

Scientific Journal of Georgian National University SEU

VECTORS OF SOCIAL SCIENCES

**International Scientific Peer-reviewed
Journal**

N 8 2024

Tbilisi 2024

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ISSN 2667-9906

E-ISSN 2960-9542

DOI: <https://doi.org/10.51895/VSS>

Udc 001.5 s 75

Georgian National University SEU

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Legal Aspects of Georgia's EU Integration

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Abstract

Following Georgia's application for EU membership in March 2022, it was finally granted candidate status on the basis of European Council conclusions of December 14 and 15, 2023.¹

The relationships between the two are predominantly governed by the Association Agreement² (AA) concluded between the EU and Georgia. The AA is an outcome of the EU's European neighbourhood policy (ENP), an important part of the EU's foreign policy, of which Georgia is one of 16 partner countries.³ While the AA has historically framed the contours of EU-Georgia cooperation, the recent advancement of Georgia's status marks the commencement of a significantly more dynamic phase of interaction. Consequently, in future the scope of engagement will further extend beyond the domains outlined by the AA, the Treaty Establishing Energy Community,⁴ or the Common Aviation Area Agreement.⁵ Moreover, Georgia will have to broaden its horizon and look much further than it had to in case of the existing bilateral and multilateral agreements with the EU, embracing a more comprehensive approach to its integration efforts.

The paper serves as the written statement of the speech delivered by the representative of the Ministry of Justice of Georgia at the International Scientific Conference convened by the collaborative efforts of Lazarski University and the European Integration Research Center at Georgian National University SEU. The author is steadfast in the belief that discussions conducted during the conference contribute significantly to deepening Georgia's integration with the EU, and foster stronger connections between academia and the policymaking sector.

Keywords: EU, Georgia, legal approximation, EU Law, Association Agreement, candidacy.

Introduction

Since we happen to live amidst very turbulent geopolitical realities, it is at the same time a little bit frightening and exciting that we have the opportunity to observe significant legal transformations in the light of global changes.

The aim of this paper is to analyze the process of Georgia's legal harmonization with the European Union through various instruments of approximation currently employed by the country. It explores different issues interesting from the perspective of EU-Georgia relations, particularly through the lens of Georgia's efforts in legal convergence matters.

¹ European Council meeting (14 and 15 December 2023) – Conclusions, EUCO 20/23, Brussels, 15 December 2023 <https://www.consilium.europa.eu/media/68967/europeanCouncilConclusions-14-15-12-2023-en.pdf> p. 5. [L.s. 01.03.2024].

² Association Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and Georgia, of the other part. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02014A0830%2802%29-20231115> (consolidated text of 15/11/2023) [L.s. 01.03.2024].

³ EU Parliament report on EU-GEO AA implementation, European implementation assessment (update) by the European Parliamentary Research Service, Brussels © European Union, 2022, p. 1.

⁴ Treaty establishing Energy Community, <https://www.energy-community.org/legal/treaty.html> [L.s. 01.03.2024].

⁵ An official website of the European Union, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02012A1120%2801%29-20210528> [L.s. 01.03.2024].

The paper is primarily concentrated on the following topics:

- Institutional mechanisms envisaged by the AA;
- Other national executive mechanisms for integration;
- The role of the Ministry of Justice in ensuring legal compliance with EU law;
- The E-Platform – a recently launched electronic database for legal approximation;

The Treaty on European Union delineates the conditions⁶ and principles⁷ that any applicant country wishing to become a member state of the European Union must conform to. If necessary, Brussels implements the pre-accession strategy through the association, so that the interested countries are economically and politically ready to join the Union.⁸ To successfully reach this goal, the states are required to fulfill the so-called *Copenhagen Criteria* established in 1993 by the European Council, which necessitate the presence of (1) stable political institutions and the guarantee of human rights and the rule of law; (2) economic stability and the existence of a robust market that could cope with economic integration with the EU; and (3) an acceptance of the Community Acquis, the body of EU law that has developed since the beginning of European integration in the 1950s.⁹ In 1995, the Madrid European Council highlighted the necessity to “create the conditions for the gradual, harmonious integration of [the applicant] states, particularly through the development of the market economy, the adjustment of their administrative structures and the creation of a stable economic and monetary environment.”¹⁰

Undoubtedly, the role of state institutions in the dynamic and comprehensive process of approximation with the Union is of crucial importance. Therefore, administrative agencies and line ministries must demonstrate exceptional diligence and consideration in order to systematically address and gradually eliminate principal discrepancies with EU norms and values, thereby facilitating legal alignment.

1. EU’s window of Opportunities and Enlargement Perspectives

The nature of the relationship between the widening of the membership and its deepening has been debated in the face of every enlargement. It is argued that the larger, the more diverse, and the less cohesive the EU becomes, so then its decision-making becomes more difficult and, therefore, policy development more problematic.¹¹

Georgia was initially planning to declare its desire for EU integration in 2024. However, on March 3rd, 2022, it advanced its timeline by submitting its application for membership ahead of the scheduled date. The application was tabled in the context of Russia’s brutal war of aggression against Ukraine. Georgia’s pursuit towards the EU has been positively assessed by the Commission’s Opinion on Georgia’s application for membership of the European Union. In its introductory remarks, the Opinion stated that “since its independence, Georgia has clearly expressed its European aspirations. This European ambition is included in the Georgian Constitution and is supported by the people of Georgia and across the political spectrum. This has been a driver for a number of key reforms founded on

⁶ Article 49, The Treaty on European Union.

⁷ Article 6(1), The Treaty on European Union.

⁸ Oppermann, T., Classen, C.D., Nettesheim, “European law”, 8th edition, GIZ, Tbilisi, 2021, p. 917.

⁹ Copenhagen Criteria, Quick Reference,

<https://www.oxfordreference.com/display/10.1093/oi/authority.20110803095637775> [L.s. 01.03.2024].

¹⁰ Madrid European Council 15 and 16 December 1995 Presidency Conclusions, III: A. Europe Open To The World, Enjoying Stability, Security, Freedom And Solidarity, https://www.europarl.europa.eu/summits/mad1_en.htm [L.s. 01.03.2024].

¹¹ Tatham, A.F., “Enlargement of the European Union,” Kluwer Law International, 2009, p. 3.

European values and standards. Georgia's commitment to progress on its European path was underlined by the Government's initial intention to submit an application in 2024."¹²

The Commission's Opinion further emphasized that Georgia has gradually approximated substantial elements of the Acquis across many chapters, and with a solid foundation established for further alignment, Georgia has an overall positive track record of implementation.¹³

The European Union law will continue to remain at the heart of European integration and the continuing formulation of EU identity. Its adoption, implementation and enforcement as a yardstick for Europeanization will remain a somewhat imprecise science yet, in the absence of a better alternative, the Union institutions and the Member States are extremely unlikely to jettison it, as a candidate's failure to comply with the *acquis* is the effective stick to the carrot of EU membership.¹⁴

Now the crisis stemming from the current extreme geopolitical reality has unveiled an urgent opportunity for the so-called Associated Trio – Georgia, Moldova, and Ukraine. Therefore, this presents an “open window” that the already candidate states have to thoroughly address and seize.

The accession process has been by and large a meritocratic one. For all countries of the region, political criteria of compliance with liberal democratic norms have been the core and sine qua non conditions for opening accession negotiations.¹⁵ We have to consider that the forthcoming potential enlargement will have no less importance for the future of the EU itself. Thus, seizing the presented opportunities and navigating the related challenges by the candidates are of crucial importance as they will shape the Union's trajectory in the years to come.

2. Institutional Framework of Association Agreement

The political construction of Europe is a unique experience. Its success has been dependent on the ability to combine coherence with respect for diversity and efficiency with democratic legitimacy.¹⁶ Considering the unique characteristics and peculiarities of each country, the EU establishes the rights, obligations, and institutional framework mainly through agreements, as exemplified by the AA, in the case of Georgia.

The EU monitors and evaluates the implementation and proper application of the AA following its provisions. The chapters of the institutional framework of the document outline the establishment and operation of bodies designed to facilitate institutional cooperation between the parties and ensure precise implementation of the Acquis. Consequently, the fundamental structure of the relationships envisioned by the AA is managed by the following institutions: Association Council, Association Committee, Sub-committees, Parliamentary Association Committee, and the Civil Society Platform.¹⁷

The Association Council is in fact the main political instrument for the implementation of the AA. It monitors the application of the AA and supervises its proper fulfillment.

¹² Communication from the Commission to the European Parliament, the European Council and the Council, 17 June 2022, p. 2. https://neighbourhood-enlargement.ec.europa.eu/document/download/a95905d5-9783-4a1b-ae2-1740a79eda49_en?filename=Georgia%20opinion%20and%20Annex.pdf [L.s. 01.03.2024].

¹³ Communication from the Commission to the European Parliament, the European Council and the Council, 17 June 2022, p. 16-17, https://neighbourhood-enlargement.ec.europa.eu/document/download/a95905d5-9783-4a1b-ae2-1740a79eda49_en?filename=Georgia%20opinion%20and%20Annex.pdf [L.s. 01.03.2024].

¹⁴ Tatham, A.F., “Enlargement of the European Union,” Kluwer Law International, 2009, p. 490.

¹⁵ Schimmelfennig, F., “Enlargement and the Promotion of Liberal Norms in Eastern Europe”, in Roy J., and Domínguez R. (editors), “Towards the Completion of Europe Analysis and Perspectives of the New European Union Enlargement”, p. 32. https://aei.pitt.edu/32452/1/EU_enlarg%2Dbook%2Dtext%2Bcover.pdf [L.s. 03.03.2024].

¹⁶ Extract from Rodrigues, M.J., “The Open Method of Coordination as a New Governance Tool” in Telò, M (editor), “L'evoluzione della governance europea”, special issue of “Europa/Europe”, Rome, N 2-3, 2001, p. 4. https://mariajoarodrigues.eu/wp-content/uploads/2018/04/Open_Method_of_Coordination-2.pdf [L.s. 03.03.2024].

¹⁷ Articles 403-413, AA.

The Association Council meets at the ministerial level, comprising the members of the Commission and Council of the EU, and high-ranking government officials from Georgia. Accordingly, the Georgian representatives are chaired by the Prime Minister, while the EU delegation is headed by the High Representative of the EU for Foreign Affairs and Security Policy.

The Council has the authority to enact binding decisions, as well as to update or make amendments to the annexes of the AA.

The Association Committee assists the Association Council in its functions and duties and usually meets with the Deputy Ministers on the Georgian part, and the heads of the Directorate Generals of the relevant field, on the EU side. The Association Committee may be granted the authority to enact binding decisions, as well as any powers delegated to it by the Association Council.

Sub-committees are not the strongest political mechanisms, yet they are one of the most effective instruments of the EU-Georgia communication system due to their flexible nature. They are also convened annually, alternately in Tbilisi and Brussels and address very technical and detailed issues on legal approximation of each piece of legislation envisaged by the AA. Their main objective is to provide the EU with updated information on recent reforms and achievements. During the sub-committee meetings, the civil servants and EU officials discuss the proper transposition and implementation of EU law in the Georgian legal system.

Apart from that, sub-committees are sometimes granted the authority to render binding decisions in specific fields. For instance, the EU-Georgia Sanitary and Phytosanitary Sub-committee¹⁸ updates the Annex XI-B of the AA and modifies the list of the EU Acquis that Georgia has an obligation to gradually approximate its sanitary and phytosanitary, animal welfare and other legislative measures pursuant to Article 55(1) of the AA, while Geographical Indications Sub-Committee amends the XVII-C and XVII-D Annexes of the AA.¹⁹

One of the most important meetings that are held in the mentioned format is the Sub-committee on Justice, Freedom and Security (JFS), coordinated and organized by the Ministry of Justice, which addresses such acute and significant issues as: Judicial and Penitentiary system reforms, Cooperation in civil and criminal matters, Fight against terrorism, drugs, trafficking, money laundering, etc. Another one is the Economic and Other Sectoral Cooperation Sub-committee, where the Ministry of Justice updates the EU on company law issues, in particular, focusing on the “Law of Georgia on Entrepreneurs.”

Parliamentary Association Committee is a forum for the exchange of opinions between the members of the EU and Georgian Parliaments. It is authorized to make recommendations to the Association Council and its meetings are presided by a representative of the European Parliament and the Parliament of Georgia respectively.

The institutional, general, and final provisions of the AA provide for the establishment of a Civil Society Platform, tasked with promoting regular meetings of representatives from the civil societies of both parties, "in order to keep them informed of, and gather input for, the implementation of this Agreement."²⁰ Thus, the Platform complements the political bodies existing within the framework of the AA. The Platform gives civil society organizations from both sides the opportunity to monitor the implementation of the AA by submitting its recommendations to the relevant authorities.²¹ The Civil

¹⁸ Decision No. 1/2023, EU-Georgia Sanitary and Phytosanitary Sub-committee, (06/03/2023; 480610000.03.030.016715) <https://matsne.gov.ge/ka/document/download/5751116/0/1> [L.s. 03.03.2024].

¹⁹ Decision No. 1/2023, EU-Georgia Geographical Indications Subcommittee (15/11/2023; 480610000.03.030.016760) <https://www.matsne.gov.ge/ka/document/view/6068874?publication=0> [L.s. 03.03.2024].

²⁰ Art 412(1), AA

²¹ European Economic and Social Committee website, presentation, Sections and other bodies, The EU-Georgia Civil Society Platform <https://www.eesc.europa.eu/en/sections-other-bodies/other/eu-georgia-civil-society-platform> [L.s. 04.03.2024].

Society Platform establishes its own rules of procedure and is, in essence, the practical mechanism to meet and exchange the views of civil sectors and increase their participation in the integration process.

3. Strategic Policy Documents

Apart from the central legislative framework that regulates the main aspects of the relationships with the EU, Georgia employs strategic documents as the foundational tools for planning, decision-making, and governance in the process of legal approximation.

In order to fulfill the obligations envisaged by the AA, to accurately set the vision and goals, the EU and Georgia periodically agree on the Association Agenda. This document helps to articulate ultimate outcomes and sets specific benchmarks for the future. It ensures that policy initiatives are aligned with the government's overall objectives and strategic priorities and promotes coordination among various state agencies by providing a common set of goals. This helps in ensuring that the efforts of various parts of the government are aligned and synergistic.

The latest Association Agenda was adopted for the period of 2021-2027.²² Considering the magnitude of objectives to be attained and the requisite resources needed, it provides for the short-term (usually for the period of 3-4 years) and medium-term (7 years) priorities that are to be met in the next few years.

The principal priorities remain largely consistent with those outlined in the preceding Agenda. Now special emphasis is placed on judicial and anti-corruption reforms, as well as on enhancing citizens' access to public information, strengthening the local self-government, and implementation of public administration reform. In February 2023, the Public Administration Reform (PAR) strategy for the period 2023-2026, along with its Action Plan, was adopted. This development marks a significant milestone on Georgia's European path.

To ensure effective implementation of the Agenda, the government annually develops a multi-sectoral policy document - the National Action Plan for the Integration of Georgia into the EU. These Action Plans specify distinct activities to be executed, which are assigned to competent line ministries and other state agencies. For instance, according to the 2023 National Action Plan, there were approximately 50 activities within the electronic monitoring system designated to the Ministry of Justice.

4. Other National Executive Mechanisms in the Process of Approximation

Approximation with the EU for candidate countries involves alignment of the national regulations and standards with those of the EU *Acquis*. This process is multifaceted and quite complex, reflecting the wide range of policies and rules that govern the EU's legal, economic and other areas of cooperation. We have already discussed the main institutional framework set by the AA and strategic documents determining principal directions towards EU integration. Nevertheless, these policies will not be fully implemented and harmonization be properly obtained unless supported by a robust system of cooperation and uniform approaches endorsed by the pertinent state institutions.

Therefore, it is consequential that all the relevant bodies and stakeholders involved in the process of approximation launch the necessary mechanisms for cooperation and have needed resources in place. These are the major state institutions involved in the process of approximation:

The Parliament - As the main legislative body, the Parliament actively participates in the process of integration by the adoption of the legislation, as well as in the political dialogue with the European Union through the Parliamentary Association Committee. In addition to that, the relevant committees

²² RECOMMENDATION No 1/2022 OF THE EU-GEORGIA ASSOCIATION COUNCIL on the EU-Georgia Association Agenda <https://mfa.gov.ge/pfiles/files/2021-2027-EU-Georgia-Association-Agenda-EN.pdf> [L.s. 03.03.2024].

of the Parliament along with its legal department carry out compliance checks of national legislative acts with the EU *Acquis*.

Commission of Georgia on EU Integration - The commission serves as a central coordinating body, presided over by the Prime Minister. Its members hold positions at the ministerial level. Through the active exchange of information and close consultations with each other, the commission ensures unified and consistent approaches within the government. Functioning directly under the Prime Minister, it effectively facilitates the acceleration of the approximation process at the political level and ensures the expedited fulfillment of priorities.

The Ministry of Foreign Affairs – operates as a pivotal coordinating body within the integration process. It guarantees effective communication between national entities and international counterparts. This is further enhanced by its continuous and active engagement with EU institutions as well. Additionally, the Ministry of Foreign Affairs is responsible for preparing regular reports for the EU detailing the progress in the implementation of the EU *Acquis*.

Other line ministries – engage in the transposition of EU legal acts relevant to their respective areas of competence. In the light of the agreements with the EU, together with the Association Agenda and National Action Plan, it is incumbent upon each administrative agency to guarantee the proper fulfillment of obligations and the precise transposition of legislation within designated timeframes.

Ministry of Justice - participates in the legislative process concerning matters falling under the competencies of the Ministry of Justice. Apart from that, via its EU law department, it carries out compliance assessments with EU legal acts at the governmental level, provides legal opinions, and offers expertise on legal approximation issues.

5. Fostering Legal Cooperation: The Inception of the EU Law Department

Following the signing of the AA, in order to address emerging opportunities for European integration, within all state agencies of Georgia, separate structural entities specifically dedicated to European integration issues - such as divisions, departments, or units - have been formed.

In order to support legal approximation and tackle the complexities of aligning with EU law, the Ministry of Justice established the EU Law Department (EULD) in 2014. Being in charge of developing methodologies for legal approximation and verifying that proposed national legislation is in line with European standards, The EULD plays a critical role in overall conformity with EU legislation.

The role and responsibilities of the EULD are set to be further enhanced in the forthcoming phases of integration. Presently, its scope primarily encompasses:

- Facilitating the coordination of activities across the Ministry's structural subdivisions to meet EU integration obligations;
- Conducting studies and analyses of EU law, including judgments from the European Court of Justice;
- Developing methodologies to ensure a seamless approximation process;
- Offering legal opinions regarding the conformity of draft Georgian legislation with EU law, and submitting proposals to the Ministry's Legal Drafting Department for the drafting of new normative acts or amendments to existing ones as required.²³

The EULD served a crucial function within the Ministry of Justice's system, overseeing the completion of the Questionnaire delivered by the EU Commission subsequent to Georgia's application for EU membership in 2022.

²³ Art 6, Order No. 244 of the Minister of Justice of Georgia, September 20, 2017 (20/09/2017; 010240020.22.027.016744) <https://www.matsne.gov.ge/ka/document/view/3757102?publication=0> [L.s. 03.03.2024].

The initial segment of the Questionnaire contained 369 questions, 31 of which were allocated to the Ministry of Justice, while the second part comprised 2,300 questions, with 92 assigned to the Ministry of Justice.

6. EULD's role in awareness-raising throughout the process of EU integration

The EULD plays a significant role in promoting awareness regarding the EU integration process. Beyond its primary responsibilities which are mostly expressed in providing legal expertise and ensuring compliance of national legislation with the EU *Acquis*, the department is very actively engaged in educational and awareness-raising activities focused on legal approximation matters.

To this end, the department organizes annual Moot Court competitions in EU law for law school students across Georgia, engaging approximately 200 participants each year.

Furthermore, the EULD holds informative sessions periodically at regional universities to disseminate more detailed information about legal alignment and EU integration processes.

A notable initiative led by the department is the development of an electronic platform (which will be explored in more detail subsequently), along with practical training sessions on utilizing this system, aimed at civil servants from all relevant agencies.

Additionally, the EULD has launched a training module titled "The main aspects of European integration for civil servants." The module equips representatives from various agencies that are involved in the process of EU integration with essential knowledge of EU law and practical advice on legal approximation challenges.

It is also noteworthy that department staff actively contribute to the educational programs of different universities' law schools, specializing in teaching EU law.

7. Legal Approximation Manual

A notable contribution to legal approximation efforts is the manual "Guidelines for Approximation of Georgian Legislation with EU Law," created by the EULD with input from EU experts.

This manual offers an in-depth look at the core principles, policies, and legal sources underpinning EU law while recommending preferred methodologies for alignment. Furthermore, it delves into the AA and transposition techniques of the *Acquis* and discusses the challenges and *lessons learned* throughout the approximation process. Designed to function as a practical guide, the manual assists civil servants in the transposition of EU provisions by offering the drafting principles and detailing the specific characteristics of legal approximation with regard to different types of EU acts. Moreover, within its diverse sections, the guideline systematically identifies practices that either facilitate or hinder the approximation process.

The manual has been recently updated in order to mirror the current state of play of the EU-Georgia relations, especially after Georgia was granted candidate status.

8. Table of Compliance

Another principal instrument for legal approximation is the Table of Compliance (ToC). This tool is regarded as one of the most accurate and functional mechanisms for assessing the compatibility of national legislation with EU law. The format and structure of the ToC have been adopted by the Organic Law of Georgia on Normative Acts in 2018. According to the amendments to the organic law, if there

is an EU legal act, the obligation of approximation to which is proceeding from the agreements with the EU, the normative act should be attached by a table of compliance with it.²⁴

The ToC effectively provides, on one side, details regarding the title and form of the EU legal act and its specific provisions, and on the other side, it outlines information concerning the corresponding national legal act into which EU law has been transposed, along with its respective norms. Furthermore, it includes a section for the compliance status related to each provision and offers the opportunity for commentary pertinent to the transposition process.

The significance of the ToC is twofold: on the one hand, it enables the determination of the degree of compliance with EU law for public authorities, which will be useful during the self-assessment process; on the other hand, it can serve as the practical mechanism to demonstrate compliance to the EU during the screening phase in case of opening of the negotiations.

The EULD is presently developing a guideline for completing the ToC. This guideline is intended to foster best practices among the relevant agencies and establish uniform approaches between the authorities engaged in the legal approximation process.

9. E-Platform: A Database for Legal Approximation

A pivotal advancement in Georgia's EU integration efforts is the launch of an Electronic Platform by the Ministry of Justice. With the support of the EU, software developed by the Ministry of Justice functions as a comprehensive database, encompassing all relevant EU *Acquis* and the corresponding Georgian legislation.

Technically, the E-Platform integrates as a distinct module within the aa-monitoring system, which is the digital framework for the planning and monitoring of the Association Agreement. Its primary aim is to meticulously record, plan, and monitor the fulfillment of EU obligations, distinguishing itself from the aa-monitoring system by specifically serving as a database for legal approximation. The system endeavors to ensure the accuracy of legal alignment and showcase the bigger picture of coordination of the EU integration efforts.

The Platform is visually structured into two main sections. The Ministry of Justice is tasked with submitting data related to the EU *Acquis* in the first section, while other competent authorities and state agencies handle the section dedicated to national legislation.

Therefore, the first section includes EU *Acquis* that Georgia is obligated to align with, stemming from bilateral or multilateral agreements with the EU (AA, Common Aviation Agreement, Energy Community Treaty, decisions of the EU-Georgia sub-committees and so on) along with transposition deadlines specified therein. The second section, focused on national legislation, provides details about the normative acts where EU legislation has been transposed, identifies responsible and partner agencies, outlines deadlines for the adoption and entry into force of Georgian legal acts, and includes electronic links to the official journal (Legislative Herald of Georgia). In this part of the system, responsible agencies are also required to submit an explanatory note and a Table of Compliance with EU law alongside the data on the national legal act.

The concept of establishing the legal approximation platform was inspired by the insights gained during the study visits and experiences shared by various candidate and member states of the EU. For example, Croatia, who is the latest country to come aboard the EU, employed similar approaches through its IT system, comprising two distinct modules: one for coordinating the transposition of the *Acquis*, managing infringement procedure and handling litigation; and the other - for the coordination and adoption of national positions for EU level meetings. Serbia served as another pertinent example with

²⁴ Art. 17 and Annex No. 1, Organic Law of Georgia on Normative Acts, (22/10/2009, 010.240.010.05.001.003.647) <https://www.matsne.gov.ge/en/document/view/90052?publication=19> [L.s. 03.03.2024].

its Integrated Monitoring System (IMS), which is part of the Monitoring of Centralized Programmes, financed by the EU's Instrument for Pre-Accession Assistance (IPA). Similarly, some member states, such as the Czech Republic, also administer electronic databases that serve as platforms for the implementation of EU law. During the process of incorporating EU law into Czech legislation, a substantial volume of diverse information is processed with the support of this database. This includes internal working documents of both analytical and comparative nature, which underpin decision-making among the respective departments. Some data on the system provided by the European Commission to support the implementation process are designated exclusively for the internal use of ministries and other central state administrative bodies. The experiences of these countries and the practical tools shared by them have significantly contributed to the creation and development of the Georgian Legal Approximation Database.

10. Statistical information on the E-Platform

A notable feature of the Platform is its capability to process and present statistical data.

The database graphically displays attached information and analyzes statistical data based on five criteria: year of adoption, deadlines, the field of legislation, compliance status, and the competent agencies. This functionality allows for a more nuanced analysis of the legal approximation process, facilitating the identification of gaps and enabling the resolution of issues in a timely manner.

Conclusion

In a nutshell, with all the mechanisms and approaches discussed above, the approximation policy of Georgia endeavors to ensure that actions, procedures, and regulations on the legislative and executive levels are in accordance with EU legislation and standards.

The process of legal approximation with the EU demands a comprehensive approach, involving legislative alignment, capacity building, and stakeholder engagement, all of which are critical for a candidate country's successful integration into the Union.

Therefore, sharing best practices and addressing challenges encountered during the comprehensive process of approximation is expected to significantly impact Georgia's path toward European integration. These efforts aid various stakeholders of the integration process in identifying challenges and offering potential solutions to procedural drawbacks and legal complexities.

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Modern trends of organizational development in the field of education

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Abstract

Modern organizations are faced with the challenge of global competition, therefore, they will have to implement rationalization and restructuring in a systematic and situational way, which affects the content of work, the development of new models for planning business tasks, and the quality of responsibility. Creating motivating working conditions and an employee-oriented corporate culture is central to the future health of organizations. Identifying employees with the company's values and goals will increase their loyalty. Cultural intervention will help change in the desired direction. A clear and inspiring vision should reflect the desired culture. This must be communicated and demonstrated in all areas of the organization. Open communication about the goals of the culture change and the progress of the process helps build trust and buy-in. Here, it is necessary to make decision-making processes transparent and to take into account the feedback of employees. The sustainable operation of the organization is conditioned by the implementation of adaptive changes in the following areas: Corporate values and Participatory management; Action competence and development opportunity; Change management and Goal oriented decision making; Development of social and professional diversity of human resources. The management of organizational development should be linked to the identification of social factors (social interaction and group dynamics greatly influence work behavior and motivation; raising awareness of the impact of individual behavior on the group in order to reflect and develop new behaviors; analyzing interpersonal skills and group dynamic processes). Organizational development is a systematic approach to organizational change. For the head, the achievement evaluation system has the following importance: to clearly understand the connection between strategic tasks and department tasks; optimal ratio between efforts and results; Better understanding of the reasons for success and failure; Specifying the need for the learning process; better evaluation of the effectiveness of the learning process; Increasing employee motivation and awareness.

Keywords: participatory management. Good teaching. situational vision. Professional management. process quality.

Introduction

The development of integrated and operational structures and business processes aims to improve organizational behavior, which will bring equal benefits to the staff and the company.

How to achieve sustainability in organizational development? At the initial stage, the most important thing is to raise awareness - shared visions and values will help to motivate those in charge. At the next stage, an organizational development management group should be formed, in which the professional experience of the employees will be integrated. Structure development is successful when the management team develops a basic understanding of the health of the organization. Analytical process is important in organizational development. The more precisely the situation, risks and potential in the company are known, the more targeted the planning of events. Organizational development is a long-term work aimed at increasing the effectiveness of the organization's functioning by planned, systematic, long-term impact of the value orientations of its members, personal and intergroup interaction, which will create conditions for intensive use of human potential. This process should increase the organization's ability to innovate, solve emerging problems and quickly respond to external and internal changes.

1. The importance of strategic management in the field of education

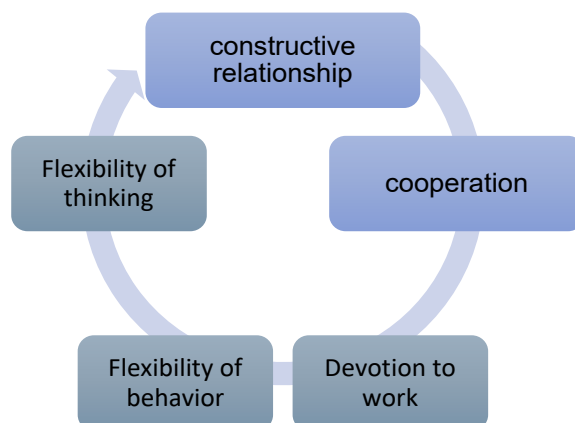
Strategic objectives should include the following aspects:

1. Growth and development.
2. Efficiency: optimization of processes.
3. Innovation: providing competitive advantages.
4. Development of employees.
5. Sustainability and social responsibility

The goal of participatory management in social networks is to ensure a culture of information security and a normal outlook. Social media represents a strategic opportunity. Activities in the direction of online information space will contribute to the development of loyal relations in the process of forming a positive image. The social image is related to the observance of social and ethical norms¹, the openness and responsibility of business principles. The company's management is focused on long-term positioning and invests money and time in achieving success in the target market. Rational use of publicity ensures the search for new opportunities.

The school's democratic (collegial) management style provides such an environment when the manager focuses on the abilities of his employees, the desire for creative activity, creates the necessary conditions for the timely completion of work, and implements fair assessment of the results of each employee's work. Organizations in which this leadership style prevails are characterized² by a high degree of decentralization of authority and active participation of employees in decision-making. Consultative style - the manager makes a decision only on the basis of detailed information and after joint discussion. Employees only implement decisions that they participated in developing. Autonomous style, when employees decide all matters themselves, they are not limited by boundaries, but control and responsibility remain with the manager.

Scheme 1. A strong team player.



Collaborative decision-making management style: The manager sets the problem and constraints, and the employees are fully responsible for the subsequent actions. In this case, the manager³ reserves the right of veto. Objectives of the school development program:

- Development of innovative school development project management model - in order to introduce new socio-cultural projects of educational space and school infrastructure development. Development of organizational cultural competence of the school based on state educational standards.

¹ Anderson, D. L., Organization Development. The Process of Leading Organizational Change. 2023.

² Flores, B. J., Organization Development Handbook. 2023.

³ Schlattmann, J., Seibel, A., Aufbau und Organisation von Entwicklungsprojekten. 2017.

- Development of students' motivation for their socialization and career management.
- Monitoring the implementation of the school development program - developing a tool for evaluating the success and individual characteristics of each student.

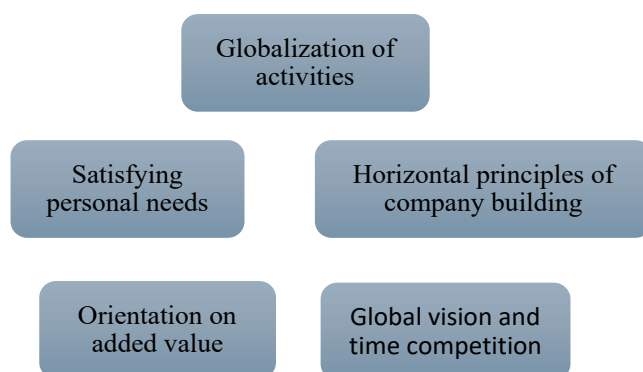
Table 1. Strategy of human resource engagement and commitment to the organization.

Goals and objectives of personnel management	Personnel policy	Methods of working with personnel
Partnership relationship with employees. Involvement in organizational affairs. Retaining a valued employee. Staff capacity development.	Recruiting employees who share the organization's ⁴ values. dialog. career growth. Contribution to organizational development. Continuous learning.	Support motivation. participation in management. Qualification raising. career development. Team formation. Assessment of job satisfaction.

Professional management of the organization implies:

- Bringing up strategic orientation.
- Searching for new models of leadership, which allow delegation of responsibility and the inadmissibility of concentration of power in one hand.
- Expanding incentives for staff activity and orientation to the model of partnership relations. To transform the organizational structure. Compliance of management principles with market requirements.
- Expanding the activities of the management team. Formation of motivational readiness of managers for innovative transformation⁵.
- Transition to the development model.

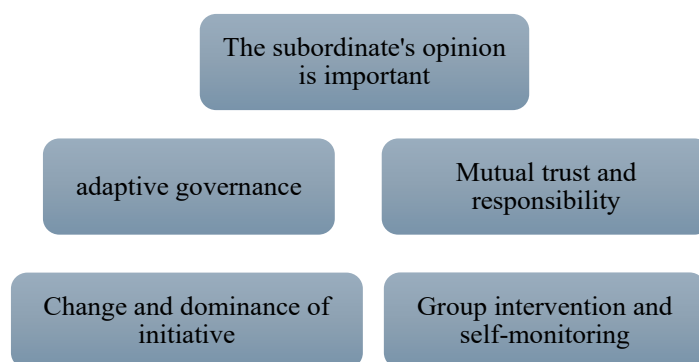
Scheme 2. Characteristics of the company of the future.



⁴ Ahlers, G. M., Organisation der Integrierten Kommunikation. 2007.

⁵ Focusing on Organizational Change, the open university of Hong kong. 2014.

Scheme 3. Characteristics of the market organization.



A deliberately formed image performs the following functions:

- Comforting interpersonal relationships. Sustained major mood in the internal environment of the organization.
- Interpersonal adaptation in a social environment. Optimal ratio between personal and business characteristics.
- Organization of attention - emphasis on social and professional status.

2. Research hypothesis

Regarding the topic of organizational development, I got to know the organizational behavior of several private schools based on interviews with the administrative and pedagogical team.

Question 1: In what form does the regular cooperation between school colleagues take place?

- Development and exchange of training materials and coordination in performance appraisal.
- Joint planning of lessons and conducting lessons together in a team.
- Mutual observation in the classroom and joint activities.

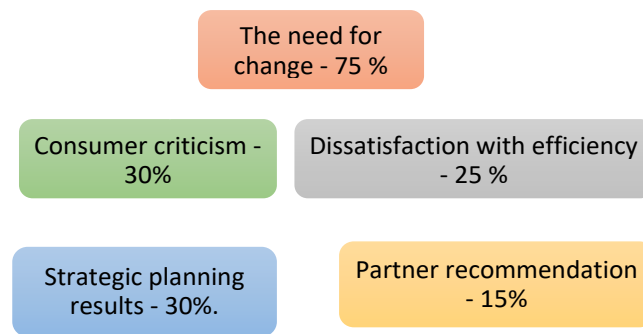
Question 2: Is continuous collaboration for effective team building strongly institutionalized in the school?

- Conducting planned lessons. Regular meetings between class teams
- Collegium working groups for joint concepts. Coordination/working group specially designed for the topic

Question 3. How important are the following measures to ensure quality development in the school? Establish quality indicators, the measurement of which will inform us about the achievement of the school's goals in the future – 20 %; Discussion on the current problems of the school, their causes and possible suggestions for improvement – 30 %; Use of standardized performance tests to check student's achieved competencies (knowledge, skills, abilities) – 20 %; Joint agreement on school development priorities – 30 %.

Development in a responsible school requires the participation of students and parents in the school committee (assessment of school satisfaction). The successful development of the school requires that the school management accepts pedagogical and parental views. Organizational credibility is driven by openness to complementary ideas, which creates the freedom to develop a shared vision.

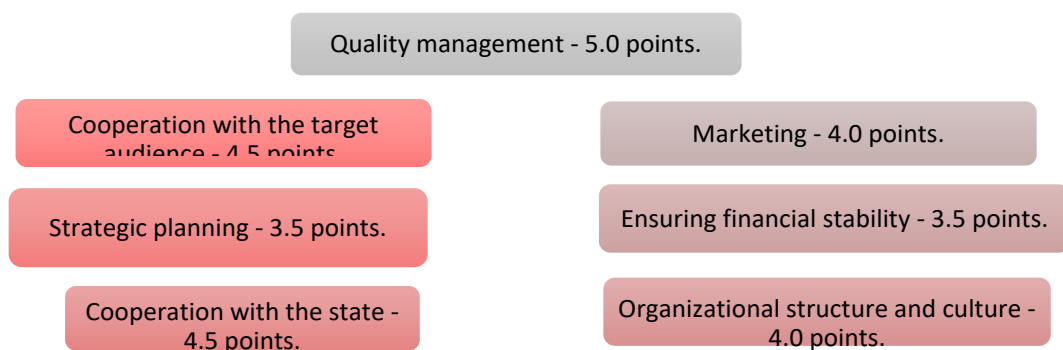
Question 4. What can drive organizational development? (It is possible to name several factors).



Question 5. Organizational development intention – max. 5.0 points: Mismatch between resource capacity and organizational development requirements - 3.5 points; Perfecting the current direction of organizational development - 4 points; Additional consultation on the new direction of organizational development–4.5 points

- Organizations with and without a clear and coherent strategy have almost equal chances of survival;
- Strategic management does not guarantee successful organizational development, but brings some expediency and rationality to the management of the organization;
- In organizations that do not have a clearly defined operational strategy, development is evolutionary, and in companies that are managed according to a strategic plan, development is revolutionary;
- success accompanies those organizations whose strategies aim at active use of internal potential to change the external environment, rather than adapting to it;
- If the organization does not have an effective mechanism for learning and managing organizational knowledge, effective strategy development and implementation, as well as successful organizational change, are impossible.

Question 6. Prioritization of areas of organizational development - maximum assessment 5.0 points.



Scheme 4. SWOT-analysis of the school

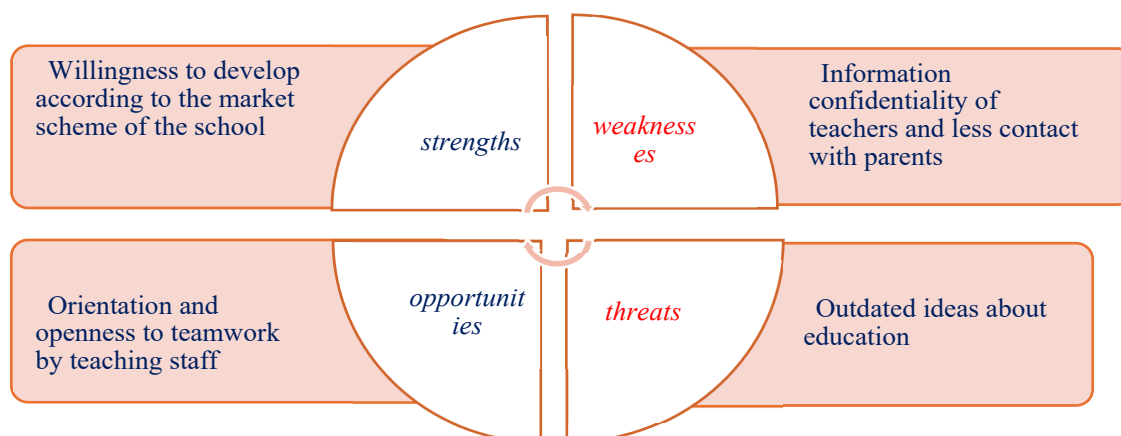


Table 2. Integrated management platform for organizational development

<i>level</i>	<i>in the direction of personnel development</i>
strategic	Planning development programs for strategic employees. Develop a flexible system to adapt to changes. Development of career growth opportunities.
governance	Elaboration of the development program in management. Elaboration of organizational development measures. Stimulation of personal growth. Analysis of training needs.
operational	Organization of specialized training for the development of specific skills. Training in the workplace. Individual career development.

Assessment of the level of the quality of the working life of the staff.

Indicators

- Employees get job satisfaction
- Employees have a sense of life balance - the distribution of effort and time between work and personal life
- Employees believe that management is satisfied with their productivity
- Employees can control the quantity and quality of self-care activities
- Employees receive an offer for a new assignment
- Employees can discuss personal matters at work
- Staff morale
- Employees show initiative
- Employees are provided with the necessary resources to complete the tasks assigned by the supervisor
- Staff sees opportunity for growth
- Staff feel pressured by management
- Employees express dissatisfaction with the complexity of production processes
- Staff have information about their successful activities
- Employees understand their functions in business processes

Table 3. Key questions regarding the organization's capabilities

factor	The main question
1. Initiator of transformations	Is there a clearly expressed organizer or initiator of transformations in the company who will bring the matter to the end?
2. Creation of requirements	To what extent do executives understand the need and priority of transformation?
3. Business vision	How do we imagine the company after the transformation?
4. Support from the staff	To what extent do contact groups understand the need for change?
5. System and structure change	How to introduce transformations into existing processes and structures?
6. Process monitoring	How well are the results evaluation indicators selected?
7. Implementation of transformations	How clearly is the transformation implementation plan developed?

Table 4. Characterization of personnel manager metaphors.⁶

A strategic partner	A member of the business team Strategic plan development and performance control Organizational structure audit and prioritization Seeking competitive opportunities
Administrative expert	Realization of personnel management policy Evaluation of personnel management system Responsibility for the implementation of the new personnel management program
staff leader	Harmonious relationship with the team Knowing the problems and ambitions of employees An accessible persona for employees Providing staff with necessary organizational resources
agent of change	Initiating transformations Control over the quality of implementation of changes Effectiveness of changes

3. A model of the personnel management system in the research field

- personnel management system helps the organization: in achieving the set goal; in raising the efficiency of activities; in taking care of staff needs; in transforming;
- The personnel management system takes part in: in strategy development; In developing personnel management processes; Ensuring employee engagement; In the study of cultural transformation and changes in business conduct;
- The personnel manager is sure that: The strategy of the personnel management system is in line with the strategy of the firm; The processes of the personnel management system work effectively; The personnel management policy and program are aligned with the needs of the firm's employees; Transformation is guaranteed with a staff management program;

⁶ Geiger, G., Organisation: Grundlagen moderner Organisationsgestaltung. 2020.

- The effectiveness of the activities of the personnel management department can be evaluated: By realizing the firm's strategy; with the effectiveness of the organizational structure; By attitude to the problems of the company's employees; with the changes made in the firm;
- The personnel management manager devotes the main time to: strategy development; operative activity; relations with ordinary employees; Changes in the firm's behavior style in market conditions;
- Personnel manager can be called: A strategic partner; Administrative expert; staff leader; agent of change;
- Personnel manager actively participates in: in business planning; in the development of personnel management methods; taking into account the interests of the company's employees; in transformations;
- Personnel manager is busy: By aligning the personnel management strategy with the corporate strategy; By monitoring the administrative process; with the problem of employees; By transforming the company's culture;
- The personnel manager develops the program: In relation to the management of personnel and business processes; About the effectiveness of document circulation; on provision of personnel needs; About the transformation of the firm;
- The usefulness of the personnel management system is revealed: in realizing the firm's strategy; in raising productivity; in raising staff satisfaction; in carrying out the transformation.

Conclusion

Employees should be involved as experts in their work "situational area" in the processes of implementation and evaluation of appropriate measures based on the action plan. The quality circle is an effective tool for participation in action planning. The quality circle uses the expert knowledge of the employees in the relevant fields. Guidelines developed by a given group should be forwarded to, for example, a structural unit such as a decision-making committee. The results of the analysis are the basis for defining specific goals, setting priorities and planning a long-term strategy.

The motivations for organizational changes are: use of existing technologies and their improvement; to better meet market needs; to ensure the flexibility of the organizational system; reducing costs and increasing capital productivity; increase profits and use them for business expansion; reduce production cycle time, but increase productivity; strengthening information security; to achieve competitive advantages, a real advantage over competitors and gain access to new markets; optimization of processes and transfer of performance of secondary functions to other organizations based on outsourcing; increasing the volume of long-term investments and capital investments; To increase customer satisfaction by offering better quality products. Prerequisites for management activities for organizational changes: the environment in which the enterprise operates is characterized by constant changes; The main responsibility of the manager is the need to maintain the organization in a changing environment; The organization is maintained through adaptation to the environment; The manager reacts to the current changes by making specific decisions regarding each specific change; Decision-making acts as the main functional responsibility of the manager and means a form of response to changes.

The synergy between process-oriented teachers and goal-oriented parents allows for the optimization of the useful function of the school as a social institution. Orientation of teachers on teamwork will increase the effectiveness of using organizational potential. The development of organizational professionalism of teachers is becoming relevant. In the process of organizational changes, school training is important, which involves learning to interact with and adapt to new economic conditions (increasing penetration of economic thinking into educational policy). Objective prerequisites for organizational changes: deterioration of financial and economic indicators, decrease in competitiveness; insufficient investment attractiveness of the company; Disagreement at the highest level of management

on tactical and strategic issues; the emergence of problems of coordination and interconnection; a variety of interconnected organizational, technological, economic, social, financial processes that require coordination and consistency; Violation of the economic balance between current and strategic activities; simultaneous influence of external and internal factors.

A modern organization should have a work organization that offers employees a balanced relationship between work demands and their own capabilities. Organizational development is a behavioral discipline designed to adapt organizations to continuous change. Organizational development aims to integrate individual aspirations for personal growth and development. Organizational development is strategic in nature and should include an analysis of the school's problem areas. The purpose of the educational institution is to create opportunities for the development of an individual with an active civic position, capable of creativity and self-realization in the context of socially useful activities. A special role in the structure of the school can be played by the establishment of interest clubs, where each person can communicate and present himself and his personal skills.

Self-developing organization: it adapts to new goals as required by rapid changes in environmental conditions; Its members cooperate and manage the change, preventing its destructive influence on the organization; It has favorable opportunities for growth and self-development (self-actualization) of its members; It is characterized by free communication (open communications) and high mutual trust between employees, so conflicts are resolved constructively; In it, everyone's participation in setting goals and making decisions is a rule so that employees feel involved in planning and managing change.

Three types of processes that determine the nature of transformation in the organization: the creativity of the organization itself (its ability to receive, adapt, produce and reject innovations); pressure on the organization from political, socio-economic, technical and cultural factors that encourage it to change (innovative environment); A process of mutual adaptation that develops between the organization's own motivation and environmental pressures. The results of organizational development activities are: optimization of the enterprise's organizational-functional and organizational-management structures, increasing readiness for changes and development, changing people's behavior towards each other to a more positive attitude, ensuring individual and group self-esteem of the enterprise's personnel, uniting the team. Efforts of enterprise leaders to achieve overall job satisfaction. Increasing personal responsibility in schools provides an opportunity to develop an individual school profile. Developing internal school quality standards creates clarity and commitment among the parties involved in the process. Consensus on a shared understanding of good teaching is a prerequisite for successful school self-evaluation. Joint discussion is important for school development. Peer review of teaching requires trust and knowledge of the rules of feedback. Informing about growth prospects - the positive history of the institution stems from the fact that the organization widely uses its market opportunities taking into account state interests, which has a positive impact on the opinion of business groups.

An organizational development specialist should possess the following competencies: 1. Ability to evaluate the conditions and results of organizational and management decisions. 2. Willingness to participate in the implementation of the organizational change program, ability to overcome local resistance to change. 3. Ability to identify and evaluate new market opportunities and formulate business ideas. 4. Ability to audit human resources and diagnose organizational culture.

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The Effects of the Economic Valuation of Education from the Aspect of the Distance Learning System

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Abstract

The aim of the work is to confirm the issues of economic evaluation of education and distance learning systems, and to affirm the methodology of valuation and economic valuation as a key issue of objective valuation and reasoning. The subject of research in this paper is the evaluation of the quality of teaching delivered through distance learning studies, i.e., how students perceive the quality of this kind of teaching. A particularly significant research problem posed in this work is whether and to what extent the effectiveness of the economic adoption of the distance learning system is influenced by the current education system. In writing this paper, the author relied on previous research in the area of economic growth and development analysis, as well as technology evaluation and invisible capital. A comparative analysis of the distance learning system, which the author has been dealing with for many years, is also provided. The results certainly indicate important trends, which were expected. The conducted analysis only gives indications for further research, which is certainly lacking in Bosnia and Herzegovina at the level of tertiary education. In the context of harmonizing policies on the labor market and education policy, it would be interesting to observe the speed of employment of students who graduate from certain economic universities and professional studies in the country, but for such adequate monitoring, it is not enough to analyze the data alone from the employment office, it would be necessary to analyze the quality of individual faculties. The key conclusion: E-learning is an educational process realized using computer and information technologies, enabling spatial distance between the user and the provider of educational services. E-learning, as one of the alternative methods, forms, or technologies of education, has evidently gained primacy in learning and work in recent years. All educational processes are simultaneously economic processes with the primary goal of minimizing investments and maximizing economic gains.

Keywords: Economic Valuation, Economic Development, Education.

Introduction

There are a number of questions that arise when talking about the economic valuation of education. The first question refers to the importance of the knowledge factor for economic growth. The contribution of knowledge to this growth ranges from 0 to 100%. The next equally important issue is related to the high rate of obsolescence of current, applicable knowledge, which necessitates continuous education and training. According to expert estimates, the average annual rate of knowledge obsolescence is about 15%. We should not ignore the fact that the development, transfer, and engagement of knowledge require economic and material investments, which entail certain costs. Education is not a low-budget process. The most important issue is the affirmation of the need to ensure the economy of work.¹

E-learning is a type of learning in which any form of computer technology and electronic media are used to improve the quality of learning. E-learning can be an interactive relationship between the lecturer and course participants supported by the use of technology and the Internet, or it can be an

¹ Đurić, Z., & Vidović, A. *Ekonomsko vrednovanje E-learning-a*. ITEO 2010. Banja Luka: Apeiron. 2010.

independent learning process. E-learning systems are a fast, reliable, and efficient way of teaching. They are fast because you can literally access educational materials with one click from anywhere at any time. They are effective because they save time and reduce education costs, and ultimately, they are reliable because you can check your knowledge at any time and monitor your own progress.²

Quality evaluation and economic evaluation must be based on a clearly defined valuation methodology. Any discussion of values and valuations begins with issues of valuation methodology. The author's opinion is that the evaluation methodology does not receive enough attention when it comes to evaluating distance learning studies. The author's primary focus in this work is on the structure of indicators that should be evaluated, that is, on the basic evaluation model - indicators and data, without delving into the nature and intensity of connections between individual sizes and systems of guidance.

3

Research in e-learning covers a wide range of issues: organizational, pedagogical, and technical. The challenge in policy terms is how to separate findings that can influence policy. However, many studies in this field are primarily anecdotal and case-based, so the findings are not scalable or portable. What we know about the changing skill base of teachers and students can inform staff development activities and the way pupils are supported.⁴

As stated in the Educational International - EI, an action program was created to accelerate the implementation of the UN Agenda for Sustainable Development by 2030. According to this Agenda, there are eight priorities: 1. Management of educational institutions, 2. Knowledge, research, and educational work, 3. Education accessible to handicapped and other marginalized groups, 4. Flexible ways of learning, 5. Professional development of teachers, 6. Quality learning outcomes, 7. Financing education as a public good, 8. Prevention of brain drain.⁵

Distance learning is transforming the way of learning and education in the 21st century, especially due to its expansive development influenced by mobile technologies. The mass use of smartphones, tablets, and similar devices has flooded the market, opening up new opportunities for learning and improving knowledge and competence in accordance with the requirements of the modern market.⁶

1. Literature Review

Estimating the cost function for technology-based e-learning and traditional face-to-face learning is important for understanding the economics of higher education. Universities are raising their tuition fees, especially for face-to-face learning, to meet the rising costs of higher education. Technological development has initiated a new paradigm of e-education at higher academic institutes. As such, concepts of education and learning have evolved beyond their traditional dimensions into a new system independent of space and time, which has the potential to minimize the costs of higher education.⁷

Higher education is extremely important in the development of any society. Ensuring a quality education system from pre-school, elementary school, high school to higher education, including adult education (lifelong education), is a prerequisite for the development of society through growth in competitiveness and productivity based on knowledge and innovation. The quality of higher education

² Antonela, A., Što je e-learning i koje su ključne prednosti e-učenja. Retrieved from Marketing. 2020. 03 29. HR: <https://www.markething.hr/e-learning-kljucne-prednosti/> [L.s.25.07.2024].

³ Đurić, Z., & Vidović, A. Ekonomsko vrednovanje E-learning-a. ITEO 2010. Banja Luka: Apeiron. 2010.

⁴ Andrews, R., & Haythornthwaite, C. E-learning research. Sage Publication. 2007.

⁵ Tomljenović, G. Evropski akcioni program za globalne obrazovne ciljeve-Ambiciozna agenda do 2030. Prosvetni pregled, 8 9, 1-1. 2016.

⁶ Vidovic, A., DISTANCE LEARNING SYSTEM IN FUNCTION OF STUDENT SATISFACTION FOR DELIVERED QUALITY OF TEACHING. Journal of Business Theory and Practice, 9(3). 2021.

⁷ Chakrabarty, S., Mafizur Rahman, M., & Khanam, R. (n.d.). Economics of E-Learning: Indicators of Comparative Cost Analysis in Higher Education, Retrieved 5 10, 2024, from <https://core.ac.uk/reader/211498200> [L.s.25.07.2024].

is directly correlated with the financing of higher education. The percentage of GDP allocation for higher education and scientific research activity varies from country to country and is only one of the indicators of the quality of higher education and scientific research activities.⁸

Access to education as a process and activity is possible from different aspects. Education in general is considered a fundamental input of economic and social development. Education as a public good has a counterpart in the private (commercial) market. In past decades, the market valuation of educational activities was discussed at the level of a kind of controversy. A dual approach, public and private, emphasizes the limitations of commercialization in the field of education. The educational profile of the unemployed is one of the more significant indicators of the complementarity of education and society.⁹

Global and local economic crises, large and persistent budget deficits and public debts, lead public authorities to seek solutions in reducing public financing of higher education. Such an approach has uncertain social and generational consequences as well as adverse effects on the development of science and the education system. The immediate context of contemporary problems of economic education includes the following characteristics: Dissatisfaction and poor public perception of economic education and economic science; Deep multi-year economic crisis; The first visible effects of implementing the Bologna process; Strategic change in state regulation and the introduction of private higher education; The continuation of the trend of reducing public financing of science and education.¹⁰

In economic theory and practice, several types of economic values are discussed: actual value, nominal value, current market value or current market price, and accounting value. All these values have their ultimate expression, i.e., monetary expression. Most often, there are significant differences between these different types of values, and therefore, today, economists insist on estimates of actual values. The practice of valuation and economic valuation shows that the valuation methodology and economic valuation must always be adapted to specific objectives and the subject of valuation. The basic model of economic valuation should be adapted to the requirements of specific valuation in education. In this adaptation, the objectives of valuation occupy a significant place. In education, the objectives of investors - owners of capital, the objectives of users - pupils and students, the objectives of the collective of educational organizations, and the broader objectives of society are not the same. This means that the indicators with which one operates in the process of economic valuation of educational processes are not the same.

Numerous authors list and discuss the benefits and harms of distance learning studies, without quality questions there are no quality answers, which means that we are all, gathered around this topic, on the right path. One of the methods that gives the best results is the Cost-Benefit Analysis method, although this is an auxiliary analysis within which one should evaluate those indicators that do not have or for which quantitative and financial data cannot be provided. Cost-Benefit Analysis is a qualitative team analysis that is conducted in a few steps:

- The model and system of valuation of benefits and harms are defined,
- According to the defined model and system, measures of benefits and harms are evaluated, arriving at a unique assessment;

The methodologically correct way of evaluating benefits and harms, the author found in the evaluations of the use of the Internet in the educational process at the University of Tel Aviv. This research analyzed

⁸ Vašiček, V., & Dragija, M. Modeli financiranja visokog obrazovanja i primjena u Republici Hrvatskoj. Ekonomsko obrazovanje u Republici Hrvatskoj - jučer, danas, sutra (p. 109). Zagreb: Ekonomski fakultet. 2013.

⁹ Barić, V., & Obadić, A., Odnos javnih i privatnih ekonomskih učilišta – svjetski trendovi i praksa u Hrvatskoj. p. 57. Zagreb: Ekonomski fakultet. 2013.

¹⁰ Čavrak, V., Obrazovanje za dobro društvo. Ekonomsko obrazovanje u Republici Hrvatskoj - jučer, danas, sutra, p. 3. Zagreb: Ekonomski fakultet Zagreb, Split, Rijeka, Osijek. 2013.

44 benefits and 23 costs from the aspect of: students, university, and teaching staff, grouped into 6 basic groups: increasing the efficiency of the process, improving the instructions of the teaching staff, increasing the effectiveness of the process, developing innovative and new knowledge, infrastructure costs, teaching staff costs. The evaluation covered 3,453 subjects. Students and teaching staff participated in the evaluation. The entire valuation system is set up in such a way that it allows for the execution of a final assessment for each of the basic valuation groups and from the aspects of students, university, and teachers. The final assessments are - much higher values were obtained compared to the values invested in the use of the Internet in the educational process.¹¹

2. Research and Discussion

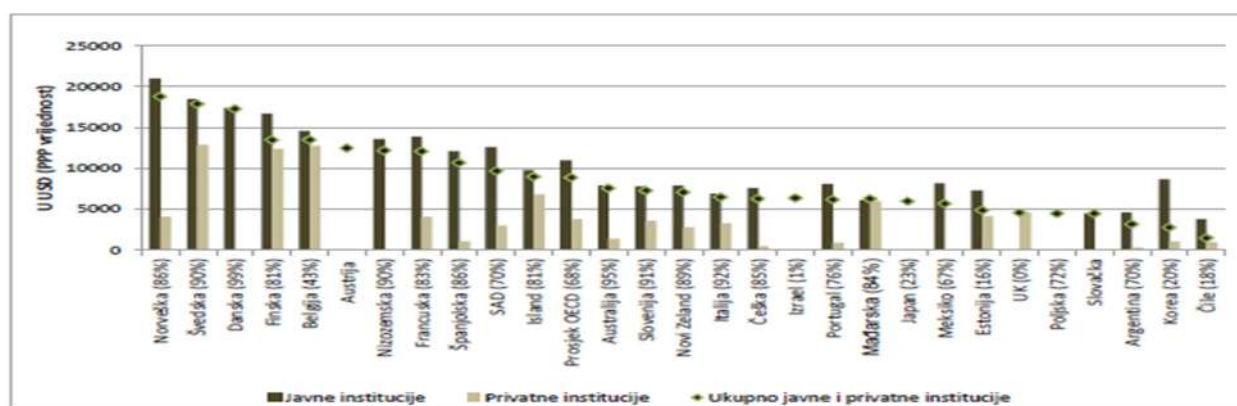
The liberalization of regulated higher education markets reforms existing education systems in a way that reduces the index of dependence of educational institutions on the state, both in financial and management terms. In the financial sense, the control and management of finances are left to the decisions of the institutions themselves. Another type of deregulation is privatization.

The research in the paper was conducted based on a comparative analysis of the situation from the previous period. The comparative method of comparing and collecting data determined the data for writing the paper. Theoretical analysis includes the theoretical basis of the research, while the combination of these methods leads to the data required for the preparation of the work, the relevance of the data on the specific problem, as well as the formation of the final opinion.

Primary sources of data were used, such as various normative acts, and secondary sources (articles, publications, magazines, data from the Bureau of Statistics of Bosnia and Herzegovina, etc.). In order to gain insight into the quality of the formal education system, the author of the paper started the analysis of education at higher education institutions. The available information obtained was used during the work based on the annual statistical reports of the observed countries. The analysis was done by comparing the situation in OECD countries, as well as an analysis of the situation in Bosnia and Herzegovina, and the surrounding countries based on relevant statistical data.

According to Barić and Obadić, public expenditures for all forms of educational institutions on average amount to 84% in OECD countries. Most of these expenses refer to the primary and secondary levels of education in all countries. Less than 10% of the funding for those levels of education is financed from private sources. Depending on the country, much more is financed from private sources for tertiary education. About 30% of the total expenditure on tertiary education is covered by private funds.¹² The following graph shows the situation (the black mark is for public institutions, gray for private institutions).

Figure 1. Annual public spending on educational institutions



¹¹ Đurić, Z., & Vidović, A., Ekonomsko vrednovanje E-learning-a. ITEO 2010. Banja Luka: Apeiron. 2010.

¹² Barić, V., & Obadić, A., Odnos javnih i privatnih ekonomskih učilišta – svjetski trendovi i praksa u Hrvatskoj. p. 57. Zagreb: Ekonomski fakultet. 2013.

Source: Database OECD.

Furthermore, as stated by Barić and Obadić, at the tertiary level of education, public expenditure per student for public and private institutions in OECD countries averages 8,810.00 USD per year, but varies from 1,500.00 USD in Chile to more than 17,000.00 USD in Denmark, Norway, and Sweden (three countries in which the share of private expenditures is low or insignificant) (see Graph 1). In all countries where there are data, public expenditure per student is higher for public than for private institutions.¹³

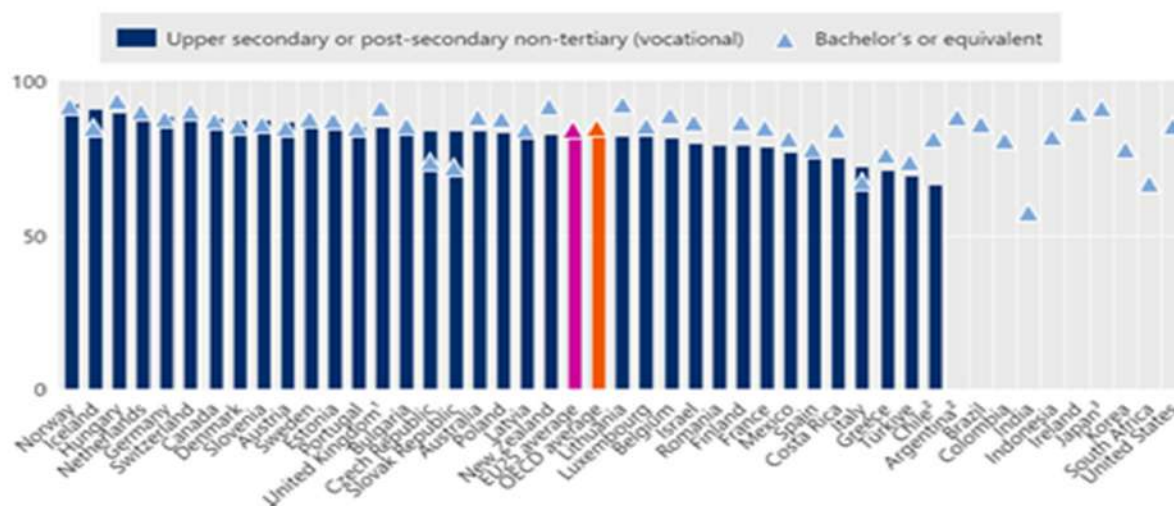
The goals of education reform in the state of Croatia relate to finding new and ensuring stable sources of financing, creating an appropriate financing strategy, raising the quality of the education process and the entire system, improvement of the curriculum in accordance with modern knowledge about child development, and lifelong learning of employees in the education sector.

Progress in the development of the educational system could be achieved by nurturing market relations in financing education, sponsorships, donations, direct financing of individuals and companies, decentralization of education, and increasing the number of private schools. Financing of private education depends on the assessment of public needs in educational activities and the existence of private schools on the educational market.¹⁴

Modern economies depend on a supply of highly skilled workers and these workers in turn reap labour-market benefits. These advantages, combined with expanded education opportunities, have encouraged individuals across the OECD to acquire more skills via attaining higher levels of education. Those with lower educational qualifications earn less and are at greater risk of unemployment. Automation could mean the disappearance of 14% of existing jobs, an estimate that varies significantly across countries (from 7% in Norway to 35% in the Slovak Republic) (Georgieff and Milanez, 2021).¹⁵

On Figure 2. an overview of the employment rate for 25-34 years of age is given, according to the level of education and program direction.

Figure 2. Employment rates (2022)



Source: Database OECD

¹³ Barić, V., & Obadić, A., Odnos javnih i privatnih ekonomskih učilišta – svjetski trendovi i praksa u Hrvatskoj. p. 57. Zagreb: Ekonomski fakultet. 2013.

¹⁴ Sharairi, S., Efekt ekonomije razmjera u odgoju i obrazovanju. Zagreb, Zagreb, Univerzitet u Zagrebu. 2019.

¹⁵ OECD. Table A3.2 and Education at a Glance Database, Methodologies and Technical Notes. 2023. Retrieved from OECD: <http://stats.oecd.org/> [L.s.03.04.2024].

On average in OECD countries, employment rates are rising from around 60% for people aged 25 to 34 years without completing upper secondary school to 86% for those with a tertiary qualification, while the unemployment rate drops from 13% to 5%, and inactivity rates from 31% to 9%. This positive relationship between education and the labor market is valid for both men and women and has been stable over the decade. Employment rates among adults (ages 25-64) with upper secondary education or higher are much higher than for those with lower secondary education. On average, only 59% of people aged 25 to 64 with a lower secondary education are employed in OECD countries, rising to 77% of those with upper secondary or post-secondary non-tertiary attainment.¹⁶

Most authors in the evaluation and economic evaluation of educational processes and e-learning operate with a cost approach in a methodological sense. Table No. 1 provides an overview of the state of expenses per student in the period from 2000-2007.

Table 1. Costs of higher education per student in the USA in the period 2000-2007.

School years	Public 4 yrs. Education (USA \$)	Private 4 yrs. Education (USA \$)
2000-2001	8.653	21.856
2001-2002	9.196	22.896
2002-2003	9.787	23.787
2003-2004	10.674	25.083
2004-2005	11.426	26.257
2005-2006	12.108	27.317
2006-2007	12.805	28.896

Source: U.S. department of education, National centre for education statistics, Digest of education statistics, 2008.

According to the cost approach, the value of the product of the process depends on the consumption and costs of the process. In modern economic analyses and evaluations, above all in evaluations of new economic factors - knowledge, technology, know-how, the cost approach is rejected and the yield approach is affirmed. According to this approach, something is worth as much as it will bring in future returns - earnings and earnings risk. According to the yield approach, for investors, e-learning is worth as much as it will bring earnings and what the earnings risks will be, and for e-learning users, e-learning is worth as much as the knowledge and skills provided in this way, to bring earnings and withdraw earnings risks in a professional career.

Rumble, like numerous other authors, started from the cost approach in evaluating e-learning. For the purpose of his research:

- He determined the average costs per student for e-learning and other forms of education in different countries and compared the obtained results/costs/ by different technologies of educational implementation process, emphasizing that the cost advantage of e-learning depends very much on the economy of scale or from the number of e-learning program users.
- Compared to classical education technologies, e-learning involves significantly higher fixed costs. The amount of fixed cost per student depends on the number of users. A key and critical factor in the economic advantage of e-learning compared to other alternative education

¹⁶ OECD. (2023). Table A3.2 and Education at a Glance Database, Methodologies and Technical Notes. Retrieved from OECD: <http://stats.oecd.org/> [L.s.03.04.2024].

technologies is an economy of scale.¹⁷

The following table shows the prices of school fees in neighboring countries, and also gives a comparative display of tuition fees at state (traditional) and private faculties.

Table 2. Price display of school fees

State	Traditional faculty (Scholarly fee)	Private faculty (Scholarly fee)
Bosnia and Hercegovina	1000 Euro	!500 Euro
Croatia	1500 Euro	3000 Eura
Serbia	800 Euro	1500-2000 Euro

Source: Author presentation (Bosnia and Hercegovina¹⁸ Ovo je cijena školarine na fakultetima u Srpskoj za akademsku 2024/25. godinu, 2024), Srbija¹⁹ Hrvatska²⁰

It is evident from the table that the tuition fees of private faculties are higher for the reason that private faculties enter their own resources, starting from investment and construction or lease of the building in which teaching will take place, equipping classrooms with all accompanying elements, paying staff and administration for the difference from the state faculties that have the help of the state in organizing all the aforementioned activities.

The profitable approach in the evaluation of the educational process places emphasis on actuality and, above all, on practical applicability of knowledge and skills that are transferred within the educational process. The question is which knowledge and skills e-learning enables quality mastery of skills and whether it depends on technology transfer or the quality of the teacher's work.

There are many more questions than answers in economic valuation - comparing invested and received economic values in e-learning and comparisons of savings and earnings of e-learning and alternative educational processes. We will mention some, for evaluation and economic evaluation, very important questions:

- What is the economic value of the product/transferred knowledge and skills?
- Is it the market price paid by the user of the educational service or is it the earnings he will pupil/student achieve by applying the acquired knowledge and skills in their professional work?
- Or are they funds that are approved from the budget to the educational institution or something else?
- Many discussants on the topic of e-learning emphasize the greater value that is delivered compared to traditional educational processes. Does it mean the transferred knowledge, or the way of delivery? What is the evidence of the greater value of transferred knowledge and skills within e-learning compared to traditional ways of transferring knowledge and skills?

And as the last question, the issue of employment of graduates arises, there are two problems currently in all three observed countries, it is evident that personnel go to other countries in search of a better life economically better countries, they are mostly EU countries, and another issue is the employment of the staff who remain in our country, the question is how and where people will be employed in this time of expansion, when a great number of jobs are replaced by machines?

¹⁷ Rumble, G., The and costing of networked learning. Journal of asynchronour learning networks, 5(2). 2001.

¹⁸ Ovo je cijena školarine na fakultetima u Srpskoj za akademsku 2024/25. godinu. 10.5.2024. <https://katera.news/https://katera.news/lat/ovo-je-cijena-skolarine-na-fakultetima-u-srpskoj-za-akademsku-202425-godinu> [L.s.25.07.2024].

¹⁹ Tuvic, S., Nove cene školarina na deset fakulteta u Beogradu: Gde će studenti morati da izdvoje najviše novca? 22.2.2024. <https://www.euronews.rs:https://www.euronews.rs/srbija/drustvo/115235/nove-cene-skolarina-na-deset-fakulteta-u-beogradu-gde-ce-studenti-morati-da-izdvoje-najvise-novca/vest> [L.s.25.07.2024].

²⁰ Kalkulator skolarina strucnih studija. 2024. Libertas Sveuciliste: <https://www.libertas.hr/upisi/kalkulator-skolarina-strucnih-studija/> [L.s.25.07.2024].

The educational profile of the unemployed is one of the most important indicators of the complementarity of education and societies (economies). On the one hand, it shows the discrepancy between the supply and demand of the profession, and on the other hand, it reflects the state of the economy and its absorptive power regarding new employment.²¹

It is still necessary to provide an overview of investment in research and development in Bosnia and Herzegovina to round off the whole. Therefore, in 2022, there were 2,793 people employed in research and development jobs in Bosnia and Herzegovina, both full-time and part-time, of which 1,403 are women (50.2%). Gross expenditures for research and development in 2022 amounted to 85,502,000 KM, of which current expenses amounted to 69,945,000 KM (81.8%), and investment expenses amounted to 15,558,000 KM (18.2%). Of the funds for research and development, 28.9% are own funds, while 45.5% of funds were obtained from the state and other levels of administration.

The total number of research papers is 1,129, of which the largest number is from engineering and technology with a share of 30.0%. Of the total number of observed units that performed activities in 2022 research and development, 61.3% are from the higher education sector, 30.7% are from the business sector, 5.3% are from the state sector and 2.7% are from the non-profit sector.²²

The following graph shows the expenditure for research and development in relation to GDP in the last 10 years.

Research and development expenditure as a proportion of GDP (%), 2012-2022



Based on the graph, it is evident that very little is invested in research and development in Bosnia and Herzegovina, from the maximum of 0.32% in 2013 to 0.19% in the last two years. Since 2013 to this day, there has been a constant decline in these expenditures, in contrast to the expenditures on higher education whose investment is small but equal in all observed years.

Conclusion

Any discussion of the value and economic value of education must begin with a definition of the valuation or measurement system. For now, there is no generally accepted economic valuation system for education and e-learning. Economic coercion and requirements for rational spending of budget funds are most likely to speed up the development of economic valuation methodology in the field of higher education. Only then, the basis for a qualitative comparison of economic values will be provided for traditional and other, alternative ways of education from the aspects of different stakeholders.

²¹ Barić, V., & Obadić, A., Odnos javnih i privatnih ekonomskih učilišta – svjetski trendovi i praksa u Hrvatskoj. (p. 57). Zagreb: Ekonomski fakultet. 2013.

²² Agencija za statistiku, B. Nauka, tehnologija i digitalno društvo. 2023. Retrieved from Agencija za statistiku Bosne i Hercegovine: https://bhas.gov.ba/data/Publikacije/Saopštenja/2023/RDE_01_2022_Y1_2_BS.pdf [L.s.25.07.2024].

The conducted analysis only gives indications for further research, which is certainly lacking in Bosnia and Herzegovina at the level of tertiary education. The results certainly indicate important trends, which were expected. In the context of harmonizing policies on the labor market and education policy, it would be interesting to observe the speed of employment of students who graduate from certain economic universities and professional studies in the country, but for such adequate monitoring, it is not enough to analyze the data alone from the employment office, it would be necessary to analyze the quality of individual faculties.

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Labor Rights and Occupational Safety and Health (OSH) Analysis in Tourism and Hospitality Sector of Georgia

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Abstract

This study analyzes labor rights and occupational safety and health (OSH) practices within Georgia's tourism and hospitality sector, with a particular focus on small and medium-sized enterprises (SMEs) and startups, especially those led by youth and women. The research is based on a survey conducted among 41 businesses, which represent a range of business types and geographic regions. The findings indicate varying levels of awareness and implementation of labor rights and OSH regulations. While most businesses are familiar with basic labor rights such as working hours, overtime compensation, and rest periods, there are significant gaps in awareness of more complex rights like collective bargaining and minimum wage requirements.

In terms of OSH practices, the survey revealed a substantial need for improvement. Although emergency evacuation procedures and fire safety training are commonly implemented, other critical measures such as ergonomic assessments and stress management programs are less widespread. A concerning number of businesses do not conduct regular OSH training, and many lack dedicated personnel responsible for overseeing safety standards.

The study identifies several key challenges, including the management of overtime, informal employment, and the need for regular safety training. Based on these findings, the paper recommends targeted interventions, such as sector-specific training programs, regional outreach, and stronger support for women-led businesses. These efforts are essential to improving compliance with labor laws and OSH regulations, ultimately creating safer and more equitable working environments in Georgia's tourism and hospitality sector.

Keywords: Labor Rights, Occupational Safety and Health OSH, Tourism and Hospitality

Introduction

The tourism and hospitality sector plays a significant role in Georgia's economy, contributing to both employment and national revenue.¹ However, the rapid expansion of this sector has brought forth challenges, particularly in the areas of labor rights and occupational safety and health (OSH). Ensuring that businesses, especially small and medium-sized enterprises (SMEs) and startups, comply with labor regulations and maintain proper OSH standards is crucial for sustainable growth and the well-being of employees.

This study investigates the current state of labor rights and OSH practices in the tourism and hospitality sector in Georgia, with a specific focus on SMEs and startups, particularly those led by youth and women. By analyzing survey data from a diverse range of businesses, this research provides insights into the level of awareness, implementation, and the challenges faced by businesses in complying with labor rights and OSH regulations. The findings aim to inform future policy development and educational efforts to improve labor conditions and ensure safer work environments in the sector.

¹ Kekelidze, N., Kvachantiradze, N., "PROFESSIONAL SKILLS NEEDS' ASSESSMENT IN TOURISM AND HOSPITALITY SECTOR", International Scientific Conference, Research Review, 2023, PP. 52-68.

1. Labor Rights Awareness and Implementation in Georgia's Tourism and Hospitality Sector

1.1. Overview of the Labor Code of Georgia

The Labor Code of Georgia serves as the primary legislative document governing labor relations within the country, outlining the rights and obligations of both employers and employees.² Key aspects of the Labor Code include provisions on working hours, rest breaks, overtime compensation, employment termination, sick leave, and maternity/paternity leave. These regulations aim to create a balanced working environment that protects workers' rights while allowing businesses to operate efficiently.

Despite these protections, the Labor Code's application varies across sectors, particularly in industries such as tourism and hospitality, where seasonal work and informal employment are common. Businesses in this sector, especially SMEs and startups, often face challenges in fully understanding and complying with the code, partly due to a lack of resources and access to legal expertise. The need for enhanced awareness and implementation of labor laws is critical to ensuring fair treatment of employees, preventing disputes, and fostering sustainable business practices.

1.2. Findings from the Survey on Labor Rights Awareness

The survey conducted by across 41 businesses within the tourism and hospitality sector revealed diverse levels of awareness regarding the Labor Code. Of the respondents, 61% indicated that they were "somewhat familiar" with the labor regulations, while only 24.4% claimed to be "very familiar." This indicates a moderate level of awareness but highlights the need for more in-depth education and training to ensure comprehensive understanding and compliance.

The survey further explored awareness of specific labor rights, revealing varied familiarity with key provisions. For instance, businesses demonstrated a high level of awareness regarding maximum working hours, overtime compensation, rest breaks, and annual leave. These aspects of labor law are relatively well understood due to their immediate impact on daily operations. However, there was significantly lower awareness of rights such as collective bargaining (a key tool for ensuring workers can negotiate for better conditions) and minimum wage requirements. This suggests that while businesses grasp the more visible and operational aspects of labor law, they may be less familiar with rights that involve long-term worker empowerment and legal negotiations.

1.3. Implementation of Labor Rights in the Sector

While general awareness of labor rights was moderate to high, the implementation of these rights within businesses varied significantly. Survey results showed that 87.8% of businesses reported having employment contracts in place for all employees, a positive indicator of compliance with the Labor Code's basic requirements. However, 12.2% of respondents did not have employment contracts for all their workers, indicating that informal employment practices are still prevalent in parts of the sector. Informal employment can leave workers vulnerable to exploitation and denies them access to legal protections provided by formal contracts.

In terms of formal labor policies, 63.4% of businesses reported having written labor policies, while 22% had no such policies in place. Another 14.6% were in the process of developing them. These statistics reveal a substantial gap in the formalization of labor rights within the sector. Formalized policies are crucial as they provide clear guidelines for both employers and employees regarding their rights and responsibilities. The lack of written policies in nearly one-quarter of businesses suggests a risk of inconsistent practices and possible legal challenges in the future.

² Article 14, "Labor Code of Georgia". 2010.

1.4. Challenges in Labor Rights Implementation

One of the most frequently cited challenges in implementing labor rights was managing overtime and working hours, especially in businesses that rely heavily on seasonal or part-time workers. The flexible nature of work in the tourism sector can complicate compliance with standard working hour regulations, and many employers struggle to balance operational demands with legal requirements.

Another significant challenge is the lack of familiarity with labor law changes. Respondents indicated that they often feel out of touch with new regulations and updates, particularly concerning termination procedures, compensation, and anti-discrimination policies. This challenge is exacerbated by the geographic concentration of knowledge and resources in Tbilisi, leaving businesses in other regions with fewer opportunities for training and legal consultation.

2. Occupational Safety and Health (OSH) Practices in the Tourism and Hospitality Sector

2.1. OSH Regulations in Georgia

Occupational safety and health (OSH) regulations in Georgia are designed to protect workers from physical, mental, and environmental hazards in the workplace. The legal framework covers a wide range of topics, from fire safety and emergency procedures to the management of hazardous materials and long-term health risks such as stress and ergonomic injuries. OSH compliance is not only a legal obligation but also a key factor in ensuring employee well-being and productivity.

In the tourism and hospitality sector, the implementation of OSH measures is especially important given the diverse and sometimes physically demanding nature of the work.³ Employees in hotels, restaurants, tour operations, and other hospitality services are often required to handle heavy loads, work in hazardous environments, or interact with large numbers of customers, increasing their risk of injury or burnout. For businesses, maintaining high OSH standards is not only about legal compliance but also about fostering a safe and sustainable work environment that attracts and retains talent.

2.2. Survey Results on OSH Awareness and Implementation

The survey revealed significant variation in OSH awareness and implementation across the tourism and hospitality sector. While 19.5% of respondents reported being very familiar with OSH regulations, the majority of businesses had only a moderate or limited understanding. Specifically, 43.9% were "somewhat familiar" with OSH regulations, and 31.7% were either "not very familiar" or "not at all familiar." This points to a clear need for greater education and training on OSH standards to ensure businesses can adequately protect their employees.

In terms of implementation, the survey showed that most businesses had taken some steps to ensure safety, with emergency evacuation procedures, fire safety training, and the provision of first aid kits being the most commonly implemented measures. However, less attention was paid to long-term health concerns, such as ergonomic assessments and stress management programs. Only a minority of businesses had implemented measures to prevent workplace stress or ensure that employees' physical work environments met ergonomic standards. This imbalance suggests that while businesses are focusing on immediate safety concerns, they may be neglecting important aspects of long-term health and well-being.

2.3. Frequency and Quality of OSH Training

OSH training is an essential component of maintaining workplace safety, but the survey revealed inconsistencies in how frequently businesses conduct such training. Among the respondents, 41.5% reported conducting OSH training annually, which is the minimum standard for ensuring that employees

³ Tartarashvili, T., "Some issues and terminology of legal provision of labor, environment and health safety". 2022.

remain aware of safety procedures. However, 19.5% of businesses admitted to never conducting any form of OSH training, and 17.1% only provided training during the onboarding process. This irregularity is particularly concerning in a sector where risks can vary significantly based on the time of year, type of operation, or location of work.

Moreover, only 41.5% of respondents had a designated OSH officer or person responsible for overseeing safety in the workplace, while the remaining businesses either had no such position or outsourced the responsibility. The lack of dedicated OSH personnel, particularly in smaller businesses, highlights a gap in expertise and leadership on safety issues.

2.4. Main Challenges in OSH Implementation

The survey respondents identified several key challenges in implementing effective OSH practices. These included:

- **Workplace safety training:** Many businesses struggle to provide regular, high-quality safety training to their employees, often due to resource constraints or lack of access to appropriate training materials. This challenge is particularly acute for SMEs and startups that may not have the budget or time to dedicate to ongoing safety education.
- **Stress management and mental health:** Given the high-pressure nature of tourism work, stress and burnout are common problems. However, few businesses have implemented formal stress management programs, and even fewer have mental health support systems in place. This is a significant oversight in a sector where employee interactions with tourists and demanding schedules can contribute to psychosocial risks.
- **Handling hazardous materials and safety during travel:** Some businesses, particularly those involved in adventure tourism or outdoor activities, face unique risks related to hazardous materials and transportation safety. Ensuring that employees are trained to handle these risks requires specialized training that is not always readily available.
- **Awareness and knowledge gaps:** Perhaps the most fundamental challenge is the general lack of awareness and understanding of OSH regulations. Many businesses, particularly smaller ones, either do not perceive OSH as a priority or are unsure how to implement comprehensive safety measures. This lack of awareness underscores the need for sector-wide educational campaigns and more accessible resources on OSH compliance.

Recommendations

1. **Targeted Training Programs:**

Develop sector-specific training programs on labor rights and OSH, tailored to the needs of tour operators, hotels, and educational institutions.

Focus on areas of lower awareness, such as collective bargaining rights and minimum wage requirements.
2. **Regional Outreach:**

While Tbilisi-based businesses are well-represented, increase efforts to engage businesses in other regions of Georgia.
3. **SME and Startup Focus:**

Design initiatives specifically for SMEs and startups in the tourism sector, addressing their unique challenges in implementing labor rights and OSH practices.
4. **Support for Women-Led Businesses:**

Create targeted programs to support and empower women-led businesses in the sector, given their significant presence.
5. **Collaboration with Educational Institutions:**

Leverage the participation of universities to develop educational programs that integrate labor rights and OSH into tourism and hospitality curricula.
6. **Industry-Specific Guidelines:**

Create and distribute guidelines on labor rights and OSH that are specific to different sub-sectors (e.g., tour operations, hotel management).
7. **Regular Assessment:**

Conduct follow-up surveys to track progress and identify evolving needs in the sector.
8. **Awareness Campaigns:**

Develop campaigns to increase awareness of less-known labor rights, particularly collective bargaining rights and minimum wage requirements.
9. **Formalization of Policies:**

Encourage and assist businesses in developing written labor and OSH policies.
10. **Comprehensive Employee Education:**

Develop programs to ensure employees are comprehensively informed about their labor rights.
11. **Increase Labor Rights Training:**

Implement more widespread training programs on labor rights for both employers and employees.
12. **OSH Education and Implementation:**

Enhance education on OSH regulations and assist businesses in implementing comprehensive OSH measures, including those focused on long-term health.
13. **Address Common Challenges:**

Develop specific guidance and support for managing overtime, working hours, and seasonal employment in compliance with labor laws.
14. **Standardize OSH Training:**

Encourage more frequent and regular OSH training across the sector, moving towards at least annual training for all businesses.

15. OSH Expertise:

Support businesses, especially SMEs, in accessing OSH expertise, either through hiring designated officers or through shared resources and outsourcing options.

16. Sector-Specific OSH Guidance:

Develop and distribute OSH guidelines that address the specific challenges of the tourism and hospitality sector, including travel risks, customer interaction risks, and challenges faced by educational institutions in the field.

17. OSH Awareness Campaign:

Launch a sector-wide campaign to increase awareness of OSH issues and their importance, targeting businesses that currently see no significant challenges or lack awareness.

18. Tailored Labor Regulations:

Work with policymakers to create special labor law provisions that address the unique needs of the tourism and hospitality sector, particularly for field staff, guides, tour leaders, drivers, and seasonal workers.

19. Informal Employment Reduction:

Develop initiatives to combat informal employment in the sector, promoting formal contracts and ensuring all workers are covered under labor laws.

20. Inspection Awareness:

Conduct information campaigns about the Labor Inspection Service of Georgia and the benefits of compliance to prepare businesses for potential inspections.

21. Mental Health Focus:

Develop and promote mental health support programs specifically designed for the high-stress nature of the tourism and hospitality industry.

22. Diverse Training Formats:

Offer a mix of in-person workshops, online courses, written materials, and consultation services to cater to different learning preferences and business needs.

23. Support Service Promotion:

Increase visibility of government and non-governmental organizations providing support on labor rights and OSH through targeted marketing and partnerships with industry associations.

24. Standardized Safety Protocols:

Develop and distribute industry-specific standardized safety protocols, particularly for fire safety, first aid, and handling of hazardous materials in hospitality settings.

25. Field Safety Guidelines:

Create specialized safety guidelines for field staff, addressing travel and transportation risks, and health risks from interaction with tourists.

Conclusion

This comprehensive survey of labor rights and OSH practices in Georgia's tourism and hospitality sector reveals a mixed landscape of compliance, awareness, and implementation. While there are positive indicators, such as widespread use of employment contracts and some level of OSH training, significant gaps remain, particularly in the frequency and comprehensiveness of OSH training, the presence of dedicated OSH personnel, and awareness of specific OSH challenges.

The sector shows strengths in basic compliance with labor laws but faces challenges in areas such as overtime management, comprehensive employee rights education, and consistent implementation of OSH measures. There's a clear need for more standardized approaches to OSH training and expertise, especially among smaller businesses.

The specific challenges identified, ranging from stress management to risks associated with tourist interactions, provide clear direction for targeted interventions. Educational institutions in the sector face unique challenges that require specialized attention.

This analysis provides a robust foundation for developing targeted interventions, training programs, and support initiatives to enhance labor rights and OSH practices across Georgia's tourism and hospitality sector. Particular attention should be given to supporting SMEs, standardizing OSH practices, and addressing the sector-specific challenges identified in the survey. By focusing on these areas, the sector can work towards creating a safer, more compliant, and ultimately more sustainable tourism and hospitality industry in Georgia.

Appendix 1. Survey Analysis

This report presents an analysis of the Labor Rights and Occupational Safety and Health (OSH) Survey conducted among members and non-members of the Georgian Tourism Association (GTA). The survey aimed to assess awareness, implementation, and challenges related to labor rights and OSH in Georgia's tourism and hospitality sector, with a focus on small and medium-sized enterprises (SMEs) and startups.

Survey Participation

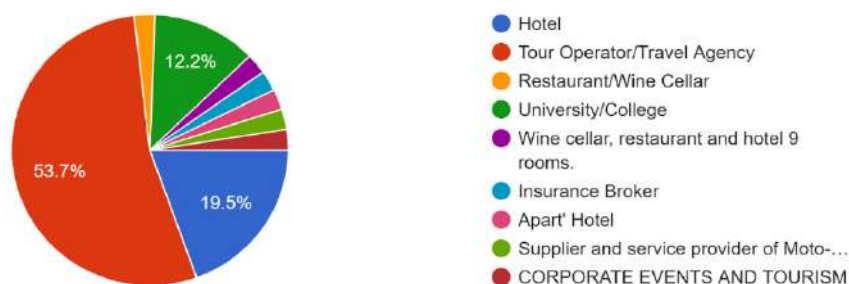
Total Responses: 41 Participants

Key Findings

1. **Diverse Participation:**
 - The survey garnered responses from a wide range of businesses within the tourism and hospitality sector, including hotels, tour operators, travel agencies, universities, and other related services.
 - This diversity provides a comprehensive view of the sector's landscape in Georgia.
2. **Geographic Distribution:**
 - The majority of respondents (26) were from Tbilisi, indicating a concentration of tourism and hospitality businesses in the capital.
 - Other locations included Telavi, Bakuriani, Tsalka, Kobuleti, and various regions, showing some geographic diversity in the sample.
3. **Business Types:**
 - Tour Operators/Travel Agencies: 22 responses (53.7%)
 - Hotels: 8 responses (19.5%)
 - Universities/Colleges: 5 responses (12.2%)
 - Others (Restaurants, Wine Cellars, Suppliers, etc.): 6 responses (14.6%)

Business Type:

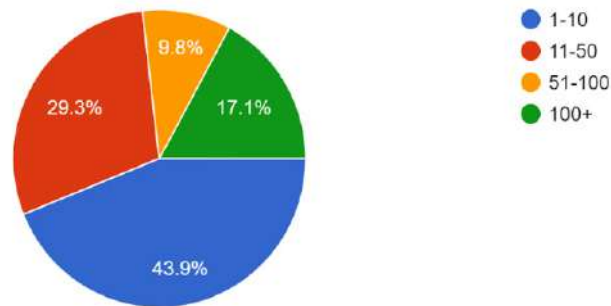
41 responses



4. **Size of Businesses:**
 - 1-10 employees: 18 responses (43.9%)
 - 11-50 employees: 12 responses (29.3%)
 - 51-100 employees: 4 responses (9.8%)
 - 100+ employees: 7 responses (17.1%)
 - This distribution shows a predominance of small and medium-sized enterprises in the sector.

Number of Employees:

41 responses

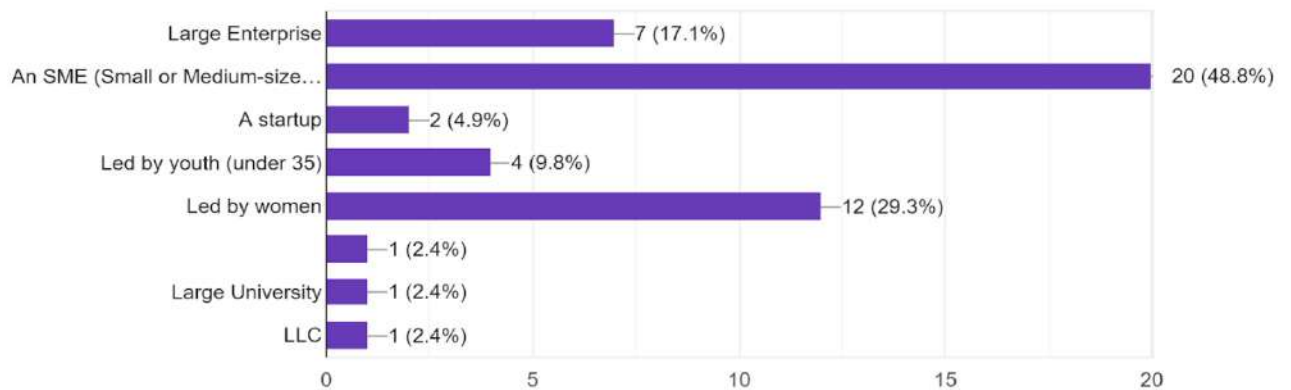


5. Business Characteristics:

- SMEs: 20 responses
- Led by women: 12 responses
- Led by youth (under 35): 4 responses
- Large Enterprises: 7 responses
- Startups: 2 responses
- This indicates a significant presence of SMEs and women-led businesses in the sector.

Is your business: (Check all that apply)

41 responses



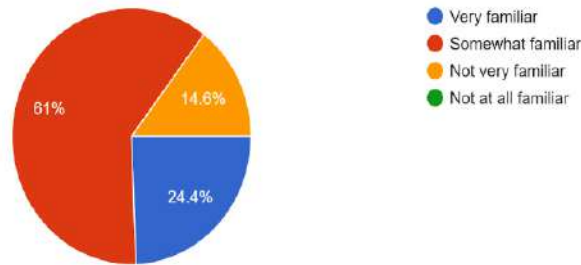
6. Position of Contact Person:

- Director/CEO/General Manager: 18 responses
- Sales/Marketing Roles: 7 responses
- Academic Roles (Professor, Associate Professor): 3 responses
- Other Management Roles: 13 responses
- The variety of roles suggests a good mix of perspectives from different levels of management.

7. Familiarity with Labor Code of Georgia:

- Somewhat familiar: 25 responses (61%)
- Very familiar: 10 responses (24.4%)
- Not very familiar: 6 responses (14.6%)
- This indicates a generally good level of familiarity, but with room for improvement.

How familiar are you with Labor Code of Georgia?
41 responses

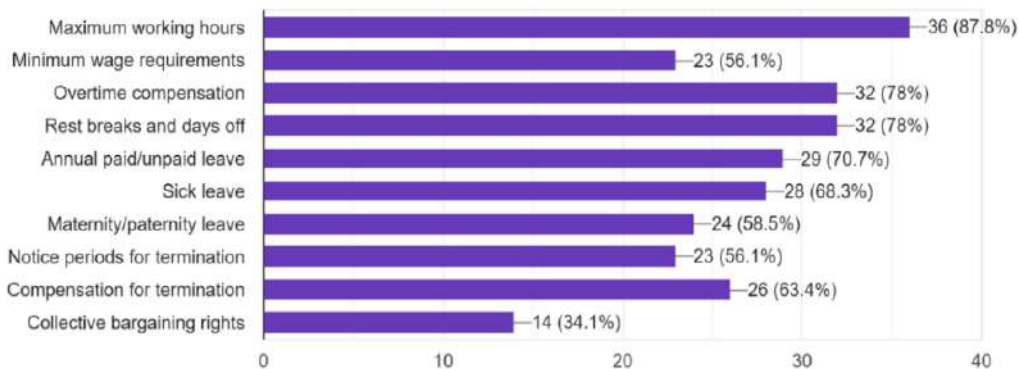


8. Awareness of Specific Labor Rights:

- High awareness: Maximum working hours, overtime compensation, rest breaks and days off, annual leave
- Moderate awareness: Sick leave, maternity/paternity leave, notice periods for termination
- Lower awareness: Collective bargaining rights, minimum wage requirements
- This suggests areas where additional education and awareness campaigns could be beneficial.

Which of the following labor rights are you aware of? (Check all that apply)

41 responses



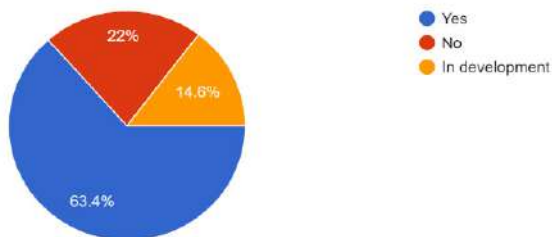
9. Written Labor Policies:

- Yes: 26 responses (63.4%)
- No: 9 responses (22%)
- In development: 6 responses (14.6%)

- This indicates that a majority of businesses have formalized labor policies, but there's room for improvement.

Does your business have a written policy on labour issues such as Internal Regulations?

41 responses

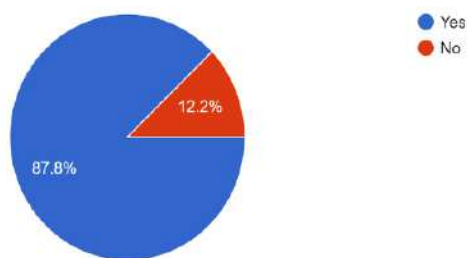


10. Employment Contracts:

- 36 businesses (87.8%) have concluded employment contracts for all employees.
- 5 businesses (12.2%) do not have contracts for all employees.
- This suggests generally good compliance with formal employment practices.

Does your business have concluded employment contracts for all employees?

41 responses

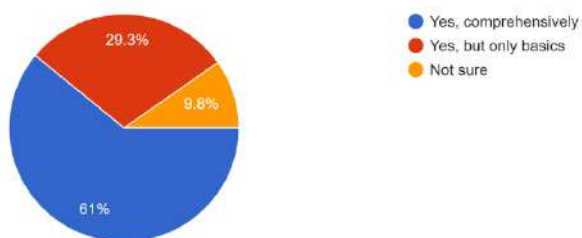


11. Employee Awareness of Labor Rights:

- Yes, comprehensively: 25 responses (61%)
- Yes, but only basics: 12 responses (29.3%)
- Not sure: 4 responses (9.8%)
- Most businesses report informing their employees about their rights, but there's potential for more comprehensive education.

Are your employees informed about their rights under Georgian labor law?

41 responses



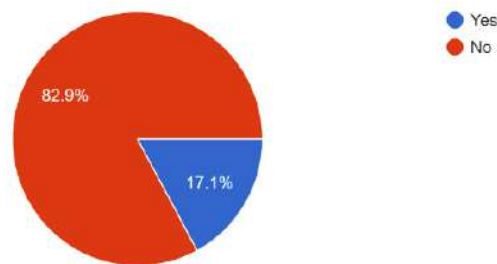
12. Training on Labor Rights:

- Yes: 15 responses (36.6%)
- No: 25 responses (61%)
- This indicates a significant gap in formal training on labor rights.

13. Legal Disputes:

- No: 34 responses (82.9%)
- Yes: 7 responses (17.1%)
- While most businesses haven't experienced legal disputes, a notable minority has.

Have you experienced any legal disputes concerning labor-related matters?
41 responses



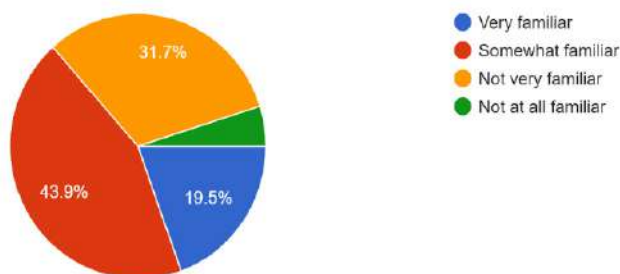
14. Main Labor Law Challenges:

- Overtime and working hours were frequently mentioned.
- Other challenges include hiring seasonal staff, salary issues, lack of knowledge about labor laws, and employee notice periods.

15. Familiarity with OSH Regulations:

- Somewhat familiar: 18 responses (43.9%)
- Not very familiar: 13 responses (31.7%)
- Very familiar: 8 responses (19.5%)
- Not at all familiar: 2 responses (4.9%)
- This suggests a need for more education on OSH regulations.

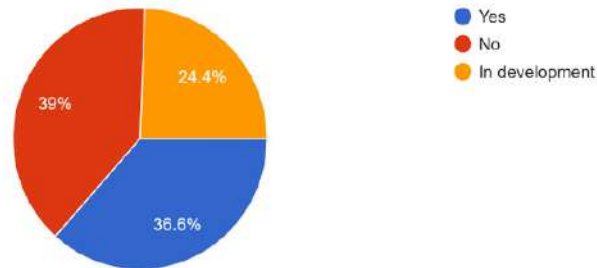
How familiar are you with Georgia's OSH regulations?
41 responses



16. Written OSH Policy:

- No: 16 responses (39%)
- Yes: 15 responses (36.6%)
- In development: 10 responses (24.4%)
- There's a fairly even split, indicating room for improvement in formalizing OSH policies.

Does your business have a written OSH policy?
41 responses



17. Implemented OSH Measures:

- Most commonly implemented: Emergency evacuation procedures, fire safety training, regular safety training, and first aid kits.
- Less commonly implemented: Ergonomic assessments and stress management programs.
- This suggests a focus on immediate safety concerns but less attention to long-term health issues.

18. Frequency of OSH Training:

- Annually: 17 responses (41.5%)
- Never: 8 responses (19.5%)
- Only during onboarding: 7 responses (17.1%)
- Quarterly: 5 responses (12.2%)
- Monthly: 1 response (2.4%)
- Other (twice a year, at the beginning of job): 2 responses (4.9%)
- This indicates that while most businesses conduct some form of OSH training, there's significant variation in frequency and a concerning number that never conduct training.

19. Designated OSH Officer:

- No: 22 responses (53.7%)
- Yes: 17 responses (41.5%)
- Outsourcing: 1 response (2.4%)
- This suggests that many businesses, particularly smaller ones, may lack dedicated OSH expertise.

20. Main OSH Challenges:

- Many respondents (8) indicated no significant challenges or were unable to specify challenges.
- Common challenges mentioned include:

- 1) Regular safety training for employees
- 2) Workplace safety inspections
- 3) Stress management
- 4) Safety during work, including first aid and rescue
- 5) Travel and transportation risks
- 6) Health risks from interaction with tourists
- 7) Overtime work
- 8) Heavy weights handling

- Some respondents noted a lack of knowledge or awareness about OSH issues.
- Educational institutions mentioned specific challenges related to protecting students in potentially hazardous specialties.

22. Labor Inspection:

- 29 respondents (70.7%) have not been inspected by the Labor Inspection Service of Georgia.
- 12 respondents (29.3%) have been inspected.
- This suggests that there may be a need for more frequent or widespread inspections.

23. Information Needs on Labor Rights:

- Areas where more information or training is needed include:

- 1) Overtime compensation
- 2) Collective bargaining rights
- 3) Sick leave policies
- 4) Termination procedures and compensation
- 5) Maternity/paternity leave
- 6) Non-standard work schedules
- 7) Employee and employer rights
- 8) Anti-discrimination policies
- 9) Unionization rights

- Some respondents expressed interest in general information or updates on new regulations.

24. OSH Topics Requiring Additional Support:

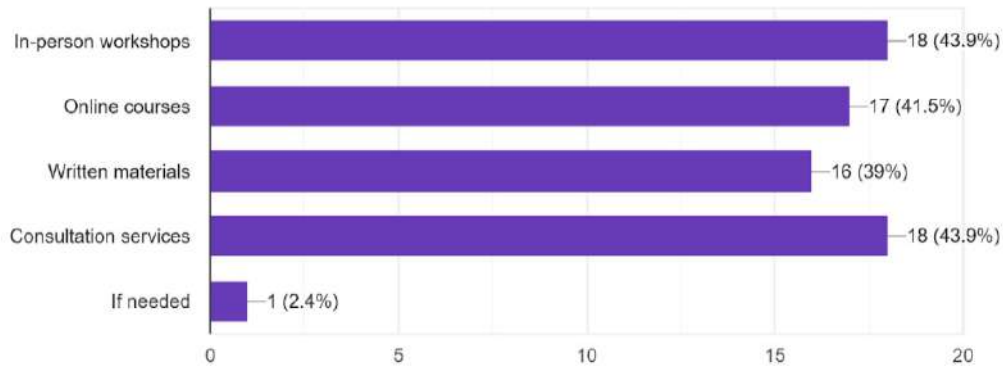
- Emergency response planning
- Ergonomic assessments
- Mental health and wellbeing programs
- Hazardous material handling
- Incident reporting and investigation
- Working hours for permanent and temporary staff
- Security and safety issues in the field
- Psychosocial risks in the workplace
- Stress management and burnout prevention

25. Preferred Training Formats:

- In-person workshops, online courses, written materials, and consultation services were all popular choices.
- Many respondents selected multiple formats, suggesting a preference for diverse learning opportunities.

What format would you prefer for receiving information or training on labor rights and OSH?

41 responses

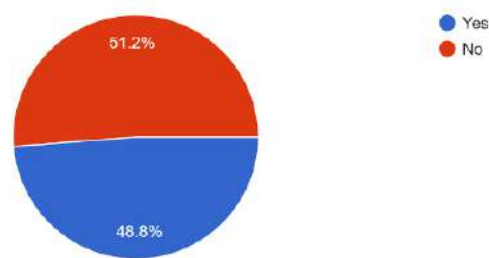


26. Awareness of Supporting Organizations:

- Responses were split almost evenly:
 - 1) 21 respondents (51.2%) were not aware of any government or non-governmental organizations providing support on labor rights and OSH.
 - 2) 20 respondents (48.8%) were aware of such organizations.
- This indicates a need for better promotion of existing support services.

Are you aware of any government or non-governmental organizations providing support on labor rights and OSH?

41 responses



27. Additional Comments and Suggestions:

- Improvement in training and awareness programs specific to the tourism and hospitality industry.
- Implementation of standardized safety protocols across all establishments.
- Introduction of mental health support programs for employees.
- Stricter monitoring and enforcement of labor rights and OSH regulations.
- Better education for workers on their rights related to working hours, wages, and rest periods.

- Addressing informal employment in the sector.
- Creating special labor law provisions for the hospitality sector, especially for field staff and seasonal workers.
- Ensuring rights, health, and safety guarantees for hospitality staff, including college graduates.
- More support, information, and training for the sector.

Appendix 2. Questionnaire

The activity is implemented under CIPE and Solidarity Center's joint "Engaging Workers and Civil Society to Strengthen Labor Law Enforcement," Phase II project.

"Funding is provided by the United States Department of Labor under cooperative agreement number IL-32531-18-75 K, through a subaward to the Center for International Private Enterprise (CIPE) from the Solidarity Center. 100% of the total costs of the project or program is financed with federal funds, for a total of \$2 million. This material does not necessarily reflect the views or policies of the United States Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement by the United States Government."

Section 1: General Information and Contact Details

1. Business Name: _____
2. City/Town: _____
3. Business Type: Hotel Restaurant Restaurant Tour Operator Travel Agency Other:

4. Number of Employees: 1-10 11-50 51-100 101+
5. Is your business: (Check all that apply) An SME (Small or Medium-sized Enterprise) A startup Led by youth (under 35) Led by women
6. Primary Contact Person: _____
7. Position of Contact Person: _____
8. Phone Number: _____
9. Email Address: _____

Section 2: Labor Rights Knowledge

10. How familiar are you with Labor Code of Georgia? Very familiar Somewhat familiar Not very familiar Not at all familiar
11. Which of the following labor rights are you aware of? (Check all that apply) Maximum working hours Minimum wage requirements Overtime compensation Rest breaks and days off Annual paid/unpaid leave Sick leave Maternity/paternity leave Notice periods for termination Compensation for termination Collective bargaining rights
12. Does your business have a written policy on labour issues such as Internal Regulations? Yes No In development Not sure
13. Does your business have concluded employment contracts for all employees? Yes No Not sure
14. Are your employees informed about their rights under Georgian labor law? Yes, comprehensively Yes, but only basics No Not sure
15. Have you or your staff received any training on labor rights in the past two years? Yes No If yes, please specify: _____
16. Have you experienced any legal disputes concerning labor-related matters? _____
17. What are the main labour law challenges in your business? _____

Section 3: Occupational Safety and Health (OSH)

18. How familiar are you with Georgia's OSH regulations? Very familiar Somewhat familiar Not very familiar Not at all familiar
19. Does your business have a written OSH policy? Yes No In development Not sure
20. Which of the following OSH measures are implemented in your workplace? (Check all that apply) Regular safety training for employees Provision of personal protective equipment (PPE) Emergency evacuation procedures First aid kits and trained first aiders Regular workplace safety inspections Incident reporting and investigation procedures Ergonomic assessments for workstations Stress management programs Fire safety training and equipment

- 21. How often do you conduct OSH training for your employees? Monthly Quarterly Annually Only during onboarding Never
- 22. Do you have a designated OSH officer or responsible person? Yes No Not sure
- 23. What are the main OSH challenges in your business? _____
- 24. Have you been inspected by the Labor Inspection Service of Georgia? _____

Section 4: Needs Assessment

- 25. What aspects of labor rights do you need more information or training on? _____
- 26. What OSH topics would you like additional support or resources for? _____
- 27. What format would you prefer for receiving information or training on labor rights and OSH? In-person workshops Online courses Written materials Consultation services Other: _____
- 28. Are you aware of any government or non-governmental organizations providing support on labor rights and OSH? Yes No If yes, please list: _____

Section 5: Additional Comments

- 29. Do you have any other comments or suggestions regarding labor rights and OSH in the tourism and hospitality sector in Georgia? _____

Thank you for your participation. Your input is crucial for improving labor rights and OSH practices in Georgia's tourism and hospitality sector, especially for SMEs and startups led by youth and women.

The activity is implemented under CIPE and Solidarity Center's joint "Engaging Workers and Civil Society to Strengthen Labor Law Enforcement," Phase II project.

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Methods Of Using Historical and Scientific Materials in Mathematics Education

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Abstract

Modern society increasingly demands graduates equipped with a deep worldview and a solid foundation of knowledge, skills, and competencies. Throughout their education, students are exposed to the fundamentals of various sciences, including mathematics, for eleven years. Given that mathematics is one of the core subjects in secondary education, it is imperative that students not only master the methods of computation and logical reasoning but also deeply engage with mathematical concepts through historical contexts. This paper explores the integration of historical and scientific materials into mathematics education, emphasizing their significance in enriching the learning experience. By utilizing historical facts and narratives, educators can present mathematics as a dynamic and evolving discipline, fostering a sense of connection between students and the subject matter. The research indicates that the incorporation of historical materials enhances students' conceptual understanding, critical thinking skills, and mathematical modeling abilities. Furthermore, it promotes a broader appreciation for mathematics as an essential component of personal culture and societal development. This study aims to provide educators and prospective students with strategies to leverage historical resources, thereby transforming mathematics into a vibrant field of inquiry. Through this approach, we seek to cultivate a generation of learners who view mathematics not only as a set of abstract concepts but also as a rich, contextualized discipline that reflects human thought and innovation over time.

Keywords: History of mathematics, content of historical and scientific materials, geometric methods of solving equations, proof of identities using geometric methods, lune and its area, content requirements, geometric methods of solving equations, proof of identities using geometric methods.

AMS Subject Classification: 97E50 - Mathematics education, 97C30 - Curriculum and pedagogy in mathematics, 97D40 - Teaching methods and instructional strategies, 01A30 - History of mathematics, 97K10 - Use of technology in teaching mathematics.

Introduction

The use of certain facts from the history of the development of mathematics in the process of teaching mathematics allows students to see a broad picture of the emergence and development of mathematics, thereby creating a bridge between mathematics and universal human culture. The use of materials from the history of mathematics in mathematics education contributes to turning mathematical knowledge into an important component of each person's personal culture^{1 2}. Integrating historical and practical contexts into the school mathematics curriculum is realized by forming students' understanding of

¹Малыгин, К. А., "Элементы историзма в преподавании математики в средней школе: Пособие для учителей", Просвещение, 2013.

² Третьякова, О. А., "Использование заданий историко-математического содержания в старшей школе", (51)(393) Молодой ученый, 2022, р. 407-408.

mathematics as part of universal human culture^{3 4}. Therefore, the organic supplementation of the content of the school mathematics course with specific materials from the history of mathematics serves to familiarize students with the struggle of ideas, the destinies of great discoveries, and the names of the people who developed mathematics.

The problem of using historical and scientific materials in mathematics education has always been relevant and remains so.

In existing textbooks and teaching aids, little space is devoted to historical and scientific material, as a result of which students view mathematics as "abstract reality" rather than as the result of the labor of many generations of researchers⁵.

This is truly an interesting point of view. If you look at the history of mathematics, you can see how it developed as a result of the practical needs and challenges faced by humanity. For example, the foundations of algebra were developed to solve problems in trade and agriculture; geometry was necessary for measuring land and construction, while arithmetic was essential for accounting and trade operations.

1. Literature Review

Thus, mathematics was born from practical use and applied to solve everyday problems. This cycle of using, analyzing, systematizing, and applying knowledge again helped humanity improve its methods and expand its capabilities⁶.

Therefore, mathematics continues to develop for two main reasons:

1. Due to Practical Necessity:

Mathematics has historically emerged from the practical need to solve problems faced by humanity. These necessities have made the application of mathematical methods essential in everyday life, commerce, engineering, science, and many other fields. For example, ancient civilizations developed mathematical concepts in response to the calculation requirements of agriculture, trade, and construction.

In today's world, these practical necessities have become more complex. In modern society, mathematical competencies are required in various areas, including data analysis, financial modeling, and engineering design, as well as in addressing environmental issues. The advancements in big data and data science, in particular, necessitate the use of mathematical models and algorithms to make sense of large amounts of data and optimize decision-making processes. Additionally, everyday challenges often lead to mathematical inquiries in education, healthcare, and social sciences, ensuring that mathematics remains in a state of continuous development. For instance, the analysis of statistical data in healthcare allows for understanding disease spread trends and optimizing treatment methods through mathematical approaches.

2. Due to the Inherent Needs Within Mathematics Itself:

³ Круликовский, Н. Н., "Сообщение сведений из истории математики в средней школе", В Л. Ф. Пичурин (Сост.), Воспитание учащихся при обучении математике, Просвещение, 1987, р. 28-31.

⁴ Алешкова, Т. Н., "Гуманитаризация общего математического образования", 1(5) Математические структуры и моделирование, 2000, р. 155-161.

⁵ Рыбников, К. А., "Об историко-методологических основах математического образования учителей", 3 Математика в школе, 1982, р. 48-49.

⁶ Алексеева, В. А., "Методика отбора и использования историко-научного материала в процессе обучения математике в школе" (Диссертация), 1998.

Mathematics evolves not only because of external practical requirements but also due to its internal dynamics and needs. The in-depth exploration of mathematical theories leads to the emergence of new concepts, methods, and theories. Mathematical research is characterized by a constant effort to push the boundaries of existing theories and open new areas of study. For example, a specific mathematical problem might lead to the development of solutions in another domain, resulting in the birth of new theories and concepts in the process.

These inherent needs are also fueled by an increasing interest in mathematical thinking itself. Mathematicians tackle previously unresolved or partially understood problems, developing new methods and approaches in the process. For instance, the study of complex numbers and abstract mathematical concepts like fractal geometry has deepened mathematical thought and found applications in other scientific disciplines. Furthermore, the inherently abstract nature of mathematical thinking encourages constant self-reflection and evolution within the field. This not only allows for the deepening and enriching of mathematical theories but also leads to the discovery of new application areas.

Finally, it should be noted that the inclusion of historical and scientific materials in mathematics education allows students to form a complete picture of the development of mathematics and enhance their mathematical thinking⁷.

For example, lessons can include examples of real mathematical problems solved by scientists in the past, as well as examples of modern applications of mathematics in various fields, such as machine learning, cryptography, finance, etc. These examples will help students see how mathematics is used to solve pressing problems and how it continues to evolve along with our world⁸.

In 1950, the academician A. I. Markushevich pointed out the lack of historical materials in school textbooks. Since then, attempts have been made to integrate historical and scientific materials into the content of school mathematics courses. However, even in modern textbooks, this aspect does not always receive sufficient attention⁹.

In 1975, a significant initiative was introduced in the journal *Mathematics in School* with the section titled "Mathematical Calendar." This section was designed to bridge the gap between mathematical theory and its historical context, aiming to enrich the curriculum with engaging content that reflects the evolution of mathematical thought.

The "Mathematical Calendar" provided a platform for educators to explore the historical narratives surrounding key mathematical concepts and figures. By showcasing important events, discoveries, and milestones in the history of mathematics, this initiative emphasized that mathematics is not just a collection of abstract theories but a dynamic discipline shaped by human creativity and cultural development. This historical perspective helps to contextualize mathematical principles, allowing students and educators to appreciate the subject's relevance and significance in various real-world applications.

Furthermore, by incorporating historical anecdotes and the stories of mathematicians, the initiative facilitated a more relatable and accessible approach to learning mathematics. Students often find abstract concepts challenging; however, by connecting these concepts to their historical origins and applications, educators can inspire a sense of curiosity and engagement among learners. This

⁷ Jankvist, U. T., A categorization of the “whys” and “hows” of using history in mathematics education. *Educational Studies in Mathematics*, 71(3), 2009, 235-261.

⁸ Степура, Д. А., "Применение исторического материала на уроках математики и во внеурочное время", 1 Дневник науки, 2021, р. 1-9.

⁹ Маркушевич, А. И., "О повышении идейно-теоретического уровня преподавания математики в средней школе", 1 Математика в школе, 1950, р. 1-4.

contextualization also encourages critical thinking, as students begin to see how mathematical ideas have evolved over time in response to societal needs and intellectual challenges.

Overall, the "Mathematical Calendar" initiative played a crucial role in transforming the teaching and learning of mathematics, fostering a deeper understanding of the subject, and making it more appealing to students. It encouraged educators to adopt a more holistic approach to mathematics education, one that recognizes the interplay between history and mathematical theory, ultimately enriching the learning experience for students.¹⁰

Mathematics education has been shaped by various approaches and methodologies throughout history. In this context, the use of historical and scientific materials in mathematics education enriches learning processes and provides students with a deeper understanding. For instance, Bishop suggests that utilizing historical materials in mathematics learning demonstrates the evolutionary process of mathematics to students, thereby enhancing their conceptual understanding. Similarly, Kaiser and Blömeke emphasize that addressing historical topics in mathematics teaching improves students' mathematical thinking skills^{11 12}.

The role of historical materials in education not only facilitates the understanding of concepts but also aids students in grasping the societal and cultural dimensions of mathematics. Sullivan states that teaching mathematical concepts in a historical context helps students better comprehend these concepts. Additionally, Baker reveals that the historical dimensions of mathematics education play a significant role in developing students' mathematical modeling and problem-solving skills^{13 14}.

The literature presents various suggestions and models for integrating historical materials into mathematics education. Fraser indicates that systematically incorporating historical materials into curricula can enhance student motivation. Moreover, Lambdin and Smith highlight the importance of teachers having adequate knowledge and skills in this area for the effective use of historical materials^{15 16}.

Indeed, students often perceive mathematics as a static and finished set of knowledge, whereas it is actually an ever-evolving field of science. To help students better understand this aspect, more interactive teaching methods can be integrated into the learning process, such as using practical problems, research projects, and historical cases.

In conclusion, the literature demonstrates that the integration of historical and scientific materials in mathematics education positively impacts student learning processes. In this regard, the aim of our study is to deeply investigate the role of historical and scientific materials in mathematics education, suitable to the needs of modern society, and to develop recommendations for how these materials can be used more effectively in education.

¹⁰ Cajori, F., *A History of Mathematics*. New York: Dover Publications, 1990.

¹¹ Bishop, A. J., "Mathematical knowledge as a cultural phenomenon: A study of the impact of cultural factors on the teaching and learning of mathematics", 19(3) *Educational Studies in Mathematics*, 1988, p. 237-254.

¹² Kaiser, G., & Blömeke, S., "The role of historical thinking in mathematics education: The case of the mathematics classroom", 17(1) *Research in Mathematics Education*, 2015, p. 45-60.

¹³ Sullivan, P., "Teaching mathematics through history: A powerful approach", 56(4) *Australian Mathematics Teacher*, 2000, p. 10-14.

¹⁴ Baker, D., "Historical perspectives in mathematics education: Implications for teaching and learning", 94(3) *Mathematics Teacher*, 2001, p. 160-165.

¹⁵ Fraser, D., "Teaching mathematics through history: The role of historical sources in mathematics education", 21(3) *International Studies in the Philosophy of Science*, 2007, p. 317-330.

¹⁶ Lambdin, D., V., & Smith, Norman, "Teachers' knowledge of history and its influence on the teaching of mathematics", 102(5) *Mathematics Teacher*, 2008, p. 344-349.

2. Methodology

Incorporating historical and scientific materials into mathematics education not only helps students gain a deeper understanding of the subject but also enhances their logical thinking and problem-solving skills. Such approaches foster students' ability to apply mathematical reasoning in real-world contexts, as highlighted in studies on improving students' critical thinking in mathematics¹⁷. Among the notable contributions from the 1980s and 1990s, the works of V.P. Gleizer stand out prominently¹⁸. His three books, aimed specifically at schoolchildren, are particularly noteworthy for their comprehensive exploration of the history of mathematics. Gleizer's objective was not merely to present historical facts; rather, he sought to equip teachers with the tools to integrate these historical insights into their lessons and extracurricular activities effectively. In this way, Gleizer aimed to create a learning environment where historical insights were not just facts but tools for deeper mathematical understanding. The incorporation of historical context into mathematics education can ignite students' curiosity and encourage them to see mathematics as a dynamic field shaped by human thought and creativity.

In parallel, the influential works of the renowned American mathematician Morris Kline, specifically *Mathematics: The Loss of Certainty* (Moscow, 1984) and *Mathematics: The Search for Truth* (Moscow, 1988), deserve special attention. Kline's writings offer a sweeping overview of the development of mathematics, tracing its roots from ancient civilizations through various pivotal moments in history to contemporary times. His exploration goes beyond mere chronology; it examines the philosophical implications of mathematical discoveries and the quest for certainty and truth in mathematical thought. By presenting this broad historical panorama, Kline encourages readers to reflect on the nature of mathematical inquiry and its relevance to both historical and modern contexts¹⁹.

Recent psychological research underscores the benefits of incorporating historical and scientific materials in mathematics education, particularly during adolescence. This developmental stage is characterized by a growing capacity for abstract thinking and a heightened interest in understanding the world. By introducing students to the historical foundations of mathematical concepts, educators can create a more engaging and meaningful learning experience. The interplay between history and mathematics not only aids in the retention of mathematical principles but also fosters critical thinking and analytical skills.

In contemporary education, it is increasingly recognized that the teaching of mathematics should not solely focus on technical skills and problem-solving. Instead, integrating materials related to the history of mathematics can enhance the educational experience by illustrating the subject's relevance and applicability in various contexts²⁰. Historical examples can serve as powerful motivators for students, providing them with a narrative that contextualizes their learning and demonstrates the human aspect of mathematical discovery.

In conclusion, the incorporation of historical materials into mathematics education is not just a pedagogical enhancement; it is a necessary evolution of the curriculum that respects the rich tapestry of mathematical development. As educators strive to cultivate a comprehensive understanding of mathematics, it becomes imperative to recognize and utilize the historical narratives that have shaped the field. By doing so, we not only honor the contributions of past mathematicians but also inspire future generations to engage with mathematics as a living, evolving discipline.

¹⁷ Жохов, В. А., "История математики как средство развития интереса учащихся к предмету", Математика в школе, 1985, р. 40-45.

¹⁸ Глейзер, Г. И., "История математики в школе", Просвещение, 1983.

¹⁹ Карпова, В. И., "Прикладная направленность математики в военно-инженерном вузе как средство формирования системности научных взглядов курсантов" (Диссертация), 1999.

²⁰ Fauvel, J., & van Maanen, J., (Eds.) *History in mathematics education: The ICMI study*. Dordrecht: Kluwer Academic Publishers. 2000.

Research methods. We conducted a theoretical analysis of the well-known studies of the authors of works²¹.

3. Examples of Historical and Scientific Materials²²

1. In Al-Khwarizmi's book «Kitab al-Jabr wa al-Muqabala», a geometric solution to the equation is provided $x^2 + ax = b$.

To solve the equation $x^2 + ax = b$, a square is drawn, with its side length equal to $\left(x + \frac{a}{2}\right)$ and from any vertex of this square $\frac{a}{4}$, x and $\frac{a}{4}$, segments are marked off on the adjacent sides. Then, through the division points, lines parallel to the opposite sides are drawn. As a result, the square is divided into nine parts:

4 squares with side length $\frac{a}{4}$; 1 square with side length x ; 4 rectangles with side lengths and $\frac{a}{4}$ и x . If the area of the square is denoted by, we have:

Thus, we obtain:

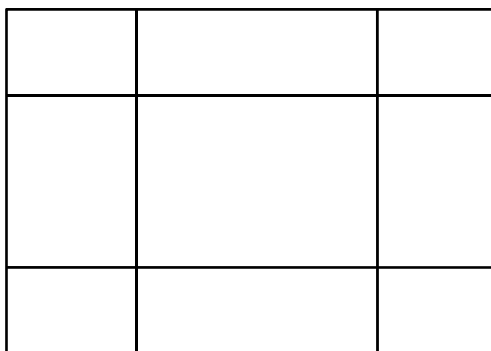


Figure 1

$$S = x^2 + 4 \cdot \left(\frac{a}{4}\right)^2 + 4 \cdot \frac{a}{4} \cdot x = (x^2 + ax) + 4 \cdot \left(\frac{a}{4}\right)^2 = b + \frac{a^2}{4}$$

$$\left(x + \frac{a}{2}\right)^2 = b^2 + \frac{a^2}{4} \Leftrightarrow x = -\frac{a}{2} + \sqrt{b^2 + \frac{a^2}{4}}$$

Hence, we have:

$$\left(x + \frac{a}{2}\right)^2 = b^2 + \frac{a^2}{4} \Leftrightarrow x = -\frac{a}{2} + \sqrt{b^2 + \frac{a^2}{4}}$$

²¹ Katz, V. J., & Tzanakis, C., (Eds.) Recent developments on introducing a historical dimension in mathematics education. Washington, DC: Mathematical Association of America. 2011.

²² Рыбников, К. А., История математики, МГУ, 1974.

2. To prove the identity $(a+b)^2 = a^2 + b^2 + 2ab$, draw a square with side length $a+b$. From any vertex of this square, mark segments of lengths a and b on the adjacent sides. Then, through the division points a и b , draw lines parallel to the opposite sides. As a result, the area of the square is divided into four parts:

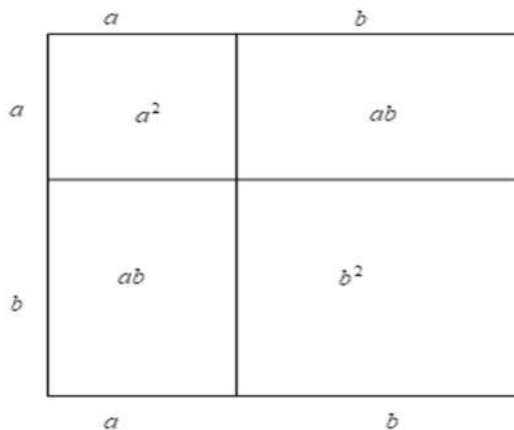


Figure 2.

1 square with side length a ;

2 rectangles with sides a и b ;

1 square with side length b .

If the area of the square is denoted by S , then:

$$S = a^2 + 2ab + b^2 \text{ or}$$

$$(a+b)^2 = a^2 + 2ab + b^2 .$$

3. The first squarable figure bounded by a curved line was discovered in Ancient Greece. It was the lune. The first squarable lune was obtained from the intersection of semicircles. Following the author of the work, we will develop an interactive educational application that will help students better understand geometric concepts. In this application, students will be able to visualize the intersection of semicircles constructed on the sides of a right triangle and explore the properties of the resulting figures. The application may offer interactive tasks and games to help students consolidate their knowledge of geometry and develop logical thinking²³.

²³ Deliyianni, E., & Gagatsis, A., The development of students' geometrical thinking through interactive applications. Educational Studies in Mathematics, 86(1), 2014. 123-138.

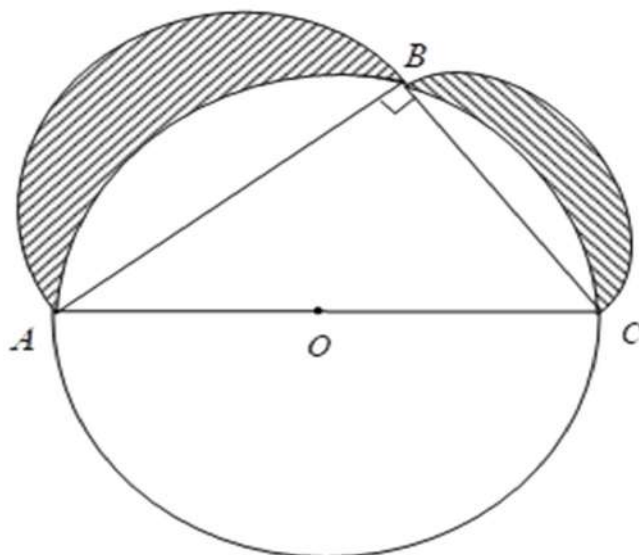


Figure 3.

Figure 3-Geometric representation of intersecting semicircles and the concept of lune area. This figure illustrates the intersection of semicircles constructed on the sides of a right triangle, demonstrating the relationship between the areas of lunes and the triangle. Annotations highlight specific properties to assist with subsequent formula explanations. It can be shown that the areas of the shaded lunes are equal to the area of triangle ABC . If we denote the area of the lune based on arc AB as S_1 , the area of the lune based on arc BC as S_2 , the area of the segment based on chord AB as x , and the area of the segment based on chord BC as y , then we obtain:

$$\frac{\pi a^2}{8} = S_1 + x ; \quad \frac{\pi b^2}{8} = S_2 + y ; \quad \frac{\pi c^2}{2} = \frac{ab}{2} + x + y ;$$

$$x = \frac{\pi a^2}{8} - S_1 ; \quad y = \frac{\pi b^2}{8} - S_2 .$$

$$S_1 + S_2 = \frac{ab}{2} .$$

Therefore,

4. In Arabic mathematics, there was significant scientific interest in operations with algebraic irrationalities. For example, eighth graders are familiar with the formulas:

$$\sqrt{a \pm \sqrt{b}} = \sqrt{\frac{a + \sqrt{a^2 - b}}{2}} \pm \sqrt{\frac{a - \sqrt{a^2 - b}}{2}} .$$

Their validity is easy to check: Let:

$$\sqrt{a + \sqrt{b}} = \sqrt{\frac{a + \sqrt{a^2 - b}}{2}} + \sqrt{\frac{a - \sqrt{a^2 - b}}{2}} \sqrt{a + \sqrt{b}} = \sqrt{\frac{a + \sqrt{a^2 - b}}{2}} + \sqrt{\frac{a - \sqrt{a^2 - b}}{2}} .$$

Then, by squaring both sides of the last equation, we obtain:

$$\begin{aligned} \left(\sqrt{a+\sqrt{b}}\right)^2 &= \left(\sqrt{\frac{a+\sqrt{a^2-b}}{2}} + \sqrt{\frac{a-\sqrt{a^2-b}}{2}}\right)^2 = \\ &= \frac{a+\sqrt{a^2-b}+a-\sqrt{a^2-b}}{2} = a+\sqrt{b} \end{aligned}$$

$$\text{or} \quad a+\sqrt{b} = a+\sqrt{b}.$$

5. Arabic mathematicians knew various formulas for approximating the square root of natural numbers. For example:

$$\sqrt{T^2+r} \approx T + \frac{r}{2T+1},$$

$$\text{where } T \in N, r \in N, r < T.$$

Note that only in the 15th century did O. Cauchy generalize this formula for any natural numbers.

Conclusion

The use of historical and scientific materials in teaching mathematics has proven to be an effective method in deepening students' understanding of mathematical concepts. This approach not only makes the learning process more engaging but also provides context that connects theoretical knowledge with real-world applications. Studies have shown that such methods can significantly improve students' long-term retention and appreciation of mathematics²⁴

Research suggests that incorporating historical methods into mathematics education not only improves students' conceptual understanding but also boosts their motivation and interest in the subject^{25 26}.

Solving such problems helps increase students' motivation and activity in studying mathematics and enrich their intellectual abilities.

²⁴ Игнатушина, И. В., & Зубова, И. К., "Использование исторические компоненты в обучении студентов некоторым разделам математического анализа", 1 Информатика. Образование, 2022, p. 69-78.

²⁵ Jones, A., "Historical approaches in mathematics education: A study of long-term retention", 12(3) Educational Research Review, 2017, p. 245-261.

²⁶ Smith, R., & Brown, T., "The impact of contextual learning in mathematics: Historical and practical approaches", 15(1) Journal of Mathematics Education, 2020, p. 99-112.

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21. Малыгин, Константин Александрович, "Элементы историзма в преподавании математики в средней школе: Пособие для учителей", Просвещение, 2013;
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Understanding Domestic Violence in Georgia: Victim Perspectives and Legal Frameworks

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Abstract

Domestic violence is one of the most significant and serious challenges in Georgia. Violence affects the physical and psychological health of victimized women, children, and all family members in general. As a result, not only the family but society as a whole is impacted. Violence is often invisible to the public, hidden from view, which limits opportunities for control and, consequently, prevention. To prevent domestic violence, it is necessary to analyze the psychosocial dynamics of violence and the legislative response, considering the diverse cultural and legal context. This study examines the psychosocial and cultural factors of family violence in Georgia, as well as the analysis of the legislative response. Using a mixed research methodology, scientific theories, relevant studies, and legislative frameworks were analyzed during the desk research stage. Focus groups and qualitative interviews with experts in the field and women victims of domestic violence were conducted to study the nature of domestic violence in Georgia. The socio-cultural and psycho-legal prerequisites of violence, the level of legal awareness among victims, and the effectiveness of existing legislative measures were also analyzed. As a result of the research, specific cultural and legal factors unique to Georgia were identified that clearly influence cases of violence. Recommendations were developed to improve the existing legal system, prevent this crime, and implement effective support mechanisms for victims.

Keywords: Patriarchal culture, social stigma, education, gender equality

Introduction

In recent years, domestic violence in Georgia has gained attention, revealing alarming trends. Historical data indicates that after gaining independence in the early 1990s, societal norms and economic challenges led to rising rates. The Ministry of Internal Affairs reported a 20% increase in cases from 2017 to 2018, suggesting greater recognition of the issue. Factors such as economic instability and evolving cultural attitudes have influenced these trends, alongside legislative reforms aimed at combating domestic violence. Ongoing research is vital for effective intervention strategies and policy development.

As a developing country, Georgia has worked for decades to create and improve legal measures against domestic violence. Experts are researching ways to combat this crime, establishing appropriate regulations, and providing effective victim support. Both public and private services address the issue.¹

¹ Council of Europe Office in Georgia. Launch of Council of Europe project on Gender Equality in Georgia. 2024, <https://www.coe.int/en/web/tbilisi/-/launch-of-council-of-europe-project-on-gender-equality-in-georgia> [L. s. 10.10.2024].

However, traditional gender stereotypes persist, contributing to the victimization of women and hindering access to help.²

Moreover, the existing legal framework, while intended to protect victims, often falls short of meeting their actual needs.³ Despite recent improvements, legal mechanisms still struggle to ensure justice due to deficiencies in legislation and public awareness regarding legal rights.⁴ Additionally, psychosocial factors such as social stigma, education levels, and access to services play a critical role in the prevalence of family violence.⁵

Family violence reflects complex societal characteristics rather than just individual tragedies. Thus, effective solutions require collaborative efforts from society, individuals, and the state. This study aims to investigate the psychosocial, cultural, and legal factors contributing to domestic violence in Georgia, focusing on the following areas:

- **Legislation:** Analyzing legal frameworks and policies to assess the effectiveness of existing responses and identify improvement areas.
- **Victims:** Gathering data through interviews and focus groups to understand victims' experiences, legal awareness, and barriers to seeking help.
- **Experts:** Collecting information on current challenges and effective solutions from legal professionals, social workers, and scholars specializing in domestic violence.

The study will focus on these research interests:

1. Identifying cultural norms and stereotypes that promote family violence in Georgian society.
2. Evaluating the effectiveness of Georgian legislation and its impact on violence prevention and victim protection mechanisms.

1. Methodology

A mixed research methodology was used to achieve the objective, combining desk research, focus groups, and qualitative research.

In the first stage, information about domestic violence in Georgia was analyzed, and published studies on the cultural characteristics of Georgian society and the existing legislative framework against domestic violence were reviewed. The research was grounded in the theoretical frameworks of ecological systems theory, social learning theory, stress theory, attachment theory, and feminist theory.

The second stage involved studying the experiences and socio-cultural characteristics of women victims of violence. Focus groups were held in April 2023 at the crisis center for victims of violence in Tbilisi. The recruitment of respondents posed some difficulties, and although 18 respondents initially agreed to participate under the uniform norms of the study, only 8 ultimately took part. The narratives from the sessions were analyzed using thematic content analysis, revealing several important themes related to participants' experiences with domestic violence and the support systems available to them.

² World Bank. Gender-based violence in Georgia: A study on prevalence, causes, and consequences.2017, <https://documents1.worldbank.org/curated/en/558211513619282554/pdf/GBVinGeorgiaReportFinal102417-Web.pdf> [L. s. 10.10.2024].

³ The Present and Persistent Problem of Domestic Violence in Georgia. 2024, <https://globalvoices.org/2023/01/18/the-present-and-persistent-problem-of-domestic-violence-in-georgia/> [L. s. 10.10.2024].

⁴ Kitoshvili, N. Formation of law consciousness and forms of its deformative expression. Law And World. Volume 9, Issue 2023. <https://doi.org/10.36475/9.1.17>.

⁵ Brown, M., & Badashvili, M., Final evaluation: "Ending violence against women and girls in Georgia" project 2020-2023. UN Women and UNFPA Georgia. 2023. <https://gate.unwomen.org/EvaluationDocument/Download?evaluationDocumentID=10116> [L.s. 20.09.2024].

To explore the psychosocial characteristics and needs of women victims of domestic violence, in-depth interviews were conducted with experts, including heads of non-governmental organizations, psychologists, and lawyers. Seven experts participated in the study, and thematic analysis of their narratives uncovered the psychosocial characteristics of women victims of domestic violence and identified effective solutions to address the problem.

2. Research Results

2.1 Desk Research

2.1.1. *Understanding Theories of Domestic Violence*

By scientifically explaining domestic violence and identifying different aspects of individual behavior and societal influence, various theoretical approaches can be identified. This study focuses on examining the research question based on ecological systems theory, social learning theory, feminist theory, attachment theory, and tension theory. These theories provide an opportunity to identify the factors that may contribute to the manifestations of domestic violence in the Georgian cultural context. In particular:

- Ecological systems theory (EST) posits that human behavior is influenced by environmental systems (microsystem, mesosystem, exosystem, and macrosystem). When discussing domestic violence, the microsystem refers to family dynamics, while the mesosystem encompasses community relationships. In the case of Georgia, the macrosystem refers to the cultural norms and gender role stereotypes that contribute to the normalization, silence, and/or impunity surrounding domestic violence.⁶
- According to social learning theory (SLT), behavior is learned through observation and imitation. This theory suggests that violent behavior within families can be passed down through generations. Children who witness violence may replicate these behaviors themselves, as they perceive them as appropriate behavior patterns, thereby reinforcing the violent environment in their mind.⁷
- Feminist theory (FT) focuses on gender inequality and the unequal distribution of power between the sexes. According to this theory, patriarchal structures in Georgian society often reinforce traditional gender roles, creating an environment where domestic violence is normalized and justified by the perceived need or right of men to exercise power. As a result, legislation designed to protect women's rights faces challenges in enforcement.⁸
- Attachment theory (AT) focuses on early relationships and emotional bonds, which are believed to shape future interpersonal connections. According to this theory, individuals who have experienced violence are at risk of developing aggressive and control-oriented relationships with others in the future, including within the family.⁹
- Strain theory (ST) suggests that societal pressures and the obligation to achieve certain goals, in the absence of legitimate means to do so, lead to feelings of tension and, consequently, to deviant

⁶ Bronfenbrenner, U., *The Ecology of Human Development: Experiments by Nature and Design*, Harvard University Press, 1979, https://khoerulanwarbk.wordpress.com/wp-content/uploads/2015/08/uric_bronfenbrenner_the_ecology_of_human_developbokos-z1.pdf [L. s. 03.10.2024].

⁷ Bandura, A. *Social Learning Theory*. *Journal of Social and Clinical Psychology*, 2(3), 299–318. 1977, <https://doi.org/10.1177/105960117700200317> [L. s. 03.10.2024].

⁸ Tong, R., *Feminist Thought: A More Comprehensive Introduction*, Westview Press, 2009, <https://doi.org/10.4324/9780429495243> [L. s. 03.10.2024].

⁹ Bowlby, J., *Attachment and Loss: Vol. 1. Attachment*, Basic Books, 1969, retrieved from https://mindsplain.com/wp-content/uploads/2020/08/ATTACHMENT_AND_LOSS_VOLUME_I_ATTACHMENT.pdf [L. s. 03.10.2024].

behavior. The prevailing social image in Georgia, along with the imbalance of financial, social, or educational resources, can incite human aggression and manifest in criminal behavior.¹⁰

2.1.2. Legal Framework

Existing legislation in Georgia and international agreements form the basis for the prevention of domestic violence, the protection of victims, and the provision of their rights. Among them are:

- Law of Georgia on Gender Equality¹¹ aims to ensure gender equality in all areas, outlines measures to prevent discrimination against women, and creates a basis for equal opportunities in various areas, including employment, education, and politics;
- Law of Georgia on the Prevention of Violence Against Women and/or Domestic Violence, and the Protection and Support of Victims of Violence¹² defines domestic violence, establishes protection and support mechanisms for victims, and provides preventive measures;
- Labor Code¹³ establishes a legal framework that ensures the protection of gender rights, the achievement of gender equality, and the prevention of discrimination in the employment process. The Code prohibits any kind of discrimination based on gender and ensures equal opportunities between men and women. The Code also provides for mechanisms that promote the implementation of gender equality principles at workplaces, which is an important step in the direction of protecting women's rights;
- Law of Georgia on Criminal Code¹⁴ regulates domestic violence as a legal term that includes forms of physical, psychological, and economic violence between family members. The Criminal Code provides for appropriate penalties for domestic violence crimes, including custodial measures, and offers victim protection mechanisms to help ensure their safety;
- Law of Georgia on Civil Code¹⁵ does not directly regulate domestic violence; however, it concerns family relations, including the rights and obligations of spouses and the protection of children's rights. The norms stipulated in this Code indicate that domestic violence can be the basis for the legal recognition of the violation of children's rights and the severance of family ties;
- International Covenant on Civil and Political Rights (ICCPR)¹⁶ obligates signatories to the Covenant to respect the civil and political rights of individuals, including the right to life, expression, and gender equality;
- Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)¹⁷ obliges countries to eliminate all forms of discrimination against women in employment, political rights, and other social spheres;
- Convention on the Rights of the Child¹⁸ describes the civil, political, economic, social, health, and cultural rights of children. It focuses on the protection of children and the prevention of abuse and exploitation, including in the family context;

¹⁰ Merton, R. K., "Social Structure and Anomie," *American Sociological Review*, 1938, <https://www.jstor.org/stable/2084686> [L. s. 03.10.2024].

¹¹ Law of Georgia on gender equality. 12 April 2010.

¹² Law of Georgia on the prevention of violence against women and/or domestic violence, and the protection and support of victims of violence. 20 September 2006.

¹³ Organic law of Georgia on the labor code. 27 December 2010.

¹⁴ Law of Georgia on criminal code. 13 August 1999.

¹⁵ Law of Georgia on civil code. 24 August 1997.

¹⁶ International covenant on civil and political rights. 16 December 1966.

¹⁷ International covenant on the elimination of all forms of discrimination against women. 22 September 1994.

¹⁸ International convention on the rights of the child, 20 November 1989.

- National Strategy for Violence Prevention¹⁹ focuses on the development of comprehensive measures to combat violence. This includes public awareness campaigns, legislative reforms, victim support services, and coordination between governmental and non-governmental organizations. The strategy aims to prevent violence at both the individual and societal levels through education, protection, and monitoring efforts.

2.1.3. Challenges of Law Enforcement

The effectiveness of legal procedural measures plays a crucial role in enforcing legal guarantees in cases of domestic violence, preventing third-degree crimes, achieving the goal of punishment, and building a sense of justice in society. Unfortunately, there are currently challenges within the law enforcement system in Georgia that hinder the protection of the rights and obligations stipulated by the legislation. In particular:

- **Non-disclosure:** Many victims, due to anticipated stigma and fear, remain silent about the crime, which reduces the effectiveness of law enforcement. During this time, their legal awareness and access to supportive psycho-social services in the community become particularly important.²⁰
- **Effectiveness of Existing Services:** Although there are a number of services available in Georgia, their effectiveness is unfortunately low. The main challenges are access to these services and public awareness regarding the necessity of these services.²¹
- **Competence of Law Enforcement Officers:** The lack of competence among law enforcement officers in Georgia poses a systemic challenge and often results in superficial investigations of crimes. This, in turn, leads to insufficient evidence collection and unresolved cases. The low competence of law enforcement officers hinders the identification of crucial details in cases, thereby obstructing the enforcement of the law.²² In cases where law enforcement officers are unable to collect evidence, the investigation of crimes is disrupted, which ultimately has a negative impact on public safety. Studies indicate that the professionalism and training of law enforcement officers are prerequisites for the successful gathering of evidence and the effective conduct of legal proceedings.²³

2.1.4. Statistics of Domestic Violence

The critical nature of domestic violence in Georgian society is underscored by alarming statistical data. For instance, a 2021 study by the United Nations highlighted that domestic violence in Georgia is systemic, with many victims experiencing violence repeatedly. Specifically, 30% of women victims reported that their children witnessed this violence, leading to emotional and behavioral issues. Additionally, a 2017 survey revealed that 74% of respondents had never sought help, primarily due to fear, social stigma, and mistrust of the government. It is also noteworthy that 22% of women and 31%

¹⁹ National strategy for violence prevention of the government of Georgia (working version). https://www.gov.ge/index.php?lang_id=GEO&sec_id=405 [L. s. 29.09. 2024].

²⁰ Kitoshvili, N., & Dadashkeliani, B. Crimes Omissions: A Psycho-Sociological Perspective. *Law and World*. 2024, <https://doi.org/10.36475/10.3.6> [L. s. 25.09.2024].

²¹ Social Justice Center. Support services and mechanisms for the violence survivor women in Georgia. 2023 https://socialjustice.org.ge/uploads/products/pdf/Support_Services_and_Mechanisms_for_the_Violence_Survivor_Women_in_Georgia_1707921825.pdf [L. s. 20.09.2024].

²² Imnadze, G., & Kekelidze, G. Politics of invisible power: Analysis of the Georgian law enforcement system. Human Rights Education and Monitoring Center (EMC). 2015. https://socialjustice.org.ge/uploads/products/pdf/Policy_of_Invisible_Power.pdf [L. s. 20.09.2024].

²³ Svalin, K., Levander, S. The Predictive Validity of Intimate Partner Violence Risk Assessments Conducted by Practitioners in Different Settings—a Review of the Literature. *J Police Crim Psych* 35, 115–130. 2020. <https://doi.org/10.1007/s11896-019-09343-4>.

of men believe that spousal violence is acceptable under certain conditions.^{24, 25} According to the results of the national survey on violence against women conducted in 2023, one in four women in Georgia is a victim of violence. Specifically, 24% have experienced psychological violence, 8% economic violence, 6% physical violence, and 4% sexual violence. Although there is a growing recognition that domestic violence is not merely a personal issue, 21.4% of women and 37.2% of men still believe it is inappropriate to intervene in someone else's family matters. Furthermore, while 65.8% of women believed in 2017 that a woman's primary role is to serve the family, this figure has decreased to 59.9%. Among men, this belief has also declined, from 78% to 74.7%. Despite these changes, the data still reflects significant societal attitudes.²⁶

2.2. Qualitative Research

2.2.1. *Psycho-Social Experience of Women Victims of Violence*

At the beginning of the focus group discussion, the participants shared their reasons for seeking assistance from the crisis center. All participants identified as victims of violence. Most lived in their residences, while one individual mentioned having stayed at the center with her children for nine months before transitioning to rental accommodation. Content analysis of the respondents' narratives revealed several key themes, including:

- **Support and Services:** Participants expressed overall satisfaction with the services provided by the crisis center, particularly highlighting the importance of psychological and legal support. They emphasized the need for psychological assistance, especially for their children, who also faced the consequences of the abuse. One participant noted the effectiveness of the psychological counseling her son received, which addressed psychosomatic symptoms resulting from stress: "The shelter provided us with almost all necessary services. First of all, we received psychological help. They also have a nurse here who assisted me, as my son had a fever for a month due to stress." (34 years old, Higher education, Doctor, Divorced).
- **Social Stigma and Psychological Impact:** Respondents identified social stigma as one of the most significant barriers to seeking help. Some expressed reluctance to approach law enforcement officers, believing they would not prevail in court. Additionally, participants reported low self-esteem and emotional discomfort stemming from the violence, which adversely affected their behavior and overall well-being. One participant articulated the need for support in rebuilding self-worth: "It would be beneficial to have small training courses on raising self-esteem because if you don't have adequate self-esteem, nothing will come of it. A woman should know her own worth, and then everything will work out with a little help from others. Someone should provide information about this self-esteem." (22 years old, 2nd-year student, Unemployed)
- **Desire and Obstacles to Independence:** While participants expressed gratitude for the crisis center's services, they noted significant challenges in achieving sustainable financial independence. Many voiced a desire for increased opportunities regarding vocational training and employment. Although some had participated in short-term vocational programs, they felt these were insufficient for securing stable employment and emphasized the need for more long-term and varied training options. One participant remarked: "Language courses are a good offer, but three months is also difficult. If you don't have basic knowledge, it will be challenging. However, since they need a foreign language everywhere, it won't hurt, but it really depends on the individual." (31 years old, Choreographer, Employed, Divorced)

²⁴ UN Women & Geostat. National survey on violence against women. 2017, <https://www.geostat.ge/ka/project/5/qaltamimart-dzaladobis-erovnu> [L. s. 04.10.2024].

²⁵ United Nations Georgia. Ending violence against women: 16 Days of Activism against Gender-Based Violence. 2021, <https://georgia.un.org/en/45008-ending-violence-against-women-16-days-activism-against-gender-based-violence> [L. s. 03.10.2024].

²⁶ UN Women Georgia, UN Women Georgia. National survey on violence against women: Results and trends, <https://georgia.unwomen.org/ka/stories/reportazhi/2023/12/kalta-mimart-dzaladobis-erovnuli-kvleva-shedegebi-datendentsiebi> [L. s. 03.10.2024].

The thematic analysis of the narratives gathered during the qualitative research clearly highlights the diverse and complex needs of victims of domestic violence. Addressing these needs is crucial not only for psychological rehabilitation but also for achieving sustainable financial and social independence, which is essential for the long-term well-being and improved quality of life for these individuals.

2.2.2. Psycho-Social Characteristics and Needs of Women Victims of Violence

Through in-depth interviews, domestic violence experts provided valuable insights to address the issue:

- **Availability of Services:** Experts highlighted that despite the existence of five state shelters and several non-governmental organizations offering services in shelters and crisis centers, their availability and effectiveness remain limited and require additional resources. One expert noted: "Shelters are located in Tbilisi, Gori, Kutaisi, Batumi, and Signaghi. Crisis centers are in Tbilisi, Gori, Kutaisi, Ozurgeti, and Marneuli. In the near future, we plan to open two new crisis centers in Samegrelo and Kakheti. Additionally, a new shelter is planned for Tbilisi, as there is a high demand for it." (Expert from the State Agency for Care and Assistance of Victims of Trafficking).
- **Challenges in Seeking Independence:** Respondents emphasized that providing childcare poses a significant challenge for women leaving shelters. Once they transition to independent living, the childcare services available in the shelter often cease, making it difficult for women to continue working. This situation increases the risk of returning to their abuser. Furthermore, the duration of existing professional training courses typically exceeds the duration of stay in the shelter (3-6 months), hindering women from obtaining full qualifications. Although some short-term courses offer learning opportunities, they are often inadequate for achieving sustainable economic independence. An expert from the non-governmental organization "Women's Information Center" remarked: "For instance, if a woman completes a tailoring course and has the skills to sew, she may find work at the municipal level, but the pay will be minimal, effectively placing her in economic servitude to her employer rather than her abuser. I advocate for short-term programs that offer long-term perspectives. For example, a financial awareness program can help individuals budget independently. It's crucial that a woman graduating from a tailoring program has the potential to start her own business rather than remain dependent on an employer."
- **The Role of Self-Government in Supporting Women Victims of Violence:** Experts expressed that current state initiatives to protect women are insufficient, underscoring the need for greater involvement from local governments. They noted that legislative reforms have commenced, but more proactive engagement at the local self-government level is essential, particularly in addressing housing issues. One expert from the Public Defender's Office stated: "Local change is vital: raising awareness and changing attitudes are important, and the emergence of gender-specific initiatives is valuable. Furthermore, developing a generalized practice is necessary; for example, the municipality of Zugdidi finances victims' shelters, rent, and compensation."

To enhance support methods for women who are victims of violence, experts emphasized the necessity of state and community involvement during the interview process. They stressed that local authorities and educational institutions play a critical role. Integrating services and providing continuous support after leaving the shelter is essential to empower women and ensure their economic independence.

3. Research findings

This study aimed to examine the psycho-social, cultural, and legal factors contributing to domestic violence in Georgia. Through the analysis of existing legislation, statistical data, victims' experiences, and expert opinions, several key conclusions were drawn:

The causes of domestic violence identified in the research can be explained through ecological systems, social learning, and feminist theories. Notably, the ecological systems theory is supported by the limited agency of victims in family dynamics within Georgian society, which is largely attributed

to women's economic dependence and the fear of social stigma.²⁷ The social learning theory effectively explains the traditional gender roles in Georgia, where male dominance and female submissiveness are still normalized.²⁸ Additionally, the discussed statistics indicate that social attitudes in Georgia consider violence against women to be acceptable. These attitudes are rooted in systemic gender inequality and align with the perspectives of feminist theory.²⁹

- When discussing the socio-cultural features of Georgia, the focus was on stigmatization and silence, where the fear of social stigma prevents victims from seeking help. Furthermore, similar studies highlight cultural environments that create conditions in which violence is tolerated and ignored, serving as encouraging factors for family violence.³⁰
- Finally, the study revealed significant challenges within Georgia's legal system concerning the prevention of domestic violence. Key issues include the lack of enforcement procedures, inadequate services, low public awareness of legal rights, and insufficient competence among law enforcement officers. According to several studies, these factors contribute to the underreporting of domestic violence and the failure to resolve reported cases.³¹

Conclusion

Based on the findings of this study, the following conclusions can be drawn:

1. Cultural norms and stereotypes that promote domestic violence within Georgian society contribute to an environment where such violence is often perceived as "normal." These norms and stereotypes significantly influence the legal awareness of both perpetrators and victims, as well as societal attitudes towards the roles of women in families and the oppression they face.
2. While Georgia's legislation includes preventive measures for various levels of crime, the practical implementation of these laws is frequently inadequate. There is a low level of legal awareness among citizens and insufficient competence among law enforcement officers.

The data discussed throughout this research highlights the complex causes of domestic violence in Georgian society and allows for the development of effective recommendations aimed at combating domestic violence and empowering women. It is essential to shift the focus from individual responsibility for crime and the offender to a broader approach to prevention. Specifically, the study suggests that relevant agencies address these issues in a coordinated manner by implementing the following measures:

Educational Programs: Develop and implement educational initiatives aimed at increasing public awareness against cultural stereotypes that perpetuate domestic violence.

Legislative Revisions: Review and improve existing legislation in Georgia to enhance the competence of law enforcement officers and raise legal awareness within society.

²⁷ United Nations Development Programme (UNDP). Gender equality in Georgia: Achievements and challenges (Vol. 2). 2018.

https://www.undp.org/sites/g/files/zskgke326/files/migration/ge/UNDP_GE_DG_Gender_Equality_in_Georgia_VOL2_GEO.pdf [L. s. 03.10.2024].

²⁸ UNFPA Georgia. Gender equality. UNFPA,

<https://georgia.unfpa.org/ka/topics/%E1%83%92%E1%83%94%E1%83%9C%E1%83%93%E1%83%94%E1%83%A0%E1%83%A3%E1%83%9A%E1%83%98-%E1%83%97%E1%83%90%E1%83%9C%E1%83%90%E1%83%A1%E1%83%AC%E1%83%9D%E1%83%A0%E1%83%9D%E1%83%91%E1%83%90> [L. s. 03.10.2024].

²⁹ UN Women. Violence against women in Georgia: Analysis and recommendations. 2023, https://georgia.unwomen.org/sites/default/files/2023-12/vaw_geo_web2.pdf [L. s. 03.10.2024].

³⁰ Merebashvili, N. Gender-based Violence Against Women and Domestic Violence. *Journal of Law*, (2), 309–322 (Geo) 271. 2023, <https://jlaw.tsu.ge/index.php/JLaw/article/view/7709> [L. s. 03.10.2024].

³¹ Kapanadze, G. Hidden cruelty – criminal law trends in domestic violence. *Journal of Law*, 1, 163-180. 2022, <https://jlaw.tsu.ge/index.php/JLaw/article/download/4946/5117/8066> [L. s. 01.10.2024].

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Study of the Migration and Psychological State of Internally Displaced Persons

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Abstract

As a consequence of the conflicts occurred in 1990, Abkhazia and in 2008, South Ossetia, up to half million Georgian citizens were forced to leave their places of residence. The sufferers of the armed conflicts had to cope with bad socio-political situation and its accompanying crises, which is considered to have negative affect on the psychological state of the internally displaced persons. They often suffer psychological distress, which might have long-term destructive impact on the quality of their life, the index of social integration and general well-being. The research objective included the study of the migration processes of internally displaced persons and their psychological state. Using the tools adapted to Georgian population, through the quantitative research method, it was managed to determine the level of resilience, life orientation, depression, migration and anxiety. The results of this study will build valuable knowledge in terms of the psychological state of refugees, migration processes, social integration and difficulties associated with adaptation in the new environment. The analysis of the received data will provide significant help for the professionals working in the direction of mental health and the groups, whose activities are oriented to supporting the people living in the conflict zone and strengthening them through services.

Keywords: Internal Displacement; Psychological state; Migration Processes; Stress Resilience.

Introduction

The conflicts started in Abkhazia and South Ossetia (Samachablo) in the 1990s still remain as unsolved problems for the population of Georgia considering the fact that it is already 30 years that the population of the conflict regions have been separated from the rest of Georgia as a consequence of Russian occupation. Leaving their houses, the loss of relatives, severe social conditions, migration, difficulties associated with Covid Pandemic and the war between Russia and Ukraine can be considered as the causes of retraumatization, which, by itself, makes the mental health of the internally displaced persons more vulnerable. As a result of experiencing such traumatic events, people suffer from the symptoms of anxiety, difficulties with concentration, sleep problems, loss of appetite. Due to the undergone crisis and stress, some may develop: post-traumatic stress disorder, dissociation, panic, anxiety disorders, adaptation problems, etc.¹ In the conditions of numerous serious challenges faced by internally displaced population, the resilience of a person, how he/she manages positive adaptation and tackles difficulties are of particular importance, which, in turn, may be considered as the determinant of the purpose of life. The modern understanding of resilience takes it as a personal trait, which helps individuals in overcoming difficulties and adapting to them, hence, it is a certain kind of immunity

¹ Solomonias, T., Panjikidze, M., Makashvili, T., Darchia, S., Kareli, T., Siradze, N., A Guidebook to Psychological Crisis Intervention. Open Society Georgia, 2023.

against traumatic experiences.² Herewith, resilience can also be considered as a result of overcoming a serious obstacle.³ The purpose of life implies the life goals, its process and outcome. The life goals imply the existence of the goals for the future, which make life well-perceived and targeted. Understanding the present involves interest towards life, emotional diversity, it determines, whether a person considers his/her life as interesting, dynamic and well-perceived. And the life outcome reflects the evaluation of the passed life – the sense of its productivity and comprehension.

On both sides of the dividing lines the negative outcomes of “Borderization” has had serious negative affect on the communities divided by conflict. The people living in the conflict region had to undergo a number of crises and traumatic events-conflicts. Some part of the studies conducted by the researchers in the direction of the mental disorders following the trauma caused by war (post-stress disorder, depression, dependence on substances, social functional disorder, etc.) are directed at studying its spreading in the social environment through secondary traumatization.⁴ In Georgia, the number of studies on war outcomes is quite low. According to the statistical reference published annually by the National Center for Disease Control and Public Health of Georgia (NCDC), as of 2021, in Georgia, mental and behavioural disorders fall within the ten classes of the diseases standing out for a high number of hospitalisations.⁵ Throughout 2021, in total 13305 persons were hospitalized with the diagnosis of mental and behavioural disorders. In terms of the diagnostics, based on the new cases registered in 2021, several types of mental and behavioural disorders are dominant, these are: organic personality disorders – with 674 new cases; neurotic, stress-related and somatoform disorders – with 799 new cases; schizophrenia, schizotypal and delusional disorders – with 895 new cases, and the largest in number – intellectual disorders – with 928 new cases.⁶

Protection of the rights of internally displaced persons, ensuring access to the services necessary for them and providing them with accommodation, caring for their mental health still remains a significant challenge for Georgian society.

1. Method

Research objective: to study the psychological state and migration processes of internally displaced persons.

Selection: random selection. 1000 respondents have participated in the research.

Research question:

- What is the index of migration revealed among internally displaced persons?
- What is the psychological state of internally displaced persons based on the purpose of life, depression, anxiety and resilience?

Hypothesis: the following hypotheses were formulated in the research process

H1. The index of dispositional optimism, anxiety and depression will be lower among internally displaced persons compared to the members of the control group;

H2. The low index of dispositional optimism among internally displaced persons will be related to the high index of depression and anxiety and low index of resilience;

² Davydov, D. M., Stewart, R., Ritchie, K., Chaudieu, I. “Resilience and mental health”. *Clinical Psychology Review*, Volume 30, Issue 5, 2010, 479-495 p.

³ Connor, K. M., Davidson, J. R. T. “Development of a new resilience scale: The Connor-Davidson Resilience Scale” (CD-RISC). *Depression and Anxiety*, 18(2), 76-82, 2003.

⁴ Panjikidze, M., *The Correlation between Posttraumatic Growth, Functioning of a Family and Emotional Intelligence. (on the example of the internally displaced families after the 2008 War)*. TSU [Dissertation], 2014.

⁵ Kokosadze, N., Lortkipanidze, K., *The Study of the Mental Health and the Availability of Services among University Students*. The United Nations Children’s Fund, 2023.

⁶ იჭვინჯი.

H3. The prevalence of migration will be higher among internally displaced persons compared to the members of the control group.

1.1. participants

1000 respondents have participated in the research, among them, 500 respondents are internally displaced persons (from Abkhazia and Shida Kartli) and 500 respondents do not have the status of an internally displaced person. 84.8% of the research participants are female and 15.2% are male. 74.5% of respondents have never emigrated, 8,8% have emigrated legally, 6.7% plan to emigrate, 3.8% are currently emigrated, 3.2% emigrate periodically, 1.8% are currently illegally emigrated and 1.1% have been illegally emigrated.

1.2. Data collection procedure

The survey was conducted via Google Forms platform. After introducing the research goal and objectives, the respondents participated on a voluntary basis. According to the ethical standard of research, the anonymity was observed. In order to receive comprehensive information and avoid missing data, all questions were marked as mandatory.

1.2.1. Limitations of the study

The main limitation of the study is the issue related to the selection of respondents. It would be preferable if more emigrated respondents had participated in the study. It must be noted that the study would be significantly enriched by the participation of the respondents with the status of an internally displaced person living in different regions of Georgia. The limitation is also related to disturbing the gender balance, based on which, the absolute majority of the respondents were female.

1.3. Instruments

The following instruments adapted to Georgian population were applied in order to achieve the research objective:

- Resilience test (the Personal Views Survey III–R (PVS III-R, Maddi, 1998);
- Life purpose test (Purpose-in-Life Test, PIL, Crumbaugh and Maholick);
- Depressive disorder screening questionnaire - PHQ-9 – (Patient Health Questionnaire - 9);
- Anxiety questionnaire (PROMIS Emotional Distress—Anxiety— Short Form)

2. Description of results

Pursuant to the research objective, to study the migration and psychological peculiarities in terms of internally displaced persons, one-dimensional analysis, two-dimensional analysis, cross-tabulation analysis, single-factor ANOVA table, linear regression analysis were applied, also, the Pearson correlation coefficient and X^2 were calculated.

Based on the data processing, it was revealed that 43.8% of the internally displaced persons from Abkhazia, 50% of the internally displaced persons from Shida Kartli and 38.2% of the internal migrants have the moderately expressed value of anxiety and almost 11% of the representatives of all three groups – severely expressed value of anxiety. See Table N1.

Table N1. Differences on the Anxiety Measuring Scale based on the Status of an Internally Displaced Person

Crosstab
%within

		IDP from Abkhazia	IDP from Shida Kartli	Internal migrant	Total
Anxiety	absent	23.6%	25.0%	24.0%	23.9%
	Mildly expressed	22.6%	13.1%	27.0%	24.0%
	Moderately expressed	43.8%	50.0%	38.2%	41.5%
	Severely expressed	10.1%	11.9%	10.8%	10.6%
Total		100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.979 ^a	6	0.126
Likelihood Ratio	10.675	6	0.099
Linear-by-Linear Association	0.552	1	0.457
N of Valid Cases	1000		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.90.

Based on the study it was revealed that 31.8% of the internally displaced persons from Abkhazia have mildly revealed depression, 36.5% of the internally displaced persons from Shida Kartli have average index of depression, and 32.2% of internal migrants have mild or moderate depression values. The differences are statistically reliable ($X^2=0.001$) See Table N2.

Table N2. Differences on the Depression Measuring Scale based on the Status of an Internally Displaced Person

Crosstab

		IDP from Abkhazia	IDP from Shida Kartli	Internal migrant	Total
Depression	absent	22.2%	17.6%	11.4%	16.4%
	Mild depression	31.8%	27.1%	32.2%	31.6%
	Moderate depression	26.3%	36.5%	31.0%	29.5%
	Moderately severe depression	10.6%	9.4%	15.6%	13.0%
	Severe depression	9.2%	9.4%	9.8%	9.5%
Total		100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	25.371 ^a	8	0.001
Likelihood Ratio	25.483	8	0.001
Linear-by-Linear Association	12.395	1	0.000
N of Valid Cases	1000		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.08.

On the life orientation research scale high level of dispositional optimism was revealed among 78.8% of the respondents internally displaced from Abkhazia (82.9%) and Shida Kartli (82.1%) and 78.8% of the internal migrants. ($X^2=0.217$) See Table N3.

Table N3. Differences on the Life Orientation Measuring Scale based on the Status of an Internally Displaced Person

Crosstab %within		IDP from Abkhazia	IDP from Shida Kartli	Internal Migrant	Total
Life Orientation Scale	Low level	1.9%	4.8%	2.2%	2.3%
	Average level	15.1%	13.1%	19.0%	16.9%
	High level	82.9%	82.1%	78.8%	80.8%
Total		100.0%	100.0%	100.0%	100.0%
Chi-Square Tests					
			Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square			5.776 ^a	4	0.217
Likelihood Ratio			5.302	4	0.258
Linear-by-Linear Association			2.035	1	0.154
N of Valid Cases			1000		

a. 1 cells (11.1%) have expected count less than 5. The minimum expected count is 1.93.

On the resilience research scale average level of resilience was revealed among 66.3% of the internally displaced respondents from Abkhazia, 67.9% of the internally displaced respondents from Shida Kartli and 64.6% of internal migrants. ($X^2=0.168$) See Table N4.

Table N4. Differences on the Resilience Measuring Scale based on the Status of an Internally Displaced Person

Crosstab		IDP from Abkhazia	IDP from Shida Kartli	Internal Migrant	Total
Resilience	Low level	22.1%	22.6%	27.6%	24.9%
	Average level	66.3%	67.9%	64.6%	65.6%
	High level	11.5%	9.5%	7.8%	9.5%
Total		100.0%	100.0%	100.0%	100.0%
Chi-Square Tests					
			Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square			6.452 ^a	4	0.168
Likelihood Ratio			6.440	4	0.169
Linear-by-Linear Association			6.072	1	0.014
N of Valid Cases			1000		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.98.

Based on the processing of the research data it was revealed that 46.9% of those respondents, who regularly emigrate have moderately expressed anxiety, 31.7% among those, who are emigrated now, 41.8% of who have never emigrated and 57.1%, - who plan to emigrate. 28.6% of the respondents, who have been in illegal emigration have severely expressed anxiety, 18.8% of who emigrate regularly and 17.1% of who are currently emigrated. The differences are statistically reliable. ($X^2=0.006$) See Table N5.

Table N5. Distribution of Respondents on the Anxiety Measuring Scale Based on Being emigrated
Crosstab

% within

		. Being emigrated						Total	
		I emigrate regularly	I am currently in legal emigration	I am currently in illegal emigration	I have never emigrated	I have been there legally	I have been there illegally		I plan to emigrate
anxiety	absent	18.8%	34.1%	33.3%	25.1%	15.8%	35.7%	12.7%	23.9%
	Mildly expressed	15.6%	17.1%	23.8%	24.3%	30.5%	7.1%	22.2%	23.9%
	Moderately expressed	46.9%	31.7%	28.6%	41.8%	36.8%	28.6%	57.1%	41.6%
	Severely expressed	18.8%	17.1%	14.3%	8.9%	16.8%	28.6%	7.9%	10.6%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	36.288 ^a	18	0.006
Likelihood Ratio	35.157	18	0.009
Linear-by-Linear Association	1.616	1	0.204
N of Valid Cases	1000		

a. 6 cells (21.4%) have expected count less than 5. The minimum expected count is 1.48.

Based on the cross-tabulation analysis it was revealed that those respondents have the averagely expressed level of anxiety, who have emigrated for treatment purposes (64.3%), who have changed their places of residence due to political persecution (54.8%) and due to persecution on ethnic grounds (52%). 22% of the respondents, who have emigrated due to economic hardship have severely expressed level of anxiety. The differences are statistically reliable ($X^2=0.000$) See Table N6.

Table N6. Distribution of Respondents on the Anxiety Measuring Scale Based on the Reasons for Being emigrated

Crosstab

% within change of the place of residence

		. Change of the place of residence						Total	
		Due to political persecution	Due to economic hardship	For treatment purposes	For study purposes	For the improvement of life conditions	Due to the persecution on economic grounds		Has not been changed
anxiety	absent	21.4%	19.2%	21.4%	20.8%	26.3%	8.0%	27.2%	23.9%
	Mildly expressed	23.8%	18.3%		26.4%	24.6%	22.0%	25.4%	24.1%
	Moderately expressed	54.8%	40.4%	64.3%	44.7%	42.3%	52.0%	37.1%	41.4%
	Severely expressed		22.1%	14.3%	8.2%	6.9%	18.0%	10.3%	10.6%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	46.102 ^a	18	0.000
Likelihood Ratio	52.251	18	0.000
Linear-by-Linear Association	5.863	1	0.015
N of Valid Cases	1000		

a. 4 cells (14.3%) have expected count less than 5. The minimum expected count is 1.48.

Based on the processing of research results via cross-tabulation analysis it was revealed that 50% of the respondents, whose family member periodically goes to emigration, 53.5% of the respondents, whose family member currently is in illegal emigration and 66.7% of the respondents, whose family member plans to emigrate have moderately expressed level of anxiety. It is noteworthy that 20% of the respondents, whose family member goes to emigration periodically, have severely expressed level of anxiety. The differences are statistically reliable ($X^2=0.001$) See Table N7.

Table N7. Distribution of Respondents on the Anxiety Measuring Scale Based on a Family Member Being emigrated

Crosstab

% within

		Any family member being emigrated						Total
		Goes to emigration periodically	He/she is currently in legal emigration	He/she is currently in illegal emigration	He/she is not emigrated	He/she has never been there	He/she plans to emigrate	
Anxiety	absent	10.0%	22.3%	16.3%	27.3%	29.0%	23.9%	
	Mildly expressed	20.0%	20.4%	18.6%	26.1%	29.0%	23.8%	
	Averagely expressed	50.0%	47.2%	53.5%	36.8%	33.0%	66.7%	
	Severely expressed	20.0%	10.0%	11.6%	9.7%	9.0%	9.5%	
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	38.863 ^a	15	0.001
Likelihood Ratio	43.708	15	0.000
Linear-by-Linear Association	11.479	1	0.001
N of Valid Cases	997		

a. 2 cells (8.3%) have expected count less than 5. The minimum expected count is 2.21.

Based on the cross-tabulation analysis it was revealed that 84.6% of the respondents, whose family member plans to migrate have averagely expressed level of anxiety, 29.2% of the respondents, whose family members have never been to migration, have mildly expressed anxiety and 32.3% of the respondents, whose family members have never been to migration have no anxiety at all. 17.1% of the respondents, whose family members are currently in migration have severely expressed anxiety. Differences are statistically reliable ($X^2=0.000$). See Table N8.

Table N8. Distribution of Respondents on the Anxiety Measuring Scale Based on a Family Member Being in Migration

		Any family member in migration (inside the country)					Total
		Currently is in migration	Periodically goes to migration	Is not in migration	Has never been in migration	Plans to migrate	
Anxiety	absent	20.2%	12.2%	24.8%	32.3%	23.9%	
	Mildly expressed	18.1%	28.6%	24.9%	29.2%	24.0%	
	Averagely expressed	44.6%	49.0%	41.0%	31.5%	84.6%	
	Severely expressed	17.1%	10.2%	9.3%	6.9%	15.4%	
Total		100.0%	100.0%	100.0%	100.0%	100.0%	

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	39.718 ^a	12	0.000
Likelihood Ratio	44.284	12	0.000
Linear-by-Linear Association	11.387	1	0.001
N of Valid Cases	999		

a. 3 cells (15.0%) have expected count less than 5. The minimum expected count is 1.38.

Based on the cross-tabulation analysis of the research results it was revealed that 37.9% of the respondents, who are currently in legal emigration have mild depression, 36.4% of the respondents that periodically emigrate have mild depression and 21.2% have severe depression. 19% of the respondents, who are currently emigrated have severe depression. The differences are statistically reliable ($X^2=0.000$). See Table N9.

Table N9. Distribution of Respondents on the Depression Research Scale Based on Being emigrated

		Being emigrated						Total	
		I go there regularly	Currently I am in legal emigration	Currently I am in illegal emigration	I have never emigrated	I have been in legal emigration	I have in illegal emigration	I plan to emigrate	
Depression	absent	3.0%	32.5%	14.3%	16.8%	7.4%	35.7%	18.8%	16.4%
	Mild depression	30.3%	20.0%	33.3%	33.3%	37.9%		15.6%	31.5%
	moderate depression	36.4%	27.5%	19.0%	30.1%	30.5%	35.7%	21.9%	29.5%
	moderate and severe depression	21.2%	12.5%	14.3%	11.2%	12.6%	14.3%	31.3%	13.1%
	Severe depression	9.1%	7.5%	19.0%	8.6%	11.6%	14.3%	12.5%	9.4%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	58.335 ^a	24	0.000
Likelihood Ratio	59.870	24	0.000
Linear-by-Linear Association	2.522	1	0.112
N of Valid Cases	999		

a. 11 cells (31.4%) have expected count less than 5. The minimum expected count is 1.32.

Based on the cross-tabulation analysis it was revealed that 50% of the respondents, who have changed their places of residence have mild depression and 28% of them have severe depression. 36.6% of the respondents, who have changed their place of residence due to political persecution, have moderate depression. 21.2%-21.4% of the respondents, who have changed their place of residence for the purpose of treatment and continuing their studies have moderately severe depression. The differences are statistically reliable ($X^2=0.000$). See Table N10.

Table N10. Distribution of Respondents on the Depression Research Scale Based on the Reasons of Change of the Place of Residence

		Reasons for change the place of residence							Total
		Due to political persecution	Due to economic hardship	For treatment purposes	For study purposes	For improving life conditions	Due to persecution on ethnic grounds	Has not been changed	
Depression	absent	17.1%	15.4%	28.6%	8.1%	19.0%	10.0%	19.1%	16.5%
	Mild depression	26.8%	26.0%	14.3%	31.9%	31.0%	50.0%	31.8%	31.5%
	Moderate depression	36.6%	25.0%	21.4%	34.4%	33.3%	12.0%	28.5%	29.3%
	Moderate and severe depression	19.5%	21.2%	21.4%	20.0%	7.5%		11.6%	13.1%
	Severe depression		12.5%	14.3%	5.6%	9.2%	28.0%	9.0%	9.5%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	79.565 ^a	24	0.000
Likelihood Ratio	85.451	24	0.000
Linear-by-Linear Association	4.191	1	0.041
N of Valid Cases	999		

a. 7 cells (20.0%) have expected count less than 5. The minimum expected count is 1.33.

Based on the cross-tabulation analysis of the research data it was revealed that 45% of the respondents, whose family member has never emigrated have mild depression, 33.3% of the respondents, whose family members plan to emigrate have moderate depression. 25.6% of the respondents, whose family members are currently in illegal emigration have moderately severe depression and 32.6% of those, whose family members currently are in illegal emigration have severe depression. The differences are statistically reliable ($X^2=0.000$). See Table N11.

Table N11. Distribution of Respondents on the Depression Research Scale Based on a Family Member Being emigrated

		Is any family member emigrated (abroad)					Total	
		Emigrates periodically	Currently is legally emigrated	Currently is illegally emigrated	Is not emigrated	Has never emigrated		Plans to emigrate
Depression	absent	12.9%	14.9%	4.7%	18.0%	18.8%	23.8%	16.4%
	Mild depression	24.3%	27.1%	23.3%	33.9%	45.5%	9.5%	31.6%
	Moderate depression	22.9%	37.5%	14.0%	28.1%	24.8%	33.3%	29.4%
	Moderately severe depression	21.4%	15.2%	25.6%	10.7%	5.9%	19.0%	13.0%
	Severe depression	18.6%	5.2%	32.6%	9.3%	5.0%	14.3%	9.5%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	86.779 ^a	20	0.000
Likelihood Ratio	79.363	20	0.000
Linear-by-Linear Association	11.827	1	0.001
N of Valid Cases	999		

a. 4 cells (13.3%) have expected count less than 5. The minimum expected count is 2.00.

Based on the cross-tabulation analysis it was revealed that 25.2% of the respondents, whose family members have never migrated, have no depression at all. 35.4% of the respondents, whose family members periodically migrate have mild depression. 38.5% of the respondents, whose family members plan to migrate, have moderate depression and 30.8% of such respondents have mildly severe depression.

12.5% of the respondents, whose family members periodically migrate have severe depression. The differences are statistically reliable ($X^2=0.008$). See Table N12.

Table N12. Distribution of Respondents on the Depression Research Scale Based on a Family Member Being in Migration

Crosstab

% within		Is any family member migrated (within the country)					Total
		Currently is migrated	Periodically migrates	Is not migrated	Has never migrated	Plans to migrate	
Depression	absent	15.5%	4.2%	16.0%	25.2%	15.4%	16.5%
	Mild depression	26.9%	35.4%	33.1%	32.8%	15.4%	31.7%
	Moderate depression	30.1%	33.3%	28.3%	31.3%	38.5%	29.4%
	Moderately severe depression	18.1%	14.6%	12.5%	4.6%	30.8%	12.9%
	Severe depression	9.3%	12.5%	10.1%	6.1%		9.4%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	32.799 ^a	16	0.008
Likelihood Ratio	36.530	16	0.002
Linear-by-Linear Association	7.615	1	0.006
N of Valid Cases	999		

a. 6 cells (24.0%) have expected count less than 5. The minimum expected count is 1.22.

Based on the cross-tabulation analysis it was revealed that 33.3% of those respondents, who periodically emigrate, have average level of dispositional optimism. 100% of those respondents, who are currently illegally emigrated, 85.4% of the respondents, who are currently legally emigrated and 66.7% of the respondents, who periodically emigrate have high level of dispositional optimism. Table N13.

Table N13. Distribution of Respondents on the Life Orientation Research Scale Based on Being emigrated

		Being emigrated						Total
		I emigrate regularly	Currently I am legally emigrated	Currently, I am illegally emigrated	I have never emigrated	I have emigrate legally	I have emigrated illegally	
Life orientation Dispositiona l optimism	Low level				2.3%	1.1%	6.3%	2.2%
	Average level	33.3%	14.6%		17.9%	13.8%	12.7%	16.9%
	High level	66.7%	85.4%	100.0%	79.8%	85.1%	100.0%	80.9%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	23.630 ^a	12	0.023
Likelihood Ratio	29.272	12	0.004
Linear-by-Linear Association	0.109	1	0.741
N of Valid Cases	999		

a. 8 cells (38.1%) have expected count less than 5. The minimum expected count is .31.

Based on the cross-tabulation analysis, it was revealed that on the life orientation research scale, 90.5% of the respondents, who have changed their place of residence due to political persecution and 100% of respondents, who have changed their place of residence for treatment purposes, have high levels of dispositional optimism. See Table N14.

Table N14. Distribution of Respondents on the Life Orientation Research Scale Based on the Determination of the Reasons of Change of the Place of Residence.

		Reasons for change of the place of residence						Total
		Due to political persecution	Due to economic hardship	For treatment purposes	For study purposes	To improve life conditions	Due to persecution on ethnic grounds	
Life orientation dispositiona l optimism	Low level		1.0%		2.5%	1.7%	8.0%	2.2%
	Average level	9.5%	13.5%		21.9%	15.5%	16.0%	17.8%
	High level	90.5%	85.6%	100.0%	75.6%	82.8%	76.0%	80.0%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.266 ^a	12	0.082
Likelihood Ratio	20.030	12	0.067
Linear-by-Linear Association	3.105	1	0.078
N of Valid Cases	999		

a. 7 cells (33.3%) have expected count less than 5. The minimum expected count is .31.

Based on the cross-tabulation analysis it was revealed that on the life orientation research scale, 87.0% of those respondents have high values of dispositional optimism, whose family member has never emigrated. See Table N15.

Table N15. Distribution of Respondents on the Life Orientation Research Scale Based on a Family Member emigrated.

Crosstab

% within Is any family member emigrated (abroad?)

		Periodically emigrates	Currently is legally emigrated	Currently is illegally emigrated	Is not emigrated	Has never emigrated	Plans to emigrate	Total
Life orientation Dispositional optimism	Low level	1.4%	1.1%	4.7%	2.6%	1.0%	9.5%	2.2%
	Average level	22.9%	17.8%	20.9%	15.4%	12.0%	33.3%	16.9%
	High level	75.7%	81.0%	74.4%	82.0%	87.0%	57.1%	80.9%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	18.913 ^a	10	0.041
Likelihood Ratio	16.212	10	0.094
Linear-by-Linear Association	0.003	1	0.956
N of Valid Cases		997	

a. 5 cells (27.8%) have expected count less than 5. The minimum expected count is .46.

Based on cross-tabulation analysis it was revealed that 82.1% of those respondents, whose family member is not in migration have high values of dispositional optimism on the life orientation research scale; 38.5% of those respondents, whose family members plan to migrate have average values. And 4.1% of those respondents, whose family members are currently in migration have the lowest value. See Table N16.

Table N16. Distribution of Respondents on the Life Orientation Research Scale Based on a Family Member in Migration.

Crosstab

% within Family member being in migration (inside the country)

		Currently is in migration	Periodically goes to migration	Is not in migration	Has never been in migration	Plans to migrate	Total
Life orientation: Dispositional optimism	Low level	4.1%	2.0%	1.8%	1.5%		2.2%
	Average level	18.1%	16.3%	16.2%	17.6%	38.5%	17.0%
	High level	77.7%	81.6%	82.1%	80.9%	61.5%	80.8%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.244 ^a	8	0.322
Likelihood Ratio	8.030	8	0.431
Linear-by-Linear Association	1.212	1	0.271
N of Valid Cases		999	

a. 5 cells (33.3%) have expected count less than 5. The minimum expected count is .29.

Based on the cross-tabulation analysis it was revealed that 28.6% of the respondents, who have been in illegal emigration have high level of resilience, 85.7% of the respondents, who are currently in legal

emigration have moderate level of resilience, and 28.6% of those respondents, who have been in illegal emigration have the lowest index of resilience. See Table N17.

Crosstab

		% within being emigrated							Total
		I go there regularly	I am now in legal emigration	I am now in illegal emigration	I have never been there	I have been there legally	I have been there illegally	I plan to emigrate	
resilience	Low level	31.3%	23.8%	14.3%	25.4%	21.1%	28.6%	26.6%	25.0%
	Average level	65.6%	54.8%	85.7%	65.3%	70.5%	42.9%	67.2%	65.6%
	High level	3.1%	21.4%		9.3%	8.4%	28.6%	6.3%	9.4%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	21.843 ^a	12	0.039
Likelihood Ratio	20.931	12	0.051
Linear-by-Linear Association	0.004	1	0.950
N of Valid Cases	1001		

a. 5 cells (23.8%) have expected count less than 5. The minimum expected count is 1.31.

Based on the cross-tabulation analysis it was revealed that 28.6% of those respondents have the highest value of resilience and 32.5% of those respondents have the highest value of resilience, who have changed their places of residence due study travels. 81.0% of those respondents have an average level of resilience, who have changed their place of residence due to political persecution. See Table N18.

Table N18. Distribution of Respondents on the Resilience Research Scale in terms of the Change of the Place of Residence.

Crosstab

		Reason for changing the place of residence							Total
		Due to political persecution	Due to economic hardship	For treatment	For studies	To improve life conditions	Due to persecution on ethnic grounds	Has not been changed	
Resilience	Low level	14.3%	23.8%	7.1%	32.5%	21.1%	32.0%	24.6%	24.9%
	Average level	81.0%	70.5%	64.3%	62.5%	65.1%	64.0%	64.6%	65.6%
	High level	4.8%	5.7%	28.6%	5.0%	13.7%	4.0%	10.8%	9.5%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	28.681 ^a	12	0.004
Likelihood Ratio	28.574	12	0.005
Linear-by-Linear Association	0.206	1	0.650
N of Valid Cases	1001		

a. 4 cells (19.0%) have expected count less than 5. The minimum expected count is 1.33.

Based on the cross tabulation analysis it was revealed that 11.9% of those respondents have a high level of resilience, whose family members currently are in legal emigration. 75% of the respondents, whose family members have never emigrated have average level of resilience, and 57.1% of the respondents, whose family members are going to emigration have the lowest level of resilience. See Table N19.

Table N19. Distribution of Respondents on the Resilience Research Scale Based on the Family Members Being Abroad

Crosstab		Family member emigrated						Total
		Goes there periodically	Is now in legal emigration	Is now in illegal emigration	Is not emigrated	Has never emigrated	Plans to migrate	
resilience	Low level	30.0%	27.1%	38.6%	22.4%	15.0%	57.1%	24.9%
	Average level	60.0%	61.0%	56.8%	68.9%	75.0%	42.9%	65.7%
	High level	10.0%	11.9%	4.5%	8.7%	10.0%		9.4%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Based on the cross-tabulation analysis it was revealed that 28% of the respondents, whose family members currently are in migration, have low index of resilience. 75.5% of the respondents, whose family members periodically migrate have an average index of resilience. And 11.1% of the respondents, whose family members are not in migration, have an average index of resilience. To establish, whether the differences on the grounds of internal displacement were revealed on the applied scales, it was revealed that an average index of anxiety is higher among the persons internally displaced from Abkhazia ($M=20.10$; $SD=6.21$) and Shida Kartli ($M=20.34$; $SD=7.10$) compared with the internal migrants ($M=19.55$; $SD=6.20$). The average index of depression is higher among internal migrants ($M=11.18$; $SD=5.97$), compared to the persons internally displaced from Abkhazia ($M=9.76$; $SD=6.04$) and Shida Kartli ($M=10.32$; $SD=6.17$). Dispositional optimism is higher among the internally displaced persons from Abkhazia ($M=25.21$; $SD=5.32$) and Shida Kartli ($M=25.00$; $SD=5.95$) compared to internal migrants ($M=24.96$; $SD=5.68$).

The average score of resilience is equal among the internally displaced persons from Abkhazia ($M=76.08$; $SD=19.39$) and from Shida Kartli ($M=76.05$; $SD=18.90$) and it is slightly lower among internal migrants ($M=72.91$; $SD=19.13$).

Table N20. Correlation Analysis

		შეზღვევის ინდექსი	დეპრესიის ინდექსი	ანქიეტის ინდექსი	ანქიეტის ინდექსი (შეზღვევის ინდექსის მიმართ)	ანქიეტის ინდექსი (დეპრესიის ინდექსის მიმართ)	ანქიეტის ინდექსი (ანქიეტის ინდექსის მიმართ)	ანქიეტის ინდექსი (ანქიეტის ინდექსის მიმართ)
შეზღვევის ინდექსი	Pearson Correlation	1	.626**	-.286**	-.453**	-.400**	-.411**	-.482**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000
	N	1000	1000	1000	1000	1000	1000	1000
დეპრესიის ინდექსი	Pearson Correlation	.626**	1	-.431**	-.703**	-.536**	-.506**	-.683**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	1000	1000	1000	1000	1000	1000	1000
ანქიეტის ინდექსი	Pearson Correlation	-.286**	-.431**	1	.658**	.572**	.529**	.679**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	1000	1000	1000	1000	1000	1000	1000
ანქიეტის ინდექსი (შეზღვევის ინდექსის მიმართ)	Pearson Correlation	-.453**	-.703**	.658**	1	.718**	.611**	.927**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	1000	1000	1000	1000	1000	1000	1000
ანქიეტის ინდექსი (დეპრესიის ინდექსის მიმართ)	Pearson Correlation	-.400**	-.536**	.572**	.718**	1	.622**	.888**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	1000	1000	1000	1000	1000	1000	1000
ანქიეტის ინდექსი (ანქიეტის ინდექსის მიმართ)	Pearson Correlation	-.411**	-.506**	.529**	.611**	.622**	1	.797**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	1000	1000	1000	1000	1000	1000	1000
ანქიეტის ინდექსი (ანქიეტის ინდექსის მიმართ)	Pearson Correlation	-.482**	-.683**	.679**	.927**	.888**	.797**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	1000	1000	1000	1000	1000	1000	1000

** Correlation is significant at the 0.01 level (2-tailed).

Conclusion

Based on the analysis and processing of the data obtained in terms of the research objective – to study the psychological state and the migration processes of internally displaced persons, the following was revealed:

- The averagely expressed index of anxiety is relatively higher in displaced persons from Abkhazia and Shida Kartli, compared to that of the control group.
- The average index of depression is slightly higher in the respondents displaced from Shida Kartli.
- The dispositional optimism on the life orientation research scale is slightly higher in the internally displaced respondents from Abkhazia and Shida Kartli compared to the control group.
- More than the half of the research participants have an average resilience index.
- Moderately expressed anxiety is higher in respondents, who regularly emigrate, and severely expressed anxiety was revealed more among respondents, who have emigrated illegally.
- More than half of the surveyed respondents, who have emigrated due to treatment purposes, or due to the persecution on political or ethnic grounds, have moderately expressed level of anxiety. Almost one-third of the surveyed respondents, who have emigrated due to economic hardship, revealed severely expressed level of anxiety.
- More than a half of the research participants, whose family members are emigrated or plan to emigrate, have moderately expressed level of anxiety. Severely expressed level of anxiety was revealed more in the respondents, whose family members periodically emigrate.
- Almost the majority of the respondents, whose family member plans to migrate, revealed moderately expressed level of anxiety. One-third of the respondents, whose family member has never migrated, do not have any signs of anxiety.
- Severe depression was revealed more among the respondents, who are currently emigrated or periodically emigrate.
- One-third of the research participants, who have changed their place of residence due to the persecution on ethnic grounds have severe depression. Moderately severe depression was mostly expressed among the respondents, who have changed their place of residence for treatment purposes or to continue studies.
- Almost half of the respondents, whose family members have never emigrated, have mild depression and one third of the research participants, whose family members are currently emigrated illegally, have severe depression.

- One-third of the research participants, whose family members periodically migrate, have mild depression, and moderately severe depression was revealed among the respondents, whose family members plan to migrate.
- Most part of the respondents, who are currently legally emigrated, who emigrate periodically and the absolute majority of respondents, who are currently illegally emigrated, have high level of dispositional optimism.
- Dispositional optimism is high among the absolute majority of the respondents, who have changed their place of residence for treatment purposes.
- Most part of the respondents, whose family member has never emigrated, have high index of dispositional optimism.
- Dispositional optimism is high among the respondents, whose family member is not migrated and the index is lowest among the respondents, whose family members are currently migrated.
- Resilience is lowest among one-third of the respondents, who have changed their place of residence for study travel purposes. Average level of resilience was revealed among the majority of the respondents, who have changed their place of residence due to political persecution.
- More than a half of the respondents, whose family member plans to emigrate, have revealed the lowest index of resilience.
- Resilience is high among one-third of the respondents, whose family members are currently migrated, have low level of resilience. Most part of the respondents, whose family members periodically migrate, have average index of resilience.
- Statistically significant differences have not been revealed based on age, sex, education and family status.
- After the correlation and factor analysis, it was revealed that high correlation exists between the research scales. In particular, high indexes of anxiety and depression are related to the low indexes of dispositional optimism and resilience.

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Appraising The Influence of Self Esteem and Emotional Intelligence on Achievement Motivation Among Selected Private Secondary School Students in Lagos State, Nigeria

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Abstract

Low achievement motivation among secondary students is a serious problem that can have a lasting effect on their academic success. Students may lack motivation because of a variety of factors, such as lack of interest in the subject matter, feeling overwhelmed or discouraged by the difficulty they face. This study employed a cross-sectional research design. Findings of the study reveals that self-esteem ($\beta = -.325$; $t = -4.710$; $P < .000$) significantly, independently predicts achievement motivation. Also, emotional intelligence ($\beta = .097$; $t = 3.848$; $P < .000$) significantly, independently predicts achievement motivation among private secondary school students in Lagos. The result showed that self-esteem ($\beta=.093$; $t= 3.822$; $p<0.05$) and emotional intelligence ($\beta=.263$; $t= 4.798$; $p<0.05$) jointly predict achievement motivation among private secondary school students in Lagos State. The study recommends that individual counseling services or mentoring programs should be made available to assist students in developing their self-esteem and emotional intelligence. Promoting collaborative learning environments and peer support systems can have a positive impact on students' self-esteem and emotional intelligence. Group projects, team-building activities, and peer mentoring programs foster a sense of belonging and create opportunities for students to develop interpersonal skills, empathy, and emotional resilience. By working together and supporting one another, students can enhance their overall well-being and academic growth.

Keywords: Achievement Motivation, Counseling, Emotional Intelligence, Self-Esteem, Private Secondary School, Students.

Introduction

The influence of self-esteem and emotional intelligence on achievement motivation has been widely explored in educational research, especially in understanding how these psychological factors shape student performance. This study focuses on students from selected private schools in Lagos, a dynamic city where competition and academic excellence are highly emphasized. Self-esteem, which refers to an individual's sense of worth and confidence, plays a significant role in shaping students' beliefs about their abilities and their potential to succeed. Students with high self-esteem are more likely to set challenging goals and persist in the face of difficulties, while those with low self-esteem may struggle with self-doubt and fear of failure.

On the other hand, emotional intelligence (EI) refers to the ability to recognize, understand, manage, and utilize emotions effectively. High emotional intelligence can help students navigate the emotional challenges associated with academic pressure, peer relationships, and personal expectations. Students with higher emotional intelligence are often better equipped to manage stress, communicate effectively, and maintain a positive attitude toward learning, all of which are essential for sustaining achievement motivation.

In the context of the study, understanding the influence of self-esteem and emotional intelligence on achievement motivation among secondary school students is crucial as they are at a critical stage of identity formation and personality development. During adolescence, self-esteem and emotional intelligence become particularly important as students face academic, social, and personal challenges. These factors can significantly shape their achievement motivation at this stage. Also, secondary school students, especially in private schools, often face high expectations to perform academically from their parents owing to the amount expended in giving them such education, because of their elitist nature, which when compared to those who go to public schools is a lot of financial investment. Understanding how self-esteem and emotional intelligence influence their achievement motivation can provide insights into improving educational outcomes and student well-being in high-pressure environments.

1. Achievement Motivation

Achievement motivation is defined as a drive or desire to accomplish or achieve a goal or a certain performance level. This type of motivation is often linked to high levels of achievement in school, sports, and work. It is also associated with seeking out challenges and feeling satisfaction from completing tasks or overcoming obstacles.¹ People who have a high level of achievement motivation tend to be self-motivated, highly organized, and extremely focused. At its core, achievement motivation is the desire to better oneself and to reach higher levels of success through hard work and dedication. It is the drive to reach a certain goal, whether it is a personal goal or something more ambitious. It is also often associated with feelings of pride, satisfaction, and accomplishment when that goal is achieved.²

Achievement motivation is a psychological phenomenon in which individuals strive to attain success or high levels of performance in a given goal. It involves the internal drive to strive for excellence, to reach a certain standard of achievement, or to compete against others. Achievement motivation is typically seen as one of the primary motivators of behavior, and is often seen as a key factor in success and overall well-being.³ It can be cultivated in individuals through positive feedback and reinforcement, and can also be developed through setting challenging goals and engaging in activities that test and expand one's capabilities.

Achievement motivation is an important factor in the success of secondary school students in Nigeria. The ability to strive for excellence in academic pursuits is essential for students to reach their full potential. With the right motivation, students can stay focused on their goals and strive to be the best they can be. In Nigeria, secondary school students are often driven by the fear of failure or the fear of not living up to their parents' or society's expectations.⁴ This fear often leads to anxiety and can disrupt their learning process. To overcome this, students need to understand the importance of achievement motivation and how it can help them reach their goals.

Achievement motivation is a term used to describe the drive to succeed in students. It is an important factor in academic performance and is particularly relevant in Nigeria, where educational standards are highly competitive. Nigerian students are highly motivated to achieve academically and often have strong aspirations for education. This is likely due to the importance placed on education in Nigerian culture, as well as the country's long history of academic excellence. Nigerian students are driven to

¹ Brunstein, J. C., and Heckhausen, Jutta, 'Achievement motivation', in R. J. Sternberg, and S. B. Kaufman (eds.), *The Cambridge Handbook of Creativity*, 2nd edn. (Cambridge University Press, 2018), pp. 171-190.

² Singh, K., 'Achievement motivation and achievement-related cognitions: A cognitive model of achievement motivation', *Educational Psychology*, 31(3), 2011, 355-376.

³ Wigfield, A., and Cambria, J., 'Students' achievement values, goal orientations, and interest: Definitions, development, and relations to achievement outcomes', *Developmental Review*, 30(1), 2010, 1-35.

⁴ Akpan, A. S., and Umobong, I. U., 'Achievement motivation and academic performance among secondary school students', *Mediterranean Journal of Social Sciences*, 411 (in Nigeria), 2013, 109-116.

excel in the classroom, with many having a goal of achieving higher education.⁵ This is not only to gain qualifications and knowledge, but also to use these skills to contribute to the development of the country.

Achievement motivation is also enhanced by the availability of scholarships and other incentives, which can provide students with the opportunity to further their studies or gain access to better resources. This further encourages students to strive for excellence and reach their highest potential. Finally, the Nigerian school system places a strong emphasis on discipline and attendance, which can help to motivate students to stay focused on their academic goals. This creates an environment where students are encouraged to strive for success and be their best.⁶

2. Self-Esteem

Self-esteem is an individual's overall sense of self-worth or personal value. It is a reflection of how we view ourselves, and is determined by an individual's thoughts and beliefs about themselves.⁷ The importance of self-esteem is that it affects how we feel about ourselves and how we interact with others. When we possess a healthy self-esteem, we tend to feel confident and secure, and are better able to cope with challenges of life. Low self-esteem can lead to feelings of insecurity and self-doubt, and can prevent us from reaching our full potential. To improve self-esteem, it is important to practice self-care, focus on positive thoughts and behaviors, and take time to recognize and celebrate accomplishments.

It is a core component of psychological health and is based on an individual's self-perception. Low self-esteem can lead to feelings of worthlessness, depression, and insecurity, while high self-esteem can lead to increased confidence, resilience, and authenticity.⁸ Self-esteem is shaped by our early life experiences and is influenced by our parents, peers, culture, and society. Succinct to point out that self-esteem is subjective and does vary from person to person. For example, an individual with a high self-esteem might view themselves as a valuable and capable person, while an individual with low self-esteem might view themselves as inadequate and unworthy. Individuals with high self-esteem are more likely to be motivated to set goals, and take decisive actions to achieve their goals as against those with rather low self-esteem.

People with low self-esteem, on the other hand, are less likely to take risks or take action to achieve their goals. They may feel unworthy of success or lack the confidence to pursue their goals. Low self-esteem can lead to feelings of hopelessness or apathy, which can further prevent them from taking action or striving for success. There is a complex and dynamic relationship between self-esteem and achievement motivation. People with high self-esteem tend to have more motivation to achieve, while those with low self-esteem may struggle with motivation.⁹ However, achievement can also lead to increased self-esteem. When people are successful and achieve their goals, they feel a sense of accomplishment which can bolster their self-esteem.

According to Daniel Goleman in 1995, emotional intelligence (EI) is the ability to identify, understand, and manage one's own emotions, as well as the emotions of others. It involves recognizing and

⁵ Ejiobi-Okeke, B. N., and Samuel, A. B., 'Achievement motivation and academic performance of secondary school students in Nigeria: A study of selected schools in Lagos State', *International Journal of Progressive Sciences and Technologies*, 27(1), 2021, 27-36.

⁶ Okoro, C. S., and Udoh, U. C., 'Achievement motivation as correlate of students' academic performance in mathematics: A study of senior secondary schools in Uyo Metropolis, Akwa Ibom State, Nigeria', *International Journal of Education and Research*, 2(3), 2014, 275-290.

⁷ Orth, U., and Robins, R. W., 'The development of self-esteem', *Current Directions in Psychological Science*, 23(5), 2014, 381-387.

⁸ Zeigler-Hill, V., 'Self-esteem', in *The Encyclopedia of Cross-Cultural Psychology*, (John Wiley & Sons, 2013), pp. 1076-1079.

⁹ Lee, C., 'Self-esteem and achievement motivation: The moderating effect of age', *Personality and Individual Differences*, 137, 2019, 285-290.

understanding how emotions can affect one's behavior, thoughts, and decisions.¹⁰ A person with a high level of emotional intelligence is better able to handle stress, communicate effectively, resolve conflicts, and recognize and respond appropriately to the emotions of others.¹¹ EI is thought to be an important factor in success in life. It can help individuals to better understand their own emotions, as well as the emotions of others, which can improve their relationships and help them to become more successful in both personal and professional settings.

EI can also help people to better manage stress and difficult situations. People with a higher level of emotional intelligence typically have better self-awareness and are better able to recognize when they are feeling overwhelmed or stressed. This allows them to take steps to address the issue and manage their emotions in a healthier way. Furthermore, people with a high level of emotional intelligence typically have better interpersonal skills. They are better able to recognize and respond appropriately to the emotions of others, which can help them to build stronger relationships and foster a more positive work environment.¹²

Achievement motivation is the desire to succeed and accomplish goals. It is an innate drive to excel and accomplish goals. Individuals who possess achievement motivation tend to seek out challenging tasks, set personal goals, and persistently work towards the attainment of such goals. This can be influenced by a variety of factors, including emotional intelligence. Previous studies have found that individuals with higher levels of emotional intelligence are more likely to have higher achievement motivation. This is likely due to the fact that individuals with higher EI are better able to understand and manage their own emotions, as well as those of others. As such, they are better able to recognize and respond to the emotional cues associated with success and achievement, which can lead to greater motivation to succeed.¹³

Achievement motivation is the internal drive that compels individuals to pursue excellence and achieve their goals. It is shaped by a combination of internal and external factors, including self-esteem and emotional intelligence. This study seeks to examine how these two psychological constructs influence the achievement motivation of selected private school students in Lagos. By doing so, it aims to highlight ways schools can create environments that nurture not only academic success but also the emotional and psychological well-being of students.

3. Statement of the Problem

Low achievement motivation among secondary students is a serious problem that can have a lasting effect on their academic success. It is possible that students' motivation are due to a variety of factors, such as lack of interest in the subject matter, feeling overwhelmed or discouraged by the difficulty of the material, or feeling that the rewards for success are not worth the effort required. The study of the influence of self-esteem and emotional intelligence on achievement motivation is motivated by the need to better understand the psychological factors that influence students' academic success. Self-esteem and emotional intelligence are two important psychological constructs that have been linked to academic achievement, and thus the study of their influence can yield valuable insight into how students can be helped to reach their academic goals. Self-esteem is a measure of how much a person values and believes in themselves, and it is known to impact a person's ability to set and achieve goals. Emotional intelligence has been linked to improved academic performance at various levels of educational endeavours. Understanding how these two psychological constructs interact to influence achievement motivation can help teachers and parents better support students in reaching their academic goals.

¹⁰ Goleman, D., *Emotional Intelligence: Why It Can Matter More Than IQ*, (Bantam Books, 1995).

¹¹ Serrat, O., and Serrat, A., 'Emotional intelligence', in *Knowledge Solutions*, (Springer, 2017), pp. 241-249.

¹² Ackley, Bonnie, 'Emotional intelligence and nursing leadership', *Journal of Nursing Management*, 24(1), 2016, 66-71.

¹³ Gharetepeh, A., Safari, Y., Pashaei, T., Razaee, M., and Kajbaf, M. B., 'Emotional intelligence as a predictor of self-efficacy among students', *International Journal of Educational and Psychological Researches*, 1(2), 2015, 41-44.

Previous research has explored the influence of self-esteem and emotional intelligence on achievement motivation. Studies have found that self-esteem is positively associated with achievement motivation, and that emotional intelligence is a predictor of academic performance.¹⁴ Additionally, research has revealed that higher levels of self-esteem and emotional intelligence are associated with greater levels of academic motivation and performance.¹⁵ The current researcher intends to investigate the influence of self-esteem, emotional intelligence on achievement motivation. Specifically, the researcher is interested in exploring how self-esteem and emotional intelligence independently influence achievement motivation. The researcher is also interested in exploring the ways in which self-esteem and emotional intelligence interact to influence achievement motivation. There may be limited research on how these psychological constructs interact specifically within the Nigerian context, particularly in Lagos. Conducting this study among secondary school students in private schools can contribute valuable data to the field of educational psychology in Nigeria.

4. Objectives of the Study

This study specifically aims to examine;

1. The influence of self-esteem on achievement motivation among Private secondary school students in Lagos.
2. The influence of emotional intelligence on achievement motivation among Private secondary school students in Lagos.
3. The joint influence of self-esteem and emotional intelligence on achievement motivation among Private secondary school students in Lagos

5. Research Questions

The following questions are put forward for answers in this study.

1. Will self-esteem significantly influence achievement motivation among Private secondary school students in Lagos?
2. Will emotional intelligence significantly influence achievement motivation among Private secondary school students in Lagos?
3. Will self-esteem and emotional intelligence jointly influence achievement motivation among Private secondary school students in Lagos?

6. Theoretical Review

6.1 Self-Determination Theory

Self-determination theory (SDT) is a theory of motivation, personality, and well-being that views human behavior as the result of an individual's psychological and social needs and the extent to which these needs are met.¹⁶ Self-Determination Theory was developed in 1985 by Edward Deci and Richard

¹⁴ Magnano, P., Craparo, G., Paolillo, A., and Costanzo, G., 'The role of self-esteem and emotional intelligence in students' achievement motivation', *International Journal of Psychology*, 51(5), 2016, 348-354.

¹⁵ De Castella, K., and Byrne, D., 'My intelligence may be more malleable than yours: The revised implicit theories of intelligence (self-theory) scale is a better predictor of achievement, motivation, and student disengagement', *European Journal of Psychology of Education*, 30, 2015, 245–267.

¹⁶ Deci, E. L., and Ryan, R. M., 'Self-determination theory', in P. A. M. Van Lange, A. W. Kruglanski, and E. T. Higgins (eds.), *Handbook of theories of social psychology*, (Sage Publications Ltd, 2012), pp. 416–436. <https://doi.org/10.4135/9781446249215.n21>.

Ryan. SDT suggests that human beings have three basic psychological needs: autonomy, relatedness, and competence. Autonomy refers to individuals' feelings of control and independence, relatedness to feelings of connectedness to others, and competence to feelings of effectiveness and mastery. According to SDT, at the satisfaction of these needs, individuals will experience intrinsic motivation, well-being, and personal growth. Conversely, not meeting these needs will lead to individuals experiencing decreased motivation, reduced well-being, and a lack of personal growth. As such, SDT suggests that utilizing strategies to meet these needs can lead to greater well-being and greater motivation.

6.2 Expectancy Theory

Expectancy Theory is a motivational theory developed by Victor Vroom in 1964. This theory proposes that behaviour is determined by the expectation of an outcome. People decide to act in a certain way based on their belief that a certain outcome will be achieved.¹⁷ The proposition of the theory is that people will be motivated to act if they believe that their effort will lead to a desired outcome. This theory is based on three core components: expectancy, instrumentality, and valence. Expectancy is the belief that an individual can successfully complete a task and achieve a desired outcome. It is based on an individual's skills, abilities, and knowledge. If an individual believes that they can successfully complete a task, then they will be more likely to take action. Instrumentality is the belief that performance will be rewarded or lead to a particular outcome. Valence is the importance or value that an individual places on the expected reward or outcome.

6.3 Social Comparison Theory

Social Comparison Theory proposes that every individual has an innate need to compare themselves to others in order to assess their own opinions, abilities and worth. This theory was first introduced by Leon Festinger in 1954, and is still applicable today. The basic premise of the theory is that people will compare themselves to others so as to gain a sense of self-esteem and belonging. They do this by looking at others who are perceived to be similar to them, in terms of physical characteristics, abilities, or socio-economic status. They also compare themselves to those who are seen as having higher or lower levels of success than themselves.

The theory suggests that when people compare themselves to others, they will assess how they stack up and adjust their own self-perception accordingly. If they find that they are better than the other person in some way, they will feel better about themselves. However, if they find that the other person is better, they may feel worse about themselves. This type of comparison may lead to both positive and negative emotions.¹⁸ The theory also suggests that people may use social comparison as a way of motivating themselves. If they are comparing themselves to someone who is more successful, it can encourage them to strive to achieve the same level of success.

7. Hypothesis

1. Self-esteem will significantly influence achievement motivation among Private secondary school students in Lagos
2. Emotional intelligence will significantly influence achievement motivation among Private secondary school students in Lagos

¹⁷ Vroom, V., Porter, L., and Lawler, E., 'Expectancy theories', *Organizational behavior*, 1, 2015, 94-113.

¹⁸ Buunk, B. P., and Schaufeli, W. B., 'Burnout: A perspective from social comparison theory', in *Professional burnout: Recent developments in theory and research*, (CRC Press, 2018), pp. 53-69.

3. Self-esteem and emotional intelligence will jointly influence achievement motivation among Private secondary school students in Lagos

8. Method

8.1 Research Design

This study employed a cross-sectional research design. Self-esteem and emotional intelligence are two of the study's dependent variables. Achievement motivation was the independent variable. This allows for data collection across the various levels of educational classes at the same time from the identified population of the study.

8.2 Participants

The participants for this study were drawn through purposive sampling. 234 students of selected private secondary schools in Lagos State were selected for the study. Brain Builder International College and Konsol Private College, both located in the Egbeda area of Lagos State were the schools chosen for the study. The participants come from the junior and senior sections of the school based on the classification of the educational system in operation in Nigeria. The respondents cut across both genders, and the schools comprises students from Junior Secondary Classes 1-3 to Senior Secondary Classes 1-3. However, the research focused on the Senior Secondary Classes 1-3 because they are relatively advanced in age than the junior ones, and they are at the stage of identity formation and self-awareness which shapes their concerns for self-esteem, emotional intelligence, and achievement motivation.

8.3 Instrument

Section A comprised of socio-demographic variables which includes age, religion and gender. Section B consisted of the Wong and Law Emotional Intelligence 16-Item Scale is a measure of a person's ability to recognize and manage their emotions, as well as the emotions of others. The scale consists of 16 items scored on a 7-point scale whose answers are in the range of "Strongly Disagree" to "Strongly Agree". The items measure a person's ability to identify emotions, understand emotions, and use emotions to facilitate thinking, as well as to manage emotions and regulate emotions. The scale has been found to be a valid and reliable measure of emotional intelligence. In a study conducted by Wong and Law (2002), the scale was found to have an overall reliability coefficient of .84. Additionally, the scale was found to have convergent validity, as it was significantly correlated with other measures of emotional intelligence.

Section C comprised of the Rosenberg Self-Esteem Scale is a 10-item self-report scale that measures global self-esteem. The scale was developed by sociologist Morris Rosenberg in 1965. The items on the scale are designed to measure how positively or negatively a person feels about themselves overall. The scale uses a 4-point Likert-type scale which ranges from strongly agree to strongly disagree.

Section D comprised of the Achievement Motivation Scale (AMS) is an assessment tool designed to measure an individual's intrinsic motivation to achieve. It was developed by Lang and Fries in 2006 based on theory from the field of motivational psychology. The AMS consists of a series of questions that assess an individual's drive and desire to achieve, their level of self-confidence in their ability to achieve, and their willingness to take risks in pursuit of their goals. The AMS is designed to be used in both educational and workplace settings to identify individuals with high levels of motivation to achieve, as well as to measure the effectiveness of motivational interventions. The AMS has been validated in a range of studies and is in widespread use in educational and workplace settings. The AMS has shown to have a Cronbach's alpha coefficient of .89, indicating a high degree of internal

consistency.¹⁹ Additionally, the AMS has been validated against other measures of motivation and has been found to be a valid measure of achievement motivation.

8.4 Results

Two hundred and fifty (250) copies of the questionnaire were administered, with two hundred and thirty four (234) retrieved and then committed for statistical analysis.

Table 1. Demographic Characteristics of Respondents

Variables		Frequency	Percentage (%)
Age	13-18 years	192	82.1
	19-25 years	42	17.9
	Total	234	100.0
Gender	Male	131	56.0
	Female	103	44.0
	Total	234	100.0
Religion	Christianity	164	70.1
	Muslim	70	29.9
	Total	234	100.0
School	Brain Builder International College (BBIC)	142	60.7
	Konsol Private College	92	39.3
	Total	234	100.0
Distribution by School	Brain Builder International College (BBIC)		
	SS1A	25	10.7
	SS1B	24	10.3
	SS2A	30	12.8
	SS2B	27	11.5
	SS3	36	15.4
	Konsol private college		
	SS2A	28	12.0
	SS2B	26	11.1
	SS3	38	16.2
	Total	234	100.0

Source: Researcher's Field Survey, 2023

Table 4.1 shows that 192 respondents representing 82.1% are between the age of 13-18 years while the remaining 42 respondents which is 17.9% are between 19-25 years. 131 respondents which is 56.0% are male while 103 respondents (44.0%) are female. The table indicates that 164 respondents (70.1%) are Christian while 70 respondents (29.9%) are Muslim. 142 respondents (60.7%) are from Brain Builder International College while the remaining 92 respondents (39.3%) are from Konsol Private College. The table indicates of the respondents from Brain Builder International College (BBIC) that

¹⁹ Lang, Jonas. W. B., and Fries, Stefan, 'A revised 10-item version of the Achievement Motives Scale: Psychometric properties in German-speaking samples', *European Journal of Psychological Assessment*, 22(3), 2006, 216–224.

25 respondents (10.7%) are from SS1A, 24 of the respondents (10.3%) are from SS1B 30 of the respondents representing 12.8% are from SS2A 27 of the respondents representing 11.5% are from SS2B 36 of the respondents representing 15.4% are from SS3. From Konsol Private College, 28 of the respondents representing 12.0% are from SS2A 26 of the respondents representing 11.1% are from SS2B 38 of the respondents (16.2%) are from SS3. All the respondents above are from Konsol Private College.

8.5 Hypotheses Testing

Hypothesis One: Self-esteem will significantly influence achievement motivation among private secondary school students in Lagos. The result is presented in Table 2.

Table 2. Coefficients of Influence of Self-Esteem on Achievement Motivation

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	38.010	1.558		24.395	.000
Self-Esteem	-.325	.069	-.295	-4.710	.000

a. Dependent Variable: Achievement Motivation

The linear regression results in table 3 shows that self-esteem ($\beta = -.325$; $t = -4.710$; $P < .000$) significantly, independently predicts achievement motivation among private school students. The independent variable (self-esteem) has significantly predicted dependent variable (achievement motivation). Hence, the hypothesis which stated that self-esteem will significantly influence achievement motivation among private secondary school students in Lagos is hereby accepted.

Hypothesis Two: Emotional intelligence will significantly influence achievement motivation among private secondary school students in Lagos. The result is presented in Table 3.

Table 3: Coefficients of Influence of Emotional Intelligence on Achievement Motivation

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	27.403	.927		29.552	.000
Emotional Intelligence	.097	.025	.245	3.848	.000

a. Dependent Variable: Achievement Motivation

The linear regression analysis in table 4.3 shows that emotional intelligence ($\beta = .097$; $t = 3.848$; $P < .000$) significantly, independently predicts achievement motivation among private secondary school students in Lagos. The independent variable (emotional intelligence) has significantly predicted dependent variable (achievement motivation). Hence, the hypothesis which stated that emotional intelligence will significantly influence achievement motivation among private secondary school students in Lagos is hereby accepted.

Hypothesis Three: Self-esteem and emotional intelligence will jointly influence achievement motivation among private secondary school students in Lagos. The table is presented in Table 4

Table 4: Summary of Regression Table Showing the joint influence of Self-Esteem and Emotional Intelligence on Achievement Motivation

Variables	B	t-test	p-value	R	R ²	Adjusted R ²	F-test	Sig.
Self-Esteem	.093	3.822	.000					
Emotional Intelligence	-.315	-4.684	.000	.376 ^a	.142	.134	19.043	.000

a. Dependent Variable: Achievement Motivation

The result of multiple regression analysis presented above revealed that self-esteem ($\beta=.093$; $t= 3.822$; $p<0.05$) and emotional intelligence ($\beta=.263$; $t= 4.798$; $p<0.05$) jointly influenced achievement motivation among private secondary school students in Lagos. Thus, the hypothesis which stated that self-esteem and emotional intelligence will jointly predict achievement motivation among private secondary school students in Lagos is hereby accepted. Furthermore, the analysis showed that ($R^2=.142$, $F_{(2,231)} = 19.043$; $p <.05$) which indicates how much of the total variation in the dependent variable (achievement motivation) can be explained by the independent variables (self-esteem and emotional intelligence). In this case, 14.2% can be explained.

Conclusion

Discussion of Findings

Hypothesis one which stated that self-esteem will significantly influence achievement motivation among private secondary school students in Lagos was accepted. This implies that students that have higher levels of self-esteem are more likely to exhibit higher levels of achievement motivation. Higher self-esteem often leads to greater confidence and belief in one's abilities. Students with positive self-esteem are more likely to believe in their capabilities to succeed academically and set higher goals for themselves. This belief acts as a driving force for their achievement motivation. In the context of the Nigerian society, it is traditionally more collectivist, where family, community, and social ties play a significant role in shaping individual identity and self-esteem. In a collectivist culture, self-esteem may be closely tied to how students perceive their role in family success or how they meet the expectations of elders. In Lagos, being the melting pot of cultural, financial, and socio-demographic identities and constellations, there is considerable pressure on academic success, particularly in private schools, where parents often invest heavily in their children's education. This pressure can affect self-esteem, especially if students feel they are not living up to societal or familial expectations. The sociocultural context of academic success, status, and competition can heavily impact students' self-worth.

Students with higher self-esteem tended to exhibit higher levels of motivation towards achieving academic success. This suggests that a healthy sense of self-worth can contribute to a student's drive to excel academically. Findings of Johnson et al in 2018 revealed that students with higher self-esteem displayed greater levels of achievement motivation.²⁰ These students were more likely to set challenging goals, persist in the face of obstacles, and engage in academic tasks with enthusiasm. Conversely, students with lower self-esteem exhibited lower levels of achievement motivation.

The hypothesis two which stated that emotional intelligence will significantly influence achievement motivation among private secondary school students in Lagos was accepted. Emotional intelligence plays a crucial role in building positive relationships and effective social skills, which are important for

²⁰ Johnson, David. W., Johnson, Roger. T., and Holubec, Edythe. J., 'Cooperative learning in the classroom: The impact of self-esteem on achievement motivation', *International Journal of Teaching and Learning in Higher Education*, 30(1), 2018, 85–92.

academic success and motivation. Students with high emotional intelligence are better able to empathize with their peers, communicate effectively, and resolve conflicts constructively. These skills contribute to a supportive and motivating social environment, where students feel understood, respected, and encouraged to strive for excellence.

Moreover, emotional intelligence helps students cope with stress, setbacks, and academic pressures. It enables them to regulate their emotions, manage stress effectively, and maintain a balanced perspective. Students with high emotional intelligence will likely perceive challenges as opportunities for growth rather than obstacles that are insurmountable, and they are better equipped to bounce back from failures or disappointments. This resilience and adaptive mindset foster a strong sense of achievement motivation. Private schools, with their emphasis on holistic development, may play a pivotal role in nurturing emotional intelligence, thereby fostering a strong sense of achievement motivation among their students.

A sociocultural context of these findings opines that the Nigerian society tends to place a strong emphasis on respect and restraint in the expression of emotions, particularly among young people. This can affect how students develop emotional intelligence, as they may be taught to suppress rather than manage emotions effectively. In a school setting, students' ability to navigate complex social hierarchies, deal with pressure, and express emotions in healthy ways could differ from Western or other cultural contexts. Emotional intelligence may also be influenced by the strong extended family structures common in Nigeria, where communal living and care-giving create different emotional dynamics. Students who grow up in such environments may have more exposure to emotional negotiations within family structures, which could influence their ability to manage emotions in school settings.

Students with high emotional intelligence tend to have a greater sense of self-awareness and are better able to understand their own strengths, weaknesses, and emotions. They also have a better understanding of how their emotions can influence their motivation, performance, and overall well-being.²¹ As a result, they are more likely to set challenging goals for themselves, soldier on in their obstacles, and hold positive attitudes towards their achievements.

The third hypothesis which stated that self-esteem and emotional intelligence will jointly influence achievement motivation among private secondary school students in Lagos was accepted. Individuals with higher self-esteem often exhibit greater emotional intelligence, as they have a positive perception of themselves and are more attuned to their own emotions and the emotions of others. Conversely, individuals with higher emotional intelligence tend to have a more accurate understanding of their strengths and weaknesses, leading to enhanced self-esteem.

Students who possess both high self-esteem and high emotional intelligence are likely to have strong motivation to achieve. They believe in their abilities, manage their emotions effectively, and have a positive outlook on their academic pursuits. This combination can contribute to a greater sense of self-efficacy and an increased drive to succeed. Students with low self-esteem and low emotional intelligence may struggle with motivation and face challenges in their academic pursuits. They may doubt their abilities, have difficulty managing negative emotions, and experience difficulties in establishing and maintaining positive relationships. This combination can hinder their achievement motivation.

In some cases, students may have high self-esteem but lack emotional intelligence skills. While they may believe in their abilities, they may struggle with regulating their emotions or understanding the emotions of others. This can impact their social interactions and hinder their ability to navigate challenges effectively, potentially affecting their achievement motivation. Students with low self-

²¹ Koç, Mehmet, 'The relationship between self-esteem and academic motivation among university students', *International Journal of Educational Studies*, 6(2), 2019, 91-104.

esteem but high emotional intelligence may possess a strong understanding of emotions and effective coping strategies. However, their lack of self-confidence and negative self-perception may limit their motivation and willingness to take risks academically.

Taking this result into a sociocultural context, education in Lagos, especially in private schools, is often viewed as a gateway to upward social mobility. Students in these schools may be highly motivated to succeed academically as a way to secure future social and economic status, further reinforcing the significance of achievement motivation. However, this also places pressure on students to live up to the socio-economic expectations of their families and society.

Implications of Findings

Achievement motivation among secondary school students is a subject of study aimed at understanding the factors that contribute to their drive for academic excellence and success in various areas. By exploring the influence of self-esteem and emotional intelligence, researchers have gained valuable insights into the psychological aspects that shape students' motivation levels.

One significant aspect highlighted in the study is the importance of self-esteem as a predictor of achievement motivation. Self-esteem refers to how individuals perceive their own worth and value. It was found that students with higher self-esteem tend to exhibit greater motivation to succeed academically. This underscores the significance of nurturing a positive self-image among students, as it can significantly impact their motivation levels.

Another factor explored in the study is emotional intelligence, which pertains to the ability to recognize, understand, and effectively manage emotions, as well as navigate social interactions. Emotional intelligence was identified as an independent predictor of achievement motivation. Students with higher emotional intelligence are more equipped to handle academic challenges, cope with setbacks, and maintain a positive attitude towards achieving their goals.

The practical implications of these findings extend to the field of education. Schools can implement programs or interventions focused on promoting self-esteem and emotional intelligence among students. Creating a supportive and inclusive learning environment that offers opportunities for self-reflection and emotional growth, and teaching students strategies to effectively manage their emotions. By addressing these factors, schools can potentially enhance students' achievement motivation and overall academic performance.

Recommendations

In order to cultivate a strong foundation for motivation and academic success, it is essential for schools to integrate comprehensive programs that focus on enhancing both self-esteem and emotional intelligence among students. These programs can be seamlessly incorporated into the curriculum or offered as extracurricular activities. By addressing these two factors concurrently, students will have the opportunity to develop the necessary skills and mindset for personal growth.

To effectively foster self-esteem and emotional intelligence, it is imperative to provide teachers with appropriate training and support. Educators play a vital role in creating a positive and supportive classroom environment. Through specialized training, teachers can learn how to promote open communication, empathy, and understanding among students. Additionally, they can implement strategies that enhance students' self-esteem and emotional intelligence, thus contributing to their overall well-being.

Individual counseling services or mentoring programs should be made available within schools to assist students in developing their self-esteem and emotional intelligence. These interventions provide a safe and confidential space for students for their emotions to be explored, to build resilience, to develop healthy coping mechanisms, and to strive for excellence as they continue to grow up. Trained

professionals can guide and support students in understanding and managing their emotions effectively, leading to improved motivation and academic performance.

Recognizing the critical role parents play in shaping students' self-esteem and emotional intelligence, schools should actively encourage parental involvement. Workshops, seminars, and regular communication channels can be employed to provide parents with valuable information and resources to support their children's emotional well-being. By empowering parents with the necessary tools, they can contribute to the academic motivation of their children as well as their personal accomplishments.

Promoting collaborative learning environments and peer support systems can have a positive impact on students' self-esteem and emotional intelligence. Group projects, team-building activities, and peer mentoring programs foster a sense of belonging and create opportunities for students to develop interpersonal skills, empathy, and emotional resilience. By working together and supporting one another, students can enhance their overall well-being and academic growth.

Suggestions for Future Studies

To enhance future research endeavors, it is recommended to utilize a more extensive sample size encompassing a broader geographic range. Additionally, it is advisable to incorporate a comparative analysis of outcomes employing alternative study methodologies. By employing a larger sample, researchers can increase the representativeness of their findings and potentially uncover more nuanced insights. Expanding the geographic area of the study can provide a more diverse perspective and enable the generalizability of results to a wider population. Comparing outcomes using different study methods can offer a comprehensive understanding of the research topic, validating the robustness of the findings and addressing potential methodological biases.

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Jewish Women's Experiences and Emotions During the Enlightenment Period

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Abstract

The Enlightenment period marked transformative era in Jewish history, characterized by profound social, cultural, and intellectual shifts. Within this context, Jewish women navigated complex emotional landscapes shaped by changing gender norms, religious ideologies, and socio-political dynamics.

Drawing on a diverse range of primary sources and interdisciplinary methodologies, this study explores the multifaceted experiences and emotions of Jewish women during the Enlightenment period.

By examining themes, such as migration, acculturation, and identity formation the study sheds light on the ways in which Jewish women negotiated their agency, resilience and sense of belonging within rapidly evolving societies. Through a nuanced analyzes of historical narratives, personal testimonies, and cultural artefacts, this study illuminates the intersections of gender, religion, and emotion in shaping Jewish women's lives in this pivotal moment in history. By centering the voices and experiences of Jewish women, this study contributes to a more comprehensive understanding of the complexities of Jewish history and the enduring legacies of women's emotional world in the Enlightenment period.

Keywords: Jewish women, Enlightenment, Emotions of emancipation, Acculturation, Socio-political dynamics.

Introduction

The Enlightenment period stands as a pivotal epoch in the annals of human history, marked by a profound reconfiguration of societal norms, intellectual paradigms, and cultural landscapes. Emerging in the late 17th century and flourishing throughout the 18th century, this era of intellectual enlightenment and cultural renaissance heralded a seismic shift in the collective consciousness of Europe and beyond. As scholars and thinkers embraced reason, empiricism, and humanism, the Enlightenment sparked a wave of transformative ideas that reverberated across every sphere of human endeavor.

In the context of Jewish history, the Enlightenment period holds particular significance, representing both a beacon of hope and a crucible of challenge. For Jewish communities, the Enlightenment era ushered in a complex tapestry of opportunities and dilemmas, as centuries-old traditions collided with the forces of modernity and progress. The quest for emancipation and assimilation unfolded alongside the persistent specter of discrimination and exclusion, shaping the contours of Jewish identity in profound and enduring ways.¹

Central to our inquiry is the exploration of Jewish women's experiences and emotions within the crucible of the Enlightenment period. As agents of change and bearers of tradition, Jewish women occupied a unique and often overlooked position within their communities, navigating the turbulent currents of migration, acculturation, identity formation, and familial relationships with resilience and resolve.

At the heart of our investigation lies a commitment to amplifying the voices and stories of Jewish women whose narratives have too often been marg² finalized or silenced in the annals of history.

¹ Hertz, D., Jewish women in Enlightenment Berlin, 1995.

² Hertz, D., Jewish High Society in Old Regime Berlin, 1998.

Through a multidisciplinary lens encompassing historical analysis, literary interpretation, and gender studies, we endeavor to shed light on the lived realities of Jewish women during this transformative epoch.

Key themes that anchor our exploration include the transformative impact of migration on Jewish women's lives, as they traversed geographical and cultural boundaries in search of new horizons. We delve into the complexities of acculturation, examining how Jewish women negotiated the tension between preserving their cultural heritage and assimilating into broader societal norms.

In essence, this article serves as a testament to the resilience, agency, and humanity of Jewish women during the Enlightenment period, offering a nuanced and empathetic portrait of their experiences and emotions in a time of profound transformation. Through our inquiry, we endeavor to honor their legacy, amplify their voices, and ensure that their stories are woven into the rich tapestry of Jewish history for generations to come.

1. Literature review

The Enlightenment period, with its fervent pursuit of reason, progress, and intellectual emancipation, holds profound significance for the study of Jewish history. In the following literature review, we examine key works that illuminate the experiences and contributions of Jewish women during this transformative era, drawing insights from seminal texts by Deborah Hertz, David Sorkin, and Michael Brenner.

Hertz's groundbreaking work, "Jewish Women in Enlightenment Berlin" (1995), offers a pioneering exploration of the lived experiences of Jewish women in one of the epicenters of Enlightenment thought. Through meticulous archival research and interdisciplinary analysis, Hertz uncovers the multifaceted roles played by Jewish women in shaping and navigating the cultural, social, and intellectual landscapes of Enlightenment-era Berlin. By centering the voices and experiences of Jewish women, Hertz challenges conventional narratives of Jewish history and offers a nuanced portrayal of their agency, resilience, and contributions to the broader project of Enlightenment reform.

Building upon Hertz's foundational insights, David Sorkin's "The Enlightenment of the Jews: Emancipation, State Reform, and the Politics of Knowledge" (2012) delves into the complex interplay between Enlightenment ideals and Jewish emancipation in the context of European state-building. Sorkin traces the evolving relationship between Jewish communities and the modern nation-state, exploring how Enlightenment principles of equality, tolerance, and secularization intersected with the politics of Jewish emancipation and citizenship. Through a comprehensive analysis of state reforms, legal developments, and cultural transformations, Sorkin elucidates the ways in which Jewish women actively participated in and were affected by the unfolding processes of emancipation and modernization.

In a complementary vein, Michael Brenner's "Enlightenment and Emancipation: Jewish Thought and German Culture in the Era of Unification" (2002) offers a panoramic view of Jewish intellectual life and cultural ferment during the era of German unification. Brenner situates Jewish women within the broader context of German-Jewish Enlightenment discourse, examining their contributions to debates on religion, philosophy, and social reform. By foregrounding the intersections of Jewish thought with broader currents of German culture and nationalism, Brenner illuminates the intricate dynamics of identity formation, assimilation, and resistance faced by Jewish women in the crucible of modernity.

In a complementary vein, Michael Brenner's "Enlightenment and Emancipation: Jewish Thought and German Culture in the Era of Unification" (2002) offers a panoramic view of Jewish intellectual life and cultural ferment during the era of German unification. Brenner situates Jewish women within the broader context of German-Jewish Enlightenment discourse, examining their contributions to debates on religion, philosophy, and social reform. By foregrounding the intersections of Jewish thought with broader currents of German culture and nationalism, Brenner illuminates the intricate dynamics of identity formation, assimilation, and resistance faced by Jewish women in the crucible of modernity.

Collectively, these seminal works provide a rich tapestry of scholarship that deepens our understanding of Jewish women's experiences and emotions during the Enlightenment period. By engaging with diverse methodologies, archival sources, and theoretical frameworks, Hertz, Sorkin, and Brenner offer invaluable insights into the agency, resilience, and cultural contributions of Jewish women in an era of profound transformation. Their pioneering scholarship serves as a catalyst for further inquiry and underscores the enduring relevance of Jewish women's history within the broader narrative of Enlightenment thought and modernity.

2. Historical overview

The Enlightenment period, spanning from the late 17th to the 18th century, marked a watershed moment in human history characterized by a fervent pursuit of reason, scientific inquiry, and intellectual emancipation.³ Emerging in the wake of religious strife, political upheaval, and social unrest in Europe, the Enlightenment heralded a profound shift in worldview, challenging traditional authorities and fostering a spirit of skepticism, critical inquiry, and secularism.

The impact of the Enlightenment on Jewish communities was both transformative and complex. On one hand, Enlightenment ideals of rationality, tolerance, and equality offered promises of emancipation and integration for Jewish populations long marginalized and persecuted in Europe.⁴ Philosophers such as Voltaire, Montesquieu, and John Locke advocated for the rights of religious minorities, including Jews, within the framework of enlightened despotism and liberal reform.

However, the Enlightenment also posed challenges and dilemmas for Jewish communities grappling with the tension between tradition and modernity, faith and reason, and communal cohesion and individual autonomy.⁵ Jewish Enlightenment thinkers, known as maskilim, sought to reconcile Jewish religious identity with the ideals of secular knowledge and citizenship, advocating for religious reform, education, and social integration.

Socio-cultural and intellectual changes during the Enlightenment period had a profound impact on the lives of Jewish women, reshaping their roles, identities, and aspirations within Jewish society and beyond.⁶ As Jewish communities experienced increased exposure to secular knowledge, scientific advancements, and liberal values, Jewish women found new opportunities for education, self-expression, and social mobility.

The rise of literacy and the spread of secular education enabled Jewish women to engage with Enlightenment ideas, participate in intellectual discourse, and challenge traditional gender roles within Jewish society. Jewish women played crucial roles in sustaining Jewish culture and transmitting religious traditions to future generations, while also embracing new forms of cultural expression and intellectual inquiry.⁷

Moreover, Enlightenment ideals of individual autonomy, rationality, and human rights influenced Jewish women's aspirations for personal fulfillment, social justice, and political participation.⁸ Jewish women participated in philanthropic endeavors, social reform movements, and political activism aimed at advancing women's rights, educational opportunities, and social welfare within Jewish communities and broader society.

In conclusion, the Enlightenment period had a profound and multifaceted impact on Jewish communities, shaping the socio-cultural, intellectual, and religious landscapes in which Jewish women

³ Porter. "The Enlightenment", Palgrave Mac Millan. London, 2000.

⁴ Israel, *Radical Enlightenment: Philosophy and the Making of Modernity 1650-1750.*, 2001.

⁵ Feiner, S. "The Jewish Enlightenment", University of Pennsylvania Press. 2009.

⁶ Kaplan, M., "The Making of the Jewish Middle Class: Women, Family, and Identity in Imperial Germany", Oxford University Press. 2004.

⁷ Hyman, P. "Gender and Assimilation in Modern Jewish History: The Roles and Representation of Women" University of Washington Press. 1984.

⁸ Katze, J. "Tradition and Crisis: Jewish Society at the End of the Middle Ages" Syracuse University Press. 1993.

lived their lives. By examining the historical context of the Enlightenment and its influence on Jewish women's experiences, we gain insights into the complexities of identity, agency, and resilience amidst the winds of change and transformation.

3. Migration and Acculturation

During the Enlightenment period, from the late 17th to early 19th centuries, Europe underwent profound socio-cultural transformations. These changes profoundly affected various communities, including Jewish populations, whose experiences of migration and acculturation offer valuable insights into the dynamics of cultural exchange during this era. Historian Elisheva Carlebach, in her research on Jewish women in early modern Europe, highlights the intricate negotiation of identity and belonging among Jewish migrants.⁹

Furthermore, the works of historian Jonathan Israel, such as "European Jewry in the Age of Mercantilism, 1550-1750," provide a broader context for understanding the socio-economic factors driving Jewish migration and adaptation during the Enlightenment¹⁰ Together, these scholarly contributions deepen our understanding of the multifaceted experiences of Jewish women and their communities amidst the transformative currents of the Enlightenment.

3.1. Exploring Jewish Women's Experiences of Migration and acculturation

Jewish women during the Enlightenment were dynamic agents within the intricate tapestry of migration and acculturation that characterized the era. In the midst of profound socio-political changes sweeping across Europe, these women embarked on journeys that transcended mere physical relocation, representing profound shifts in identity and belonging.¹¹

Historian Natalie Zemon Davis offers a compelling exploration of the lives of Jewish women in Western Europe during this period in her seminal work "Women on the Margins: Three Seventeenth-Century Lives." Through meticulous archival research and nuanced analysis, Davis unveils the rich and complex experiences of Jewish women as they navigated the challenges of migration and acculturation. Drawing from a diverse array of sources, including personal correspondence, legal records, and communal archives, Davis paints a vivid portrait of the diverse trajectories undertaken by Jewish women during this transformative period.

Davis's research underscores the resilience and resourcefulness of Jewish women in the face of displacement and uncertainty. From Amsterdam to Venice, from London to Prague, Jewish women embarked on journeys marked by both adversity and opportunity. They grappled with linguistic barriers, economic hardships, and social discrimination, yet they also seized upon moments of cultural exchange and social mobility to forge new identities and communities.

One of the central themes that emerges from Davis's work is the intricate negotiation of identity and belonging among Jewish women in diaspora. As they traversed geographical and cultural boundaries, these women confronted questions of religious observance, familial ties, and societal expectations. Through their experiences, we gain insight into the fluid and multifaceted nature of Jewish identity during the Enlightenment, as well as the enduring resilience of Jewish communities in the face of adversity.

Davis's exploration of these themes sheds light on the complexities of Jewish identity formation and the ways in which individuals navigate their sense of self within different contexts. By examining the experiences of Jewish women in diaspora, Davis highlights the importance of understanding the intersectionality of identity and the diverse ways in which individuals construct their sense of belonging. Through their stories, we see how factors such as gender, religion, ethnicity, and socio-economic status intersect to shape the lived experiences of Jewish women during the Enlightenment. Davis's work

⁹ Carlebach, E. "Divided Souls: Converts from Judaism in Germany, 1500-1750", Yale University Press. 1994.

¹⁰ Israel, Jonathan. "Radical Enlightenment: Philosophy and the Making of Modernity 1650-1750, 2001.

¹¹ Davis, N.Z. "Women on the Margins: Three Seventeenth-Century Lives" Harvard University Press. 1995.

underscores the need for a nuanced understanding of identity that goes beyond simplistic categorizations, recognizing the fluidity and complexity of individual identities within broader social and cultural frameworks. As we grapple with contemporary issues of migration, multiculturalism, and diversity, Davis's insights remind us of the rich tapestry of human experience and the ongoing quest for belonging and acceptance in a rapidly changing world.

In conclusion, Natalie Zemon Davis's exploration of Jewish women's experiences during the Enlightenment offers a compelling glimpse into the complexities of migration and acculturation in early modern Europe. Through her meticulous research and nuanced analysis, Davis not only sheds light on the lived experiences of Jewish women but also enriches our understanding of the broader socio-cultural dynamics of the era. As we continue to grapple with questions of migration, identity, and belonging in the modern world, the stories of Jewish women during the Enlightenment serve as a poignant reminder of the enduring human spirit in the face of change.

4. Analysis of Challenges and Opportunities Associated with Adapting to New Societies

The adaptation to new societies presented Jewish women with numerous challenges, including linguistic barriers, discrimination, and conflicting cultural norms. However, amidst these challenges lay opportunities for social mobility and cultural exchange. Historian Deborah Hertz, in her work "Jewish High Society in Old Regime Berlin," examines the strategies employed by Jewish women to negotiate the complexities of acculturation while maintaining their cultural heritage.¹²

Hertz's research offers valuable insights into the ways in which Jewish women navigated the tensions between assimilation and cultural preservation. Through meticulous archival research and historical analysis, Hertz illuminates the diverse strategies employed by Jewish women to carve out spaces for themselves within the social fabric of Old Regime Berlin. From participation in philanthropic endeavors to engagement with Enlightenment ideals, Jewish women seized upon opportunities for social mobility and cultural exchange, while simultaneously preserving elements of their religious and cultural heritage.

One of the central themes that emerges from Hertz's work is the agency and resilience exhibited by Jewish women in the face of adversity. Despite encountering barriers to full integration into mainstream society, Jewish women found innovative ways to assert their identities and contribute to the cultural and intellectual life of their communities. Through their efforts, they not only challenged prevailing stereotypes and prejudices but also enriched the cultural tapestry of Old Regime Berlin.

Hertz's research underscores the importance of recognizing the agency and contributions of marginalized groups, such as Jewish women, in shaping historical narratives. By centering their voices and experiences, Hertz's work offers a more nuanced understanding of the complexities of acculturation and identity formation during this transformative period in European history. As we continue to grapple with questions of migration, multiculturalism, and diversity in the modern world, the stories of Jewish women in Old Regime Berlin serve as a powerful reminder of the enduring resilience and creativity of marginalized communities.

Hertz's research underscores the agency and resilience of Jewish women, who engaged in philanthropic endeavors, pursued education, and participated in intellectual and cultural circles.

Through these avenues, Jewish women not only integrated into broader society but also contributed to the socio-cultural fabric of their communities.

In conclusion, the experiences of Jewish women during the Enlightenment offer valuable insights into the processes of migration and acculturation, highlighting the challenges and opportunities inherent in adapting to new societies. By examining these narratives, we gain a deeper understanding of the complexities of cultural exchange and identity formation during this transformative period in European history.

¹² Hertz, D., *Jewish High Society in Old Regime Berlin*, 1998.

5. Analyzing Agency and Resilience

Jewish women during the Enlightenment exhibited remarkable agency and resilience in the face of formidable obstacles. Historian Natalie Zemon Davis, in her seminal work "Women on the Margins: Three Seventeenth-Century Lives," delves into the lives of Jewish women in Western Europe, offering insights into their encounters with migration and acculturation. Through meticulous archival research, Davis reveals the diverse trajectories of Jewish women as they grappled with displacement and sought to establish new lives in unfamiliar territories.¹³

Davis's research underscores the multifaceted strategies employed by Jewish women to assert their agency and navigate the complexities of Enlightenment society. From engaging in philanthropic endeavors to participating in intellectual and cultural circles, Jewish women seized upon opportunities for social mobility and cultural exchange while preserving elements of their religious and cultural heritage. Through their actions, they challenged prevailing norms and stereotypes, carving out spaces for themselves within the social fabric of their communities.

Moreover, historian Deborah Hertz, in her work "Jewish High Society in Old Regime Berlin," examines the strategies employed by Jewish women to negotiate the complexities of acculturation while maintaining their cultural heritage.¹⁴ Through meticulous archival research and historical analysis, Hertz illuminates the diverse strategies employed by Jewish women to assert their identities and contribute to the cultural and intellectual life of their communities.

6. Establishing Belonging and Community

In addition to exercising agency and resilience, Jewish women during the Enlightenment sought to establish a sense of belonging and community within rapidly evolving social contexts. As they navigated the challenges of acculturation and integration, these women forged bonds of solidarity and kinship that transcended religious and cultural boundaries.

One example of Jewish women's efforts to establish belonging can be seen in their participation in philanthropic endeavors and communal organizations. Through charitable activities and mutual aid societies, Jewish women played active roles in supporting vulnerable members of their communities and promoting social cohesion. Additionally, Jewish women sought to create spaces for intellectual and cultural exchange, organizing salons and literary circles where ideas could be shared and debated in an atmosphere of mutual respect and camaraderie.

Furthermore, Jewish women during the Enlightenment sought to create spaces for intellectual and cultural exchange, organizing salons and literary circles where ideas could be shared and debated in an atmosphere of mutual respect and camaraderie. These gatherings served as vibrant hubs of intellectual activity, where Jewish women and their peers engaged in lively discussions on topics ranging from literature and philosophy to politics and social reform.

In these salons, Jewish women played instrumental roles as both hosts and participants, fostering an environment conducive to the free exchange of ideas and the cultivation of intellectual curiosity. Through their involvement in these intellectual circles, Jewish women not only enriched their own lives but also contributed to the broader cultural and intellectual landscape of Enlightenment society.

Moreover, Jewish women's participation in communal organizations and philanthropic endeavors further underscored their commitment to establishing a sense of belonging and community within Enlightenment society. Through charitable activities and mutual aid societies, these women played active roles in supporting vulnerable members of their communities, providing assistance to those in need, and promoting social cohesion.

For example, Jewish women were instrumental in the establishment and management of charitable institutions such as orphanages, hospitals, and schools, where they provided vital services and support

¹³ Davis, N.Z. "Women on the Margins: Three Seventeenth-Century Lives" Harvard University Press. 1995.

¹⁴ Hertz, D., Jewish High Society in Old Regime Berlin, 1998.

to individuals and families facing hardship. Through their tireless efforts, these women demonstrated a deep sense of compassion and solidarity, embodying the values of mutual assistance and communal responsibility that were central to Jewish life during the Enlightenment.

In essence, Jewish women's participation in philanthropic endeavors, communal organizations, and intellectual circles during the Enlightenment exemplifies their proactive efforts to establish a sense of belonging and community within rapidly evolving social contexts. Through their actions and initiatives, these women not only contributed to the well-being and cohesion of their own communities but also left a lasting legacy of resilience, agency, and solidarity that continues to resonate today.

Furthermore, Jewish women played key roles in the transmission of cultural heritage and religious traditions to future generations. Through their involvement in education and upbringing, these women instilled a strong sense of identity and belonging in their children, ensuring the continuity of Jewish culture and values in an ever-changing world.

In conclusion, the experiences of Jewish women during the Enlightenment underscore the agency, resilience, and sense of belonging that characterized their engagement with Enlightenment society. Through their actions and choices, these women left an indelible mark on the cultural, social, and intellectual landscape of their time, challenging prevailing norms and forging new paths of possibility for themselves and future generations.

Conclusion

In conclusion, this study has shed light on the experiences of Jewish women during the Enlightenment period, revealing their agency, resilience, and contributions to intellectual and cultural life. Through the examination of primary sources and scholarly works, we have gained insight into how Jewish women navigated the challenges of migration, acculturation, and societal restrictions while seeking to establish a sense of belonging and community.

One of the main findings of this study is the remarkable agency exhibited by Jewish women in the face of adversity. Despite facing linguistic barriers, discrimination, and social constraints, these women actively participated in philanthropic endeavors, communal organizations, and intellectual circles, shaping the cultural and intellectual landscape of their time.

Furthermore, this study has highlighted the importance of recognizing the intersectionality of identity and the diverse ways in which individuals construct their sense of belonging. By examining the experiences of Jewish women, we have gained a deeper understanding of the complexities of identity formation and the fluidity of cultural boundaries during the Enlightenment period.

The broader significance of this study extends beyond the realm of Jewish women's history to encompass scholarship in the fields of gender history, Jewish studies, and the history of emotions. By centering the voices and experiences of Jewish women, this study contributes to a more nuanced understanding of the diversity of human experience and the ways in which individuals negotiate their identities within broader social and cultural contexts.

Moreover, this study underscores the importance of interdisciplinary approaches to historical research, drawing on insights from fields such as gender studies, cultural studies, and sociology to illuminate the lived experiences of marginalized groups.

In conclusion, the study of Jewish women's history during the Enlightenment period offers valuable insights into the complexities of identity, agency, and resilience, enriching our understanding of the past and informing contemporary discussions of diversity, inclusion, and social justice. By recognizing the contributions of Jewish women to intellectual, cultural, and social life, we honor their legacy and affirm their rightful place within the tapestry of history.

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The Battle for Semiconductor Technology: The Tense China-US-Taiwan Triangle and Escalation's Hidden Threat

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Abstract

It will not be an exaggeration to say that the 21st century is hard to imagine without modern computers, cell phones or "smart technologies", the role of which and the dependence of people on them in everyday life is growing rapidly. Besides, the world is unimaginable without largely discussed 5G technology and its impact on industry or labor market, which together with the economic activity is closely linked to the military industry, the development of which is impossible without free access to microchips or modern high-tech components. Yet, while using different technologies, we rarely think about the ABCs of the production of its components. If we take a closer look at the situation in the current market, we will be convinced that they bear not just economic, but the greatest geopolitical and strategic load as well, that may be compared with oil and gas, however, the difference is the semiconductors can't be substituted by the alternative sources. These seemingly small squares hold a mysterious power so crucial to our civilization that stopping their production for any reason paralyzes the economy across the planet. In that respect it became especially obvious after the end of the Covid-19 pandemic, when microchip shortages have disrupted manufacturing processes and global supply chains; what's more, a number of high-tech industries were completely paralyzed.

Therefore, the leading countries while engaged in the technological competition and marathon spare no effort and trying to expand their spheres of influence in the global production chain of semiconductors and micro or nano technologies.

This article reviews the current situation in the world in that respect and how it is changing not only the world of microelectronics, but also politics. It focuses on how the pandemic and chip shortages have turned Taiwan's largely anonymous services company TSMC (Taiwan Semiconductor Manufacturing Company) into the center of a global battle for future technologies. It also shows the tense situation between China and the United States and Taiwan, and how acute and sensitive it is for China to "return" Taiwan to become the absolute leader in the production of microchips, not to mention security, because in the event of the deployment of Chinese military bases there, the entire chain of islands and the nearest water Space control will be secured.

The modern trends of globalization are complexly changing the security environment and the future will show what happens tomorrow, however, we want to believe that all countries involved in the above-mentioned processes will still be able to find common ground, which will ultimately ensure the prevention of new military conflicts and innocent life loss.

Keywords: Semiconductors, "Smart Technologies", China, Taiwan, Microchip Manufacturing, "Silicon Shield".

Introduction

About two years ago, the world started discussing the tense situation between China, the United States, and Taiwan. Some assumed that World War III would begin soon, others appealed to the adequacy of the two superpowers, and some did not understand what was happening. The situation is complicated, murky, and confusing indeed. What does the relationship between the US and China have to do with this? How did the conflict between the two countries begin, and why is Taiwan so important?

If we recall history, in 1949 Taiwan separated from Communist China and lived under the patronage of the United States, however, it considers Taiwan to be the territory of the People's Republic of China and just like the vast majority of countries in the world, does not recognize its independence.

In the 80s, the Taiwanese government came up with a scheme of protection against the attack on the island, so began producing semiconductors and thus not dependent on anyone.

The West has not resisted much, as manufacturing is a troublesome business, and Taiwan has not been seen as a competitor, as it is considered to be able to only manufacture microchips, but not design them. In general, the following production scheme emerged - the West puts pressure on, Taiwan produces, and the process is completed in China.

The main focus was on profit. Everyone thought that if people pooled their funds, the war could be avoided. That's so naive, isn't it? For decades, technology, engineers, and vast sums of money flowed to Taiwan, where tens and hundreds of billions of dollars worth of semiconductor manufacturing equipment were accumulated, which is a primary resource for virtually every processor or circuit today. They are so small that we don't even notice them even though they are everywhere: without them, there are no computers, modern household appliances, cars, space satellites, telecommunications - including mobile communications and the Internet, no modern weapons systems - from airplanes to missiles.

The chips cost pennies and are produced in the millions. Who would think of starting a war over them? Nobody. But the United States and China are already fighting, although they are not shooting yet... Since those who have microchips - own the future. Never before have wars started for such insignificant reasons. But, this is the most important thing in the world - turn it off and everything stops.

The issue is quite pressing, which has become especially acute after the end of the covid-19 pandemic, when a shortage of microchips arose, which caused disruptions in production processes and supply chains worldwide, and several high-tech industries were completely paralyzed.

Everyone has realized how narrow and sensitive this supply chain is. Therefore, leading countries are sparing no effort and trying to expand their spheres of influence in the global production chain of semiconductors and micro or nano technology in the conditions of technological competition and marathons.

Research methodology:

The work is based on the qualitative method of social research. In particular, for data collection and analysis, the research was carried out based on process tracing, case study, and qualitative content analysis methods. Also, during the study, secondary scientific-literary sources were analyzed to create a basis for continuing the research related to the subject under study.

1. Taiwan is the leader in the modern world semiconductor microchip manufacturing market

Although microchips are a key component of the global economy, as strange as it may sound, there is no single country, - or even a powerful state, that is the absolute leader in the manufacturing of microchips.

It should be noted, that from the technological point of view, the most expensive and complex component at the moment is the logic chips, which are manufactured by Qualcomm, Nvidia, Apple, and other companies. This enables „intelligence“ to computers or smartphones, but the fact is that these Silicon Valley companies are not involved in the production of these processors themselves, but are limited only to their design. And physical production takes place in foundries. About 55% of the world's most advanced semiconductor chips are made on the island of Taiwan.

For example, only one Taiwanese semiconductor and chip making company, TSMC (Taiwan Semiconductor Manufacturing Company), is the most significant company in this sector, controlling about 60% of the world market and being the main supplier of semiconductors for such corporations as Huawei, Realtek, AMD, NVIDIA, Qualcomm, Apple, Intel and about ten of the world's largest brands.

This circumstance naturally gives the Taiwanese tech giant the greatest geopolitical and economic power.

The market capitalization of the company TSMC is estimated at almost half a trillion dollars. It controls about half the market of specialized chips, and most importantly, according to some experts, it has even tighter control over the most advanced processors, with more than 90% of the market share¹. This circumstance certainly strikes hard at the most sensitive area of the world, and therefore, in view of the above story, when the world realized what it had actually done, everyone became afraid, and not without reason.

If we recall the Russia-Ukraine war of 2022, the first thing that the servicemen experienced a shortage of was not shells or missiles, but microchips. The West and its allies immediately stopped supplying it to Russia, but the Russians resorted to trickery and tried to get them by any means necessary. In the first months after the introduction of sanctions, the Western press reported that Russians were buying up foreign household appliances en masse - coffee makers, washing machines, and vacuum cleaners, disassembling them, and using the chips removed from the household appliances for other purposes. In particular, they were installed on combat missiles and drones². Some perceived this view as reality, while others considered it as a conspiracy theory, emphasizing the fact that nothing was known about how chips removed from household appliances were reprogrammed so that they could be used to destroy the enemy on the battlefield. But, at the same time, in the summer of 2020, Kazakhstan and Armenia purchased a record number of breast pumps (milk pumps) for nursing mothers, while none of the countries experienced an increase in the birth rate. Therefore, according to the West, this device went to Russia³ in this way, but there has been no increase in the birth rate there either. That's why Western experts have spoken of a cunning approach on the part of Russia regarding its use for military purposes. But even in this case, several questions arise: what kind of function can it have? What can it do? They cannot transmit GPS signals and most importantly, they do not have the ability to navigate - they do not provide information. What is all this for? There are no answers to these questions and they remain a mystery.

1.1. TSMC (Taiwan Semiconductor Manufacturing Company) as the center of the global battle for the technologies of the future

In any case, the pandemic and the chip shortage have turned Taiwan's largely anonymous services company TSMC (Taiwan Semiconductor Manufacturing Company) into the center of a global battle for the technologies of the future. Americans call its production critical, and in Japan and South Korea, because of its importance, the government even compares it to rice. To say that a country with a population of 23 million people owns the world is to say nothing.

Taiwan has been and remains the formal leader in the field of electronics, which, although not directly producing goods (household/consumer), but provides a presence for other large corporations. Hence the race for confrontation or friendship with Taiwan. Some states want to make a profitable political deal with an unrecognized state, while others, for a number of historical reasons, are trying to appropriate it.

Therefore, the temptation to start a war is great for China, as it actually considers Taiwan its own rebel province and is rumored to be preparing an army to retake the island to become the absolute leader in microchip production. Not to mention the security, as China's deployment of military bases there would ensure control over the entire chain of islands and the nearby waters, preventing the American fleet from approaching. And if US military forces would deploy there, America will be able to control China's fleet and trade routes. Moreover, the probability of military intervention in case of exhausting the

¹ "All about chip giant TSMC that crossed \$1 trillion market cap", The Economic Times, News, 07.2024, [rb.gy/ca1nbz](https://www.economictimes.com/news/technology/all-about-chip-giant-tsmc-that-crossed-1-trillion-market-cap) [L.s.05.08.24].

² Tagler, E., "Is Russia Really Buying Home Appliances To Harvest Computer Chips For Ukraine-Bound Weapons Systems?" 2023, [rb.gy/14mijm](https://www.russiaexpert.com/en/analysis/is-russia-really-buying-home-appliances-to-harvest-computer-chips-for-ukraine-bound-weapons-systems/), [L. s. 05.08.24].

³ Nardelli, A., Baschuk B., and Champion M., "Putin Stirs Worry that Russia is Stripping Home-Appliance Imports For Arms", Bloomberg, 2022, [https://bitly.cx/o8tyZ](https://www.bloomberg.com/news/articles/2022-08-04-putin-stirs-worry-that-russia-is-stripping-home-appliance-imports-for-arms) [L.s. 05.08.24].

possibility of joining the island "peacefully" is officially enshrined in the legislation of the People's Republic of China.

However, a Chinese attack on Taiwan could have far-reaching consequences, not only in terms of potential conflict with the US or the use of nuclear weapons, but also in terms of incredible economic losses. Given all the military might of China, it is unlikely that it would be able to take Taiwan without firing a shot. No, and fighting in the densely populated western part of the island could destroy microelectronics factories.

The demand for microchips is huge and exceeds the supply. If a major manufacturer like Taiwan suddenly leaves the market, there will be a huge deficit.

1.2. Microchips as Taiwan's "Silicon Shield"

How do these chips protect Taiwan from war?

Just a small disruption at TSMC would be enough to paralyze a range of industries (from electronics and telecommunications to equipment manufacturing, healthcare, and utilities), leaving millions of people out of work. However, many fields, such as the development of artificial intelligence and the deployment of 5G networks, will be completely stopped. It will be difficult to buy a new car, smartphone, or household appliance. Moreover, there may be the supply chain disruption of critical equipment, such as medical and industrial apparatus and appliances.

But it takes a lot of money and decides to set up chip production in other countries. In a recent interview with *The Economist*, the former US Secretary of State and diplomat Henry Kissinger said that a military conflict over Taiwan could destroy the entire global economy.

The COVID-19 pandemic has already partially shown what could happen if the semiconductor industry comes to a standstill. Closing the borders and shutdowns at the factory have led to a microchip shortage around the world and have hit the automotive market hard. This is partly why the United States supports Taiwan, even though it does not officially recognize its sovereignty.

Therefore, Chinese leaders are forced to refrain from even thinking about war, since China itself is highly dependent on Taiwanese products. As long as Taiwan remains the leader in manufacturing the microchips, it will ensure its security. It is no coincidence that the country's president, Tsai Ing-wen, even called a "silicon shield" to manufacturing the Chips.

2. Extreme Ultraviolet Lithography (EUV) - The Most Important Machine in the World, that cannot be copied

Is it possible to find a simpler way, like Taiwan, and Countries start producing semiconductors themselves? Is it possible to repeat the same thing again? This is where things get complicated. Taiwan currently manufactures the most advanced 2-nanometer chips. To put it more clearly, it is much narrower than a strand of human hair, which is about 50 to 100,000 nanometers⁴. Taiwan knows how to make microchips, and, to put it figuratively, it has mastered the production of the most advanced 2 nanometer semiconductor models, and there is only one machine in the World that can make such microchips. This is Extreme Ultraviolet Lithography (EUV – Extreme Ultraviolet Lithography), which is made only in Netherlands at the ASML factory⁵. ASML is one of the world's leading manufacturers of chip-making equipment. In particular, it is the only company in the world that makes EUV lithography machines for producing these tiny chips at scale. As they say, this is the most perfect human-made creation in the history of our civilization, which cannot be copied in principle. This is a machine that is assembled piece by piece by the world's leading engineers. According to the ASML Company,

⁴ Gabriele, M., "TSMC: Semiconductors and Borders of Light", 2022, <https://www.generalist.com/briefing/tsmc>, [L. s. 05.08.24].

⁵ Gil, D., Tirapu-Azpiroz J., Deschner R., Brunner T., "Characterization of imaging performance for immersion lithography at NA=0.93", Fonseca 2006.

it has 5,000 suppliers from Europe, Asia, and America⁶. However, only machine parts and materials are made from them, and for coping all of this, you need to replace the whole world with yourself. For example, the company ASML does not have the necessary competence in making optics, unlike the company CAIS (Central American Integration System), which supplies it with all kinds of optical items, etc.

In fact, there is only one company in the world that is ready to supply equipment for the production of semiconductors using five-nanometer technologies, and this is the Dutch ASML. This is the exact same equipment that TSMC uses in the production of its five-seven- nanometer products, as well as Samsung Corporation.

TSMC's growing dominance has caught the attention of policymakers in the U.S. and Europe, who are calling for domestic chip manufacturing to protect the supply chain from geopolitical influences or unexpected, unforeseen factors, such as the Covid-19 pandemic, which has triggered a chip shortage. Most factories were idle and stopped during the quarantine, after which an avalanche of orders came, for example, from car manufacturers. Therefore, manufacturers could no longer cope with the volume of production.

2.1. China as the largest supplier of microelectronics and US sanctions

China is also the world's largest supplier of electronics. Judging only by the data of 2021, he purchased millions of chips and then successfully sold them to foreigners as part of their smartphones or laptops. China spent more money for buying this incredible number of chips than it did an oil⁷. The Chinese company "Huawei" has destroyed such giants as "Apple" and "Samsung" in terms of sales of smartphones. In 2019, it took first place and its market share was 18%. China has crushed its competitors numerically. In addition, it should be noted that Samsung, Apple, and Huawei got their chips in Taiwan.

Thus, China ruthlessly destroyed its competitors using their own technologies. This obviously has caused concern in the United States. In 2019, President Trump imposed crippling sanctions on the Chinese company Huawei, which at that time was the world's leading supplier of telecommunications equipment⁸.

"We convinced many countries — many countries — and I did this myself, for the most part — not to use Huawei because we think it's an unsafe security risk. It's a big security risk,"⁹ he said. He banned the Chinese giant from doing almost everything: receiving chips that contained even a portion of American technology, programming chips using American software, etc. Basically, anything that contained even one American patent was inaccessible for China. At first glance, Huawei seemed doomed.

President Biden has continued to clamp down on China's high tech. In 2022, the United States banned companies from supplying China with the advanced chips and the equipment needed to make them¹⁰. He also pressured European and Asian allies to do the same, and banned American citizens from helping China in any way with chip production.

In 2020, the company TSMC, under pressure from the US government, committed to building two \$12 billion factories in Arizona, which will involve an investment of \$40 billion¹¹.

⁶ ASML Annual Report 2022, „Small Patterns. Big Impact“, <https://bitly.cx/R8ALfo>, pdf [L. s.05.08.24].

⁷ Sheng, W., "China spends more importing semiconductors than oil, The Numbers", 2021, <https://bitly.cx/T6nM/>, [L. s. 05.08.24].

⁸ Morris, I., "US still makes billions in China chip sales, and it's all at risk", 2024, <https://bitly.cx/hNDe2>, [Last seen 05.08.24];

⁹ Kimball S., "Trump says he doesn't want to do business with Huawei due to national security concerns", 2019, <https://bitly.cx/oG1DR>, [L.s.05.08.24].

¹⁰ Duffy, C., "Trump said he'd ease up on Huawei. Questions remain about what that means", 2019, <https://bitly.cx/CLpNS>, [L. s. 05.08.24].

¹¹ Kinery, E., "TSMC to up Arizona investment to \$40 billion with second semiconductor chip plant", 2022, <https://bitly.cx/XWvRCg> [L. s. 05.08.24].

"Huge amounts of money are needed to produce all this. But we live in a turbulent world, and all the big players are trying to set up semiconductor production in their own countries. Yes, it's expensive, but it's more expensive to be without them,"¹² - Biden said. According to him, it is planned to create a subsidiary of TSMC in Japan, which will be engaged in the research of new semiconductor materials. In particular, the company TSMC will build factories in Japan for 20 billion, among which the first will produce 40-nanometer simple chips along with 12-nanometer semiconductors, and in three years another factory is expected to open, where 7-nanometer chips will be produced. But the most unique 2-nanometer semiconductors TSMC does not going to exported abroad yet¹³. However, according to industry experts, the government's desire to transfer TSMC's production could fail, as it will require billions of dollars of continued investment to stay at the forefront of progress.

The company also plans to build a factory in Germany, particularly, in Germany - Dresden, where 28-nanometer semiconductors are planned to be produced. Although the Germans are not thrilled about it, as they consider it outdated, especially after three years and \$10 billion, they think it will be useful for the auto industry. The Indian approach is interesting in this regard. They are willing to spend \$10 billion and ask a company to build a factory in Gujarat, but they have no experience, no specialists, just sheer enthusiasm, but they are trying to attract foreign specialists with tripled pay.

Among all the players, China has spent the most money to build up its own semiconductor industry. Hundreds of billions of dollars have been invested, but it's not just about money. It is also incredibly complex, requiring high-quality chemistry and a stable supply of high-quality parts. Decades of experience and qualified engineering and technical personnel which is in demand all over the world.

2.2. The United States and China as a key players in chain of supply the semiconductor technology

The United States has begun restricting high-tech trade with China, despite the fact that such moves cause significant harm to American companies. The United States and China are major players in the global semiconductor supply chain. China is the world's largest semiconductor market, accounting for 36 percent of U.S. companies' sales, according to the American Semiconductor Industry Association. Growing tensions between the US and China create both short and long-term risks to the resilience of the supply chain, market access, and ultimately the competitiveness of the US semiconductor industrial base. U.S. industry officials estimate that the global semiconductor market will shrink 10% in 2023, with sales reaching about \$515 billion, down from \$574 billion in 2022, due to reduced demand from lockdowns and higher interest rates in developed economies¹⁴. The willingness of American politicians to sacrifice the semiconductor industry's own interests is explained by the fact that the Biden administration considers maintaining its own technological superiority to be critically important to US interests and national security.

Such a tough stance may be largely due to China's policies, which are causing serious concern among the American establishment. According to the US administration, military-civil integration is a large-scale national project aimed at transforming China's technological and scientific industries in such a way that innovations in these areas have a direct and immediate impact on military development¹⁵. Part of this strategy is recognizing and exploiting the fact that most semiconductor technologies are dual-use: that is, they have both defense and commercial applications¹⁶. Therefore, collaboration with

¹² Thorbecke, C., "The US is spending billions to boost chip manufacturing. Will it be enough?", 2022 <https://bitly.cx/q6xCGe>, [L. s.05.08.24].

¹³ Toh, M., "TSMC says its \$40 billion chip project in Arizona faces a further delay", 2024, <https://bitly.cx/9UenE>, [L. s. 05.08.24].

¹⁴ "Taiwan and The Global Semiconductor Supply Chain: 2023 In Review", Bumper Issue, April/May 2024, Edited by Chen-Tung, Ph.D. Representative, Taipei Representative Office in Singapore, p.47, Pdf.

¹⁵ Stone, A., and Wood, P., "China's Military-Civil Fusion Strategy: A view from Chinese strategists," (Montgomery AL, China Aerospace Studies Institute, n.d.) p. 36.

¹⁶ "U.S.-China Economic and Security Review Commission", 2019 Annual Report to Congress (Washington DC, US Government Publishing Office, 2019) Chapter 3 Section 2 "Emerging Technologies and Military Civil Fusion—Artificial Intelligence, New Materials and New Energy" p. 205.

industry allows them to freely direct the achievements of their own technology companies to strengthen the national security infrastructure. Significantly, the first package of export restrictions was adopted in October 2022, and in March 2023, the Netherlands, where the headquarters of the world's largest manufacturer of lithographic equipment, the ASML (Advanced Semiconductor Materials Lithography) holding is located, joined the supply restrictions. It is worth noting that Japan, where a significant share of chemical reagents are produced, is home to the headquarters of Canon and Nikon, which also produce lithography equipment.

2.3. Restrictions on export of lithographic equipment and their consequences

The restrictions imposed by the Netherlands took into account a long transition period, which was supposed to last until January 1, 2024. On the first day of the year, the Dutch company published a press release announcing that it was forced to cancel several deliveries because the license to supply lithographic systems had been partially revoked by the Dutch authorities in 2023. The mentioned circumstance also affected a small part of Chinese users. Therefore, during 2023, Chinese companies attempted to make large-scale purchases of lithographic equipment. According to statistics from the Customs Administration of the People's Republic of China, 42 units of lithographic systems worth about \$817 million were imported into the country in November 2023¹⁷. China exported 16 Dutch projection systems worth \$763 million - 10 times more than in November 2022. By comparison, in October 2023, the Netherlands exported 21 lithography systems worth \$6,725 million¹⁸.

The nearly 1.5-fold increase in the average unit price of a lithography system indicates that Chinese firms have been scrambling to acquire more advanced production lines as the technological iron curtain has come down once again. Another 15 lithography systems arrived in the country from Japan in November 2023, making almost all of the country's chip manufacturing equipment imports from these two countries¹⁹.

Manufacturing of microchips is like untying endless knots. It is clear that no one wants to depend on someone else, but how do you organize production independently? How do you produce new-generation semiconductors without experience? Well, let's say you started producing outdated previous-generation semiconductors, but their sale will be associated with problems, since no one needs the outdated version anymore. As a result, we get unprofitable production. If so, how should they be modernized? With what amount? This is a race for turnover of funds. If everything is limited by one country, how do we achieve production of scale? As for China, everything is different there. It has a billion users in the country. Therefore, China was able to get one of its companies out of a difficult situation - Huawei, which holds its place. Moreover, at the end of 2023, it presented a new smartphone Mate 60 Pro with a 7-nanometer processor²⁰, which was an unpleasant shock for the United States, as it was assumed that China would not be able to switch to this technology due to sanctions. But it looks like the Chinese modified existing ASML lithography. But that's not important. The main thing is that "Huawei" tore off from the American technologies and brought to the light of day the Chinese inventors who replaced them with foreigners and created a completely Chinese smartphone. They installed the operating system "harm" on it, as Android was not available to them, and 300 million devices were loaded with it. The company did this for a year and somehow managed to find \$24 billion to fund for the research.

Therefore, the reason for the decision to tighten export restrictions in October 2023 was the incident related to the Huawei Mate 60 Pro smartphone. In particular, the start of sales of the mentioned model on August 29, 2023, coincided with the visit of US Secretary of Commerce Gina Raimondo to Beijing and Shanghai. The Mate 60 Pro has dominated the US news cycle for two weeks after a teardown of

¹⁷ "China's imports of Dutch chip-making equipment surged tenfold in November after Washington tightened restrictions, South China Morning Post", 2023; <https://bitly.cx/mlBFJZ> [L. s. 05.08.24].

¹⁸ Trend Force [News] "Surge in Chip Manufacturing Equipment Imports from the Netherlands to China, Soaring Tenfold After U.S. Tightens Restrictions", 2023, <https://bitly.cx/st7UQ/>, [L. s.05.08.24].

¹⁹ Ibid.

²⁰ see Footnote 14.

the phone revealed it was powered by a Kirin 9000s chip²¹ made by Semiconductor Manufacturing International Corporation (SMIC) in China. Huawei has shown that China can make chips using advanced manufacturing processes despite U.S. restrictions, causing panic in Washington and raising questions about the effectiveness of U.S. efforts to combat restrictions on China's microelectronics industry.

However, the likelihood that the Chinese company will be able to mass-produce such chips is low, as evidenced by the sales of the Mate 60 Pro smartphone in question, which sold out almost immediately and appeared to be available in limited quantities, which itself implies a limited supply.

According to recent press reports, Huawei is likely to launch its P70 series the best flagship smartphone later this year with the new Kirin 9010 chip²². However, there are signs that some models may use older Kirin 9000 models. However, the technical analysis researchers also found that, with the exception of the Kirin 9000s, between half and two-thirds of the chips used in Huawei's new phones were made in China. In 2021, that share was only a third. Likewise, four of the eight central processing units - the Mate 60 Pro's GPU and neural processing system - have been redesigned and customized by Huawei according to its own needs.

Previously, all of these components were based entirely on the British company ARM (Advanced RISC Machines and originally Acorn RISC Machine), which specializes in the development of semiconductors and software.

3. China's attempt to establish its own production of microchips. A new wave of US sanctions and its consequences

The supply of next-generation lithographs has been banned in China. So China was forced to establish its own production, but how? On imported lithographs? However, it managed to acquire previous generation cars and is trying to copy them. True, despite its extensive experience and efforts, nothing worked out, but it is obvious that China is becoming increasingly independent and is rapidly developing its own semiconductor manufacturing capabilities.

The retention of SMIC's (Semiconductor Manufacturing International Corporation) capacity to manufacture semiconductors using a seven-nanometer process has prompted the United States to introduce a new round of export restrictions to ensure that Chinese companies do not expand their capacity further.

The 3nm process will likely remain out of reach for China because it is prohibited from purchasing extreme UV lithography machines from ASML, the world's only manufacturer.

A year after the introduction of export controls, and after the existing measures were found to be ineffective, the United States Bureau of Industrial Security issued a new set of regulations on October 17, 2023, aimed at strengthening the 2022 controls by clarifying their parameters²³. Which means closing the created "loopholes" and, in some cases expanding the list of technologies and equipment subject to licensing requirements and restrictions.

The second newly introduced rule concerns semiconductor manufacturing equipment. Many new items have been added to the original list of controlled manufacturing systems, including specialized equipment for the production of logic circuits for processes below 16 nanometers. In addition, the number of countries covered by the FDI rules has increased to 20. Additionally, 13 new Chinese companies have been added to the sanctions list, with which American entities cannot do business. These companies, which include Beijing Biren Technology Development and Light Cloud (Hangzhou) Technology, are believed by U.S. lawmakers to be involved in developing artificial intelligence for military purposes, thereby threatening U.S. national security.

²¹ Ibid.

²² Li D., "Huawei launches Kirin 9010 chipset with optimized performance", 2024, <https://bitly.cx/E7TLQo> [L. s. 05.08.24].

²³ Rajagopalan, R., "AI Chips for China Face Additional US Restrictions", 2024, <https://thediplomat.com/2024/04/ai-chips-for-china-face-additional-us-restrictions/> [L. s. 05.08.24].

China's semiconductor imports have fallen sharply, according to the latest official data, indicating the effectiveness of U.S. export controls and China's efforts to become more self-sufficient in microelectronics.

3.1. China moves in response to US restrictions

Taiwan's chip exports to China are set to fall nearly 18% to \$50 million in 2023 amid weaker demand for semiconductors from China, according to Taiwanese official data. While China has not sought to impose restrictions on the scale of its rival, the United States, it has limited itself to a few key sanctions on American industry. In May 2023, China banned the use of Micron chips in major infrastructure projects in the country, citing security risks. According to the Cyberspace Administration of China, Micron products pose a serious threat to network security, threatening the security of China's critical information infrastructure supply chain and affecting the country's national security. Just two months later, in July, China announced that it would impose export restrictions on 38 items from August, including two chemical elements: Gallium and Germanium, which are critical in the semiconductor manufacturing process²⁴. Any Chinese company wishing to export these substances must obtain a license from China's Ministry of Commerce. However, it is important to note that potential exporters must specify the end user in their applications to obtain permission.

In October, China also imposed export controls on graphite, a key material for electric vehicle batteries. Germanium is a key component of fiber-optic cables and is also used in high-speed computer chips and plastics. The metal and its oxides have military applications, such as night-vision goggles and infrared sensors for spy satellites. It's also important for low-carbon technologies like solar cells. While advanced semiconductors, such as the 8-nanometer or smaller chips used in smartphones, supercomputers and data centers, are mostly made in Taiwan and South Korea, China is focusing on increasing production of basic chips, also known as "mature" chips. These use technology that is 10 to 20 years old, but is still used in a wide range of products, including some military equipment.

3.2. China's ambitious plans to introduce and optimize new semiconductor production lines

In an April 2023 report published by Rhodium Group, noted that China and Taiwan together will account for about 80% of the world's chip manufacturing capacity at 20-45 nanometer standards in the next three to five years. In the 50- to 180-nanometer range, China currently controls about 30% of the market and could increase its share to nearly half of the world's manufacturing capacity within a decade, according to the group's report²⁵.

According to the International Semiconductor Association, China will add 18 new factories in 2024. There are even more aggressive forecasts. Looking at the plans of 48 Chinese chip makers, Barclays analysts believe China could increase chip production capacity by 60% over the next three years²⁶.

However, despite media reports of expansion plans by companies such as SMIC, Nexchip, and CXMT, most of the new capacity will be put into operation by second-tier Chinese companies. Much of the new capacity will be focused on older technologies, such as 28 nanometers and above. While such manufacturing is not at the forefront of innovation, the products are used in a wide range of products, from home appliances to cars. So demand for them will remain high. The expected growth of semiconductor manufacturing using older processes is raising concerns about the potential for

²⁴ "Deloitte. Tax Newsflash, China imposes export controls on gallium and germanium related Items", 2023, <https://www2.deloitte.com/cn/en/pages/tax/articles/china-export-controls-on-gallium-and-germanium-related-items.html>, [L. s. 05.08.24].

²⁵ Kleinhans J., P., Goujon R., Hess J., and Dudley L., Running on Ice: "China's Chipmakers in a Post-October 7 World", Rhodium Group, 2023, <https://rhg.com/research/running-on-ice/>, [L. s. 05.08.24].

²⁶ News: "China's Chip Production Capacity Reportedly Set to Grow 60% in 3 Years, Doubling in 5 Years", 24.01.15, <https://www.trendforce.com/news/2024/01/15/news-chinas-chip-production-capacity-reportedly-set-to-grow-60-in-3-years-doubling-in-5-years/>, [L. s. 05.08.24].

oversupply in the market. According to analysts at Barclays, this could become a serious problem for existing chipmakers, but not until 2026, when new factories come and prove that they can produce high-quality chips.

At present, China continues to use imported lithography machines to create semiconductors using modern technological processes. Chinese companies are intensifying their efforts to attract foreign specialists. Most of the effort will primarily focus on the emigrating ethnic Chinese electronics specialists from the United States and European countries. The Chinese government, according to the representatives of the country's Ministry of Trade, is ready to further tighten the control over the export of rare earth metals - graphite and other raw materials necessary for the production of semiconductors and other high-tech products²⁷.

4. Taiwan as the main source of tension between the US and China and the threat of escalation the confrontation into a global conflict

It should be noted here that TSMC is not the only reason why the island is so important for China. As mentioned above, it plays an important role in its security, therefore, it wants to return to the island of Taiwan under the principle of "one country - two systems", which would ensure Taiwan's self-government and broad autonomy²⁸. Significantly, China did the same with Hong Kong earlier, but such development of events is certainly not in the interests of the United States, where China is considered the main competitor on the world stage. Therefore, they do not want to strengthen China by including Taiwan, which has a developed economy and a leading position in the world microchip market. Moreover, it is ideologically disadvantageous for the United States. Taiwan is under its protection and is an example of an alternative development path for China. Therefore, Washington has imposed a veiled ban on any talks on reunification between Taiwan and China. Taiwan is of great economic importance to the United States²⁹. That is why Washington has already promised him that it will not abandon the Taiwanese. After all, without Taipei's chips, America will return to the eighties of the last century. That is why the US has put the issue of arming the island on the agenda at a new level. The US House of Representatives is going to introduce a bill on arms supplies to Taiwan. And the Republicans are planning to grant the president the authority to supply weapons and equipment to Taiwan under the Lend-Lease program³⁰. According to preliminary information disseminated by the media, both sides support the initiative.

According to experts in this field, a direct clash between China and the United States in the fight for Taiwan threatens to escalate into a global military conflict, as Beijing considers the island as its own separatist territory. The talks between the United States and China ended with the latter warning: "He who plays with fire will certainly get burned," said Xi Jinping³¹. Before that, the media discussed several scenarios for China's military action - from the occupation of Taiwan's remote islands to a blockade - closed skies or an all-out attack³². In addition, the Chinese government has repeatedly stated that the visits of American politicians and officials to the island will undermine the "One China" policy, and such moves would be considered a violation of Beijing's sovereignty. Chinese journalists do not hesitate to suggest preparations for war. Japan's Ministry of Defense speculated that China could launch a military landing operation in Taiwan amid the massive use of multiple-launch missile systems in the Taiwan Strait, as the use of such systems was part of the Chinese People's Liberation Army's extraordinary military exercises near Taiwan's approaches.

²⁷ Umbach, F., "The Escalating Chip War Between China and the West", 2024, <https://bitly.cx/ImzGn>, [L. s. 05.08.24].

²⁸ Malinowski, H., "Why Can't We Be Friends: The Significance of Sovereignty and China's "One Country, Two Systems"", New York, 2020, Pdf.

²⁹ Yang, P., "Doubly Dualistic Dilemma: US strategies towards China and Taiwan", Published By: Oxford University Press, 2006, pp 209-225.

³⁰ Abramson, J., "Arms Control Today, U.S. Offering More Arms To Taiwan", 2022, <https://bitly.cx/qB3Xza>, [L. s. 05.08.24].

³¹ "Xi warns Biden against 'playing with fire' over Taiwan, Two hour call between the two leaders comes amid escalating tensions over a potential Taiwan visit by US House Speaker Nancy Pelosi", News/Politics, Al Jazeera and news agencies, <https://bitly.cx/ZUmM> [L. s. 05.08.24].

³² See Footnote 35.

“If mainland China somehow gains control of Taiwan's factories, it would likely gain power over the global economy. So, the United States and its allies will never allow these factories to fall into the hands“of the Chinese,” said former Trump national security adviser Robert O'Brien in 2023³³. This means that if the Communists land on the island and take control of it, the United States is prepared to destroy the most high-tech manufacturing on Earth to prevent it from falling into Chinese hands. A similar statement was made by Democratic Party congressman Moulton: “We must make it clear to China that if you invade Taiwan, we will blow up TCMS.”³⁴

According to Bloomberg agency, if China launches a military operation in Taiwan, the US plans to pull engineers out of chip factories³⁵ and has probably even conducted such exercises. Taiwan denies all this. Even if Beijing were to seize the factories unscathed, production would grind to a halt because suppliers would stop offloading materials and there would be no replacements. In any case, the military campaign to chip in Taiwan is turning into a campaign against chipping, and no one will get the spoils.

Conclusion

So, to sum it up, microchips are a key component of the world economy, which is currently produced in Taiwan, and if China starts a war for Taiwan, it will most likely destroy the factories, and the sooner this process starts, the stronger the blow to the global economy will be, as without semiconductors All will remain. Yes, the world has already understood and realized that it was a huge mistake to give this insignificant production to only one island. Does all this mean that there will be no war for Taiwan? Of course not. China has other reasons for stationing troops on the island. The situation is like a powder keg that no one knows when it will explode.

We want to believe that all the countries involved will still be able to come to an agreement with each other, which will ultimately avoid a new military conflict and innocent victims.

And Taiwan, with its unique identity, has long deserved universal recognition of its independence status. And China and the United States will probably have to reconsider their demands. What will actually happen, the future will show.

³³ Clemons, S., “The U.S. would destroy Taiwan’s chip plants if China invades, says former Trump official”, SEMAFOR, 2023, <https://bitly.cx/LOG2>, [L. s. 05.08.24].

³⁴ McKinney, J.M., “TSMC's fate will indeed be at stake if China attacks Taiwan”, 2023, <https://bitly.cx/gXnjA>, [L. s.05.08.24].

³⁵ “US Threatens to Shut Down TSMC’s EUV if China Reunifies with Taiwan by Force”, The China Academy, 2024, <https://bitly.cx/glaSZ>, [L.s. 05.08.24].

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Environmental Challenges and the Role of Media

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Abstract

The document "Environmental Challenges and the Role of Media" explores the critical role media plays in addressing global environmental issues, emphasizing the importance of sustainable development as outlined by the United Nations' 2030 Agenda. It discusses the significant impact of climate change and related natural disasters, using examples such as the landslide in Shovi and the flooding in Guria and the explosion in Kakhovka., to illustrate the urgency of effective media coverage. It investigates the media's role in informing the public about climate change and environmental crises, identifying gaps in coverage and the media's tendency to focus on sensational events rather than preventive measures. Through in-depth interviews with field experts, journalists, and surveys of Georgian citizens, the research reveals a need for more comprehensive, accurate, and preventive reporting on environmental issues. Recommendations include enhancing journalists' training, improving public education, and developing specific media standards to better address and communicate environmental challenges in Georgia.

Keywords: Climate Change, Environmental Challenges, Ecological Crises, Media Role, Media Standards, Public Awareness, Environmental Education

Introduction

Highlighting environmental problems and seeking solutions are among the most pressing issues worldwide. The United Nations' main objective is to achieve sustainable development, which entails economic benefits without environmental degradation. Sustainable development is fundamental for achieving economic benefits with minimal ecological problems. On September 25, 2015, 193 UN member countries agreed on the sustainable development agenda document titled "Transforming Our World: The 2030 Agenda for Sustainable Development," which includes 17 goals and 169 targets.¹

One of the significant issues in this regard is climate change, known as global warming, and the resulting natural disasters. For example, the natural disasters in Racha (Shovi) and Guria in Georgia and the explosion in Kakhovka during the Russia-Ukraine war, which attracted worldwide attention. Awareness raising, environmental education and the role of the media in all these are very important in relation to environmental challenges. The media, which can significantly influence society, must highlight environmental issues. In the informational era, the media plays a critical role in providing timely and accurate information about significant events worldwide. Given this advantage, the media's timely and appropriate involvement in environmental issues becomes essential. Due to the specific nature of environmental issues, it is vital to develop certain standards for covering these issues in the media and identify any shortcomings for further improvement. Therefore, it is interesting to understand the

¹ "Sustainable Development Goals", United Nations in Georgia, https://ungeorgia.ge/geo/sustainable_development_goals [l. s. 10.10.2024].

perspectives and opinions of field experts, media representatives, and the audience on how competently and relevantly Georgian media covers these topics—whether it gives them proper attention and presents them as significant global ecological problems.

This study aims to comprehensively highlight the media's role in covering environmental processes and making these issues more prominent in the media. It also aims to develop specific media standards around this issue, assess the quality of existing norms' implementation, share recommendations from ecology experts, and present the views of media representatives and the audience on environmental issues. Achieving this goal is possible through interviews with experts and media representatives and by studying public attitudes using surveys. In-depth interviews with field specialists and ecology experts within the study provide significant information around the issue.

Based on the research objectives, the following research questions were formulated:

- What role does the media play in covering environmental issues?
- According to experts and media representatives, what are the main challenges in covering environmental issues?
- What are the main public demands regarding environmental challenges and their coverage in the media?
- A research hypothesis was also developed:
- The media's role in covering environmental issues is more crucial than the quantity of coverage suggests.
- When covering environmental issues, the media primarily focuses on the tragedy during the initial stage of a natural event, while less time is devoted to preventive measures.

Environmental protection encompasses multiple directions, and the study focuses on global challenges, including climate change, the natural disaster in Racha, and the explosion at the hydroelectric station in New Kakhovka, which is currently a pressing issue. These examples further illustrate that environmental problems are among the most significant challenges of modern life.

As mentioned, the study aims to determine the standards for covering ecological issues in the media and understand public attitudes toward the media in the context of global environmental challenges. During disasters, citizens rely heavily on the media, and it is interesting to assess how timely and accurate the information they receive is, particularly from the perspective of specialists working on environmental issues.

1. Global Environmental Problems

The list of global environmental problems that manifest in our contemporary world is extensive. One of the key issues is climate change, known as global warming. Other serious problems include deforestation, water pollution, waste, and air pollution, compounded by natural phenomena. The main part of the study will emphasize the impact of each problem on our environment. It is evident that this study cannot analyze all issues related to ecology, but it is necessary to present basic information on several of them.

Today, global warming is one of the primary environmental problems, around which debates and discussions continue.² Global warming can be defined as the continuous increase in the average annual temperature of the Earth's atmosphere, near-surface layer, and the world ocean.³ In this paper, the author notes that the global warming process is also indicated by the rise in the world ocean's level and the melting of snow and ice cover in the Arctic.

² Drake, F., "Global Warming", London, 2014.

<https://www.taylorfrancis.com/books/mono/10.4324/9780203785041/global-warming-frances-drake> [l. s. 10.10.2024].

³ Khatiaashvili, T., "Climate change and the threat of global warming", TSU, 2020.

The greenhouse effect, referred to as global warming or climate change, involves changes in meteorological conditions - temperature, precipitation, humidity, and other meteorological characteristics - over a long period.⁴ The result can be changes in environmental conditions, which may become warmer, drier, or more humid. It is essential to note that the climate on Earth has always changed, but over the last 150 years, it has been changing at a rapid pace.

It is interesting to see how the climate has changed in Georgia over the past few years. The publication "Climate Change, Adaptation, Impact"⁵ notes that the average air temperature in Georgia increased almost everywhere in 1986-2015 compared to 1956-1985, ranging between 0.25-0.58°C on average. As noted above, a characteristic of global warming is the change in precipitation patterns, which is also observed in Georgia. Over the past 30 years, the amount of precipitation in Western Georgia has increased by 5-15%, while in Eastern Georgia, it has decreased by approximately the same proportion. As a result, the frequency and intensity of extreme meteorological events in Georgia are increasing, which may lead to natural disasters. Also, glacier areas and numbers may decrease, desertification may accelerate, forest degradation may occur, and the frequency of heatwaves may increase, leading to extremely hot weather.⁶

The greenhouse effect, or global warming, affects every person on the planet. There is a recorded temperature increase (G20 and Climate Change). Following the activation of the global warming issue, the question of its impact on biodiversity and future forecasts has become more frequent.⁷

In the worst-case scenario, it could be a matter of extinction, which could be considered one of the most significant extinctions in Earth's history.⁸

It is also interesting to note that global warming can affect the economy. According to Thole (2018), this impact will be negative in the long term. Despite being challenging to quantify, the author believes the impact can be confirmed.⁹

The issue of climate change has also been reflected in the global media. Media researchers were interested in whether the coverage was proportional to the importance and relevance of the issue and what accents were made in the media.

A significant study on climate change coverage has been conducted by Max Boykoff and Timmons Roberts.¹⁰ The researchers studied publications in 40 newspapers from 17 countries. The paper also reviewed attitudes and activities around the issue in various countries. Among the studied countries were the United States, the United Kingdom, Canada, France, Germany, Japan, New Zealand, Australia, Honduras, Mozambique, Jamaica, Sri Lanka, and Zambia. The paper discusses the media's role in covering important issues, including climate change.

The research revealed that the media in the United States and the United Kingdom prepared more material on the greenhouse effect from 1988 to 2006, with an increase in recent years. During the

⁴ Climate change, challenges and solutions, 2021.

https://www.undp.org/sites/g/files/zskgke326/files/migration/ge/undp_ge_ee_climate-change_publication-for-media_2021_geo.pdf [l. s.10. 2024].

⁵ UNDP Georgia, "Climate Change, Impacts, Adaptation," 2021 - <https://www.undp.org/ka/georgia/publications/klimatis-tsvlileba-zegavlina-adaptatsia> [l. s. 10.10.2024].

⁶ see Footnote 4.

⁷ Botkin, D.B., Saxe, H., Araújo, M.B., Betts, R., Bradshaw, R. H. W., Cedhagen, T., Chesson, P., Dawson, Terry P., Etterson, J. R., Faith, D.P., Ferrier, S., Guisan, A., Hansen, A. S., Hilbert, D.W., Loehle, C., Margules, Ch., New, M., Sobel, M.J., Stockwell D., "Forecasting the Effects of Global Warming on Biodiversity, 2007, <https://academic.oup.com/bioscience/article/57/3/227/268444> [l. s. 10.10.2024].

⁸ Bellard, C., Bertelsmeier, C., Leadley, P., Thuiller, W., Courchamp, F., "Impacts of climate change on the future of biodiversity", *Ecology Letters* 15, 2012, 365-377. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1461-0248.2011.01736.x> [l. s. 10.10.2024].

⁹ Tol R., "The Economic Impacts of Climate Change", Volume 23, # 2, 2009, pp. 29–51.

<https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.23.2.29> [l. s. 10.10.2024].

¹⁰ Boykoff, M.T., Roberts J.T., "Media Coverage of Climate Change: Current Trends, Strengths, Weaknesses". https://www.researchgate.net/publication/228637999_Media_coverage_of_climate_change_Current_trends_strengths_weaknesses [l. s. 10.10.2024].

activation of the global warming issue, scientists brought the topic of adaptation into the agenda. From 1988-1990, the media actively prepared materials on climate change, but the same cannot be said about the adaptation issue. This is evidenced by the newspaper publications in the United States and the United Kingdom during those three years, with only 1% of the material dedicated to the adaptation issue. Out of 3293 articles related to climate change, only 0.9% were devoted to adaptation. The researchers reviewed the following print media: Los Angeles Times, New York Times, USA Today, Wall Street Journal, Washington Post, Guardian, Independent, Times, and Financial Times.¹¹

During the activation of the global warming issue, it also held a significant place in political processes. For example, in the United States, George Bush's presidential campaign in 1988 included the issue of global warming.¹²

When discussing environmental problems, the starting point is human activity and its impact on the environment. Stuart Allan, Barbara Adam, and Cynthia Carter focus on public attitudes toward environmental risk and the media.¹³ The authors analyze Ulrich Beck's views, emphasizing that before thinking about global warming, ozone layer depletion, or other problems, nature is polluted precisely due to human activity. The author stressed the identification of nature and culture. Ulrich Beck practically indicated that when we talk about nature, we talk about culture and vice versa. It can be said that nature, with its multifaceted context, is diverse and can change according to societal approaches.

Since the acceleration of the global warming process is directly linked to human activity, anthropogenic impact (Environmental Information and Education Center), it is essential to inform the public about this topic and raise their awareness, which is a significant function of the media.

2. The Role of Media in Environmental Education

When discussing the importance of issues related to ecology, it becomes even more evident how significant the media's influence can be in this direction. It has a powerful tool to provide society with adequate information, set the public agenda, direct public attention to desired topics, and change public attitudes. Here, the media's highly needed and interesting function—raising awareness—must be noted. The media has an educational role in an informational society, helping the audience receive education and correctly set priorities. Here, the term “environmental education” must be introduced. The media has a crucial role in introducing environmental education, which will also help society achieve sustainable development.¹⁴

Therefore, it is essential to analyze the media's functions concerning ecological issues and how much attention Georgian media pays to these topics.

Mass media and non-governmental organizations play a significant role in developing environmental education and raising awareness of environmental issues.¹⁵ Based on the example of Malaysia, the authors conclude that by transmitting environmental messages through the media, the public will have a say, which will contribute to raising awareness and a thoughtful attitude of people to the environment.

¹¹ see Footnote 10.

¹² Peterson, C., “Experts, OMB spar on global warming: ‘greenhouse effect’ may be accelerating, scientists tell hearing”, The Washington Post, 1989, A1 9 May. <https://www.lyellcollection.org/doi/full/10.1144/sp305.3?frame=sidebar> [l. s. 10.10.2024].

¹³ Adam, B., Allan, S., Carter, C., „Environmental risks and the media“, London: UCL, 2000. https://api.pageplace.de/preview/DT0400.9781134610938_A24508027/preview-9781134610938_A24508027.pdf [l. s. 10.10.2024].

¹⁴ “Media for the Environment”, Center for Environmental Information and Education (Georgia), Chapter 2, 2016; <https://www.eiec.gov.ge/News.aspx/Documents/ViewFile/119> (Available only in Georgian), [l. s. 10.10.2024].

¹⁵ Saifudin, M., Saleh, M., „Media and Environmental Non-Governmental Organizations (ENGOS) Roles in Environmental Sustainability Communication in Malaysia“, vol. 8, no.1, pp.90–101, 2017. https://www.researchgate.net/publication/318147966_Media_and_Environmental_Non-Governmental_Organizations_ENGOS_Roles_in_Environmental_Sustainability_Communication_in_Malaysia [l. s. 10.10.2024].

The media's role is particularly significant in achieving sustainable development and making environmental education accessible. To confirm this, researchers (Katona, Kárász, Leskó, Kosáros)¹⁶ in Hungary conducted a survey among schoolchildren aged 13-17 to find out how much they used media channels for environmental issues and how interested they were in this topic. The authors deliberately chose this age group because, in their assessment, information received through mass media has a substantial impact on adolescents, and this is also the period when young people should start receiving environmental education with the media's support.

Peter Sandman wrote in 1994, that the media did not often show interest in environmental risks.¹⁷ The researcher noted that journalists prepared a small number of materials on environmental crises. The author emphasized not only the quantitative shortage of materials but also their content. He assessed that the media representatives did not broadly cover the issue or relied less on evidence when covering environmental risks. Similar problems were pointed out by Ann Major and Ervin Atwood, who, after conducting media research, said that journalists prepared a small number of materials on environmental issues.¹⁸ It is interesting to understand why this is so. One reason could be that news usually focuses on the event rather than the main issue or related problems.¹⁹

When emphasizing the media's role in covering environmental issues, the accuracy of terms is essential. Journalists should not only understand relevant terms related to the issue but also have a clear grasp of the appropriate context. It is also important to describe how the media explains environmental risks. Annie Major and Ervin Atwood described how the public and the media perceive environmental risks.²⁰ They raised the question of whether the media, interested in dramatic events, leads the public to overestimate the likelihood of risk. In their scientific article, they cited Singer and Endreny's view that the media generally disseminates damage—the result of a probable event, not the probability of the event. They defined risk as “the probability of harm”. Major and Atwood believe that an actual event or damage is the result of risk, and this is not the risk itself, while risk is defined as actual and potential damage.

When covering large-scale natural events, it is crucial for journalists to maintain a neutral tone and focus on the most important part of the story, which can be understood through Framing Theory. Entman interestingly defines a frame as a method by which a certain aspect of a real fact is highlighted, which is then covered by information channels.²¹ Tewksbury and Scheufele²² explained framing as a phenomenon focused on determining the interpretation of a story. The researchers referred to public opinion researcher Frank Luntz's message in describing the theory: “It’s not what you say, it’s how you say it.”

The publication “Media for the Environment” prepared by the Environmental Information and Education Center notes that the media shows little interest in biodiversity issues.²³ The publication also explains that the media lacks knowledge and experience on the subject, and Georgian TV channels rarely show scientific popular films dubbed in Georgian.

¹⁶ Leskó, G., Katona, I., Kárász, I., “Role of Media in Students' Life and Their Environmental Education: A Survey of Students Aged 13 to 17”, *Journal of teacher*, 2008 –<https://www.semanticscholar.org/paper/Role-of-Media-in-Students'-Life-and-Their-A-Survey-Katona-K%C3%A1r%C3%A1sz/dd0c1c69d51a9d5ebc3bf63e659816078ba9aed6> [l. s. 10.10.2024]

¹⁷ Sandman, PM, *Mass media and environmental risk: Seven principles*, 1994, <https://scholars.unh.edu/cgi/viewcontent.cgi?article=1198&context=risk> [l. s. 10.10.2024].

¹⁸ Major, A M., Atwood, L. E., „Environmental risks in the news: issues, sources, problems, and values“, Volume 13, Issue 3, 2004 – <https://journals.sagepub.com/doi/10.1177/0963662504044557> [l. s.10.10.2024].

¹⁹ Wilkins, L., Patterson, P., „Risk analysis and the construction of news“. 1987. <https://academic.oup.com/joc/article-abstract/37/3/80/4282979?redirectedFrom=fulltext> [l. s.10.10.2024].

²⁰ see Footnote 18.

²¹ Entman, R. M., „Framing: Toward Clarification of a Fractured Paradigm“, 1993. https://www.researchgate.net/publication/209409849_Framing_Toward_Clarification_of_A_Fractured_Paradigm [l. s. 10.10.2024].

²² Scheufele, DA., Tewksbury, D., „Framing, Agenda Setting, and Priming: The Evolution of Three Media Effects Models“, *Journal of Communication* 57, International Communication Association, 2007, pp. 9–20. <https://fbaum.unc.edu/teaching/articles/J-Communication-2007-1.pdf> [l. s.10.2024].

²³ see Footnote 14.

It was confirmed by a media monitoring study conducted by the Media Development Foundation in 2012 that Georgian media paid less attention to environmental issues. According to the monitoring results, “Georgian media interest is more superficial, mainly reportorial, and rarely does the problem receive deep and comprehensive coverage.²⁴ The balance of parties is violated, the journalist’s subjective position is clearly visible, and the language and style do not meet standards“.

From all the above, it is interesting to determine how experts, media representatives, and the public evaluate the media's work today.

3. Research Results

3.1. Methodology

The chosen research methods are in-depth interviews and surveys, which are relevant for achieving the research goals. It is important for the media to recognize its responsibility towards global environmental problems. In-depth interviews were conducted with four experts in the field and four media representatives, and approximately 300 citizens of different ages and genders were surveyed. This number is relevant for presenting opinions in the media field.

In the first stage of the research, in-depth interviews were conducted with field specialists:

1. Nino Chkhobadze, Chairperson of the "Green Movement of Georgia - Friends of the Earth";
2. Nodar Pophoradze, Head of Applied Geology at the Georgian Technical University;
3. Maia Bitadze, Chairperson of the Parliamentary Committee on Environmental Protection and Natural Resources;
4. Tamar Aladashvili, Director of the Environmental Information and Education Center.

Following this, interviews were conducted with journalists who actively cover environmental issues, including natural disasters. The respondents were:

1. Shalva Sumbadze, correspondent for the “First Channel”;
2. Tea Topuria, journalist for “Radio Liberty”;
3. Gela Mtivlishvili, editor of “Mountain News”;
4. Olga Chayko from Ukraine.

Due to the specific nature of the topic, journalists working on environmental issues and covering disasters were chosen, as it was important for the study to analyze how the media covered the explosion in New Kakhovka. An interview was conducted with Ukrainian journalist Olga Chayko, who covered the event on-site. After the explosion in New Kakhovka, questions arose in the media about whether the Black Sea coast was at risk. This issue became particularly relevant during that period, and analyzing respondents' opinions in this direction is interesting. The research participants also discussed the disaster in Racha and its coverage in the media, making this issue part of the research agenda.

In the next stage of the study, 300 respondents were surveyed using a questionnaire. Most questions were closed-ended, with a few exceptions requiring open-ended answers.

3.2. Field Specialists on Environmental Problems and Needs

In-depth interviews with field specialists mainly focused on climate change as one of the most pressing problems of modern times. Some experts directly indicated that despite certain steps taken globally, climate change remains the most significant challenge. The research results show that the most

²⁴ Izoria, 2012. Coverage of environmental issues in the Georgian media, Media Development Fund, available at https://mdfgeorgia.ge/geo/view_research/97 [l. s. 10.10.2024].

important environmental issue is global warming. Field specialists highlight this issue as the main environmental challenge for both the world and Georgia.

It is interesting to see where the field specialists see solutions. According to Nino Chkhobadze, many countries today are taking preventive measures and steps to adapt to climate change. However, these measures have not yet been taken in Georgia, indicating that people in Georgia are not informed about how to adapt to climate change. She believes that such steps will be preventive measures to avoid various tragedies, citing the events in Shovi, Georgia, as an example.

After the tragedy in Shovi in 2023, 112 warns citizens via SMS in case of deteriorating weather. However, experts believe this is not enough. They state that there are different recommendations for citizens during each natural event, and people in Georgia are not informed about them. Therefore, they think it is essential to teach children in schools how to act during natural disasters and for the media to cover such issues, which they say often does not happen. Chkhobadze also emphasizes the need for studies to be conducted in Georgia's regions to precisely determine the specific problems of each area.

Field specialists and media representatives have different views on whether the media shows a significant interest in environmental issues. The study revealed that opinions are divided. Field specialists believe that the media rarely takes an interest in such issues, which journalists do not agree with.

However, both media representatives and field specialists agree that the media plays a crucial role in covering environmental issues. Experts believe that the media can cause significant problems by spreading misinformation. Some cite the explosion in New Kakhovka as an example (Nino Chkhobadze).

During interviews, some respondents openly stated that the media covers environmental issues with less intensity (Nino Chkhobadze, Nodar Pophoradze, Maia Bitadze), which experts attribute to the media often seeking sensation in stories (Nino Chkhobadze).

Tamar Aladashvili focuses on the media's role in covering environmental issues. She explicitly states that public awareness and information are possible precisely through media channels.

She says that according to a study conducted last year by the Environmental Information and Education Center, commissioned by the government, it was found that the public now demands information about environmental challenges. One of the interesting findings is that if certain terms, such as “sustainable development” or “climate change,” were completely unknown to the public years ago, citizens now know about them and want to receive more information.

To create a complete picture, the study will dedicate a separate section to discussing the opinions of media representatives in this direction, which will be presented in the following chapter.

While discussing this topic, Nino Chkhobadze recalled a natural event in Guria and explained that the media covered it, but during the coverage of such natural events, part of the media does not ask why a certain event, such as a flood, occurs and whether it is related to climate change. She notes that many in Georgia still do not believe that climate change has already occurred. Specialists see one solution in bringing this topic to the forefront.

Nodar Pophoradze emphasizes human negative actions towards the environment, which increase the number of disasters and accelerate events. To reduce human negative impacts on the environment, specialists see one solution in raising awareness, including through media channels. They also consider strengthening the geological service important (Nodar Pophoradze, Maia Bitadze).

Pophoradze states in the interview that it is necessary to have a team of geologists in every region to study and monitor the situation, which is not happening in all regions now. Therefore, increasing the number of staff is crucial. He explains that mobile teams in the regions will be in active communication with the population, raise their awareness, explain how to act and how not to act during natural events, where it is possible to build and where it is categorically prohibited to avoid complications in the future.

Bitadze notes that the state relies heavily on the knowledge of foreign experts. Bitadze also explains that to interest young people in geology and obtain knowledge in higher education institutions, the state

supports this interest through scholarships, grants, or certain awards. However, the MP also raised a quite interesting issue regarding the importance of increasing vocational education. Currently, a higher education diploma is required for public service employment, but Bitadze believes it is necessary to start consultations to implement certain changes and allow employment in the public sector in a specific field after receiving vocational education.

In terms of environmental issues, legislation and legal regulation of issues are quite important. Maia Bitadze paid great attention to this topic and mentioned that more than 10 laws have been adopted and about 200 legislative changes have been implemented in recent years.

When discussing legislations or obligations, environmental democracy and its development must be highlighted, emphasizing proactive public information and participation rights. According to the study results, environmental democracy is adequate to the goals of sustainable development. In this context, the state's involvement and steps are important. Maia Bitadze explains that the state consistently implements certain measures outlined in the Association Agreement directives, international agreements, environmental agreements, and sustainable development goals.

In light of all this, it is interesting where state representatives see the main challenge. Maia Bitadze believes the new challenge is more alignment between the economy and ecology and transitioning to a green economy. It is noteworthy that the EU's future 5-year development strategic plan will be based on the development of digital and green economies. Accordingly, Bitadze says Georgia is also trying to keep pace with all this.

Given that several large-scale natural disasters were recorded in Georgia over the past year (on August 3, 2023, a natural disaster occurred in Racha, specifically in Shovi, where a landslide and mudflow killed 32 people, including children; on August 29, a military person died during a rescue operation; on September 8, 2023, a landslide occurred in the Chokhatauri municipality of Guria region, affecting several villages and causing the deaths of three people, including two teenagers, and destroying at least ten houses), it is quite interesting to see what steps are being taken by the state to combat natural events.

The study results show that several disasters can be studied at this stage: floods, mudflows, landslides, rockfalls, avalanches, droughts, and winds. Maia Bitadze mentioned in an interview that this year, 15 million GEL has been spent only on combating natural events and improving early warning systems, using UN, Green Climate Fund, and state resources.

Reviewing scientific literature revealed that one of the most important topics regarding environmental issues is environmental education and its development. This issue was actively discussed during interviews with experts, state structures, and media organizations. In the study results, a separate chapter is dedicated to the public opinion study results, where citizens were surveyed, and they expressed their views on environmental issues and assessed the media's role.

Active communication with the public, conducting training, and taking certain steps at the education system level are important for developing environmental education. According to Tamar Aladashvili, topics related to environmental protection and challenges are included in preschool and school textbooks. Simulative training is also conducted to ensure that schools know how to act in case of natural disasters. Aladashvili also focused on raising awareness in the regions during the interview. As it turns out, practical training has been conducted in municipalities with emergency management plans.

Another crucial issue to note is whether the public understands its role regarding the environment, where the media plays a significant role among other factors.

3.3. Media Representatives on Coverage of Environmental Issues

In-depth interviews were conducted with journalists who actively cover environmental issues, including natural disasters. One respondent is from Ukraine since after the explosion in New Kakhovka, along with other issues, the environmental damage was actively discussed, including whether any threat to the Black Sea coast existed. It was interesting to interview the journalist who covered the event on-site.

The study results show that the frequency of coverage of environmental issues and public interest are quite complex and interrelated topics. Journalists noted that environmental issues are now more or less covered, especially compared to previous years when the media paid no attention to this topic. Gela Mtvlishvili, a journalist from "Mountain News" who often covers environmental issues, notes that the media mainly takes an interest in these issues during disasters, but almost never otherwise. However, Mtvlishvili emphasizes the media's critical role in covering environmental issues, especially given Georgia's challenging terrain. He states that it is important for the media to take responsibility, talk about problems before a disaster occurs, remind the authorities what needs to be done, and provide the public with information about the issue's severity. As an example, he cites the processes that developed in Shovi and focuses on taking preventive measures in this context.

Some media representatives also point out that public interest is low, and people mainly want information on the most pressing issues. An example given by Tea Topuria, a journalist for "Radio Liberty," is the articles she covered on the same topic, stating that if the issue is not highlighted, the audience does not show interest. Another issue that arises is that the media can itself bring the issue to the forefront and introduce it to the agenda. However, since the public today has access to diverse information, they still decide which information to choose. This is where the complexity of the issue emerges. Raising public awareness is important. When the public realizes that environmental issues affect them and that they themselves impact the environment, their interest in obtaining as much information as possible about the environment will increase. In this case, the media will pay more attention to these issues. Media representatives also noted during the interviews that there have been cases where citizens did not want to provide information to the media when working on environmental issues. For example, when discussing houses in landslide-prone areas or the need for evacuation, some citizens refrain from talking. It is also essential to provide citizens with timely and necessary information, in which both the state and the media play significant roles. Therefore, it is crucial that the process of raising public awareness be carried out successfully and with long-term prospects.

When talking about providing timely information and raising public awareness, media representatives also noted that it is important for the public to know how to act during natural events and how to protect themselves during hazards. Gela Mtvlishvili states that most of the population does not have this information. The journalist believes that the media should take responsibility for conveying such issues to the public.

Media representatives also emphasize not only raising public awareness but also their own retraining. Journalists state that it is essential to conduct training and seminars to enhance their knowledge of environmental challenges. They also note that it is crucial to conduct training on the specifics of covering natural disasters. Since covering natural events is associated with significant emotional stress, stress management training is necessary, which should be conducted not only as a preventive measure but also after covering natural events (Shalva Sumbadze, Gela Mtvlishvili, Tea Topuria).

Additionally, journalists emphasize another interesting issue. Most of them believe that there should be a dedicated environmental protection profile in the media, with correspondents working on this specific issue due to its complexity. However, journalists say that this direction is not developed in Georgian media, which they consider problematic.

The main focus of media representatives' interviews was the recent large-scale natural disasters in Georgia - Shovi and Guria. Some media representatives believe that working in extreme situations requires additional resources and energy from journalists, so some journalists may work better under such conditions (Shalva Sumbadze).

The study results show that during natural events, verifying information is crucial. It is clear that verifying information is one of the fundamental principles for the media in general, but it becomes even more critical during crises or disasters. However, as they point out, communication with relevant authorities is difficult during crises, hindering the media's work (Tea Topuria, Olga Chayko).

When discussing natural events, journalists also highlight another important issue. According to media representatives, it is necessary to introduce yourself to respondents. They should also know that their interview will be publicized. Shalva Sumbadze states that during natural events, the emotional

background is so high that people may see the camera and microphone but still not realize that their conversation may be recorded. Therefore, he believes that journalists should definitely explain to citizens that their interviews will be made public.

Media representatives also focus on the appropriate equipment and special gear for covering natural events. Journalists who frequently cover natural events stated during the interviews that they always have a prepared bag with essential items to avoid wasting time on preparation.

It was quite interesting to see the responses from the Ukrainian journalist regarding the explosion in New Kakhovka, how the issue was covered under wartime conditions, how much attention was paid to environmental problems, and specifically which topics journalists focused on. Olga Chayko covered the event on-site but could not move to the area controlled by Russia. Therefore, she considers it a significant problem that the exact information about the damage from the left bank of Kherson region, controlled by Russia, is unknown to them since Ukrainian journalists and international media representatives could not move there.

3.4. Citizens on Environmental Problems and the Role of the Media

Based on the research objectives, 303 respondents were surveyed using a pre-prepared questionnaire. Citizens were sent the questionnaire online, and the received responses were then analyzed. It is important to note that respondents answered both closed-ended and open-ended questions, where they expressed their opinions on environmental issues and assessed the media's work on this topic.

The study involved people aged 18 and older of all ages, but most respondents were young people aged 18-23, mainly students and recent graduates, which is significant since the involvement of the younger generation in caring for the environment is a decisive factor in achieving sustainable development.

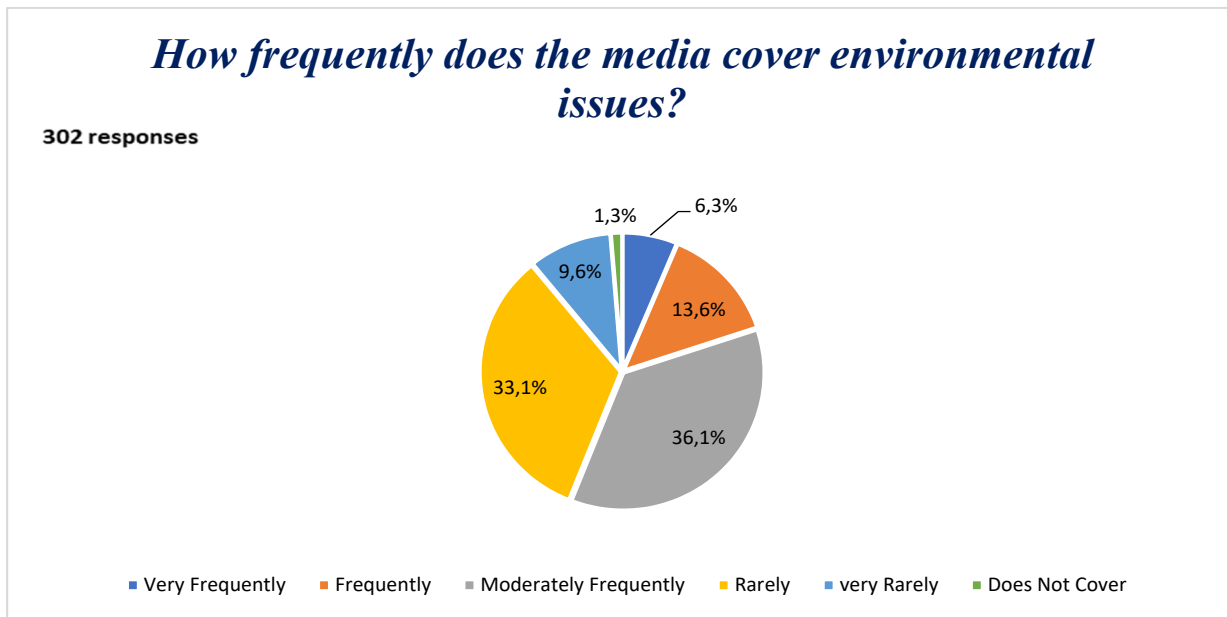
Most respondents were female (67.2%, while males were 32.8%). Additionally, most respondents were employed and also students.

Given the diversity of the study, it was important to get responses from both the capital city and the regions. Most respondents filled out the questionnaire in Tbilisi, but responses also came from regional residents.

Most respondents get information primarily from social networks, followed by television and online media. It is important to note that most respondents choose social networks rather than online media for news.

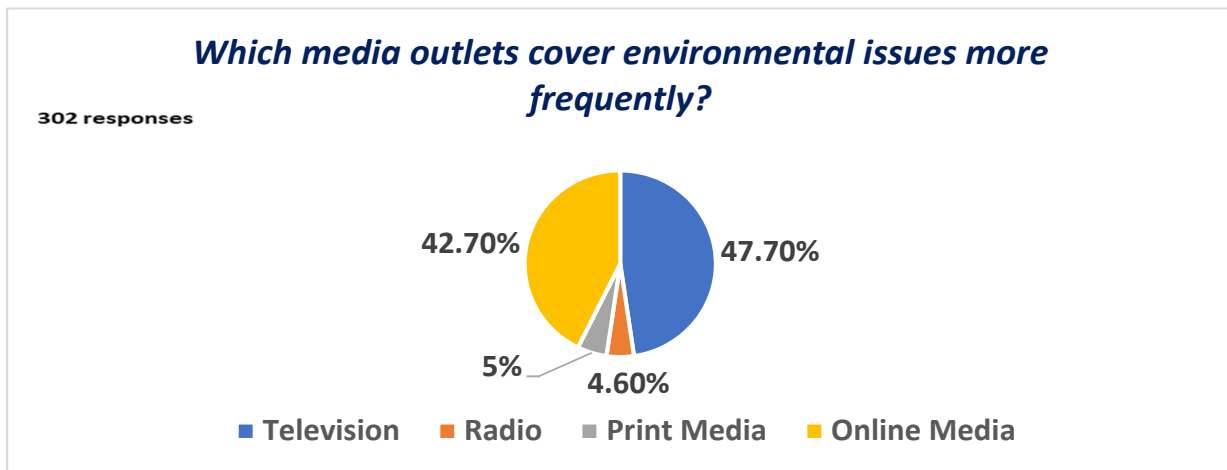
One of the main questions in the questionnaire, based on the research objectives, was how often the media covers environmental issues, according to citizens' assessments. This issue was actively discussed during in-depth interviews with both field specialists and media representatives. Most of them emphasized that the media rarely takes a deep interest in this topic and mainly covers natural events during tragedies. Of course, it is very interesting to see the position of the audience that is the media's consumer. A small number of respondents noted that the media covers environmental issues very often, while most believe that the media covers this topic at a medium frequency or rarely (see Diagram 1 for details).

Diagram 1



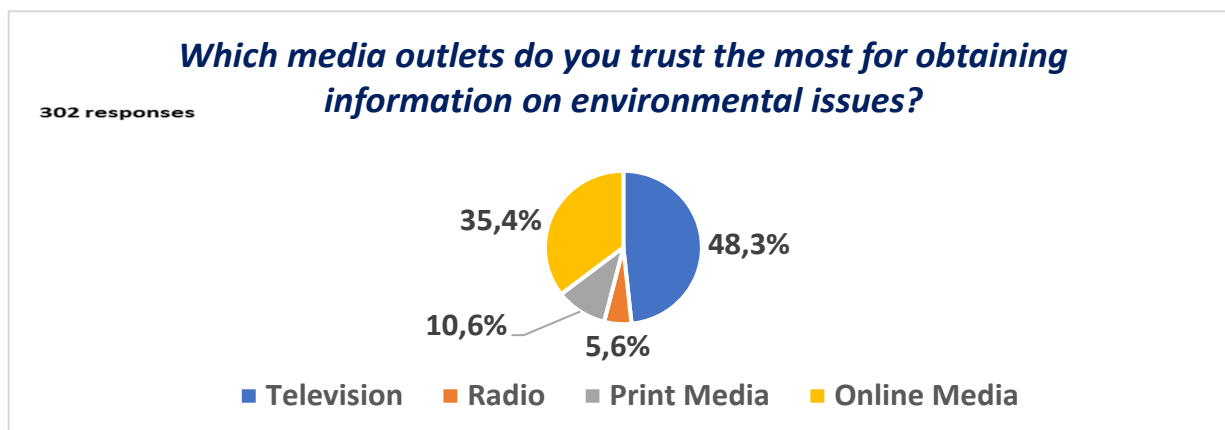
It is also interesting to know which media channels citizens believe cover environmental issues more frequently. As expected, most respondents named television and online media. However, it is also important to note that most respondents do not read print media regularly, making it difficult for them to say precisely how often print media covers this issue (see Diagram 2 for details).

Diagram 2



A rather interesting trend emerged in the question about which media channels citizens trust the most for receiving information on environmental issues. Despite the high number of online media users, most respondents trust television more for receiving information on environmental issues (see Diagram 3 for details).

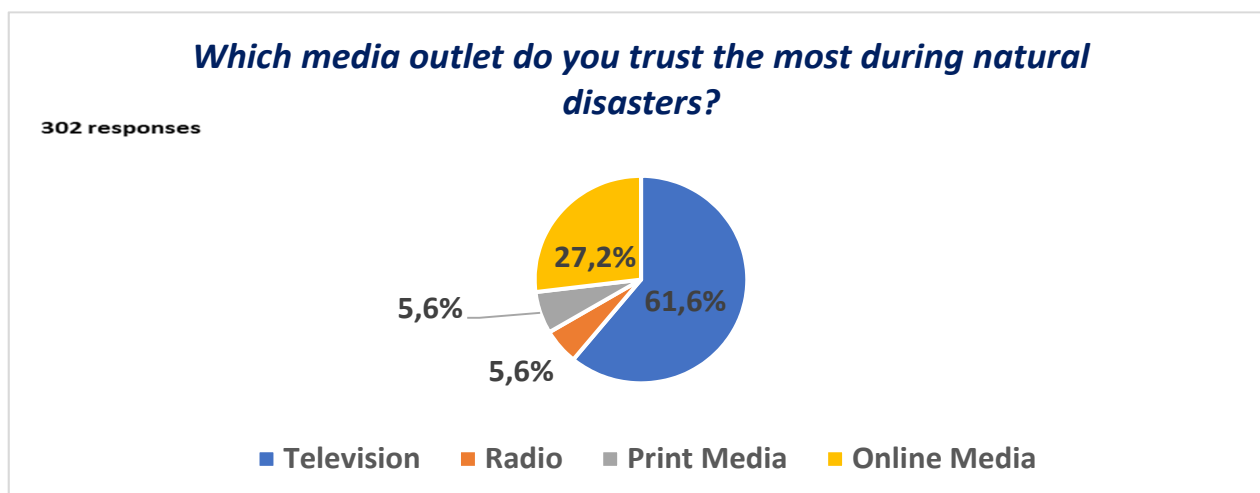
Diagram 3



It is important to note that respondents explained their reasons for trusting the media on environmental issues in open responses. Most indicated that they trusted television more because they were more confident that television would prepare verified information on environmental issues and that the topic would be more in-depth and informative. Online media was named as a fast and operational information provider, which was convenient for them, but they also mentioned encountering fake news and disinformation in online media and believed that online media had a lower verification quality.

Like the general trend of getting information on environmental issues from television, most respondents also rely on television for reliable information during natural events. In terms of trustworthiness, online media is in second place (see Diagram 4 for details).

Diagram 4

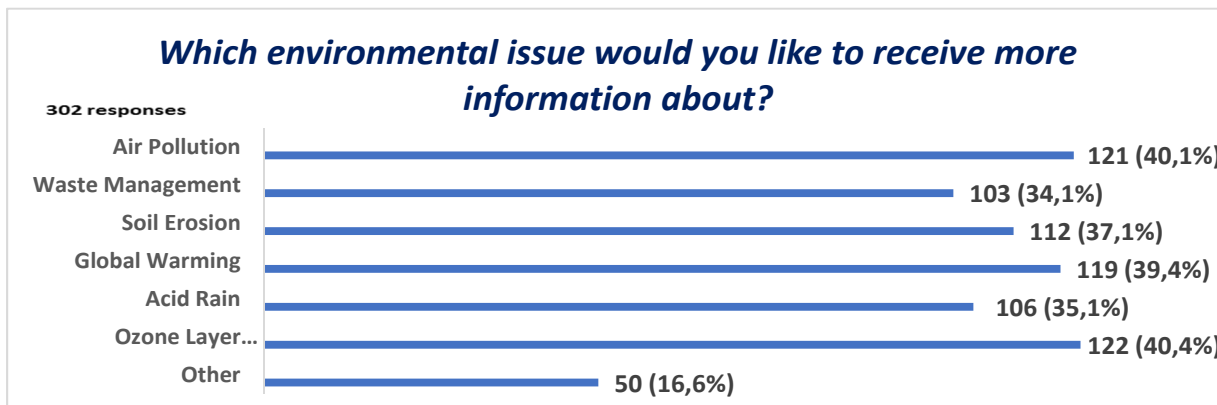


Respondents expressed their views on the reliability of natural event coverage in open responses. Most citizens noted that they needed information quickly during natural events but encountered the problem of spreading fake news in digital media due to the rapidity of information dissemination. However, respondents also emphasized that receiving timely information is crucial during natural events because they want to get updates quickly. Some respondents also noted that they do not trust any media channel during tragedies due to encountering inaccurate information everywhere.

Based on the research objectives, it is important to know whether citizens are familiar with environmental challenges. The study results revealed that most respondents are familiar with the problem of air pollution and, to a lesser extent, with acid rain. Respondents could select multiple answers simultaneously.

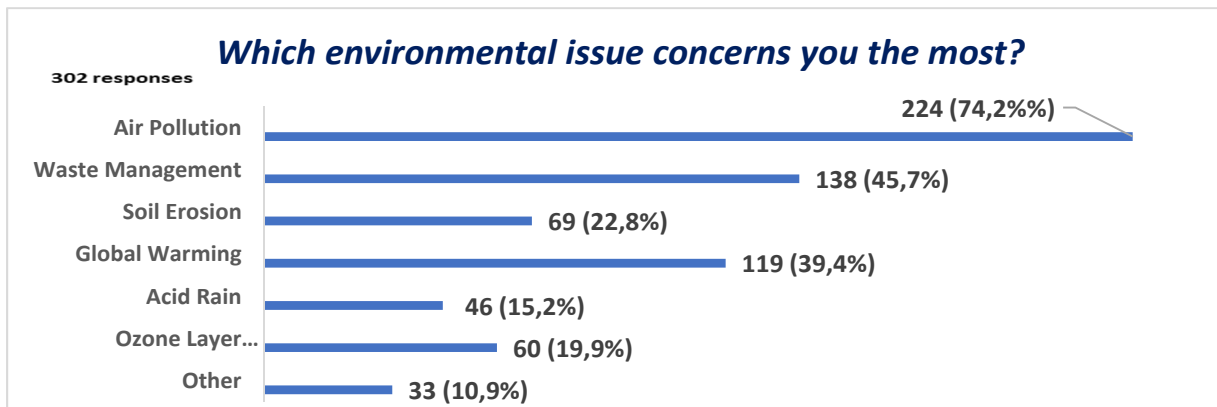
An interesting trend emerged in the question about which environmental challenges citizens would like to receive additional information. Respondents want information on all listed environmental problems. The data is almost evenly distributed. It is important to note that despite knowing some of the listed problems, respondents still want to receive additional information about them. This is quite significant for developing environmental awareness (see Diagram 5 for details).

Diagram 5



The study results show that most respondents are concerned about air pollution, waste, and then climate change. Although scientists consider global warming the main environmental problem, most respondents do not name it as the first challenge. This trend shows that detailed information should be provided to the public about climate change as a major threat to better understand the issue's severity (see Diagram 6 for details).

Diagram 6



When asked how high environmental education is in society, most respondents believe that the level of environmental education is average. It is important for environmental education in society to be very high, which will help increase citizens' involvement in caring for the environment

Conclusion

Both qualitative and quantitative research was conducted based on the study's objectives. The chosen research methods were in-depth interviews and public surveys. Eight in-depth interviews were conducted with specialists, including four media representatives and four environmental specialists. The four media representatives were those who work on environmental issues. In the quantitative research, 303 respondents were surveyed. Citizens were sent a pre-prepared questionnaire online, which included both closed and open-ended questions.

The study answered the research question: What role does the media play in covering environmental issues? All eight respondents emphasized the media's significant role in environmental issues during in-depth interviews. It is important to note that neither media representatives nor field specialists had a different opinion on this issue. Analyzing the interviews, it can be said that the media is one of the main instruments in highlighting environmental problems. If the media prepares more material on the environment, public interest will increase even more. The quantitative research also revealed that some citizens want detailed and in-depth information from the media on environmental issues, which is important for the media to provide. However, one significant detail should be considered: some media representatives noted during the analysis of in-depth interviews that materials on environmental problems have fewer readers than other topics, sometimes signaling the media on which topics to introduce into the agenda. But this is where the importance of the media as a factor in raising environmental awareness, which respondents emphasized in the interviews, should be highlighted.

The study answered the question: According to experts and media representatives, what are the main challenges in covering environmental issues? Experts believe that the media should bring environmental issues to the forefront at the preventive level and not only when the situation has already become extremely difficult, a shortage observed in Georgian media. According to specialists, global problems such as climate change should be actively included in the media's agenda. They also believe it is essential for the state to take steps alongside the media to raise public awareness. Interviews revealed that citizen involvement in caring for the environment is particularly important, but this process's success relies significantly on the state, non-governmental organizations, and the media. According to experts, Georgian media covers news quite promptly during natural events. Field specialists focused on the natural disasters in Shovi and Guria, stating that Georgian media mainly covered the facts accurately. However, they found it difficult to say the same about covering possible threats after the explosion in Kakhovka. According to specialists, despite no threat to Georgia's coastline, some media's sensational coverage caused public fear and panic. It is important for the media not to sow fear in society.

Some media representatives believe that the media actively covers environmental issues, while others think the coverage frequency is not high due to low public interest in the topic. However, all journalists agreed that the media should cover environmental issues more frequently and in-depth. They noted the difficulty in finding relevant respondents and conducting interviews on environmental problems and that it is challenging to get citizens to agree to interviews. They recalled cases where people had to leave their homes during natural disasters or other environmental challenges but did not want to talk about it publicly.

Media representatives also discussed the need for specific equipment for covering natural events. They stated that journalists should be adequately prepared and equipped. Media representatives highlighted the importance of emotional stability for correspondents. They recalled the tragic event in Shovi and noted that reporting news from the place was associated with quite a lot of stress. Ukrainian journalist Olga Chayko also talked about the stressful environment she faced while covering the explosion in Kakhovka under wartime conditions. Therefore, journalists emphasize the need for psychological training both before and after covering natural events. They state that it is important to establish a practice where respondents have the opportunity to receive appropriate psychological or other training after covering natural disasters. Journalists also focus on the need for frequent seminars on environmental challenges. They also noted that media organizations should have a dedicated environmental direction with specific journalists working on it due to the issue's complexity.

The study also answered the question: What are the public's main demands regarding environmental challenges and their coverage in the media? Most respondents stated that the media should work more on environmental issues. They want to receive additional information on global environmental challenges such as global warming, air pollution, and ozone layer depletion. Most respondents try to get news on environmental challenges from television, despite generally getting information from social networks and online media. However, they trust television more for news on environmental issues. In open responses, they also noted that it would be better for the information to be more detailed and comprehensive.

The study confirmed the hypothesis that the media primarily focuses on the tragedy during the initial stage of a natural event while devoting less time to preventive measures when covering environmental issues. This issue was emphasized by field specialists during in-depth interviews and also emerged in the open responses of surveyed respondents. Therefore, it can be said that Georgian media mainly focuses on the initial stage of natural events rather than preventive measures when covering environmental problems.

Based on the study results, certain recommendations were developed:

- The media should actively and in-depth cover environmental problems;
- The media should maintain the accuracy of news along with promptness during natural events;
- The media should cover environmental problems not only during disasters but also at the preventive level;
- Correspondents working on environmental problems should conduct interviews with relevant respondents;
- It is crucial to increase public involvement, raise awareness, and support environmental education, which should be significantly contributed by state structures, non-governmental organizations, and the media;
- Journalists should have appropriate clothing and equipment during natural events (if necessary);
- Journalists should receive psychological training both before and after covering natural events.

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Live Broadcasts

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Abstract

The article deals with the direct conductors and direct perceptions of mass communication, the response of the message, and the decoder to improvisational information. As well emphasis is placed on presenting the pros and cons of direct signals. There are discussed the differences and effectiveness of the effects on public opinions, compared to pre-prepared audiovisual material and direct informative-cognitive-entertaining media products in the study.

Key Words: Direct perception, Information, Emergencies, Sports broadcasts, Jokes, Concerts, Improvisational Conductor.

Introduction

People's perception of colors, signs, numbers, and images is not new, it can be said that the visual-auditory observation of societies began before mass media were created, although visualization and eye contact, as well as getting used to the interdependence of sounds and ears, were different at different stages. The gradualness was determined by the development of both the human brain and the information intended for the brain, in addition to the continuous pace of technological development since the creation of mass media. It is important for us to observe the connection between the community and the content, which is different from ready-made audiovisual materials, which are live broadcasts.

1. Audio-visual perceptions of mass media live content

Can we believe what we see? The scheme that asks this question is an optical illusion. It has the "technical ability" to create new levels of perception in human minds and thereby show them, in many cases, non-existent realities. As a result of the perceived information, societies' views towards specific issues are determined. The perception of an image, which is not audio information, based on the information in the individual's mind, affects the consciousness of a particular person. In the case of audio information, the image becomes the second strongest influence on people's consciousness, and sound will be the first. Human interest in visual perception and recording perceptible facts have been found since ancient times, with gradual trends. There is information about the so-called "Camera Obscura" and images moving on the wall in a darkened room from ancient times. In 350 BC, Aristotle also mentioned in one of his works that the light that hit the wall through a hole in a dark room would convey an image that, while maintaining the proportions of the environment in front of the room, was reflected in smaller sizes and a rotated form.¹

However, unlike shots that are prepared in advance, for the old society, or the new visual perceptions, live broadcasts from TV and radio broadcasting have not only advantages, but also disadvantages. They are sometimes spontaneous, directly telling us both good and bad news without any preparation, when there is no time left to create a benevolent and appropriate image. For example: on September 11, 2001, the terrorist acts of New York - the destruction of the twin skyscrapers - were shown by the American television company CNN promptly and live to the whole world. The world community was stunned

¹ Kikabidze, M., Influence of television and interactive relationship with the audience. thesis. Shota Rustaveli State University of Theater and Cinema. Tbilisi. 2015.

both by the promptness of CNN and by what they saw live (people could not believe their eyes) when they saw how desperate people were falling from a height of 300 meters.² In Georgia, it is possible to broadcast live information that cannot be controlled, however, the transmission of information is the responsibility of the mass media. Similar situations, like the one in the United States and other states in Georgia, are emergency situations. It can be said that watching emergency and special shot live is not pleasant and has some effect on both the mind and the mood, but apart from the situations mentioned above there are many positive messages for people even through live broadcasts and it started with a simple pre-prepared image. Euclid (490-430) thought that thinking was formed through the perception of different parts, which, through shallow observation of the given, came into the field of vision of the individual. Plato (427 - 347 BC) also agreed with the abovementioned, but he thought that the eye could see things in the dark, not only when there was a light source. According to his definition: " There is a particularly pure fire in us, akin to the light of day, and they have caused it to burst out of the field of vision in flat and solid parts, these parts, combining with the light of day, form a special matter, which, in various forms, is transmitted to our inner world and reaches the soul."³

2. Planned and unplanned improvisational information of media conductors

In the modern world, with live broadcasts, political messages are frequent, during the debates of two-sided and at the same time opposing political platforms or personalities. At first glance, an inexperienced audience thinks that everything happens spontaneously and improvised during TV debates. In fact, each candidate's team develops a tele scenario and tries to lead the opponent with their plan and lure them into a pre-laid trap.⁴

In a live debate, the fate of an election can be decided by a seemingly insignificant detail, for example the debate between Kennedy and Nixon, when the opponents decided to sit in the debate without makeup, Kennedy asked to go out of the studio for a few minutes as needed and came back with make-up on his face, that day, because of the debate, Kennedy won the ratings, because the hot lighting in the studios is so hot that the moisture on a person's face, in the eyes of the viewer, can represent a nervous man, and this emotional man Nixon, there was one whose virtual nervousness was perceived as a lying politician. Also, live sports are attractive because sports journalism is an important area for any mass media. The content is as follows: professional and beginner leagues, general sports events and games, stories - about sports personnel, players and coaches, marketing of clubs and their impact on economics. The creation of sports journalism is related to ancient Greece, there is information written by Homer about the first chess match between Odysseus and Ajax in BC. 850 BC Also, the Greeks often wrote information about sports: shooting, racing, boxing and wrestling. Citizens' interest arose in attending sports games, which is evidenced by the year 776 BC. The Olympic Games, which was a sort of culmination of interest until the modern era, informatively begins with Benjamin Franklin's 1790 quote about swimming, at the time The New York Magazine wrote articles on the sport; just like the New York Post in the 1800s. It can be said that the beginning of the creation of modern sports broadcasting was facilitated by the birth of basketball and the creation of the bowling congress, and because of baseball, sports journalists began to write exclusive information, which was called sports writing at the time. After allowing audiences to watch baseball and football from home, the demand for sports information increased significantly, for example, with regular sports news publications (the Spirit of the Times and The New York Herald) when mass-audience formats appealed to certain groups of listeners. In the 1950s, the radio became de-mass, and it also happened in the case of the newspaper in the 1960s and 1970s.⁵ If attending a sports game was the only way to share emotion, the situation changed after the creation of radio, as it had the advantage of broadcasting sports games and stories live, unlike print media. On April 4, 1921, a boxing match in Pittsburgh was broadcast by KDKA. A boxing match between Jack Demps and George Carpenter was broadcast live from New York (WJY

² Jijeishvili, K., Chkhikvishvili, G., Anatomy of political PR. Tbilisi. 2011.

³ Kikabidze, see Footnote 1.

⁴ Jijeishvili, Chkhikvishvili, see Footnote 2.

⁵ Tabatadze, N., Sports journalism. Tbilisi State University. Tbilisi. 2020-2021.

and WJ2) on July 2 of that year. The live broadcast of the Dempsey-Sharkey fight was heard by about forty million Americans in 1927.⁶

The only mass communication medium in history that people interact with throughout their lives until the last day is television.⁷ Television is the best conduit for sports broadcasts to the audience. Along with the radio, at the time, television also made it possible for the media user to have access to sports reports, although for the TV viewer, the image and visual perception, which in the case of football caused the feeling of being in the stadium, was more effective than the sound signal. It can be said that since the invention of television, it has been possible to follow sports events from home, which revealed the fan emotions of millions of viewers locally from the place where the media transmitters transmitted the signal. The 1936 Summer Olympics in Berlin broadcast a television program created to test the new media, and the British BBC later that year broadcast the first such program live, which was a 25-minute tennis match.

British viewers were interested in watching live rugby and football matches, so it was not surprising that a rugby match between England and Scotland was broadcast in 1938, and a football match between the same teams was very interesting in the same year. And for an American fan, it's no surprise that the first live broadcast of a baseball game on May 19, 1939, was emotional.⁸

It is obvious that in the 19th century, people had to learn to read and write because they could read newspapers and get information, but today, to become a part of the information society, an individual must learn the computer, which is the latest means of communication and information transmission. In the era of modern visual perception, not only on television, but since the 90s, it has become possible to broadcast live sports broadcasts through the Internet, although at the initial stage, the abovementioned sports broadcasting could not be carried out with a high frequency, due to the established limit of digital data. Although internet media offers a wide variety of content for sports-loving media users, not only for conveying information about sports, but also for messages of individual marketing packages of clubs, national teams and athletes, television is still the leading mass communication medium for broadcasting. The difference and attraction of live broadcasts are manifested in the live commentary of sports broadcasts, because good commentary (which includes: good knowledge of sports rules, informativeness and accurate characterization of the participants) evokes sports emotion in the viewer, which gives a local feeling that he is at the sports competition. For live sports broadcasts, it is important to fill the empty minutes when someone is injured or for some other reason stops the progress of the competition, so the ways to fill the empty minutes are: information about the players, statistics of the competitions, transfers, as well as some stories and events about the sportsmen.⁹

3. Spontaneous fun - creative information, tragedies, associative - psychological negative and positive effects based on past shots.



A live broadcast during a concert can cause some unforeseen problems, unlike an audiovisual recording. We have a lot of examples of this: "Working with her is a nightmare" - Adele's concert was postponed at the last moment due to her unrealistic demands.

Singer Adele's concert was supposed to be held under the auspices of Caesars Palace, which is a music center. The employees of this center said that the British singer has an incredibly difficult character and it is a nightmare to work with her. Adele's songs haven't been heard by the journalist who was fired, probably now he will have more time to listen to her songs when he is in a nightmare mood to get in a good mood, because some of his creations are positively melancholy. A planned live concert was postponed at the last moment, she

⁶ Aptsiauri, G., Peculiarities of media management in Georgia. Tbilisi. 2018.

⁷ Tabatadze, see footnote 5.

⁸ Aptsiauri, see footnote 6.

⁹ Tabatadze, see footnote 5.

wanted to install new equipment on the stage. Later, Adele made a statement - "We were doing everything to make the show go well, but we were betrayed, and the concert was eventually postponed," Adele said.¹⁰



On July 22, 2018, the concert of the famous British singer was broadcast live, but for an unusual reason, it was not decided to change the location. The singer's concert in Germany was postponed due to the fact that the event did not negatively affect the population of larks, because there are eight pairs of these birds, which belong to a rare breed, live in Essen Airport. Therefore, the German authorities are responsible for their protection and comfort, despite the fact that Ed Sheeran's work is also intended for couples, it was decided to hold a concert in Düsseldorf.¹¹

At the concert, Harry Styles had the famous "Lenny Kravitz moment", which involved ripping his pants in an awkward place in front of the audience. Despite this awkward moment, Harry Styles sang the song Music for a Sushi Restaurant until the end. However, the negative side of the fact is that this moment was captured by thousands of fans.¹²



At the Astroworld festival organized by Travis Scott, there was a stampede that killed 9 people between the ages of 14 and 27, which was seen live by the local community in Houston, USA, and not only by viewers in other cities.

Woodstock 1999 - The Sun Francisco Chronicle called the musical event "The Day the Music Died." The abovementioned festival ended tragically, Metallica and Red Hot Chili Peppers, as well as Limp Bizkit, participated in the concerts. On the territory of the festival, there were robberies of attendees, fights, vandalism and destruction of buildings, robbery of ATMs and gang rape, in total more than a thousand people were injured at the festival.

Altamont Tragedy - On December 6, 1969, the Rolling Stones made two mistakes, they decided to hold a free concert, where the security of the concert was ensured by a gang of drunken bikers who used force to maintain order, during the concert, 18-year-old Meridith Hunter was fatally shot, the killer turned out to be a drunken biker, the shot of the murder was seen by many media users.

¹⁰ Fortuna, video: "Working with her is a nightmare" - Adele's concert was postponed at the last moment due to her unrealistic demands, <https://fortuna.ge/video-mastan-mushaoba-koshmaria-adelis-koncerti-bolo-momentshi-misi-ararealuri-motkhovnebis-gamo-gadaido/> [L. s. 30.04.2024].

¹¹ Imedi News, tabloid, the location of Ed Sheeran's concert was changed due to Larks <https://imedinews.ge/ge/tabloidi/51849/ed-shiranis-kontsertis-lokatsia-torolebis-gamo-sheitsvala> [L. s. 30.04.2024].

¹² This moment was not stolen by Harry Style's fans and was also captured on video. https://billboard.com/ge/2023/01/29/harry_styles_koncertis_dros_sharvali_shemoekha/ [L. s. 30.04.2024].

Pearl Jam's concert In 2000, a rock festival was held in the Danish city of Roskilde, the headliner of which was the American grunge band Pearl Jam. At a rock band concert, 8 people died and several people were injured.

Damageplan concert Damageplan is an American heavy metal band that ceased to exist after a terrible incident at a concert. In 2004, the band held an event in Columbus in support of the only album. Ex-military Nathan Gale came on stage and Damageplan guitarist (ex-Panthera guitarist) Dainbag shot Darrell several times in the head.

Terror attack at Ariana Grande concert On May 22, 2017, a suicide bomber blew himself up at Ariana Grande's concert in Manchester. As a result of the terrorist attack, 22 people died and 800 people were injured.¹³

Among the tragedies, we can recall April 9, 1989, the shot of which has been preserved and we can still see it, it can be said that it created negative information in the opinion of the Georgian society. That is why, the two points of video recording - the right and left of the Tbilisi legislative body, no matter what kind of solemn event is being covered, is a location that, due to the influence of accumulated information, rarely has a solemn mood. It should be noted that the above refers only to the shot from the media channels, and the public walk to the memorial does not create bad moods. Based on the interests of the Georgian state, the old audio-visual material of April 9 should be broadcast in the media. However, the location of the existing shot should no longer be broadcast live, and not only ceremonial events. As an example, I would like to cite Luc Besson's interesting film - "Leon with the participation of Natalie Portman and Jean Reno: The Professional - where Portman's character Matilda often sees a house where loved ones have been killed, how easy would it be for Matilda to have a party in that house with any guests? <https://www.youtube.com/watch?v=QK-Z1K67uaA>;¹⁴

Welcome inhabitants of the earth" - The most famous jokes live.



During a discussion in the Swedish Parliament in 2016, When they were discussing the pressing issues of the country, the subtitles of a children's program were accidentally put on. "Greetings to you, inhabitants of the earth" - this is how the Swedish Minister of Environmental Protection began his live speech. The Minister of Education promised the population that he would "build the best sand castle in the galaxy", while Prime Minister Stefan Leven spoke about a new invention: "A fantastic submarine train for dinosaurs."

¹³ Tabula, 10 concerts that ended tragically. <https://tabula.ge/en/news/676164-10-kontserti-romelits-tragikulad-dasrulda> [L. s. 30.04.2024].

¹⁴ A shot from the movie "Leon: The Professional".



"Which one should I take with me? I'll ask my doll" (Oza Romson, Minister of Environment)

As it turned out later, the debate was being broadcast on SVT2, while a cartoon was being broadcast on SVT1 at the same time, at which time, due to a technical error, the subtitles were put on SVT2. 2. Sweden again - on January 7, 2013, at 10 o'clock in the morning, during the live broadcast of the Swedish television company TV4 News, when the presenter was talking to the Moscow correspondent about Syria, the shot of a pornographic film appeared on the monitor. Later, the editor of TV4 News explained that the video holding "More Entertainment", which belongs to them, was accidentally turned on the monitor. The management of the channel apologized and assured the user that this would never happen again in the future.¹⁵

It can be said that the artist submits all the elements of the composition to the laws of our perception of the outside world. Our eyes reproduce (reflect, remember) the images and brightness as a result of the entrance of light rays on the retina. However, objects that shrink as they move away from the eye are subject to the laws of linear perspective. The smaller the image is reflected on the retina, the further the object is from the eye. It is worth noting that the work of an artist - a true perspective on creation - is much more difficult. Fortunately, photographers are freed from this difficult task, they are helped by optics. All objects obey the laws of linear perspective, decreasing in the direction of this point. As soon as the camera starts panning to the right or left, the location of this point on the horizon changes immediately, thus the entire system of linear-geometric structure of the shot changes. A change in the spatial location of the camera constantly alters the structure of the perspective construction at each

¹⁵ Intermedia, "Welcome inhabitants of the earth"- The most famous jokes live. <https://intermedia.ge/> [L.s. 30.04.2024].

moment of the shot, as the assemblage point and assemblage lines are in constant motion. Moreover, if the camera is placed on a crane, that is, moved vertically, the position of the horizon line itself, on which the connection point is located, changes in the frame. Thus, a new type of perspective perception is created - the viewer is given the opportunity to see the action from different spatial locations, that is, the effect of dynamic perspective helps to create the illusion of image depth.¹⁶

Conclusion

As a result of the analysis of the mentioned topic, we conclude that the information transmitted live has a greater impact on psycho-emotional moods than pre-prepared media products, which in many cases is the cause of fear, stress, excitement, surprise, joy and overcoming stress in people. In many cases, with the information received in live broadcast, they feel local not where they receive the information, but where the information is transmitted from, for example: stadiums, arenas, sports halls, open-air concerts, halls, political rallies, places of natural disasters and ceremonial events. It can be said that with the direct shots of the cross arrangement of video cameras, top view and bottom view, people can imagine themselves not only locally where the information is transmitted, but also on different levels and sectors of the stadium, on the field itself and in the case of the top view, next to the lights above the stadium. And their ticket numbers should match on all seats in concert halls and events. To appear at political rallies and applaud himself, as well as to see the stunts of several airplanes at the parade and to sit in all of them himself.

¹⁶ Tabula, 10 concerts that ended tragically <https://tabula.ge/en/news/676164-10-kontserti-romelits-tragikulad-dasrulda> [Last seen 30.04.2024].

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