia, were examined alongside two types of food supplements: syrup containing both standardized and non-standardized extracts from *Sambucus nigra* fruits. Three individual dry samples (100g each) were purchased from herbal pharmacies, while three packages of each selected food supplement were acquired from the pharmacy network.

Preparation of Methanol Extracts

The finely ground plant material or crushed fruits, herba or food supplements (0.2500 g) were weighed into a 25.00 ml volumetric flask and extracted with 80% methanol/water (v/v) in an ultrasonic bath for 30 minutes at 30°C. The solutions were ultracentrifuged at 10,000 rpm for 5 minutes and filtered through a membrane filter (0.45 μm) prior to analysis.

Preparation of Aqueous Extracts: Infusions and Decocts

For the preparation of high-quality infusions and decocts, specific technological protocols and basic rules for water extraction must be followed. Infusions were steeped for 60 minutes, while decocts were prepared over 40 minutes.

Infusion Preparation

Ratio: 1 gram of herbal material per 100 g of distilled water. The infusions were prepared in special containers called "infundirs," made of materials with low thermal conductivity — most commonly porcelain. The infundir was preheated for 15 minutes in a boiling water bath, after which the herbal material and water were added. The heating process lasted 15 minutes, followed by cooling at room temperature for 45 minutes. The obtained extract was filtered and stored in a cool place.

Decocts Preparation

Ratio: 5 grams of fruit per 100 grams of distilled water. The fruits were boiled in boiling distilled water for 5–10 minutes according to the manufacturer's instructions. They were steeped for 30 minutes, cooled, and filtered. The resulting samples were stored at 4°C for analysis, without preservatives, and were analyzed no later than 24 hours after preparation.

Determination of Total Phenols

The Folin-Ciocalteu reagent was used to determine total phenols by oxidizing phenolates into a blue complex, which was measured spectrophotometrically at a wavelength of λ = 750 nm. The determination followed the method described by Marinova et al., 2005. Briefly, 1 ml of appropriately diluted aqueous extracts, methanol extracts, or standard gallic acid solutions (GA) was added to a 25 ml volumetric flask containing 9 ml of distilled water. Then, 1 ml of Folin-Ciocalteu reagent was added, and after 5 minutes, 10 ml of 7% Na_2CO_3 was added. The solution was topped up to the mark with distilled water, mixed, and left for 90 minutes at room temperature. Absorption was measured against a blank at λ = 750 nm. The Total Phenols were quantified using an external calibration method with Gallic acid as the standard. Results were expressed as Gallic acid equivalents (mg GAE/100 ml) for aqueous extracts (infusions and decocts) and in mg GAE/g for methanol extracts, allowing comparative analysis via cluster analysis.

Determination of Total Flavonoids

Total flavonoids were determined according to Marinova et al., 2005. An aliquot of 1 ml of extract or standard Rutin solutions was placed in a 10 ml volumetric flask containing 4 ml of distilled water. Next, 0.3 ml of 5% $NaNO_2$ was added, followed by 0.3 ml of a 10% aqueous $AlCl_3$ solution after 5 minutes. After 6 minutes, 2 ml of 1M NaOH was added, and the solution was diluted with distilled water to the mark, mixed, and left for 30 minutes. Absorption of the pink complex was measured against a blank at λ = 510 nm. Total flavonoid content was calculated using an external calibration method. Results were expressed as Rutin equivalents (mg RE/100 ml) for aqueous extracts and as mg RE/g for methanol extracts, enabling comparative statistical analysis.

Spectrophotometric absorption measurements for total phenols and flavonoids were performed with a Lambda 25 spectrophotometer (Perkin Elmer).

Determination of (+)-Catechin, (-)-Epicatechin, and Rutin Using High-Performance Liquid Chromatography (HPLC)

HPLC Apparatus and Conditions

The HPLC system consisted of a Perkin-Elmer (Norwalk, CT) Flexar LC pump, Flexar Photo Diode Array Plus detector (PDA), autosampler, thermostat, and integrated degasser. Chromatographic data were processed with Chromera HPLC PDA software, version 4.1.1.6396.

Chromatographic separation of phenolic compounds ((+)-Catechin, (-)-Epicatechin, and Rutin) was achieved at a constant temperature of 30°C using a Luna C18 column (3 µm, 150 mm x 4.6 mm, Phenomenex, USA) with a guard column of the same stationary phase. Elution was performed at a flow rate of 0.9 ml/min with a mobile phase consisting of 0.1% formic acid in water (solvent A) and 0.1% formic acid in acetonitrile (solvent B). A linear gradient elution program was applied as follows: 0–2 minutes: 15% B; 2–4 minutes: 20% B; 4–6 minutes: 25% B; 6–8 minutes: 30% B; 8–10 minutes: 35% B; 10–12 minutes: 35% B.

The column was re-equilibrated for 5 minutes with 15% B. Sample and standard solution injection volumes were 20 µl. Detection wavelengths for (+)-Catechin and (-)-Epicatechin were set at 280 nm, and for Rutin, at 355 nm, with a reference wavelength of 620 nm and a fixed bandwidth of 19 nm. Chromatographic peaks were identified by comparing retention times and peak shapes across two wavelengths (280 and 355 nm). Quantification of catechin, epicatechin, and Rutin was performed using the external standard method with calibration curves obtained by injecting a series of standard solutions.

Research Results

The results for total phenolic and flavonoid content in methanol extracts and aqueous extracts (infusions and decocts) of the selected medicinal plants (herbs and fruits), along with data from the HPLC analysis of (+)-Catechin, (-)-Epicatechin, and Rutin, are presented in Table 1.

The data in Table 1 are expressed as mean values from triplicate analyses, along with the standard deviation of the mean.

At the industrial level, Elderberry fruits are primarily used as colorants due to their high pigment content (especially anthocyanins). Their health benefits have been proven in numerous studies. In traditional medicine, infusions and decocts of Elderberry flowers and fruits are widely applied.

Table 1

Total Phenols, Total Flavonoids, (+)-Catechin and Rutin content in Sambucus nigra medicinal plant and food supplements

Sample	Total Phenols mg GAE/g	Total Flavonoids mg RE/g	(+)-Catechin mg/g	Rutin mg/g
Medicinal plant				
	Methanolic extracts			
Sambucus nigra, flower	43.07 ± 0.24	34.61 ± 0.63	-	18.58 ± 0.38
Sambucus nigra, fruit	16.88 ± 0.44	16.24 ± 0.44	0.15 ± 0.03	2.82 ± 0.07
	Infusions		**-**	
Sambucus nigra, flower	55.90 ± 0.69	53.53 ± 0.52		20.64 ± 0.57
	Decocts		**-**	

Sambucus nigra, fruit	16.63 ± 0.40	14.17 ± 0.37	-	2.15 ± 0.05
Food Supplements – syrup containing extract of *Sambucus nigra* fruits				
	Methanolic extracts			
Sambucus nigra – non standardized extract (1)	5.16 ± 0.03	3.60 ± 0.01	-	0.05 ± 0.002
Sambucus nigra – standardized extract (2)	20.76 ± 0.21	18.76 ±0.11	0.10 ± 0.01	0.26 ± 0.01

(-)-non detected

The analysis results show that among the individual flavonoids, the flavonol Rutin was detected in all examined samples. However, (-)-Epicatechin was not found in any of the samples and is therefore not included in the table. The content of (+)-Catechin was identified in the methanol extracts of Elderberry fruits and one food supplement containing a standardized extract of Elderberry fruits. (+)-Catechin was not detected in the aqueous extracts.

Based on the results for *Sambucus nigra* flowers and fruits, it was observed that the level of polyphenols was higher in the flowers of the medicinal plants compared to their fruits, except for (+)-Catechin, which was detected in the methanol extracts of Black Elderberry fruits. The Rutin content in Elderberry flower extracts was approximately six times higher than in the fruit extracts, suggesting that flavonoid levels decrease during the ripening and maturation process of the fruit. Literature data also indicate that flavonoid accumulation in fruits is significantly influenced by the ripening stage. Numerous studies confirm the general trend that flavonoids are typically present in higher quantities in unripe fruits and plant tissues (Wang & Lin, 2000).

The analysis of food supplements containing *Sambucus nigra* also yielded important findings. Currently, the Bulgarian market offers a variety of Elderberry-based food supplements aimed at enhancing the body's antioxidant protection, supporting immune defense, and improving cardiovascular function. The health benefits of *Sambucus nigra* products are largely attributed to their high content of phenolic compounds. The biological activity of polyphenols — secondary metabolites in higher plants is associated with their antioxidant, immunostimulatory, anti-inflammatory, antiallergic, anticancer, antibacterial, and antiviral properties.

The results of this study show that the differences in polyphenol content among various types of food supplements vary significantly. The total phenolic content in food supplement 2 is approximately four times higher than in food supplement 1.

Discussion

At the industrial level, Elderberry fruits are primarily used as dyes due to the high amounts of pigments they contain (especially anthocyanins). Their health benefits have been confirmed by numerous studies. In traditional medicine, infusions and decocts of elderflowers and fruits are widely used. Considering the results for the flowers and fruits of black Elderberry, it was established that the level of polyphenols is higher in the flowers of the medicinal plant compared to its fruits, except for (+)-Catechin, which was detected in the methanol extracts of *Sambucus nigra* fruits. The Rutin content in black elderflower extracts is approximately six times higher than in the fruits, suggesting that flavonoid levels decrease during the development and ripening of the fruit.

Literature data also show that flavonoid accumulation in fruits is strongly influenced by the degree of fruit ripeness. Numerous studies confirm the general trend that flavonoids are usually present in higher quantities in unripe fruits and plant tissues (Wang and Lin, 2000).

The analysis of dietary supplements containing *Sambucus nigra* fruit extracts is also noteworthy. Currently, the Bulgarian market offers a range of dietary supplements from black and herbaceous Elderberries aimed at boosting the body's antioxidant defenses, enhancing immune protection, and improving cardiovascular system functions. The health benefits of *Sambucus nigra* products are largely attributed to their high content of phenolic compounds. The biological activity of polyphenols, secondary metabolites in higher plants, is associated with their antioxidant, immunostimulatory, anti-inflammatory, antiallergic, anticancer, antibacterial, and antiviral properties. The results of the study show that the polyphenol content in different types of dietary supplements varies significantly. The total phenol content in dietary supplement 2 is approximately four times higher than in dietary supplement 1. It should also be noted that while the levels of total phenols and flavonoids in a dietary supplement containing standardized Black Elderberry extract slightly exceed those in aqueous decocts and methanol extracts of the plant's fruits, the Rutin content in dietary supplements is about ten times lower (2.82 mg/g, 2.15 mg/g, and 0.26 mg/g, respectively).

An important highlight of the results is that Black Elderflowers, in both aqueous and methanol extracts, contain a significantly higher level of polyphenols compared to the fruits. Similar results were found for Rutin. This indicates that, in addition to the widely used dietary supplements from Black Elderberry fruits, elderflowers hold great potential for developing antioxidant formulations and dietary supplements that can help reduce oxidative stress in the body. Although the flowers of the plant do not contain anthocyanins, which are the main group of red polyphenol pigments in the fruits, the presence of other groups of phenolic compounds, such as phenolic acids, appears to account for the very high polyphenol levels in the flowers.

The results of studies on the phytochemical composition of medicinal plants and the identification of components relevant to antioxidant activity and/or the anti-inflammatory action of herbs provide opportunities for further exploration of their biological effects in living systems, including cell cultures, experimental animals, and humans. Additional in-depth studies of individual components obtained through various extraction methods and investigations into the antioxidant potential of each individual fraction are necessary for their use as active substances in the pharmaceutical industry.

Conclusions

In the present study new data for polyphenolic content in *Sambucus nigra* medicinal plant – flowers, fruits and food supplements are presented. The content of Total Phenols, Total Flavonoids and individual representatives of cathehins and flavonols in methanolic extracts, infusions and decocts have been assessed in order to provide new data for development of effective antioxidant medicinal plant compositions. Data show that *Sambucus nigra* flower extracts are among the richest sources of polyphenolic antioxidants among Bulgarian medicinal plants.

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DROŠĪBAS UN APSARDZES NOZARES NOTURĪGAS UN ILGSPĒJĪGAS KONKURĒTSPĒJAS/EKSPORTSPĒJAS MEKLĒJUMI: CILVĒKKAPITĀLS

THE SEARCH FOR SUSTAINABLE AND LONG-TERM COMPETITIVENESS/EXPORTABILITY IN THE SECURITY AND GUARD SECURITY INDUSTRY: HUMAN CAPITAL

Vilnis Veinbergs
Biznesa augstskola *Turība*, Latvija
vilnis.veinbergs@turiba.lv

Ivita Kīsnica
Biznesa augstskola *Turība*, Latvija
ivita.kisnica@turiba.lv

Uģis Začs
Biznesa augstskola *Turība*, Latvija
ugis.zacs@gmail.com

Anotācija

Darba autori pētījumā skaidroja cilvēkkapitāla raksturojošās vērtības, piemēram, indivīda personības iezīmes, izglītības kvalitātes nepieciešamību, psiholoģiskos un fizioloģiskos priekšnosacījumus u.c. cilvēkkapitāla faktorus, kas virza drošības un apsardzes organizāciju uz noturīgas un ilgtspējīgas konkurētspējas/eksportspējas attīstību un izaugsmi. Pētījumā darba autori veic teorētisku pētījuma gaitu, izmantojot vēsturisko un kontentanalīzes metodi. Pētījumam izvirzīts mērķis rast teorētisku pierādījumu to vērtību un personu iezīmju kopai, kas ir būtiskākās vai vēlami nepieciešamākās apsardzes un drošības nozarē, ir sasniegts daļēji, kam par iemeslu ir nepietiekamais zinātnisko rakstu krājums par nozari. Pētījumā analizēti zinātniskie raksti no pieejamiem avotiem un salīdzināti ar drošības un apsardzes nozares ekspertu izteiktiem nosacījumiem, kādas kvalitātes ir nepieciešams mūsdienu drošības speciālistam. Gūtās atziņas liecina, ka drošības un apsardzes nozares speciālistu nozīmīgākie kvalitātes elementi ietver zināšanas un prasmes, lai pildītu darba pienākumus multifunkcionālas vides apstākļos.

Atslēgas vārdi: apsardze, drošība, personāls, zināšanas

Abstract

The authors of the study explained the values characterizing human capital, such as individual personality traits, the need for quality education, psychological and physiological prerequisites, etc. human capital factors that direct the security and guarding organization towards the development and growth of sustainable and sustainable competitiveness/exportability. In the study, the authors of the study conduct a

theoretical research course using the historical and content analysis method. The goal of the study, to find theoretical evidence for the set of values and personal characteristics that are most essential or desirable in the security and safety industry, has been achieved in part, due to the insufficient collection of scientific articles on the industry. The study analyzes scientific articles from available sources and compares them with the conditions expressed by security and safety industry experts on what qualities are necessary for a modern security specialist. The findings show that the most important quality elements of security and security professionals include knowledge and skills to perform work duties in a multifunctional environment.

Keywords: security, safety, personnel, knowledge

Ievads

Pasaulē arvien vairāk tiek pievērsta uzmanība drošības un apsardzes nozarei (turpmāk tekstā – DAN). Kopš 2008. gada, kad Krievija iebruka Gruzijas ziemeļu daļā un turpina ar dažādām hibrīdkara metodēm "grauzties" aizvien dziļāk Gruzijas neatkarīgajā valstī, un kopš 2014. gada, kad Krievija iebruka Ukrainā, mēs, eiropieši, negribīgi noticēdami notiekošajam, vairāk un vairāk sajūtam draudus no Austrumu kaimiņa. Šo sakarību Zemītis norāda savā grāmatā: "Diemžēl apdraudējums, tai skaitā militārais, joprojām saglabājas no Austrumiem. Turklāt šim apdraudējumam nav tendence samazināties, bet tieši pretēji – pieaugt" (Zemītis, 2023, 439). Šīs nezūdošās un attīstošās tendences un pastāvīgie kriminālie draudi, hibrīdkara elementi, kas tiek dažādiem veidiem atbalstīti no Krievijas (Veinbergs, 2024, 96–99), pieprasa kvalitatīvus DAN profesionāļus visās tautsaimniecības nozarēs un vadības līmeņos – cilvēkkapitālu.

Cilvēkkapitāla raksturojošās vērtības, piemēram, indivīda personības iezīmes, izglītības vai tās apgūšanas spējas, psiholoģiskie un fizioloģiskie priekšnosacījumi, attieksme, motivācija (Začs, 2024) u.c. cilvēkkapitāla faktori, kas virza organizāciju uz noturīgas un ilgtspējīgas konkurētspējas/eksportspējas izaugsmi vai pat *Akmi* (*grieķu val.* – virsotne, augstākais punkts) (Andersone u.c., 2005, 29), paliek arvien izteiksmīgāki XXI gs. sākumā visā pasaulē.

Kā viena no cilvēkkapitāla panākuma atslēgām, kas norādīts Veinberga promocijas darbā, DAN augstākās izglītības programmās būtu iekļaujama padziļināta DAN komercdarbības izaugsmes zināšanu apguves sadaļa (Veinbergs, 2023, 176), kas šīs nozares speciālistiem sniegtu padziļinātu uzņēmējdarbības izpratni un attīstītu spējas, lai gūtu panākumus eksportā un rastu nepārvaramu konkurētspēju DAN un ārpus tās tradicionālajām robežām.

Cilvēkkapitāls iezīmējas kā viens no būtiskākiem zinātnisko pētījumu objektiem, un tas turpina būt aktuāls ikkatra darba devēja areālā.

Portera Dimanta modelī vienā no konkurences dimensijām: Komersanta stratēģija, struktūra un sāncensība (konkurence) – tiek norādīts, ka cilvēkkapitāls ir viena no nozīmīgākajām konkurētspējas sastāvdaļām, kur personāls ar tā kvalitatīviem rādītājiem ir atbildīgs par konkurētspējas jaudas palielināšanu, konkurētspējas veiksmi. Tieši personāla motivācija un tā atsevišķu vai pat pilna 100 % personāla sastāva unikalitāte un ģenialitāte savas nozares profesionālismā ir organizācijas konkurētspējas jaudas pamatnosacījums (Porter, 1998, 166; 178–182). Savukārt akmeoloģijas skola norāda, ka cilvēku vērtība ir meklējama pašu cilvēku pašizaugsmes vajadzībā un šo vērtību mērķtiecīgā un regulārā papildināšanā, pašrealizācijā, pašizpausmē (Višņakova, 1998, 8–13).

Pētījumā, kurā piedalījās DAN eksperti no sešām valstīm: Latvijas, Lietuvas, Somijas, Spānijas, Nīderlandes un Norvēģijas, kas pētīja esošo drošības speciālistu kvalitatīvos rādījumus vairākās dimensijās, tika izvirzīti šādi drošības speciālistu trūkumi vai nepieciešamās kvalitātes:

1. Būtiski (virzienā no augšās uz leju no būtiskāko kvalitāšu trūkuma uz mazāk būtisko):
   1.1. nepietiekamas zināšanas par drošības sistēmu riskiem;
   1.2. ierobežota komunikācija un sadarbība ar kolēģiem/citām nodaļām;
   1.3. motivācijas trūkums;
   1.4. vājas komunikācijas prasmes.
2. Mazāk būtiski:
   2.1. ierobežota elastība organizācijas struktūrā;
   2.2. pārāk šaurs redzes lauks;
   2.3. vāja spēja sadarboties;
   2.4. vājas IT/citu tehnoloģiju prasmes;
   2.5. vāja starpnozaru sadarbība;
   2.6. nepietiekama apmācība un tālākizglītība;
   2.7. izteikti konservatīvs dzīvesveids,

bet kā vismazāk būtisku eksperti norādīja darbinieku vecumu, kam tomēr arī ir nozīme un tiek pievērsta vērība (ERASMUS CO, 2024).

Turklāt šīs grupas pētnieki uzsver, ka būtiski jāuzlabo izpratne par drošības riskiem un jāuzlabo māka rīkoties ar stratēģiskās vadības elementiem (ERASMUS CO, 2024), kas ir mijiedarbībā ar dažādu paaudžu personu komunikācijas prasmēm, to veidiem un IT jomu saistītām prasmēm. Tāds vērtību kopums rastu lielu ieguldījumu nozares attīstībā un izaugsmē.

No tā secināms, ka ir plašs pētījuma spektrs, kas ir jāizpēta un jānoskaidro no zinātniskajā literatūrā pieejamiem datiem un faktiem, kas tiek norādīti augstāk minēto DAN ekspertu vērtējumu ieteikumiem.

Pētījumu metodes

Raksta autori pētījuma gaitā veic teorētiska rakstura pētījumu. Tajā tiek izmantota vēsturiskā un kontentanalīzes metode. Darba autori pēta sekundāros datus gan no saviem iepriekšējiem, gan no citu autoru zinātniskiem darbiem, kas ļauj iegūt pietiekamu datu apjomu, lai gūtu kvalitatīvus datus. Datu apkopošanas un sintēzes rezultātā izteiksmīgākie rādījumi tiek atainoti darba apkopojumā un secinājumos.

Lai iegūtu pētījumam nepieciešamos datus, raksta autori veica datu vākšanu no zinātniskām e-vietnēm un literatūras. Zinātniska rakstura avoti tika meklēti uz šī raksta atslēgas vārdiem, kas ir nozīmīgi un saistoši DAN.

Nozīmīgākie zinātniskie žurnāli, kas tika atlasīti pētījuma datu vākšanai, ir: *International Journal of Management* (IJM), *International Journal of Industrial Ergonomics, Reliability Engineering & System Safety, Acta Psychologica, International Journal of Industrial Ergonomics, Safety Science, Société française de psychologie* u.c. zinātniskie žurnāli, kā arī augstskolu doktorantu promocijas darbi un citi autoru darbi. Pārsvarā zinātniskie darbi tika meklēti pēdējo piecu gadu laika robežās, no 2019. gada līdz šodienai – 2025. gadam, bet, izmantojot vēsturisko metodi, tika gūti dati arī no senākiem

laikiem, piemēram, Ricardo, D. (1888 (2011)). *The Works of David Ricardo*. *With a Notice of the Life and Writings of the Author, by* J.R.

Lai sasniegtu pētījuma mērķi, raksta autori izvēlēto literatūru analizēja tematiski, kas sniedza nepieciešamos datus, lai varētu veikt pētījuma secinājumus un izvirzīt priekšlikumus gan situācijas uzlabošanai, gan tālāko pētījumu veikšanai.

Literatūras izpēte un diskusija

Apsargājamo objektu drošības un apsardzes nozīme tiek īpaši izcelta vairumā zinātnisko rakstu, kur apsardzes personālam jābūt ar augstu uzmanības spēju, labi fiziski un garīgi sagatavotiem, zinošiem un drosmīgiem rīkoties situācijās, kas pat var radīt briesmas pašu apsardzes darbinieku dzīvībai (Conway u.c. 2019; Sun, Webster, 2019).

Darba devēja redzējumā cilvēkkapitālam būtu jāpiemīt šādām kritiski svarīgām personiskām iezīmēm: strādāt ilgas darba stundas, būt radošam un inteliģentam, kā arī aptvert, izprast un respektēt visas kultūras un daudzkultūru mijiedarbības uzņēmējdarbības īpatnības. Porters akcentē, ka būtiska loma ir cilvēkkapitāla domāšanas sistēmai, kolektīvai apziņai, kas vērsta uz izaugsmi. Porters īpaši uzsver, ka organizācijas izaugsme ir rodama spēcīgas lokālās konkurences vidē. Ar šo Porters ir domājis gan pilsētas, gan novada un mazas valsts lokālo vidi, kas līdzīgs Latvijas mērogiem. Turklāt Porters norāda, ka tieši konkurences apstākļi virza organizāciju uz izpratni, lai ar vienotu organizācijas izaugsmei nepieciešamo vērtību un komandas darbu, kā arī ikkatra darbinieka profesionālisma celšanu un iekšējo konkurenci tiek sasniegts organizācijas izvirzītais mērķis (Porter, 1998, 166; 178–182).

Arī Durba uzskata, ka visai organizācijas izaugsmei ir jābalstās uz lielākiem resursu ieguldījumiem cilvēkkapitāla vērtībā, kas spēj transformēt stagnāciju, gūt panākumus, izmantojot modernas informācijas tehnoloģijas, kas atbilst esošā laika standartiem, pietiekama un regulāra personāla apmācība un profesionāla rakstura izglītība (Durba, 2014, 185).

Pētījumā par Latīņamerikas cilvēkkapitāla īpatnībām atklājās, ka ir būtiskas īpašības, prasmes un iemaņas, kas saistītas ar jaunu ideju radīšanu un ieviešanu, piemītošai spējai pārvarēt un patstāvīgi risināt radušos izaicinājumus, kā arī būt spējīgiem pārvarēt tieksmi uz noslēgtību un izvairīties no dabīgā kauna sajūtas izpausmes un lūgt palīdzību pēc citu speciālistu ekspertīzes. Būtiski ir ieklausīties vadības ieteikumos, kā arī prast deleģēt un šo spēju izmantot (Linares, 2023, 137–138; Prokopenko u.c., 2020; Alexandra, 2020; Duan u.c., 2021).

Zināšanu jomas, kas ir nozīmīgas komercdarbības panākumiem, piemēram, uzņēmuma īpašumtiesības, produktu vai pakalpojuma kvalitatīva izstrāde, nevainojama finanšu vadība, orientēšanās savas valsts un eksportējamās valsts tiesību aktos, līgumu un citu juridisku jautājumu risināšanā un to tēmu risināšanā, kas ir saistītas ar uzņēmuma izvēlētā mērķa sasniegšanas fokusu, ir vitālas katram uzņēmējam (Linares, 2023, 141).

Augstāk minētās cilvēkkapitāla vērtības ir izceltas vairākkārtēji, un tās atkārtojas daudzu zinātnisko rakstu tekstos. Tomēr, mainoties ģeopolitikai, desmitgadēs ierasto noteikumu spektram, rodas jauni tehniski risinājumi, kas jāapgūst, mainās riski, kas jāvērtē un jāneitralizē DAN.

Pēc Krievijas iebrukuma Ukrainā pasaule nekavējoties spēja novērtēt bezpilota lidaparātus un to spēju ietekmēt ienaidnieku, gan to neitralizējot, gan drošā attālumā novērot un momentāni risināt draudu neitralizēšanu vai ierobežošanu. Jāpiezīmē, ka vēl vairākus gadus atpakaļ bezpilota

lidaparātu izmantošana bija mazskaitlīga un neapgūta, kaut gan to jau plaši izmantoja militārajā vidē (Veinbergs, Kīsnica, 2021).

Erbozs norāda, ka, lai saglabātu savas konkurences priekšrocības, vairāk komersantu būs spiesti ieviest jauninājumus un pilnveidoties, rast ātru un elastīgu spēju mainīties. Šīs pārmaiņas palīdzēs tiem konkurētspējas attīstībā vai, gluži pretēji, kur sistēma mainās lēnām un tradicionāli negribīgi, ir statiska un stagnējoša ar tendenci piekāpties konkurentiem, zaudēt (Erboz, 2020, 279).

Li ar savu pētnieku grupu atklāja, ka, lai gūtu konkurētspēju, ir nepieciešamas novitātes, to ieviešana darba nodrošinājumā un spēja to apgūt, iemācīties vadīt un rīkoties atbilstoši bezpilota lidaparāta tehniskajam piedāvājumam, to funkcionālajām īpašībām un tehniskajām iespējām (Li u.c., 2025).

Par jaunu līdzekļu izmantošanu darba pienākumu pildīšanas tehniskajā struktūrā var atsaukties uz 19. gs. zinātnieku Rikardo, kas skaidroja ieguvumus no ražošanā izmantotajiem modernajiem tehniskajiem risinājumiem un iesaistītā darbaspēka kvalitatīvajiem rādījumiem, kur zinātnieks norādīja, ka personāla izglītība un ieinteresētība (ko mēs šodien saucam par motivāciju – raksta autoru komentārs) darba rezultātu sasniegšanā samazina gan izmantotos daudzveidīgos resursus, gan būtiski palielina gūtos ražošanas rezultātus (Rikardo, 1888 (2011), 29).

Portugāles pētījumā zinātnieki secina, ka spēcīgs motivējošais faktors ir komercdarbības jauda, rezultāti un sasniegtais apgrozījums, kas izpaužas kā iekšēja rakstura konkurētspējas paaugstinātājs (Faria, Rebelo, Gouveia, 2020, 535).

Veinbergs savā monogrāfijā raksta, ka būtiski nepieciešams veicināt personāla profesionālās izglītības iegūšanu un profesionālās izglītības līmeņa celšanu, bet īpaši attīstīt personāla digitālās prasmes. Papildus tam nekavējoties nosūtīt personālu uz specializētiem kursiem, kas saistīti ar jaunatklāto ADN inovatīvo tehnoloģiju apgūšanu. (Veinbergs, 2024, 271–272).

Sastopam arvien vairāk zinātnieku darbus, kas akcentē un norāda uz izglītības nozīmi organizācijas izaugsmē, piemēram, Stasī *(Stacey)* iedala: sistēmu domāšana; personīgā meistarība; mentālie modeļi; kopīgs redzējums; komandas mācības (Stacey, 2011, 453).

Forands un citi zinātnieki norāda, ka cilvēkresursu kvalitatīvais rādījums izpaužas arī zināšanu pārvaldīšanā, lai zināšanas tiktu nodotas atbilstošajiem cilvēkiem un nepieciešamajā laikā (Forands, 2018, 415; Kesler, Kates, 2011, 44 – 47).

Citu zinātnieku atklājumi atrod, ka esošās zināšanas nepieciešams nepārtraukti pilnveidot un papildināt ar pieredzē gūto rezultātu sintēzi (Belbins, 2009, 99–104; Gergens, Goulmens, Heifecs, 2009, 109; Veinbergs, 2018; Dibskaja u.c., 2009, 60–62).

Augstāk minēto autoru darbi nepārprotami norāda uz zināšanu nozīmi organizācijas attīstībā, kas pastāvīgi jāpilnveido, sintezējot tās ar iegūto praktisko pieredzi un jaunākajiem atklājumiem. Raksta autori akcentē Portera izteikto, ka darba pienākumus jāveic tādam personālam, kam ir augsta kvalifikācija tieši noteiktās nozares profesionālajā izglītībā (Porter, 1998:166; 172–174).

Drošības un apsardzes profesijas īpatnība ir tajā, ka tā ir saistīta ar daudz dažādām profesijām vai disciplīnām. Apsardzes darbiniekiem ir nozīmīga loma dažādu jomu organizāciju apsardzē. Bieži ir tā, ka organizācijas izmanto apsardzes darbiniekus funkcijām, kam viņi nav paredzēti un tam nav atbilstoši apmācīti (Hanft-Robert u.c., 2024). DAN iesaistītā personāla zināšanu loks un tādējādi profesija ir daudzdisciplināra, kas cilvēkkapitāla kvalitātes noteikšanai pieprasa zināšanas jomās, kas šķietami nav tieši saistītas ar apsardzi. Tās ir pilna spektra tautsaimniecībā zināmās profesijas un nozares, piemēram,

būvniecība, grāmatvedība, juridiskās disciplīnas, tehniskā un IT nozares, psiholoģija, retorika un aktiermāksla, izcilas komunikācijas prasmes, laba veselība un tuvcīņas elementu pārzināšana, autovadītāju prasmes u.c. vērtības, un, pats galvenais, spēt šīm visām pozīcijām novērtēt riskus, atrast draudus un tos neitralizēt vai, ja nav iespējams neitralizēt, draudus ierobežot.

Kā jau šī raksta autori norāda, tad būtiskas ir dažādas zināšanas un prasmes, kur viena no būtiskākām ir izcilas komunikācijas prasmes. Ar šo jāpievērš uzmanība, ka situācijas un komunikācijas jeb attiecību zināšanas tiek radītas un veicinātas diskusiju procesā kopīgās mācībās ar kolēģiem un citiem drošības tīkla dalībniekiem (Størkersen u.c., 2024).

Tam klāt nozīmīga loma ir personāla ieinteresētībai un komandas sajūtai. Tas veido organizācijas visaptverošu sistēmisku domāšanu, organizācijas mentālu modeli ar vienotu redzējumu un mērķi, kur ikkatrs nodarbinātais ar savu unikālo jeb īpašo personīgo meistarību koncentrē kolektīvo kopumu uz mērķa sasniegšanu, uz organizācijas izaugsmi.

Zināšanu un prasmju nozīmīgajai lomai un organizācijas izaugsmei ir būtiska ietekme, bet ne mazāka loma ir personāla psiholoģiskās un fizioloģiskās veselības kvalitātei, kas psihoemocionālo traumu gadījumā reducējas hroniskās slimībās (Boudoukha u.c., 2016; Przygodzki-Lionet, Noël, 2004; Magaletta u.c., 2008), kas var izraisīt personāla trūkumu un organizācijas stagnāciju vai pat izaugsmes lejupslīdi.

Drošības nozares daudzdimensionalitāte vērtējama arī tajā, ka nozare spēj strādāt pie tādiem tehniskiem risinājumiem, kas iepriekš ir bijuši nenovērtēti, bet novitātes nepieciešamība virza radošus un mērķtiecīgus drošības nozares speciālistus uz atklājumiem, piemēram, modernus un precīzas strūklas ugunsmetējus, lai atvairītu uzbrucējus apsargājamam objektam (Marroni u.c., 2024). Līdzīgi drošības nozare vairāk un izveicīgāk spēj pielietot biometrisko tehnoloģiju priekšrocības. Lai gan pastāv dažādi viedokļi par to pielietošanu videonovērošanas vidē, tomēr biometriskās tehnoloģijas varētu būt ļoti efektīvs instruments, kas vienkāršotu drošības personāla darbu, uzlabotu drošības līmeni un paātrinātu personu atpazīšanu uz kontrolpunktiem (Abomhara u.c., 2021; Veinbergs, Kīsnica, 2021).

Profesionālajā vidē ienākot IT lietām, drošības nozares spējas tiek celtas arī IT jomā. Drošības speciālistiem ir jābūt mūsdienīgi sagatavotiem un pašiem jāspēj konstatēt dažāda veida kiberuzbrukumus vai fiziskas iejaukšanās no uzbrucēja puses, piemēram, autopārvadātāja pakalpojuma organizācijas darbinieka iejaukšanos elektroniskās uzskaites sistēmā, lai mainītu datus transporta vadītājam izdevīgajā virzienā (Akabane u.c., 2019).

Drošības nozares būtiska daļa tiek atvēlēta IT, tajā skaitā arī kiberdrošības, mašīnmācīšanās un mākslīgā intelekta izmantošanas virzienam. Digitālās infrastruktūras drošības uzlabošanā nozīmīga loma tiek atvēlēta mašīnmācīšanās un mākslīgā intelekta izmantošanai, pārbaudot tīkla anomāliju noteikšanu, kas veicina digitālās vides sistēmisku drošību un aizsardzību (Liu u.c., 2024; Catillo u.c., 2023; Coppolino u.c., 2022).

Protams, šie daudzdimensionālie darbības ritmi un pastāvīgais saspringums situācijas monitorēšanā no nozarē nodarbinātajiem pieprasa lielu psiholoģisko slodzi. Drošības un apsardzes nozarē nodarbināto stresa un pēctraumatisku notikumu ietekmējoši faktori būtiski ietekmē šīs nozares cilvēkresursu psiholoģisko un, laikam ritot, arī fizioloģisko, un garīgo veselību.

Kā nozīmīgu var izcelt personības iezīmes, kas ir vispāratzītas sociālās funkcionēšanas iezīmes. Mūsdienu personības modeļi izšķir personības iezīmes un personības pašizpratnes līmeni, kas

norāda uz personības adekvātumu attiecīgi pret apkārtējo vidi, tostarp pārdomāt savus garīgos stāvokļus un es-koncepcijas saskaņotības pakāpi (Roccas u.c., 2002).

Zinātnieku grupa, kas pētīja personu psiholoģiskos traucējumus grupās ar dažādu dzīves gaitu un pieredzi, kā arī ar psiholoģisko veselību jeb novirzi no vispārpieņemtās veselības skalas vidējiem rādījumiem, nonāca pie secinājuma, ka ilgstoša stresa iedarbība rod disociatīvās personības iezīmes, kas ir centrālās nervu sistēmas funkcionēšanas traucējumi. Šāda veida psiholoģiskās slimības ir ilgstoši ārstējamas un tās atstāj ietekmi uz personas uzvedību, acu kustību, kas ir saistīts ar redzes novērošanas spējām (Alfieri u.c., 2025).

Cilvēks kā neatņemama organizācijas dzīvotspējas sastāvdaļa kļūst par ievainojamu, kam par iemeslu ir pašaizsardzības reflekss, kas tiek ietekmēts ar iespējamo situācijas bīstamību, kas veidojas no kriminogēnās, pašnāvnieku, tehnogēnas un cita rakstura ietekmes.

Tiešie cilvēka veselības un dzīvības apdraudējumi rosina nozarē nodarbinātajam personālam paaugstinātu stresa līmeni, kas var pārtapt un dažkārt arī reducējas hroniskās un neārstējamās slimībās (Boudoukha u.c., 2016; Magaletta u.c., 2008). Turklāt personāls pēc psihoemocionālām traumām var zaudēt tā ierasto vai viņa būvēto pasauli, var mainīties tā uztvere par patieso kārtību un viņā rosināt bezjēdzības uzskatus un apātisku attieksmi pret notiekošo (Przygodzki-Lionet, Noël, 2004), kas drošības nozarē nav pieļaujams.

Šī problēma raisa satraukumu darba devēju vidē, un rodas jautājumi par šo situāciju izraisīto traumatisma mazināšanu.

Franču kolēģi, pētot cietuma apsardzi trīs līmeņu drošības nodrošināšanai: iekšējā apsardze, perifērijas jeb maģistrālā apsardze un cietuma kontroles dienests, secināja, ka šīm grupām par jēdzienu "bīstamība" būtiskākā daļa uz atbildētājiem jautājumiem, piemēram, par bīstamu indivīdu, ir viendabīgs viedoklis, bet izteikti neviendabīgs tas atklājas attiecībā uz vērtējumu par bīstamu situāciju (Przygodzki-Lionet, Noël, 2004). Tas atklājās darba drošības aspektā, kad tika salīdzināti gūtie rezultāti starp grupām, kas strādā tiešā kontaktā ar ieslodzītajiem (iekšējā apsardze un kontroles dienests) un tiem, kas atrodas teritorijas apsardzes posteņos, kas netiekas tiešā kontaktā ar ieslodzītajiem, kur dati norādīja uz paaugstinātu stresa stāvokli, esot ar ieslodzītajiem tiešā kontaktā.

Šis fakts liecina par darba pienākumu pildīšanas gaitā paaugstinātas psiholoģiskās slodzes ietekmes atšķirībām no konkrētas darba vietas konkrētiem kairinātājiem.

Raksta autori pievērsa uzmanību šādam faktam, ka vīrieši, kas tiek nodarbināti drošības jomā, un tiem ir izsniegts ierocis, kā personas jūtas pārliecinātāki un drosmīgāk var pildīt pienākums (Lombard, Tubiana, 2020). Turklāt jaunieši drošības riskus uztver mazāk nekā gados vecāki cilvēki (Pisa u.c., 2025). Tas pamatojas ar vecāku cilvēku pieredzi, ka šīs kategorijas darbinieki spēj vairāk novērtēt dzīves jēdzību.

Tomēr saistībā ar starppersonības iezīmēm, vērīgumu, prioritāšu noteikšanu cilvēki ar lielāku pieredzi, vecāka gadagājuma ir mazāk uzmanīgi, kas drošības nozarē var būt drauds (Muley, Wang, Aghazadeh, 2024).

Pētījuma rezultāti

Pētījumā izvirzītais mērķis: rast to vērtību un personu iezīmju teorētisku kopu, kas ir būtiskākās vai vēlami nepieciešamākās apsardzes un drošības nozarē, ir sasniegts tikai daļēji, jo zinātniskajā vidē nav pietiekamu faktu par DAN cilvēkresursiem.

Pēdējos gadu desmitus vairāk un vairāk tiek novērtēts DAN profesionālais sniegums. Klienti vērtē apsardzes komersantu uzticamību un noturību, un valsts aģentūras arvien vairāk iepērk drošības nozares speciālistu pakalpojumus, kam par pamatu ir cilvēkkapitāls.

Raksta gaitā ir pārliecinoši rasti pierādījumi tādiem DAN speciālistu nozīmīgākajiem kvalitātes elementiem, kas tiek norādīti par būtiski nepieciešamiem drošības ekspertu atzinumā (ERASMUS CO, 2024), kā arī citas ieteicamās vērtības:

- komunikācija un sadarbība ar kolēģiem, komunikācijas prasmes;
- motivācija;
- nepieciešamība pēc drošības speciālistu izpratnes, zināšanām, lai darbotos multifunkcionālas vides apstākļos (IT vide/kiberdrošība, drošības tehniskie risinājumi, personu īpatnības/ psiholoģija, stresa noturība utt.) un novērtētu to riskus, spētu tos ierobežot vai novērst;
- spēja un izpratne par sadarbību starp ieinteresētajām un saistošajām nozarēm;
- drosme;
- pastāvīga pašizglītība, tieksme pēc pašrealizācijas, pašizaugsmes vajadzības apmierināšana, personības realizēšana;
- mākslīgā intelekta izmantošanas variācijas dažādos nozares virzienos.

Iztirzājot dažas pozīcijas, ir jāakcentē, ka DAN komunikācijas jeb attiecību zināšanām būtu jārodas un tās tiktu veicinātas diskusiju procesā kopīgās organizācijas mācībās ar kolēģiem un dažkārt ar citiem DAN dalībniekiem. DAN sistēmas domāšana un sistēmiska domāšanas veicināšana, kur indivīda personīgā meistarība, psiholoģiskā un fizioloģiskā veselības kvalitāte, organizācijas komandas vērtības un komandas mācības rod personāla ieinteresētību, pārliecinātību un drosmi sasniegt izvirzītos mērķus. Tādējādi tiktu panākta gan vienota sadarbība valsts iekšējās konkurences tīkla izpratnē, gan cilvēkkapitāla spēju transformācijai, kur gūt DAN panākumus.

Kopsavilkums

Drošības un apsardzes nozares nepieciešamība un tās drošības ieguldījums iedzīvotāju un organizāciju drošībā paralēli vai līdztekus valsts drošības sistēmai vairs nepieprasa jelkādu argumentāciju (RSU, 2023), tas ir pamatots darba ievaddaļā.

Pētījuma gaitā ir gūti pierādījumi tam, ka apsardzes un drošības nozares cilvēkkapitāla kvalitatīvie rādītāji tiek pieprasīti ar daudz dažādām augsta līmeņa zināšanu, iemaņu un prasmju šķautnēm.

Drošības un apsardzes nozares ekspertu ieteikumi ir daļēji apstiprināti, bet tas nenozīmē to, ka šie ieteikumi nav jāņem vērā. Šāds darba autoru viedoklis var rasties no tā, ka šī raksta pētījumam nav pieticis pieejamo faktu, datu, kas gūti no zinātniskās vides rakstiem un literatūras.

Raksta gaitā pārliecinoši rasti pierādījumi šādiem drošības un apsardzes nozares speciālistu nozīmīgākajiem un nepieciešamajiem kvalitātes elementiem: komunikācijas prasmes; spēja komunicēt un sadarboties ar kolēģiem; nepieciešamība pēc drošības speciālistu izpratnes, zināšanām, lai darbotos multifunkcionālas vides apstākļos (IT vide/kiberdrošība, drošības tehniskie risinājumi, personu īpatnības/psiholoģija, stresa noturība utt.) un novērtētu to riskus, spētu tos ierobežot vai novērst; spējas un izpratnes par sadarbību starp ieinteresētajām un saistošajām nozarēm.

Pētījums pierāda, ka būtiskas konkurences vidē konkurētspējas saglabāšanai un tās priekšrocību izaugsmei ir nepieciešams regulārs ieguldījums cilvēkresursos, to attīstībā, izglītības veicināšanā,

darba procesu pilnveidē un jauninājumu ieviešanā, kā arī jābūt vērīgiem, elastīgiem un jāpiemīt momentānai spējai mainīties.

Darba autori pievērš uzmanību tam, ka zinātniskās literatūras vidē nav pietiekamā kvantitātē pieejamu datu, lai šos datus uzskatītu par ticamiem atbilstoši zinātnisko pētījumu prasībām par minimālā lieluma populācijas lielumu nepārtrauktiem un kategoriskiem datiem (Bartlett u.c., 2001). Turklāt netika gūti dati, lai pierādītu drošības un apsardzes nozares ierobežotu elastību organizācijas struktūrā, kā arī par nepietiekamu apmācību un tālākizglītību, un par nozarē strādājošo izteikti konservatīvu dzīvesveidu.

Šiem jautājumiem, kam nav nekādu atbilžu, par pamatu ir nepietiekams zinātnisko pētījumus skaits, kas tiek veltīts šīs nozares sarežģītās vides izpētei.

Ieteikums turpmākiem pētījumiem

Pētot zinātniskās datu bāzes un zinātniskos darbus, šī raksta autori nonāca pie secinājuma, ka nepietiekami un kritiski maz informācijas ir satopams zinātniskos darbos par drošības un apsardzes nozares personālu – cilvēkresursiem, to psiholoģiskiem aspektiem, apsardzes komersantu stratēģiju utt. Trūkst datu par to zināšanām, prasmēm un citiem faktoriem, kas sniegtu plašāku un padziļinātu informāciju par šo nozari.

Turpināt veikt zinātniskus pētījumus drošības un apsardzes nozares izzināšanai, kas tiktu veltīti gan cilvēkresursu vispusīgai (personāla fizioloģiskie, psiholoģiskie, motivējošie un to mācīties spējas, u.c. dati) un padziļinātai pētniecībai, gan citām šīs nozares šķautnēm.

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THE ROLE OF PARENTAL INVOLVEMENT IN THE MANAGEMENT OF SECONDARY SCHOOL STUDENTS' AUTONOMOUS ENGLISH LEARNING

Yulan Xing
Daugavpils University, Latvia
yulan.xing@outlook.com

Abstract

This article investigates the profound influence of technology - enhanced autonomous learning environments on secondary school students' English proficiency and motivation. By comparing traditional and technology - infused learning approaches, it reveals the advantages and challenges, providing insights for educational practitioners and researchers.

Keywords: Technology-enhanced learning, Secondary school English, Autonomous learning, English proficiency, Learning motivation

Introduction

In the contemporary educational milieu, the amalgamation of technology into language learning has emerged as a pivotal area of research. The proliferation of digital tools and online platforms has given rise to technology - enhanced autonomous learning environments, which are redefining how secondary school students acquire English. This study endeavors to comprehensively dissect the multi-faceted impact of such environments on students' language skills and motivational aspects.

Research Background

The Traditional English Learning Landscape

Historically, secondary school English education has been dominated by teacher - centered pedagogies. Classroom time has been a scarce resource, and uniform teaching strategies have often failed to accommodate the heterogeneous learning needs of students. For example, students with slower learning rhythms or distinct learning preferences might have found it arduous to keep pace or be appropriately challenged.

The Ascendance of Technology - Enhanced Learning

The advent of technology, manifested in the form of online learning platforms, educational apps, and AI - powered language learning utilities, has unfurled novel learning vistas. These technological marvels empower students to dictate their learning tempo, tap into a cornucopia of learning resources, and partake in interactive learning episodes beyond the classroom confines. Renowned apps like Duolingo and Rosetta Stone offer engaging gamified learning experiences, while platforms such as Coursera and edX furnish access to world - class English courses.

Research Methodology

Research Design

A mixed – methods research paradigm was adopted to holistically gauge the impact. This entailed the concurrent utilization of quantitative and qualitative investigative techniques.

Participants

The research cohort comprised secondary school students from diverse schools . A total of 200 students were meticulously selected and apportioned into an experimental group, exposed to the technology - enhanced autonomous learning environment, and a control group adhering to the traditional learning modus operandi.

Data Collection

Quantitative Data

Standardized English proficiency tests were administered pre- and post-experiment to quantitatively assess students' listening, speaking, reading, and writing capabilities. Additionally, surveys were deployed to capture data on students' frequency of utilization of technology - based learning tools and their self - reported motivational levels.

Qualitative Data

In – depth interviews were conducted with students, teachers, and parents to glean nuanced understandings of their experiences, tribulations, and perspectives regarding the technology - enhanced learning milieu. Classroom observations were also carried out to document students' learning behaviors in real - time.

Research Findings

Impact on English Proficiency

Improvement in Language Skills

The experimental group demonstrated conspicuous enhancements in all four language domains compared to the control group. In the reading comprehension segment of the post - test, for instance, the average score of the experimental group soared by 13 points, dwarfing the meager 5 - point increment of the control group.

Differential Gains

Notably, students with initially lower English proficiency levels within the experimental group exhibited more pronounced growth. This attests to the efficacy of the personalized learning pathways furnished by the technology - enhanced environment in catering to the needs of struggling learners.

Impact on Motivation

Increased Intrinsic Motivation

The deployment of technology - based learning tools, such as interactive videos and gamified language exercises, catalyzed a significant upsurge in students' intrinsic motivation. Students conveyed greater enjoyment in the learning process and evinced a heightened eagerness to engage

in extracurricular English learning. Many in the experimental group reported allocating an additional 1.5 hours per week to English studies via these tools.

Enhanced Self - Efficacy

The autonomous nature of the learning environment enabled students to formulate and accomplish their personal learning goals, consequently bolstering their self - efficacy. They grew more confident in their capacity to learn English independently, a mindset that translated into superior learning outcomes.

Challenges and Solutions

Challenges

Digital Divide

A segment of students encountered impediments in accessing requisite technology due to financial hardships or inadequate home internet connectivity.

Technical Issues

Glitches in software, compatibility conundrums, and sluggish loading times on learning platforms intermittently disrupted the learning continuum.

Lack of Guidance

In the absence of adept teacher guidance, some students floundered in optimizing the use of technology - enhanced learning resources and inculcating effective self - regulation skills.

Solutions

Equity Initiatives

Schools ought to institute loaner device programs and guarantee access to free or low - cost internet for underprivileged students.

Technical Support

Regular upkeep and updates of learning platforms, coupled with the establishment of technical support hotlines for students and teachers, can expedite the resolution of technical glitches.

Teacher Training

Teachers should undergo comprehensive training to proficiently guide students in leveraging technology - enhanced learning tools and to foster self - regulation skills within the autonomous learning framework.

Conclusion

Technology – enhanced autonomous learning environments undeniably hold the potential to revolutionize secondary school students' English learning, conferring significant benefits in terms of proficiency and motivation. However, surmounting the attendant challenges is imperative to ensure equitable and efficacious learning for all. Future research should pivot towards further finessing the design and implementation of these environments and exploring avant - garde ways to meld technology with language pedagogy.

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MĀKSLĪGĀ INTELEKTA PIELIETOŠANA, VADOT KRĪZI UZŅĒMUMĀ

APPLICATION OF ARTIFICIAL INTELLIGENCE IN CRISIS MANAGEMENT IN A COMPANY

Uģis Začs
Biznesa augstskola *Turība*, Latvija
ugis.zacs@gmail.com

Vilnis Veinbergs
Biznesa augstskola *Turība*, Latvija
vilnis.veinbergs@turiba.lv

Ivita Kīsnica
Biznesa augstskola *Turība*, Latvija

Anotācija

Darba autori pētījumā skaidroja, kā mūsdienu tehnoloģijas un tieši mākslīgais intelekts (MI) var tikt izmantots kā palīginstruments, lai krīzes situācijās vadītu organizācijas darbību. Pētījumā darba autori veica teorētisku pētījuma gaitu, izmantojot vēsturisko, salīdzinošo un kontentanalīzes metodi, sekundāro statistikas datu analīzi un gadījumu izpēti. Pētījuma izvirzītais mērķis ir rast teorētisku apstiprinājumu, ka MI var būt palīgs un efektīvs instruments organizāciju vadībai, pārvarot iestājušos krīzi organizācijā. Pētījumā analizēti zinātniski raksti, publikācijas valsts un Eiropas oficiālajos interneta portālos, pētījumi un ekspertu viedokļi no pieejamiem avotiem par MI pielietošanas iespējamību un iespēju šīs prakses pielietot organizāciju vadīšanā caur krīzes situācijām. Papildus veikta EIROSTAT statistikas datu sekundārā analīze par MI pielietojumu Eiropas Savienībā atsevišķi pa uzņēmumu klasēm un pielietojuma funkcijām. Gūtās atziņas liecina, ka MI mūsdienās tiek plaši pielietots, tā pielietojums pieaug. MI izmantošana var būt noderīgs instruments, lai palīdzētu uzņēmumam/ organizācijai pārvarēt krīzes situāciju. Lai to veiksmīgāk izdarītu, svarīgi ir skaidri definēt, kāds tieši MI atbalsts ir nepieciešams.

Atslēgas vārdi: mākslīgais intelekts, krīze, organizācija, krīzes vadība

Abstract

The authors of the study explained how modern technologies and specifically Artificial Intelligence (AI) can be used as an auxiliary tool to manage the activities of an organization in crisis situations. In the study, the authors of the study conduct a theoretical research course using the historical, comparative, and content analysis method, secondary statistical data analysis and case studies. The goal of the study is to find theoretical confirmation that AI can be an auxiliary and effective tool for organizational management in overcoming the crisis that has occurred in the organization. The study analyzed scientific articles, publications on national and European official internet portals, studies

and expert opinions from available sources on the feasibility of using AI and the possibility of applying this practice to managing organizations through crisis situations. In addition, a secondary analysis of EIROSTAT statistical data on the use of AI in the European Union was carried out separately by company classes and application functions. The findings show that AI is widely used today, its use is growing. The use of AI can be a useful tool to help a company/organization overcome a crisis situation, in order to do this more successfully, it is important to clearly define what kind of AI support is needed.

Keywords: Artificial intelligence, crisis, organization, crisis management

Ievads

Vēl aizvien par mākslīgo intelektu un tā sniegtajām iespējām tiek runāts ļoti plaši visos līmeņos un teju visās nozarēs. MI ienākšana mūsu ikdienā ir veicinājusi būtiskas izmaiņas praktiski visās nozarēs – sākot no veselības aprūpes, mārketinga līdz pat drošībai un izklaidei. MI risinājumi un rīki ir radīti ar mērķi, lai tie būtiski padarītu vieglāku mūsu ikdienu, palīdzētu efektivizēt resursus un laiku, kā arī veicinātu produktivitāti gan mācību procesā, gan darba ikdienā. Vēl viena būtiska lieta ir MI izmantošana, lai samazinātu cilvēciskas kļūdas darba procesā. Nepastāv viena universāla mākslīgā intelekta definīcija, bet gan daudzas definīcijas, kas cenšas skaidrot mākslīgā intelekta jēdzienu, papildu tam MI attīstās līdz ar tehnoloģiju progresu. (Barkāne, 2023) Autori uzskata, ka gan tehnoloģiju attīstība, gan progress ļaus pētīt MI pielietošanu profesionālajā vidē arī turpmāk.

Terminu "mākslīgais intelekts" (MI) 1956. gadā ieviesis Džons Makārtijs (*John McCarthy*). (Nacionālā enciklopēdija, 2024) Viena no pazīstamākajām, kā arī plašākajām MI definīcijām to skaidro kā centienus automatizēt intelektuālos uzdevumus, ko parasti veic cilvēki. MI sistēmas darbojas ar zināmu autonomiju, lai sasniegtu iepriekš noteiktu mērķi, un šīs darbības parasti ir uzdevumi, kuriem citādi būtu nepieciešama cilvēka intelektuālo spēju izmantošana. (Fjeld, 2020) Termins "mākslīgais intelekts" ietver nepārprotamu atsauci uz intelekta jēdzienu. Tomēr šī definīcija nav saistīta ar cilvēka intelekta aizstāšanu, bet gan ar rezultātu, ko sasniedz sistēma. Šo pieeju vislabāk izskaidro slavenais Tjūringa tests, ko Alans Tjūrings (*Alan Turing*) izvirzīja 1950. gadā. Tas apgalvo, ka mašīnu var uzskatīt par "inteliģentu", ja cilvēks, kas ar to mijiedarbojas, nevar pateikt, vai darītājs ir persona vai dators. (Turing, 1950) Latvijas nacionālā enciklopēdija šo MI skaidro kā – **Mākslīgais intelekts ir datorzinātnes apakšnozare, kas nodarbojas ar intelektuālas uzvedības automatizāciju**. MI definē arī kā **pētījumus, kā likt datoriem darīt lietas, ko pašlaik cilvēki dara labāk, vai kā skaitļošanas procesu pētījumus, kas ļauj uztvert, spriest un darboties**. Pastāv uzskats, ka MI ir problēmu formālu īpašību un to risināšanas metožu pētījumi un tā datorzinātnes daļa, kas pēta simboliskus, nealgoritmiskus spriešanas procesus un simbolisku zināšanu atspoguļošanu, lai to izmantotu datorsistēmas intelekta nodrošināšanai. (Nacionālā enciklopēdija, 2024) Caurskatot vairākus pieejamos avotus, autoriem konkrēta, vienota definīcija neizkristalizējās, līdz ar ko autori pieturēsies pie Eiropas Savienības pieņemtajiem terminiem un definīcijām.

Eiropas Komisija mākslīgo intelektu ir ieteikusi uzskatīt par sistēmu, kas spēj demonstrēt inteliģentu rīcību, analizējot apkārtējo vidi, un ar zināmu autonomiju veikt darbības, lai sasniegtu konkrētus mērķus. (Eiropas komisija, 2018) MI ir sistēmas spēja pareizi interpretēt ārējos datus un modelēt cilvēkiem līdzīgas uzvedības, piemēram, saprātīgu izturēšanos, mācīšanās spējas, plānošanu un radošumu. MI ļauj tehniskajām sistēmām analizēt apkārtējos apstākļus, strādāt ar uztverto un risināt problēmas, lai – zināmā mērā neatkarīgi – sasniegtu noteiktus mērķus. (Eiropas

komisija, 2018) Praktiski tas notiek tā, ka dators saņem datus (jau sagatavotus vai apkopotus), ar savu elementu starpniecību, piemēram, kameru, skeneri u.c. tos apstrādā un veic darbības. MI sistēmas ir spējīgas izrādīt intelektuālu rīcību, analizējot iepriekšējo darbību ietekmi un strādājot autonomi. "Šī Eiropas Komisijas definīcija ir izmantota Eiropas Parlamenta priekšlikumā Regulai par mākslīgā intelekta, robotikas un saistīto tehnoloģiju izstrādes, ieviešanas un izmantošanas ētikas principiem, kurā mākslīgais intelekts ir definēts kā sistēma, kura darbojas, pamatojoties uz programmatūru, vai ir iestrādāta tehnikas ierīcēs, un kuras rīcība liecina par intelektu, vācot, apstrādājot, analizējot un interpretējot datus par tā apkārtējo vidi un ar zināmu autonomijas pakāpi veicot darbības, ar kurām tā sasniedz konkrētus mērķus" (Barkāne, 2023). Tā būtība ir tāda, ka tiek vākti liela apjoma dati ar visdažādāko informāciju, kas ietver gan iepriekšējās pieredzes, t.i., konkrētus notikušus atgadījumus, gan arī teorētiskas zināšanas un vēsturiskus faktus, un, saliekot to visu kopā, tiek sniegtas atbildes uz konkrēti uzdotiem jautājumiem, kā arī sasniegts konkrēts rezultāts, kā piemēram, orģinālākās Ziemassvētku kartiņas izveidošana.

Šim nu jau pēdējos gados tik populārajam un inovatīvajam cilvēka asistentam – mākslīgajam intelektam – ir ne tikai teorētiska nozīme, bet arī var būt praktisks pielietojums ikdienas darbos, tāpēc darba autori izvēlējās pētīt, vai un cik lielā mērā MI var integrēt krīzes vadības vajadzībām organizācijā. Autori kā **darba mērķi** izvirzīja – rast teorētisku apstiprinājumu tam, ka MI var būt palīgs un efektīvs instruments organizāciju vadībai, pārvarot iestājušos krīzi organizācijā. Darba autori, pētot teoriju par tēmu – krīzes vadība, jau iepriekš ir secinājuši, ka gan zinātniskajā vidē, gan mācību materiālos ir dažādi autori, kas ir pētījuši gan krīžu vadību, gan risku vadību, kuras, nepareizi vadītas, var novest organizāciju līdz krīzei, sniedz dažādas definīcijas gan krīzes, gan krīzes menedžmenta, kā arī risku un risku menedžmenta definīcijai. (Začs, 2024) Autoriem visatbilstošākā definīcija, kas sasaistās ar MI praktisku pielietojumu, šķiet definīcija, ka – KRĪZE – ir pagrieziena punkts uz labu vai sliktu! (Fink S., 2000), kas norāda, ka krīze ne vienmēr ir slikta, ka krīzi var izmantot arī organizācijas vai procesa restartēšanai un jaunu iespēju un attīstības fāzes iegūšanai. (Začs, 2024) Šī darba ietvaros autori terminus, kas saistīti ar krīzes vadību, izmanto no starptautisko ISO standartu pieņemtajiem apzīmējumiem.

Apskatot organizācijas pēc pieņemtajiem lielumiem (lielas organizācijas, vidējas organizācijas un mazas organizācijas), autori no savas pieredzes pieņem, ka lielākoties mazajām un vidējām organizācijām nav atsevišķu cilvēku vai departamentu, kas būtu nozīmēti tiešam darbam ar riskiem un krīzēm, līdz ar to šos pienākumus lielākoties veic organizāciju vadītāji. Krīzes rada organizācijām sarežģītus izaicinājumus un, iespējams, iespējas, kurām var būt dziļas un tālejošas sekas. Organizācijas krīžu vadības spējas un spēja pārvaldīt mainīgo vidi ir galvenie faktori, lai noteiktu, vai situācija vai incidents var radīt nopietnus vai eksistenciālus draudus organizācijai un tās darbībai. Krīze, kas ietekmē organizāciju, var būt daļa no plašākas krīzes. Lai nodrošinātu krīzes vadības spējas vēlamo rezultātu, organizācijai jānodrošina:

- apņēmīga vadība;
- tehniskais nodrošinājums (piemēram, finansējums, sakari, attiecības un saiknes, aprīkojums, iekārtas, informācijas pārvaldība, principi, procesi un procedūras);
- atbalstoša iekšējā kultūra (piemēram, vērtības, ētika, uzvedības kodekss);
- kompetents, zinošs un apmācīts personāls (piemēram, zināšanas, prasmes un attieksme, elastīga domāšana). (Začs, 2024)

Organizācijas krīzes pārvarēšanas spējas ietekmēs tās attiecības ar citām savstarpēji atkarīgām jomām, piemēram, riska pārvaldību, darbības nepārtrauktību, informācijas drošību, fizisko drošību, civilo aizsardzību, reaģēšanu uz incidentiem un ārkārtas situāciju pārvaldību. Organizācijai

jāpieņem strukturēta pieeja krīžu vadībai, piemērojot principu kopumu, uz kuru pamata var izstrādāt krīzes vadības sistēmu. Šie savstarpēji saistītie principi, ietvars un piemērojamie procesa elementi atbalsta krīzes vadības spēju mērķtiecīgu, konsekventu un stingru lēmumu pieņemšanu un ieviešanu. (ISO 22361:2022(en), 2024) Ne visām organizācijām ir iespēja ieviest šādas sistēmas un darboties šo sistēmu ietvarā, it sevišķi, autoruprāt, tas ir apgrūtinoši mazajām un vidējām organizācijām. Tas ir saistīts ar to lielumu, esošajiem resursiem un darbinieku noslogojumu un kapacitāti. Neskatoties uz to, krīzes skar arī šīs organizācijas. Organizāciju spējas pārdzīvot krīzi lielākoties ir atkarības no vadības pieredzes, zināšanām, intuīcijas un pieņemtajiem lēmumiem. Autori saredz, ka tieši MI varētu būt kā papildu rīks, kas palīdzētu krīzes situācijās pieņemt pareizākus lēmumus un veikt pareizākas darbības, tāds kā privātais konsultants krīzes situācijās.

Pētījumu metodes

Šī pētījuma mērķis ir – rast teorētisku apstiprinājumu, ka MI var būt palīgs un efektīvs instruments organizāciju vadībai pārvarēt iestājušos krīzi organizācijā. Lai sasniegtu šo mērķi, tika izmantotas vairākas pētniecības metodes, kas nodrošina plašu un daudzpusīgu skatījumu gan uz mākslīgā intelekta spējām, gan uz šo spēju integrēšanu organizācijā, lai veiksmīgi novadītu krīzi. Lai iegūtu daudzpusīgus un uzticamus datus, pētījumā tika izmantoti šādi instrumenti:

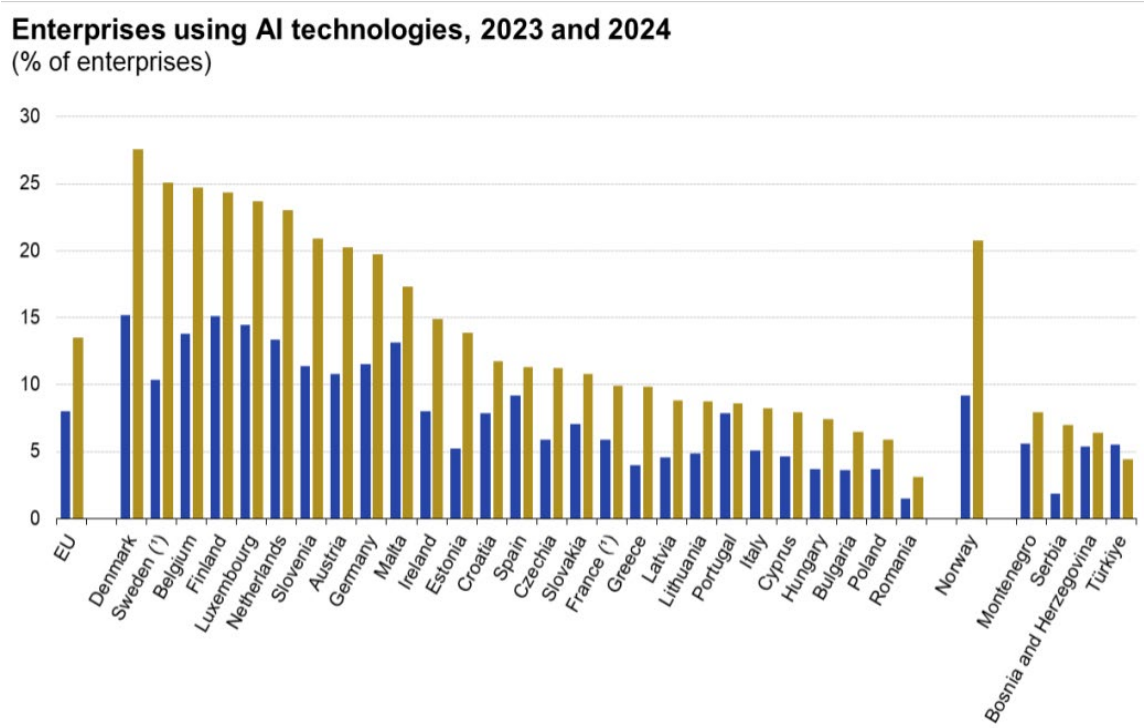
- literatūras analīze – veikts zinātnisko publikāciju, starptautisko ziņojumu un politikas dokumentu apskats, ar pētāmo tēmu saistīto organizāciju publiski pausto informāciju, lai noteiktu galvenās tendences mākslīgā intelekta sakarā un spēju to pielāgot organizāciju vadīšanai krīzes situācijās. Zinātniska rakstura avoti tika meklēti uz šī raksta atslēgas vārdiem, kas ir nozīmīgi un saistoši MI un krīzes vadībai;
- tiek izmantota vēsturiskā un kontentanalīzes metode;
- sekundāro statistisko datu analīze – tika ņemti par pamatu EUROSTAT dati par "Use of artificial intelligence in enterprises" jeb Mākslīgā intelekta izmantošana uzņēmējdarbībā, ko EUROSTAT ir publicējis 2025. gada janvārī;
- gadījumu analīze (*case study*) – analizēti konkrēti instrumenti un iespējas, kā pielietot MI konkrētas krīzes situācijās un kā vispār mūsdienās tiek pielietots MI.

Lai sasniegtu pētījuma mērķi, raksta autori izvēlēto literatūru analizēja tematiski, kas sniedza nepieciešamos datus, lai varētu veikt pētījuma secinājumus un izvirzīt priekšlikumus gan MI izmantošanas iespējām, gan tālāko pētījumu veikšanai. Šo metožu izmantošana nodrošina visaptverošu skatījumu uz MI izmantošanas iespējām organizāciju krīzes vadībā un pārdzīvošanā, kā arī atkopšanās posmā un, iespējams, arī preventīvi, lai vispār organizācija nepiedzīvotu krīzi.

Literatūras izpēte un diskusija

Šī pētījuma autoru izvirzītais mērķis ir rast teorētisku apstiprinājumu, ka MI var būt palīgs un efektīvs instruments organizāciju vadībai, pārvarot iestājušos krīzi organizācijā. Lai šo mērķi sasniegtu, tiek detalizētāk apskatīta mākslīga intelekta izmantošana Eiropas Savienībā, kā arī mākslīgā intelekta iespējas, ko var pielietot krīzes vadībā. Dažas MI tehnoloģijas pastāv jau vairāk nekā 50 gadus, taču datortehnikas attīstība un datoru jaudas palielināšanās, plašāka datu daudzuma pieejamība un jauni algoritmi pēdējos gados ir veicinājuši ievērojamus sasniegumus MI tehnoloģiju jomā. Mākslīgajam intelektam ir nozīmīga loma mūsu sabiedrības pārveidošanā un mūsu ekonomikas digitalizēšanā daudzās nozarēs. MI un robotikas attīstība ir kļuvusi ne tikai par pasaules, bet arī par ES prioritāti. Paredzams, ka nākotnes lietojumprogrammas nesīs milzīgas

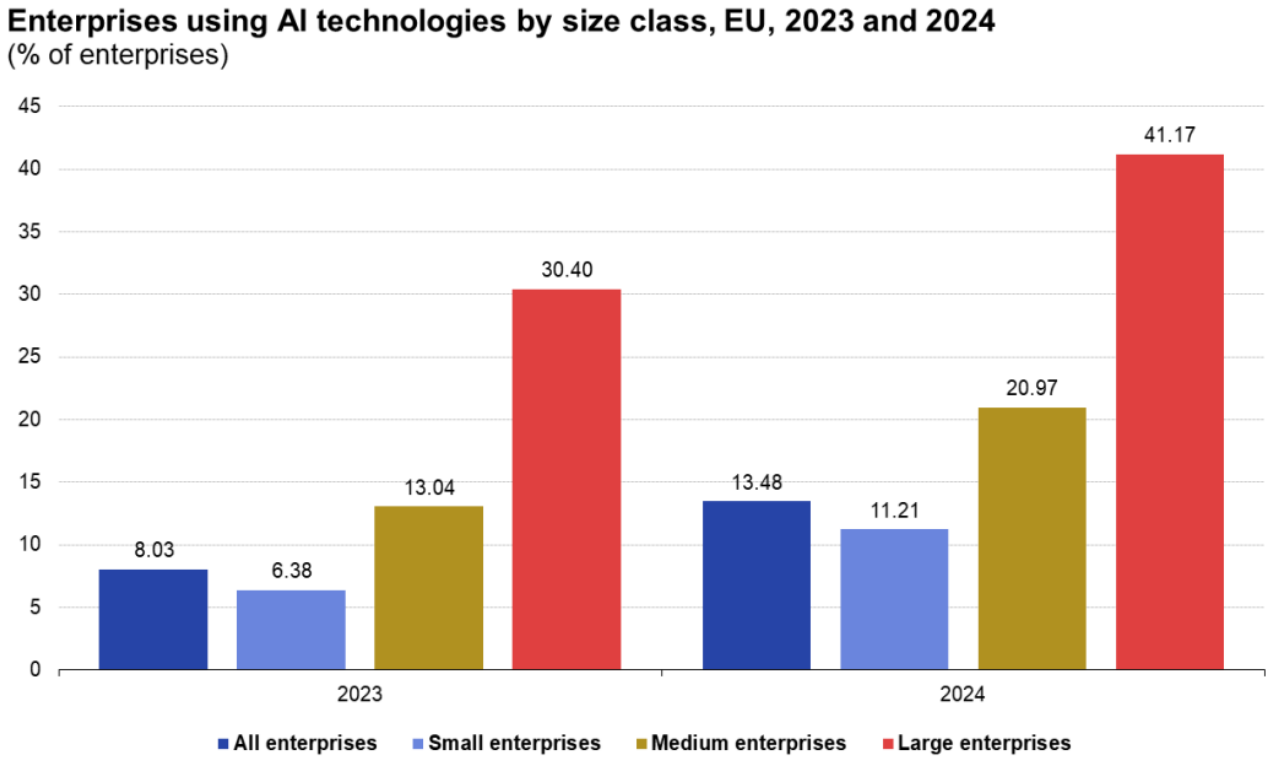
pārmaiņas, taču MI jau vairākus gadus ir daļa no mūsu ikdienas dzīves. (Eiropas Parlaments, 2020) EIROSTAT pieejamajā statistikā ir atrodama informācija par Eiropas "Enterprises" (latviešu valodā – uzņēmumu) daudzumu, kas savā darbībā izmanto MI (1. attēls). Termins "uzņēmumi", autoru ieskatā, šī pētījuma kontekstā ir pielīdzināmi terminam "organizācijas".



1. attēls. **Uzņēmumi, kas izmanto MI tehnoloģijas, 2023. un 2024. gads** (EIROSTAT, 2025)

Kā ir redzams aktuālajā informācijā no EIROSTAT (1. attēls), tad 2024. gadā Eiropas Savienībā un Eiropas Ekonomiskajā Zonā pieaug to uzņēmumu/organizāciju skaits, kuri savā ikdienas darbībā izmanto MI. Vidēji Eiropas Savienībā šis pieaugums ir noticis no 8 % 2023. gadā uz 13,48 % jau 2024. gadā, kas liecina, ka uzņēmumi arvien vairāk apgūst MI pielietošanu savā uzņēmējdarbībā. Izteikti līderi MI izmantošanā uzņēmējdarbībā ir dāņi, kam MI izmantošana ir pieaugusi no 15,17 % 2023. gadā uz 27,58 % 2024. gadā, kas nu jau strauji tuvojas vienai trešdaļai no visiem uzņēmumiem. Straujākais MI izmantošanas uzņēmējdarbībā pieaugums ir novērojams Zviedrijā, Igaunijā un Grieķijā, kas 2024. gadā ir bijis gandrīz divas ar pusi reizes lielāks salīdzinājumā ar 2023. gadu. Aplūkojot datus par Latviju, arī redzams, ka 2024. gadā ir gandrīz divkāršs pieaugums attiecībā pret 2023. gadu, kur bija 4,53 % pret 8,83 % uzņēmumu, kas izmanto savā darbā MI. Kopējā tendence ir augoša.

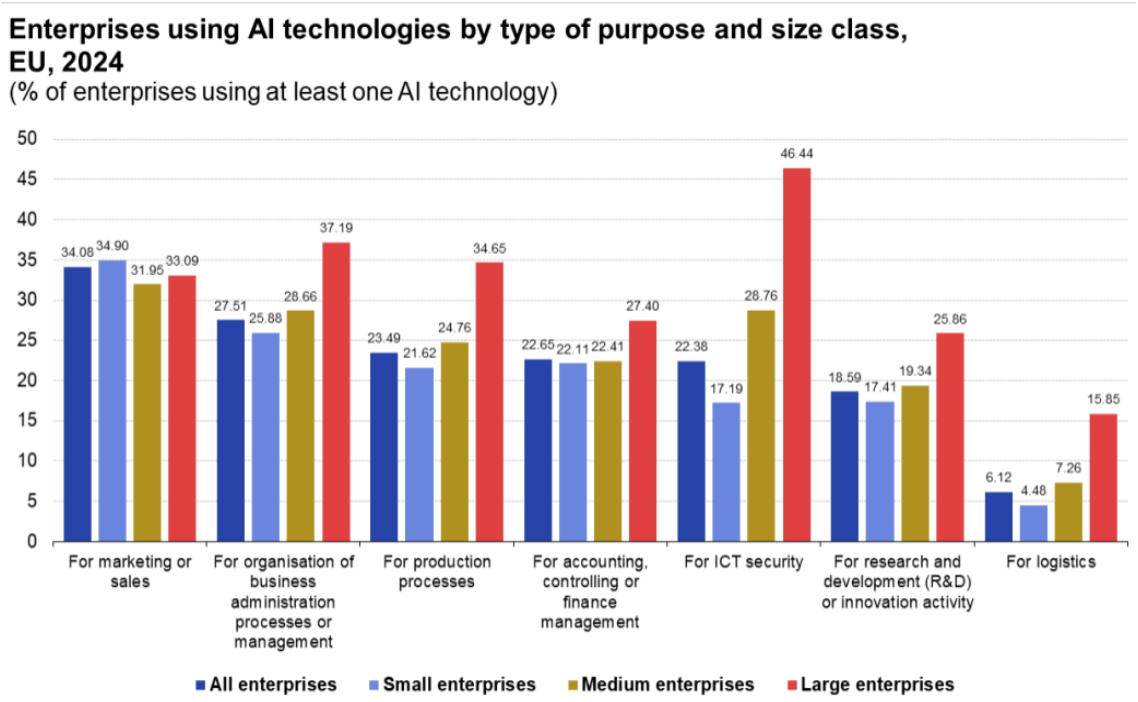
Iepriekš jau tika minēts, ka lieliem uzņēmumiem ir atsevišķi cilvēki, pat atsevišķi departamenti, kam pamatuzdevumi un funkcijas ir strādāt ar riskiem, risku vadību, kā arī ar krīzēm un krīžu vadībām. Pētījuma ietvarā autori apskata arī EIROSTAT datus par to, kuri uzņēmumi pēc to lieluma izmanto MI tehnoloģijas vairāk (2. attēls). Attēlā tiek salīdzinātas izmaiņas, kas ir notikušas 2024. gadā pret 2023. gadu.



2. attēls. **Uzņēmumi, kas izmanto MI tehnoloģijas pēc lieluma klases, ES, 2023 un 2024** (EIROSTAT, 2025)

Eiropas Savienībā starp valstīm ir novērojamas nelielas atšķirības, kā tiek gradēti mazi, vidēji un lieli uzņēmumi, bet šī pētījuma ietveros autori uzņēmumus/ organizācijas iedala pēc nodarbināto skaita, kur mazos uzņēmumos ir nodarbināti līdz 50 cilvēkiem, no 51 līdz 250 nodarbināto – ir vidējs uzņēmums un, sākot no 251 nodarbinātā, ir lieli uzņēmumi. Kā var novērot (2. attēls), lielie uzņēmumi, kam ir lielāks nodarbināto skaits, ir absolūti līderi, un 41,17 % no uzņēmumiem savā darbā izmanto MI. Autori izdara secinājumu, ka lieliem uzņēmumiem ir cilvēku resurss, kam ir iespējas apgūt jaunās tehnoloģijas, kā arī daudz straujāk tiek ieviestas un pilotētas inovācijas ar mērķi efektivizēt savus iekšējos procesus. Kā ir redzams, visās uzņēmumu grupās ir noticis MI izmantošanas pieaugums, ja salīdzina 2024. gadu ar 2023. gadu. Aplūkojot izmaiņas 2024. gadā pret 2023. gadu, ir skaidri redzams, ka maziem uzņēmumiem, kuru vidū gan 2023. gadā, gan 2024. gadā ir mazākais skaits uzņēmumu, kas savā darbā izmanto MI, ir visstraujākais pieaugums 76 % apmērā. Vidējo uzņēmumu sektorā pieaugums uzņēmumiem, kas izmanto MI, 2024. gadā pret 2023. gadu ir 61 %. Vismazākais pieaugums MI izmantošanā ir lielo uzņēmumu grupā, kur pieaugums ir 35 %, kas arī saprotams, jo 2024. gadā lielo uzņēmumu skaits, kuri izmanto MI, jau tuvojas 50 %. Šis grafiks skaidri parāda to, ka gan mazo, gan vidējo uzņēmumu grupās ir vēl daudz vietas izaugsmei.

Pētījuma turpinājumā autori apskata, kā uzņēmumi, kas izmanto MI tehnoloģijas, iedalās pēc MI tehnoloģijas izmantošanas veida un lieluma klasēm Eiropas Savienībā 2024. gadā (3. attēls), kas ļaus secināt, kādās krīzes vadības jomās jau ir iespējams un tiek izmantots MI.



3. attēls. **Uzņēmumi, kas izmanto MI tehnoloģijas pēc MI tehnoloģijas izmantošanas veida un lieluma klases, ES, 2024** (EIROSTAT, 2025)

Grafikā ir novērojams, ka vidēji visas uzņēmumu klases visvairāk MI izmanto tieši uzņēmējdarbības attīstībai, kas mārketingam un pārdošanai vidēji pa visām uzņēmumu klasēm sastāda 34,08 %, un atsevišķi pa uzņēmumu klasēm šī pielietošana ir diezgan līdzīga. Tas ir izskaidrojams, ka bieži vien mazie un vidējie uzņēmumi ir vēl savas attīstības sākuma stadijā, kad visas uzņēmumu pūles un uzmanība tiek vērsta uz tirgus iekarošanu un stabilitātes stiprināšanu. MI tehnoloģijas tiek plaši izmantotas arī uzņēmuma operatīvajā un administratīvajā vadībā, vidēji pa uzņēmumu klasēm tas sastāda 27,51 %, kas ir par aptuveni 6,6 % mazāk nekā MI izmantošana mārketingā un pārdošanā. Uzkrītoši var identificēt, ka par 11 % mazo uzņēmumu MI uzņēmējdarbības vadībai un administrēšanai izmanto mazāk nekā lielie uzņēmumi. Tāpat arī liela starpība starp mazajiem uzņēmumiem un vidējiem uzņēmumiem attiecībā pret lielajiem uzņēmumiem ir MI izmantošana ražošanas procesā. Turpretī finanšu un grāmatvedības sadaļā MI izmantošana ir līdzīga visās uzņēmumu klasēs. Absolūti lielākās atšķirības ir MI izmantošana informācijas un komunikācijas tehnoloģiju drošībā, kur 46,44 % no lielajiem uzņēmumiem, kuri izmanto MI, izmanto tieši šim nolūkam, bet no mazajiem uzņēmumiem, kuri izmanto MI, tikai 17,19 % izmanto tieši šim nolūkam. Mūsdienu digitālizācijas laikmetā liela uzmanība ir jāpievērš tieši informācijas un komunikāciju tehnoloģiju drošībai, jo arvien vairāk notiek dažādi kiberuzbrukumi un krāpnieciskās darbības digitālajā vidē. Autoriem izbrīnu rada tas, ka salīdzinoši neliela daļa no uzņēmumiem MI izmanto tieši pētniecības un attīstības (R&D) jomā, atšķirība pa uzņēmumu klasēm arī nav nozīmīga. Kopumā analizējot pieejamo informāciju, autori gūst apstiprinājumu, ka uzņēmumi MI var izmantot visdažādākos veidos savā ikdienas darbā.

Zemāk minēti daži MI pielietojumi, ar kuriem uzņēmumi un cilvēki saskaras ikdienā, bet, iespējams, pat neapzinās, ka tie ir ar MI darbināmi:

- **iepirkšanās tiešsaistē un reklāma** – mākslīgo intelektu plaši izmanto, lai sniegtu personalizētus ieteikumus cilvēkiem, pamatojoties, piemēram, uz viņu iepriekšējiem

meklējumiem un pirkumiem vai citu uzvedību tiešsaistē. MI pielietojums tirdzniecībā ir ļoti plašs, jo vairāk nozīmīgs produktu optimizācijā, uzskaitē, loģistikas jomā utt.;

- **meklēšana tīmeklī** – meklētājprogrammas mācās no plašas datu ievades, ko sniedz to lietotāji, lai piedāvātu attiecīgus meklēšanas rezultātus;
- **digitālie personālie asistenti** – viedtālruņi izmanto mākslīgo intelektu, lai nodrošinātu pēc iespējās atbilstošāku un personalizētu produktu. Virtuālie asistenti, kas atbild uz jautājumiem, sniedz ieteikumus un palīdz organizēt ikdienas rutīnu, ir kļuvuši plaši pieejami. (Eiropas Parlaments, 2020)

Iepriekš minētie ir populārākie MI izmantošanas piemēri, kas jau ir integrēti mūsu ikdienā gan sociālo tīklu vidē, gan e-komercijas sakarā, bet ir arī citi mākslīgā intelekta izmantošanas piemēri. Tiek prognozēts, ka mākslīgais intelekts pārveidos praktiski visus dzīves aspektus un ekonomikas struktūras. Zemāk minēti tikai atsevišķu jomu piemēri:

- **mašīntulkojumi** – Valodas tulkošanas programmatūra, kuras pamatā ir vai nu rakstisks, vai mutisks teksts, ir balstīta uz mākslīgo intelektu, lai nodrošinātu un uzlabotu tulkojumus. Tas attiecas arī uz tādām funkcijām kā automatizēta subtitrēšana;
- **viedie mājokļi, pilsētas un infrastruktūra** – viedie termostati mācās no mūsu uzvedības taupīt enerģiju, savukārt viedo pilsētu attīstītāji cer ar MI palīdzību regulēt satiksmi, lai uzlabotu savienojumu iespējas un samazinātu satiksmes sastrēgumus;
- **autobūve** – lai gan pašbraucošas automašīnas vēl nav standarta transportlīdzekļi, esošajos automobiļos jau tiek izmantotas ar mākslīgo intelektu darbināmas drošības funkcijas. Piemēram, ES ir palīdzējusi finansēt VI-DAS, automatizētus sensorus, kas atklāj iespējamas bīstamas situācijas un negadījumus. Navigācija lielā mērā tiek darbināta ar mākslīgo intelektu.
- **kiberdrošība** – mākslīgā intelekta sistēmas var palīdzēt atpazīt un apkarot kiberuzbrukumus un citus kiberdraudus, pamatojoties uz datu pastāvīgu ievadīšanu, atpazīstot modeļus un novēršot uzbrukumus;
- **dezinformācijas apkarošana** – dažas MI lietojumprogrammas var palīdzēt atklāt viltus ziņas un dezinformāciju, izmantojot sociālajos plašsaziņas līdzekļos izplatītu informāciju, meklējot jutīga vai satraucoša rakstura vārdus un identificējot, kuri tiešsaistes avoti tiek uzskatīti par oficiāliem;
- **veselība** – pētnieki strādā pie risinājumiem, lai varētu izmantot mākslīgā intelekta tehnoloģijas liela veselības datu apjoma analīzei un jaunu modeļu izstrādei, kas varētu veicināt jaunus atklājumus medicīnā un veidus, kā uzlabot un veikt precīzāku diagnosticēšanu. Piemēram, pētnieki izstrādāja mākslīgā intelekta programmu, lai atbildētu uz ārkārtas izsaukumiem, kas sola atpazīt sirdsdarbības apstāšanos zvana laikā ātrāk un sekmīgāk nekā medicīnas dispečers;
- **transports** – MI tehnoloģijas varētu uzlabot dzelzceļa satiksmes drošību, ātrumu un efektivitāti, samazinot riteņu berzi, maksimāli palielinot ātrumu un veicinot autonomu braukšanu;
- **ražošana** – mākslīgais intelekts un robotika var palīdzēt Eiropas ražotājiem kļūt efektīvākiem un atgriezt ražošanu atpakaļ Eiropā, izmantojot robotus ražošanā, optimizējot pārdošanas ceļus vai savlaicīgi nosakot, kuriem mehānismiem nepieciešama tehniskā apkope, un prognozējot darbības traucējumus viedajās rūpnīcās;
- **publiskā pārvalde un pakalpojumi** – izmantojot plašu datu klāstu un modeļu atpazīšanu, MI varētu nodrošināt agrīnās brīdināšanas sistēmu par dabas katastrofām, sniedzot iespēju efektīvi sagatavoties un mazināt katastrofu radītās sekas. (Eiropas Parlaments, 2020)

Šo piemēru ir vēl un vēl, un, iepazīstoties ar tik daudz un dažādiem piemēriem, kā MI var uzlabot un pilnveidot mūsu ikdienu, pētījuma autoriem nav šaubu, ka MI izmantošana turpinās būt aktuāla, tāpat arī MI iespēju pētīšana būs aktuāla.

Pētot šo tēmu, autori nonāk pie secinājuma, ka MI ir ne tikai rīks, kas palīdz izveidot jaunas procedūras uzņēmumos un organizācijās, apkopot liela apjoma datus un sniegt priekšlikumus, bet arī pārskatīt/ pārbaudīt esošās procedūras un sniegt atbalstu uzņēmumiem un organizācijām, ja tās notiek krīzes situācijā. Krīzes situācijas var būt dažādas, un šī darba ietvaros autori apskatīs atsevišķas no tām.

MI ir kļuvis par neatņemamu rīku mūsdienu finanšu sektorā, jo ģenerē lielu datu apjomu un analizē to ar augstu precizitāti. Krīzes situācijās, kas var būt saistītas ar ekonomiskajiem satricinājumiem, finanšu tirgus sabrukumiem vai citām kataklizmām, kas būtiski ietekmē finanšu situāciju ne tikai uzņēmumā, valstī, reģionā, bet arī globāli, MI var kalpot kā efektīvs instruments, lai mazinātu zaudējumus un uzlabotu lēmumu pieņemšanas procesu. MI pielietojums finanšu krīžu gadījumos sākas ar risku analīzi un prognozēšanu, MI var apstrādāt milzīgus datu apjomus un prognozēt tirgus nestabilitāti, izmantojot mašīnmācīšanās algoritmus. (Tariqul I., 2024) Pētījumi rāda, ka MI balstīti modeļi spēj precīzāk identificēt sistēmiskos riskus nekā tradicionālie statistiskie modeļi. (Latvijas Banka, 2023) Tāpat krīzes situācijās krāpniecības gadījumu skaits bieži palielinās. MI sistēmas, izmantojot anomāliju detekcijas algoritmus, spēj laikus identificēt aizdomīgus darījumus un novērst krāpniecību (Tariqul I., 2024). Uzņēmumu un organizāciju automātiska klientu apkalpošana krīzes laikā var būt ļoti liels atbalsts, piemēram, lielāku finansiālu satricinājumu gadījumā bankas un citas finanšu institūcijas piedzīvo lielu klientu pieprasījumu pieaugumu. MI balstīti virtuālie asistenti un chatboti var samazināt klientu apkalpošanas slogu, nodrošinot operatīvu informācijas sniegšanu. (Latvijas Banka, 2023) Lai gan MI piedāvā daudzus ieguvumus, pastāv arī riski, kas saistīti ar algoritmisko aizspriedumu, datu kvalitāti un regulējumiem. Piemēram, Eiropas Savienības regula par MI (AI Act) uzliek stingras prasības attiecībā uz datu apstrādi un caurredzamību. (European Commission, 2024) Pētījuma autori secina, ka MI spēj būtiski uzlabot finanšu sektora noturību pret krīzes situācijām, palielinot prognozēšanas precizitāti, uzlabojot risku vadību un automatizējot procesus. Tomēr, lai pilnvērtīgi izmantotu MI iespējas, ir nepieciešami skaidri regulējumi un datu kvalitātes kontrole.

Pētījuma rezultāti

Veicot pētījumu, darba autori nonāk pie apstiprinājuma, ka Mākslīgais Intelekts (MI) var būt noderīgs instruments un palīgs ikkatrā uzņēmumā /organizācijā, lai pārvarētu uzņēmumā iestājušos krīzi. Darba autori izdala desmit punktus, kā MI var izmantot krīzes pārvarēšanā uzņēmumā/ organizācijā.

1. **Pieprasījuma prognozēšana** – MI var analizēt tirgus tendences un prognozēt klientu pieprasījumu pat nestabilos apstākļos.
2. **Automātiska finanšu pārvaldība** – izmantojot MI balstītus grāmatvedības un budžeta analīzes rīkus, var optimizēt finanšu plānošanu.
3. **Chatboti klientu apkalpošanai** – MI var atbildēt uz biežāk uzdotajiem jautājumiem un apstrādāt klientu pieprasījumus bez nepieciešamības pēc papildu darbiniekiem.
4. **Krāpniecības novēršana** – automatizēta transakciju analīze palīdz identificēt aizdomīgus darījumus un novērst finanšu zaudējumus.

5. **Personāla vadības optimizācija** – MI var analizēt darbinieku sniegumu un sniegt ieteikumus par efektīvāku resursu sadali.
6. **Mārketinga personalizācija** – izmantojot MI, uzņēmumi var radīt individuāli pielāgotas reklāmas kampaņas un uzlabot klientu iesaisti.
7. **Piegādes ķēdes pārvaldība** – MI palīdz optimizēt loģistiku un piegādes maršrutus, samazinot izmaksas un piegādes laikus.
8. **Datu analīze un lēmumu pieņemšana** – MI var analizēt uzņēmuma veiktspēju un piedāvāt datu balstītus risinājumus.
9. **Produktu cenu noteikšana** – dinamisks cenu noteikšanas modelis, kas pielāgojas tirgus izmaiņām un klientu pieprasījumam.
10. **Kiberdrošība** – MI balstīti drošības risinājumi var atklāt un novērst kiberdraudus, pasargājot uzņēmuma datus.

Šie ir tikai desmit punkti, ko pētījuma autori izdala no apkopotās informācijas, bet iespējas ir daudz plašākas, tāpēc svarīgi ir saprast pašai organizācijai, ar kāda veida krīzi tā saskaras vai var saskarties. Ja uzņēmums/ organizācija patstāvīgi nevar identificēt krīzi, ar kādu tā ir saskārusies, vai identificēt, kādi riski pastāv, arī šajā gadījumā ir iespējams pielietot MI.

Kopsavilkums

Mūsdienu tehnoloģiju laikmetā, kur tehnoloģijas attīstās strauji, ir svarīgi spēt orientēties tajās un zināt, kā tās var izmantot, lai atvieglotu uzņēmumu un organizācijas darbu, padarītu darbu produktīvu un izslēgtu cilvēcīgās kļūdas, kā arī, mācoties no citu kļūdām, nepieļautu savas, kas varētu negatīvi ietekmēt uzņēmuma/ organizācijas darbu. Pēdējos gados tik plaši tiek runāts par mākslīgā intelekta (MI) izmantošanu uzņēmumu/ organizācijas darbā, ka bez uzmanības to vairs nevar atstāt. Tāpēc ir svarīgi izprast MI iespējas un pielietojumu, kas ļautu padarīt efektīvāku uzņēmuma/ organizācijas darbu, taupot laiku un resursus gan lēmumu pieņemšanā, gan liela apjoma datu analīzē.

Darba autori savā pētījumā vēlējās noskaidrot, kādas ir iespējas MI izmantot uzņēmumos/ organizācijās, lai pārvarētu iestājušos krīzi. Tāpēc kā **darba mērķi** izvirzīja – rast teorētisku apstiprinājumu, ka MI var būt palīgs un efektīvs instruments organizāciju vadībai, pārvarot iestājušos krīzi uzņēmumā/ organizācijā. Izmantojot pieejamās informācijas analīzi, gan literatūras caurskati, gan statistisko datu, gan gadījumu izpēti, gan ekspertu komentārus par konkrētu tēmu, pētījuma gaitā darba autori šādu apstiprinājumu guva. Kā pētījuma rezultātu darba autori izdalīja desmit punktus, kā MI var palīdzēt uzņēmumam/organizācijai pārvarēt krīzi. Darba autori secināja, ka iespējas, kā pielietot MI organizācijas/uzņēmumu darbībā un vadībā, ir ļoti plašas, svarīgi ir identificēt, kādas tieši ir vajadzības un kāds ir sagaidāmais rezultāts, kas MI ir jāsasniedz. Būtiski ir spēt skaidri un detalizēti definēt MI veicamos uzdevumus, lai iegūtais rezultāts ir atbilstošs vajadzībām. Tāpat pētījuma autori saskata plašas iespējas turpināt pētījumus par MI izmantošanu un izmantošanas iespējām uzņēmumu/ organizācijas darbības procesos.

Ieteikums turpmākiem pētījumiem

Pētot pieejamo informāciju, darba autori nonāca pie secinājuma, ka mākslīgā intelekta attīstība notiek ļoti strauji, kas ļauj turpināt pētīt ar MI saistītus jautājumus. Konkrētāk par MI izmantošanu krīzes vadības jomā pētījumu iztrūkst, tāpēc tas ir vesels virziens, kuru pētīt. Darba autori saskata potenciālu pētījumiem vairākos virzienos. Viens no tiem ir pētīt konkrētus MI rīkus jeb programmas, kas būtu efektīvi pielietojamas krīzes vadībā, vēl viens virziens ir padziļināti pētīt, kā MI var paredzēt un preventīvi novērst krīzes organizācijās/uzņēmumos, darbu ar riskiem un risku vadību. Papildus noderīgi būt veikt pētījumus, kā efektīvāk tieši mazajiem un vidējiem uzņēmumiem/ organizācijām uzsākt lietot MI, un tiem, kuri jau lieto MI, tos lietot ne tikai marketinga un pārdošanas jomā, bet arī organizācijas vadības un procesu administrēšanā. Kā atsevišķu pētījumu virzienu darba autori saskata MI izmantošanu krīzes komunikācijā un publisko ziņojumu veidošanā, un preses relīžu sagatavošanā. Šos virzienus var pētīt gan lokāli – Latvijas kontekstā, gan Eiropas mērogā.

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