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SCIENTIFIC SYMPOSIUM WITH NATIONAL AND INTERNATIONAL
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21st – 23rd November 2024

Volume II



Real Estate Assessment



**Law (Patrimonial
Law)**



Technical University of Moldova

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- **Real Estate Assessment (p.6 – p.123)**
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THE ISSUE OF PRICE FORMATION FOR VALUATION SERVICES IN THE REPUBLIC OF MOLDOVA

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Abstract. *Valuation is a comparatively new activity for the Republic of Moldova. The pricing of valuation services presents an extremely acute problem. The high level of knowledge and skills necessary for an appraiser to provide quality advice implies the need for appropriate remuneration. However, applicants for valuation services required by law perceive the valuation of property as analogous to requesting a document from state institutions; i.e., the cost of the valuation report is perceived at the same level. In the present study the author provides an analysis of the national legislation, highlighting the contradictions between the legislation on valuation activity and the provisions of the Moldovan occupational classifier. A broad analysis of the value of valuation services under the conditions of the Republic of Moldova is carried out. Three points of view are applied to the value of an hour of work of an appraiser depending on his/her qualification and experience. The existing differences in pricing of valuation services depending on the organisational-legal form of the valuation enterprise are highlighted.*

Keywords: *cost of services, occupation classifier, property valuer, training costs*

1. Introduction

The valuation activity in the Republic of Moldova was officially recognised in 2002 with the adoption of Law 989 of 18.04.2002 on valuation activities [1]. According to this, the valuation activity is considered an "activity carried out by valuation enterprises, which consists of estimating the market value or other value of the object being valued." Valuation, being defined as a "process of determining the value of the object of valuation at a specific date, taking into account the physical, economic, social, and other factors that influence the value," effectively represents a consultation for the client or a designated user in order for them to receive a reasoned decision. The valuation enterprise can be a legal entity or an individual, registered in the Republic of Moldova as an enterprise, regardless of the type of ownership and legal form of organization. Therefore, the costs of valuation services are determined both by the qualifications of the employed valuers and by the costs associated with the enterprise's activities, which depend on its legal form of organization. Ten years ago, in 2015, the author presented a study on the cost of valuation services [2]. Through this research, the changes that have occurred over the past decade and the issues faced by valuers in this regard are highlighted.

2. The impact of valuer qualifications on the costs of valuation services

a. The valuation activity and the Occupation Classification in the Republic of Moldova

Although the valuation activity was recognised in 2002, the occupation of "valuer" was included in the Occupations Classification of the Republic of Moldova only in 2014 [3]. In accordance with this, the job title varied depending on the object of the valuation: valuer; enterprise value expert; real estate value expert; movable property value expert; financial assets value expert. These occupations are included in Minor Group 241, which comprises finance specialists who plan, develop, organise, manage, invest, handle, and coordinate

quantitative analyses of either financial accounting systems or funds for individuals, units, and public or private institutions.

Following the correlation of the qualification level required for the respective occupations, the person who can work as a valuer (expert valuer) was characterised as follows: *"a person with higher education capable of performing tasks that require solving complex problems, making decisions, and creatively approaching a vast spectrum of theoretical and practical knowledge in the technical, economic, and financial fields, with mathematical thinking skills, excellent interpersonal communication abilities, capable of understanding complex written material, and capable of conveying complicated ideas through reports and verbal presentations."*

At the end of 2021, by Order No. 11, the Ministry of Labour and Social Protection of the Republic of Moldova approved the new Occupation Classifier of the Republic of Moldova [4]. As a result, the job titles indicated in CORM 006-2021 must be mandatorily applied by all organisations, regardless of the type of ownership and legal organisation form, when completing documents related to the hiring, promotion, and transfer of employees, for the presentation of documents related to the calculation of allowances/old-age pensions/social benefits, etc.

In accordance with CORM 006-2021, the titles and codes of occupations corresponding to the evaluation activity according to LP989/2002 have been extracted and presented in Table 1.

Table 1. Valuation activity LP989/2002 according to CORM 006-2021

Occupation code	Job title
216502	Real estate valuer in the orthographic cadastral system
241219	Valuer in the field of finance and investments
241220	Expert valuer of financial assets
241221	Expert valuer of movable property
241222	Business valuation expert
331501	Property valuer
331502	Loss Adjuster / Loss Assessor
331503	Insurance appraiser
331504	Property valuer
731308	Precious metal valuer

Thus, according to CORM 006-2021, the occupation of property valuer is included in the minor group 216 *Architects, designers, surveyors, and designers*, the main group 2165 *Cartographers and surveyors*, with the specification that they are the valuers in the Orthographic Cadastral system. Therefore, the respective occupation corresponds exclusively to individuals who work within a single institution—the Public Institution for the Cadastre of Real Estate.

According to the national coding, valuers of other categories of goods (with the specification of expert valuer) are included in the minor group 241 *Finance specialists* and the basic group 2412 *Financial and investment specialists and consultants*.

The occupation of property valuer is also found in the minor group 331 *Financial, mathematical and related financial professionals*, basic group 3315 *Insurance appraisers*. According to CORM 006-2021, "insurance appraisers value the value of properties and various goods and estimate the losses covered by insurance policies." Their basic duties include determining the quality or value of raw materials, real estate, industrial equipment, personal and household goods, works of art, precious stones, and other objects; assessing the degree of damage or loss and the liabilities of insurance companies and insurers for losses

covered by insurance policies; keeping records of sales, object values, etc.; inspecting properties to value their condition; and preparing valuation reports, indicating the methods of valuation used [4].

Therefore, according to CORM 006-2021, ***referring to real estate, they can be valued either by the valuer employed within the Public Institution Real Estate Cadastre or within the insurance activity***, which contradicts the practice and legislation regarding the valuation activity in the Republic of Moldova.

b. The level of qualification required to provide valuation services

According to national legislation, the valuer is "a natural person with a good reputation, with appropriate higher education, a holder of the valuer's certificate, who possesses sufficient work experience in the field of valuation, a high professional level, and the necessary competence to carry out valuation activities" [1, art. 1].

Thus, the valuer must possess a certificate that represents a "permissive act, issued by the Certification Commission of Valuers, confirming that the holder possesses the necessary knowledge and skills to carry out the evaluation activity" [1, art. 1]. The certification of property valuers is carried out by the Certification Commission established by the central administrative authority in the field of real estate cadastre, in accordance with the *Regulation on the certification of specialists in the fields of geodesy, cartography, topographic surveys, geoinformatics, property valuation, and cadastre* [5]. The certification of valuers of intellectual property objects is carried out in accordance with the regulation on the certification of valuers of intellectual property objects [6]. The valuer in the field of securities is required to hold a qualification certificate issued by the National Commission of Financial Market, in the manner established by it, a provision that will come into effect on 15.02.25 [1, art.15].

According to the law regarding the valuation activity, in order to obtain the certificate for property valuation, the person must hold "higher education diplomas in the field of valuation, in economic sciences, or in technical sciences, as well as have appropriate professional training," be a citizen of the Republic of Moldova, have at least one year of work experience as a practicing or intern valuer, have no criminal record, and have passed the certification procedure [1, art.151].

c. Contradictions

In accordance with the CORM 006-2021 occupational codes identified above, it results that the valuation activity is carried out by individuals who fall under the Major Group: 2 Specialists in various fields of activity and 3 Technicians, supervisors, and related specialists. The correlation between the major groups and the type of study programs required to hold the respective position is presented in Table 2, compiled from Tables 2 and 3 from source [4].

Table 2. The link between major groups, 4 ISCO-08 levels, and CNCRM qualification levels

MAJOR GROUP	ISCO-08 LEVEL	Qualification level CNCRM	Type of general studies and professional training program
2 Specialists in various fields of activity	4	8	Postdoctoral programs Higher education, cycle III (doctoral higher education)
		7	Higher education, cycle II (master's degree higher education)
		6	Higher education, cycle I (bachelor's degree higher education)

3 Technicians, supervisors and related specialists	3	6	Higher education, cycle I (bachelor's degree higher education)
		5	Post-secondary non-tertiary technical vocational education
	+2	4	Post-secondary technical vocational education
		3	Secondary technical vocational secondary education
		2	Upper secondary education (secondary education, cycle II)
		2	Secondary education (lower secondary)

Therefore, the law [1] stipulates the necessity of higher education, which involves levels 6, 7, and 8 according to the national qualification's framework. CORM 006-2021 for property valuers only stipulates levels 5 Post-secondary non-tertiary vocational education and training and 6 Higher education, cycle I (bachelor's degree). And only for property valuers in the orthographic cadastral system is higher education (cycle I bachelor's degree, cycle II master's degree, or cycle III doctoral degree) considered necessary.

Currently, the Geodesy, Cartography, and Cadastre Agency is making efforts to eliminate this contradiction.

d. Remuneration for the valuer's activity

The cost of consulting services is determined by the complexity of the activities, analyses, and computations that must be done as well as the time needed to offer a well-reasoned judgement on the problem the customer has presented. Three viewpoints and three methods will be used to address the topic of how much an hour of labour is worth to a valuer.

Cost approach

The topic that has to be addressed is: What is the minimum wage needed to pay back the state for the costs of professional valuer training? The property valuer, whose training takes longer, will serve as our example. With 2023 as the reference year, we will use the Ministry of Finance's average yearly expenses per kid or student to make the calculations easier (Figure 1).

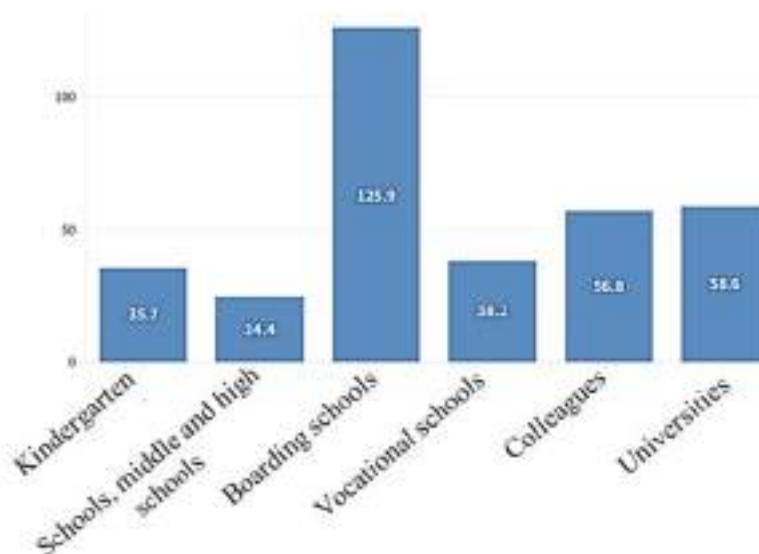


Figure 1. Average annual expenses for a child/student in 2023, thousand lei [7]

Thus, in accordance with the average annual budgetary expenditures, the cost of training a valuer with a bachelor's degree (cycle I) is 670 thousand lei, with a master's degree (cycle II) is 757.9 thousand lei, and for a specialist with doctoral studies is 933.7 thousand lei (Table 3).

Table 3. The cost of training a specialist with higher education in the Republic of Moldova

Level of education	Duration of training, years	Average annual budget expenditures (according to the 2023 level), thousand lei	Total budget expenditures, thousand lei	Total cumulative, thousand
1	2	3	4	5
Kindergarten	4	35.7	142.8	142.8
School	12	24.4	292.8	435.6

continue table 3

1	2	3	4	5
University, including:				
bachelor's degree cycle I	4	58.6	234.4	670
master's degree cycle II	1.5	58.6	87.9	757.9
PhD cycle	3	58.6	175.8	933.7

After completing their studies, the respective expenses will be returned to the budget in the form of income tax. If we assume a 40-year working period until retirement and do not consider personal exemptions, the net/gross monthly salary must not be less than 10,236/15,850 lei for a specialist with a bachelor's degree, at least 11,579/17,930 lei for a specialist with a master's degree, and at least 14,265/22,088 lei for a specialist with a doctoral degree (Table 4).

Table 4. Determining the minimum salary level of a valuer according to the qualification level

Qualification level / higher education	The amount of income tax, lei / year	Income before tax, lei / year	Net salary, lei / year	Salary including 9% health insurance, lei / year	Gross salary, including social insurance, 24%, lei / year
6 / Bachelor's degree cycle I	16,750.00	139,583.33	122,833.33	153,388.28	190,201.47
7 / master's degree cycle II	18,947.50	157,895.83	138,948.33	173,511.90	215,154.76
8 / PhD cycle III	23,342.50	194,520.83	171,178.33	213,759.16	265,061.36

Given a work schedule of 40 hours per week or 168 hours per month, the minimum value of a valuer's working hours is, therefore, gross 94.35 lei for a bachelor's degree specialist, at least 106.72 lei for a master's degree specialist, and at least 131.48 lei for a doctorate specialist.

The comparative approach

The second approach to the value of the working hour is the comparative approach. The question to be answered is: **What is the average value of an hour of work for specialists included in the same subgroup according to CORM?**

The subgroup that includes the majority of valuers is 2412 Financial and Investment Specialists and Consultants, while property valuers are classified as 3315 Insurance Appraisers. Considering the data from the National Bureau of Statistics of the Republic of Moldova [8] and the annual work regime of 168 hours/month, we find that the value of an hour of work is gross 153.26 lei for a specialist with a master's degree (cycle II) and doctoral studies (Table 5).

Table 5. Average monthly wage by economic activities in 2023

Economic activities	Average gross salary		Average net salary	
	Lei / month	Lei / month	Lei / month	Lei / month
64 Financial intermediaries, except for insurance activities and pension funds	25 747.4	153.26	21 032.4	125.19
65 Insurance, reinsurance, and pension fund activities, except for those in the public social insurance system	17 826.0	106.11	14 475.7	86.16

Respectively, for property valuers with a level of education 6 (bachelor's degree), the gross value of an hour of work is 106.11 lei.

The normative approach

The third perspective on the value of the valuer's working hour focuses on the legal provisions regarding the remuneration of employees in financially autonomous units. According to HG743/2002 with updates from 2023 [9], the range for establishing tariff/function salaries falls within the limits indicated in Table 6.

Table 6. The range for establishing tariff/function salaries, calculated by applying the complexity coefficient by types of work and branches of the national economy with a value of 1.00

Job categories	The range for establishing tariff/function salaries, calculated by applying the complexity coefficient on types of work and branches of the national economy with a value of 1.00 (lei).			
	Lei / month		Lei / hour	
	minim	maxim	minim	maxim
III. Specialized staff				
3.1. Staff with postgraduate studies (bachelor, master, doctorate)				
Scientific Collaborator	11 500	33 300	287.5	832.5
Principal Specialist	12 900	20 400	322.5	510
Coordinating Specialist	11 500	19 100	287.5	477.5
Specialist category I	10 200	17 000	255	425
Specialist category II	9 200	14 900	230	372.5
Specialist category III	8 800	13 600	220	340
Specialist/specialist without category	8 300	12 800	207.5	320

The range of tariff wages will be determined by overlapping with the valuers' qualification criteria and, if applicable, completing it with the company's pay fund (Table 7).

Table 7. Range for establishing tariff/function salaries for valuers

Job categories		The interval for establishing tariff/function salaries					
		net salary		net salary		gross salary	
		Lei / month		Lei / hour		Lei / hour	
		minim	maxim	minim	maxim	minim	maxim
1		2	3	4	5	6	7
III. Specialized staff							
3.1. Staff with postgraduate studies (bachelor, master, doctorate)							
Scientific Collaborator	Certified valuer / PhD degree	9,209.20	26,666.64	54.82	158.73	84.88	245.79
Principal Specialist	Certified valuer / Master degree (fourth certification)	10,330.32	16,336.32	61.49	97.24	95.21	150.57
Coordinating Specialist	Certified valuer / Master degree (third certification)	9,209.20	15,295.28	54.82	91.04	84.88	140.98

continue table 7

1		2	3	4	5	6	7
Specialist category I	Certified valuer - Master degree (second certification)	8,168.16	13,613.60	48.62	81.03	75.29	125.48
Specialist category II	Certified valuer / Bachelor degree (first certification)	7,367.36	11,931.92	43.85	71.02	67.90	109.98
Specialist category III	Assistant valuer - Bachelor degree / minimum 1 year experience	7,047.04	10,890.88	41.95	64.83	64.95	100.38
Specialist/specialist without category	Assistant valuer - Bachelor degree / no experience	6,646.64	10,250.24	39.56	61.01	61.26	94.48

Conclusion

Generalising the results obtained through three different approaches to the researched problem, we find that the monthly salary fund of the enterprise for a valuer with a bachelor's degree should fall within the limits of 10.3 - 18.5 thousand lei; for a valuer with a master's degree—within the limits of 12.6 - 25.7 thousand lei; and for a valuer with a doctoral degree—within the limits of 14.3 - 41.3 thousand lei (Table 8).

Table 8. Salary Fund of the Valuation Enterprise for a Specialist

Approach	Qualification level / higher education	Qualification level 6 / Bachelor Degree		Qualification level 7 / Master Degree		Qualification level 8 / PhD	
		minim	maxim	minim	maxim	minim	maxim
1	2	3	4	5	6	7	8
Cost approach, lei	annual	190,201.47		215,154.76		265,061.36	
	monthly	15,850.12		17,929.56		22,088.45	
	per hour	94.35		106.72		131.48	
Comparison approach, lei	annual	213,912.00		308,968.80		308,968.80	
	monthly	17,826.00		25,747.40		25,747.40	
	per hour	106.11		153.26		153.26	

continue table 8

1	2	3	4	5	6	7	8
Normative approach, lei	annual	123,504	221,712	151,776	303,552	171,120	495,504
	monthly	10,292	18,476	12,648	25,29	14,260	41,292
	per hour	61.26	109.98	75.29	150.57	84.88	245.79

3. The cost of valuation services based on the characteristics of the enterprise

In the Republic of Moldova, enterprises that carry out practical valuation activities are only allowed to use two of the permitted organisational-legal forms [10, art.13]: limited liability company or individual enterprise.

As a rule, the individual enterprise is the enterprise that belongs to the certified valuer, with private ownership rights. The assets of the individual enterprise are formed based on the valuer's or their family's property. According to the legislation, the individual enterprise is equivalent to the individual entrepreneur. Within these enterprises, the cost of valuation services is generally formed following a market analysis, a comparison with other valuation enterprises, and is quickly adapted to the client's requirements.

According to national legislation, "the limited liability company represents the enterprise founded by two or more legal entities and/or individuals, who have pooled their assets for the purpose of jointly carrying out an entrepreneurial activity" [10, art.17]. Simultaneously, the legislation provides for the possibility of establishing a limited liability company by a single legal entity or individual. In the case where the enterprise is established by a certified valuer, the cost of valuation services is formed analogously to that of an individual enterprise.

The formation of costs for valuation services differs when the enterprise is established by individuals who are not specialised in the field of asset valuation. Such enterprises, as a rule, offer a wider range of services, and the valuers are merely employees hired to provide asset valuation services.

The statement will be shown by simulating a real-world scenario. A limited liability business is thought to provide two different kinds of services. One certified valuer and one assistant valuer perform the asset valuation services. The enterprise's minimum monthly expenses, as determined by the valuation activity alone, come to about 67,600 lei. Sales revenues, assuming a minimum profitability of 10%, should reach 74,400 lei for non-VAT-paying businesses and 89,300 lei for VAT-paying businesses (Table 9).

The respective costs are determined for the condition of compensating the valuers at a level that allows for the reimbursement of expenses incurred for the valuer's training back into the budget.

Table 9. Projection of costs incurred and minimum price levels for the provision of valuation services within Ltd.

Indicator	Minimum monthly costs, lei	Cost, lei/report by assistant	Cost, lei/report by valuer
1	2	3	4
Net remuneration of the assistant valuer, lei	10,236.11	511.81	
income tax, lei	1,395.83	69.79	
medical insurance, lei	1,150.41	57.52	
social insurance, lei	3,067.77	153.39	
Total Salary Fund Assistant Valuer, lei	15,850.12	792.51	
Quality assurance certified valuer lei		67.90	
Net remuneration of certified valuer, lei	11,579.03		643.28
income tax, lei	1,578.96		87.72
medical insurance, lei	1,301.34		72.30
social insurance, lei	3,470.24		192.79
Total certified valuer payroll, lei	17,929.56		996.09
Transportation (inspection), lei	11400	300	300
Access to e-Cadastre database, lei	150	7.50	8.33
Consumables - report printing, lei	5320	140	140

continue table 9

1	2	3	4
Total direct costs	50,649.69	1,307.91	2,440.51
Office rent/wear and tear	3120	82.11	82.11
Administrative staff including			
administrator	7500	197.37	197.37
accountant	2335	61.45	61.45
office manager	4000	105.26	105.26
TOTAL costs	67,604.69	1,754.10	2,886.69
Enterprise profitability, 10%	6,760.47	175.41	288.67
TOTAL service price	74,365.15	1,929.50	3,175.36
VAT, 20%	14,873.03	385.90	635.07
TOTAL price of valuation services, including VAT	89,238.18	2,315.41	3,810.43

In the examined situation, considering 8 hours necessary for preparing a valuation report for a typical apartment for the purpose of securing a mortgage loan, we find that the price of valuation services ranges between 2300 lei and 3800 lei per object. These prices are justified only in the case where the enterprise will have 38 requests for similar valuations per month.

An analogous situation will be modelled for the individual enterprise with the similar condition: the tax paid must allow for the reimbursement of the expenses incurred for the valuer's training.

Table 10. Projected costs incurred and minimum price levels for the provision of valuation services in the Individual Enterprise

Indicator	Annual	Monthly	Cost, lei/report
Health insurance, lei	12,636	1,053	52.65
Social insurance, lei	14,700	1,225	61.25

Transportation expenses (inspection), lei	72,000	6,000	300
Access to e-Cadastre database, lei	1,800	150	7.50
Consumables - report printing, lei	33,600	2,800	140
Accounting services	29,040	2,420	121
Total costs	163,776.00	13,648.00	682.40
Income tax, lei	18,947.50	1,578.96	78.95
Profit before tax	157,895.83	13,157.99	657.90
Net profit	138,948.33	11,579.03	578.95
Income from sales, lei	321,671.83	26,805.99	1,340.30

The calculations demonstrate that to cover the expenses incurred for training a property valuer with higher education, master's degree level, the individual enterprise must achieve a minimum annual income of 321.7 thousand lei (at 2023 prices).

For the modelled situation, considering 8 hours necessary to prepare a valuation report for a typical apartment in order to secure a mortgage loan, we find that the price of the valuation services provided by the Individual Enterprise amounts to at least 1340 lei per object. This price is justified only in the case where the enterprise will have 20 requests for similar valuations per month.

Therefore, an essential differentiation of prices for valuation services is justified depending on the organisational-legal form of the enterprise that provides asset valuation services in the Republic of Moldova.

This differentiation gives individual enterprises an advantage in the competitive battle at the price level. At the same time, the requirements set forth by various financial institutions, budgetary organisations, and international associations, which wish to contract large-scale valuation services, do not allow the individual enterprise to offer its services.

As a result, the majority of valuation enterprises are limited liability companies (Ltd.), and the prices of the valuation services they provide must be adjusted, at the very least, to the level of the minimum justified income threshold for the employed valuers.

4. Conclusions

Following the conducted research, the existing contradiction between the provisions of CORM 006-2021 and the legislation in the field of valuation activities in the Republic of Moldova was identified.

The range for establishing tariff/function salaries has been adapted, and the positions have been correlated with the level of training and qualifications of the valuers working in financially autonomous units.

The cost of training a specialist with higher education in the field of property valuation was estimated based on the level of education: bachelor's, master's, or doctorate (at 2023 prices).

The minimum income of a valuer has been calculated, which allows for the recovery of the costs of training the specialist depending on the level of qualification, thus justifying the minimum acceptable level (from the society's perspective) of a valuer's income in the conditions of the Republic of Moldova. The minimum taxable income threshold is 11,634 lei/month for a licensed valuer, 13,158 lei/month for a valuer with a master's degree, and 16,210 lei/month for a valuer with a doctoral degree.

Three approaches were applied to identify the cost range of a valuer's work hour based on the level of qualification. It was found that for a licensed specialist, the cost of an hour of work ranges between 61.26 lei/h and 109.98 lei/h; for a specialist with a level 7 qualification/Master's degree, it ranges between 75.29 lei/h and 153.26 lei/h; and for a valuer

with doctoral studies, the cost of an hour of work ranges between 84.88 lei/h and 245.79 lei/h.

The dependence of the price of valuation services on the organisational and legal form of the valuation enterprise has been demonstrated. Thus, under identical conditions, the price of valuation services provided by an Ltd. is approximately 2.4 times higher compared to the price of services provided by an individual enterprise, which demonstrates the competitive capacity of the individual enterprise at the national level for minor works.

At the same time, individual enterprises cannot compete with Ltd. in the case of large-scale projects.

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REAL ESTATE ASSESSMENT: A KEY FACTOR FOR EFFICIENT GOVERNANCE AND SUSTAINABLE DEVELOPMENT IN THE REPUBLIC OF MOLDOVA

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Abstract. *The mass appraisal system of real estate in the Republic of Moldova faces significant challenges that undermine its efficiency, accuracy, and fairness. This study provides a detailed analysis of the system's current state, focusing on critical issues such as inadequate market data, outdated appraisal methodologies, and institutional inefficiencies. These challenges result in inaccurate property valuations, negatively affecting local budget revenues, economic indicators, and public trust in the taxation system. The research highlights the broader implications of these shortcomings, including disparities in property taxation and diminished public perception of fiscal equity. To address these issues, the study proposes a series of targeted recommendations, including improving the quality and availability of market data, adopting modern valuation techniques, and strengthening institutional frameworks. These measures aim to enhance the transparency, accuracy, and fairness of the mass appraisal system, ensuring it better aligns with the economic and social sustainable development of the Republic of Moldova.*

Keywords: *assessment, data quality, institutionalization of massive valuation, real estate, real estate taxation, value modelling*

1. Introduction

The adoption of an ad valorem tax system, which uses the market value of real estate to calculate property tax, underscores the Republic of Moldova's efforts to align its fiscal system with the dynamics of the real estate market. This transition, a central objective of the reforms carried out between 1998 and 2005, aimed to establish and implement the real estate cadastre, with the goal of instituting a fair and transparent taxation system. Tax assessment methodologies were developed through projects dedicated to using market value as the taxable base, thus establishing an equitable and justified system.

A well-organized and updated mass appraisal system provides a broad perspective on real estate market indicators, contributing to the establishment of a taxable base and serving as an essential information source for investment decision-making. Moreover, this system serves as a benchmark for regional and national development planning, facilitating the identification of growth trends and the prioritization of economic and infrastructure interventions.

However, implementing an ad valorem tax system involves significant challenges, including ensuring accurate and up-to-date property valuations. Given the rapid development of the real estate market, continuous monitoring of market indicators is necessary to obtain precise valuations. Considering market dynamics, the initially simplified methodology used for property assessment requires continuous adjustments and improvements. To meet these requirements, authorities should invest in developing a modern real estate appraisal infrastructure and training well-prepared specialists.

A critical analysis of the current mass appraisal system reveals several deficiencies with considerable economic and social impact, which require urgent attention:

- *Reduction in local budget revenues*, which affects regional development. In this context, property tax represents an important source of revenue for local budgets, supporting development projects and improving quality of life. Fiscal losses caused by inaccurate valuations are thus a major issue for local administrations.

- *Disruption of the fiscal system*, amplifying social dissatisfaction due to the perception of unfair taxation. This issue contributes to the economic and social crisis in the Republic of Moldova, creating tensions between taxpayers and authorities.

- *Decreased investment attractiveness in the real estate sector*. Inaccurate information about market values, presented in the cadastre, can discourage potential investors, who depend on such data to make investment decisions.

- *Increased risk of corruption in the management of public assets*, as inadequate property values labeled as "market value" can create opportunities for abuse and manipulation in favor of personal or group interests.

To address these issues, a re-evaluation of tax assessment methodologies is required so that cadastral values accurately reflect market reality and support fair and transparent taxation. This would also involve adopting international valuation standards, as well as developing feedback mechanisms and continuous adjustments of values in response to market changes.

One of the main causes of the issues mentioned above is the discrepancy between cadastral estimated values and actual market values, as well as the absence of an effective mechanism for continuously updating these data. Consequently, the anticipated benefits of the ad valorem system are negated, and cadastral values become mere conventions, without a genuine connection to real estate market dynamics.

This situation affects various segments of the economy and highlights distinct social aspects in the Republic of Moldova. Based on the study conducted, the current issues influencing the quality of mass-appraised values are grouped into the following areas:

- Problems related to the consistency and quality of market data,
- Methodological challenges,
- Institutional constraints.

All these factors are analyzed in detail in this study, with a focus on the infrastructure of the mass appraisal system and the existing legal framework.

2. Consistency and quality of market data

The lack of accurate data on transaction prices leads to inaccurate property valuations and inefficient tax revenue collection. Without updated and comprehensive databases, tax authorities face difficulties in identifying all taxable properties, impacting the equity and efficiency of the system. Investments in data infrastructure and the development of institutional capacities would enhance transparency and accuracy in taxation, strengthening public finances and ensuring a more equitable distribution of the tax burden.

Issues related to data consistency include:

- Incomplete real estate cadastre;
- Low transparency of market data;
- Improper management of market data.

Currently, the real estate cadastre in Moldova is not fully complete and lacks comprehensive data on certain categories of properties. Some technical data were extracted from the archives of former Technical Inventory Offices (BIT) during the reform of state institutions, while other data were collected through government programs for the creation of the real estate cadastre. As a result of the First Cadastre Project (PPC), implemented in stages from 1999 to 2005 and then to 2011, real estate properties in urban areas and some categories in rural areas were registered in the Real Estate Register (RBI). The incomplete

nature of the real estate cadastre has hindered the mass appraisal of all taxable properties. On the other hand, at that time, rural areas lacked an active real estate market, and property assessments in villages and communes had no economic justification. In recent years, the situation has changed, and the need for rural property appraisals for tax purposes has become more pressing. Current challenges are aligned with the objectives of the Land Registration and Valuation Project (PIEF), which aims to achieve 100% cadastral coverage of the country [1].

The quality and transparency of market data play an essential role in the mass appraisal process of real estate properties. In this context, data collected from various sources are subject to rigorous statistical analysis, serving as a basis for the development of mathematical models intended to estimate the taxable value of properties.

Under current Moldovan legislation, when a real estate transaction is made, the seller is required to pay a state tax calculated in proportion to the sale price declared by the applicant for the notarial act [2], but not less than the cadastral value. Furthermore, the seller must pay income tax based on the taxable amount of capital gains, which constitutes 50% of the capital gain, taxed according to the provisions of art.15(a) of the Tax Code (12%) [3]. Under these conditions, in the case of a first transaction, capital gains are calculated as the difference between the not updated cadastral value and the transaction value, resulting in a substantial amount for the seller. However, to reduce the tax burden, the parties involved in the transaction do not reflect the actual negotiated price in the sale contract. This practice allows sellers to avoid full income tax payment, leading to significant discrepancies between the price declared in the contract and the property's actual market value. Under these circumstances, the importance of the cadastral value as a general indicator for calculating the state tax on real estate transactions becomes evident.

While Territorial Cadastral Services record real estate transactions, they lack complete data on transaction specifics, property details, and restrictions, resulting in inaccurate valuations. A comprehensive system with all variables for market value estimation is essential, alongside registrar training or partnerships with specialized institutions. Lack of automated control causes issues like duplicates, abnormal values, and incomplete data, reducing appraisal accuracy.

Currently, in Moldova, actual market data are not published. Although purchase-sale contracts are registered in the real estate cadastre [3], information on prices is not considered personal data [4], yet authorities deliberately block public access to real data. This lack of transparency leads to distortions in mass-calculated values as well as in individual appraisals. Due to the lack of real data, beneficiaries of individual appraisals receive values calculated based on hidden, unofficial, and often distorted data that do not reflect market reality. Instead of a system based on transparent and accurate data, appraisals rely on opaque and potentially manipulable estimates. The monopolization and concealment of market data make an accurate real estate market analysis impossible, which is crucial for the exact valuation of properties. This not only limits trust in the cadastral and fiscal system but also affects the decisions of investors and property owners who need precise information for sustainable real estate transactions and developments.

To solve these problems, implementing a transparent system for publishing market data is essential, allowing free and updated access to essential information for all participants in the real estate sector. This would contribute to creating a more competitive market, supporting accurate appraisals and fair economic development.

3. Methodological issues in mass appraisal of real estate

The current models used for calculating taxable value are simplistic linear equations. The general form of the real estate appraisal equation for tax purposes is expressed by the following mathematical formula [5]

$$V = VOE \times \prod_{i=1}^n F_i K_i \times S; \quad (1)$$

Where the estimated value of a real estate asset (V) is presented as a linear function of the value per square meter of a reference object (VOE) and the nominal area of the property (S), adjusted by correction coefficients (K_i) for value factors (F_i). In other words, real estate values are determined by multiplying an average value established for a locality by the area of the property, with the result being further adjusted using coefficients that account for the presence or absence of value factors.

Drawbacks of Current Models Distorting Mass Appraisal Results:

- *Use of Averages and Adjustment Coefficients Determined Through Expert-Analytical Methods.* Authorities responsible for mass appraisals only publish modeling results without explaining the origin of adjustment coefficients or locality-specific averages, the influence level of value factors expressed in quality indicators, or the database used for statistical calculations. This is largely intuitive, lacking statistical or empirical foundation. Moreover, inquiries directed to responsible institutions are often met with references to previous projects which generated these calculation methodologies, absolving them of accountability.

- *Lack of Regression Elasticity.* Value factors regressions are presented in linear form, without the elasticity needed to adjust factors in nonlinear functions. For instance, the same average price per unit area is applied to both small and large properties, violating the fundamental principle of diminishing marginal returns in appraisal. Consequently, fiscal revenue losses solely for apartment blocks, estimated at minimum (0.05%) and maximum (0.4%) tax rates, range from €0.25 million to €2.0 million annually [6]. This same effect of diminishing returns applies to variables in real estate value such as building age, material quality, improvements, functional depreciation, and others, each impacting the calculated value's accuracy.

- *Segmentation of Quantitative Variables into Scalar Steps.* The grouping of calculated value variables into scalar steps has led to a value scale that fails to capture appropriate value differences between adjacent quantities. For instance, a 13% loss in value due to underestimation from this issue is observed in the valuation of houses based on construction year.

- *Summation of Component Values in the Evaluation of Real Estate.* Market value of a property calculated by existing models equals the sum of values of its components, evaluated independently. This method does not align with market value formation principles. For example, adding construction values with the average land value plus adjacent construction values will not equal the market value under free-market conditions. In practice, when a building is purchased, the associated land value is quantified as an added bonus rather than a separate asset.

- *Unified Location Adjustment for Land and Buildings.* Current appraisal models for complex properties distribute location adjustments evenly between land and buildings across regions. This approach fails to account for regional real estate market variations, such as differences in land availability, economic strength, and construction costs, making uniform location coefficient calculations inaccurate.

Proposed Value Modeling Methodology

Following research and analysis of market data, for residential properties (such as apartments in blocks, individual houses in urban and rural areas of municipalities like Chişinău and Bălţi, individual garages, orchard lots with/without constructions, and ground-level apartments), the author suggests a log-linear model type:

$$\text{Ln}(V) = \text{Int} + \sum_{i=0}^n K_i a_i^x \quad (2)$$

Where value is determined as a logarithmic function of the intercept (Int) and nonlinear regressions of binary variables (a_i^x) with adjustments (K_i).

The advantages of the optimized model lie in increasing the regression elasticity between the dependent variable (V) and the value factors. Logarithmic transformation of variables in regression is a commonly used approach to handle nonlinear relationships between independent and dependent variables. Using the logarithm of one or more variables instead of the raw form enables a nonlinear relationship while retaining an additive model structure.

Case Study Demonstrating Current Model Limitations and New Methodology Efficiency

To substantiate the hypothesis for developing the methodological framework of the mass appraisal system, a case study is conducted. This study calculates the quality level of existing and proposed models, using urban apartments and residential houses as examples. Model quality levels are determined using performance indicators established by the International Association of Assessing Officers (IAAO). These same indicators are applied to the promoted models according to the new methodologies. Overlapping results of the indicators are presented in the table below. Information sources include real estate cadastre data and the Land Registration and Evaluation Project (PIEF).

Table 1: Case Study Results on Quality Indicators Comparison of Appraisal Models

Indicator	Recommended	Apartments Model			Dwelling houses Model		
		Old	New	difference	Old	New	difference
Nr. Of observations		1710			7693		
Mediana, RM	0,9-1,10	0,41	1,03	↑56%	0,24	1,03	↑73%
Coefficient of dispersion, COD %	5-20%	108,26 %	37,28%	↑70,98%	128,32 %	42,45%	↑85,87%
Price related differential, PDR	1,0	1,78	1,19	↑59%	1,69	1,28	↑41%

Source: [6]

Explanation of data in the indicator comparison table:

- **Median Ratio (RM):** has improved (↑) for the studied examples by 56% for the apartment category and by 73% for urban houses.
- **Coefficient of Dispersion (COD):** improved (↑) by 70.98% for apartments and by 85.87% for urban houses.
- **Price-Related Differential (PRD):** PRD focuses on 1.0, where values above 1.0 suggest regressive vertical inequity (higher-value properties benefit from lower rates) and values below 1.0 indicate progressive vertical inequity (higher-priced properties benefit from higher rates). Although the price differentiation indicator still reflects regressive inequity, optimization (↑) qualifies at 59% for apartments and 41% for urban houses.

4. Institutional issues

Mass Real Estate Appraisal is an essential part of the organizational structure, and its development must be approached holistically and comprehensively. This requires the integration and harmonization of all structural, operational, and contextual aspects to ensure accurate and fair real estate assessments.

In this regard, every stage of the appraisal process must be well-coordinated, from data collection and updating to applying analysis and interpretation methods. It's important for the institutions involved to collaborate efficiently, using advanced technologies and adequate resources to ensure a functional and reliable system.

According to current legal norms, general reassessment of real estate is carried out every three years [3]. However, in the first two decades of this century, after the initial assessment for certain categories as part of an internationally funded project, no reassessment was conducted for any category of real estate. Another type of reassessment, known as Current Reassessment, is conducted between two general reassessments at the initiative of the Ministry of Finance, based on data from the Geodesy, Cartography, and Cadastre Agency (AGCC). The decision to conduct a current reassessment is based on the fact that the indexing index exceeds the 25% threshold [7]. The comparison indicator shows the arithmetic mean of prices per unit of measure over the research period. This approach has significant limitations in terms of accuracy and relevance, affecting the correctness of decisions [8].

Stagnation in Local Specialists' Development in Mass Real Estate Appraisal. The cessation of mass appraisal system development programs and the lack of state support have led to stagnation and a decline in the knowledge level of the executive framework in this field. In the absence of regular practice, institutional memory, and financial support, the appraisal process has become a formal, bureaucratic routine disconnected from real estate market trends. Only recently, as part of a loan investment, some research into modern methodology has been initiated to adapt it to the national economy. However, after the PIEF project's conclusion, the data collection mechanism and accumulated experience risk becoming irrelevant without continuous state financial support. Continuous training and the development of rigorous quality standards are essential. Only through an integrated and well-planned approach can a mass appraisal system be created that meets current and future needs, thus contributing to fair taxation and efficient real estate management.

Institutional Discrepancy. The concentration within a single IPCBI institution of all mass appraisal stages, including data collection, value modeling, and model utilization, has led to a monopolization effect and derived issues. Lacking professional resources, central authority (AGCC) monitoring and control of the process have been reduced to formal actions, aimed at explaining the system's incompetencies rather than improving its methodological framework.

A discrepancy is also evident in the lack of involvement of local public authorities in the mass appraisal process. As direct beneficiaries of local tax revenue, local governments are not involved in developing the appraisal methodology. Professional training, preventive market analysis, and statistical data collection and processing methods are tools needed for dissemination among local specialists. Centralizing processes and excluding local public authority specialists from traditional stages results in a detachment from taxable values used to calculate taxes. In this context, local tax officials may avoid responsibilities when taxpayers seek clarification, leading to a disconnect between the administration and residents and creating a controversial social impact.

Beyond technical and operational aspects, the legislative and socio-economic context in which this system operates must also be considered. Adapting to changes in the real estate market, ensuring transparency in the appraisal process, and maintaining a constant dialogue with stakeholders are crucial elements for success.

Complete Dependence of Mass Appraisal on the Real Estate Cadastre System. Mass real estate appraisal relies on cadastral data for identifying and valuing properties. As a result, the cadastral database, including the Real Estate Register, serves as a direct source. However, cadastral errors, systemic discrepancies, and operational deficiencies (unsatisfactory classifiers, outdated data, inadequate topology, RBI errors, etc.) directly impact the mass appraisal process.

Lack of a Unified Database on Real Estate Transactions. The absence of a centralized database on real estate transactions makes it difficult to verify the accuracy of appraisal models and make reassessment decisions. In an underdeveloped real estate market without reliable sales data, an efficient fiscal appraisal mechanism could not be developed. Similarly, only by continuously monitoring market data and systematizing data from various real estate market sources can the quality of mass appraisal be ensured and a transparent, fair taxation system be created.

Lack of a Well-Structured and Effective Appeals System for mass appraisal results hampers communication with property owners and negatively impacts cadastral data accuracy, affecting the taxation process. Additionally, it is essential to address the issues of inconsistency and unreliability of market information and data on property characteristics in the cadastral system. Without these corrections, the appraisal and taxation process will remain vulnerable to errors and challenges, undermining property owners' trust and the fiscal system's efficiency.

Centralization of the Mass Appraisal Procedure and applying a uniform method across different regions contribute to errors in appraisal results, as it fails to consider regional specifics. Regional specifics are not determined solely by price differences but also by different correlations of value factors. A generalized approach leads to inaccurate appraisals, underestimating or overestimating property values in certain regions. To reduce these errors and ensure fairer appraisals, it is necessary to adapt the methodology to reflect regional real estate market diversity and include relevant local variables. This would make the appraisal system more accurate and fair for all taxpayers.

Centralization of the Mass Appraisal Procedure Reduces Transparency, favoring monopolistic control of appraisals by a single entity. Such a market structure, where one actor controls an economic sector, creates a monopoly, restricting other participants' access through artificial barriers. Monopolizing mass appraisal by government structures and the lack of transparency in this process completely undermines claims of sustainability and the market-driven nature of the values generated by this system.

5. Conclusions

The adoption of an ad-valorem tax system in the Republic of Moldova demonstrates a clear commitment to modernizing and creating a fairer fiscal system, aligning it with current economic conditions. This initiative not only brings Moldova in line with international standards but also supports the sustainable development of the real estate market and increases budget revenues necessary for infrastructure and public service investments.

Developing this system must go beyond technical aspects, incorporating a strategic framework that considers its long-term societal impact. It is crucial to analyze the legislative and socio-economic context in which this system operates. Improving data quality will provide reliable information to support accurate results. Additionally, democratizing the mass appraisal process will stimulate healthy competition and attract professional appraisers who employ modern methodologies. Based on the recommendations outlined in this paper, key actions include:

- *Continual Expansion of Property Identification Programs* through the development of an up-to-date, accessible, and transparent real estate cadastre to support detailed property records.

- *Improvement of Market Data Quality* by creating a well-organized and competent structure for collecting, processing, and managing market information, ensuring transparency and public access to a Market Data Registry.

- *Constant Monitoring of Real Estate Market Trends* and periodic updates of estimated values, with an effective feedback system among all entities connected to the real estate market to support informed decision-making.

- *Application of High-Quality and Accurate Methodologies* in mass appraisal, avoiding any return to normative values that do not align with market realities and ensuring an approach that reflects real estate market dynamics.

- *Development of an Educational Framework Focused on Mass Appraisal*, emphasizing curriculum improvements through courses on mathematical modeling, statistical analysis, and social research to cultivate well-prepared specialists.

- *Demonopolization of the Real Estate Mass Appraisal Process* by involving the private sector and scientific community in methodological and institutional development, facilitating competition and innovation in the field.

Adapting to real estate market changes, ensuring transparency in appraisal processes, and maintaining a continuous dialogue with stakeholders are essential to the success of this endeavor. Investments in staff training, technological infrastructure improvements, and the creation of feedback and continuous adjustment mechanisms are crucial to ensuring the sustainability and effectiveness of this complex process. Only through an integrated approach can the final objective be achieved: a real estate appraisal system that is accurate, fair, and accepted by all stakeholders involved.

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THE INFLUENCE OF MACROECONOMIC FACTORS ON THE VALUE OF RESIDENTIAL PROPERTY IN THE REPUBLIC OF MOLDOVA

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Abstract. *Currently, residential real estate represents an important direction for investments in the Republic of Moldova. The real estate market, like any other, is an open system that is influenced by both the internal and external environment. Therefore, for a deeper evaluation, it is necessary to identify the dominant macroeconomic influence factors and to determine stable cause-effect relationships between them.*

The objectives of the research are to identify the volume and dynamics of the development of the housing stock; to determine the volume of potential participants in the real estate market; to analyse the dynamics of macroeconomic factors influencing the value of residential real estate; the role of mortgage loans in the development of the residential real estate market; examples, conclusions, and recommendations.

This article analyses macroeconomic factors, including the refinancing rate of the National Bank of Moldova, inflation, the construction works price index, investments in construction, and mortgage lending conditions. It was found that each of these factors contributes to the expected change in the value of residential property. Based on the analysis of statistical data and data collected from the real estate market, this article presents conclusions about a new picture of the residential real estate market. The results of the study can be useful to all those operating in the residential real estate market, developing insights for market participants, and conducting research on real estate properties.

Keywords: *analysis, macroeconomic factors, market value, mortgage, residential property, valuation*

5. Introduction

The relevance of the subject of this study is due to the fact that, under the current conditions in the Republic of Moldova and the global economic crisis, there is a sharp decline in the attractiveness of investments in real estate, mortgage interest rates are fluctuating, and consequently, the risks of investment projects for the construction of residential properties are increasing. Therefore, the study and analysis of the influence of macroeconomic factors on the value of residential property will contribute to improving the quality of forecasts and the emergence of new criteria for evaluating real estate.

The real estate market is currently facing an imbalance between supply and demand, which varies depending on the market segment. In the residential real estate segment, demand remains stable, but the supply of new properties does not always keep pace with it, leading to an increase in prices in the primary market. The situation on the secondary market is slightly different: here, supply exceeds demand, especially for older homes located in less attractive areas.

One of the main macroeconomic elements influencing the real estate market's development is the rate of inflation, which has a direct influence on people's spending power and, in turn, the demand for homes. High inflation might cause purchasers to become more cautious, which can slow down the increase of property values and reduce market activity.

Variations in mortgage interest rates also have a big effect since purchasers prefer to put off buying flats during times when rates are rising in order to wait for better terms, which lowers demand. In addition, government assistance, such as mortgage subsidies, and economic development and stability all play a part in maintaining the market overall and raising housing demand.

A thorough examination of the real estate market is required to ascertain the extent to which macroeconomic issues impact the value of real estate and to establish the most accurate way to evaluate its worth. Financial and investment analysis, statistical analysis, cluster analysis, situational analysis, and optimal use analysis are some of the techniques that may be used for this. We believe that assessing the extent to which economic variables impact the market value of residential properties requires particular consideration when studying the real estate market. Over time, a variety of macroeconomic factors affect real estate values [1].

As an analysis of the works of practitioners operating in the residential real estate market shows, the value of properties is very little researched in relation to macroeconomic indicators such as the refinancing rate of the National Bank of Moldova, inflation, the construction works price index, investments in construction, and mortgage lending conditions.

Profitability for both parties is known to be the primary criterion of every transaction. Everyone interprets this idea differently, though, since some property owners or real estate brokers prioritise making money. Such a seller is prepared to wait a considerable amount of time for their customer without lowering the price; however, for others, it is crucial to get free money as quickly as possible. Although the "time is money" concept and transaction speed are the most important factors in this situation, priorities might shift throughout talks [2].

The buyer and seller can reach a mutually advantageous agreement and avoid disappointment with the outcome later on by strategically prioritising objective considerations and their personal motives.

The evolution of asking prices for residential properties and the purchasing power of the population have a significant impact on the real estate market. The influence of key economic indicators on real estate market prices and the demand for residential real estate has always been at a high level. This is due not only to people's desire to improve their living conditions but also to the desire of a considerable number of residents from other regions to move to the capital of the Republic of Moldova [3].

Housing is one of the most expensive goods necessary for people to live comfortably. At the same time, market prices for apartments in Chişinău are higher than for housing in other cities. This fact makes it very problematic to purchase a home in the capital without attracting mortgage funds or selling an existing apartment. Due to the constantly changing property prices, an important factor when deciding to buy an apartment is choosing the most appropriate moment to finalise the transaction, as residential real estate is currently considered a safe investment (for preserving savings or ensuring income statements for future transactions) [2].

The development of mortgage lending in the Republic of Moldova should, hypothetically, make housing more accessible to the population, potentially give a boost to the revival of demand, and therefore may affect the rate of price growth. But this is only possible with the support and protection of the state. Currently, the growth of the mortgage

market is constrained by the low incomes of the population, uncertainty about the future, low levels of financial literacy, and distrust in the domestic financial system, the authoritarian policies of commercial banks, and weak legislation that does not protect consumer interests. Thus, the primary residential real estate market becomes dependent on mortgage loans and citizens' savings [1].

6. Analysis of macroeconomic indicators

Neglecting economic analysis is a fairly common phenomenon in the real estate business on the market in the Republic of Moldova. Thus, despite the availability of numerous methods and programs for analysing the effectiveness of construction investment projects, they prove to be inefficient due to insufficient attention being paid to studying the market situation. The problem is often limited by biased or incomplete data, personal experience, and the experience of the surrounding environment. Often, the analysis is limited to studying market conditions without examining the factors that influence the value of real estate.

For example, the real estate market's supply and demand patterns are mostly influenced by factors such as population movement, the overall business climate, tax rates, transaction times, and demographic conditions. Although the impact of these elements is not instantaneous, they cannot be disregarded, and this circumstance occurs frequently.

Objective 1. *Identifying the volume and dynamics of housing fund development*

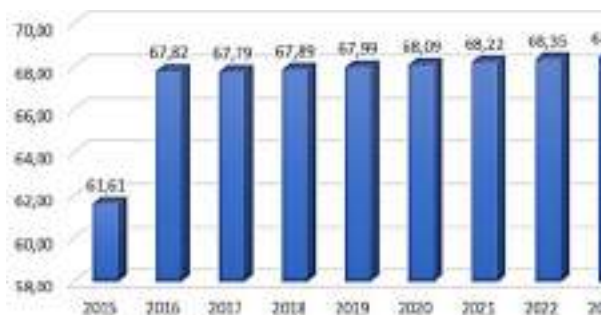


Figure 1. Housing stock at the end of the year, m²/residential property

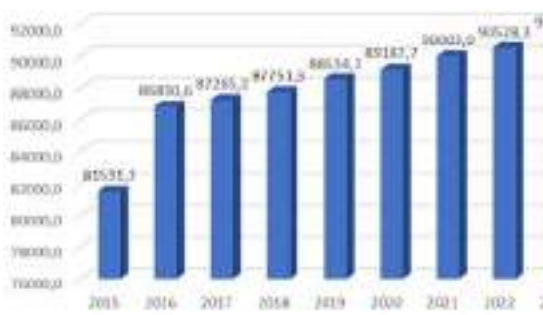


Figure 2. Total area of the housing stock, thousand m²

The findings in Figures 1 and Figure 2 show that new housing projects, with bigger developed areas than the existing housing stock in 2015, have increased the quality of the housing stock. The average area per house increased by 11.13% from 2015 to 2023, from around 61.61 m² to 68.47 m² by the end of 2023. Over a ten-year period, the total area of the housing stock that was formally registered and placed into operation grew by 11.18%, from 815,310.3 m² to 911,512.2 m².

Objective 2. *Determining the volume of potential participants in the real estate market*

Table 1. Analysis of the situation regarding potential participants in the national real estate market

Population category	2019	2020	2021	2022	2023
The resident population, excluding children and pensioners	872.551	811.608	837.882	777.204	752.668
Employed population	872.400	834.200	843.400	862.300	886.900

The employed population in the category of pensioners and without residence	151	(22.592)	(5.518)	(85.096)	(134.232)

The number of regular residents (not including children and pensioners) has decreased by 10.17% over the past two years, although the number of employed people has climbed by 5.16%. This indicates that both elderly and homeless people are working (Table 1).

Table 2. Determination of potential savings and average net monthly wage earnings

Indicators	2019	2020	2021	2022	2023
Average monthly income of the population, lei/person	2 880	3 098	3 514	4 254	4 920
Average monthly expenses of the population, lei/person	2 787	2 789	3 040	3 712	4 249
Potential monthly savings, lei/person	93	309	474	542	671
Average gross monthly wage, lei	7 234	7 943	8 980	10 447	12 209
Average net monthly wage, lei	6 010	6 617	7 635	8 900	10 372
Consumer Price Index (CPI)	104,84	103,77	105,11	128,74	113,42
Cumulative CPI (reference 2018)	104,84	108,79	114,35	147,22	166,97
Potential savings, in comparable values of the year 2018	89,02	284,16	414,34	368,05	401,77
The average net monthly wage in comparable prices, reference year 2018	5732,64	6082,04	6676,59	6045,25	6211,85

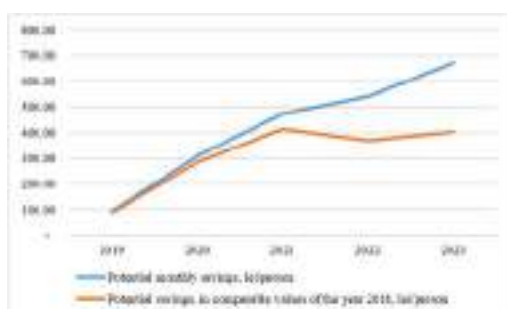


Figure 3. Potential savings of a person with usual residence in the Republic of Moldova, lei/month

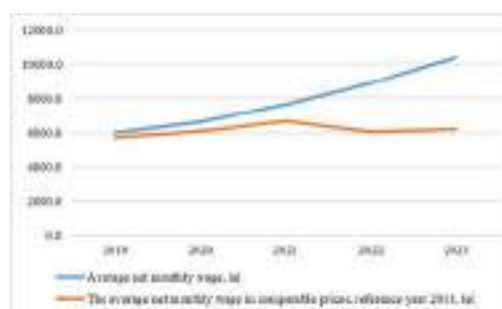


Figure 4. Dynamics of wage earnings, lei/month

Objective 3. Dynamic analysis of macroeconomic factors influencing the value of residential property

The quantity of building permits granted for the construction of new residential structures determines the future growth potential of the real estate market. In Figure 5, the corresponding data is displayed.

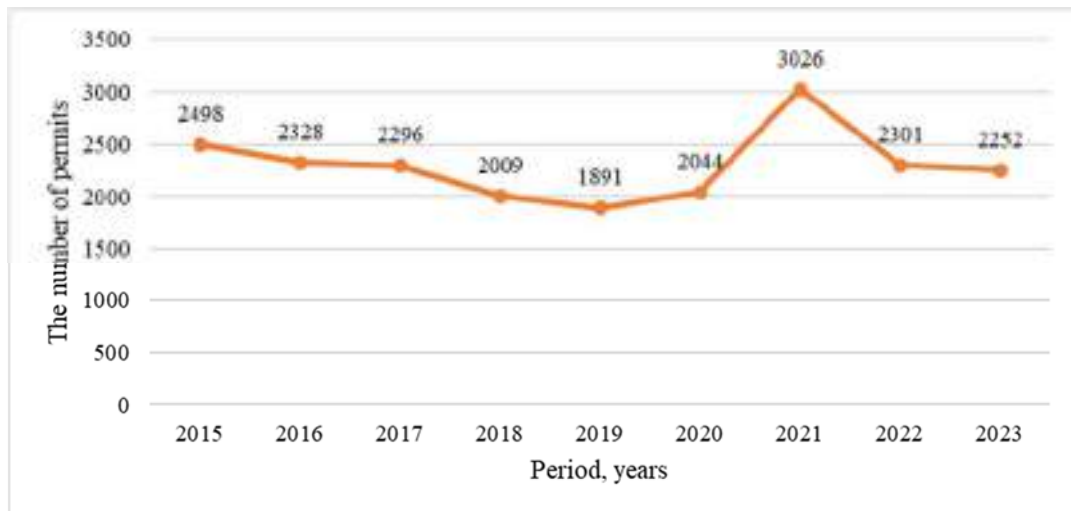


Figure 5. Building permits issued for the construction of new buildings

Most building permits were issued in 2021, and due to the excessive increase in construction material prices, a smaller number of permits were requested/issued for the following periods.

The shortcomings of economic analysis can be exacerbated by poorly designed organisational and economic decisions, which increases the likelihood of errors in the evaluation process. The impact of inflation of macroeconomic factors on the real estate market can manifest through an increase in interest rates on mortgage loans or on loans granted to construction companies for the development of new constructions.

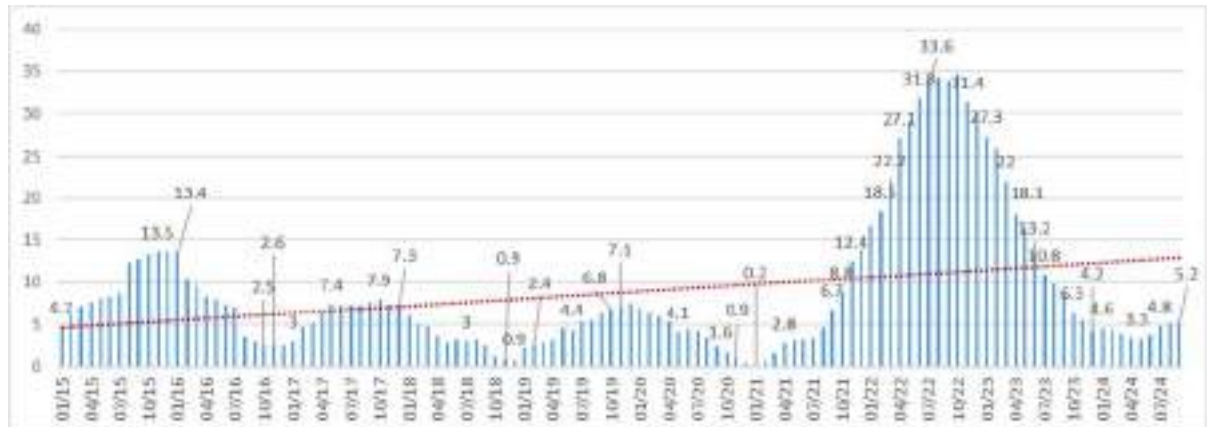


Figure 6. Annual inflation rate, %

A change in the rate of inflation growth in the consumer market manifests in the capital market with a certain time lag—the increase in interest rates on loans for purchasing real estate on the secondary market and for constructing new properties somewhat lags behind the change in the rate of inflation growth. At the same time, the lag in interest rate changes is observed both when inflation rates rise and when they fall (Figure 6).

The relationship between the capital market and inflationary shifts (Figure 7) and how they affect the real estate market are then explained. The National Bank of Moldova boosts the base rate to curb consumption when inflation is high. This similar pattern is seen with loan interest rates, which discourage consumers from buying pricey items like real estate, vehicles, or appliances for the home.



Figure 7. Evolution of base rates, %

In 2024, the base rate remained at 3.6%, and loans slightly decreased in cost; therefore, a significant portion of people prefer to invest in real estate or take out mortgage loans.

The change in prices for construction works, according to data from the National Bureau of Statistics, is determined by price indices (Figure 8).

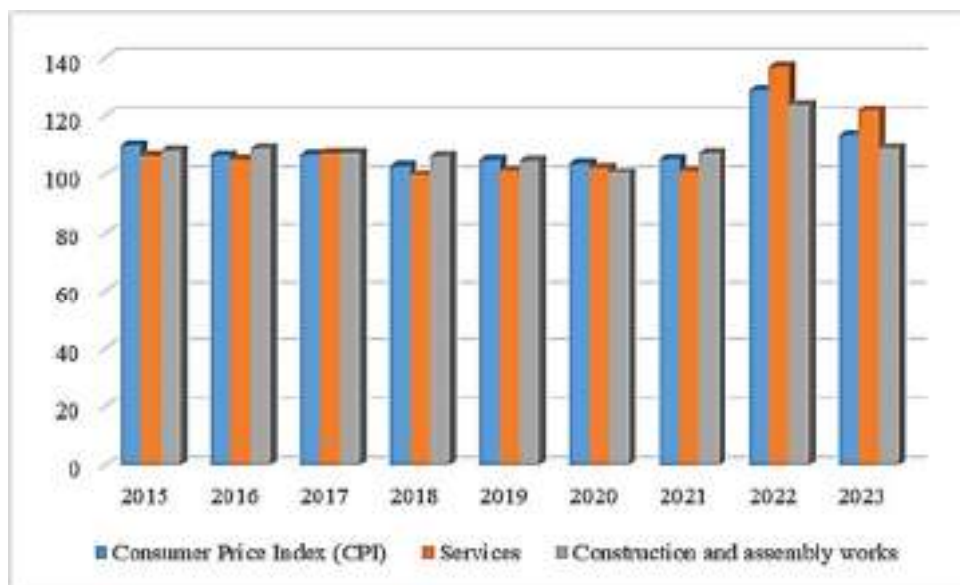


Figure 8. Price indices compared to the previous year

The estimated value of goods and services in September 2024 is calculated based on the general consumer price index compared to January 2015 (according to the structure of the average consumption basket of households) and does not indicate the evolution of the value of certain products and/or services (Figure 9).

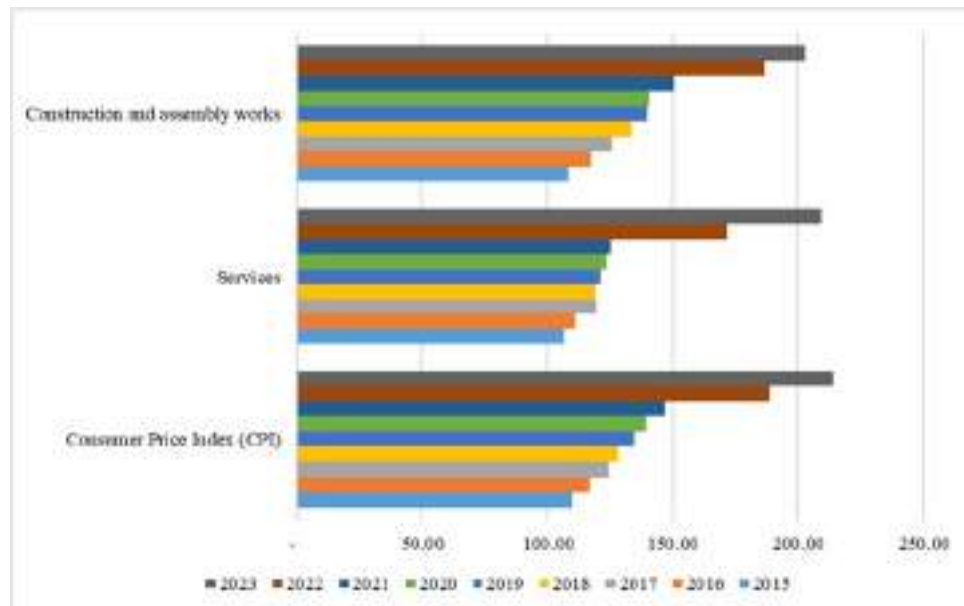


Figure 9. Price indices, cumulative relative to the reference year 2015

The consumer price index for the period from January 2015 to September 2024 was 220.64% (average consumer prices increased by about 2.2 times). The inflation rate during the period from January 2015 to September 2024 was 120.64%.

Objective 4. *The role of mortgage loans in the development of the residential real estate market*

The stimulation of demand was also conditioned by the fact that, with the reduction of the base rate, commercial banks began to gradually lower interest rates on mortgage loans and develop joint mortgage loan programs with developers. As a result, it was possible to take out a mortgage on a number of properties at an interest rate of 8.5 to 10.5% per annum. It should be noted that in many cases the reduced rate is offered not for the entire loan period but for the first year, after which the floating rate will increase by several percentage points. But even taking this into account, the rate proves to be more profitable than during the period of state support for mortgage loans. Analysts observed that by the end of the quarter, mortgage rates had decreased on average by 0.7–2% (Figure 10).

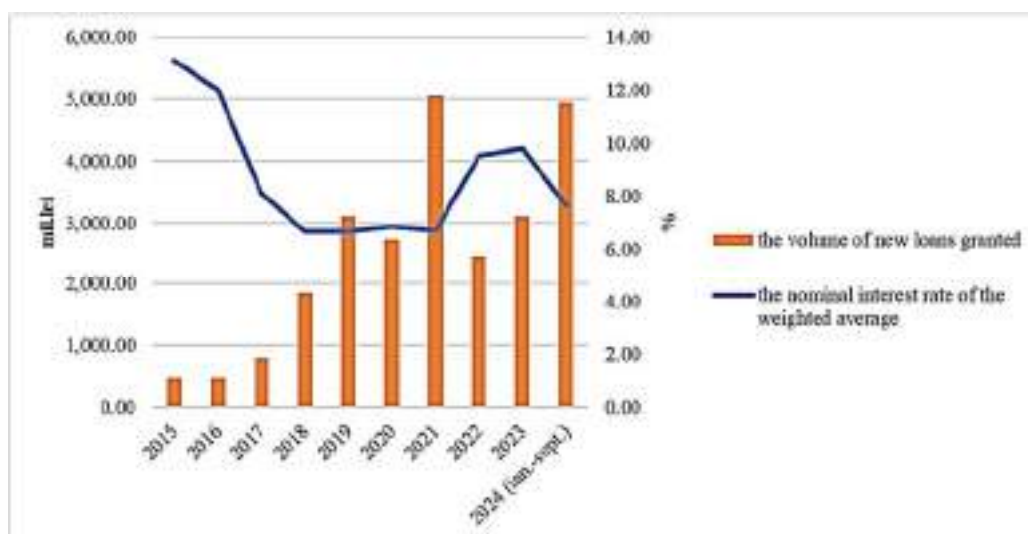


Figure 10. New loans granted to individuals for real estate

Individuals contracted loans amounting to 2,092 million lei in August 2024, an increase of 6.2% compared to the previous month, the majority (65.5%) being granted for consumption (Figure 11). The majority of real estate loans granted to individuals were granted in the national currency for a term longer than one year.

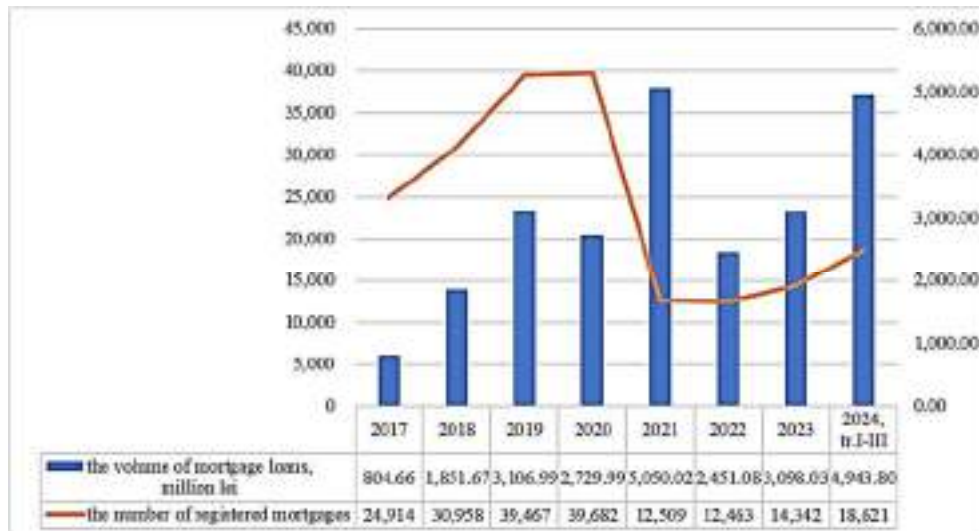


Figure 11. Dynamics of granted loans and the number of registered mortgages

At the end of the first quarter of this year, there was a decrease in the demand for new buildings of approximately 20% compared to the same period last year due to the situation in the mortgage credit segment. However, to support demand, commercial banks have ensured stability throughout the year and have slightly reduced interest rates on property loans.

According to the National Bank of Moldova, from January to August 2024, banks granted housing loans amounting to 4,168.6 billion lei, exceeding the volume of loans granted in 2023 by 29%.

As the cost of building materials rises and the high financing and operating costs of construction are eventually passed on to the final buyer of the real estate, including through mortgages, investors are attempting to offset these risks by raising prices and lowering the quality of new construction. It should be noted that the real return on real estate investments is drastically declining due to the rise in inflation (Figure 12, Figure 13).

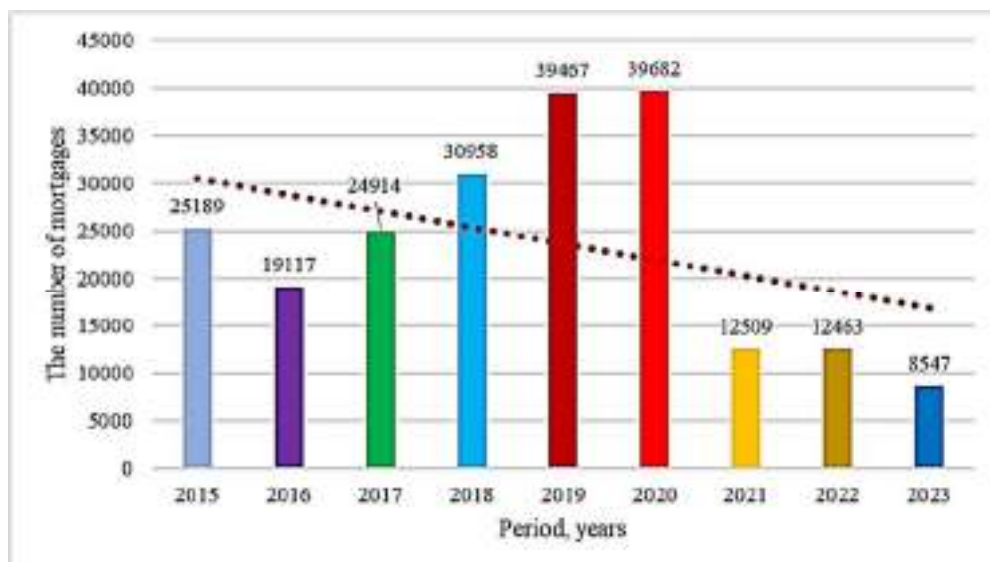


Figure 12. The number of mortgages registered with the Cadastre

Higher interest rates have led to a reduction in mortgage demand, which, in turn, has contributed to a decrease in activity in the real estate market. However, in the long term, the real estate market remains one of the most stable and attractive for investors in terms of capital protection.

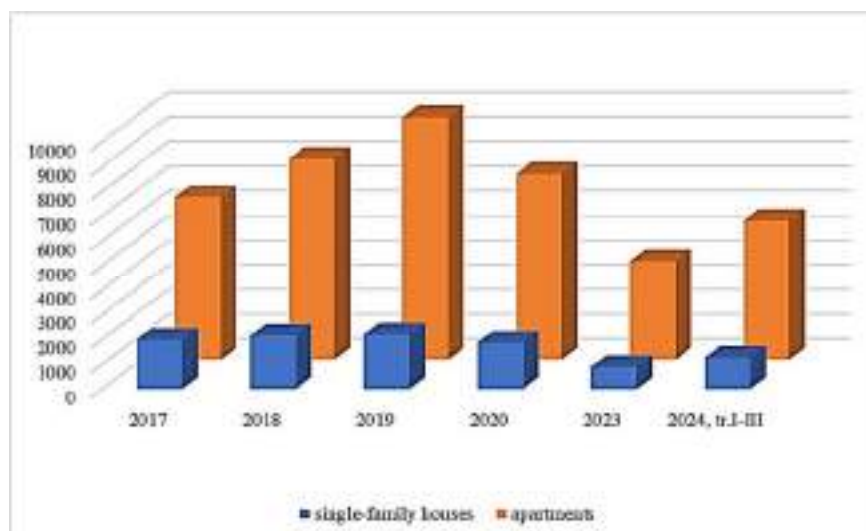


Figure 13. The number of mortgages registered with the Cadastre, by property categories

The main macroeconomic indicators that influence the value of residential real estate and their dynamics since 2015 were analysed, such as the refinancing rate, the consumer price index, real estate investments, and others (Figure 14 and Figure 15).

The analysis revealed that changes in macroeconomic indicators over time affect the market value of residential property.



Figure 14. Evolution of residential property prices, euro/m²

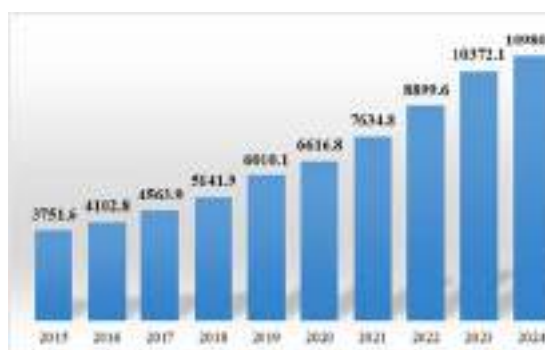


Figure 15. Evolution of the average monthly net salary in the economy, lei

The average monthly net wage by economic activities, sectors, and gender, 2013-2023, has recorded continuous growth, but it is insufficient for purchasing a home [7].

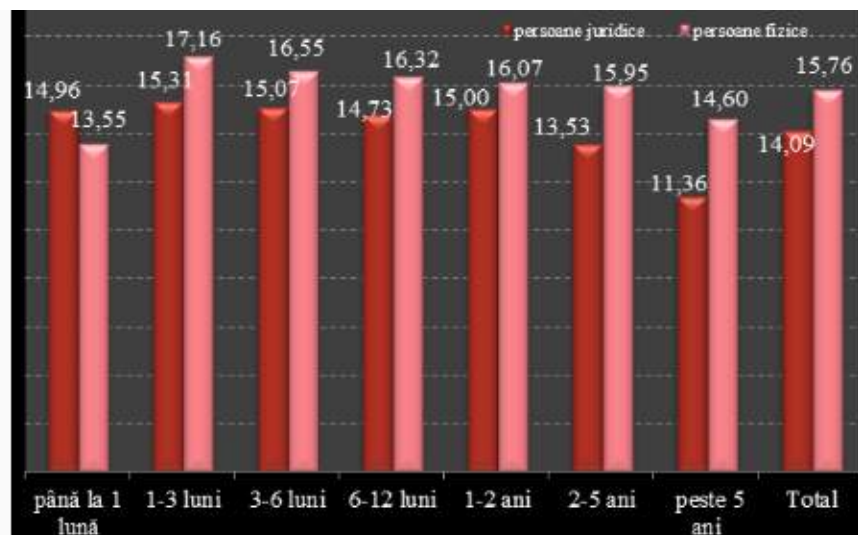


Figure 16. Interest rates on loans granted in the national currency, August 2015, %

The National Bank of the Republic of Moldova periodically conducts and publishes an analysis of the evolution of the market for loans and deposits granted by commercial banks. From Figure 16, we observe that the average interest rate for individuals on mortgage loans for a period longer than 5 years was 14.6% in August 2015.

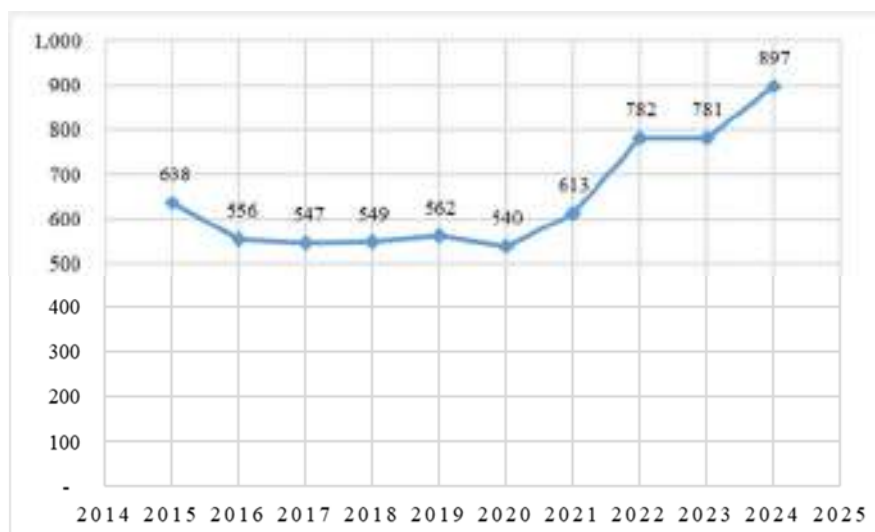


Figure 17. Market price dynamics for 2-room apartments, during the period 2015 – 2024 (October), euro/m²

As seen in Figure 17, market prices for two-room apartments that are a component of the old housing stock in the Chișinău municipality's Rîșcani area have been steadily rising during the course of the analysis.

Objective 4. Examples, conclusions, and recommendations

The impact of macroeconomic effects on flat pricing is clear from the previous investigations. This hypothesis has been confirmed by analytical results and mortgage loan offers from commercial banks in the Republic of Moldova.

Table 3 shows the price evolution across the period under analysis, accounting for the average market price and exchange rate for each year as of October 20.

Table 3. Evolution of the market price for old stock apartments with 2 rooms

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Average price, euro/m ²	638	556	547	548	555	539	570	735	760	870
Average price, euro	39556	34472	33914	33976	34410	33418	35340	45570	47120	53940
Exchange rate	20,898	21,9649	20,5039	19,548	19,351	20,006	20,158	18,981	19,214	19,242
Average price, lei	826641	757174	695369	664163	665858	668561	712370	864960	905364	1037913

The market value of the 2-room apartment with an area of 62 m², located in the Râșcani sector of Chișinău (appraised on October 20), has increased by 36.4% over the past 10 years.

Citizens have a number of options for buying an apartment from the category the authors chose for their research, as shown in Table 4.

Table 4. Opportunities for purchasing an apartment

Indicators	2015	2024	the amendment 2024 - 2015	
	euro	euro	euro	%
Option 1. Direct procurement				
Market value	39 556	53 940	14 384	36.36%
Option 2. Taking out a mortgage loan				
First installment, 30%	12 189	x	x	x
Mortgage loan	28 586			
Bank interest rate 2015-2024	15 013			
Total price	55 787		16 231	41,03%
Option 3. Rent with a right of redemption (Leasing)				
Rent-Lease 2015-2024, euro	27 600		27 600	x
Total cash flow	39 556	67 156	27 600	69,77%

Financing through a mortgage for 10 years increased the apartment's price by 41%. As of 2024, the price of the apartment purchased through a mortgage in 2015 exceeds the current market price by approximately 3.3% or 1.85 thousand euros. Taking out a mortgage in 2015 allowed for savings over 10 years of $(27600 - 16231) = 11369$ euros, or 28.74% of the costs for securing housing.

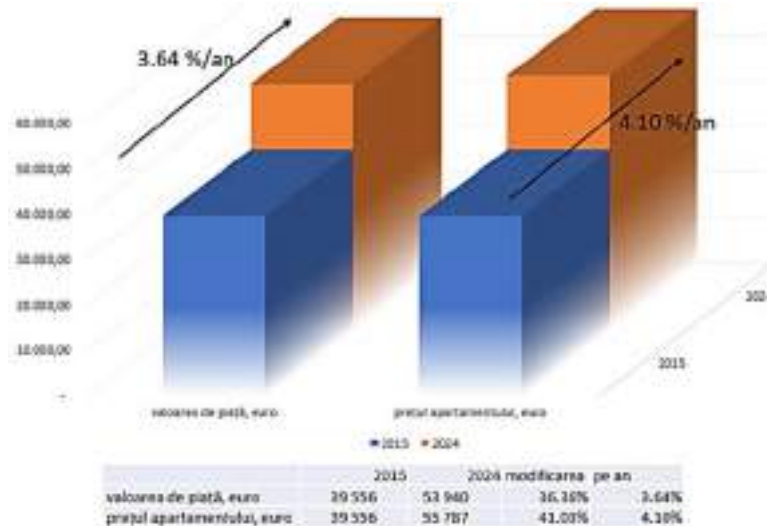


Figure 18. Dynamics of the value increase for 2-room apartments

The market value of two-room apartments (old housing stock) from 2015 to 2024 recorded an increase of approximately 36.36%, due to the impact of macroeconomic factors, and mortgage financing increased the apartment's value by 41% (Figure 18).

Table 5. Forecasts based on current mortgage lending conditions

Indicators	Credit in Lei		Credit in Euro	
Period, months	120	240	120	240
Interest rate, %	7,80	7,80	10,26	10,26
Effective annual interest rate, %	8,09	8,08	10,26	10,76
Loan amount (100%)	1 130 000		54 000	
Guaranteed net monthly income	22 640	15 500	1 200	884
Monthly payment	13 583	9 308	720,98	530,12
Total value	1 629 924	2 233 805	86 450	127 226
Value added	500 000	1 103 805	32 450	73 226
Value added	44,24	97,68	60,19	135,6

Purchasing a 2-room apartment with an area of 62 m² in the Rîșcani sector of the Chișinău municipality through a mortgage under current conditions for a period of 10 years in the national currency will increase the apartment's price by 44.24%, and to apply for this loan, it is necessary to confirm a net monthly income of 22,640 lei (Table 5). Taking out a mortgage in euros will increase the apartment's price over 10 years by 60.19%, and the guaranteed net monthly income will be 1,200 euros. We mention that the granted interest is floating and depends on the evolution of macroeconomic factors; it can change twice a year. The calculation of the monthly payment for the loan is done using the annuity method—it reduces the burden for the first few years but increases the total amount by about 3.8%.

7. Conclusions

The conclusions of domestic real estate appraiser experts, without taking into account the specific characteristics that define the real estate market and the impact of macroeconomic factors, are often interpreted incorrectly by users. The main indicators that the appraiser should consider when analysing macroeconomic information to include in the appraisal report are:

- the average offer prices from developers for new homes;
- construction work price indices;

- the inflation rate;
- the level of interest rates for mortgage loans.

The evaluator might broaden the range of macroeconomic indicators taken into consideration based on the objectives and particulars of the evaluation object.

By evaluating the impact of macroeconomic factors on the value of residential property, a few conclusions can be drawn:

1. The market value of 2-room apartments (old stock) located in the Rîșcani sector, Chișinău municipality, has increased by approximately 35-37% over the past 10 years.
2. Retrospective financing through a mortgage over 10 years contributed to the increase in the apartment's price by 40-42%.
3. The appeal to the mortgage in 2015 allowed saving an amount over 10 years of 27,600 euros (rent 2015-2024) – 16,231 (interest on the loan 2015-2024) = 11,339 euros in costs for securing housing space;
4. The indexing of the price of 39,556 Euros for the period 2015-2024 led to a price increase of 97.79%.
5. The calculation of the rent of 405 euros for the 2-room apartment (old building) using the capitalisation rate extracted from the current market situation and its value of 53,960 euros is comparable to 430 euros—the average market rent for similar properties.
6. Financing through a mortgage (100% credit) will increase the apartment's price by 44.24% over a 10-year period.

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OPTIMIZING REAL ESTATE VALUATION THROUGH SPATIAL DATA

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Abstract. *The real estate valuation process has undergone significant transformation in recent years, primarily driven by advancements in technology and data analysis. This study aims to explore the integration of spatial data into real estate valuation process, highlighting its importance in understanding market dynamics. Using a comprehensive literature review and case studies, the research examines the evolution of spatial data from basic geographic representations to complex, multidimensional datasets. Key components of spatial data – geometry, topology and attributes – are analyzed for their role in real estate valuation. Findings indicate that spatial data enhances real estate valuation by providing critical insights into location-based factors such as connectivity, proximity to amenities, and zoning regulations. The study reveals that geometric representations help delineate property boundaries and building footprints, while topological relationships inform about accessibility. Additionally, attribute data enriches the analysis by incorporating economic indicators and environmental factors. The significance of this research lies in its contribution to the understanding of how spatial data can optimize real estate valuations. By integrating both vector and raster data types, the study underscores the potential for improved decision-making in the real estate valuation process. Ultimately, this work advocates for a more nuanced approach to property valuation that leverages technological advancements in spatial data analysis, thereby enhancing the effectiveness of real estate practices in a rapidly evolving market landscape.*

Keywords: *real estate valuation, spatial data, geospatial information, data integration, location-based factors, socio-economic factors*

1. Introduction

The real estate industry has undergone significant transformation in recent years, largely due to advancements in technology and data analysis. One of the most important developments is the integration of spatial data into real estate valuation processes. Spatial data, which includes geographic information and location-based attributes, offers a multidimensional perspective on properties and their surroundings.

The concept of "**spatial data**" began to gain popularity in the 1960s and 1970s with the emergence of geographic information systems (GIS). The initial applications were primarily in cartography and urban planning, where spatial data was used to represent geographic features and facilitate decision-making processes [1, p.xiii].

During the 1980s and 1990s, the concept of spatial data expanded beyond simple geographic representation, beginning to encompass various forms of data describing the location and shape of physical objects. This era saw the introduction of raster and vector data formats, enabling more sophisticated analyses.

The advent of the internet and technological advancements in remote sensing technology in the 2000s further transformed the concept of spatial data. Spatial data became more dynamic, incorporating real-time data streams from GPS devices, satellites, and mobile applications. In the 2010s, the concept continued to evolve with the integration of social networks and IoT (Internet of Things) technologies, described as any data with a geographic component [1, p.2003].

Today, the concept of spatial data continues to expand, incorporating more nuanced dimensions such as socio-economic factors and behavioral patterns related to geographic locations, transforming from simple cartographic representations into complex, multi-dimensional datasets used in various fields, such as urban planning, environmental monitoring, and real estate property valuation.

2. The relevance of spatial data components in real estate valuation

Spatial data, also known as geospatial data, includes various components that define its structure and usability. The main components of spatial data are illustrated in Figure 1.

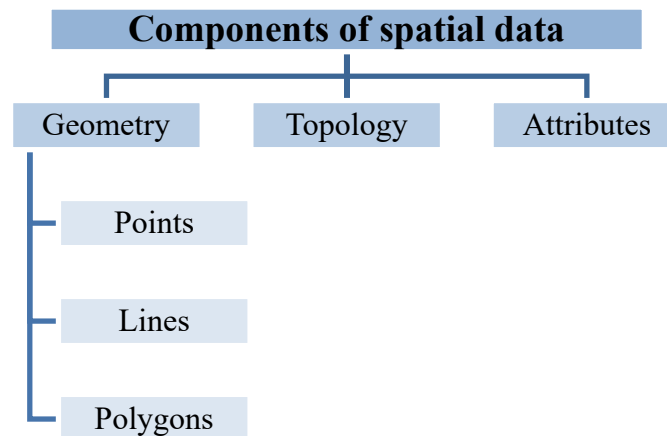


Figure 1. Components of spatial data

Source: created by the author based on [2]

Geometry in spatial data refers to the mathematical representation of spatial features, defining the shape, size, and location of objects within a defined coordinate system. The geometric component can be represented in various forms, including:

- Points: represent specific locations in space;
- Lines: represent linear features;
- Polygons: represent surface-based features [2].

Topology describes the spatial relationships between geometric entities, focusing on how they are connected or related to one another, without considering their exact position or size [3].

Attributes are additional data fields that provide information about the geometric entities represented in spatial data. This component includes qualitative and quantitative characteristics that describe objects. Attributes are often linked to geometric features through identifiers, enabling comprehensive analysis that combines spatial relationships with descriptive characteristics [2].

In summary, geometry defines "what" and "where" spatial data is, topology explains "how" these are connected and attributes provide details about "who," "when," and "why." Together, these components form a comprehensive framework for the effective analysis and interpretation of spatial information.

In the context of real estate, the components of spatial data—geometry, topology, and attributes—are essential for property management, valuation, and market analysis. Their relevance is depicted in Figure 2.

Geometry in real estate refers to the spatial representation of properties and land parcels, including:

- **Parcel boundaries:** Accurate geometric representations of boundary lines are crucial for determining property rights, zoning compliance, and land use rights. Precise

geometric data ensures proper delineation of properties, vital for legal purposes and real estate transactions.

- **Building footprints:** The geometry of buildings, represented by polygons, helps determine the size and configuration of structures, critical information in assessing property value.

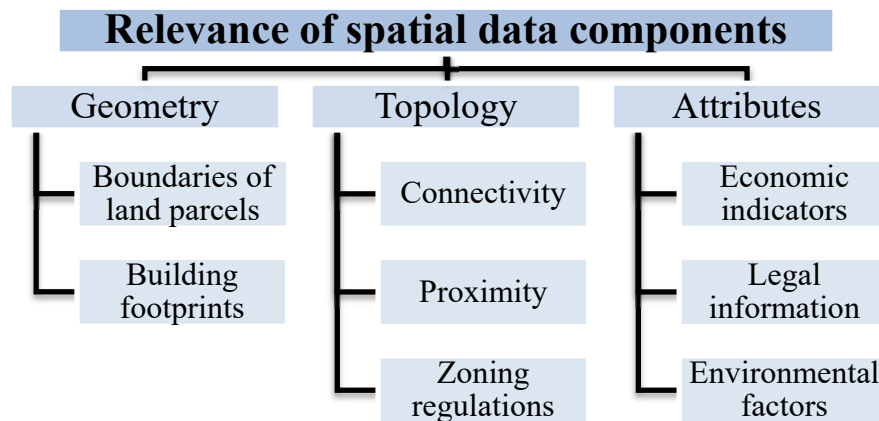


Figure 2. Relevance of spatial data components

Source: created by the author

Topology focuses on the relationships between different spatial entities in the real estate sector. Its relevance includes:

- **Connectivity:** Understanding the relationships between properties and transportation networks is essential for determining property accessibility, a critical factor in valuation. Well-connected properties tend to have higher values due to ease of access.

- **Proximity:** The proximity of a property to amenities such as schools, parks, and public transport can significantly impact market value. Topological relationships help identify these factors.

- **Zoning regulations:** Topological data informs zoning regulations, which dictate land use (e.g. residential vs. commercial). Understanding these relationships helps evaluate how land use regulations can affect property values.

Attributes enrich geometric and topological information by providing essential details that influence market value:

- **Economic indicators:** Attributes such as local employment rates, average income levels, and economic growth trends, which directly influence property demand and pricing. These indicators help assess a property's market value by reflecting the economic vitality of the surrounding area, affecting buyer purchasing power and investment potential.

- **Legal information:** Attributes related to zoning classifications, property registries, tax assessments, and any rights or encumbrances provide necessary context for accurate valuations. Compliance with legal requirements is crucial during real estate transactions.

- **Environmental factors:** Attributes concerning environmental conditions (e.g. flood risk areas or proximity to natural resources) can significantly influence property values and development potential.

In conclusion, geometry provides the spatial foundation necessary for defining property boundaries and configurations; topology offers insights into relationships that influence accessibility and desirability; and attribute data supplies the contextual information

essential for determining market values. Together, these components create a comprehensive framework for effective real estate valuation practices.

3. The use of spatial data types in real estate valuation

Spatial data can be categorized into two main types: vector and raster. Each type has distinct advantages and limitations, often used together to provide a more comprehensive understanding of spatial data. This dual approach allows for more detailed analysis, enhancing decision-making processes across various fields, including real estate property valuation.

Vector data is used to represent discrete geographic features such as points, lines, and polygons. Points can signify specific locations, like the position of a building, while lines capture linear features such as utility networks. Polygons define areas, such as land parcels. This type of data is highly precise and ideal for analyzing entities with well-defined boundaries and specific locations [1, p.2411]. Vector data (Figure 3) stores both geometry and its attributes, and files are generally smaller compared to raster files representing the same area. Additionally, this type of spatial data is better suited for analyses requiring detailed attribute information.

On the other hand, **raster data** represents continuous data across a surface using a grid of cells or pixels, each with a value representing information. The resolution of raster data depends on the cell size; smaller cells provide more detailed information. Raster formats are commonly used for images such as satellite photos, digital elevation models, and various types of maps where data varies continuously in space [1, p.1741]. This data type has a simple structure, enabling easy processing and analysis using various algorithms, and is effective for visualizing spatial patterns over large areas. Raster data (Figure 4) also efficiently handles large datasets when analyzing continuous variables.



Figure 3. Vector data

Source: [4]

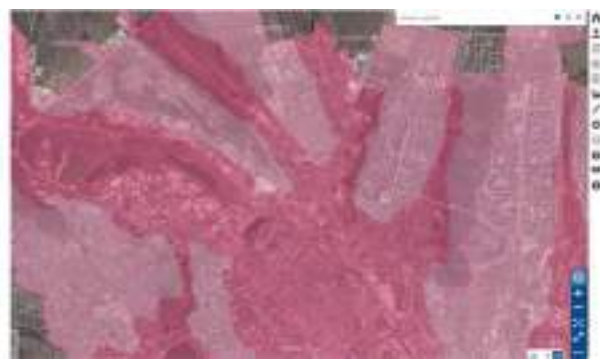


Figure 4. Raster data

Source: [4]

In real estate valuation, both vector and raster data are essential for understanding the complexities of real estate markets. Integrating these data types allows for a more comprehensive analysis of spatial relationships, helping to identify trends and influences affecting property values.

The distinct applications of vector and raster data in various aspects of real estate property valuation are highlighted in Table 1.

Table 1. Comparison of vector and raster data applications

Nr.	Aspect	Vector Data	Raster Data
1	2	3	4
1	Establishing property boundaries	Useful for defining precise property boundaries as	Even more effective for precise limits, given that it can

		polygons, facilitating exact delimitation.	represent the land as a grid, even at high altitudes.
2	Studying zoning plans and land use destinations	Allows detailed representation of zoning and land use types through polygons and lines.	Useful for visualizing zoning boundaries over time, using satellite imagery.
3	Studying infrastructure	Represents roads, utilities, and other infrastructure as lines and points for detailed analysis.	Provides background images (e.g., aerial photographs) to contextualize infrastructure studies.
4	Market analysis	Enables property value analysis using points for properties and surrounding amenities.	Allows demographic analysis (e.g., population density) to evaluate market potential.

Continuation of Table 2

1	2	3	4
5	Studying property attractiveness	Evaluates property location based on proximity to facilities using vector layers to analyze distances.	Provides information about accessibility and environmental factors affecting property attractiveness.
6	Studying transport accessibility	Maps transport networks and proximity to major routes as lines and points for property access.	Allows accessibility valuation by analyzing travel time and distances using a grid system.
7	Studying environmental factors	Useful for graphically representing areas such as wetlands or protected areas.	Represents continuous variables, such as elevation or pollution levels in a given area.
8	Risk factor evaluation	Identifies areas prone to risks using vector data of zones and infrastructure exposed to risks.	Useful for modeling and extending risk factors, such as elevation data, in a grid system.
9	Describing property placement	Useful for representing the location of schools, hospitals, and public spaces to assess community facilities near the property.	Provides background data on facilities, enhancing community assessment.
10	Visualizing property characteristics	Useful for creating detailed maps of property characteristics, such as land use and surrounding landscape.	Offers a visual context of the analyzed area through aerial or satellite images.

Source: created by the author

Vector data excels in providing precise representations of discrete geographic features, such as property boundaries, zoning classifications, and infrastructure configurations. The ability to model relationships and analyze spatial patterns using vector data enhances the understanding of zoning boundaries, infrastructure, and property accessibility.

Conversely, raster data effectively represents continuous spatial phenomena, making it particularly useful for analyzing broader trends and environmental factors. Applications like risk factor assessment, demographic analysis, and land cover change detection offer

insights into aspects such as accessibility, environmental conditions, and historical trends, which are critical for comprehensive real estate valuations.

Ultimately, integrating both vector and raster data creates a more robust framework for real estate valuation. By leveraging the strengths of each data type, valuers can conduct thorough analyses that consider both detailed property characteristics and broader environmental influences.

4. Advantages and limitations of spatial data in real estate valuation

Integrating spatial data into real estate valuation offers numerous advantages but also presents certain limitations.

Advantages

One of the primary advantages of using spatial data is the increased accuracy in property valuation. Spatial data allows valuers to incorporate factors such as proximity to amenities, infrastructure, and environmental features, leading to more precise value assessments.

Another significant benefit is the enhancement of risk assessment. By analyzing spatial data, real estate professionals can identify potential risks associated with certain locations, such as flood zones or landslide-prone areas.

Spatial data also improves market analysis and trend forecasting. By utilizing geographic information systems (GIS) and other analytical tools, valuers can visualize demographic changes, housing trends, and economic developments over time. This information is invaluable for predicting future property values and understanding market dynamics.

Limitations

A notable challenge is the quality and availability of data. The effectiveness of spatial analysis heavily depends on the accuracy and granularity of the data used. In many cases, outdated or incomplete datasets can lead to misleading conclusions about property values or market conditions. Therefore, ensuring access to high-quality spatial data is essential for reliable valuations.

Another limitation is the complexity of analysis. Although advanced geospatial tools provide powerful insights, they often require specialized knowledge and skills to be interpreted correctly. This expertise gap can result in the underutilization of valuable spatial information.

Finally, reliance on spatial data can lead to an overemphasis on quantitative methods at the expense of qualitative factors. While numerical data provides a solid foundation for decision-making, it may overlook socio-economic conditions that can significantly influence property values. Balancing quantitative analysis with qualitative insights is crucial for a comprehensive real estate valuation.

5. Conclusions

The integration of spatial data in real estate valuation is revolutionizing how professionals conduct their valuations. The fundamental components of spatial data—geometry, topology, and attributes—provide a robust framework for analyzing the complexities of the real estate market, enhancing the accuracy of valuations and the identification of risks associated with various locations.

Moreover, the use of advanced technologies, such as geographic information systems (GIS), allows valuers to visualize market trends and forecast future property values. This not only optimizes the valuation process but also supports the development of more effective investment strategies.

However, it is crucial for real estate professionals to be aware of the challenges associated with using spatial data, such as its quality and availability. Addressing these limitations will ensure the effective use of spatial data, thereby strengthening the foundation for precise and well-informed real estate valuations.

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RESEARCH OF INTERNATIONAL PRACTICES IN DETERMINING LONG-TERM VALUE OR PRUDENT VALUE OF REAL ESTATE

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Abstract. Among the current challenges of the valuation profession are a number of new topics, but the main ones remain the introduction of ESG (Environmental, Social and Governance) factors in valuation and the concept of prudent value. The prudent value is not yet mandatory, but this concept will be implemented with the updated version of the Regulation on capital requirements no. 575/2013 of the European Union (EU).

The paper contains the research of international practice regarding the prudent valuation of assets or long-term value and how they are implemented in practice, as well as how we implement the provisions of Basel III (common rules for the assessment and management of various types of risks associated with the financial field). By aligning with Basel III, there will also be a harmonization of the understanding on the value of real estate and loans that have as their object the financing of real estate, creating a fair and comparable basis in all member states. This will not only lead to a uniform international treatment of exposures secured by real estate, but will also lead to a harmonization of valuation practices, especially where there are national practices and regulations between EU Member States.

Keywords: Assumptions, credibility of value, risk, transaction price, valuation process, the assessor's professional judgment.

1. Introduction

With the establishment of the single financial market - at the European Union (EU) level – through its regulatory authorities - the European Central Bank (ECB) and the European Banking Authority (EBA), a series of directives and implementation guidelines were approved by the European Commission and the European Parliament, with direct applicability in Romania. The influence that these regulations have on the valuation process for loan guarantees and how many of these provisions fall under the responsibility of the assessor, is quite important for the future of the profession [1].

In accordance with (EU) Regulation No. 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms, as updated at the beginning of 2020, the valuation must be carried out independently. It must use prudent-conservative valuation criteria with regard to the requirements relating to credit risk, credit valuation adjustment risk, operational risk, market risk, the minimum threshold of the internal models [1].

In order to ensure the valuation of properties, while respecting these criteria, the valuation must exclude assumptions of value increase and must be adjusted, taking into account the probability that the current market value will be higher than the sustainable value over the entire life of the loan.

National supervisory institutions should provide guidelines for establishing the prudential criteria in valuation, where these do not exist in national legislation. If a market value can be established, the value from the valuation will not be higher than the market value. So, the reference is made to two values, the market value and the “sustainable value over the entire life of the loan”. The market value is defined and regulated in the European and International Valuation Standards, but for the “sustainable value over the entire life of the loan” or – the Long Term Value (Prudent Value), i.e. “Long term value”, there is only a definition and that is all.

In German law, it is called Mortgage Lending Value, also included in the Valuation Standards of the National Association of Authorized Appraisers in Romania, 2015 edition, GEV Guide 530, the Determination of the long-term value of real estate (LTV) - a chapter that is no longer part of the latest versions of the Standards. The long-term value of real estate (LTV) is the value of real estate determined by prudently estimating its future trading potential, taking into account the long-term sustainability aspects, the normal local market conditions, and the current use, as well as the likely uses of the property. LTV is the value of the real estate that, based on past experience regarding the evolution of the specific real estate market, can be expected to be obtained by selling it, over the entire term of the loan, independently of temporary market fluctuations relevant to the respective real estate and excluding speculative elements.

Since this is a type of value associated with real estate, its determination would fall to the appraiser, unlike the adjustment of the market value, an adjustment for which the credit institution may be responsible. This is a type of value, but no one thought of proposing and establishing the evaluation methodology.

2. Determination of the LTV in accordance with the provisions of the Valuation Standards of the National Association of Authorized Appraisers in Romania, 2015 edition

For the determination of the LTV, it is proposed to apply two approaches, one main and the second for verification. For commercial properties (offices or commercial spaces), the main approach will be the income approach, and the verification approach will be the cost approach. For commercial properties of the street commercial space type, the main approach will be the income approach, and the verification approach will be the market approach. For residential properties (apartments, condominiums, single-family homes, etc.), the main approach will be the market approach, and the verification approach will be the income approach, respectively the cost approach, for other types of properties. For mixed properties, having the uses presented above, the approaches will be applied according to each use separately.

In each case, in applying the valuation approaches, the methodology includes specific elements that ensure the long-term sustainability of the valuation results, respectively prudential values related to the parameters used in the valuation. The valuation approaches will be applied taking into account the particularities presented below [2].

Income approach

The method used to determine the LTV is the capitalization of rent. The following notions are those defined in the valuation methodological guide GME 630, Valuation of real estate, and the particularities of applying the method for LTV are:

a) *Gross income*. When selecting the rent level from the range of rents obtained on the market, it must be taken into account how sustainable are, in the long term, the factors with an impact on the subject real estate property, which give it attractiveness on the market at the date of valuation, such as:

- ✓ The property's ability to generate income;
- ✓ The hypothesis that income could be obtained by any owner, under the conditions of reasonably efficient management of the property and permitted use, without taking into account the specific elements of the current management;
- ✓ The flexibility of using the construction and the adaptability to use it by third parties.

b) *The Expenses generated by the property*. The ranges of values of the expense categories for determining the LTV, except for the situations where, in the specific case of the subject real estate property, the value of these expenses is higher. The minimum share

of operating expenses must be 15% of the effective gross income. The untenanted rate 10% of residential real estate and 15% of the other categories.

c) *Capitalization of net income.* When establishing the LTV, the recommended ranges of the capitalization rate specified by type of use must be taken into account. For example, for residential real estate in Bucharest, the capitalization rate for determining the LTV is 5%-6.5%, and for other cities 6-8%. It is between 8.5%-11% for offices in Bucharest, whereas for other cities it is between 10%-12%.

The lower limit of each range can be used for premium properties. To be considered premium, they must meet at least the following conditions:

- Very good location within cities;
- Complete infrastructure;
- Very good quality facilities and installations;
- Very good quality of construction;
- Very good condition of the real estate property.

For commercial real estate properties:

- Excellent location;
- Excellent market attractiveness/visibility;
- Permitted uses restricted to shops, wholesale sales spaces, offices and businesses;
- The possibility of reconversion of the building to uses other than the current use.

When the real estate is used for residential purposes, the capitalization rate must not be lower than the rates presented in the annex.

d) *Determination of income in special cases.* If, following the application of the income approach, the value obtained is lower than or equal to the value of the land considered to be untenanted, then the LTV of the real estate property will be the value of the land considered to be untenanted. In this case, the costs necessary to bring the land plot to the undeveloped ground stage will be deducted. The standard costs taken into account are the costs of demolition of the buildings [2].

Market Approach

The market approach is not a recommended method for determining the LTV, as it is dependent on market fluctuations. However, this methodology provides for the situations in which this approach may be used.

For determining the LTV using the market approach, the prices (obtained from verifiable information sources) of real estate properties similar to the subject real estate property will be taken into account, in terms of characteristics with a major influence on the value, namely: location, facilities and installations, as well as the potential uses.

The prices of comparable real estate properties can be selected from the transaction database or from other market sources. A safety margin of at least 15% must be deducted from the resulting value.

If, within the market approach, the prices from sales offers are used, they must be adjusted for the negotiation margin, independently of the previously mentioned safety margin. It is also recommended that in order to support the prudential nature of the LTV, a minimum of seven transactions/offers must be used for the comparison.

When using the market data, it will be taken into account that the sum of the gross price adjustments of all selected comparable real estate properties does not exceed:

- o 20% for apartments;
- o 40% for houses and
- o 50% for land.

Gross adjustments do not include the negotiation margin. The value of comparable real estate properties, resulting from the application of corrections made within the limits stipulated above, cannot differ from each other by more than 20%.

Any values, the estimation of which was made without respecting the conditions presented above, will not be valid in the context of the provisions of this methodology.

Cost approach

a) *Land value.* The market value of the land considered as untenanted is estimated by the market approach, as presented above. When estimating the value of the land, the existing use (development) will be considered as the best use.

b) *Construction value.* The input data used to estimate the new cost must be taken from credible sources of information that will be presented in the valuation report. Whenever possible, the selected new cost will have to be verified from two different sources before it is used in the report.

Value Selection

a) *Single-Family Homes and Condominiums.* In the case of single-family and multi-family uses (duplex, terraced, etc.), as well as in the case of apartments in villas, the LTV will be the lower of the values obtained by applying the market approach and the cost approach.

b) *Apartments.* In the case of apartments, the LTV will be lower than the values obtained by applying the market approach and the cost approach.

c) *Commercial properties (offices or commercial spaces).* The valuation approach applied to determine the LTV, in this case, is the income approach, the result of which represents the maximum level of the LTV. In situations where the difference between the value obtained by the verification method and that obtained by the income approach is greater than 20%, the LTV will be considered at the value obtained by the verification method [2].

Reporting

The communication of the LTV is made through a valuation report, in accordance with the Valuation Standards in force of the National Association of Authorized Appraisers in Romania. The valuation report can only be prepared and signed by an authorized appraiser holding the EPI specialization.

Residential real estate portfolios

In the case of valuing a large portfolio of residential real estate with homogeneous characteristics, within the framework of a receivables acquisition, the LTV can be established at the portfolio level, in compliance with this methodology and reported in a single valuation report.

The homogeneous portfolio will take into account criteria such as:

- location;
- type of residential real estate;
- surface area and facilities, etc.

It may be agreed with the beneficiary of the valuation report whether the inspection is carried out for all the units assessed or only for a relevant sample. Statistical methodologies cannot be applied because they are linked to the market level at the date of the valuation. The verification of the valuation reports done by the credit institution may be applied to a representative sample of the acquired portfolio and in the region in which the respective real estate properties are located.

Revision of the LTV

Where there are indications that the elements on the basis of which the assumptions for determining the LTV were formulated are no longer valid, a revision of the LTV is necessary.

This must be carried out in the following situations:

- at the request of the NBR, in the event that there is contradictory information regarding a specific real estate property or group of real estate properties;
- upon the registration of significant market deteriorations, signaled by the bond market supervisor and/or ANEVAR.

If there are no other instructions specifying the need to review the value, other than those mentioned, the VTL remains unchanged [2].

3. Benefits of Basel III alignment

Basel III alignment will also harmonize the understanding of the value of real estate and the loans financed by real estate, creating a fair and comparable basis across the EU Member States. The alignment with the Basel III framework will not only lead to a uniform international treatment of exposures secured by the real estate, but will also lead to a harmonization of valuation practices, in particular where there are different practices across the EU Member States, as well as of national regulations, where they exist. This harmonization is achieved not by establishing valuation requirements, but by establishing sets of criteria that the value used in a particular jurisdiction must meet. A uniform understanding of these criteria and their consistent implementation across the EU Member States requires the development of implementation guidelines on what is expected of banks in order to meet the requirements. A review of the LTV determination module at European level, as well as the sources of information required for this, revealed that the application of the concept in some Member States is difficult if not impossible, and in others, the existing application method is uneven [3].

In 2022, the European Commission came up with a proposal to amend the Regulation (EU) No. 575/2013 of the European Parliament and of the Council and Directive 2013/36/EU of the European Parliament and of the Council, which strengthened prudential requirements for credit institutions and investment institutions, this time in the final version. Thus, the following changes of interest for the assessment activity when granting loans and during their development are made. It provides for the fulfillment of the following requirements regarding the monitoring of the value of real estate properties and the valuation of real estate properties, art. 208, para. 3, letter a, "institutions shall monitor the value of immovable property frequently, namely at least annually in the case of commercial immovable property and at least once every three years in the case of residential immovable property. The frequency of monitoring shall increase where market conditions change significantly.

Article 208, paragraph (3), letter b, remains unchanged: "the valuation of immovable property shall be reviewed when the information available to institutions indicates that the value of the immovable property may have fallen significantly compared to the general market price level. This review shall be carried out by an assessor who has the necessary qualifications, skills and experience to carry out a valuation and is independent of the credit decision-making process. For loans exceeding 3 million euros or 5 % of the value of an institution's own funds, the valuation of the immovable property shall be reviewed by such an assessor at least once every three years. Institutions can use statistical methods to monitor the value of real estate properties and identify the real estate properties that need to be revalued [4].

However, the following theses are added: "The value of the property shall not exceed the average value measured from the property in question or for a comparable property in the last three years in the case of commercial property and in the last six years in the case of

residential property. Modifications to the property that improve the energy efficiency of the building or the housing unit shall be considered unequivocally to increase its value” [5].

A new section, paragraph (3a), is included to allow institutions to use statistical or advanced mathematical methods for property valuation and revaluation, provided these methods are separate from the credit decision-making process and are approved by the relevant authorities and meet the conditions outlined in paragraph (3):

a. Institutions shall establish, in their policies and procedures, the criteria for the use of models for the valuation, revaluation and monitoring of collateral values. These policies and procedures must take into account the proven results of these models, the variables specific to the real estate in question, the use of minimum available and accurate information, and the uncertainty of the models;

b. Institutions shall ensure that the models used are:

- ✓ specific to the real estate asset and its location and have a sufficient level of granularity;
- ✓ valid and accurate and are subject to robust and periodic ex post testing against actual observed transaction prices;
- ✓ based on a sufficiently large sample, and representatively based on observed transaction prices;
- ✓ based on up-to-date high-quality data;

c. Institutions are ultimately responsible for the adequacy and performance of the models, the assessor is responsible for the valuation performed on the basis of the models, and institutions understand the methodology, inputs and assumptions of the models used [5].

Article 229(1) is amended from: ‘In the case of collateral in the form of immovable property, the collateral shall be valued by an independent assessor at or below its market value. The institution shall require the independent assessor to document the market value in a clear and transparent manner. Conversely, in the Member States that have established, by law or regulation, rigorous criteria for assessing the mortgage lending value, the property may be valued by an independent assessor at or below the mortgage lending value. Institutions shall require the independent assessor to disregard the speculative elements in assessing the mortgage lending value and to document this value in a clear and transparent manner.

The value of the collateral shall be the market value or mortgage value, reduced accordingly to reflect the results of the monitoring required by Article 208(3) and to take into account the existence of any priority claims on the property [6].

The valuation of real estate must meet all of the following requirements:

a. The value is assessed independently of the institution's process for making the mortgage purchase, processing the loan and making the credit decision, by an independent assessor who has the qualifications, capacity and experience necessary to carry out a valuation;

b. The value is assessed on the basis of prudent valuation criteria that meet all of the following requirements:

I. The value does not take into account the expectations of price increases;

II. The value is adjusted to take into account the potential for the current market price to be significantly above the value that would be sustainable over the term of the loan;

III. The value is not higher than a market value of the real estate, where such a market value can be determined.

The value of the collateral shall reflect the results of the monitoring required under Article 208(3) and shall take into account any prior claims on the real estate [5].

In the case of valuation for granting (article 229), Letter (a) clarifies what independence means in the context of valuation for guaranteeing loans - independent of the lending process (realization of the mortgage purchase, processing the loan and making the

decision regarding the loan). This clarification does not exclude the existence of an internal assessor, with the necessary certifications to value the guarantee. This is also reinforced by another regulation - in which the existence of internal assessors is clearly admitted. Letters (b) and (c), however, may change the paradigm of valuation for guaranteeing. The original approach used market value as a base, which was then adjusted to account for various risks associated with using real estate as collateral. These adjustments were determined and applied by the credit institution. Now, these adjustments are to be incorporated into the valuation methodology, resulting in a “guarantee value” that is then compared to the market value.

There is currently no official interpretation of how these provisions will be applied. Moving on to the activity of revaluation/periodic valuation of collateral (Article 208), the information available at this time shows that: Assuming that the (periodic) valuation of real estate properties has remained at market value, the comparison between this and the 3/6 months’ average (depending on the type of real estate property) falls to the credit institution.

The purpose of the provision is to reduce the influence of market cycles on the value of collateral and to reduce the speculative elements that appear in the establishment of the market value. In short - the application could mean: each year the market value is stored separately, and the collateral value is established as: min/average of the market values from previous years, the market value established this year.

This would imply that the collateral value established this year will not be part of the “average of recent years”, this average referring to the market values and not to the collateral value;

But if we take into account the fact that “the value does not take into account the expectations of price increases” (Art. 229, paragraph (1) -(b) -(ii), it is very possible that the interpretation is in favor of using the range of average values, which caps the collateral value [5].

However, the provision according to which “It is considered unequivocally that the modifications made to the real estate that improve the energy efficiency of the building or the housing unit increase its value” raises problems from the perspective of market value - given that, in Romania, there is still no market information that would lead to such a conclusion.

Alternatively, this paragraph could be taken into account if, within the framework of adjustments subsequent to the establishment of the market value, the credit institution can support a smaller adjustment, given by a better history of capitalization of real estate properties with “modifications... that improve the energy efficiency of the building or the housing unit”. But this does not mean that an authorized assessor should not be aware of these aspects and they should not be taken into account in the valuation process (at least mentioned in the report - see SEV 340 - Real estate valuation and energy efficiency (EVIP)), especially in the case of business-generating real estate properties. The new paragraph (3a) comes to detail the way of working with the models used in the revaluation of the collateral. It establishes, among others, that the institutions are ultimately responsible for the adequacy and performance of the models, the assessor is responsible for the valuation carried out based on the models, and the institutions understand the methodology, input data and assumptions of the models used.

From the discussions held so far and on other European regulations on the global valuation of collateral portfolios, regarding the assessment of the adequacy and performance of models - this can be done externally, by a third party (not necessarily with the specialization of a verifier, authorized by ANEVAR) or internally, by the modelling departments that exist in each credit institution [7].

The final responsibility for the values entered into the bank's systems lies with the credit institution, as with any other valuation report. The changes in the regulation enter into force on 1 January 2025[8].

4. Opinion of the Appraisal Institute of Canada (AIC) on PCVC

The prudently conservative valuation criteria (PCVC) in the Capital Requirements Regulation, currently in the legislative process within the EU, represent an example of the discussions focused on including the "prudent value" or PCVC among the value approaches that a client could request from an assessor. This concept is similar to "long-term value", a type of value that some EU member states found useful after the 2008-2009 financial crisis [9].

The Appraisal Institute of Canada (AIC) has long expressed substantial concerns about this approach, and it is not the only organization to have taken this position. Based on discussions with other assessor organizations - including those in the US - neither "prudent conservative valuation criteria" nor "long-term value" would be welcomed in many parts of the world, and their inclusion would not be necessary for assessors in many markets.

While I fully support the need to adequately regulate mortgage lending in order to provide better protection for the market and consumers, the argument is that the responsibility should lie with financial institutions and the entities charged with regulating how these institutions behave. The concept of PCVC or long-term value, that of calculating a future value (which may include a discount to the current market value) to determine the appropriate amount of a mortgage or investment, is the responsibility of the financial institution or investor - and, by extension, the regulatory agencies charged with overseeing these activities.

The requirement that the assessor applies conservative valuation criteria unfairly shifts the burden of responsibility to the appraiser, when it would be appropriate for those who benefit from the transaction to bear it. Fundamentally, this requirement regards the assessor as a de facto guarantor of the value of the loan or investment, which represents a level of risk exposure far greater than an appraiser should reasonably assume.

This type of provision also creates significant reputational risk, as the assessor would face severe criticism if, in the future, the market falls below the low level represented by the PCVC calculation. After all, a market value is understood as a value at a given date, which is not necessarily valid at a future date, while the assumption will certainly be that a value based on PCVC is assumed to be "evidence of impairment" in the future because it has been "adjusted to take into account the possibility that the current market price is significantly higher than the value that would be sustainable over the life of the loan" (future Capital Requirements Regulation, Article 229(1)(b)(ii)) [9].

At a time when the profession is facing biased undervalues in a number of markets, a requirement to draw up such a subjective value conclusion would undermine efforts to reaffirm fairness, impartiality and objectivity, and by extension, credibility and trust in the valuation profession.

Moreover, the calculation of PCVC relies heavily on the analysis of historical data. A valuation that relies heavily on historical data does not necessarily guarantee the accuracy of the result.

As we have seen during the COVID-19 pandemic and as a result of geopolitical events in recent years, markets can become extremely volatile in a short time.

According to the Canadian Real Estate Association, in Canada - a country known for its stable real estate market - at the national level, home prices fell by over 18% in a single year (January 2022 - January 2023). In times like these, it is difficult to design a statistical model that would anticipate such volatility.

Neither the profession nor the market would benefit from extending this approach beyond the EU borders, for the reasons set out above. In fact, we argue that every effort should be made to persuade the EU to abandon the measure it is currently considering.

An example of this type would be Guide B-20 used by the Office of the Superintendent of Financial Institutions 6 (OSFI). This guide mandates that federally regulated financial institutions implement a strict procedure for managing mortgage lending. This includes setting limits on the loan-to-value (LTV) ratio, requiring mortgage default insurance for high LTV loans, assessing current market values via multiple appraisals from professionals, and ensuring that loan applicants can and will repay their mortgages.

The current edition of the guides has been in place for over a decade and is widely recognized as the fundamental underpinning of the Canadian housing market. In conclusion, the AIC would strongly oppose the inclusion of “prudent conservative valuation criteria” or “long-term value” in future editions of the EVS or in the valuation methodology. The inclusion of any such references would serve only to systematically use them and would create significant pressure on non-EU assessors to adopt what is, a flawed approach to determining value [9].

5. Conclusions

When granting a loan, the market value is confirmation of a correct purchase price, but it does not provide information about the general level of prices at that time, whether it is too high or too low, it is a factual record, not an analysis, and it does not identify any cyclical aspects of the market. The transaction price at which the property could be exchanged at a given date - it has no validity period. The long-term value of real estate is the value of a real estate asset determined by a prudent assessment of the future marketability of the property, taking into account the long-term sustainability aspects of the property, normal and local market conditions, its current use and suitable alternative uses of the property. The LTV is a complete alternative model with different basic features. It can have the same or similar input data as those used for the MV and similar valuation methods are applied in its estimation, such as the investment or depreciated replacement cost method [10].

Basel III defines prudent value as most other types of loan collateral value, using terms such as long-term value or sustainable long-term value (LTV). The 2017 Basel III definition is as follows: the value of the property should be independently estimated using appropriate prudent valuation criteria [6]. To ensure that the value of the property is determined prudently, in an appropriate manner, the value should exclude expectations of price increases and should be adjusted to take into account the possibility that the current market price is significantly higher than the value that would be sustainable over the life of the loan. National supervisors should develop guidelines setting out prudent valuation criteria, where such guidelines are not already provided for in national law. Where a market value can be determined, the prudent value should not exceed the market value.

The Basel III requirements require major changes in valuation practice:

- The development of expertise across Europe, which takes time;
- The EU guidelines should be complemented in each EU Member State by national guidelines;
- The Basel III definition requires a comparison with the market value;
- Prudent value requires factors that influence the value of both commercial and residential properties:

Prudent property valuation should be supported by:

- Additional interpretations or guidelines and national valuation standards;
- Equally applicable to all national real estate markets;
- Will lead to changes in the assessor profession and banking practices;

- Additional specialist knowledge and training will be an absolute necessity.

The major constraints are the availability of information for historical time series which varies between EU Member States and the collection of reliable information about the past, which is a major challenge and the reproduction of the past is not an anticipation of future changes.

The implementation in the EU of the new regulations on the valuation of real estate for the purpose of securing loans requires:

- Alignment of valuation practice at European level;
- Development of national guidelines by regulatory authorities;
- Training and education of assessors;
- Development of some real estate data sets, preferably historical ones [11].

However, at international level, there are reservations regarding the implementation of the Basel III provisions. The Appraisal Institute of Canada (AIC) has long expressed substantial concerns about this approach, and it is not the only organization to have adopted this position. Based on discussions with other appraisers' organizations - including those in the US - neither "conservative prudential valuation criteria" nor "long-term value" would be welcomed in many parts of the world, and their inclusion would not be necessary for appraisers in many markets. The concept of PCVC or long-term value, that of calculating a future value (which may include a discount from the current market value) to determine the appropriate amount for a mortgage or investment, is the responsibility of the financial institution or investor - and, by extension, the regulatory agency charged with overseeing these activities [9].

The requirement that the appraiser applies conservative prudential valuation criteria unfairly shifts the burden of responsibility to the appraiser, when it would be appropriate for those who benefit from the transaction to shoulder this responsibility. Fundamentally, this requirement regards the appraiser as a de facto guarantor of the value of the loan or investment, which represents a much higher level of risk exposure than an appraiser should reasonably assume.

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RESEARCH ON TECHNOLOGICAL INNOVATIONS IN REAL ESTATE MANAGEMENT IN THE EU

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Abstract. *This article examines the main emerging technologies used in real estate management in the countries of the European Union such as: Internet of Things – IoT, Augmented Reality, Artificial Intelligence, the main research and development projects of real estate management: Horizon 2020 - EU program that finances research and innovation projects, including real estate management and smart buildings. The "Smart City" project aims to develop smart cities by renovating existing buildings and implementing sustainable energy solutions. Examples of successful implementations of technological innovations: Sweden - new buildings are equipped with building management systems (BMS) using IoT and AI, Germany - old buildings are upgraded to meet Passivhaus standards, using advanced insulation and controlled ventilation technologies for optimizing energy consumption and security, France- digital real estate management platforms used to centralize property data. All these innovations allow the optimization of resource management and the facilitation of communication between owners, tenants and administrators. What are the challenges and future perspectives, the benefits of implementing and how they can be used in the Republic of Moldova? These are presented in the conclusions.*

Keywords: *Emerging Technologies in real estate management, the main research and development projects of real estate management, Sustainability and Energy Efficiency, Smart City, Intelligent Buildings.*

1. Introduction

Starting with the definition of real estate management as a sustainable, complex process involving planning, decision-making, and communication processes related to the operation, control, and supervision of real estate properties, this process enables the management and maintenance of residential, commercial, or industrial properties on behalf of the owner. Effective property management must combine key objectives: financial objectives—expected future financial results in the form of cash flows generated by real estate properties, profits, etc.; social objectives—real estate developers' objectives towards society, manifested through the development and construction of housing in accordance with social standards, ecological norms, territorial specifics, and other aspects; consumer objectives—the development and construction of residential properties and multi-purpose real estate. Specialized companies or professionals in property management are employed to handle property management aspects, ensuring that the property is well-maintained, tenants are satisfied, and financial objectives are met. As we enter a new technological era, emerging innovations are shaping our lives in ways we are just beginning to understand. From invisible connections linking devices around us to vehicles navigating themselves through congested cities, these emerging technologies are not only technical advancements but also catalysts for social and economic change. The application of technological innovations in real estate management optimizes and efficiently achieves real estate management objectives in EU member countries. Currently, one of the most valuable projects in the field of research and innovation at the European level is the Lighthouse

program within Horizon 2020, with a value of approximately 400 million euros. "The flagship initiative under Horizon Europe titled "Smart and Climate-Neutral Cities" aims to support 100 cities in the EU to achieve climate neutrality by 2030 and serve as models so that all cities in the EU can follow their example by 2050. The group of experts employed by the Commission to contribute to the design of the mission has estimated that 100 European cities with an average population of 100,000 inhabitants will need to invest 96 billion euros to become climate-neutral by 2030" [1].

2. Emerging Technologies in Real Estate Management at the European Level

The implementation of emerging technologies in real estate management at the European level has become a priority in recent years due to the rapid evolution of technologies and the need to optimize industry processes. These technologies include Artificial Intelligence (AI), the Internet of Things (IoT), Augmented Reality (AR), Virtual Reality (VR), data analytics, and process automation.

2.1 Internet of Things (Internet of Things -IoT) is a system of interconnected computing devices, mechanical and digital machines, objects, animals, or people that are provided with unique identifiers (UID) and have the ability to transfer data through a network without the need for human-to-human or human-to-computer interaction. It consists of smart devices activated for the web that use embedded systems, such as processors, sensors, and communication hardware, to collect, send, and act on data they acquire from their environments. Sensors collect data. Devices in the IoT share sensor data by connecting to an IoT gateway or another edge device. From here, the data is either sent to the cloud for analysis or analyzed locally. Sometimes, these devices communicate with other connected devices and act based on the information they receive from each other. These devices do most of the work without human intervention [2]. IoT involves the connection and interaction of devices and sensors to collect and analyze data in real-time, which allows for timely, accurate warnings about the condition of structures. Sensors can also be used to monitor events or structural changes in buildings or bridges within cities, to monitor and reduce pollution in a city. These sensors can be integrated into an urban traffic monitoring and management system. When an area is overcrowded, the system, based on data collected from sensors, can redirect traffic. Smart city projects also integrate IoT with Artificial Intelligence to help citizens reduce waste and energy consumption.

Advantages of IoT technology in real estate management:

- IoT allows automated monitoring and control of energy, lighting, HVAC, and security systems.
- IoT enables energy consumption optimization, early detection of issues, and improved tenant comfort.

2.2 Artificial Intelligence (AI)- AI is the ability of a machine to imitate human functions such as reasoning, learning, planning, and creativity. AI enables technical systems to perceive the environment in which they operate, process this perception, and solve problems, acting to achieve a specific goal. "The computer receives data (already prepared or collected through its own sensors, such as a video camera), processes it, and reacts. AI systems are capable of adapting their behavior to some extent by analyzing the effects of previous actions and functioning autonomously"[3].

AI uses machine learning algorithms to analyze data collected from IoT sensors to make automated decisions. Smart homes, cities, and infrastructure are examples of AI applications. The implementation of AI includes smart thermostats that learn from our behavior to save energy, and smart city developers hope to control traffic to improve connectivity and reduce congestion.

Advantages of AI technology in real estate management:

- AI can be used for predictive analysis of maintenance needs, resource utilization optimization, and tenant experience personalization.
- Reduced maintenance costs, improved operational efficiency, and increased user satisfaction.

2.3 Augmented Reality (AR) Augmented reality enhances real-world images viewed through a specific device with graphic materials in two-dimensional or three-dimensional format, aimed at providing more detailed information on a subject without accessing other materials. AR files can be permanently improved and replaced on a server so that the information users obtain is always updated in accordance with the latest requirements and trends in the field. This is a significant advantage over printed sources, which are subject to moral obsolescence, except for laws and physical principles that remain unchanged [4].

Advantages of AR technology in real estate management:

- AR can be used for building maintenance and repairs, providing technicians with real-time visual instructions.
- It can also be used for virtual property presentations.
- Reducing maintenance errors, improving repair team efficiency, and attracting potential clients through interactive presentations.

2.4 Successful Implementations of Emerging Technologies in Real Estate Management at the European Level

2.4.1 Smart Buildings In Sweden, many new buildings are equipped with Building Management Systems (BMS) that use IoT and AI. A BMS is a computer-based control system installed in a building that controls and monitors mechanical and electrical equipment such as ventilation, lighting, power systems, fire protection systems, and security systems. “Smart buildings are characterized by the integration of modern technologies, enabling automated and intelligent management of resources, leading to positive impacts on sustainability and energy efficiency. **As a result of the implementation**, energy consumption was reduced by up to 25%, according to the Swedish Energy Agency”[7], improving tenant comfort and reducing operational costs.

2.4.2 Sustainability and Energy Efficiency- In Germany, old buildings are being modernized to meet Passivhaus standards, using advanced insulation and controlled ventilation technologies. As a result of the implementation, energy consumption for heating and cooling has been reduced, property values have increased, and the quality of life for tenants has improved.

2.4.3 Digital Platforms for Real Estate Management

Digital property management platforms simplify and automate the daily tasks of property owners and administrators. Their main functions include managing real estate properties, which encompass physical spaces, tenant relationships, leasing processes, and accounting. These platforms cater to various types of residential and commercial properties and can vary

depending on the size of the property portfolio. Options for property management software range greatly, from basic tools to comprehensive Enterprise Resource Planning (ERP) systems. The effectiveness of a property management solution can be enhanced when integrated with leasing payment software, lease administration software, property accounting software, or community association management software. In France, digital real estate management platforms are used to centralize property data. These software systems facilitate the efficient management of real estate activities such as property management, rental monitoring, payment and contract management, and the optimization of maintenance processes and communication between owners, tenants, and managers. These platforms are used by real estate agents, developers, homeowner associations, and property managers. The most common platforms are: *Buildium*, *AppFolio*, *Propertyware*, *TenantCloud*, and *MRI Software*.

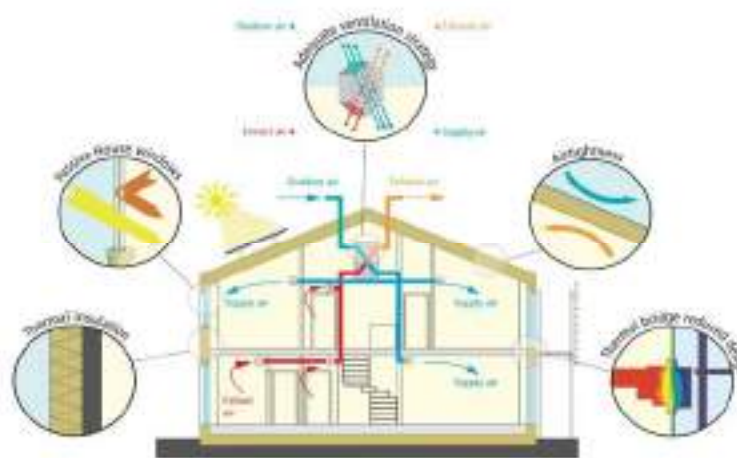


Figure 1. Principles applied in the construction/rehabilitation of buildings according to Passivhaus standards. Source:[8]

As a result of its implementation, administrative processes have been streamlined, transparency has improved, and tenant satisfaction has increased. Both real estate agencies and property owners can streamline operations, improve tenant relationships, and maximize financial returns.

3. The main directions of Research and Development the EU

"The EU is highly urbanized, with nearly 75% of its citizens living in cities, and this percentage is expected to increase to 80% by 2050" [1]. Cities and metropolitan areas are essential economic actors but also major sources of greenhouse gas emissions and pollution of air, water, and soil. Using technology to improve how cities are managed can contribute to achieving three of the EU's priorities: the Green Deal, and an economy serving the citizens. "In a smart city, sustainable urban development is achieved with the help of 'new, efficient, and user-friendly technologies and services, especially in energy, transport, and information and communication technologies" [2]. In addition to using technology to save resources and reduce pollution, a smart city also aims to ensure greater responsiveness and accessibility of urban services, improve safety in public spaces, and enhance transportation, water and waste management, street lighting, and building heating.

3.1 Research and Development Projects in the EU

Horizon 2020 was the EU's research and innovation funding program for the period 2014-2020, with a budget of nearly 80 billion EUR, funding research and innovation projects, including in the fields of real estate management and smart buildings." The total funding allocated to Lighthouse projects under Horizon 2020 amounted to 381 million euros. The value of the supported projects, including co-financing, is 446 million euros." [4] This program is now followed by the Horizon Europe program. Horizon Europe is the EU's key funding program for research and innovation. "Following the decision on the mid-term evaluation of the multiannual financial framework (MTR), the indicative funding amount for Horizon Europe for the 2021-2027 period is 93.5 billion EUR." [9]

Table 1 – Key features and enabling technologies of smart cities

FEATURES	ENABLING TECHNOLOGIES
• Energy efficiency and green energy • Water and waste reuse • Public safety • Innovative education and healthcare • Green buildings/housing • Efficient mobility and public transport • Innovative citizen services • Climate and stress resilience • Social inclusion • e-Governance • Transparency and privacy protection	• Internet of Things • AI and machine learning • Data analytics • 5G • Smart sensors • Data governance and security • E-government tools • New materials for energy efficiency • Smart grids • Energy storage and renewable energy technologies • Geospatial technology

Source: ECA [5]

The "Smart City" project aims to develop smart cities through the renovation of existing buildings and the implementation of sustainable energy solutions.

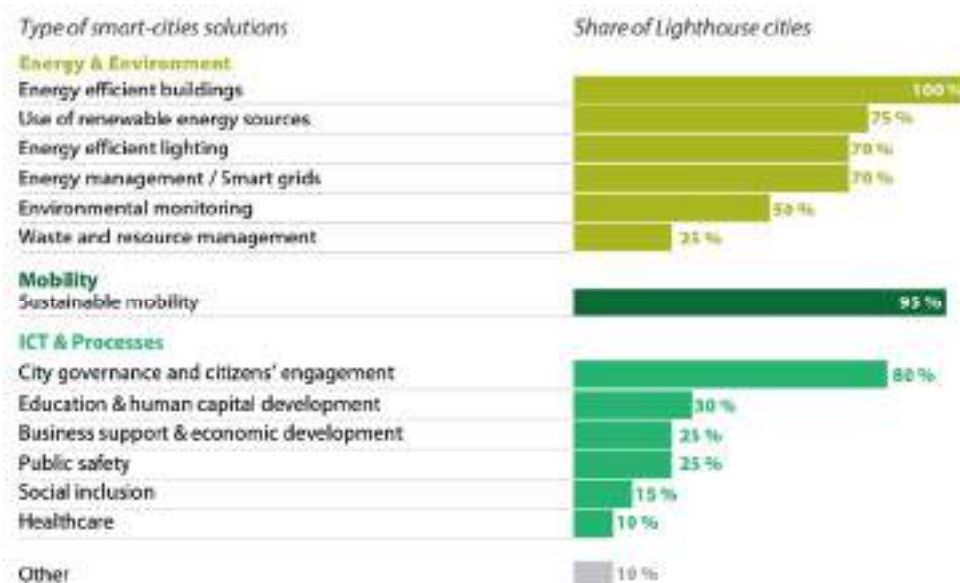


Figure 2 – Types of smart-city solutions and the share of Lighthouse cities introducing them

Source: ECA survey [5]

Examples of "smart city" solutions implemented by Lighthouse projects:

BARCELONA (Spain) – The city of Barcelona demonstrated a "smart tower" solution that transforms streetlights into urban telecommunications hubs spread throughout the city, improving wireless network connections. The towers provide an open-source connectivity infrastructure that can host various types of sensors, including air quality sensors or traffic monitoring sensors. This solution responds to the growing demand for connectivity and enables Internet of Things (IoT) functionalities. The municipality installed nine such towers as part of the "GrowSmarter" project, which served 2,200 users and managed data with a volume of 55 GB per month. After the project concluded, the municipality began installing additional towers in other parts of the city.



Figure 3. Smart tower in Barcelona

Source: [5]

DRESDEN (Germany) – As part of the "MAtchUP" project, the city of Dresden implemented a new thermal energy storage solution at the Reick Innovation power plant to enhance the efficiency of district heating. The installed thermal energy storage system consists of 20 pressure tanks with a total capacity of 7,800 m³ of water, in addition to the already installed 6,600 m³ capacity. The newly expanded unit offers greater flexibility in energy supply and optimizes the operation of the power plant, thus reducing annual CO₂ emissions by over 7,300 tons. In the long term, the system will enable the storage of green heat produced from renewable energy sources, ensuring even greater environmental benefits.[5]



Figure 4. Thermal storage at the Reick Innovation Power Plant, SachsenEnergie, Killig 2021

Source: [5]

ROTTERDAM (Netherlands) – As part of the "Ruggedised" project, RET, the public transport operator in Rotterdam, developed planning software to optimize the charging schedules of its electric buses. The software uses real-time information about the buses' battery levels and urban traffic to optimize bus routes and reduce overall consumption, while still adhering to schedules. RET plans to expand this solution to its entire fleet of buses in Rotterdam, which, by 2030, is expected to be fully composed of electric buses.[5].



Figure 5. Electric buses in Rotterdam

Source: [5]

The implementation of "smart city" type solutions were not always welcomed in some cities, they had obstacles from the inhabitants. ***Examples of situations where resistance from residents hindered the implementation of smart city solutions in various cities:***

1. Tenants of apartments subject to a project blocked the renovation of the buildings in which they lived, fearing that the works would lead to higher rents and not

recognizing the anticipated benefits, such as lower energy bills and increased comfort.

2. Low-income families living in social housing targeted by a Lighthouse project could not afford to invest together with the project in improving the energy performance of their homes.
3. Taxi drivers opposed the introduction of a geolocation application designed to reduce urban traffic congestion, as they did not trust the service provider and disagreed with the data processing involved.

4. Conclusions

Emerging technologies are rapidly transforming the European real estate sector and bringing multiple benefits to property management, while successful implementations in various countries point to a promising future for this industry. From streamlining building management through IoT and AI, to increasing transparency and security in real estate transactions through digital platforms, technological innovation is the key to a more sustainable, efficient, and accessible real estate industry. These technologies not only optimize operational processes but also enhance the user experience, contributing to the development of a more modern real estate sector, better aligned with the economic and ecological demands of the future.

The main advantages of implementing emerging technologies in the property management process are: **Development of Smart Buildings:** Emerging technologies will continue to transform buildings into intelligent entities, capable of self-managing and optimizing resource consumption. **Sustainability and Energy Efficiency:** Technological innovations will play a crucial role in achieving energy efficiency goals and reducing carbon emissions. **Consumer Experience:** Technologies such as AR and AI will significantly improve the experience of tenants, giving them greater control over the environment in which they live and work.

The main disadvantages of implementing emerging technologies in the property management process are: **Integration Difficulties:** Integrating them into an existing infrastructure can be complex and costly. **Data Security:** The use of IoT and AI raises issues of data security and confidentiality. **Regulations and Standards:** The need to harmonize regulations and standards at the EU level to facilitate the uniform implementation of technologies.

The implementation of emerging technologies in the real estate management sector in the Republic of Moldova would face all the obstacles mentioned above (difficulty in the implementation process, data security, lack of normative and legislative framework), but these technologies would not only optimize operational processes but also significantly improve the user experience, thus contributing to the development of a more modern real estate sector, better suited to the economic and ecological requirements of the future.

Acknowledgments: The article was made within the research project no. 020408 „Research on Ensuring Sustainable Development and Increasing Competitiveness of the Republic of Moldova in the European Context”.

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RISK MANAGEMENT ASSOCIATED WITH REAL ESTATE PROPERTIES, PROBLEMS AND SOLUTIONS IDENTIFIED IN EU MEMBER STATES.

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Abstract. *The process of risks management associated with real estate properties requires the involvement of all factors, both those with management positions and those with executive duties, by establishing clear responsibilities at the level of all organizational and decision-making structures. In this article, are presented and examined the problems associated with real estate property risks: economical, technical, legal and environmental risks. Solutions identified within the EU to overcome the problems caused by the risks generated by real estate properties: Risk Analysis and Assessment, Insurance, Proactive Planning and Management, Technologies and Innovations, Compliance and Consulting. Examples from EU member countries are being studied: Germany - Advanced Comprehensive Monitoring and Insurance Systems, France - Strict Energy Efficiency Regulations, Compliance Consulting, Netherlands- Ecological Remediation Projects, Advanced Insurance Systems.*

The risks management associated with real estate is an important means by which an efficient and effective internal managerial control system is implemented at the national level. An effective risks management associated with real estate that includes economic, technical, legal and environmental risks requires that the entire risk management process be permanent and ensure the connection to the process of continuous change and adaptation. In the conclusions, suggestions are presented for overcoming the risks associated with real estate properties based on the experience of the EU member countries, how they can be used in the Republic of Moldova and the future perspectives.

Keywords: *real estate risks, risk analysis and assessment, insurance, proactive planning and management, technologies and innovations, compliance, and consulting.*

1. Introduction

"Risk management represents the process of handling risks by identifying, assessing, and then minimizing or monitoring them to keep them at a level where their impact is minimal" [2].

The risk management associated with real estate properties refers to the process of identifying, evaluating, and implementing measures to control and minimize the risks that can affect the value or functionality of real estate assets. Risk sources for real estate properties can come from a wide range and may impact property owners, tenants, investors, and real estate developers. The process of managing risks associated with real estate properties requires a systematic approach from all participants involved in the administration of real estate assets, including both those in leadership roles and those with executive responsibilities. This involves establishing clear responsibilities at all organizational and decision-making levels.

2. Problems Associated with Risks of Real Estate Properties

Real estate properties, whether residential or commercial, are often considered safe long-term investments. However, they can involve various risks that may impact the value, profitability, and viability of the investment. The most significant risks include:

2.1 Economic Risks associated with real estate properties are complex, and investors must be prepared to face a variety of factors that can influence the value and demand for these

properties. Careful evaluation of these risks is essential to minimize their negative impact. These risks can be caused by:

Real Estate Market Fluctuations- property prices can vary significantly depending on economic conditions, supply, and demand. *Economic Instability*- economic crises and recessions can reduce the demand for real estate and affect rental income.

2.2 Legal Risks- arise from the improper enforcement or application of legal or contractual provisions, which negatively affect the management process of real estate assets. These risks manifest through:

Regulations and Legislation: Legislative changes and strict regulations can impact real estate properties. For instance, environmental protection laws and renovation requirements may impose additional costs.

Title Issues: Disputes over property ownership rights can lead to financial losses and delays in transactions.

2.3 Technical Risks - represent potential dangers or damages that may arise from the use or implementation of technologies. These risks can significantly affect the safety, functionality, and integrity of real estate assets. The main sources of these risks include:

Maintenance and Repair: Deficiencies in the maintenance process of real estate properties can lead to the deterioration of buildings and high repair costs.

Technological Obsolescence: Outdated infrastructure and equipment can become inefficient, reducing property value and causing high maintenance and operational costs.

2.4 Environmental Risks - in the broadest terms, environmental risk is the result of the interaction between human activity and the environment. "Environmental risk can be addressed from two perspectives, as discussed in works such as *Environmental risk characterization principles* (Proceedings of the 6th Conference on Environment and Mineral Processing, part I, pp. 17-21, VŠB-TU Ostrava, Czech Republic, 27-29.06.2002) and *Environmental risk management in mining – An overall approach*(Proceedings of the Third International Symposium 'Mining and Environmental Protection', pp. 22-27, Belgrade-Vrdnik, Yugoslavia, 21-23.05.2001), by authors Băbuț G. and Moraru R., namely risk to the environment and risk to the organization" [4]. Environmental risk differs significantly from other types of risks because its unique characteristics reflect the complexity of the environment. In the context of real estate, it refers to: *Climate Change*-extreme weather events, such as floods and storms, can cause significant damage to real estate properties. *Pollution and Contamination*-properties located in polluted areas can face health issues for occupants, leading to a decrease in property value.

3. Identified Solutions for Overcoming Problems Caused by Real Estate Property Risks in EU Member States

The problems overcoming caused by risks associated with real estate properties requires a series of strategies and preventive measures that can help investors, managers, and property owners minimize potential losses or challenges. This involves identifying, evaluating, and implementing solutions to mitigate or eliminate negative effects on the management and administration of real estate assets. The following actions are recommended:

3.1 Risk Analysis and Assessment- at the EU level, there are no fixed rules regarding how risk assessments should be carried out (specific legislation related to risk assessment in each country must be checked). However, two basic principles are generally considered during a risk assessment: Structuring the Assessment which ensures that all relevant hazards and risks are addressed and applying the First Principles Approach which consists of identifying a risk and beginning the assessment process by determining whether the risk can be eliminated. To achieve this, the following steps should be undertaken: **Periodic Evaluation**: Conduct

regular risk assessments to identify potential issues and develop strategies for reduction and mitigation. **Use of Analytical Tools:** Using risk analysis tools and software to assess the impact and likelihood of risks.

3.2 Real Estate Insurance- protects individuals or legal entities against various risks, such as fire, flooding, damage, or illegal actions by third parties. This is achieved through: **Insurance Policies-** *signing insurance policies that cover a range of risks, including natural disasters, fires, and legal liabilities.* The object of the insurance consists of the policyholder's patrimonial interests, covering properties owned, leased, or held under other legal titles. These rights may include possession, use, and disposal as stipulated by the law. **Liability Insurance-** *Civil liability insurance protects against risks of legal disputes and compensation claims.* “Liability insurance helps the insured meet their legal obligation to compensate third parties for damages caused in various scenarios where they bear civil liability. It covers expenses related to compensation for incidents specified in the policy, providing support in both personal and professional risk management. By implementing these insurance measures, property owners and administrators can safeguard against significant financial losses and ensure stability in managing real estate risks” [9].

3.3 Proactive Planning and Management- proactive management emphasizes anticipating future challenges and opportunities rather than merely reacting to events as they occur. This approach involves initiative, advance planning, and implementing preventive measures to address potential problems before they escalate [10]. Key components of proactive planning include: “**Business Continuity Plans (BC)**”- Business continuity planning aims to minimize the risk of disruptions. It involves efforts to reduce the likelihood of a disruptive incident and prepare the organization to continue delivering essential products and services in the event of a disruption” [10]. Developing and implementing business continuity plans ensures operational functionality during emergencies, safeguarding critical activities. **Preventive Maintenance:** implementing a preventive maintenance program helps identify and resolve issues before they become critical. Preventive maintenance is crucial for ensuring the durability and functionality of buildings in the long term. In the EU, preventive maintenance practices vary by country but are guided by common principles outlined in European legislation, such as: The Energy Performance of Buildings Directive (2010/31/EU)- establishes standards for the energy performance of buildings, including regular maintenance of energy systems; and **The EU Green Deal Strategy**-emphasizes sustainability in building renovations and new constructions, incorporating preventive maintenance as part of sustainable building management.

3.4 Technologies and Innovations- technologies and innovations play a vital role in preventing, managing, and overcoming risks associated with real estate properties. **Building Management Systems (BMS)**- is essential for optimizing the operation of modern buildings, offering clear benefits in energy efficiency, occupant comfort, security, and sustainability. A well-implemented BMS not only reduces operational costs but also extends the lifespan of equipment through predictive maintenance and early detection of issues. BMS systems provide intelligent building management by integrating various subsystems (e.g., HVAC, lighting, and security), enabling efficient monitoring and control. By leveraging advanced technologies like BMS, property managers can enhance risk mitigation, improve efficiency, and ensure long-term sustainability.

Environmental Monitoring Technologies: Environmental monitoring aims to provide a real-time description of environmental quality for a specific area, offering an overview and highlighting trends in both biotic and abiotic components, as well as their interconnection [1].

Implementing technologies to monitor air, water, and soil quality around real estate properties significantly reduces associated risks. Such systems allow for early detection and

management of environmental hazards, contributing to the long-term sustainability of properties.

3.5 Examples of Best Practices in the EU

3.5.1 Germany - utilizes **advanced monitoring systems** to ensure property security, efficient management, and compliance with legal regulations. These systems employ cutting-edge technologies for the physical and digital monitoring of real estate assets, aiding in risk detection and mitigation. Examples include: **GPS and GIS Systems (Geographic Information Systems)**: These technologies are employed by property management firms to track the location and condition of various real estate assets, from commercial and industrial buildings to residential complexes. GIS allows the integration of geospatial data for more efficient property management.

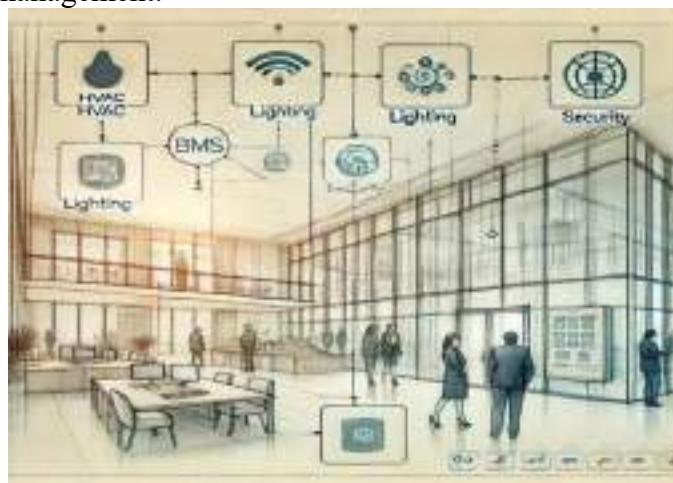


Figure 1. BMS: Building Management System – Intelligent Building Management

Source: [14]

Environmental and Structural Sensors: Sensors monitor environmental conditions (e.g., humidity, temperature, pressure) both inside and outside buildings in real-time. They can also detect imminent structural defects or other issues that may compromise safety. Alerts generated by these systems enable swift intervention, preventing costly damages.

Advanced monitoring technologies help safeguard real estate assets, enhance their management, and optimize costs. While the initial implementation can be expensive, such systems are gaining popularity in Germany due to their efficiency and the high level of security they provide. These technologies also align with Germany's emphasis on sustainability and proactive risk management.

Advanced Insurance Systems: In Germany, this specific type of insurance is called **Hausratsversicherung** (Household Contents Insurance)[16]. According to the official consumer center (**Verbraucherzentrale**), household contents insurance covers the following:

Natural hazards:

- Hailstorm
- Blizzard (wind force 8/62 km/h)
- Hail (solid precipitation in the form of ice)

You have the opportunity to recover 100% of the insured amount against lightning strikes and burns caused by overvoltage.

Other natural hazards

- Floods, stormwater, earthquakes, landslides
- Pressure caused by snow, avalanche, volcanic eruption

The following costs will be covered for damages:

- Elimination and reduction of damage costs (cost reimbursement)
- Cleaning costs
- Mobility and protection costs
- Hotel costs
- Shipping and storage costs
- Cost of changing locks
- Security costs
- Repair costs in case of building damage
- Costs for temporary measures
- Damage and burns caused by overvoltage

Figure 2. Costs covered for damages.

Source: [16]

3.5.2 *France* has adopted strict measures for renovating old buildings to bring them in line with modern standards, both in terms of energy efficiency and the preservation of architectural heritage. These regulations are part of a broader trend to reduce carbon emissions and protect historical buildings, which constitute a significant part of France's urban landscape. The new Energy Efficiency Directive [(EU) 2023/1791], which came into force in October 2023, raises the EU's energy efficiency targets. These new objectives aim to reduce primary and final energy consumption in the EU by 11.7% by 2030, compared to 2020 projections. In absolute terms, the EU's primary and final energy consumption by 2030 will not exceed 992.5 Mtoe and 763 Mtoe, respectively [18].

Strict Regulations on Energy Efficiency: France imposes strict regulations on the renovation of old buildings to bring them up to modern energy efficiency standards through the *Passeport Efficacité Énergétique* - Energy Efficiency Passport - which is an experimental tool that provides an energy audit and a roadmap tailored to the renovation of buildings for individual residential buildings [19], thus reducing both economic and environmental risks.

Consultancy for Compliance: Property owners in France frequently collaborate with legal consultants to ensure they comply with all current regulations.

3.5.3 *The Netherlands*, being one of the most advanced countries in sustainability and environmental protection, implements various projects and policies to reduce the ecological impact of buildings and real estate infrastructure. The Netherlands promotes the development of buildings that produce as much energy as they consume, or even more. These buildings are equipped with state-of-the-art technologies such as photovoltaic panels, energy storage systems, and superior insulation. Such projects are promoted both for residential and commercial developments, aiming to create a built environment where the environmental impact is minimized. Certification of buildings with ecological standards, such as **BREEAM, LEED, or DGNB**, evaluates the ecological impact of the building, including resource use, energy efficiency, air quality, environmental impact, and others. In the Netherlands, there is a strong emphasis on integrating green buildings into urban areas. Many new office and residential projects are designed to meet the highest ecological standards and contribute to reducing the carbon footprint of the real estate sector.



Source: [25]

The Most Remarkable Ecological Recovery Projects are:

- **De Ceuvel (Amsterdam):** An example of ecological regeneration of a former shipyard in northern Amsterdam, transformed into a creative and sustainable urban area. "De Ceuvel is an example of circular and ecological design, with buildings made from recycled materials and benefiting from renewable energy systems" [23].
- **Sustainable Neighbourhoods (The Hague):** This urban regeneration project includes the construction of sustainable housing, with a strong focus on energy efficiency, water management, and the use of durable materials [24].
- **Markthal (Rotterdam):** Another example of integrating sustainability into an urban area is the Markthal in Rotterdam, a covered food market that incorporates ecological solutions, including solar panels and efficient energy and water systems. The building is partially powered by renewable energy, including solar and geothermal energy, contributing to reducing the carbon footprint of the complex.

The Netherlands has implemented ecological recovery projects to rehabilitate contaminated land and thus reduce environmental risks.

Advanced Insurance Systems: Home insurance is very popular in the Netherlands and can include several types:

- **Homeowners Insurance (Opstalverzekering):** This is mandatory insurance for owned homes. It covers damages caused by fires, storms, floods, or other accidents that could affect the structure of the house.
- **Tenant's Insurance (Inboedelverzekering):** Covers personal belongings within the home, including furniture, appliances, and other items. It is recommended but not mandatory for tenants.
- **Liability Insurance for the Home (Aansprakelijkheidsverzekering):** Covers damages caused to other people or properties due to accidents occurring in your home [26].

4. Conclusions

For effective management of real estate and an easy understanding of the risks to which real estate can be exposed during the exploitation process, it is necessary to manage the risk management process appropriately. Risk management is an essential tool through which an efficient internal management control system is implemented at all stages of property management. The risk management process requires the involvement of all factors, both those with leadership roles and those with executive responsibilities within the real estate management process, by establishing clear responsibilities at all organizational and decision-making levels. In order to minimize the risks generated by real estate, which will subsequently result in reducing losses or problems caused by these risks according to EU practices, the following measures should be undertaken locally:

- Risk Analysis and Evaluation should be carried out through periodic assessments using risk analysis tools and software to evaluate the impact and probability of risks.
- Advanced Insurance Systems for Real Estate- *signing insurance policies that cover various risks, including natural disasters, fires, and legal risks, protecting individuals or legal entities from various risks.* In many EU countries, these are mandatory. Implementing this practice in the Republic of Moldova would significantly reduce losses for property owners resulting from different risk scenarios.
- Using Proactive Management which involves focusing on anticipating future challenges and opportunities, rather than simply reacting to events as they occur. This management style involves initiative, forward planning through a *Business Continuity Plan*, and the implementation of preventive measures through *Preventive Maintenance* to address potential issues before they become problems.
- Applying New Technologies and Innovations plays a crucial role in developing solutions that can help prevent, manage, and even overcome risks associated with real estate properties. Building Management Systems (BMS) implemented in the EU help reduce energy losses, optimize costs, and maximize the income generated by real estate properties.
- Efficient management of the risks generated by real estate management means that the entire risk management process must be continuous, constantly changing, and adapting to contemporary needs.

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THE IMPORTANCE OF GREEN CERTIFICATES IN THE CONSTRUCTION SECTOR OF THE REPUBLIC OF MOLDOVA IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT: LEGISLATIVE FRAMEWORK AND INTERNATIONAL CHALLENGES.

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Abstract. *In a global context where climate change and the transition to renewable energy sources are major priorities, the Republic of Moldova is undergoing a transformation of its energy sector with the aim of improving its sustainability and efficiency. A key element of this transition is the use of green certificates, which are employed to stimulate the production of energy from renewable sources. This article examines several relevant aspects that highlight the importance of green certificates in the construction sector of the Republic of Moldova within the context of sustainable development, namely: the national and international legislative framework that supports the implementation of green certificates, as well as an international analysis of green certificates and examples of countries that have successfully integrated these mechanisms to enhance energy efficiency in construction. The article also emphasizes the importance of implementing green certificates for the Republic of Moldova, considering the significant potential to reduce carbon emissions and promote sustainable building practices. Additionally, we address the requirements for implementing green certificates and the steps involved in obtaining them.*

Keywords: *energy efficiency, green certificates, renewable energy sources, sustainable development, sustainability.*

1. Introduction

The term "green certificates" comes from the concept of a "support mechanism for renewable energy," aimed at stimulating the production and use of energy from non-polluting sources [1]. At the national level, the Republic of Moldova has adopted significant legislative measures, including Law No. 10/2016 on renewable energy, which regulates the issuance of green certificates to support renewable energy producers and encourage the integration of clean energy sources into the national grid. At the same time, the 2020-2030 National Integrated Energy and Climate Plan, an essential strategic document, outlines ambitious measures to significantly increase the share of renewable energy in the Republic of Moldova's energy mix. These objectives are aligned with international commitments made under the Paris Agreement on climate change, which aims to reduce greenhouse gas emissions and promote a more sustainable energy system [2-4].

2. Legislative aspects

The Republic of Moldova, with an energy system characterized by significant dependence on traditional energy sources, has begun to implement legislative measures to

support the transition to a green economy. A key tool in this direction is the green certificate system, which aims to support the production and consumption of energy from renewable sources. Compared to other European Union member states or other advanced economies, the legislation concerning green certificates in the Republic of Moldova can still be considered relatively young and incomplete; however, there are still several laws and regulations presented in Figure 1.

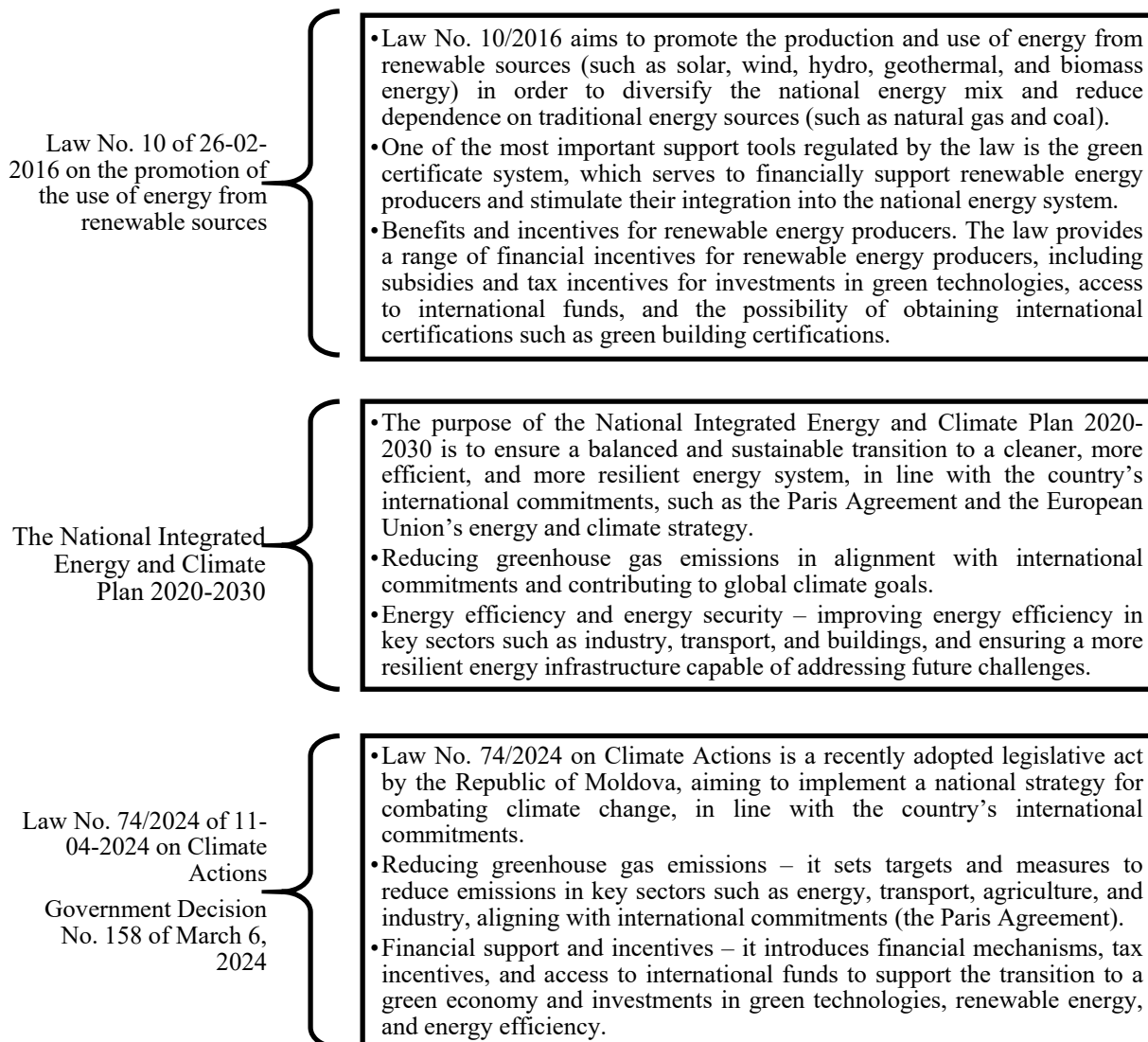


Figure 1. Legislative acts in the context of green certificates in the Republic of Moldova [2-4].

The presented normative acts – the National Integrated Energy and Climate Plan 2020-2030, Law No. 10/2016 on Renewable Energy, and Law No. 74/2024 on Climate Actions – form a coherent and essential legislative framework for guiding the Republic of Moldova toward a sustainable and resilient energy system, in line with international commitments. These regulations are based on fundamental principles of environmental protection, energy efficiency, and energy security, with the goal of reducing greenhouse gas emissions, promoting renewable energy, and improving energy efficiency. At the same time, these normative acts support Moldova's integration into the European energy market and the promotion of a green and sustainable economic model, which will contribute to improving

quality of life and enhancing economic resilience. In the Law on Climate Actions, approved by Government Decision No. 158 on March 6, 2024, and subsequently approved by Parliament in the second reading on April 11, 2024, the Republic of Moldova has set the goal of achieving climate neutrality by 2050 [2-4].

The presentation of the consumption of renewable sources (wind energy, photovoltaic energy) is shown in Table 1.

Table 1. The evolution of energy consumption from renewable sources

No	Renewable energy capacity	Years		
1	Installed wind energy capacity, MW	2020	2025	2030
2	WEM	37	67	167
3	WPM	37	142	600
4	Installed photovoltaic energy capacity, MW	2020	2025	2030
5	WEM	5	187	215
6	WPM	5	207	325

The Republic of Moldova has made significant progress in the development of wind and photovoltaic energy, as well as in integrating them into the national energy mix, although the process is still under development and faces certain challenges. According to the data presented in the Government Decision, this sector will continue to develop [4]. Figure 2 shows the projected greenhouse gas emissions up to 2050.

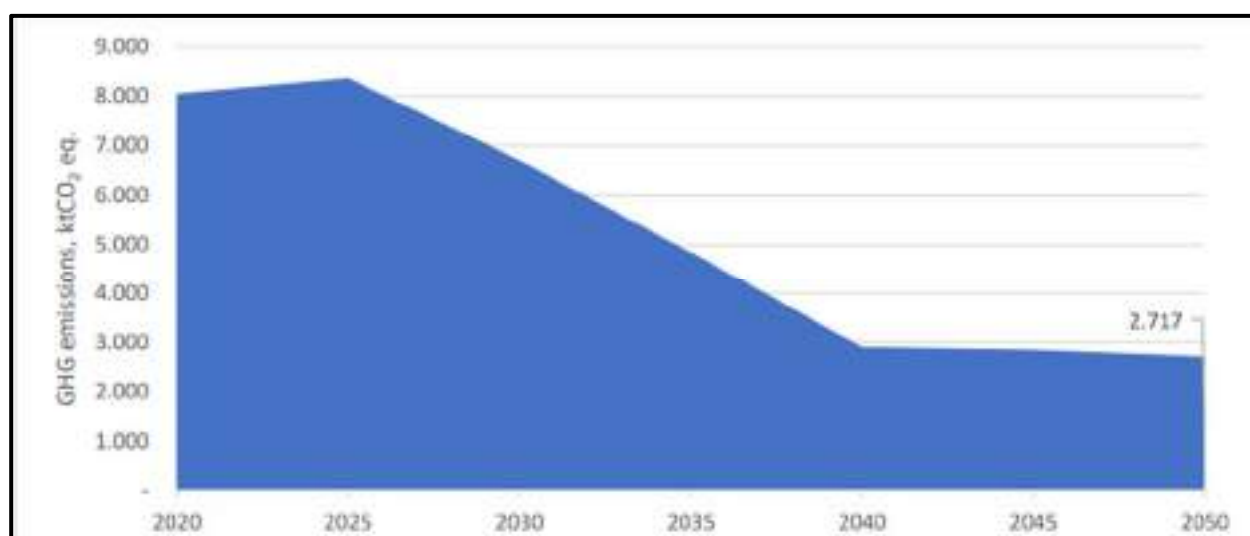


Figure 2. Greenhouse gas emissions up to 2050

Reducing greenhouse gas emissions by 2050 is one of the key objectives of the Republic of Moldova within its climate neutrality strategy. According to the Climate Actions Law, approved in 2024, the country has committed to significantly reducing greenhouse gas emissions (GHG) by 2050, with the aim of achieving a net-zero balance, meaning not emitting more greenhouse gases than can be absorbed or offset through emission reduction measures and carbon absorption [4].

3. International analysis regarding green certificates

In the context of climate change and the need to reduce the negative environmental impact, the construction sector plays a key role in promoting sustainability. Green buildings, or more specifically, "green certificates in construction," are a key tool in this global effort, providing a framework for evaluating and recognizing buildings that meet strict ecological

and energy efficiency standards. These certifications are used not only to support the development of more sustainable buildings but also to encourage companies to adopt more environmentally responsible practices and reduce the negative impact of their activities on the planet. At the international level, various green certification systems have been developed and implemented to assess the ecological performance of buildings based on specific criteria such as energy efficiency, resource use, water management, and occupant health impact. Over the decades, these systems have evolved and been adopted by governments, real estate developers, and international organizations, becoming a standard for many new buildings or building renovations.

Figure 3 shows the most relevant and widely used green certification systems.

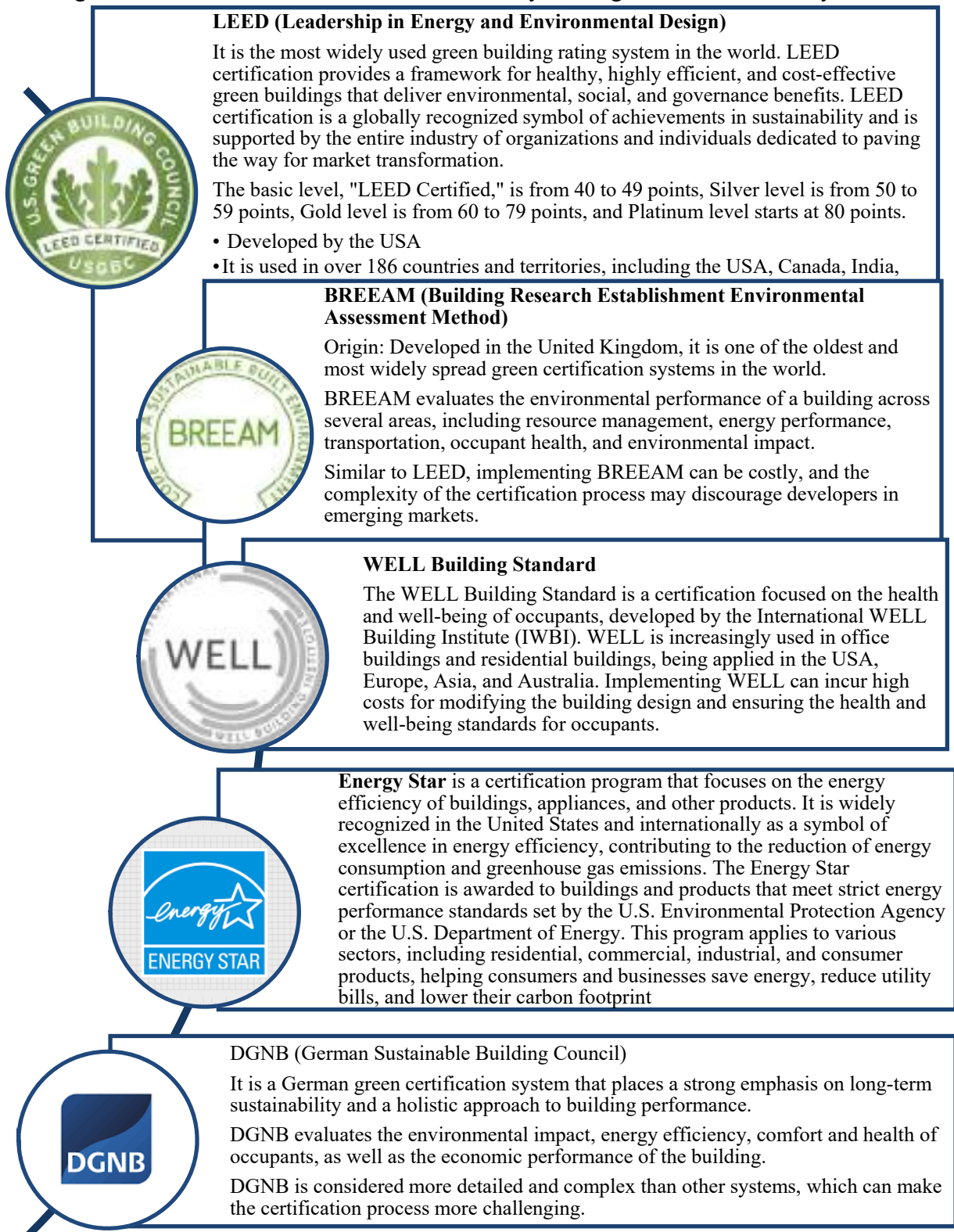


Figure 3. Internationally recognized green certification systems [6-8].

Certification programs are crucial in the green building industry as they help recognize specific achievements and qualifications, while simultaneously encouraging the adoption of advanced practices and sustainable materials. For newcomers to green construction, gaining expertise and figuring out where to start or how to approach this complex field can be challenging. Despite the wealth of information available, the

overwhelming volume of data can be confusing and unclear regarding what to learn first. Fortunately, industry leaders with experience in both using and developing green building certifications have shared their insights on the essential role these certifications play in the green residential market [6-8].

Figure 4 shows the stages through which green certificates are issued internationally.

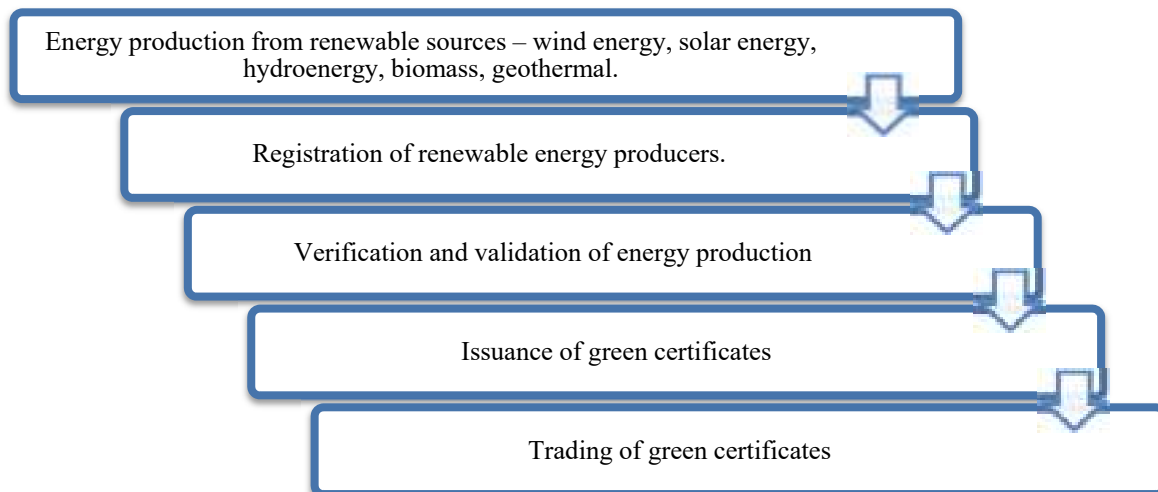


Figure 4. The process of issuing green certificates internationally [1].

The issuance of green certificates is a complex but essential process for supporting the transition to cleaner and more sustainable energy. These certificates are an important tool for encouraging the production of renewable energy and helping governments meet carbon emission reduction targets. Despite differences in implementation across countries and regions, the process of issuing green certificates is regulated and closely monitored to ensure market integrity and compliance with environmental regulations. The trading of green certificates is allowed for renewable energy electricity producers and for market operators with an obligation to acquire green certificates, in a transparent, centralized, and non-discriminatory manner on centralized markets managed by the electricity market operator.

Figure 6 shows the number of green certificates issued in different countries around the world.

China is the main player in the I-REC market, having issued nearly 175 million certificates in 2023, accounting for about 34% of the total market, followed by Brazil. These two countries benefit from significant installed capacity in renewable energy, particularly from hydroelectric and wind sources. Due to this vast potential for green energy generation, China and Brazil have the opportunity to further expand I-REC certification, thus contributing to the development of the global renewable energy certificate market and supporting international sustainability goals.

Green certificates are an essential tool for promoting the production and use of renewable energy. These certificates are issued by national authorities and represent a way for countries to support the transition to a more sustainable energy system. However, each country or region can implement green certificate systems differently, depending on available resources, policies, and energy objectives [9]

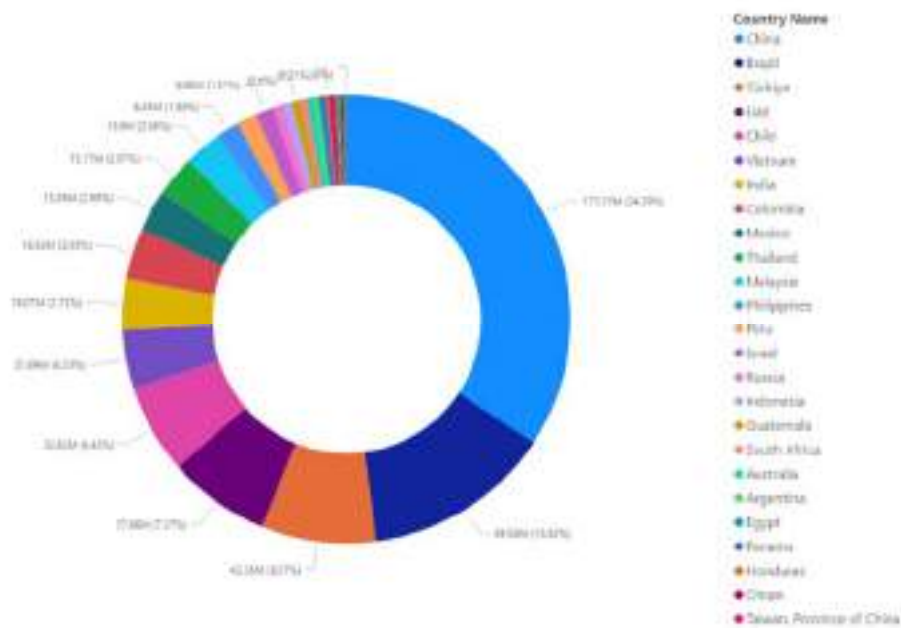


Figure 5. The number of certificates issued [8]

Main components of the energy certificate:

An energy performance certificate contains important elements:

- Energy class (from A+ to G) – a classification of the building's energy efficiency
- Annual specific energy consumption (kWh/m²/year) – measures the total energy consumption per square meter per year
- Annual CO₂ emissions (kg CO₂/m²/year) – shows the building's environmental impact
- Recommendations for improving energy performance [6].

4. Importance and Implementation of Green Certificates

Green certificates are an essential tool in promoting renewable energy and supporting the transition to a cleaner and more sustainable energy system. They are issued as recognition for energy produced from renewable sources and contribute to achieving global and local climate goals.

Figure 6 illustrates the benefits that green certificates bring.

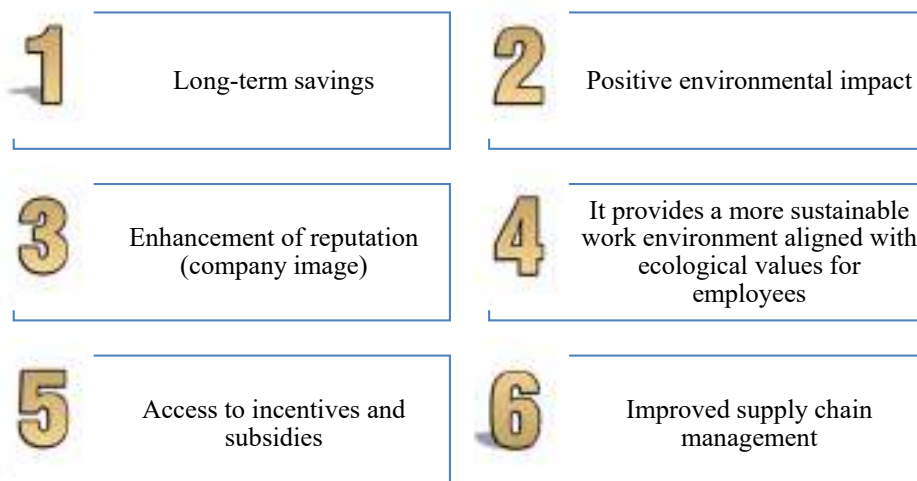


Figure 6. The benefits of green certificates [9]

These benefits highlight the importance of green certificates in construction and the positive impact they can have on the environment, economy, and society. Green certificates provide numerous advantages across various sectors, including construction, the economy, and environmental protection. These financial instruments promote renewable energy and contribute to sustainable development. Additionally, obtaining green certificates helps companies meet legal requirements and local regulations concerning energy efficiency and sustainability, giving them a competitive edge in the market. Ultimately, green certificates enhance companies' reputations by

demonstrating their commitment to environmental protection and sustainability, attracting and retaining talent that values these principles [9].

The implementation of green certifications significantly reduces the construction sector's environmental impact, supports the transition to circular and sustainable economies, and improves the quality of life for people living or working in these buildings. In a global context increasingly focused on climate change, these certifications are essential for achieving environmental goals and promoting responsible construction practices. The issuance of green certificates is a regulated process, closely monitored in most countries that adopt renewable energy policies. These certificates are used to certify and incentivize the production of energy from renewable sources,

such as solar, wind, hydropower, or biomass. Certification systems vary from country to country, depending on local regulations, available energy sources, and each nation's energy goals.

The implementation of green certificates varies significantly from country to country, depending on internal regulations, available resources, energy policies, and environmental objectives. Here are a few examples from different regions of the world, which reflect how green certificates are implemented.

The implementation of green certificates varies significantly between countries, depending on local regulations, available resources, and each nation's sustainability goals. However, these certifications play a crucial role in promoting renewable energy, reducing carbon emissions, and supporting the transition to more sustainable economies globally [9].

The implementation of green building certifications involves integrating a system that certifies the ecological performance and energy efficiency of a building. These certifications are regulated by international and local bodies and are essential for promoting sustainability in the construction sector, but they also come with a range of risks.



Figure 7. The implementation of green certificates [9]

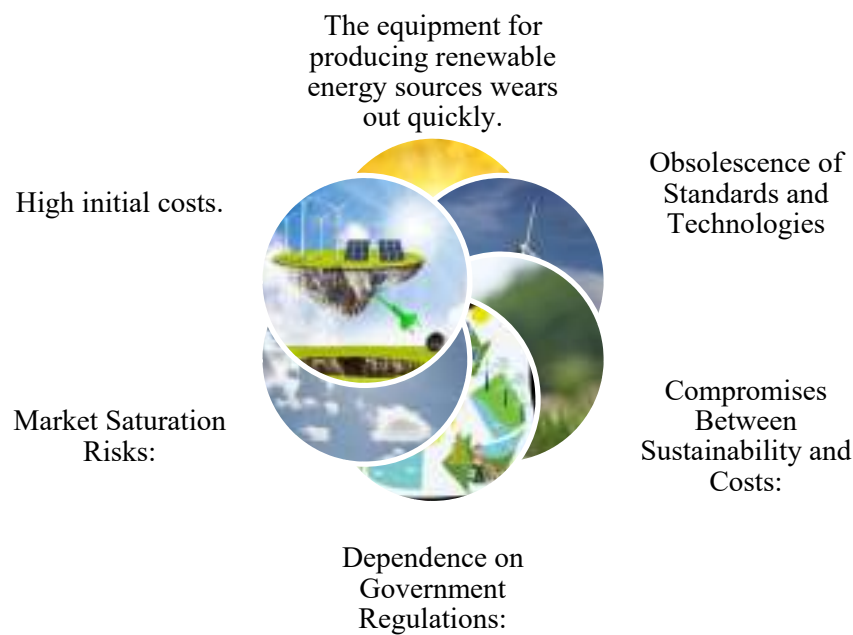


Figure 8. The risks of green certifications in construction [10].

The implementation of green certificates in construction plays a crucial role in promoting sustainability and energy efficiency, contributing to reducing the negative impact on the environment and improving the quality of life. However, it is important to consider the challenges and risks associated with high initial costs, regulatory complexity, and the risks of standards becoming obsolete, in order to ensure effective and sustainable implementation.

5. Conclusions

Green certificates are an essential tool in supporting a sustainable construction sector globally, having a significant impact in reducing negative environmental effects and achieving international climate change mitigation goals. Their implementation varies from country to country, being regulated through a legislative framework adapted to the economic and political specificities of each region. Certification systems are diverse, reflecting both available resources and the sustainable development objectives of each nation. However, the process of implementing green certificates comes with certain challenges and risks, such as high initial costs, the complexity of certification procedures, and the risk of standards and technologies becoming outdated over time. Additionally, maintaining and improving long-term energy performance is another important aspect, and legislation needs to be continuously updated to keep pace with rapid developments in the construction and renewable energy sectors. In emerging markets, where resources are limited, these challenges become even more pronounced.

Ultimately, although green certification brings multiple economic and ecological benefits, the success of its implementation depends on effective collaboration between governments, developers, and consumers, as well as the flexibility of standards and technologies to meet market needs. With appropriate regulations and an integrated approach, green certificates can play a crucial role in promoting the global transition to sustainable economies, strengthening the construction sector as a pillar of sustainable development worldwide.

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FROM FACTORIES TO INDUSTRIAL PARKS: DEVELOPMENT TRENDS AND INTEGRATION IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

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Abstract. *Industrial assets represent a significant segment of the real estate and economic market in the Republic of Moldova. Due to economic and external factors such as inflation, the Covid-19 pandemic, and the uncertainty caused by the conflict in the neighboring country, there has been an increase in the number of properties not being used according to their intended purpose. This situation has created the need to reintegrate these assets into the economic cycle. In this article, we examine the necessity of developing industrial spaces from the perspective of their current use and the existing conditions for sustainable development and economic efficiency. We analyze the existing regulatory and legislative framework in the Republic of Moldova to evaluate the legal measures and tools required for restoring an old factory into an industrial park. Specifically, it is important to identify the conditions and facilities offered by current legislation that could contribute to optimizing conversion processes and attracting investments for the development of new economic activities in these areas. This approach offers the best solution, as it simultaneously addresses economic, social, and technological factors to promote the development of both the asset and the economy as a whole.*

Keywords: *Sustainable development, industrial park, energy efficiency, green energy, foreign investments.*

1. Introduction

As a legacy from the Soviet past, Moldova has inherited many industrial zones that do not meet modern requirements. Most of these zones once served as production bases. Today, the majority of them are either unused or, at best, partially used. These zones are often located far from where the necessary workers live, and maintenance costs are quite high. Considering all these factors, these territories have two paths of development:

1. Complete demolition down to a "green space" and designing a new territorial plan.

2. Reorganization of internal infrastructure and construction of new facilities.

In the field of architecture, the concept of adaptive reuse, also known as building reuse, involves transforming an existing structure to be used in a new way. This approach of adaptive reuse in architecture means revitalizing and giving new life to already existing structures. In the current context, these actions can be excellently combined with the current policy of implementing development trends and integration within the sustainable development framework adopted by the United Nations in 2015. The agenda aims for social, economic, and environmental sustainable development globally by 2030.

The terms "sustainable development" and "sustainable industrial development" are quite recent and have continuously evolved, integrating various macroeconomic processes into a single balanced concept that combines socio-economic systems with elements of natural capital. This approach is not limited to economic aspects but also includes social, cultural, legal, scientific, and human dimensions.

In this sense, sustainable development involves the significant expansion of all activities and their outcomes, reflected in the long-term structure of the economy, both nationally and globally, and the achievement of a set of universally applicable objectives.

Currently, sustainable development and support for sustainable development goals are essential priorities for the economic growth of Moldova.

2. Examination of national and international legislative norms: approaches and trends.

In the context of current economic difficulties and the economic-financial crisis, industrial parks seem to be a saving solution for the business environment. An industrial park represents a specially arranged and planned area to support sustainable industrial development, including production spaces, energy facilities, infrastructure, and appropriate administrative and legal conditions. These parks are managed by a specialized company. Industrial parks can be developed either through new constructions or by rehabilitating and modernizing old, non-functional, or partially functional factories.

More and more companies from Southeast Europe are deciding to relocate their production capacities to these areas. For example, in Romania, over 90 industrial parks are currently operational, and another 20 are in advanced stages of development. In Hungary, approximately 210 industrial parks are active.

The concept of industrial parks evolved in the 1980s in Europe as a response to the need to stimulate local economic development. When government initiatives proved insufficient, new ideas emerged regarding the decentralization of responsibility for economic growth and the utilization of local labor. Thus, industrial parks were created as a means of consolidating local resources, combining private and public resources, usually under the influence of local councils and local companies.

The necessity of these parks in the national economy is determined by the need to deepen structural reforms, creating an environment conducive to attracting investments and improving economic structure. This is achieved by focusing on a "smart and innovative economy" to ensure the placement of high value-added production activities.

Since 2010, the Republic of Moldova has been intensively promoting the idea of creating industrial parks.

During the meeting on April 17, 2024, the Cabinet of Ministers approved the Government decision project regarding the modification of some normative acts, aiming to optimize the functioning of industrial parks. Industrial parks will be classified into three categories, depending on the profile and activities carried out by their residents. [1]

Thus, Law no. 182/2010 regarding industrial parks will be supplemented with a new article, according to which, there will be three categories of industrial parks (Figure 1):

Type A industrial parks	Type B industrial parks	Type C industrial parks
•general, where several types of economic activities are carried out, mainly industrial production and exploitation of scientific research and/or technological developments;	•specialized, where related economic activities permitted on the territory of the industrial park are carried out, mainly in the field of digital, creative, information and telecommunications technologies, science, research and development, engineering, innovation and those related to them;	•multifunctional industrial platforms, where several types of economic activities can be carried out, mainly small-scale local production.

Figure 1. Categories of industrial parks

An industrial park can be established on one or multiple plots of land. If it is created on multiple plots, the headquarters of the managing company will be located on one of them, and the other plots will constitute platforms of the industrial park. All these platforms will be managed by the same managing company, and the regime and mode of conducting entrepreneurial and administrative activities will be identical for all platforms.

The proposed modifications allow that, besides the production infrastructure (administrative offices and industrial halls) and the technical and utility infrastructure, other facilities related to the activities of the residents can be placed on the territory of the industrial park.

These include: financial institutions, marketing and advertising centers, public catering units necessary for carrying out basic activities, educational institutions, scientific and innovation parks, accelerators, laboratories for developing innovative technologies, multifunctional halls for scientific conferences and other events, as well as waste management facilities, except those intended for waste storage.

According to art. 12 of Law no. 182/2010, industrial parks benefit from various facilities, among which the right to privatize public land properties related to constructions at the normative price of the land, established at the time of making it available to the managing company or renting it to residents. This facility can be granted only after the completion and commissioning of industrial and related constructions and installations, in accordance with the Law regarding the normative price of the land and the mode of sale-purchase thereof. It is also proposed that granting this facility be conditioned on the cumulative fulfillment of certain conditions.[2]

- Industrial and related constructions and installations have been purchased, privatized, and put into operation.

- The economic activities carried out comply with the contract concluded between the residents and the managing company regarding the operation within the industrial park (this condition does not apply to the managing company).

- Investments have been made by the managing company or the resident in the constructions and installations provided in the investment project and its modifications, which were the basis for obtaining the status of an industrial park or resident. The value of these investments must exceed the amount equivalent to three times the normative price of the land established at the time of granting the industrial park title or renting it to the resident, to which is added the cost of compensating for the losses caused by removing the land from the category of agricultural land, calculated at the time of changing its destination, if applicable. [1]

Global practice shows that the mechanisms for establishing industrial parks are not clearly regulated in any country and can vary significantly under the influence of different factors. Specifically, the initiator of creating a park can come from the public sector, private sector, or even international level. Additionally, the initiator of creating an industrial park can be local authorities or municipalities that are interested in stimulating investment activity in their territory. They are more familiar with the geographic, technological, and infrastructural potential, allowing them to develop a more competent business plan for an industrial park than specialists from central government authorities.

In the process of creating and developing an industrial park, it is important to form appropriate institutions and efficiently organize the business environment, including tools that support an atmosphere of partnership and creative competition among participants in the industrial park. At the same time, the task of regional and local authorities is to create

conditions in which participants in industrial parks must compete for personnel, licenses, quotas, and other resources.

Measures necessary to achieve the objective may include:

- Developing regional action plans for the development of public-private partnerships.

- Analyzing the experience of other regions and implementing projects that have proven effective.

According to legal provisions, industrial parks are developed as unitary business projects with two main complementary objectives:

1. The state provides optimal conditions for carrying out economic activities in the park by creating the necessary infrastructure (engineering network, land, buildings, roads, and access routes), services, and utilities.

2. Attracting investors to locate their industrial goods production activities in the park.

Thus, industrial parks represent areas dedicated to the development of the production sector, without limiting the types of production and services allowed, except for those prohibited by law.

In the Republic of Moldova, industrial parks can be created by:

1. Using state enterprises or joint-stock companies with a majority state shareholding (75%), which have the necessary assets and spaces.

2. The "Greenfield" principle, where the land must have access to national roads and be connected to public utility infrastructure.

To leverage all opportunities for transforming an old factory into an industrial park, actions to consolidate and modify constructions are necessary. In this context, it is essential to examine the legislative-normative framework that establishes the conditions and rules of activity in this transformation process, namely:

- LAW No. 163 of 22-06-2023 for the modification of certain normative acts.
- DECISION No. 285 of 23-05-1996 regarding the approval of the Regulation for the reception of constructions and related installations.
- LAW No. 282 of 05-10-2023 regarding the energy performance of buildings.

3. The evolution of the concept of industrial goods in technology parks: contemporary approaches and current examples.

The first industrial park, Trafford Park in Manchester, the world's first industrial area, was created in the UK in 1896 by the Shipcanaland Docks company. Since the beginning of the 20th century, industrial parks have been actively created in Europe and the USA, gravitating in location mainly towards large cities, transport hubs and port areas. In recent decades, industrial parks have been actively developing in the countries of the Asian region, Eastern Europe and the Baltic states.[3]

As of December 31, 2023, in accordance with Law 182/2010 on industrial parks, 10 industrial parks (hereinafter IP) have been created in the Republic of Moldova, including:

- 2 based on joint-stock companies with a majority state shareholding (IP "Tracom" in Chişinău and IP "Răut" in Bălţi);

- 4 based on public property (IP "Cimişlia" in Cimişlia; IP "Edineţ" in Edineţ; IP "Comrat" in Comrat; IP "Cahul" in Cahul);

- 2 based on public-private property (IP "Triveneta Cavi Development" and IP "CAAN" in Străşeni);

- 2 based on private property (IP "Bioenergagro" in Drochia and IP "FAIP" in Durleşti).

It is worth mentioning that none of the industrial parks listed above were built from scratch; they were consolidated and redeveloped from factories created during the USSR era. A concrete example is IP "Tracom" in Chişinău, which was formerly the "Chişinău Tractor Plant." Similarly, IP "Răut" in Bălţi was previously the hall of the former Soviet Răut factory. [4]

According to the feasibility studies conducted, which justified the necessity and opportunity for creating these 10 industrial parks in different regions of the country, investments amounting to 266.4 million euros were planned for creating the technical and production infrastructure (Figure 2), which were expected to stimulate the creation of 10,236 jobs. [4]

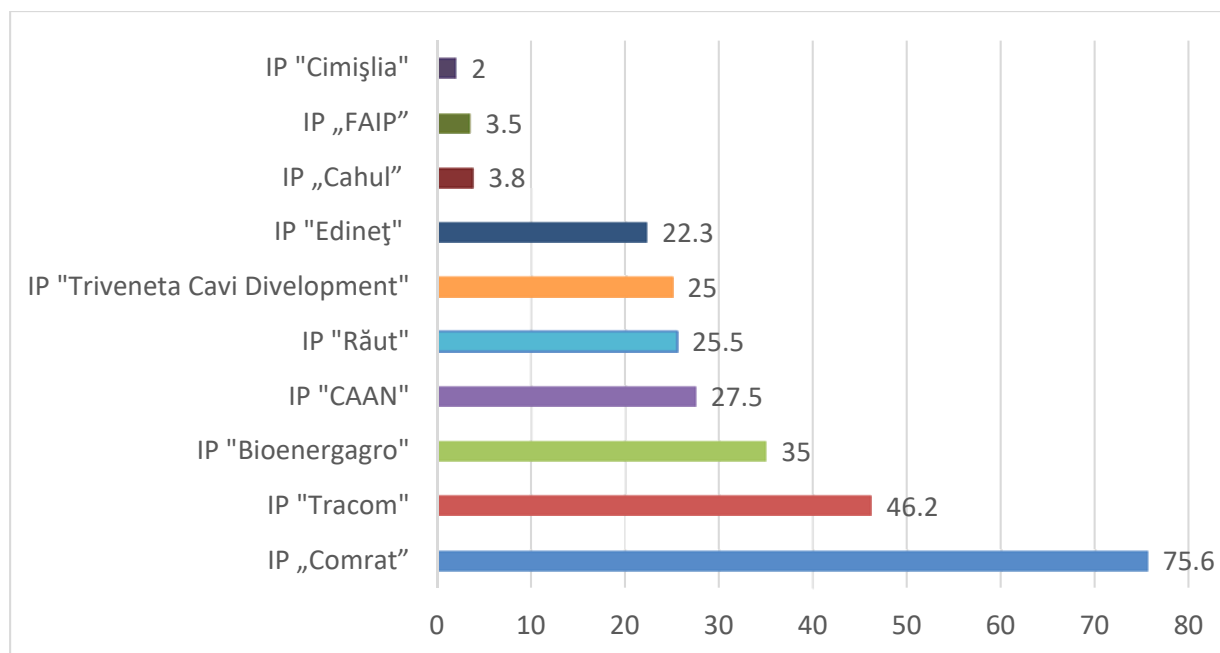


Figure 2. The volume of investments expected to create IP, million euros

Since the inception of activities in the industrial parks (IP), total investments amounting to 4,145.1 million MDL have been made, representing approximately 79.2% of the investment volume estimated in the aforementioned feasibility studies.

During the period from 2013 to 2023, the volume of investments made in the industrial parks increased significantly, showing a rise of over 135 times (Figure 3).[4]



Figure 3. Volume of investments made within the IP during the period 2013-2023, million MDL

Examining the potential for developing and transforming old industrial real estate, such as non-functional factories, to meet current market demands for sustainable development and energy efficiency is essential. With Moldova's adoption of a European path and the signing of the Association Agreement with the European Union, the country must develop in line with European standards. In European Union countries, transforming old factories and existing production spaces into so-called industrial parks is a widely used practice. A concrete example of such transformation is Liberty Technology Park Cluj. A similar technological park is Digital Park.

The concept of sustainable development, which refers to meeting the present needs of society without compromising the ability of future generations to meet their own needs, emphasizes infrastructure modernization. Recently, within this concept, emphasis has been placed on energy efficiency, which must reconcile three other aspects of sustainable development: the economic, social, and environmental (ecological) components. Thus, achieving these three aspects could facilitate the work process of industrial parks and reduce certain economic costs in the activity process.

To assess the current situation in Moldova, the number of industrial properties in the country was analyzed, along with the normative and legislative framework related to industrial parks or the acts that need to be consulted when transforming an old factory into an industrial park.

4. The economic impact and advantages of reusing industrial goods

The main goals of establishing industrial parks in Moldova are to stimulate the socio-economic development of the regions by:

- Attracting both local and international investments;
- Introducing modern technologies and innovations;
- Supporting and growing the sector of small and medium-sized enterprises;
- Managing public funds more efficiently;
- Creating new jobs.

The competitiveness of the industrial sector is significantly influenced by its capacity to integrate modern products and technologies, as well as to diversify production and exports. In this context, the Government focuses its efforts on creating the necessary

conditions for the successful implementation of innovations and facilitating the transfer of technologies into the national economy sectors.

Overall, the economic advantages of reusing industrial assets contribute to creating a more resilient and efficient economy, integrating principles of sustainability, and reducing the environmental impact.

5. Conclusions

Industrial parks are important investment platforms for Moldova's economy, and with the new regulatory framework modifications operated through Law No. 143/2024 for amending certain normative acts (efficiency of industrial parks) to Law No. 182/2010 on industrial parks, they aim to stimulate the green and digital transition of the local industrial sector, in view of developing a competitive and resilient industrial sector.

Throughout 2023, the activity of industrial parks has registered the following significant progress:

- The number of residents in industrial parks increased by 12.4% in 2023 compared to 2022, indicating increased interest and confidence in these platforms. Additionally, the number of employees of residents in industrial parks increased by 8.3% in 2023 compared to 2022, reflecting the growth of existing businesses.
- Investments amounting to 194.5 million MDL were made.
- The turnover showed a positive growth trend, ensuring a 5.5% increase compared to 2022.
- The amount of taxes and fees paid by industrial parks has increased, with a 2.1% increase compared to 2022.
- Nationally, the contribution of industrial parks to the total taxes and fees accumulated in the State Budget was 2.3%. [4]

The development of the country requires the improvement of old forms and the creation of new forms of production development, small and medium-sized entrepreneurship, and employment.

Currently, the global development trend consists of grouping industries within certain territories that are united by a common development direction, common access to resources, and common administration. The main characteristic of these territories consists of a complex of special "services" that form infrastructures.

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RECYCLING OF CONSTRUCTION AND DEMOLITION WASTE – AN IMPORTANT STEP TOWARDS SUSTAINABLE DEVELOPMENT

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Abstract: *Protecting the environment is a desire of today's generations, who have begun to be more and more concerned with identifying real solutions in the direction of waste recycling. The correct approach to the problem of waste from construction and demolition is a priority for modern society. The European Union's main goal is to apply an appropriate approach, which will eliminate the negative effect on the environment and contribute to the development of the circular economy by reusing waste as completely as possible. The construction sector is one of the biggest generators of such waste and, for this reason, companies operating in this branch of the economy are obliged to set up a process to guarantee the correct disposal of this waste. This article presents general information about the recycling of materials from constructions and demolitions and what is the recommended procedure to avoid serious problems which could affect the environment, but also to make economic processes more efficient.*

Keywords: *construction, demolition, environment, renovation, reuse, recycling, storage, waste.*

1. Introduction

Construction and demolition waste are those residues that result from the construction activities of buildings, infrastructure elements (roads, bridges, railways), but also from renovation, repair, consolidation and demolition activities. These scraps are difficult to recycle, firstly, because of their mixed nature and, secondly, because of the existence of potentially dangerous substances for the people who handle them. Until recently, much of the construction and demolition waste ended up in the landfill, considering that the investment to recycle it was not profitable. This approach has resulted in filling landfills with an impressive amount of waste, leaving valuable products out of the economic cycle and affecting the environment (soil, groundwater and air). There are many industries that produce waste, but construction is the most prevalent. Any harmful substance such as heavy metals, nitrates, sulfates or incompletely burned ones can infiltrate into the soil and in this way, progressive pollution develops. The field of construction is extremely active, but intensively produces scrap materials. In general, these residues are generated following construction and demolition activities, and most of the time they are not biodegradable. Moreover, some of them fall into the category of hazardous waste both for human health and for the environment. Therefore, they must be separated and managed according to the legislation in force. So, construction companies need to focus on an effective process to properly address the issue of construction and demolition waste. Among the most common types of waste from construction and demolition are: concrete and bricks (remains of concrete, gravel, mortar, damaged bricks); the wood obtained from beams, floors, doors, windows, furniture; metal (pipes, metal reinforcement, various metal objects); glass (broken glass, windows); plastic from packaging, insulation, pipes; insulating materials (mineral wool, polyurethane foam, polystyrene); earth and slag. All these materials have a high economic value and can be recycled and used, the benefits being both for economic agents working in the construction field and for the environment.

2. Recycling of construction and demolition waste

Recycling and reuse of construction and demolition waste are mandatory activities for all companies active in the field of construction. They must take steps to sort, collect, process, recover and eliminate worthless waste. All these steps are quite complex both due to bureaucracy and technological challenges, such as the existence of hazardous materials. The ideal solution in this sense is to call on companies specialized in dealing with this problem, such as those that offer responsibility transfer services, which can set up the whole process, from environmental consulting services to the recycling or recovery of this waste. The common methods used to manage this waste are easy to apply and the results are spectacular:

- Recycling is the most common option. It is achieved by sorting materials and their subsequent processing to obtain new building materials. In this way, the valuable elements avoid going to the landfill and thus will again contribute to economic development.
- Reuse is another option with benefits for all parties involved. Certain waste, such as doors, windows, plumbing, roofing, can be used in new construction without the need for deep intervention on them.
- Energy recovery is useful for those residues that cannot be recycled or reused. Wood or other flammable materials can be incinerated in a controlled manner to produce heat or electricity.
- Controlled storage is useful for those wastes that have no economic value. In this case, measures must be taken so that the remains are stored in specially arranged areas, which do not contribute to the degradation of the environment. Attention must be paid to those wastes with potentially dangerous effects on the personnel who handle them, but also on the environment [1].

In the construction and demolition waste management process, there are five stages: collection, transportation, reuse, the exploitation and disposal of those wastes that cannot be reused. The collection of industrial waste from construction and demolition must be selective. It is very important that hazardous waste is separated from non-hazardous waste and, depending on the harmful potential, disposed of or recirculated as raw material. So, these scraps must be handled as responsibly and professionally as possible. The process starts from collecting waste, transporting and managing it in a way that does not affect the ecosystem. Including the removal and evacuation of debris is an important step in protecting the environment. All waste generated from the demolition works is considered a priority for the European Union because it can be brilliantly reused in this industry. Until recently, the remains were placed in special warehouses for household waste, but now it is no longer an accepted solution, because several environmental protection laws have been regulated. From an ecological point of view, their recycling and reuse will reduce the space devoted to landfills and allow the development of the economy of natural resources. In terms of economy, using recycled materials instead of raw materials, which are extremely expensive, is a very advantageous solution. Environmental standards aim for the use of much less dangerous alternatives in construction and demolition, for the use of as many ecological materials as possible, even in the design stage, but also encourage recycling and minimizing the storage of the resulting waste [2]. In the countries of the European Union, any construction company is obliged to sort, recycle and dispose of the waste found on the construction site, and most of the time, this activity is quite complicated. Unfortunately, a number of companies do not pay enough attention to the management of construction and demolition waste. Some companies conclude contracts with sanitation services regarding the collection of waste, but the negative side is that they are not sorted by type of material, so

that they can be further recycled and recovered. The same applies to hazardous and non-hazardous waste, leading to contamination of the latter. They do not end up in authorized warehouses, but are illegally stored [3].

The recycling process of construction and demolition waste has the following advantages:

- avoiding the use of much too large amounts of raw materials;
- the most calculated and accurate use of construction materials;
- the use of recycled materials;
- the use of environmentally friendly technologies and finishes;
- returning packaging to suppliers for recycling and reuse;
- avoiding the destruction of materials on the construction site, in order to eliminate the additional purchase of raw materials;
- carrying out control demolitions that allow the recovery of certain materials.

Also, waste storage must be carried out in special containers. It is important that they are placed in places with easy access to allow the access of the companies that deal with the collection and transportation. Moreover, the containers must be labeled according to the waste inside, and their supervision is mandatory. This prevents the risk of leakage and accidental spreading [4].

Regarding the storage of hazardous materials, they should be stored in metal containers, as capacious as possible. They will have a high degree of impermeability to reduce the leakage of liquids during collection and transport and must be placed in categories.

Materials that can be recovered from waste are: soil; gravel; rocks; sand; clay; bitumen; pavement; old asphalt; tar; bricks; cement; wood; glass; concrete; metals; gesso; plastic; paints; varnishes; paper; cable; etc. [5].

To protect the environment, construction and demolition companies can create a waste management plan. It should provide as clear a picture as possible of how the waste will be controlled until the project is completed. This may include objectives for sorting, arranging and planning the waste handling. The same applies to rehabilitation and demolition activities. Construction companies must remove all elements hazardous to the environment and human health before starting the actual work. Preserving the existing buildings at the expense of building new ones, optimizing project sizes, devising a plan to extend the life of buildings, but also using methods that allow demolition and disassembly in order to reuse materials are extremely useful techniques. Both construction companies and project engineers must promote green and sustainable construction, and for this to be possible, waste management, transportation, recycling and monitoring must be among the top priorities. Construction and demolition waste is the result of both civil and industrial construction, rehabilitation, partial or total demolition, consolidation, renovation, maintenance of roads or infrastructure. Some of them are recoverable, which means they can be recycled, but others require special treatment [6].

Construction and demolition waste can include:

- materials from construction and demolition of buildings (cement, tiles, rocks, bricks, cast iron, plastic, glass, ceramics, gesso, metal, wood, cables, carpentry scraps, painting/varnishing/ insulating solutions);
- materials obtained from road construction and maintenance (sand, stone, tar, bitumen, gravel, substances with bituminous or hydraulic binders);
- materials excavated during decommissioning, decontamination, construction activities (gravel, sand, soil, clay, plant debris, rocks);

Any material and objects, such as furniture, carpets, textiles or electrical equipment, which are easily removed are not considered wastes of this industry. Hazardous waste from

construction and demolition may include: hazardous materials (paint, asbestos, heavy metals, tars, adhesives, solvents, fireproofing, preservation or waterproofing resins); non-hazardous contaminated materials; contaminated soils and gravel.

It often happens that non-hazardous waste becomes hazardous in the case of uncontrolled demolitions. To avoid this, a prior separation of them is necessary. The materials used in construction and demolition often contain toxic compounds, allergens, or carcinogens, irritants, but also with unknown toxic properties. The biological pollutants, volatile or semi-volatile organic compounds, artificial or natural mineral fibers (glass wool, asbestos, or basaltic mineral wool) are also found on the construction site. For example, mineral glass wool is found in very large quantities when a building is demolished. Old houses contain mineral wool with breathable fibers, which is extremely harmful to human health, and its manufacture was later banned. Therefore, the constructions made until the year 2000 that are to be demolished, must be treated with increased attention and it is necessary to call on specialized companies that know the processes of storage and recycling of such materials [7]. According to the European Waste Catalogue, they are classified as hazardous, which means that they must be disposed of separately from the others. Both mineral wool and basalt wool are fireproof materials that provide sound and thermal insulation. They cannot be recycled by burning, but there are other methods, such as storage in special spaces. The same reasoning applies to the recycling of polyurethane foam, since it cannot be burned. Even though it may seem difficult to recycle, it has great potential, being one of the most versatile materials being manufactured today. So, it is very important for a construction and demolition company to call on companies specialized in waste recycling, so that the disposal of waste is carried out in a professional manner, which is extremely beneficial for the protection of the environment [8].

3. Analysis of the quantities of construction and demolition waste recycled at the European level

The recycling of construction materials in the industrialized countries of Europe has become a priority in environmental policies since the 90s. Recyclable waste, in general, are those remains that can constitute as raw material in a production process to obtain the initial product or for other purposes. Therefore, the main goal we pursue when we refer to a recyclable waste is to give the waste, through various treatments, the quality of raw material. The term „construction and demolition waste” refers to the waste resulting from activities such as the construction of buildings and civil infrastructure, the total or partial demolition of some buildings and civil infrastructure, the modernization and maintenance of streets [9].

These wastes result from construction, renovation, rehabilitation, repair, consolidation, demolition of civil constructions, industrial constructions, building structures, transport infrastructure as well as dredging and unclogging activities, including soil excavated from contaminated sites. They are generated through a discontinuous process and their composition is very heterogeneous, containing remnants of construction materials, chemical products and other auxiliary materials. Around 80% of the amount of debris generated results from civil constructions (buildings), and the rest from civil constructions, roads and bridges. Approximately 3% of the materials used become rubble from the construction phase. Certain materials from these wastes are recoverable, others require special treatment [6]. These specific wastes are identified as a priority stream by the EU, being a potential source for recycling and reuse in the construction industry. Reusing building materials is nothing new, we've been dismantling and rebuilding for many years in our history because that was the natural way of things. After the Second World War, the paradigm changed, economic growth became the focal point and not the efficiency of resource use [10]. From an ecological point of view, the reuse of waste from constructions

and demolitions reduces the space intended for authorized waste dumps and allows a saving of natural resources. From an economic point of view, the use of recycled materials instead of natural resources, which reach extremely high costs, becomes an increasingly advantageous solution from one year to the next [11].

Figure 1 shows the share of different economic activities and households in the total waste generated in 2023. At EU level, in 2023, construction contributed to 34.7% of the total waste, followed by the extractive industry (28.2%), the manufacturing (10.2%), water and waste (9.1%) and households (8.3%); the remaining 9.5% was a waste generated by the other economic activities, special services (3.9%) and energy (3.7%) [9].

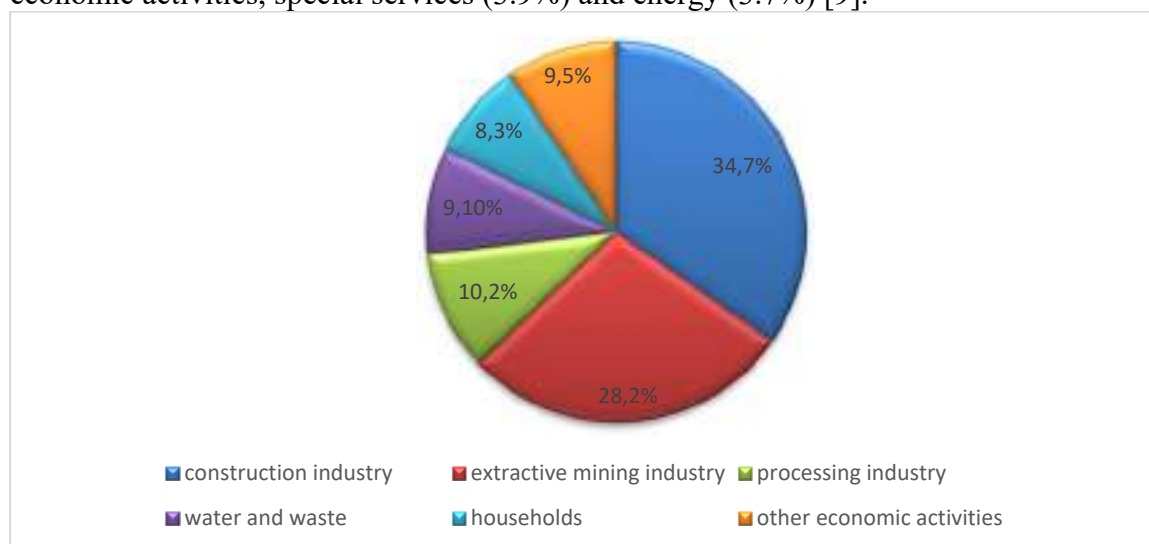


Figure 1. Waste generation by economic activities and households, EU 2023 (%)

In the following we will analyze the degree of processing of materials obtained from constructions and demolitions at the European level. Thus, in the Netherlands, the degree of processing of materials received from constructions and demolitions has increased over time, as can be seen from table 1.

Table 1. Quantities of construction and demolition waste recycled in the Netherlands in the years 2021-2023

Type of waste	2021 (thousand tons/year)	2022 (thousand tons/year)	2023 (thousand tons/year)
Concrete rubble	600	1200	1000
Mixed rubble	1200	2700	2600
Masonry rubble	400	300	700
Asphalt rubble	800	900	800
Other materials	1900	1100	1700
Total	4900	6200	6800

One of the Dutch government's policies was to raise the recycling rate of construction and demolition waste to 90% by 2025 [12].

In Germany, the recycling rate of construction and demolition waste has increased continuously, reaching in 2023 the percentages shown in table 2.

Table 2. Recycling of construction and demolition waste in Germany in 2023

Type of waste	Resulting quantities (mil. tons/year)	Recycling (mil. tons/year)	Recycling (%)

Rubble from constructions	65	59	91
Mixture of waste from constructions and demolitions	32	14	44
Asphalt	25	25	100
Waste from road construction	38	37	97

According to statistical data, in Germany there is a very high degree of recycling of construction and demolition waste. Thus, waste in the form of rubble from asphalt was reused in proportion to 100%, that from road construction sites was reused in proportion to 97%. Waste in the form of construction rubble, in the same period, was reused 91%, and only mixed construction and demolition waste was recycled to a lesser extent, only 44%. The waste management policy, which has been adapted in Germany over the last 20 years, is based on closed cycles and assigns disposal responsibilities to manufacturers and distributors of products. This made people even more aware of the need to separate waste, which led to the introduction of new disposal technologies and increased recycling capabilities [13]. Today, 14% of the raw materials used by German industry come from recovered waste, leading to reduced extraction levels and associated environmental impacts. Modern closed-loop management contributes approximately 20% to the achievement of the German Kyoto targets for reducing climate-relevant emissions [11]. According to public data, Romania produces, on average, over 3 million tons of construction and demolition waste annually, amounting to almost 40% of the total waste generated annually at country level. The implementation of an efficient waste management system is more than indispensable to ensure a working environment according to EU environmental regulations and standards. Also, hazardous substances must be handled and stored properly, according to environmental regulations and standards. Therefore, well-organized and efficient construction sites in terms of the implementation of environmental standards are essential for Romania's current stage of development, considering the imminence of the obligation to implement and report on sustainability standards. In addition, according to MASTERBUILD specialists, construction waste, which could be capitalized in infrastructure projects by reusing or recycling it, most of the time ends up in the landfill and is not exploited to its maximum capacity, being wasted, thus, a high potential for cost efficiency [10].

At the EU level, the waste from demolitions occupies about 22% of the total industrial waste, amounting to 400 million tons. The dynamics of the evolution in the last three years of the recycling process of this waste is presented in table 3.

Table 3. The evolution over time of waste recycling in the EU

Type of waste year	2021		2022		2023	
	Total (mil. tons)	Recycled (%)	Total (mil. tons)	Recycled (%)	Total (mil. tons)	Recycled (%)
Concrete waste	35,4	58	36,0	65	35,0	66
Asphalt waste	19,6	48	36,0	61	30,0	68
Timber waste	8,5	31	6,0	40	5,0	48
Construction sludge waste	12,0	8	10,0	16	8,0	42
Mixed wastes	3,5	14	10,0	11	5,0	9
Other wastes	1,6	40	1,0	-	2,0	-

At the moment, the waste management obligations provide for the achievement of a minimum percentage of 70% recovery and recycling of construction and demolition waste. At the level of the European Union, more than a third (34.7%) of all waste generated is waste from construction, demolition and infrastructure maintenance. The mode of operation and the lack of specific procedures in the local construction industry has determined a significant slowdown in the maturation process of this market, generating far-reaching consequences in terms of the impact of construction on the environment. On a systemic level, information actions are needed for the entire chain of construction suppliers and sub-contractors to implement social and environmental responsibility standards on EU construction sites. Imposing clear rules in work processes, integrating environmentally friendly materials and technologies, as well as approaching construction sites as living, developing communities that must not create discomfort for communities [14]. Many materials resulting from construction and demolition can be recovered, cleaned, refurbished and used in a similar construction project or in other construction projects. Stores that sell used construction materials („second-hand”) have appeared and become common in the countries of the European Union, which accept certain types of materials such as: beams and other structural elements; wooden partitioning materials; masonry materials - bricks, terracotta tiles, etc.; doors, windows; various finishing elements; ornaments; electrical elements; mechanical fixing elements.

Waste in the construction industry can be reduced by adopting waste prevention measures in the design phase. This is because the design phase is a major phase that has repercussions on the outcome of the project. Waste can also be reduced by eliminating the construction waste from design [15].

4. Conclusions

Construction and demolition waste management is a core component of the construction industry, given its environmental impact and the need for a responsible approach. In order to initiate and run a construction and demolition waste recycling program, it is necessary to go through the following main stages: setting up a special sector for the collection and storage of waste resulting from demolitions and/or decommissioning within the waste depots of the main cities; making the receipt of demolition, renovation, repair, construction permits conditional on the obligation to transport the resulting waste to a specially arranged space, within the waste deposit; the inventory of shredding equipment and other equipment necessary for recycling and the creation of favorable conditions for companies to carry out construction and demolition waste recycling activities, so that these activities are attractive; the issuance of regulations stipulating waste recycling activities from constructions and demolitions, at the same time as limiting the exploitation of raw materials from nature. The recycling of construction and demolition waste has a high economic value, the benefits being both for economic agents active in the field of construction and for the environment. So, it is very important for a construction and demolition company to turn to companies specialized in waste recycling, so that the disposal of waste is carried out in a professional manner, which is extremely beneficial for the protection of the environment. To reduce construction waste, it is essential to focus on waste management before other project objectives, and leaders should demonstrate dedication to these activities and allocate adequate resources. Waste management strategies must be integrated into all stages of construction and demolition projects to minimize the environmental impact, ensure sustainable development and promote a circular economy.

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NEW TRENDS IN REGULATING VALUATION ACTIVITIES IN THE REPUBLIC OF MOLDOVA: THEIR IMPACT AND CONSEQUENCES

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Abstract. *Real estate valuation is a new type of economic activities that has emerged in the Republic of Moldova relatively recently and thus needs to be fine-tuned and regulated. International practices know two types of regulating valuation activities: regulation by non-government organizations of valuers (self-regulation), and the type involving some extent of state regulation. The type of regulating valuation activities that is most common in emerging economies is state regulation jointly with NGOs of valuers. The extent of state regulation in the general system of organizing valuation activities is still the focus of attention for researchers and practitioners in the field of real estate valuation. The author examines diverse approaches to regulation of valuation activities and discusses their strengths and weaknesses for the purpose of analyzing the most recent amendments to Moldova's Act on Valuation Activities and identifying possible impact and consequences of their practical application. The conclusion arrived at is that the ambiguous trends in the development of valuation activities increase the risk of state interference therein and violations of the fundamental real estate valuation principles, including the valuation confidentiality principle, which is generally contrary to the international mainstream development of valuation activities. The article also suggests certain measures for further development and improvement of the ways for organizing real estate valuations as an activity.*

Keywords: *regulation of valuation activities, associations of valuers, valuation report.*

1. Introduction

The issues of regulating valuation activities are very relevant in emerging economies. Property valuations are a new activity in all such countries, which has been implemented and is exercised based on the best international practices that are reflected in the international valuation standards. However, property valuation activities applied in a specific political, social and economic environment invariably acquire certain organizational specific features that depend on the prevailing views and prior experiences of a particular country.

The role of public agencies (the state) in the economic development of different countries is currently the focus of the discussion in scientific publications. The necessity to choose between the costs of tolerating economic chaos and the costs of its elimination is substantiated within the framework of the comparative economic studies approach, and a hypothesis is put forward regarding the existence of effective institutions. At the same time, the evolution of the views on the role of diverse institutions in the development of a particular type of activity is examined from the perspective of coordinating the activities of economic and non-economic institutions and the optimal combination of state and non-state regulation in the economy.

Valuation activities had already emerged in the Republic of Moldova by the 2000s. They were officially recognized in 2002, when Moldova's Parliament adopted the Act on Valuation Activities ("Act") [1]. The Act is based on the concept of joint participation of the

state and NGO associations of professional valuers in the regulation of valuation activities. This balance has been maintained for over 20 years after the adoption of the Act.

The topic of this research paper is very relevant for the consideration of further development directions for the regulation of valuation activities in the Republic of Moldova in general as well as in the context of recent changes in the legal framework for property valuations. The research examines the institutional development of property valuations.

This paper examines possible scenarios for further development directions in the regulation of valuation activities, identifies the strengths and the weaknesses of strengthening the role of the state, and also considers possible effects of creating a Price Register that uses data from valuation reports.

2. Regulation of valuation activities as a process

The need to regulate economic activities - and especially those of new types, such as valuation activities - is an issue giving rise to multiple discussions, whose success depends on the type of the state where these discussions take place.

The scientific literature increasingly argues that the state is the main development driver through its institutions - especially in the emerging economies. One of the reasons for global economic crises is insufficiently effective state regulation of financial markets. At the same time, the economists demanding to expand the scope of state regulation do not take into account that the state itself can be the cause of many troubles [2]. Although all institutional economics scholars agree that the totalitarian state fully governing its citizens is not a blessing, the consensus has not yet been reached regarding its clearly defined boundaries. The author believes that a clear understanding of the boundaries for state intervention is necessary for proper development of the economy and its individual sectors.

The issue researched in this article is regulation of valuation activities, and so the author considers it necessary to use the research method of moving from the general to the specific (top-down approach). The starting point for the research is the hypothesis that state-level processes can considerably affect processes at the level of individual industries, sectors and activities. Therefore, when considering the processes of regulating the economy, it is necessary to begin by considering this phenomenon at the state level. This statement was analyzed applying the method of comparative economic studies.

The scientific literature [3,4] examines three types of social states:

- liberal states where free market triumphs and the responsibilities of the state are minimal in this regard,
- continental European states with major interventions in the development of the economy,
- social-democratic states that ensure decent living standards for their people, provided the participation of the latter in the employment system.

Multiple research papers prove that similar state policies can either contribute to economic growth or slow it down - depending on the development level of the state concerned (which is manifest in the per capita GDP growth) and the quality of its public institutions [5, 6].

The author's analysis of the institutional development of valuation activities has found that the regulatory function changes depending on the market relations development level and quality, regional specifics, and managerial traditions prevailing in the country in question. An additional factor that should also be taken into account is the situation with valuation activities, the satisfaction level of valuation service customers, the number of valuation reports that give rise to doubts or include recommendations that involve unreliable appraised values of property. A major conclusion of the research on the institutional

development of valuations as a separate activity type is that the above-listed types of social states largely determine the models according to which this activity is organized.

There are three main valuation regulation forms: self-regulation by the professional community; state regulation by central and local public administrations, and a mixed regulation form with joint participation of the state and valuer associations in the regulation of this activity [7]). The specific features of different valuation organization models, as identified by the authors, are presented in Table 1.

Table 1. Institutional Valuation Organization Models

Valuation model and its characteristics	Strengths	Weaknesses	Scope of application
1	2	3	4
Libertarian model: The role of the state is minimal. Valuer associations are strong.	High professional independence of valuers. High professional skills and compliance with tough ethical rules are required to qualify as a valuer. Membership in a professional association of valuers is perceived as a prestigious achievement.	Different valuer associations may have different priorities, standards, methodologies, and requirements for their member valuers. It is possible to establish "collective responsibility," to monopolize the issuance of valuation reports, etc.	Developed economies where the valuation activities have been developing in an evolutionary way. This model becomes ineffective during global economic crisis periods.
Paternalistic model: Considerable state interventions in valuation activities. Valuer associations are weak.	Uniform valuation policies, requirements to the valuation professionals, uniform valuation standards, methodologies, and a developed legal framework.	Valuers are not independent. State control is strong and involves much red tape. The development of valuation activities is stagnating.	Emerging economies where a strong role of the state has been preserved. Contradictions between the state and the valuers intensify over time.
Mixed (hybrid) model: The state and the associations of professional valuers jointly regulate the valuation activities.	The roles played by the state and the valuer associations are combined in diverse proportions. A favorable combination of the efforts can strengthen the role of the valuer associations and facilitate the transition to the libertarian model.	The functions of the state and the valuer associations are not sufficiently segregated; the state's influence can grow, facilitating the transition to the paternalistic model.	Central and Eastern European states, some CIS countries where professional valuer associations have emerged and are developing. This is the most stable model that can exist for a long time.

Most countries make use mainly of the arrangements that presuppose minimal interventions of the state in the economy. The role of the state in valuation activities is fairly notional in developed market economies. The highest importance is attributed to the

recognition of the expert's professional skills and reputation. In such countries, the valuer has to be a member of a professional organization of valuers. Next to the USA, Canada, the UK and some other developed economies, this group includes Romania with its established and successfully developing ANEVAR (Romania's National Association of Authorized Valuers), which is considered one of Europe's strongest valuer associations.

Nevertheless, some countries (such as Italy, Spain, Japan, etc.) also practice state regulation of valuation activities. Germany, Sweden, Finland have their own legal frameworks for valuation activities, which define the role of the state with sufficient clarity.

At the same time, the state plays a major role in all countries in the case of statutory valuations - and above all in the assessments for tax purposes. In most cases (the USA, Canada, the UK, Sweden, etc.) the state is both the valuation customer and the valuer. In some cases, the state or the local public authorities (LPAs) are the customers, while the development of valuation methods and models is the responsibility of the valuation companies that have passed special selection.

Most emerging economies apply the paternalistic model and the mixed (hybrid) model for the valuation activities. The general development trend in the regulation of valuation activities can be presented as follows (Fig. 1):

Paternalistic model → Mixed (hybrid) model → Libertarian model

Fig. 1. Development trends in the regulation of valuation activities

What is the essence, the goals and the objectives of regulating valuation activities? What are the components of regulating property valuations as a separate activity? The author believes that the following areas can be singled out in regulating property valuations:

- Authorization to engage in the activity concerned,
- Requirements establishing the minimum required mandatory professional skills level and the general level of education that has to be in place,
- Compliance with certain legal and methodological requirements on the part of the contractor,
- Compliance with certain professional conduct (ethics) standards.

Not all of these areas are subject to regulation in all cases. The state can regulate some of them, for example, authorizations to engage in the valuation activities. The other areas may be regulated by NGO associations of professional valuers.

It can be stated that property valuations need to be regulated to some extent as a newly emerged activity type, depending on the market development level in the country concerned.

As discussed in the foregoing, valuation activities can be regulated by the state as well as by NGO associations of professional valuers. Joint regulation (both by the state and by NGO associations of professional valuers) is possible and can be actually found on multiple occasions.

The state functions in the situations where the state regulates the valuation activities in their entirety include:

- Licensing of valuation companies or certification of individual valuers,
- Developing the minimal qualification requirements for the valuers,
- Determining the rights and obligations of the valuers,
- Developing and approving the valuation methodologies (that are uniform for all valuers),

- Developing the national valuation standards,
- Making the arrangements for professional training and advanced training of valuers,
- Supervising the valuation activities, including expert examinations of valuation reports.

Generally, the regulatory function is about the development and promotion of the measures intended to eliminate the adverse impact of the environment and the valuation system's internal characteristics.

The state regulation function is closely linked to those of supervision and analysis. These functions include comparing the actual situation in the sector as a whole and in individual valuation companies with the relevant regulatory documents, identifying causes for non-compliances with the statutory requirements, and analyzing the reasons for non-compliances with approved methodologies and the legal framework.

Typically, full state regulation of the valuation activities can be found in authoritarian states where all economic activities are subject to state supervision. State regulation of valuation activities can also be found in the states where these activities are still emerging, and either no associations of professional valuers have yet been created - or they are not strong enough.

In the case of self-regulation of valuation activities, the associations of professional valuers are responsible for all functions associated with professional training and admission of professionals to the market, establishing the standards for the exercise of the profession by professionals, delivery of professional training and advanced training, developing professional conduct standards and monitoring compliance therewith, monitoring valuation activities and ensuring the required quality of the property valuation services. Protecting the valuer's professional interests and those of the customer in court also plays an important role. A good example of a self-regulating valuation system is the Royal Institute of Qualified Surveyors (UK) established in the second half of the 19th century. Romania's National Association of Authorized Valuers stands out among the professional valuer associations in Central and Eastern Europe as a self-regulatory organization that represents Romania's valuers in all professional international organizations.

3. The experience of the Republic of Moldova in regulating the valuation activities, and changes in the sectoral legal framework

The market of valuation services was emerging gradually in the Republic of Moldova along with the development of the real estate market, as its infrastructure was taking shape. This professional activity type is rather new, and so Moldovan law imposes stricter requirements regarding the valuer's level of education, the exercise of the valuer profession, and the valuation methodologies. The main document that establishes legal and ethical requirements to real estate valuers and to the valuation operations is Moldova's *Act on Valuation Activities* whose development was underpinned by the analysis of the best international practices in the field of organizing valuation activities. In view of the situation at the valuation services market at the time it was drafted, the Act proposed a mixed model of regulating valuation activities .

The Act distinguishes between the following valuation activity directions in the Republic of Moldova: valuations of movable property (chattel) and immovable property (real estate) and of the rights thereto; valuations of intangible assets; valuations of enterprises as asset portfolios (valuations of businesses); valuations of securities, receivables and payables; valuations of work scopes, services and information; valuations of other items.

Most certainly, not all of the above-listed valuation directions are equally popular. The most popular valuation type is valuations of real estate, followed by valuations of

machinery, plant and equipment, valuations of enterprises as asset portfolios (valuations of businesses), and valuations of intellectual rights. It can be concluded from an analysis of the wealth of experience gained in regulating valuation activities in developed and emerging economies that the above valuation fields are subject to regulation either by the state or by NGO associations of professional valuers.

The system of regulating valuation activities that has become established in the Republic of Moldova is as follows: According to the Act, real estate valuations are regulated by the Agency for Land Relations and Cadaster; valuations of intellectual rights are regulated by the Agency for the Protection of Intellectual Property. However, certain important types of valuation services such as valuations of businesses (enterprises as asset portfolios) and valuations of machinery, plant and equipment are not subject to regulation. By way of a paradox, valuation services of these types are rendered by private sector valuers.

The regulation of real estate valuations is the best-developed regulation field. During the time elapsed since official recognition of the valuation activities in the Republic of Moldova, this market has been regulated by the state, which is represented by the Agency of Land Relations and Cadaster (currently the Agency of Geodesy, Cartography and Cadaster). This public agency has developed the basic methodologies for the valuation activities, has coordinated the first curricula for the specialism *Valuations of Real Estate* that appeared in some Moldovan universities and colleges, and has developed the underlying principles for state certification of real estate valuers.

The State Agency for Intellectual Property regulates valuations of intellectual rights. The functions performed by this agency in the field of regulating this type of valuations roughly coincide with those performed by the Agency for Geodesy, Cartography and Cadaster and consist in the development of the regulations for valuation services, certification of valuers, and development of the valuation standards for valuations of intellectual rights.

Regulation of other valuation fields has been neglected by the public authorities for a long time. In 2024, a number of additions were made to the Act, establishing the National Securities Commission, which is still another public agency regulating valuation activities. The field regulated in this case is valuations of securities.

The role of NGO associations in the shaping of the valuation services market and the valuer profession is not strong enough, as compared to the situation in other countries. The Act vests NGO associations of valuers with certain functions (listed in Article 19), which include:

- Creating conditions for the exercise of the valuer profession,
- Participating in the development of draft regulations on valuations,
- Ensuring professional training for the association members and organizing the delivery of training courses for the professional development of valuers,
- Developing a code of ethics and monitoring compliance therewith,
- Developing valuation methodologies and organizing research activities in the field of valuations,
- Cooperating with the universities that train valuers,
- Protecting the rights and interests of the parties rendering valuation services in the market, and participating in the work of the committee for the certification of valuers,
- Assuring the adequate quality of the valuation services rendered by the association members,
- Providing expert reviews of valuation reports,
- Holding and hosting valuer conferences, workshops and congresses, popularizing valuation knowledge.

The authors drafting the Act (and the author of this paper among them) assumed that the associations of professional valuers would take a clearer shape with time, become stronger and start gradually taking over more and more functions in the field of regulating the valuation activities. The underlying idea was that the role of the state in the development of valuation activities would gradually diminish and most of the functions associated with regulating valuation activities would be delegated to the NGO associations of professional valuers. However, these expectations did not come true.

The role of the NGO associations of professional valuers has not changed in any significant way during the years elapsed since the adoption of the Act. They are still performing the same functions they were performing 20 years ago. Several new NGO associations of valuers were registered during this period, but none of them has gained any significant advantages. Only the association names and leaders were changing. One of the major changes, however, is that the members of the National Real Estate Chamber used to be legal entities (valuation companies) in the early 2000s, whereas only individuals who are professional valuers are now entitled to join the Society of Independent Valuers of the Republic of Moldova. Thus, the trend typical of most European countries prevails in the development of professional valuer organizations in Moldova.

The following forms of cooperation between the public agencies regulating valuation activities and the NGO associations of valuers have emerged and were tested in real-life conditions over the past years:

- State attestation of valuers (joint participation in the work of attestation committees),
- Development of draft laws and regulations. This activity is exercised by the state, and the role of the NGO associations is only manifest at the stage of public discussions. The state does not always take the opinions of the NGO association into account and there are situations where documents approved by the government or by the parliament include provisions that do not fully correspond to the international valuation development trends,
- Development of valuation standards. It has been decided to apply the International Valuation Standards as the national valuation standards of the Republic of Moldova. In such situations the rules of the International Committee for the Development of Standards do not allow any changes to the official text of the standards. Thus, the role of the NGO associations of valuers will probably be reduced in this respect to joint participation in the development of practical guidelines for the application of the international valuation standards.

We can thus conclude that the cooperation between the state and the NGO associations of valuers has been diminishing in the Republic of Moldova during the last few years; the role of the NGO associations is starting to look rather like marching in lockstep with the regulatory public authorities.

The research into the function of regulating the valuation activities is closely related to the function of supervising the exercise thereof. State supervision of the valuation activities is envisaged in the Act, but it has never actually taken place; thus, it has not been decided which specialized public agencies or authorities are responsible for this supervision. Situations were quite frequent throughout the development period of the valuation activities where it was necessary to verify certain valuation reports for their quality and for the compliance of the performed valuation with the generally accepted methodologies and the applicable Moldovan laws. In all these situations the Committee for the Certification of Valuers had to additionally perform the function of reviewing valuation reports (at the request of the controlling authorities, central governments, LPAs, etc.).

4. Changes in the legal framework, their effect and consequences

In 2024, conceptual additions were made to the Act for the first time since its approval in view of the new trends in the valuation market. It is worth pointing out the novelty regarding the organization of monitoring valuation activities among the changes intended to improve valuation activities. The public authority responsible for state monitoring of valuation activities will be a central administrative agency in the field of valuations; the exact function can be described as follows. Real estate valuers will have to submit quarterly reports to this regulatory authority on the number and types of their valuation reports issued during the reporting period. We believe this measure will finally make it possible to measure the volume of work performed in the field of real estate valuations, to obtain information on the number of valuers actually providing these services, and to determine which real estate types are valued most often and for what purposes. Thus, it will become possible to understand the situation at the valuation services market and to study its dynamics, identifying possible issues or positive trends in good time.

The new requirement to the valuation companies to submit the issued valuation reports to the public agency regulating valuation activities can be seen as a fly in the ointment of the amendments to the Act. The Act does not specify the details of this process other than the procedure for the submission of valuation reports using a specialized module in the Price Register automated information system. In the author's opinion, this innovation violates several principles of individual as well as mass valuations. First of all, it violates the principle of valuation confidentiality (one of the basic principles appearing in all editions of the International and European Valuation Standards). The principle of confidentiality in valuation activities means that the valuation findings shall be treated as confidential by the valuers who have no right to disclose them other than in the situations stipulated by law. It was understood that such cases are of a special nature (such as the disclosure requirements submitted by courts or prosecutor's offices).

However, the creation of a database of all valuation reports (this is what the new version of the Act says) will lead to violations of the valuation confidentiality and open up the possibility to use information from the reports for disreputable purposes – and in particular as examples for the professional development of public sector valuers who will have access to this information. Thus, the concerns are real about the possibility of leaking confidential information, using it for personal purposes, in expert reviews of some reports, etc.

Moreover, the usefulness of the data from valuation reports for the purposes of creating the Price Register is very doubtful. It is well known that the values of real estate appearing in valuation reports are recommendatory in nature and often do not coincide with the actual sale prices (market prices). In addition, the estimated value loses its relevance very quickly and its use will involve its updating, which causes additional inaccuracy and uncertainty. Therefore we believe that the risks associated with using the data from valuation reports to create a Price Register are very high, while the benefits are questionable.

We can recommend the authors of this idea to examine international experience and try and find similar examples internationally. We were able to find out that a similar system exists in a single country worldwide – in Ukraine, and valuation reports are used over there for the purposes of registration and record keeping as well as selective verification of valuation reports - rather than for maintaining a Price Register. We discourage such practices and believe them to be a vivid example of state interference in the valuation activities, the relations between the valuer and the customer. This is all the more unusual in the situation where self-regulatory organizations of valuers (the highest development form of the professional valuer associations) are in existence in Ukraine. Perhaps there are some hidden reasons justifying the creation of such a database, which are not reflected in the available sources of information.

Recently the regulatory authority in the field of valuations has been trying to calm down the professional community by promises that not all valuation reports are subject to mandatory submission to the Price Register system; the requirement allegedly concerns only public property valuation reports. This statement gives rise to the following questions:

1. Such statements should be based on the appropriate amendments to the Act, which says currently **that all valuation reports** should be submitted to the state database.
2. Public property items are intended for diverse purposes and fall into different groups in the classification of real estate items (agricultural land, land parcels for construction, residential real estate (single family houses, isolated premises, office buildings, unique real estate of special value, historical and architectural monuments, strategic importance real estate, etc.) What is the point of collecting full valuation reports for all those real estate items where some of them are of special importance for the state (such as the Presidential Office Building, the Parliament building, the offices of the power ministries, etc.), or architectural monuments not subject to mass valuation for tax assessment purposes, while the remaining real estate items are standard and can be appraised applying mass valuation models intended for tax assessment purposes?
3. It is obvious that valuation reports only on state property will hardly be useful for the creation of the Price Register. This means that the reports will be collected maybe for some other purposes – which are most likely supervision purposes. Or is the actual intended purpose some other one?
4. Who will review these valuation reports? What qualifications should these expert reviewers have? What criteria will be used to select reports (or valuers?) to be verified? What sanctions can be applied to the valuers who have issued the reports?

Thus, it seems that the new requirement to the valuers to submit all valuation reports to the Price Register database will serve the purpose of supervising the valuer's activities tighter rather than adding data to the Price Register.

5. Conclusions and suggestions

The study of international experience and the experience gained by the Republic of Moldova in the field of regulating valuation activities makes it possible to conclude that Moldova is in the general trend of valuation activity developments, applying a mixed regulation form that combines the efforts of state authorities and NGO associations of valuers in an optimal way.

The highest form of regulating valuation activities is self-regulation by NGO associations of valuers. Thus, a feature common for the development of valuation activities in diverse countries is gradual delegation by the state of its valuation activity regulating functions to NGO associations of valuers.

The recent amendments to the Act on Valuation Activities are mostly intended to improve the clarity and understanding of the scope and significance of valuation activities (by organizing the procedure for state monitoring of valuation activities), to achieve more clarity regarding the valuation objects and purposes, to introduce new terminology (for example, using the phrase “valuation approach” instead of “valuation methods”).

At the same time, the amendment to the Act regarding mandatory submission of full texts of all valuation reports to the sectoral regulatory authority is a major threat for valuation activities because of:

- violation of the principle that concerns confidentiality of the valuation reports and valuation results,

- doubtful benefits of using the data on appraised values to build the Price Register database (at least for the reason that the appraised value is not equivalent to the sale price),
- the risk of information leakages from the automated database; the possibility of using the form and the content of the submitted reports by unscrupulous parties with access to the database,
- the lack of international practices in this regard. Ukraine is the only country worldwide that is building the state database of valuation reports. The benefits of creating this database are arguable.

The recent amendments to the Act on Valuation Activities has shifted the balance in the market of valuation services in favor of the state. This means a tendency to strengthen the role of the state while reducing the role of associations of professional valuers, the risk of a gradual transition from the hybrid model to the paternalistic model of regulating valuation activities. This deviates from the global trend towards self-regulation of valuation activities.

As a result of the conducted research, the author proposes:

- initiating the amendments to the Act on Valuation Activities to exclude from its Article 20¹ the requirement to submit valuation reports issued by valuers for the purposes of creating the Price Register database.
- The state regulator of valuation activities as well as the associations of valuers - or both acting jointly – should be entitled to develop and submit proposed amendments to the sectoral legal framework.
- It is necessary to continue implementing the best international practices in the field of valuation services, which are recognized in most countries of the world. For example, we believe it relevant to initiate the emergence of the specialism “valuation reports expert” or “valuation reports reviewer” because this measure will contribute to improve the quality of valuation reports (similar to the practices of Romania’s National Association of Authorized Valuers and the experience of valuer associations in some other countries).
- When developing the policies in the field of valuations, developing the methodologies and the valuation standards, it is necessary to take the red line (the main trend) in the development of valuation activities internationally into account; this trend is the transition to self-regulation of valuation activities, reducing the role of the state and increasing the independence of valuers.

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ECONOMIC CADASTRE AS AN INTEGRAL PART OF THE MULTIFUNCTIONAL CADASTRE

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Abstract. *The authors discuss the concept of the multifunctional real estate cadastre, its purpose and components as well as the institutional system created for the real estate cadastre in the Republic of Moldova. Special focus is made on the economic cadastre as part of the multifunctional real estate cadastre system; the economic cadastre is a subsystem containing information on market values of all real estate items registered in the cadastre. The data on appraised values of real estate as well as technical and economic characteristics of the real estate items concerned, which are important indicators for the economic cadastre, require ongoing updating and refining. This is due to continuous changes in the real estate market situation as well as changes in the technical state of real estate items and new developments in the techniques applied for the purpose of overhauling the existing buildings and structures and in new construction projects. The authors emphasise the importance of integrating legal, technical and value characteristics of real estate in the multifunctional cadastre system and research the impact of such land information systems on the economic development of settlements and regions, improvements in public policies, growth of local budgets and attraction of foreign investments. The authors suggest certain measures for further development and improvement of the real estate cadastre based on the analysis of international experience and practices.*

Keywords: *Economic cadastre, land information systems, multifunctional cadastre, public policy, real estate valuation, sustainable development.*

1. Introduction

Cadastral systems play a fundamental role in modern society, serving as the foundation for land management, property rights, and sustainable development. They ensure the proper documentation of land ownership, boundaries, and usage, which is essential for legal security and economic stability [1]. With the increasing complexity of societal needs, traditional cadastral systems are evolving to accommodate multifunctional purposes, integrating environmental, economic, and social aspects [2].

The economic cadastre, as a specialized component of the multifunctional cadastre, focuses on the valuation and economic characteristics of land and real estate. It provides essential data for taxation, urban planning, and investment decisions, making it a cornerstone for effective land governance [3]. However, despite its importance, the economic cadastre often faces challenges in implementation and integration with broader cadastral frameworks [4].

This study aims to explore the concept and role of the economic cadastre within the multifunctional cadastral system. It examines its historical development, current applications, and potential for addressing global challenges such as urbanization, climate change, and economic inequality. By highlighting case studies and best practices, the paper seeks to provide actionable recommendations for policymakers and researchers [5].

Research Objectives are as follows:

- to define the economic cadastre and its characteristics;
- to analyze its role in the multifunctional cadastre;

- to identify challenges and opportunities for its implementation;
- to propose strategies for improving its integration and functionality.

The study employs a mixed-methods approach, combining qualitative analysis of policy documents and scientific literature with quantitative data from case studies in various countries. Comparative analysis will also be used to identify common trends and divergences across different cadastral systems [6].

2. The Concept and the historical development of economic cadastre

The economic cadastre is a specialized subset of the broader cadastral system, focusing on the valuation, economic potential, and financial characteristics of land and real estate. Unlike the traditional cadastre, which primarily deals with the geometric and legal aspects of property, the economic cadastre provides a quantitative and qualitative assessment of land's economic attributes, such as its market value, productivity, and development potential [7].

Historically, the concept of economic cadastre emerged as a response to the increasing complexity of land-related activities, particularly in urban and industrial areas. Early forms of economic cadastre were limited to property taxation, but they have since evolved into a comprehensive framework for land governance. In contemporary applications, the economic cadastre supports land-use planning, real estate markets, and public revenue generation [8].

The integration of economic data into cadastral systems has become increasingly important in addressing global challenges. For instance, accurate economic assessments are critical for implementing fair taxation policies, managing land resources efficiently, and fostering equitable development. The economic cadastre also plays a pivotal role in decision-making processes related to investment, infrastructure development, and urban expansion [9].

In comparison to other types of cadastre, such as legal or multipurpose cadastre, the economic cadastre is distinct due to its focus on monetary and financial aspects. This specificity allows it to serve as a valuable tool for policymakers, investors, and planners. However, its effectiveness depends on the availability of reliable data, robust methodologies, and an integrated approach to cadastral management [10].

The evolution of cadastral systems is deeply intertwined with the development of modern society. Initially, land records were kept for taxation purposes, but as economies grew more complex, so too did the role of the cadastre. The economic cadastre emerged as a response to the need for more detailed information about land and real estate values, particularly in the context of urbanization and industrialization.

In Europe, early forms of economic cadastres were implemented in countries such as France and Germany in the 19th century, where the focus was primarily on property tax assessments. These early systems were relatively simple, collecting data on land ownership, boundaries, and basic economic features such as land use. Over time, the scope of the economic cadastre expanded to include more comprehensive economic data, such as property values, income potential, and the economic use of land.

In Moldova, the development of the economic cadastre has been a more recent process, spurred by the country's transition to a market economy in the middle of 1990s. Prior to this, the cadastre system was primarily concerned with legal aspects of land ownership, but the post-Soviet era saw an increasing recognition of the need for more detailed economic data to support privatization and market-driven land use. The integration of economic data into the cadastre system was part of a broader effort to modernize Moldova's land administration and make it compatible with international standards [11].

Land reform has played a crucial role in shaping the economic cadastre, particularly in transitioning economies such as Moldova. Following the collapse of the Soviet Union, many countries in Eastern Europe, including Moldova, underwent significant land reforms that included the privatization of agricultural land and the establishment of private property rights. The introduction of the economic cadastre was essential to support these reforms by providing accurate, up-to-date information on land ownership, value, and potential for economic development.

In Moldova, the early 2000s marked a period of significant cadastral reform, with the government introducing legislation that mandated the establishment of an integrated cadastral system. This system aimed to provide a comprehensive framework for land registration, valuation, and taxation. The economic cadastre became an integral part of this reform, as it allowed the government to assess the market value of land, ensuring that property taxes were fairly applied and that land was used efficiently for economic purposes [12].

The foundation for the economic cadastre in the Republic of Moldova was established as part of the First World Bank Project on the creation of a real estate cadastre in the Republic of Moldova. The results of this project are hard to overestimate. One of the most significant achievements was the adoption of the Real Estate Cadastre Law by the Parliament of the Republic [13]. In the context of this law, the real estate cadastre serves as the primary cadastre, functioning as a unified multifunctional system for the state registration of real estate objects and rights to them, as well as for the valuation of these objects. The diagram in Figure 1 illustrates the structure and interconnection of the domains of the multifunctional cadastre. Using the format of a Venn diagram, it highlights how the legal, economic, and technical aspects are integrated into a unified cadastral system. The diagram emphasizes the interdependence of these domains, highlighting their collective contribution to property registration, assessment, and land management, all aimed at supporting efficient governance and sustainable development.

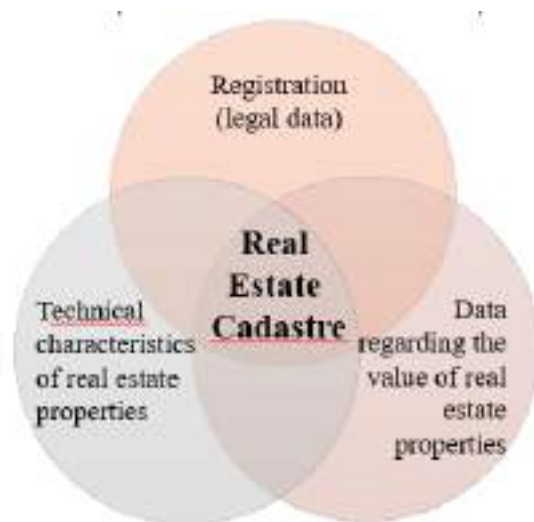


Figure 1. Diagram of the components of the real estate cadastre (multifunctional cadastre)

The purpose of the cadastre is the identification, description, valuation, and registration of real estate objects and the rights associated with them; the protection of public and private interests in legal relations related to real estate; the establishment of a system to safeguard the property rights of real estate owners; and the creation of an open information system for real estate market participants, public administration bodies, including tax

authorities [14]. Thus, by the early 2000s, the Republic of Moldova had established the legal and methodological foundations for a multipurpose real estate cadastre and its components, including the economic cadastre.

Despite its importance, the historical development of the economic cadastre has not been without challenges. One of the main obstacles has been the lack of reliable and standardized data. In many cases, land records were incomplete or outdated, making it difficult to establish accurate property valuations. This was particularly true in Moldova, where the transition from a centrally planned economy to a market economy resulted in significant changes to land ownership and land use patterns.

Another challenge has been the integration of economic data into existing cadastral systems. While the traditional cadastre focused on legal and geometric data, the economic cadastre requires additional layers of information, such as property values, income potential, and development capacity. Incorporating these economic factors into an existing system requires significant investment in technology and data management infrastructure [15].

3. Applications of the Economic Cadastre

One of the primary functions of the economic cadastre is **land valuation**, which plays a central role in property taxation. In Moldova, property taxes are based on the assessed value of land, which is determined through the economic cadastre. Accurate land valuation ensures that taxes are applied fairly, based on the market value of the property. This system helps to generate revenue for local governments, which can be used to fund public services and infrastructure projects.

The integration of the economic cadastre with valuation systems allows for more accurate and efficient property assessments. This has been especially important in Moldova, where the cadastral system was initially underdeveloped and lacked standardized valuation methods. By using the economic cadastre to assess property values, the government has been able to ensure that tax revenues are generated more consistently and fairly, supporting the country's fiscal stability.

Urban planning is another area where the economic cadastre plays a crucial role. In Moldova, as in many other countries, urbanization has led to increased demand for land for housing, commercial development, and infrastructure. The economic cadastre provides essential data for urban planners, helping them to assess the value and suitability of land for different types of development.

For example, urban planners can use the economic cadastre to identify underutilized or undervalued land in urban areas, which could be repurposed for residential or commercial development. The cadastre can also help to prevent land speculation by ensuring that land is being used efficiently and equitably. In Moldova, where the capital city Chişinău is experiencing rapid urban growth, the economic cadastre is essential for managing this development in a sustainable and orderly manner [16].

The economic cadastre also plays a vital role in **supporting real estate markets and attracting investment**. By providing accurate and detailed data on land values and economic potential, the cadastre helps investors make informed decisions about property acquisitions and development projects. In Moldova, the growth of the real estate market has been supported by the availability of data from the economic cadastre, which has provided investors with insights into market trends, land prices, and potential for future development.

Moreover, the cadastre can also be used to assess the economic viability of large-scale infrastructure projects, such as highways, airports, and industrial zones. By analyzing the economic attributes of land, planners and developers can determine the most cost-effective and beneficial locations for such projects. This can lead to more efficient allocation of resources and better outcomes for both investors and the general public [17].

An often-overlooked aspect of the economic cadastre is its role in ***promoting environmental sustainability***. As global environmental challenges such as climate change, deforestation, and land degradation intensify, the economic cadastre can be instrumental in supporting sustainable land use planning. By providing detailed information on the economic potential of land, the cadastre enables planners to make informed decisions about how land should be used in both urban and rural settings.

In Moldova, the economic cadastre can support the conservation of natural resources by helping to identify environmentally sensitive areas, such as forests, wetlands, and agricultural land at risk of degradation. By integrating environmental data with economic information, planners can ensure that land use decisions align with long-term environmental goals. For example, areas prone to erosion or flooding can be designated for conservation or low-impact uses, such as public parks or green spaces. This approach not only protects the environment but also enhances the quality of life for communities living in those areas [18].

Additionally, the economic cadastre can assist in identifying land that is suitable for sustainable agricultural practices. In Moldova, where agriculture is a major economic activity, the cadastre can provide critical information on soil quality, water availability, and land productivity, enabling farmers to adopt sustainable farming practices. By promoting the use of land in a way that balances economic development and environmental protection, the economic cadastre contributes to Moldova's broader sustainability goals.

The economic cadastre also plays a crucial role in ***simplifying land transactions and reducing disputes related to land ownership and use***. In many countries, including Moldova, land disputes are a significant challenge that can delay development projects, reduce investment, and undermine trust in the legal system. By providing clear, reliable, and accessible land data, the economic cadastre helps to minimize conflicts over land ownership, boundaries, and value.

In Moldova, the integration of economic data into the cadastral system has been instrumental in resolving disputes related to land valuation, ownership, and usage. By ensuring that land information is up-to-date and easily accessible, the economic cadastre helps both individuals and businesses navigate the often-complex process of land transactions. Furthermore, it enables the government to enforce land laws more effectively, ensuring that land rights are protected and upheld.

The availability of accurate land data also facilitates the registration of property transactions, making it easier for buyers and sellers to complete land deals. This, in turn, supports the overall functioning of the real estate market and contributes to economic growth. In Moldova, where the real estate market is rapidly developing, the role of the economic cadastre in supporting land transactions is increasingly important [19].

4. Challenges and Opportunities for the Economic Cadastre

One of the primary challenges faced by the economic cadastre is ***ensuring data accuracy and standardization***. In many countries, including Moldova, the cadastral system is still in the process of being modernized and integrated into more advanced land administration frameworks. This often results in discrepancies between the various types of cadastral data, particularly when it comes to economic and environmental information.

For example, in Moldova, there are significant gaps in the availability of accurate data on land values, land use, and market trends. This can undermine the effectiveness of the economic cadastre in supporting land valuation, urban planning, and taxation. Furthermore, inconsistent data formats and lack of coordination between various governmental agencies can lead to inefficiencies and delays in the provision of cadastral services.

To address these issues, Moldova has taken steps to modernize its cadastral system, including the development of more advanced GIS (Geographic Information Systems) platforms and the integration of economic and environmental data.

In the Republic of Moldova since 2019 and until now, the "Land Registration and Evaluation Project" has been implemented, financed by a loan granted by the World Bank.

The Land Registration and Evaluation Project (LREP) aims to ensure the quality and transparency of land administration in the Republic of Moldova by registering public and private property and providing methodologies for real property evaluation. The project is being implemented nationwide based on a financing agreement between the Republic of Moldova and the International Development Association, signed on September 17, 2018, and ratified by the Parliament of the Republic of Moldova on November 8, 2018 (Law No. 240 from 08.11.2018). It is expected to be completed in April 2026.

The Public Institution Cadastral Agency, as the implementing institution for the project, is working in partnership with Local Public Authorities and receiving support from the Public Property Agency (on the component related to the delimitation and registration of public property) and the Agency for Geodesy, Cartography, and Cadastre (on the components for real property evaluation and the strengthening of the National Spatial Data Infrastructure).

LREP supports the implementation of the State Program for the creation of the real property cadastre, launched in 1998, with the goal of completing the real property cadastre across the entire country, ensuring the mapping of 100% of land and the registration of property rights over them.

The Land Registration and Evaluation Project was divided into 4 components:

Component A: Primary Registration of Real Property, aimed at supporting the primary registration of both private and public real property, thus completing the creation of the real property cadastre in the Republic of Moldova, as well as enhancing the quality of cadastral data for already registered properties.

Component B: Real Property Valuation, focused on extending mass valuation for all categories of real property and revaluation of previously assessed properties, thereby contributing to improving transparency in the real estate market and maintaining an up-to-date property valuation system.

Component C: Strengthening the Land Administration System, aimed at supporting the development of the land administration sector, including governance, information technology, communications, and data management.

Component D: Capacity Building and Project Management, focused on supporting the capacity-building of local public authorities and agencies involved in land administration, as well as ensuring the effective management of the Project.

Specific objectives of Component A include:

- The mass primary registration of 320,000 private land parcels from approximately 490 rural localities (around 292 municipalities) where no previous work has been carried out.
- Delimitation and registration of 100,000 public property real estates, located throughout the entire country.
- Improvement of cadastral data quality by correcting errors made during the land ownership assignment process (about 130,000 land parcels).

According to the progress report issued by the Public Institution of the Real Property Cadastre on October 31, 2024, the level of completion of the works varies from one district to another, with 10 districts having completed over 75% of the works.

Specific objectives of Component B include:

- Extending the initial mass valuation to include properties currently excluded, particularly residential properties in rural areas (approximately 500,000 real properties – houses with adjacent land), agricultural land (about 3.8 million parcels), and special-purpose properties, including public assets (estimated at 20,000 real properties).
- Revaluating properties that were assessed before 2011 (715,000 residential properties in urban areas, individual vehicle garages, and 100,000 commercial and industrial properties).
- Establishing infrastructure for real property valuation activities, ensuring the development of national valuation standards, and creating an independent system for reviewing appeals related to valuation results.

Another challenge facing the economic cadastre is the **integration of new technologies, such as Geographic Information Systems (GIS), remote sensing, and big data analytics**. These technologies have the potential to revolutionize the way cadastral data is collected, analyzed, and used. For example, GIS technology allows for the mapping of land attributes and economic characteristics, enabling more efficient land use planning and valuation.

In Moldova, the use of GIS technology has already been implemented in some areas, but its widespread adoption across the country is still in progress. The integration of new technologies into the economic cadastre could help to overcome existing challenges related to data accuracy and standardization. However, it also requires significant investment in infrastructure, training, and capacity building for government agencies and land professionals.

The opportunity to leverage new technologies is particularly important in addressing issues such as land use change, urban sprawl, and environmental degradation. By incorporating data from satellite imagery and other remote sensing sources, the economic cadastre can provide more accurate and real-time information on land conditions, which is essential for effective land management.

Another critical factor for the successful implementation of the economic cadastre is **building the capacity of relevant institutions**. In Moldova, as in many other countries, there is a need for training and capacity building for land administrators, policymakers, and other stakeholders involved in the cadastral process. This includes providing education and technical training on the use of new technologies, data analysis, and land policy.

Furthermore, there is a need for stronger institutional coordination between various agencies involved in land management, including the cadastre authority, tax authorities, urban planning agencies, and environmental regulators. Effective coordination ensures that data from different sources can be integrated into a comprehensive cadastral system that supports land governance in a holistic and sustainable manner.

By investing in capacity building and institutional support, Moldova can ensure that its economic cadastre functions effectively and continues to contribute to the country's economic and social development.

5. Conclusion and Recommendations

The research highlights that the development of a multifunctional cadastre is an essential step for the efficient and sustainable administration of real estate in the Republic of Moldova. The integration of legal, technical, economic, and environmental components contributes to supporting strategic decisions for national development.

The economic component of the cadastre plays a crucial role in the evaluation and taxation of real estate, contributing to the increase of local and national budget revenues. It

provides a fair framework for the use of real estate resources, encouraging investments and transparency in property management.

Data as of October 31, 2024, demonstrate significant achievements, such as the completion of 48% of the private property registration objective and substantial progress in correcting cadastral errors. At the same time, a series of amendments have been adopted to the legislative framework in the field of property evaluation. These results confirm the efficiency of implementation and the relevance of the project in the context of national development.

Creating a complete and updated cadastre supports the optimization of territorial planning processes, economic evaluation, and sustainable resource use. Additionally, by registering and reassessing properties, the tax base is improved, budget revenues increase, and the development of rural and urban areas is stimulated.

Updating and modernizing the mass evaluation process and creating infrastructure for cadastral activities will contribute to the continuous improvement of cadastral data quality. These measures are essential for consolidating a modern cadastral system capable of meeting economic, social, and environmental requirements.

The following recommendations are proposed to improve the economic cadastre system in Moldova:

1. **Invest in technological infrastructure** to integrate GIS and remote sensing technologies into the cadastral system.
2. **Improve data accuracy** through regular updates and standardization of cadastral data.
3. **Strengthen institutional capacity** through training programs and better coordination between relevant government agencies.
4. **Promote public awareness** of the importance of the economic cadastre in land governance and sustainable development.
5. **Enhance international cooperation** to share best practices and lessons learned from other countries with well-established economic cadastre systems.

By addressing these recommendations, Moldova can ensure that its economic cadastre contributes to the sustainable development of the country and supports the broader goals of land governance, environmental protection, and economic growth.

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THE REAL ESTATE ACCESS AND SURFACES – ANTAGONISTIC CONCEPTS: THEORETICAL AND PRACTICAL ASPECTS

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Abstract. *Superficies and artificial real estate accession, although present in the legislation of the Republic of Moldova since the adoption of the Civil Code on 06 June 2002, are legal institutions that have been less utilized due to ambiguities in legal norms and a lack of experience in the field. The modernization of the Civil Code (01 March 2019) has improved some inconsistencies in civil legislation that regulates these institutions.*

The aim of this research is to analyze the evolution of the right of superficies and artificial real estate accession and to highlight the issues and ambiguities regarding the legal construction of these two legal concepts. This article proposes an examination of superficies and artificial real estate accession-two concepts that may appear similar at first glance, yet are fundamentally antagonistic, as they have their own characteristics and apply to different legal provisions. Their legal significance cannot be overlooked, as the vast majority of legislations regulate them, and doctrine studies them with the goal of refining and maximizing their use in civil relations that arise from the use of foreign land.

Keywords: *real estate accession, artificial real estate accession, superficies, land, property rights, etc.*

1. Introduction.

The problem of the legal institution of artificial real estate access (namely through this mechanism (method) of acquiring the right of ownership) and of the surface, which is a real real estate right to possess and use the land of another, has given rise to several controversies. The existence of two assets that have different owners, accompanied by the process of acquiring the right of ownership by one of these owners, in the case of artificial real estate accession and the right to possess and use the property of another in the case of the surface, has been imposed since Roman law, which represents a huge treasury of legal thought that was capitalized and adapted to social-economic realities by later civilizations, also taken over by Romanian law, also developed in the law of the Republic of Moldova.

Codification of civil law over time developed in close correlation with the evolution of society, Romanian law was the starting point that had a major influence on the researched legal institutions. Each stage has left an imprint on artificial real estate access and surface area, today, in particular, emphasizing the influence of European Union law on domestic legislation.

Both the institution of surface area and the institution of artificial real estate access are less researched in the Republic of Moldova, for this reason, we believe that more extensive investigations are needed in this field. These institutions, if there were not more questions, would have remained on the part of the doctrinaires without special attention, but especially those problems related to the implementation of the targeted institutions in practice.

2. General considerations regarding the constitution of the artificial real estate accession and the surface.

Surface and accession are similar in that the works are carried out on foreign land, but differ from the perspective of the owner's agreement.

Research regarding the surface and its identification in national science can be found in the works of prominent civil authors, N. Roșca and S. Baieș, V. Volcinschii and E. Cojocari. More recently, extensive research on the legal institution of the surface can be found by the author C. Obada, in a series of articles aimed at elucidating the aspects related to the constitution of the surface.

The surface right is a dismemberment of the ownership of the land. This dismemberment concerns the prerogative of use and, to a limited extent, the prerogatives of disposition and possession. The superficiei owns the land in this capacity and exercises a limited possession, specific to the superficiei right. Also, the prerogative of the disposition is exercised by the superficiary in a limiting manner by reference to the prerogative of the naked owners [1, p. 259].

According to art. 654 of the Civil Code of the Republic of Moldova [2], *the surface right is the real immovable right to possess and use the land of another in order to build and exploit a construction of the surface, above and below this land, or to exploit an existing construction of the surface*. We also find the regulation in art. 655-666 of this code.

Even though the institution has been regulated since 2003, with the entry into force of the Civil Code of the Republic of Moldova, the constitution of this right was somewhat avoided, precisely because the rules regarding the surface area were less clear. Following the modernization of the Civil Code (in 2019), the equivocation of some rules was removed, which to some extent stimulated the participants in the civil circuit to turn to the legal institution of the surface, which, very often, proves to be advantageous from an economic point of view for the parts of the surface legal relationship.

According to the doctrine of the Republic of Moldova (until the amendment of the Civil Code in 2019), the surface right is located between the dismemberments of the property right and is another main real right, the given norms are more inspired by German legislation [3, p. 123]. As a result, the dismemberment of the right of ownership can be defined as primary real rights derived over the asset of another which are constituted or acquired by transferring some elements of the legal content of the right of ownership over the respective asset to another person or by the concrete exercise of these elements of to the owner of the asset and another person [3, p. 133]. The specialized legal literature has presented controversial opinions regarding the legal nature of the surface. Most have enshrined the idea that rights over another's things are dismemberments of property rights. According to the opinions of the authors V. Volcinskii [4, p. 72-73], S. Baieș and N. Roșca [5, p. 867], including and according to the legal notion, the surface right is real, immovable, alienable and hereditary, temporary but long-lasting, with variable content, depending on its form: full or incipient.

Today, after the modernization of the Civil Code, we find norms inspired by the German legislation as well as the French legislation (which regulates a dual character of the surface), thus, as O. Cazac points out, a hybrid model of surface regulation was adopted, which combines the two approaches [6], the refore, the owner of the land is seen as the owner of the construction for the entire term of the land.

So, as the author C. Obădă opines, the surface right has a dualistic character:

1) *the right of possession and use of the land* - property of a third party - from which a specific right of disposal derives. Specifically, because the owner of the surface can have this right only together with the construction and only the right over the portion of land encumbered with the surface;

2) *the owner's right of ownership* over a construction that exists on the land belonging to a third party or that is to be erected - from where the right of disposal over the construction derives [7, p. 25].

For example, another opinion can be found in the Canadian legal doctrine, which considers the right of superficie a form of the right of ownership, namely, the superficial property: „the right of superficie is not a simple dismantling of the right of ownership, but a genuine right of real estate property. The one who has the surface right is an exclusive owner” [8, p. 1370].

The author V. Stoica points out that the surface right, in its full form, is the main real estate right that brings together, in its legal content, the right of ownership over a construction or plantation, as well as a dismantling of the right of ownership over a land belonging to a person other than the owner of the surface right, dismemberment that brings together the use and, to a limited extent, the possession and disposal of the land or a part of it [9, p. 238].

Regarding artificial real estate acquisition, the current Civil Code of the Republic of Moldova regulates this institution in Book III „*Real rights*”, Title III „*Property*”, Chapter II „*Acquisition of ownership*”. Art. 521 of the Civil Code of the Republic of Moldova establishes the rule that the accessory good loses its individuality through its incorporation into the main good, so that the accessory good belongs to the owner of the main good if there is no contrary provision.

Legal doctrine offers us a multitude of definitions of artificial real estate accession as an independent legal institution. The common defining elements, which the specialists have in mind, follow the phenomenon of material incorporation, as well as the existence of two assets, where one is more important than the other. These two elements are accompanied by a third element, namely the condition of the existence of more distinct owners [10, p. 23; 10, p. 377].

Named in doctrine and *incorporation*, artificial real estate accession signifies the union of a real estate with a plantation or a construction carried out on it good real estate. As a result of the artificial accession, the owner of the building has the vocation to become the owner of the plantation and the construction as well [12, p. 417].

The Romanian doctrinaire, V. Stoica mentions that in practice, the regulation of this type of access is applied, most frequently, with reference to constructions and plantations. However, other works may also fall under the scope of the regulation, so that, for the sake of terminological simplification, the notion of work is used as a generic term for constructions, plantations and any other works carried out on a building [12, p. 321]. Although the author usually mentions that the works are carried out on land, it is not excluded that the regulation of artificial immovable access also applies to works carried out on a building, so that the expression works carried out on a building is more comprehensive, including in its scope both situations. In this sense, the legislation of the Republic of Moldova, regulates very clearly in art. 521 para. (1) Civil Code of the Republic of Moldova, the fact that by works is understood the planting, as well as the arrangements brought to a land that are not permanently incorporated into it.

Surface and artificial real estate access are similar in that the works are built on another person’s land. Instead, what distinguishes them is the fact that, if in the case of the surface there is the consent of the owner to carry out the works, in the case of the accession, the author carries out these works believing that he is the owner of the land or in bad faith, knowing that someone else is the owner of the land.

In short, the consent of the owner of the land to the building of the construction by a third party on the land owned by him constitutes the difference regarding the right that the builder acquires on the land of another. We consider that the surface is acquired, mainly, by virtue of a legal act, either a contract or a legal provision (art. 655 Civil Code of the Republic of Moldova).

Consequently, the simple fact of constructing a building on foreign land does not determine the birth of a surface right in the builder's patrimony, even if he was in good faith, with the conviction that he is the owner of the land and did not know, in any way, the defects of the title or. In the absence of fulfillment of one of the modalities expressly established by the legislation, the legal doctrine considered that the superficial cannot be recognized judicially.

Also, para. (4) of art. 655 Civil Code of the Republic of Moldova introduces two new ways of establishing the right of surface area, closely related to the accession, as follows: „in the situation where it was built on someone else's land, the surface area can be registered based on the land owner's waiver of the right to invoke the accession, in favor of the builder. Also, it can be registered in favor of a third party based on the assignment of the right to invoke the accession”.

The first case of constituting the surface area reflects the potential character of the right of accession, and the second presents the possibility of assigning this right.

The right of accession has been qualified as a „*potential right through the prism of the right of option that the building owner has in relation to the options made available to him by the legislator through the Civil Code and the consequences produced by it*” [1, p. 297]. We consider the qualification offered by the doctrine in the hypothesis of artificial real estate acquisition to be well founded because the owner of the building is the only one in a position to decide on the chosen option, without being able to be constrained by the author of the paper [1, p. 229]. In this sense, art. 521 para. (5) and para. (6) Civil Code of the Republic of Moldova describes the solutions offered by the legislator to the building owner, who has the right to choose between:

(5) Instead of keeping the constructions or works done by a third party, the owner has the right to demand the obligation of the author of the work to buy the land or portion affected by the construction or work at the market value that the land or portion would have had if the construction or work had not would have been carried out. In the absence of an agreement between the parties, the owner can ask the court to determine the price and issue a decision that will take the place of a sales contract.

(6) If the construction is erected partly on the builder's land and partly on a neighboring land, the neighboring owner can acquire ownership of the entire construction, paying compensation to the builder, only if at least 1/2 of the built area is on his land. In this case, he will also acquire a surface right on the related land for the entire duration of the construction's existence. The compensation must cover the value of the materials and the cost of the work, as well as the value of the use of the related land.

So, from the point of view of its legal content, the right of accession has a prerogative of choice that acts in a double sense, namely both with regard to the moment of producing the acquisitive effect, and with regard to the options made available by the legislation.

Through the lens of these considerations and specifications of the power of attorney, we underline the fact that the owner of the building on which constructions, plantings or other works were carried out without right will always have a privileged position in the relationship of forces between him and the author of the work.

3. The method of establishing the surface right through the waiver expressed by the owner in favor of the builder.

The way of drafting the first part of art. 655 para. (4) Civil Code of the Republic of Moldova is deficient in expression because it leads to the institution of artificial real estate accession. The reference to the realization of a construction on foreign land suggests the possibility of the emergence of the right of surface also in the event that someone builds a building on another's land in the absence of a positive manifestation from the owner in this

sense. However, this conclusion is not possible because the surface assumes an agreement of wills.

So, the establishment of the surface specifically by the owner's renunciation of invoking the accession would represent a derogation from the rule inscribed in art. 521, para. (1), on the basis of which the constructions and works underground or on the surface of the land are presumed to be done by the owner of the land at his expense and belong to him until proven otherwise. In other words, the artificial real estate accession takes place - that is, one of the ways of acquiring the right of ownership. Moreover, the renowned Romanian professor Sevastian Cercel mentioned about the right of superficies that it is considered to be the „antithesis of the institution of artificial real estate accession, and during its existence it prevents the extension of the ownership right of the owner of the land over the construction built by the superficies. As soon as the surface right ceases, logically, the accession mechanism is reactivated” [13, p. 816].

The source of inspiration for the text of art. 655 of the Civil Code of the Republic of Moldova is art. 1110 Civil Code of Quebec [14] regarding surface property. However, both in this last article, we draw attention to the fact that the Civil Code of Quebec has a special view on the surface, being analyzed as a modality of property, not as a dismantling of it.

Thus, with regard to the first way of establishing the surface right according to art. 655 para. (4) Civil Code of the Republic of Moldova, the surface right can be constituted, indirectly, by means of the waiver expressed by the owner in favor of the builder. Thus, by virtue of the optional right of accession, the land owner can unilaterally modify the pre-existing legal situation, affecting the rights and interests of the people involved in this situation [1, p. 49].

Renunciation by the owner of the land to the exercise of the right of access can only be done in favor of the builder, in contrast to the mode of assignment of the same right, which takes place for the benefit of a third party. We also consider that the two ways of incorporation differ in terms of the characteristics of the legal act signed by the parties.

This renunciation by the owner of the possibility of acquiring the construction in the property represents, however, a manifestation of the potestative right that he holds in his patrimony in accordance with the legal provisions. We specify the fact that the constitution of the surface right is carried out only with the consent of the author of the work.

Until the invocation by the land owner of the acquisition, by accession, of the property over the construction, the doctrine considered that the author of the work has a property right under an atypical resolution condition, the event with condition value being precisely the manifestation of the will of the land owner in the sense of acquiring ownership of the work. By renouncing the right to invoke accession, the owner of the fund abandons the prerogative of using the land in favor of the owner of the construction, for the entire duration of its existence, generating an atypical way of birth of the surface right, expressly provided for in the current Civil Code system at art. 655 para. (4). So, in its full form, superficial as a dismemberment of real estate ownership has in its content the ownership of the construction and the prerogative of using the land.

With regard to the surface right, the relinquishment of this potestative right transforms the conditional right of the author of the work into a simple right. Only at this moment, at the same time, a surface right is born in favor of the author of the work. As a result of relinquishing the right of access, the land owner no longer has any obligation to compensate the builder, in any of the forms expressly provided by the Civil Code, respectively the amount of expenses incurred with the work or the added value of the land after the construction of the work.

We must remember the fact that, in this atypical version of the construction of the surface right, in the hypothesis of registering a declaration of relinquishment of ownership

in the Real Estate Register, this right can only be constituted if the object of the relinquishment is the ownership of the construction. But such a statement is difficult to meet in practice because it usually concerns both the construction and the land.

The waiver of the right by the property owner can be qualified as a unilateral act on his part. However, considering that the effect of the waiver implies, at the same time, the establishment of the surface right in favor of the builder, we consider that the two manifestations of will can only be achieved by signing an agreement between the parties.

The legal mechanism of waiver is difficult to enforce because the waiver of a right not only extinguishes the right, but often benefits a third party. If a third party benefits from the waiver, this does not mean that he acquires a right under the waiver. The unilateral act of renunciation represented only the occasion, and not the cause of the right acquired by the third party [15, p. 223].

However, the wording of para. (4) of art. 655 Civil Code of the Republic of Moldova is flawed from the perspective of the hypothesis presented regarding the way of establishing the surface right. The wording used by the legislator „*the owner's renunciation of the right to invoke the accession, in favor of the builder*”, implies two unilateral acts of will connected on the part of the land owner and the builder. We believe that a reformulation of the legal text is necessary, even if we agree with the usefulness of the regulation. However, in order to really maintain the usefulness of this legal rule, we believe that by *law ferenda* this norm should be improved in the sense of providing that the act by which the landowner waives the right to invoke the accession is a unilateral act.

By the way [art. 655 para. \(4\)](#) from the Civil Code of the Republic of Moldova does not come with any element of novelty or differentiation from [art. 655 para. \(2\)](#) from the Civil Code of the Republic of Moldova, because the scope of the rule is already included under the same conditions in [art. 655 para. \(2\)](#) which regulates the birth of the surface right under a legal act (will or agreement) or a legal provision.

Because, [art. 655 para. \(4\)](#) to keep the acceptance of the right of accession as an optional right, we think it is good that the regulation should very clearly target the exercise of the right through a unilateral act. However, the final mention that the legislator makes, *namely the fact that the waiver of the right to invoke the accession is one in favor of the builder*, in reality, refers to the existence of a contract, that is, an agreement of will between the owner of the land and the owner of the construction.

In other words, the legal regulation of waiving the right to invoke accession, as one in favor of the builder, comes into direct conflict with the theory of potestative rights, the exercise of which requires a unilateral manifestation of will.

4. Assignment of the right to invoke accession - a second method.

On the other hand, another way of establishing the surface right regulated by art. 655 para. (4) Civil Code of the Republic of Moldova is represented by the conclusion of an assignment contract with a third party having as its object the right of accession. In this context, the transfer of this right can be carried out for free or for a fee, as the parties understand to act and the purpose pursued at the time of concluding the legal act.

The right to invoke the accession belongs, in all cases, to the owner of the land, and when he assigns this right to a third party, he will receive a surface right in his patrimony, because following the exercise of the right of accession acquired through the assignment, he will become the owner of the work, and the land will continue to belong to the same owner.

We emphasize that in this complex legal relationship, the essential element, apart from signing the contract of assignment, is the manifestation of will on the part of the third party assignee in the sense of acquiring ownership of the construction or plantation, thus becoming the owner of it.

Otherwise, in the situation where the ownership of the land is transferred to another person, along with it and the right of access, then a surface will no longer be born, because the ownership of the construction and the land will belong to the same third party.

Under the conditions of the new way of establishing the surface right, all these explanations regarding the conduct of the owner and the author of the work change their structure since the third party assignee will obtain a surface right over the construction following the manifestation of will [16, p. 275].

In this case, the right of access will be assigned by a deed in authentic form in favor of a third party, so that the assignee can request the registration of the right of superficies, in his name, in the Real Estate Register, according to art. 655 para. (4) Civil Code of the Republic of Moldova.

It is very important to remember the idea that signing the contract of assignment terminates any legal relationship between the author of the work and the owner of the land. The third party assignee intervenes after the signing of the contract, and both the author of the work and the assignee will be involved in the new legal relationship, who will request the registration of his right in the Real Estate Register.

Correlative to the right of access, depending on his options, the assignee will also acquire the correlative obligations specific to the owner of the land towards the builder, depending on good or bad faith. As a result of signing the assignment contract, the third party assignee enters into legal relations with both the owner of the land and the author of the construction [17, p. 999].

5. Conclusions

Concluding to those exposed in the research, in the matter of access and surface, the Civil Code of the modernized Republic of Moldova solved some controversial issues. Although these are notions with relatively limited applicability, the innovative elements are numerous and have succeeded in modernizing the institutions in accordance with the demands and dynamics of society. However, we cannot say that the regulations in question are entirely clear, the legislator also admitting some ambiguities that we tried to elucidate following the interpretation of the legal norms.

Article 521 para. (8) Civil Code of the Republic of Moldova extends the application of the assumptions specific to the accession in cases where the owner of the property has a real right over the property other than the ownership right, such as the surface right.

Regarding the succession, namely the introduction of two new ways of establishing the right of surface, closely related to artificial real estate accession, following the modernization of the Civil Code from 2019, is beneficial, but we still believe that the drafting of para. (4) of art. 655 Civil Code of the Republic of Moldova is incomplete. We believe that a reformulation of the legal text is necessary, namely, by law, the given norm must be improved in the sense of providing that the act by which the owner of the fund waives the right to invoke the accession is a unilateral act.

The surface, considered in the specialized literature, as the second real right, the most important, after the property right, however, we must admit that the practical application of this institution was and still is quite difficult and in some cases difficult for the citizens to accept and understand, because it is complicated to explain to the common citizen that the construction built by him, even if it was done on someone else's land, did not belong to him with the right of ownership, but with the right of use.

The validity of the solutions adopted by the modernized Civil Code remains to be confirmed by jurisprudence and doctrine in solving practical situations that will arise in the future

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CIVIL AND CRIMINAL LIABILITY FOR VIOLATIONS OF CADASTRAL LEGISLATION

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Abstract: *Violations of cadastral legislation represent a critical issue affecting property rights, legal relations between parties, and the efficient administration of real estate assets. This paper analyzes civil and criminal liability for cadastral violations, offering a theoretical and practical perspective on the applicable legal framework. From the perspective of the legislation in the Republic of Moldova, the article identifies the main forms of liability and correlates them with their effects on property owners and state authorities.*

Civil liability is examined in terms of the obligation to compensate for material and moral damages caused by registration errors or improper land use. Judicial procedures through which victims can claim compensation and the restoration of their rights are also analyzed. In contrast, criminal liability applies to serious offenses such as the falsification of cadastral documents, unlawful appropriation of property rights, or intentional destruction of cadastral boundaries. Penalties include fines, community service, or imprisonment, depending on the severity of the offense.

Beyond describing the legal framework, the article highlights practical issues encountered in enforcing cadastral norms: legislative gaps, lack of administrative resources, and the low level of public awareness. Examples from national judicial practice are used to emphasize these challenges and demonstrate their negative impact on property owners.

The conclusions suggest the need for legislative harmonization, digitalization of cadastral processes, and legal education of the population to prevent conflicts and violations. The recommendations include concrete measures to strengthen the legal framework and improve administrative practices, providing long-term solutions. This study contributes to understanding the complexity of legal liability in the cadastral domain and offers a framework for addressing existing issues.

Keywords: *Cadastral legislation, civil liability, criminal liability, property rights, cadastral violations, judicial practice, cadastral system.*

Abbreviations:

CC – Civil Code, CP – Criminal Code, ANC – National Cadastral Agency, CL – Civil Liability, CL – Criminal Liability, OCPI – Office of Cadastre and Real Estate Advertising, PRR – Principal Real Rights.

Introduction

Cadastral legislation represents the legal foundation for the registration and management of real estate properties, ensuring the protection of property rights and facilitating real estate transactions. In the Republic of Moldova, the Law on Real Estate Cadastre No. 1543/1998 establishes the rules for property registration.

Violations of cadastral legislation may result in civil, administrative, or criminal liability. According to a study published in the National Bibliometric Instrument, "violations of land legislation provisions entail civil, administrative, or criminal liability under the law." Thus, the falsification of cadastral documents, illegal occupation of land, or negligence in updating cadastral data may lead to legal sanctions.

Civil liability involves the obligation to compensate for damages caused by violations of property rights, restoring the previous situation and compensating the losses suffered by the injured party. On the other hand, criminal liability applies in cases of serious violations, such as forgery of public documents or intentional destruction of property boundaries, aiming to sanction acts with high social danger.

This study aims to analyze the national legal framework concerning civil and criminal liability in the cadastral domain, identifying gaps and proposing solutions for improving law enforcement. Additionally, relevant case law will be examined, and recommendations will be provided to strengthen property rights protection in the Republic of Moldova.

Concept of the Topic

Cadastral legislation comprises the set of legal norms that regulate the registration, record-keeping, and management of real estate properties. It ensures the legal security of real estate transactions and protects citizens' property rights. Violations of these norms may result in different forms of legal liability, depending on the severity and nature of the offense.

Civil liability refers to the obligation to compensate for damage caused to a person through an unlawful act. In the context of cadastral legislation, this may include material or moral damages resulting from actions such as incorrect property registration or negligence in updating cadastral data.

Criminal liability applies when the committed act constitutes an offense under criminal law. In the cadastral domain, such offenses may include the falsification of cadastral documents, illegal occupation of land, or the intentional destruction of property boundaries.

1. The Legal Framework of Cadastral Legislation in the Republic of Moldova

The cadastral legislation in the Republic of Moldova is based on a series of legal acts that regulate the registration and management of real estate properties. The primary legislative act in this field is Law No. 1543/1998 on the Cadastre of Real Estate, which establishes the procedures for creating and maintaining the cadastre, thereby supporting the taxation system and the real estate market. [1]

According to this law, real estate properties are formed by separating a part of an existing property, transforming it into an independent legal object, or by merging two or more real estate properties. [1] The subjects of registration include real estate owners and other holders of patrimonial rights, such as Moldovan citizens, foreign citizens, stateless persons, national and international legal entities, international organizations, the state, and administrative-territorial units. [1]

In addition to Law No. 1543/1998, the cadastral legal framework includes other significant normative acts. For instance, Government Decision No. 1030 of October 12, 1998, provides measures for creating the real estate cadastre, while Law No. 151 of July 14, 2017, regulates the address system. [1]

In 2024, new regulations were introduced regarding the registration of unauthorized constructions, particularly for holiday homes with a maximum of two floors built on horticultural association lands and individual houses with a maximum of two floors located in urban and rural areas. [ipcb.gov.md]

To ensure efficient management of cadastral information, the Automated Information System "State Register of Administrative-Territorial Units and Streets in Localities of Moldova" was created through Government Decision No. 1518 of December 17, 2003. [ipcb.gov.md]

These normative acts, along with others, form the legal framework that ensures the continuous operation and updating of the real estate cadastre in the Republic of Moldova, with the primary goal of protecting property rights and facilitating real estate transactions.

2. Forms of Violation of Cadastral Legislation

Violations of cadastral legislation can range from administrative errors to serious criminal offenses. Some of the most common violations include:

Forgery of Cadastral Documents – This type of fraud involves the illegal modification of cadastral information to obtain financial advantages or to cover up illicit acts. For example, registering larger land areas than those actually owned can lead to legal disputes and financial losses for legitimate owners. [1]

Illegal Land Occupation – This refers to the use of land without legal rights, either by constructing buildings on state-owned or privately owned land without authorization or by altering property boundaries. [2]

Negligence in Updating Cadastral Data – In the Republic of Moldova, legislation requires the periodic updating of cadastral information. Failure to update these records can result in legal inconsistencies and disputes between property owners. [3]

Corruption of Public Officials – In some cases, officials from institutions responsible for cadastral registration may be involved in acts of corruption, facilitating the illegal registration of properties in exchange for material benefits. [4]

3. Civil Liability for Violations of Cadastral Legislation

Civil liability arises when a person causes harm to another through an unlawful act and is required to compensate for the damage caused. In the cadastral field, this may include:

Liability for Material Errors in Cadastral Records – If a public official incorrectly records property data, they may be held responsible for the damages caused. [5]

Moral and Material Damages for Illegal Land Occupation – Individuals who unlawfully occupy land may be required to compensate the rightful owner. [6]

According to the Civil Code of the Republic of Moldova, civil liability can be established through court proceedings, and the awarded compensation must fully cover the damage suffered by the injured party. [7]

4. Criminal Liability for Violations of Cadastral Legislation

In cases of more serious offenses, the law provides for criminal sanctions in accordance with the Criminal Code of the Republic of Moldova. The main cadastral-related offenses include:

Falsification of Cadastral Documents – Punishable under Article 361 of the Criminal Code, with imprisonment of up to 5 years or a fine. [8]

Illegal Land Occupation – Regulated by Article 335 of the Criminal Code, which establishes penalties for the fraudulent use of public or private land without legal authorization. [9]

Corruption of Public Officials in the Cadastral Registration Process – Article 324 of the Criminal Code penalizes bribery involving officials who facilitate illegal entries in cadastral records. [10]

5. Practical Examples and Case Studies

A notable example of cadastral legislation violations in the Republic of Moldova is the case of unauthorized constructions on orchard association lands. In 2024, authorities adopted new regulations to facilitate the registration of these constructions and prevent such violations in the future.

Another relevant case is the analysis of the activity of territorial cadastral offices in the country during the period 2006–2014, which highlighted the need for the implementation of efficient programs in cadastral operations to reduce errors and irregularities.

6. Comparative Analysis

In Romania, the cadastre system is governed by Law No. 7/1996 on cadastre and real estate publicity, which establishes a unitary, mandatory, and centralized framework for the technical, economic, and legal recording of all properties across the country. This system ensures a high level of transparency, legal security, and efficiency in real estate transactions. Over the years, Romania has implemented numerous digitalization projects and benefited from European Union funding, which has facilitated the integration of cadastral and land registry systems. A key advantage of the Romanian model is the existence of a fully operational and widely accessible electronic cadastre, allowing property owners, authorities, and investors to access up-to-date and legally binding information.

In contrast, in the Republic of Moldova, the development of the cadastre began later, with significant progress made since 1998. Although Moldova has established a legal and

institutional framework for cadastre and land registration, several challenges persist, particularly in terms of data accuracy, updating cadastral records, and integration with digital platforms. Unlike Romania, Moldova has faced greater difficulties in ensuring complete cadastral coverage, and some regions still lack fully registered properties. Another challenge is the limited accessibility of cadastral information, which can create obstacles for property transactions and urban planning. While Moldova has made efforts to modernize its cadastral system with international support, the process remains ongoing and requires further investment and legislative improvements.

Overall, Romania's cadastre system stands out for its high level of digitalization, legal security, and transparency, whereas Moldova is still working towards a fully integrated and reliable cadastral system, facing challenges related to data completeness, accessibility, and modernization.

7. Social and Economic Impact

Violations of cadastral legislation can have serious consequences for both property owners and the national economy. One of the most significant risks is illegal land occupation, which can result in substantial financial losses for rightful owners and create legal disputes that may take years to resolve. This uncertainty discourages real estate investments, as potential buyers and developers may hesitate to engage in transactions involving properties with unclear ownership status.

Furthermore, a lack of trust in the cadastral system can negatively impact both economic growth and social stability. When property rights are not properly protected, financial institutions may be reluctant to issue mortgages or business loans, limiting access to capital and slowing down economic development. This, in turn, affects the construction sector, infrastructure projects, and overall market confidence.

On a social level, inefficient cadastral systems can lead to territorial disputes, particularly in rural or urban expansion areas, where unclear boundaries may cause conflicts between neighbors or local authorities. Additionally, incomplete or outdated cadastral records can hinder urban planning and public administration, making it more difficult to implement infrastructure projects, public services, or environmental protection measures.

In contrast, a well-regulated and transparent cadastre fosters economic stability, attracts investors, and enhances the efficiency of the real estate market. Countries with modern cadastral systems experience higher levels of legal security, increased property values, and improved public trust in institutions, which collectively contribute to sustainable economic and social development.

8. The Role of Public Institutions

The Agency for Land Relations and Cadastre (ARFC) plays a crucial role in the administration, maintenance, and updating of cadastral information in the Republic of Moldova. As the central authority responsible for land registration and cadastral management, ARFC ensures that the system remains functional, transparent, and accessible.

In addition to ARFC, territorial cadastral offices serve as direct service providers for the public and private companies. Their primary responsibilities include processing property

registrations, updating cadastral records, and providing essential information to property owners, investors, and government authorities. By ensuring the accuracy and accessibility of cadastral data, these offices contribute to the efficiency of real estate transactions and urban planning.

The judicial system and law enforcement agencies also have a significant role in the protection of property rights and the enforcement of cadastral legislation. Courts are responsible for resolving property disputes, interpreting cadastral laws, and ensuring legal clarity in cases involving land ownership. Meanwhile, law enforcement agencies have the duty to investigate and penalize violations of cadastral regulations, thereby deterring illegal land occupation, fraud, and administrative negligence. The active involvement of these institutions is essential to maintaining legal security and public trust in the cadastral system.

9. Challenges and Future Perspectives

One of the main challenges in the cadastral sector of the Republic of Moldova is the complete updating and digitalization of cadastral records. Although significant progress has been made, gaps and inconsistencies between registered data and real-world property boundaries continue to pose problems. These discrepancies can lead to legal disputes, ownership conflicts, and administrative inefficiencies, making it difficult for individuals and businesses to confidently engage in real estate transactions.

To address these issues, several key measures are necessary:

- Implementation of advanced cadastral surveying programs to improve the accuracy and coverage of cadastral records.
- Further digitalization of cadastral data to enhance accessibility, reduce bureaucracy, and facilitate efficient property management.
- Strengthening the legislative framework to clarify legal responsibilities, prevent abuses, and ensure that public officials and property owners adhere to cadastral regulations.
- Increased collaboration with international organizations and financial institutions to secure funding and technical expertise for modernizing the cadastral system.

By investing in technological advancements, legal reforms, and institutional capacity-building, Moldova can move toward a more transparent, efficient, and reliable cadastral system, which is essential for economic growth, real estate development, and public confidence in land governance.

10. Conclusions

A thorough analysis of civil and criminal liability for violations of cadastral legislation highlights the critical importance of a robust, transparent, and efficiently managed cadastral system. The proper functioning of such a system is essential for ensuring legal security, economic stability, and public confidence in land administration. The accuracy and accessibility of cadastral data play a crucial role in preventing property disputes, supporting real estate development, and facilitating investment opportunities.

To strengthen the cadastral framework, it is imperative to focus on three key areas:

Legislative improvements to close existing legal gaps and enhance the clarity of property rights.

Full digitalization of cadastral processes to reduce administrative inefficiencies and prevent fraudulent activities.

Institutional strengthening to ensure that public authorities effectively enforce cadastral laws and maintain data integrity.

By addressing these challenges through comprehensive reforms and technological advancements, Moldova can create a more reliable and transparent cadastral system, which will contribute to economic growth, fair property transactions, and legal certainty for all stakeholders.

Recommendations

1. Strengthening Cadastral Legislation – Updating and refining the legal framework to prevent abuses and clarify the legal responsibilities of both public officials and property owners.

2. Complete Digitalization of the Cadastral Process – Implementing an integrated electronic system to improve efficiency, minimize human errors, and reduce the risk of fraud in property registration and transactions.

3. Enhancing Oversight of Public Officials' Activities – Strengthening monitoring mechanisms to ensure that land registration and cadastral procedures are conducted fairly and transparently, thereby preventing corruption and data falsification.

4. Public Awareness Campaigns – Educating citizens about their rights and obligations in relation to cadastre and property ownership, reducing the risk of legal disputes and fraudulent activities.

By implementing these recommendations, Moldova can move toward a modern, transparent, and efficient cadastral system, ensuring legal security, economic stability, and increased public trust in property management and land governance.

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THE IMPACT OF DIGITIZATION AND AUTOMATION OF CADASTRAL PROCESSES ON THE EFFICIENCY OF REAL ESTATE REGISTRATION

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Abstract. *The article investigates the effects of digitalization and automation on the efficiency of cadastral processes, especially in the context of real estate registration. The analysis details how the integration of digital technologies into cadastral systems contributes to simplifying and accelerating the registration process, reducing both errors and administrative costs. At the same time, the benefits of automation are assessed, including increased transparency, improved data accessibility and enhanced security of cadastral information, and the favorable impact of these technological innovations on real estate administration is highlighted, and measures are proposed to optimize current cadastral systems.*

Keywords: *Automation, cadastre, real estate, transparency, security, optimization.*

1. Introduction

In the context of accelerating digital transformation, the digitization and automation of cadastral processes have become crucial central elements in the modernization of real estate administration. The digitization of cadastral processes involves the transition from a traditional system based on physical documents to an automated and computerized system, in which all data related to real estate is stored electronically.

Implementing a digital cadastral system also involves the use of cutting-edge technologies, such as Geographic Information System (GIS) for precise mapping, blockchain for transaction security and traceability, and artificial intelligence for automated analysis of complex data. These digital tools allow for the centralization and constant updating of cadastral information, transforming the way real estate data is managed and stored.

The efficiency of digitizing cadastral processes consists in ensuring transparency, accessibility and protection of property rights, reducing bureaucracy and providing fast and secure access to real estate data, aspects that contribute to strengthening public trust in relevant institutions. In addition, the implementation of a digitized cadastral system brings advantages such as reducing human errors and increasing the speed and security of real estate transactions, while simplifying administrative procedures. From an economic and social point of view, these transformations contribute to reducing administrative costs and reducing the time required for property registration. Thus, public administration can redistribute resources to other priority sectors, and citizens enjoy faster, accessible and transparent services, minimizing the risks of corruption through automatic checks in the cadastral system.

Speaking from the perspective of the Republic of Moldova, the digitalization and automation of cadastral processes have contributed significantly to reducing real estate fraud and the risks associated with property registration. By implementing advanced technological solutions, security checks and data transparency have been improved, which has significantly reduced the possibilities of manipulation within it. In this regard, having

numerous examples, but especially illustrating cases of real estate fraud prevented thanks to the implemented digital systems, one can observe the positive impact of these measures on the integrity of cadastral processes. These cases demonstrate how advanced technologies can reduce opportunities for fraud and strengthen citizens' trust.

2. Relevant legislative framework in the Republic of Moldova

In the Republic of Moldova, the digitalization and automation of cadastral processes are supported by an essential legislative framework, regulated by a series of normative acts that contribute to the creation of an efficient and transparent system for recording real estate assets. These regulations provide the necessary legal foundation for the management of real estate resources and facilitate the modernization of public services, in line with international trends and European policies.

The legal basis of cadastral law in the Republic of Moldova is provided by **Law No. 1543 of 1998 on the Real Estate Cadastre**, which regulates the organization and functioning of this essential system. The law clearly defines the concept of cadastre as a single and multifunctional system for registering real estate and rights thereto, thus establishing the legal framework for recording and managing real estate resources [1]. Through this law, the cadastre becomes a central instrument for ensuring the security of real estate transactions, protecting property rights and providing a solid legal basis for estimating the value of real estate. This legal basis facilitates the development of the real estate market and efficient land administration, while ensuring transparency and security in the management of real estate.

At the same time, it is necessary to mention that with the introduction of Law No. 1543/1998, the first stage of the evolution of the cadastral system in the Republic of Moldova took place. This first stage continued with a series of digital transformations in the period 2001-2010 at the level of government institutions and which resulted in the approval of the concept of e-government. The development of e-government and interoperability contributed to the modernization of the real estate registration system in the online environment, the expansion of e-cadastre functionalities, access to online services and property information, etc. On this occasion, the year 2014 brought a considerable contribution to the public services sector, especially the cadastral service of the Republic of Moldova, which allowed the signing of electronic documents.

Thus, a crucial element of the legislative framework of the Republic of Moldova is **Law No. 91/2014 on electronic signature and electronic document**, which facilitates the use of electronic signatures for the authentication of cadastral documents in digital format [2]. This law represented an important step in the process of modernizing the cadastre, as it allows for the electronic signing of property deeds and other documents related to real estate transactions remotely. By eliminating the need for physical presence in the process of implementing the digital signature, it significantly contributed to streamlining the cadastral process, reducing processing time and simplifying interactions between citizens and state institutions.

At the same time, the digital signature has paved the way for accessing a variety of online services offered through the gov.md platform, thus facilitating the rapid acquisition of necessary documents, such as property certificates and cadastral extracts. The digitalization of cadastral processes has not only improved accessibility, but also contributed to ensuring the transparency and security of transactions. Law no. 91/2014 provides citizens with important guarantees, such as the protection of personal data and the integrity of electronic documents, thus ensuring that the information transmitted is authentic and cannot be altered. These measures contribute to increasing trust in the cadastral system and public services, supporting a more efficient and transparent administration of real estate.

Another relevant legislative framework for the cadastral sector in the Republic of Moldova is **the Law on the National Spatial Data Service**, which supports the use of GIS technologies in cadastral registration, allowing the integration of geospatial data into real estate record keeping processes. This legal norm provides a solid legal framework for the integration of geospatial data into real estate records, supporting the development of innovative solutions for managing and analyzing property information.

A concrete example of this legislative framework is **the National Spatial Data Infrastructure (INDS)**, established by **Law No. 254 of 17 November 2016**, which **partially transposes the requirements of the European INSPIRE** directive into national legislation. INDS establishes a unified system for sharing spatial data and related services between public entities and third parties, ensuring their interoperability according to international standards in the **ISO 19100 series**. Within a well-defined regulatory framework, this law prioritizes the creation of metadata for 32 spatial data sets, the development of network services and the harmonization of data according to ISO standards. At the same time, the law emphasizes the need to gradually expand the number of spatial data sets, thus adapting to the needs of society and technology. Another key objective of INDS is to achieve accessibility of spatial data by creating a **national geoportal** (available at **geoportalinds.gov.md**) and integrating it into the European INSPIRE network [3].

In this context, it is also necessary to discuss **the Strategy for Reforming the Cadastral System in the Republic of Moldova**, which also represents a legal framework of reference in the process of digitization and interoperability of public databases, with the objective of modernizing the cadastral system [4]. This strategy encourages collaboration between public institutions and the development of the IT infrastructure necessary for the implementation of digitization processes. The implementation of this strategy is essential for ensuring accurate and up-to-date cadastral records, contributing to the reduction of bureaucracy and human errors in the property registration process.

Thus, the relevant legislative framework known and appreciated by the Republic of Moldova plays a fundamental role in the digitalization and automation of cadastral processes. Through normative acts such as Law no. 1543/1998, Law no. 91/2014, the Law on the National Spatial Data Service and the Strategy for the Reform of the Cadastral System, a favorable environment is established for the implementation of modern technologies and the optimization of public services. These measures not only improve the efficiency of the internal processes of the institutions, but also contribute to increasing the transparency and accessibility of cadastral data, thus ensuring better protection of property rights and efficient administration of real estate in the Republic of Moldova.

3. The impact of digitalization and automation on the efficiency of cadastral processes

The digitalization and automation of cadastral processes in the Republic of Moldova have brought significant changes that have contributed to the efficiency and transparency of property registration. One of the main effects of these transformations has been **the considerable reduction in the time** required to register property rights. If previously, the registration process could take weeks or even months, now, through the use of digital systems, registrations are completed in a much shorter period, on the order of days or even hours, depending on the complexity of the case. According to studies conducted by the Land Relations and Cadastre Agency of the Republic of Moldova (ARFC), the period for registering properties has been reduced by over 60% in recent years. This streamlining has not only improved the user experience, but also continues to support economic growth by facilitating real estate transactions.

In parallel with the reduction of processing time, automation has also had a significant impact on **administrative costs**, both for public institutions and for citizens. According to data provided by ARFC, in the early 2000s, the administrative costs for registering a property in the Republic of Moldova were approximately 1200 MDL per case, including expenses related to physical documents, personal, travel and extensive bureaucratic procedures. With the implementation of digital systems, these costs have decreased by over 40%, reaching approximately 700 MDL per case in 2020. This cost reduction was made possible by eliminating some physical steps in the process and by introducing digital technologies that streamline data verification and validation processes. Thus, citizens benefit from a more accessible and economical system[5].

Another significant advantage of automating cadastral processes is **the reduction of human errors** and acts of corruption in the property registration process. The integration of **cross-checking** into cadastral databases has allowed for the automation of checks and increased transparency in the cadastral system. Automatic checks, carried out through cross-checking validation algorithms, were created to compare the information entered into the system with that in existing databases, thus ensuring the correct correlation of data and the instant identification of discrepancies or errors, which significantly reduced the time required for their correction. According to ARFC reports, thanks to these innovations, the percentage of errors in the registration process has been reduced by 80% [5].

In terms of corruption, the automation of cadastral processes has allowed it to be reduced. In the traditional system, the procedures for registering cadastral documents were managed manually, thus, direct interactions between citizens and public officials created opportunities for acts of corruption. Digitalization has minimized these interactions, and most procedures are now automated, which limits the risks of abuse of power and bribery. Through these measures, citizens' trust in public institutions has increased significantly.

At the same time, it should be noted that in terms of economy and reducing human errors, it should be noted that automation has also contributed to **the training of cadastral personnel**, due to the methodologies it imposes. The National Agency for Cadastre and Land Relations, in collaboration with international organizations, constantly implements training programs for human personnel based on modern methods, which include theoretical sessions and practical exercises in the use of GIS systems and other digital technologies. This training ensures the guarantee of the efficient use of technologies and contributes to the success of the digitalization process [6, pg.10].

Last but not least, the automation of cadastral processes also manages to guarantee data security, an aspect that is particularly important in the context of an extensive and critical database for the public sector. **Blockchain technologies** used in this regard allow information to be stored in an immutable form, i.e. unchangeable from the initial introduction. Thus, blockchain creates a secure data chain, where each transaction or change to cadastral information is verified and approved before being added to the system. This approach makes any attempt at fraud, such as illegal modification of property titles or other unauthorized activities, impossible to carry out without leaving visible traces. In addition, blockchain transparency allows authorities and citizens to verify the authentication and history of a document, thus strengthening trust in the cadastral system and providing additional protection rights[7].

In other words, the impact of digitization and automation of cadastral processes in the Republic of Moldova is evident through the simplification and streamlining of processes, the reduction of errors and corruption, as well as through the professional training of personnel. These advances not only improve the functioning of the cadastral system, but also contribute to the creation of a more favorable environment for the economic and social development of the country, while also strengthening citizens' trust in public institutions of

the state, through the increased level of transparency and efficiency brought by digitization and the responsibility offered in the administration of real estate properties.

4. Examples from judicial practice in the Republic of Moldova

Speaking about the judicial practice in the Republic of Moldova, with reference to cases of cadastral errors, property disputes and real estate fraud, the digitalization and automation of cadastral processes have played an essential role in reducing them. The old traditional system was based on physical and manual documents, which was capable of generating a lot of errors and acts of corruption, affecting property rights and citizens' trust in public institutions. The modernization of the cadastral system has put an end to such incidents and strengthened the transparency and accuracy of cadastral records.

Speaking of practical examples of **cadastral errors**, a relevant case is the one from 2019, when an error in the delimitation of a land plot led to a legal conflict between two parties. The root of the problem was the inaccuracy of the boundaries of the registered land, which caused a protracted litigation in court. After the implementation of the digital cadastral registration system, this error was automatically corrected, using updated GPS information that ensures high accuracy of land delimitation. During the trial, the court took into account the digitized data, which led to the rapid resolution of the dispute and emphasized the importance of modernizing the cadastral infrastructure to avoid such conflicts in the future.

Also in the same year, there is the case of **SRL Birivofarm** against the **Public Property Agency**, which initiated legal action, requesting the coordination of geometric plans related to land held on lease for over 15 years. The problem arose due to inaccuracies in the delimitation and registration of the lands, highlighting the shortcomings of traditional cadastral processes. These inaccuracies led to a long litigation, initially resolved by the Chisinau Court of Justice, Râșcani, which admitted the request of SRL Birivofarm and obliged the Public Property Agency to coordinate the geometric plans. The decision was later confirmed by the **Chisinau Court of Appeal** and, finally, by the **Supreme Court of Justice**, thus consolidating the plaintiff's rights over the lands in question. This conflict highlighted obvious limitations of traditional cadastral systems, where human errors and the lack of precise data were determining factors [8].

Another notable case involves a property overlap error that affected a limited area of two adjacent plots of land. In this case, the cadastral information had not been updated, and the registration error led to a legal dispute that lasted for two years. With the complete digitalization of the cadastral system, problems of this type have become increasingly rare, as land information is automatically updated based on digital measurements and is verified by algorithms that quickly detect and correct possible overlaps or discrepancies.

Real estate fraud is also of interest, which is a criminal offense. Thus, real estate fraud was a major problem in the cadastral sector of the Republic of Moldova before digitalization. A well-known case in judicial practice is the one from 2021, which involves the falsification of cadastral documents to obtain illegal rights to valuable land. Before the automation of the process, such illegal activities were difficult to prevent due to the limitations of the manual process, which allows the manipulation of documents without rigorous checks. With the help of new digital security measures, this fraud attempt was quickly detected, and the court rejected the claim based on updated electronic data and authentication systems. The digital system played a crucial role in verifying and detecting discrepancies in documents, thus preventing an illegal transfer of property and highlighting the positive impact of digitalization in preventing real estate fraud.

Another such case is the one in which a public official was accused of manipulating cadastral documents to favor the transfer of land to close people. In this case, the digitization

and digital traceability of the documents provided clear evidence of unauthorized access and changes made to the cadastral register. As a result, the court had access to a detailed history of the changes, which contributed to clarifying the case and establishing the guilt of the official involved [9].

Moldovan legislation seeks to combat and punish these attempts at corruption and fraud. Article 324 of the Criminal Code of the Republic of Moldova establishes severe sanctions for public officials involved in acts of corruption, including in the cadastral sector, where corruption can seriously compromise citizens' property rights [10].

The introduction of a high-performance digital system has contributed to limiting the possibilities of corruption by reducing direct interactions between officials and citizens and by ensuring the traceability of each action performed in the system. The National Integrity Agency (ANI) report confirms the positive impact of digitalization on the decrease in the number of corruption cases in the cadastral sector, noting a decrease of approximately 25% in corruption complaints in recent years due to automation and digital surveillance measures [9].

5. Conclusions and recommendations

In conclusion to the above, we conclude that the digitalization and automation of cadastral processes has been a significant step forward in modernizing property management in the Republic of Moldova, while also contributing to increasing efficiency and reducing registration errors. The impact of this transformation has allowed not only faster and more secure access to cadastral data, but also a clear traceability of each change, thus increasing transparency in property management processes.

The implementation of advanced technologies, such as Blockchain and GIS, have provided a powerful mechanism to prevent real estate fraud, guaranteeing the fairness and security of transactions. In this way, citizens continue to benefit from a modernized cadastral system that better protects property rights and supports economic development through a more efficient and integrated public administration.

However, we must perceive that modernization is not a finite process, thus, we must make room for the continuation of digital updates and modern technologies, while realizing the risk of cyber vulnerability that they can offer. Here we will bring as an example the cyber attacks that occur in the world, as a world-class example we have Estonia, which in 2007 suffered a massive cyber attack, which led the government to be more cautious and adopt some security measures [11]. Thus, with digital development as an essential recommendation is **to invest in data security by expanding the use of Blockchain** in all cadastral processes, to ensure data security and integrity. Once everything is at the digital level, where papers and data printing are missing, this is still a problem, because digitalization does not provide security from everything that can happen in the world.

At the level of development of our country, the automation of cadastral processes requires attention and investment in technologies, technical support, maintenance and software that can cope with new requirements and updates. In the Republic of Moldova, there are many districts where technologies still leave much to be desired, even if there is a considerable desire to resolve this situation. Therefore, as a recommendation, **improving the digital infrastructure** and interoperability between public data systems is a primary measure that provides instant access to updated information.

To reduce errors, fraud and eliminate the risk of corruption in cadastral processes, **continuous training** of staff within the Cadastral Agency is essential. Constant training well adapted to technological changes will allow employees to use digital platforms efficiently and correctly manage recorded data. The implementation of strict control and verification

measures will guarantee the quality and accuracy of information, contributing to strengthening public trust in the digital cadastral system.

At the same time, for these processes to provide maximum productivity, it is necessary **to carry out information campaigns** for citizens and companies. These campaigns should highlight the advantages of digital platforms, such as fast accessibility, security and transparency of registration processes and property verification. Effective information of the population will encourage the adoption of online services, contributing to a more secure and efficient management of real estate.

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COMPARATIVE ANALYSIS OF CRIMINAL LIABILITY IN THE REPUBLIC OF MOLDOVA, GERMANY, UKRAINE, AND FRANCE IN THE FIELD OF CULTURAL HERITAGE.

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Abstract. *The protection of cultural heritage is a vital concern for many nations, requiring robust legal frameworks to address illicit acts such as looting, vandalism, and trafficking of cultural artifacts. This study comparatively examines the criminal liability for offenses against cultural heritage in the Republic of Moldova, Ukraine, France, and Germany.*

In the Republic of Moldova and Ukraine, both countries grapple with transitional challenges in safeguarding cultural heritage. Their legal systems impose penalties for violations; however, enforcement and institutional capacity remain limited, particularly in rural areas where illicit excavation and trafficking are prevalent.

France and Germany, as European Union (EU) member states, feature well-established frameworks for protecting cultural heritage. France emphasizes stringent penalties under its Code du patrimoine, reflecting the country's deep cultural pride. Germany, through the Kulturgutschutzgesetz (Cultural Property Protection Act), integrates international conventions and employs advanced measures to combat trafficking, including customs control and extensive inventories of protected artifacts.

A key difference lies in enforcement mechanisms. Moldova and Ukraine, while parties to international conventions such as the UNESCO 1970 Convention, often lack the resources for effective application. In contrast, France and Germany exhibit proactive collaboration with international bodies and maintain specialized institutions for cultural heritage preservation.

This comparative analysis highlights the necessity of aligning national laws with international standards, strengthening enforcement mechanisms, and fostering cross-border cooperation to protect cultural heritage effectively. The study concludes by advocating for legislative refinement and capacity-building in Moldova and Ukraine to mirror the exemplary practices of France and Germany.

Keywords: *Criminal liability, Cultural heritage protection, Legislative frameworks, International conventions, Enforcement mechanisms.*

8. Introduction

Cultural heritage represents an essential component of the national identity and collective legacy of every society. Protecting it is not only a moral duty but also a legal obligation recognized at both national and international levels due to its invaluable significance for the present and future. In a global context marked by constant threats to cultural heritage, such as deliberate destruction, theft, smuggling, or negligence, legal regulations play a fundamental role in preventing and sanctioning acts that endanger this legacy.

The comparative analysis of the framework of criminal liability in the field of cultural heritage in four European states—Republic of Moldova, Ukraine, Germany, and France—is motivated by the diversity of legislative approaches, reflecting distinct legal traditions and specific experiences in protecting cultural heritage.

A comparative analysis is important from several perspectives. Firstly, it provides a deeper understanding of how different legal systems address the same issue, highlighting best practices that can be adapted and implemented in other contexts. Secondly, such comparisons help identify gaps and inconsistencies in national legislation, offering a starting point for improvements. Additionally, a comparative analysis contributes to the harmonization of international regulations and strengthens cooperation between states in protecting cultural heritage.

Through this comparison, we aim to highlight the strengths and vulnerabilities in the legal framework of each country, offer recommendations for improving national legislation in the Republic of Moldova, and raise awareness about the need for more effective protection of cultural heritage. Furthermore, this approach allows us to better understand the impact of criminal legislation on the conservation and enhancement of cultural heritage and to develop more effective strategies for preventing crimes in this field.

The Republic of Moldova, as a post-Soviet state, is in a continuous process of aligning its regulations with international standards. Germany, with a well-structured and decentralized system, serves as an example of best practices. Ukraine, facing increased risks due to armed conflicts, provides insight into managing cultural heritage in crisis situations. France, renowned for its significant contributions to the development of international cultural heritage law, presents a well-established model for preventing and sanctioning offenses in this domain.

9. Discussions

Under the current conditions in the Republic of Moldova, the issue of preserving historical and cultural monuments holds special significance and requires increased attention. At the legislative level, the inseparable link has been noted between the creation and preservation of cultural values, the initiation of all citizens in protecting these values, socio-economic progress, the development of democracy, and the strengthening of the integrity and sovereignty of our country [1].

One of the fundamental duties of the citizens of the Republic of Moldova is the protection of the environment and the preservation of monuments, as derived from Article 59 of the Constitution of the Republic of Moldova: "The protection of the environment, the conservation, and preservation of historical and cultural monuments constitute an obligation for every citizen." In turn, the state, represented by its institutions, contributes to the preservation, development, and promotion of the achievements of both national and global culture and science.

Thus, both the state and its population are obligated to preserve and enhance the entirety of cultural values in the interest of present and future generations. National consciousness, patriotism, and knowledge of one's own history cultivate in individuals the highest form of respect and responsibility toward these "historical monuments."

This necessity stems from the indisputable fact that culture has an extraordinary impact on all spheres of human life and serves as both the source and driving force of progress [1].

The following section will analyze the regulations found in the Criminal Codes of the Republic of Moldova and Ukraine, while the table annexed to the article provides a detailed comparison of the similarities and differences in the criminal provisions of these two legislations.

10. Comparative Analysis of the Criminal Code of the Republic of Moldova and the Criminal Code of Ukraine.

Cultural heritage protection is an essential component of criminal law and national policy in many countries. In this regard, comparing the legislations of the Republic of Moldova and Ukraine concerning crimes related to cultural heritage can provide insights into regional approaches to this issue. Given the different historical and geopolitical contexts of the two states, the comparative analysis will focus on the legal aspects of protecting and preserving cultural heritage.

Both the Criminal Codes of the Republic of Moldova [2] and Ukraine [3] regulate in detail the crimes targeting cultural heritage, considering its protection against destruction, theft, or illicit trafficking. In both cases, special importance is given to protecting national heritage and preventing illegal acts that could lead to the loss of historical and cultural values. However, in Moldova, the regulations are more general, without as distinct a distinction between material and immaterial heritage, as seen in Ukrainian legislation.

In the Republic of Moldova, the regulations concerning the destruction of cultural heritage are clear and severe, but the law focuses more on preventing accidental destruction rather than intentional acts. In contrast, Ukrainian legislation has stricter regulations regarding the destruction of cultural heritage, taking into account the geopolitical context and significant risks of destruction during armed conflicts. Ukraine places a particular emphasis on the protection of historical sites and cultural property in conflict zones, in line with international regulations on the matter.

Both legislations provide severe penalties for the theft of cultural property, with the Republic of Moldova including specific offenses related to the removal of historical and cultural objects. In Ukraine, however, there is more detailed regulation addressing not only theft but also trafficking of cultural property, a phenomenon that has become increasingly frequent due to political and economic instability. This is a major concern for Ukraine, considering the scale of the issue in rebel-controlled areas or occupied territories.

Ukraine has more detailed regulations regarding the illicit trade of cultural property, as the country faces a crisis in this field, especially in conflict zones. Ukrainian legislation addresses issues such as cross-border trafficking and the protection of endangered heritage items from being sold on international markets. In contrast, in the Republic of Moldova, the illicit trade of cultural property is regulated, but there is less emphasis on international and cross-border trafficking.

Ukraine is the only one of the two countries that includes specific regulations for protecting heritage during armed conflicts. In the context of the war in eastern Ukraine and the annexation of Crimea, Ukrainian legislation reflects a significant concern for protecting historical and cultural sites at risk. These regulations are in line with international norms for cultural heritage protection during armed conflicts, such as the Hague Conventions [4]. The Republic of Moldova, with a more stable geopolitical situation, does not include specific regulations for the protection of heritage during conflicts.

Both countries regulate the processes of restoration and conservation of cultural heritage. The legislation of both nations sets out rules for preventing the destruction of heritage items during restoration, but Ukraine, with a more detailed framework, includes special measures for the protection of heritage affected by conflicts and the restoration of objects damaged as a result. Moldova has regulations related to restoration, but lacks clear rules for protecting heritage during political instability or conflict periods.

Both countries have mechanisms for enforcing laws regarding cultural heritage protection. In Ukraine, law enforcement authorities and cultural institutions collaborate to prevent the trafficking of cultural objects, and penalties for crimes in this field are quite severe. In the Republic of Moldova, mechanisms are generally less structured, and enforcement of regulations is less stringent, although there are efforts to strengthen the legislation in this regard.

In comparing the legislations of the two countries, we observe that both the Republic of Moldova and Ukraine have solid regulations for cultural heritage protection, but with significant differences in their approaches. Ukraine focuses much more on heritage protection in the context of conflicts and illicit trafficking, reflecting the geopolitical and economic realities of the region. While Moldova has adequate regulations in this field, it does not give the same attention to conflict situations and cross-border illicit trade.

11. Comparative analysis of the Criminal Code of the Republic of Moldova [3] and the Criminal Code of France.

In the continuation, we will compare the Criminal Code of the Republic of Moldova and that of France, specifically focusing on crimes related to cultural heritage in both countries. For a more detailed comparison, refer to the table attached to the article.

The protection of cultural and civil property is an essential aspect of criminal law and legal norms in both the Republic of Moldova and France. Although the two legal systems differ in origin and structure, they share similar objectives regarding the prevention and sanctioning of actions that harm cultural and civil heritage.

France has a legal tradition largely influenced by the Napoleonic Penal Code, updated through various reforms to the present day. Specific regulations regarding the protection of cultural property are enshrined in a chapter dedicated to crimes against cultural heritage.

For example, Article 322-3-1 of the French Penal Code [5] punishes the destruction, degradation, or desecration of cultural property belonging to the national heritage, with penalties including significant fines and up to 7 years of imprisonment. France places particular importance on historical artifacts, with institutions such as the General Directorate of Heritage (Direction générale des patrimoines) collaborating with judicial authorities to investigate and prosecute crimes in this area.

In addition, the theft of cultural property is penalized under Articles 311-1 and following [5], which impose harsher penalties if the stolen object is considered of cultural or historical value.

The Republic of Moldova, through its Criminal Code adopted in 2002 [3] and later amended, specifically regulates crimes against cultural and civil heritage. Article 186 of the Criminal Code punishes theft of property, including cultural items, while Article 287 criminalizes acts of vandalism, including the degradation of heritage objects.

Moreover, Article 259 focuses on crimes such as the intentional destruction or damage of cultural property, setting penalties that can go up to 5 years of imprisonment, depending on the severity of the act.

Moldovan institutions, such as the National Archaeological Agency, play a significant role in protecting cultural heritage, collaborating with law enforcement authorities to combat the illegal trafficking of artifacts.

Although both countries demonstrate a clear commitment to protecting cultural heritage, there are significant differences in their legal and institutional approaches.

France imposes harsher penalties for crimes against cultural heritage, reflecting a high level of prioritization in this field. The Republic of Moldova, while applying significant penalties, could benefit from stricter sanctions to more effectively deter such crimes.

France has a complex network of institutions dedicated to heritage protection, with clear competencies and considerable resources. In the Republic of Moldova, although relevant institutions exist, limited resources and a less complex organizational framework may hinder their efficiency.

France has implemented educational programs and awareness campaigns to protect cultural heritage, while the Republic of Moldova, although undertaking such initiatives, could enhance efforts to promote the importance of cultural property conservation.

Both France and the Republic of Moldova are signatories of international conventions regarding the protection of cultural heritage, such as the 1954 Hague Convention [4]. However, France plays a more active role in international initiatives, with advanced resources and expertise in this area.

This analysis highlights that while the Republic of Moldova and France share similar objectives in protecting cultural and civil heritage, significant differences in the severity of penalties, institutional infrastructure, and preventive approaches suggest the need for improvements in Moldova. Adopting some practices from the French model could help strengthen the protection of Moldovan cultural heritage.

12. Comparative analysis of the Criminal Code of the Republic of Moldova and the Criminal Code of Germany.

A country with advanced resources and infrastructure, Germany has a robust cultural heritage protection system, integrated into national legislation and harmonized with European Union regulations. The German state focuses both on heritage conservation and the prevention of crimes through proactive measures, such as strict regulation of the art market.

The Republic of Moldova and Germany have distinct legislative structures regarding cultural heritage protection: Moldova emphasizes direct regulations, including detailed sanctions for crimes such as theft, vandalism, or trafficking of cultural property. Germany uses an integrated system where general criminal legislation overlaps with specific cultural heritage regulations. This allows for a more flexible and adaptable application of sanctions, depending on the context of the crime.

One common point between the two countries is the existence of harsher penalties for crimes targeting cultural objects with exceptional historical or artistic value. However, Germany has an advantage in implementation, due to the greater resources allocated to this field.

Both the Republic of Moldova and Germany are engaged in international partnerships for cultural heritage protection. Germany, as a member of the European Union and other international bodies, plays a significant role in combating the trafficking of cultural artifacts. The Republic of Moldova, although less influential on the international stage, has shown a clear desire to align with international standards, especially by collaborating on the repatriation of stolen or illegally exported goods.

Another important aspect is the preventive approach. In the Republic of Moldova, prevention is largely tied to cultural education and public awareness of heritage value. However, the lack of financial resources limits the effectiveness of these initiatives. Germany, on the other hand, has complex education and research programs, complemented by strict controls over the art market and monitoring of cultural property exports.

The Republic of Moldova's limited financial and institutional resources represent a significant barrier to the effective implementation of legislation. Additionally, corruption and the illegal trafficking of cultural property are persistent issues. While Germany has a well-developed system, it also faces challenges related to international artifact trafficking, especially from conflict zones. Furthermore, the continuous adaptation of legislation to new technologies (such as online trading of artifacts) remains a challenge.

Although the Republic of Moldova and Germany are at different stages regarding cultural heritage protection, both countries share similar values and objectives in this field. Moldova can learn from Germany's experience, particularly regarding prevention and regulation of the art market, while Germany can appreciate Moldova's efforts to conserve its heritage despite financial and institutional challenges.

Thus, an exchange of best practices and closer cooperation between the two countries could help improve the effectiveness of cultural heritage protection measures.

13. Conclusions

Cultural heritage is recognized as a central element of national identity and the collective legacy of every society. Its protection is a moral, legal, and societal obligation, and neglecting it can lead to irreversible losses.

The comparative analysis of the legislations of the Republic of Moldova, Ukraine, France, and Germany has highlighted diverse approaches to protecting cultural heritage:

- The Republic of Moldova has a more generalist, but well-intended legislation, though with limited institutional and financial resources.
- Ukraine has stricter regulations adapted to the crisis and armed conflict context.
- France has a well-established model, with severe penalties and a robust institutional infrastructure.
- Germany has an integrated system, with flexible regulations and proactive measures, but also challenges related to international trafficking of artifacts.

The differences between the analyzed legal systems underline the importance of international harmonization of regulations, especially concerning the prevention of illicit trafficking and the protection of heritage in conflict zones. Ukraine offers an important example in this regard, with detailed regulations for crisis situations.

While all countries impose severe penalties for crimes against cultural heritage, there are significant differences in implementation:

- France and Germany focus on prevention, education, and strict control of the art market.
- The Republic of Moldova and Ukraine rely more on sanctions to deter such crimes, but their enforcement mechanisms are weaker.

The Republic of Moldova needs to intensify its efforts in creating more detailed regulations for cultural heritage in cross-border and conflict contexts; strengthening institutions responsible for heritage protection; and educating the public about the importance of cultural heritage.

Moldova could adopt measures inspired by the French and German models, including educational programs and awareness campaigns; strict regulation of the art market and monitoring of cross-border trade; and the creation of effective international cooperation mechanisms.

A solid legal framework, supported by adequate institutional and financial resources, is vital for protecting cultural heritage. Moldova, despite its challenges, has demonstrated a clear political will to align with international standards.

This research highlights the importance of adapting legislation to the specific needs of each state, while remaining open to learning from the experiences of other countries.

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3. Criminal Code of Ukraine
4. The Hague Convention
5. Criminal Code of France

Legislation of the Republic of Moldova			Legislation of Ukraine		
Criminal Code	Offender	Punishment	Criminal Code	Offender	Punishment
„Article 137³ Use of prohibited methods of warfare (3) The initiation, within an armed conflict, whether international or non-international, of an attack: b) against civilian objects protected by international humanitarian law, particularly buildings dedicated to religious worship, education, art, science, or charitable actions, against historical monuments, hospitals, and places where the sick or wounded are gathered, as well as against towns, dwellings, or buildings that are not defended and are not used as military objectives.,,	Natural person from the age of 16 / legal entity	„Imprisonment from 8 to 15 years.”	„Article 438. War crimes 1. The cruel treatment of prisoners of war or civilians, the expulsion of civilians for forced labor, the looting of national assets on occupied territory, the use of means of warfare prohibited by international law, and other violations of the laws and customs of war provided by international treaties, as well as consent to obligations provided by the Supreme Council of Ukraine, and the issuance of an order to carry out such actions. 2. The same actions, if they resulted in the death of a person.,,		„It is punishable by imprisonment from eight to twelve years.” „It is punishable by deprivation of liberty for a period from ten to fifteen years or life imprisonment..”
General Analysis In the comparative analysis of the protection of historical monuments during armed conflicts, a significant distinction can be observed between the Criminal Code of the Republic of Moldova (RM) and the Criminal Code of Ukraine. Both criminal codes, from RM and Ukraine, regulate war crimes, especially attacks against civilian property and infrastructure protected by international humanitarian law. However, there are notable differences between the two articles: - The Criminal Code of RM, through this article, addresses attacks within an armed conflict (both international and non-international) against civilian objects protected by international humanitarian law. These include places of worship, educational institutions, hospitals, historical monuments, civilian dwellings, and other buildings not used for military purposes. The prescribed penalty is imprisonment from 8 to 15 years, applicable to individuals					

committing such offenses. Therefore, this article focuses on protecting specific targets within civilian infrastructure and on respecting the principles of international humanitarian law, especially regarding historical monuments and places of worship. The penalty reflects the severity of these violations.

- Article 438 of the Criminal Code of Ukraine regulates war crimes more broadly, including cruel treatment of prisoners of war, expulsion of civilians for forced labor, looting of national assets in occupied territories, and the use of means of warfare prohibited by international law. It also refers to the violation of civil rights and their protection during a conflict. Thus, Article 438 is broader, addressing a wider range of war crimes, including not only attacks against civilian infrastructure but also other serious abuses such as inhuman treatment of prisoners of war and civilians. It also emphasizes Ukraine's international obligations under international conventions and war treaties.

- Regarding the scope, in RM, the article focuses exclusively on the protection of certain civilian goods, such as places of worship, monuments, and educational institutions, which are protected by international humanitarian law. This is more narrowly defined compared to Ukraine's law. In Ukraine, Article 438 covers a wider spectrum of war crimes, including attacks on civilian infrastructure as well as severe violations of human rights and the use of prohibited weapons.

- Concerning penalties, in RM, the penalty is more specific and applies only in the case of attacks on civilian and historical goods, with a sentence of up to 15 years of imprisonment. In Ukraine, the article provides a variety of penalties, including life imprisonment for serious war crimes, reflecting the severity of actions that could lead to loss of life or destruction of vital property.

Conclusion

Both Article 1373 of the Criminal Code of RM and Article 438 of the Criminal Code of Ukraine aim to protect civilians and civilian property during an armed conflict, but in different ways. The Criminal Code of Ukraine regulates a broader range of war crimes, including inhumane treatment of prisoners of war and the use of prohibited weapons, while the Criminal Code of RM focuses on protecting certain types of civilian infrastructure. The penalties in both codes reflect the severity of these acts, but in Ukraine, there is the possibility of more severe penalties, including life imprisonment.

„Article 186. Theft (2¹) Theft of cultural heritage goods from archaeological sites or areas with archaeological potential.,,	Natural person from the age of 16.	„It is punishable by a fine ranging from 1350 to 2350 conventional units or by imprisonment from 2 to 5 years.”	„Article 185. Theft” (but does not specify cultural heritage goods from archaeological sites or areas with archaeological potential)		

„(3) Theft committed: a) during a disaster; b) by an organized criminal group or a criminal organization.,,	an organized criminal group or a criminal organization	„It is punishable by imprisonment from 2 to 6 years, with (or without) a fine ranging from 1350 to 3350 conventional units.”			
„(4) The actions provided in paragraphs (1) – (3), if the value of the goods exceeds 40 times the average monthly salary forecasted, established by the Government decision in force at the time of the offense.,,	A natural person from the age of 16 / an organized criminal group or a criminal organization	„It is punishable by imprisonment from 5 to 10 years.”			
„(5) The actions provided in paragraphs (1) – (3), if the value of the goods exceeds 100 times the average monthly salary forecasted, established by the Government decision in force at the time of the offense.,,	A natural person from the age of 16 / an organized criminal group or a criminal organization	„It is punishable by imprisonment from 7 to 12 years”			
General Analysis A specific aspect of the Criminal Code of the Republic of Moldova (RM) is the protection of cultural heritage goods from archaeological sites or areas with archaeological potential, aiming to preserve this heritage in the context of thefts. The Ukrainian Criminal Code includes a general provision for theft (Article 185 – Theft), but it does not explicitly specify the protection of cultural heritage goods from archaeological sites or areas with archaeological potential. This could lead to less focused protection of these heritage goods, even though the theft of valuable items is punished according to the law. Conclusions					

The Criminal Code of the Republic of Moldova offers more complex and specific protection for cultural and archaeological heritage goods, demonstrating a commitment to their conservation and penalizing theft in aggravating circumstances. In contrast, Ukrainian legislation does not provide as detailed protection, meaning that cultural goods from archaeological sites might be more vulnerable from a legal standpoint in Ukraine. The difference between the two legal systems reflects Moldova's more detailed approach to preserving cultural heritage within criminal law.					
„Article 188. Robbery (2¹) Robbery with the purpose of taking cultural heritage goods from archaeological sites or areas with archaeological potential.,,	Natural person from the age of 16.	„It is punishable by imprisonment from 8 to 10 years, with a fine ranging from 1350 to 2350 conventional units.”	„Article 186. Robbery” (but does not specify: robbery with the purpose of taking cultural heritage goods from archaeological sites or areas with archaeological potential)		
„(3) Robbery committed: a) during a disaster; b) by an organized criminal group or a criminal organization; c) with serious harm to bodily integrity or health; d) with exceptional cruelty.,,	an organized criminal group or a criminal organization	„It is punishable by imprisonment from 10 to 12 years.”			
„(4) The actions provided in paragraphs (1) – (3), if the value of the goods exceeds 40 times the average monthly salary forecasted, established by the Government decision in force at the time of the offense.,,	A natural person from the age of 16 / an organized criminal group or a criminal organization.	„It is punishable by imprisonment from 11 to 14 years”			
„(5) The actions provided in paragraphs (1) – (3), if the value of the goods exceeds 100 times the average monthly salary forecasted,	A natural person from the age of 16 / an organized	„It is punishable by imprisonment from 12 to 15 years.,,			

established by the Government decision in force at the time of the offense.,,	criminal group or a criminal organization.				
General Analysis The Moldovan Criminal Code explicitly protects cultural heritage goods from robbery: robbery targeting cultural heritage goods is punished with severe penalties (8-10 years in prison and a fine), and these penalties can increase depending on the severity and circumstances of the crime. In addition to the basic measures, there are aggravating factors that lead to even harsher penalties (10-15 years in prison) in cases of organized theft or physical harm, or when the value of the goods exceeds a certain threshold. Although the Ukrainian Criminal Code has an article on robbery (Article 188), it punishes robbery in general terms without specifically addressing cultural or archaeological heritage goods. This means that while robbery is penalized, the lack of dedicated protection for cultural heritage may leave these goods more vulnerable to criminal acts. Conclusions The Criminal Code of the Republic of Moldova provides specialized and rigorous protection for cultural heritage goods, emphasizing their value in both national and international contexts. In contrast, Ukraine lacks a specific provision in Article 188 for these goods, which may suggest a need to update the legislation to improve the protection of cultural heritage against robbery. Thus, Moldovan legislation presents a more focused approach to protecting cultural heritage, while Ukraine could benefit from similar regulations to strengthen the protection of archaeological and cultural sites and objects.					

„Article 190. Fraud (3) The actions provided in paragraphs (1) (Fraud, i.e., taking another person's property by abuse of trust, inducing or maintaining in error) or (2) (Fraud committed: a) using false documents or false writings; b) by two or more persons; c) causing significant damage; d) using the position of service, committed with the purpose of acquiring movable national cultural heritage goods from archaeological sites or areas with archaeological potential).,,	Natural person.	„It is punishable by a fine ranging from 1850 to 2350 conventional units or imprisonment from 4 to 7 years, with the deprivation of the right to hold certain positions or exercise certain activities for up to 5 years.”	„Article 190. Fraud” <i>(not specified about cultural heritage)</i>		
„(4) The actions provided in paragraphs (1)–(3), committed by an organized criminal group or a criminal organization,,	Natural person /criminal group, criminal organization	„They are punishable by imprisonment from 4 to 8 years, with a fine ranging from 5000 to 9000 conventional units.”			

„(5) The actions provided in paragraphs (1) – (4), if the value of the goods exceeds 40 times the average monthly salary forecasted, established by the Government decision in force at the time of the offense,,,	Natural person /criminal group, criminal organization	„They are punishable by imprisonment from 7 to 10 years, with a fine ranging from 9000 to 16000 conventional units, and with the deprivation of the right to hold certain positions or exercise a certain activity for up to 5 years.”			

„(6) The actions provided in paragraphs (1)–(4), if the value of the goods exceeds 100 times the average monthly salary forecasted, established by the Government decision in force at the time of the offense,,	Natural person /criminal group, criminal organization	„They are punishable by imprisonment from 8 to 15 years, with a fine ranging from 15,000 to 20,000 conventional units, and with the deprivation of the right to hold certain positions or exercise a certain activity for up to 5 years.”			

General Analysis

The Criminal Code of the Republic of Moldova regulates fraud in Article 190, defining it as the illicit acquisition of another person's property by deception or maintaining the deception. The Moldovan legislation provides increased penalties depending on the value of the damage caused and the aggravating circumstances. Cultural heritage benefits from special regulations, being protected by additional provisions in separate articles (e.g., Article 199¹ – Damage or destruction of cultural heritage property). In Ukraine, Article 190 of the Criminal Code (CPU) refers to fraud as the acquisition of property or ownership rights through deception or abuse of trust.

Comparative Analysis

- In the Republic of Moldova, Article 190 (2) (d) specifically includes fraud committed using a person's position of service to acquire national cultural heritage property from: archaeological sites; areas with archaeological potential.
- In Ukraine, Article 190 (3) Criminal Code includes general aggravating circumstances, but cultural heritage property is not explicitly mentioned in the context of fraud. However, Article 298 of the Criminal Code separately regulates crimes involving the destruction, damage, or illegal use of cultural heritage objects (this article will be analyzed separately below in another section).
- Thus, Moldova includes cultural heritage directly within fraud regulations, while Ukraine addresses these cases through separate norms.

Conclusion

- In Moldova, fraud related to cultural heritage is severely punished, being directly incorporated into fraud regulations, with penalties increasing depending on the value of the property.
- In Ukraine, cultural heritage is treated separately, with illegal use/damage being distinguished from fraud. Penalties are generally milder, except in cases of organized groups or significant damages.

„Article 191. Misappropriation of Foreign Property (2²) Misappropriation of cultural heritage assets from archaeological sites or areas with archaeological potential.,,	A natural person from the age of 16	„A fine ranging from 1850 to 2350 conventional units or imprisonment from 3 to 7 years, in both cases with deprivation of the right to occupy certain functions or to exercise a certain activity for a period of up to 5 years.”	„Article 191. Appropriation, embezzlement of goods, or possession of them through abuse of office.” <i>(It does not establish anything about the embezzlement of cultural heritage goods from archaeological sites or areas with archaeological potential).</i>		
„(3) The actions provided in paragraph 2², committed by an organized criminal group or a criminal organization.,,	an organized criminal group or a criminal organization,.	„They are punishable by imprisonment from 4 to 8 years, with deprivation of the right to hold certain positions or to carry out a certain activity for a period of 2 to 5 years”			
General Analysis: Embezzlement refers to the inappropriate or illegal use of assets that do not belong to the perpetrator, including cultural heritage assets. In this context, the norm aims to protect archaeological goods and national cultural heritage. Cultural heritage assets from archaeological sites are essential for understanding history, culture, and national identity. These goods are not only economic assets but also elements for research and sources of pride for communities.					

Article 191 of the Criminal Code of the Republic of Moldova regulates the embezzlement of cultural heritage goods from archaeological sites or areas with archaeological potential, providing additional protection for these goods. On the other hand, Article 191 of the Ukrainian Criminal Code addresses embezzlement in general, without providing special protection status for cultural heritage assets.

Republic of Moldova: In the case of embezzling cultural goods, the sanctions range from 3 to 7 years of imprisonment, along with the prohibition of holding positions or engaging in activities for up to 5 years. If the act is committed by an organized criminal group, the punishment increases to 4 to 8 years of imprisonment, while maintaining the aforementioned prohibitions. This regulation provides clear and specific protection for cultural heritage, emphasizing the importance of these goods and the need to deter crimes against them.

Ukraine: Article 191 of the Ukrainian Criminal Code sanctions embezzlement, misappropriation, or illegal possession of goods by abuse of office, but does not include provisions dedicated to cultural heritage assets. This gap leaves cultural goods without distinct protection, applying the same sanctions as for other types of goods, which may reduce the effectiveness of protecting archaeological heritage.

Conclusions:

The Moldovan Criminal Code demonstrates a heightened awareness of the value of cultural heritage, offering strict protective measures for archaeological and cultural goods against embezzlement. In contrast, the Ukrainian Criminal Code does not differentiate specifically for these goods, which may expose cultural heritage to greater risks.

„Article 199¹. Damage or Destruction of Cultural Heritage Goods (1) Damage to cultural heritage goods,,	Natural person from the age of 16 / legal entity.	„The fine ranges from 850 to 1350 conventional units or imprisonment for up to 1 year, while a legal entity is punished with a fine ranging from 1350 to 3350 conventional units or with the deprivation of the right to perform certain activities for a period of 1 to 3 years.”	-----		
„(2) Destruction of cultural heritage assets.,,	Natural person from 16 years old / legal entity.	„It is punishable by a fine ranging from 3350 to 6350 conventional units or imprisonment from 1 to 3 years, while the legal entity is punished with a fine ranging from 6350 to 10350			

		conventional units, with (or without) the liquidation of the legal entity.”			
„(3) The action referred to in paragraphs (1) or (2): a) committed by arson, explosion, or another dangerous method; b) committed for prejudiced reasons; c) which, through negligence, caused the death of a person.,,		„It is punishable by imprisonment for up to 6 years.”			

General Analysis

Article 199¹ represents an essential measure for protecting cultural heritage. Through the sanctions provided, the rule aims to deter acts of deterioration and destruction, highlighting the importance of cultural heritage to society. The legal norm demonstrates not only a commitment to preserving history and culture but also a collective responsibility to ensure its protection for future generations.

Such a specific provision does not exist in the Ukrainian Criminal Code, where the protection of cultural heritage can be more generally included in articles related to the destruction or deterioration of property or historical-cultural heritage. However, it lacks the detailed regulation present in Moldova’s legal framework.

Comparative Analysis:

- *Specificity of the Offense*

In Moldova, Article 199¹ of the Criminal Code explicitly provides sanctions for the deterioration and destruction of cultural heritage, directly addressing the protection of cultural heritage through penalties applicable to both natural and legal persons.

In Ukraine, the penal legislation includes general articles referring to the destruction or deterioration of property (such as Article 194 - Intentional Destruction or Deterioration of Property), but there is no specific provision exclusively targeting cultural heritage. Its protection may be found in other special laws concerning cultural heritage, but these are not covered in detail within the Criminal Code..

- *Penalties*

In Moldova, the penalty depends on the severity of the offense: deterioration is punished with a fine ranging from 850 to 1350 conventional units or imprisonment for up to 1 year, while legal entities face fines between 1350 and 3350 conventional units. Destruction attracts more severe sanctions, ranging from 3350 to 6350 conventional units or imprisonment between 1 and 3 years, with the possibility of liquidation for legal entities.

In the Ukrainian Criminal Code, Article 194 stipulates penalties for property deterioration (including arson or destruction) with fines ranging from 1,000 to 4,000 non-taxable minimum incomes of citizens, community service for a period of 120 to 240 hours, corrective labor for up to two years, or imprisonment for up to three years, with the possibility of deprivation of liberty for a period of 3 to 10 years.

- Aggravating Circumstances:

In Moldova's Criminal Code, paragraph (3) introduces aggravating circumstances for: arson, explosions, or other dangerous methods of destruction; prejudiced motives; cases where the act inadvertently causes the death of a person.

Conclusions:

Moldova recognizes the necessity for special protection of cultural heritage through clear regulations in the Criminal Code, with specific sanctions for cultural heritage assets. This reflects institutional concern for historical and cultural heritage.

In Ukraine, although cultural heritage is protected at the legislative level as a whole, there is no direct regulation in the Criminal Code (there is no direct equivalent to Article 199 of the Moldovan Criminal Code) for such offenses. Thus, Ukrainian criminal legislation can be considered more general in its approach, without specific provisions for cultural heritage within the Criminal Code.

„Article 199². Unauthorized Works in Archaeological Sites or Areas with Archaeological Potential (1) The performance of unauthorized excavations or treasure hunting in archaeological sites or areas with archaeological potential,,	Natural person from 16 years old	„A fine of 850 to 1350 conventional units or imprisonment for up to 1 year.”	„Article 298. Illegal execution of search works at an archaeological heritage site, destruction, destruction or damage of cultural heritage sites. (1). Illegal conduct of archaeological explorations, excavations, other earthworks, or underwater works at an archaeological heritage site.”	Natural person	„It is punishable by a fine ranging from one thousand to three thousand non-taxable minimum income of citizens, or probation supervision for a period of up to two years, or restriction of liberty for the same period, with or without deprivation of the right to hold certain positions or engage in

					certain activities for a period of up to three years.”
„(2) The performance of construction works, as well as other activities involving intervention on the soil in archaeological sites or areas with archaeological potential, without an archaeological discharge certificate,,	Natural person from 16 years old	„A fine of 3350 to 4350 conventional units or imprisonment for up to 2 years, and the legal entity is punished with a fine of 7350 to 10350 conventional units, with (or without) the liquidation of the legal entity.”	„2.The deliberate illegal destruction or damage of cultural heritage objects or parts thereof.”		„It is punishable by a fine ranging from two thousand to five thousand non-taxable minimum wages of citizens or restriction of liberty for up to three years, or imprisonment for the same term, with or without the deprivation of the right to hold certain positions or engage in certain activities for up to three years.”

			„(3). The actions provided in the second part of this article, carried out in connection with national importance monuments,”		„It is punishable by imprisonment for up to five years, with or without the deprivation of the right to occupy certain positions or to carry out certain activities for up to three years.”
			„(4) The actions provided in paragraphs two or three of this article, carried out for the purpose of searching for movable objects derived from archaeological heritage items,”		„are punishable by imprisonment for a term of two to five years, with or without the deprivation of the right to occupy certain positions or to carry out certain activities for up to three years.”

			„5. The actions provided in paragraphs two or three of this article, committed by a public official using their official position,”	Public official	„are punishable by imprisonment for a term of three to eight years, with or without the deprivation of the right to occupy certain positions or to carry out certain activities for up to three years.”

General Analysis

The regulation targets activities such as unauthorized excavations and treasure hunting in archaeological sites. These activities are considered illegal because they can cause significant damage to cultural heritage and affect the integrity of the sites. The article provides criminal penalties for those carrying out unauthorized works, including fines and/or imprisonment. These penalties reflect the seriousness of the act and its potential impact on cultural heritage. By defining and sanctioning unauthorized excavations, the regulation helps raise public awareness about the importance of preserving archaeological sites. Illegal activities can affect not only cultural heritage but also the local economy, especially in areas where archaeological tourism is an important source of income.

Comparative Analysis

- In the Republic of Moldova the offenses include:
 - ✓ Carrying out unauthorized works (excavations, treasure hunting) in archaeological sites or areas with archaeological potential.
 - ✓ Construction works or interventions on the soil without an archaeological discharge certificate.
- **In Ukraine (Art. 298)** the offenses include:
 - ✓ Illegal exploration or excavation at archaeological sites.
 - ✓ Deliberate destruction, deterioration, or alteration of cultural heritage objects or parts of them.
 - ✓ Illegal work conducted on monuments of national importance or undertaken for the purpose of searching for movable objects from heritage.
- Both countries regulate unauthorized excavations, but Ukraine provides more detailed regulation, including deliberate destruction and protection of monuments of national importance. Moldova does not explicitly mention the destruction of heritage objects but focuses on unauthorized works.
- In the Republic of Moldova, offenders include individuals aged 16 and older and legal entities, with specific sanctions for legal entities, including liquidation.
- In Ukraine, the regulation mainly addresses individuals, but imposes harsher penalties on public officials who use their official position to commit such acts.
- Moldova highlights and holds legal entities accountable, a dimension less emphasized in Ukrainian legislation.
- For unauthorized excavations/explorations:
 - ✓ Moldova: Fines of 850–1350 conventional units (12,750–20,250 MDL) or imprisonment for up to 1 year.
 - ✓ Ukraine: Fines of 1000–3000 minimum taxable income (17,000–51,000 UAH), probation supervision, or liberty restriction for up to 2 years.
- For soil interventions without certification:
 - ✓ Moldova: Fines of 3350–4350 conventional units (50,250–65,250 MDL), imprisonment for up to 2 years; for legal entities, fines of 7350–10,350 conventional units (110,250–155,250 MDL).
 - ✓ Ukraine: (Similar to general provisions) Depending on the severity of the act, liberty restriction or imprisonment for up to 3 years may apply.

- For destruction or deterioration of heritage objects:
 - ✓ Moldova: No explicit provisions.
 - ✓ Ukraine:
 - Deliberate destruction: Fines of 2000–5000 minimum taxable income, liberty restriction or imprisonment for up to 3 years.
 - Nationally important monuments: Imprisonment for up to 5 years.
 - Acts committed by public officials: Imprisonment for 3–8 years.
 -
- Regarding aggravating circumstances:
 - ✓ Moldova: Aggravating circumstances are not clearly detailed in this article.
 - ✓ Ukraine provides a more comprehensive approach to aggravating circumstances. Specifically regulated:
 - Monuments of national importance.
 - Committing offenses with the purpose of searching for movable objects.
 - Crimes committed by public officials.
 - Regarding regulatory complexity, Ukraine provides more detailed scenarios with a special focus on deliberate destruction and the protection of monuments of national importance. Moldova focuses on unauthorized works and the applicable sanctions, including for legal entities.
 - Regarding penalties:
 - ✓ Moldova applies milder penalties for unauthorized excavations and interventions without certification.
 - ✓ Ukraine imposes harsher penalties for the destruction of heritage and the involvement of public officials.

Conclusion

Moldova takes a simpler approach, whereas Ukraine covers more scenarios, offering a more comprehensive legal framework for the protection of cultural heritage.

„Article 199³. Concealment or illegal possession of movable archaeological goods Concealment or illegal possession of movable archaeological goods, including treasures, discovered accidentally or during soil intervention works or with the help of metal detectors or other remote sensing devices, as well as failing to promptly inform public authorities about the accidental discovery of movable archaeological goods, including treasures.”	„A natural person aged 16 or a legal entity.”	They are punished with a fine ranging from 850 to 1350 conventional units or with imprisonment of up to 1 year, while the legal entity is punished with a fine ranging from 3350 to 5350 conventional units, along with the deprivation of the right to carry out a certain activity for a period of up to 2 years.	„Article 193. Illegal appropriation by a person of found goods or those that happen to be in their possession. 1.The illegal appropriation by a person of the property or treasure of another, found or discovered accidentally, which holds exceptional historical, scientific, artistic, or cultural value.”	A natural person	„It is punishable with a fine ranging from one hundred to one hundred and fifty times the minimum exempted income of citizens, or community service for up to two hundred and forty hours, or correctional labor for a period of up to two years, or probation supervision for the same period.”

Comparative Analysis

- Protected Legal Object – This article from the Ukrainian Criminal Code protects property in a broad sense, with special emphasis on goods of historical, scientific, artistic, or cultural value, including treasures found accidentally. In Moldova, Article 199³ specifically protects movable archaeological heritage, such as treasures and other goods discovered accidentally, including those identified using metal detectors or during soil interventions.

- Criminalized Acts – In Ukraine, the criminalization refers to the illegal appropriation of:

✓ Property of another found accidentally.

✓ Treasures with cultural, historical, or artistic value.

- In Moldova, more specific actions are criminalized:

✓ Concealment or illegal possession of movable archaeological goods.

✓ Failure to promptly inform public authorities about the discovery of archaeological goods, including treasures.

- Offenders – In Ukraine, the active subject is the natural person. In Moldova, the active subject can be both the natural person (from the age of 16) and the legal entity, extending criminal liability to collective entities.

- Penalties Provided – In Ukraine, penalties are diversified and adapted to the seriousness of the offense:

✓ Fine: Between 100 and 150 times the minimum tax-exempt income.

✓ Community service: Up to 240 hours.

✓ Corrective labor: Up to 2 years.

✓ Probation supervision: Up to 2 years.

- In Moldova, penalties are stricter and target multiple categories:

✓ For the natural person (fine between 850 and 1350 conventional units/imprisonment up to 1 year).

✓ For the legal entity (fine between 3350 and 5350 conventional units/deprivation of the right to exercise a certain activity for up to 2 years)..

- In Ukraine, the focus is more general, and the provision includes any type of property found accidentally, with special mention of cultural heritage items. The legislation is flexible, offering milder sanctions for a first offense or minor acts. In Moldova, the criminal provision is more restrictive and detailed, placing a special emphasis on the protection of archaeological heritage. It also includes the obligation to notify authorities about accidental discoveries, which creates a more specific legal framework to prevent concealment.

Conclusions

Both articles reflect national priorities regarding the protection of heritage, but the approaches differ based on the cultural and legal specifics of each country.

„Article 199⁴. Unauthorized commercialization of movable archaeological goods and classified movable cultural goods (1) Unauthorized commercialization of movable archaeological goods and classified movable cultural goods.”	Natural person / legal entity	„It is punishable with a fine ranging from 750 to 850 conventional units, with deprivation of the right to hold certain positions or carry out a specific activity for up to 1 year, while the legal entity is punished with a fine ranging from 2350 to 3350 conventional units, with deprivation of the right to carry out a specific activity for up to 3 years.”			

„(2) The same action: a) committed by an organized criminal group or a criminal organization; b) committed by using the position of service; c) which caused significant damages.”		„It is punishable with a fine ranging from 1000 to 1350 conventional units or with imprisonment from 1 to 3 years, while the legal entity is punished with a fine ranging from 6350 to 10350 conventional units, with deprivation of the right to carry out a specific activity for a period of 3 to 5 years.”			

General Analysis

The Ukrainian Criminal Code includes articles related to the protection of cultural heritage, but no specific article has been identified that addresses the unauthorized commercialization of classified archaeological or cultural goods, similar to Article 199⁴ of the Criminal Code of the Republic of Moldova. Heritage protection in Ukraine may be addressed through other general provisions related to theft, destruction, or illegal use of cultural goods.

Analysis of the Provision in the RM Criminal Code

Article 199⁴ regulates the unauthorized commercialization of movable archaeological goods and classified movable cultural goods, focusing on the protection of cultural heritage and the prevention of illegal use of these goods in trade:

- Protected Legal Object - National cultural heritage, specifically movable archaeological goods (artifacts with archaeological and historical value) and classified movable cultural goods—objects that are part of the cultural heritage and officially classified as having historical, artistic, scientific, or cultural value.
 - Offender - The offender can be either a natural person or a legal entity.
 - Criminalized Acts - The crime consists of the unauthorized commercialization of classified archaeological and cultural goods. This involves the unauthorized sale or exchange of these goods and the lack of official authorization for transactions involving such goods, thus violating legal regulations.
 - Aggravating Forms: The article provides for harsher penalties in cases where the crime is committed under aggravating circumstances:
 - a) By an organized criminal group or a criminal organization = Focuses on combating organized networks involved in the illegal trafficking of cultural goods.
 - b) Using the position of service = Includes cases where public officials or individuals with access to cultural goods by virtue of their position abuse their position to facilitate illegal trade.
 - c) Causing significant damage = The high value of goods or the losses suffered by the state or cultural institutions justifies more severe penalties.
 - Penalties Provided – For unauthorized commercialization (simple form)
 - ✓ Natural person = Fine (750-850 conventional units) / Deprivation of the right to hold certain positions or perform certain activities: up to 1 year.
 - ✓ Legal entity = Fine (2350-3350 conventional units) / Deprivation of the right to carry out certain activities: up to 3 years.
- For commercialization with aggravating circumstances:
- ✓ Natural person = Fine (1000-1350 conventional units) / Imprisonment: 1-3 years.
 - ✓ Legal entity = Fine (6350-10350 conventional units) / Deprivation of the right to carry out activities: 3-5 years.

Conclusions

The article emphasizes the importance of preserving archaeological and cultural goods by preventing illegal trafficking, an issue with international implications. Penalties vary depending on the severity of the offense, allowing for fair application of the law, ranging from fines to imprisonment. The extension of liability to legal entities and the introduction of activity bans demonstrate a concern for preventing recidivism and deterring the trafficking

of cultural goods. The approach to aggravating circumstances reflects the need to combat organized networks involved in the illegal trade of cultural goods. By clearly sanctioning unauthorized commercialization, the Republic of Moldova contributes to protecting its cultural and archaeological heritage, having a legal framework comparable to international standards in this regard.					
„Article 222. Desecration of graves and monuments (1) Desecration by any means.. of a funeral monument or a public memorial...”	Natural person from the age of 16.	„They are punishable with a fine ranging from 750 to 950 conventional units, or with unpaid community service from 180 to 240 hours, or with imprisonment of up to 2 years.”	„Article 297. Vandalism of a grave, another burial site, or the deceased's body (1) Vandalism of a grave or any other burial site, or a corpse or a funeral urn, as well as the theft of items from a burial site or from a corpse.”	Natural person.	„It is punishable with a fine of up to 100 times the minimum untaxed income, or detention for up to six months, or restriction of liberty for up to three years, or imprisonment for the same period.”
„(2) The same actions committed: a) by two or more persons; b) for prejudiced reasons; c) causing significant damage.”		„They are punishable with a fine ranging from 1050 to 1250 conventional units, or with unpaid community service from 200 to 240 hours, or with imprisonment from 1 to 4 years.”	„(2) Desecration or destruction of a common grave or the Tomb of the Unknown Soldier, a monument erected in memory of those who fought against Nazism during World War II — Soviet liberators, participants in the partisan movement, underground fighters, victims of Nazi persecution, internationalist soldiers, and peacekeeping forces, as well as individuals who defended the independence, sovereignty, and territorial integrity of Ukraine and directly participated in the anti-terrorist operation, the implementation of	Natural person.	„It is punishable with restriction of liberty for a term of 3 to 5 years or imprisonment for the same term.”

			national security and defense measures, the repulsion and deterrence of armed aggression by the Russian Federation or any other state recognized by the Supreme Council of Ukraine as an aggressor, participants in the Revolution of Dignity, and fighters for the independence of Ukraine in the 20th century.”		
			„(3) The actions provided in paragraphs one or two of this article are committed repeatedly or with prior conspiracy by a group of individuals, or for selfish or hooligan reasons, or in connection with a monument erected in memory of those who fought against Nazism during World War II, victims of Nazi persecution, as well as internationalist soldiers and peacekeeping forces, or combined with the use of violence or the threat of its use.”	Natural person / a group of individuals.	„It is punishable with restriction of liberty for a term of 4 to 5 years or with deprivation of liberty for a term of 4 to 7 years.”
			„(4) The actions provided in paragraphs one, two, or three of this article, if they have caused serious consequences,”	Persoana fizică/ un grup de persoane	„It is punishable with deprivation of liberty for a period of 7 to 12 years.”

Analysis:

Desecration of graves and monuments refers to any act that harms the physical or symbolic integrity of these places. Such acts may include vandalism, destruction, modification, or any other action that affects the sacred character of graves or monuments. Graves and monuments are not only physical structures but also symbols of collective memory, respect for the deceased, and cultural identity.

Articles from the Criminal Code of the Republic of Moldova (RM) and Ukraine address the protection of cultural heritage, specifically focusing on monuments and burial sites. While both regulate heritage protection, there are important differences:

- Scope:
 - ✓ In RM, Article 222 focuses on funerary and public monuments, specifically regulating their desecration.
 - ✓ In Ukraine, Article 297 includes the protection of graves and other burial sites, with particular attention to memorial sites such as the graves of unknown soldiers and those dedicated to victims of World War II and other conflicts.
- Penalties:
 - ✓ In RM, penalties are lighter, including fines, community service, and imprisonment for up to 2 years for desecration. If the act is committed by more than one person, the punishment may be more severe, but still relatively mild.
 - ✓ In Ukraine, penalties are harsher, with imprisonment of up to 12 years depending on the gravity of the act and its consequences, as well as penalties for groups of offenders or for acts committed for more severe reasons (prejudices, vandalism of historic monuments, etc.).
- Aggravating Circumstances:
 - ✓ In RM, there is no significant differentiation in penalties for different aggravating circumstances.
 - ✓ In Ukraine, the protection of memorial heritage is more detailed, and acts committed with premeditation, by groups, or for hooligan reasons are punished much more severely. Furthermore, the destruction of historical monuments, such as the graves of unknown soldiers or those who fought in WWII, is punished more harshly.

Conclusions:

The main differences between the two articles lie in the severity of penalties and the specific protection afforded to historic monuments and memorial sites, particularly in Ukraine, where penalties are much higher and stricter measures are applied in cases of vandalism and desecration. Ukraine places much greater emphasis on the protection of historical and cultural heritage related to major conflicts, while RM focuses more on the general protection of monuments and burial sites.

„Art. 288. Vandalism (1) Vandalism, meaning the defiling of buildings or other premises, as well as the destruction of property in public transport or in other public places. (2) The same action committed:	Natural person	„A fine ranging from 550 to 1050 conventional units, or unpaid community service from 180 to 240 hours, or			

c) on property that has historical, cultural, or religious value.”		imprisonment for up to 3 years.”		
Analysis Vandalism is defined as the act of defiling buildings or other premises, as well as destroying property in public transport or other public places. This behavior reflects a disregard for communal property and cultural heritage. Emphasis is placed on actions committed against property with historical, cultural, or religious value, highlighting the importance of protecting these resources for society. Legal regulations can help educate society about the importance of safeguarding cultural assets, raising awareness about the consequences of vandalism.. Conclusions Article 288 of the Criminal Code of the Republic of Moldova regulates vandalism, including actions of destruction or defilement of property such as buildings or those in public transport or other public places, and imposes sanctions like fines, community service, or imprisonment for up to 3 years. In contrast, the Criminal Code of Ukraine does not have a similar article explicitly dedicated to vandalism, although acts of vandalism may be regulated by other provisions concerning property damage. The punishment for vandalism of property with historical or cultural value may include more severe penalties, depending on the severity of the act.				

Legislation of the Republic of Moldova			Legislation of France		
Criminal Code	Offender	Punishment	Criminal Code	Offender	Punishment
„Article 137³ Use of prohibited methods of warfare (3) The initiation, within an armed conflict, whether international or non-international, of an attack: b) against civilian objects protected by international humanitarian law, particularly buildings dedicated to religious worship, education, art, science, or charitable actions, against historical monuments, hospitals, and places where the sick or wounded are gathered, as well as against towns, dwellings, or buildings that are not defended and are not used as military objectives.”	Natural person from the age of 16 / legal entity	”Imprisonment from 8 to 15 years.”	„Article 461-16 If not justified by military necessity, the following crimes or war offenses, punishable by the aggravations provided in Article 462-1, also constitute war crimes or offenses and are subject to penalties when committed against a person protected by international law of armed conflicts: 1° Thefts, extortions, as well as the destruction, degradation, and damage of goods defined in Book III of this Code; 2° Concealment of the product of any of the crimes specified in point 1° of this article.”	Natural person	„Article 462-1 1° It is life imprisonment if the crime is punishable by 30 years of imprisonment; 2° It is 30 years of imprisonment if the crime is punishable by 20 years of imprisonment; 3° It is 20 years of imprisonment if the crime is punishable by 15 years of imprisonment; 4° It is 15 years of imprisonment if the crime is punishable by 10 years of imprisonment; 5° It is 10 years of imprisonment if the crime is punishable by 7

					years of imprisonment; 6° It is 7 years of imprisonment if the crime is punishable by 5 years of imprisonment; 7° It is doubled if the crime is punishable by no more than 3 years of imprisonment.”
General Analysis: The comparison of the penal norms from the Republic of Moldova and France regarding the protection of cultural and civilian property in the context of armed conflicts highlights both similarities and significant differences in the legal content and the sanctions provided. By the Object of Protection: - In the Republic of Moldova (Art. 1373 para. (3) Penal Code), the norm focuses on the protection of specific civil and cultural property, such as religious buildings, educational institutions, art and science buildings, historical monuments, and hospitals. It is clearly specified that these properties are protected by international humanitarian law. - In France (Art. 461-16 Penal Code), the norm encompasses a broader category of offenses committed against goods protected by international law in armed conflicts, including theft, extortion, destruction, and degradation. France refers to the protection of these goods through a general reference to "goods defined in Book III" of the Penal Code, without specifying concrete categories of cultural or civil property. By the Material Element of the Offense: - In the Moldovan Penal Code, “launching an attack” against protected goods in the context of an armed conflict, whether international or not, is specified. The emphasis is placed on the act of attacking these goods, without justifying the action by military necessity. - In the French Penal Code, similarly, the norm sanctions destruction, degradation, and other actions against protected goods. However, an additional condition is introduced: the offenses must not be "justified by military necessity." This wording reflects a more contextual and flexible approach, taking into account the circumstances of the conflict. By Sanctions: - In the Republic of Moldova, the punishment is imprisonment ranging from 8 to 15 years for individuals aged 16 and above and for involved legal entities. This indicates a high degree of severity but provides a clear limitation of the sanction range. - In France, the sanction system is more nuanced and offers gradual penalties proportional to the gravity of the offense:					

- Life imprisonment for offenses previously punishable by 30 years of imprisonment.
- Imprisonment and penalties at various intervals (30, 20, 15, 10, 7 years), proportional to the punishment provided for the respective offense in other contexts.
- Doubling the penalty for offenses punishable by up to 3 years of imprisonment.

This system reflects a more detailed and adaptable approach to the severity of each offense.

By References to International Humanitarian Law:

- Moldovan law is based on the protection specified in international humanitarian law but does not detail international conventions, such as the Hague Convention or similar treaties.
- The French norm places a direct emphasis on international law regarding armed conflicts, highlighting the integration of international regulations into national legislation. This indicates a more advanced level of harmonization between international and domestic law

Conclusions: The comparative analysis of penal legislation in the Republic of Moldova and France reveals significant differences in their approach to the protection of cultural heritage in the context of armed conflicts.

- In the Republic of Moldova, the protection of cultural heritage is specifically addressed by prohibiting direct attacks on cultural and civilian property protected by international humanitarian law. The norm is clear and focused but relatively limited, being strictly concentrated on the prohibition of attacks and the application of a general punishment, without detailing other related offenses such as theft or concealment of cultural goods.

- In contrast, France's legislation provides a more comprehensive and detailed approach. It includes not only the destruction of cultural heritage but also other related offenses such as theft, extortion, and concealment, offering a more complex framework for its protection. Additionally, the concept of "military necessity" is introduced, allowing a more nuanced application of the norm, considering the circumstances of armed conflicts. The graduated sanction system in France ensures proportional punishment to the severity of the offense.

The French legislative framework reflects a broader vision of the state's responsibilities in protecting cultural heritage, while Moldovan legislation provides a solid foundation that can be further developed to better meet international requirements and address a wider range of threats to cultural heritage.

„Article 186. Theft (2¹) Theft of cultural heritage goods from archaeological sites or areas with archaeological potential.”	Natural person from the age of 16.	„It is punishable by a fine ranging from 1350 to 2350 conventional units or by imprisonment from 2 to 5 years.”	„Article 311-4-2 Theft If committed against: 1° A movable object classified or registered among the objects referred to in the Heritage Code or a private archive document classified among the objects referred to in the same code; 2° An archaeological discovery made during excavations or accidentally; 3° A cultural good belonging to the movable public domain or which is exhibited, preserved, or stored, even temporarily, either in a museum in	Natural person / legal person	„it is punishable by 7 years of imprisonment and a fine of 100,000 euros. The penalties are 10 years of imprisonment and a fine of 150,000 euros if

			France, a library, a media library, or an archive service, or in a location belonging to a public person or a private person fulfilling a mission of general interest, or in a building intended for worship.”		the offense provided for in this article is committed with one of the circumstances specified in Article 311-4. The fines mentioned in this article can be increased up to half the value of the stolen property.”
„(3) Theft committed: a) during a disaster; b) by an organized criminal group or a criminal organization.”	an organized criminal group or a criminal organization	„It is punishable by imprisonment from 2 to 6 years, with (or without) a fine ranging from 1350 to 3350 conventional units.”			

„(4) The actions provided in paragraphs (1) – (3), if the value of the goods exceeds 40 times the average monthly salary forecasted, established by the Government decision in force at the time of the offense,”	A natural person from the age of 16 / an organized criminal group or a criminal organization	„It is punishable by imprisonment from 5 to 10 years.”		
”(5) The actions provided in paragraphs (1) – (3), if the value of the goods exceeds 100 times the average monthly salary forecasted, established by the Government decision in force at the time of the offense,”	A natural person from the age of 16 / an organized criminal group or a criminal organization	„It is punishable by imprisonment from 7 to 12 years”		
General Analysis: Both the penal legislation of the Republic of Moldova and that of France recognize the theft of cultural heritage goods as a serious crime and provide specific sanctions for the protection of this type of heritage. However, there are significant differences regarding the details of the regulations, the approach to the offense, and the applicable sanctions. Regulation of Criminal Acts: - In the Republic of Moldova, theft of cultural heritage goods is specifically criminalized under paragraph (2¹) of Article 186, highlighting protection for archaeological sites and areas with archaeological potential. - Aggravating circumstances are regulated, such as: • Theft committed during a disaster or by an organized criminal group (paragraph 3). • The value of the stolen goods (paragraphs 4 and 5), which determines the aggravation of penalties. - In France, Article 311-4-2 introduces a detailed and specific approach to the protection of movable cultural heritage, clearly identifying the categories of goods targeted: - Objects classified according to the Heritage Code or private archive documents classified. - Archaeological discoveries, whether accidental or from excavations. - Cultural goods exhibited, preserved, or stored in public or private institutions (museums, libraries, places of worship). - The acts are integrated into a broader context of cultural heritage protection, not just in the case of their commission in archaeological sites. Punishment of Offenses: - In the Republic of Moldova, paragraph (2¹): Theft from archaeological sites is punishable by a fine ranging from 1350 to 2350 conventional units (67,500–117,500 lei) or imprisonment for 2–5 years. - Paragraph (3): Aggravating circumstances (disasters, criminal groups) increase the penalty to 2–6 years in prison and a fine between 1350 and 3350 conventional				

units. Paragraphs (4 and 5): If the value of the goods exceeds 40 average monthly salaries, the penalty becomes 5–10 years; if the value exceeds 100 average monthly salaries, the penalty is 7–12 years.

- In France, Article 311-4-2 does not directly provide penalties but refers to general sanctions in the Penal Code, where qualified theft can be punished with severe penalties:
 - Long-term imprisonment (which can vary depending on the severity of the offense, for example, 7–15 years or more).
 - The French system is more flexible and allows for the adaptation of penalties to the specific context of the offense, including the value of the stolen property and the damage caused to cultural heritage.

Approach to Aggravating Circumstances:

- In the Republic of Moldova, the regulation of aggravating circumstances focuses on:
 - The value of the stolen goods, an objective indicator of the seriousness of the offense.
 - The context in which the offense was committed (e.g., disaster, organized group), reflecting a standardized approach, but less detailed than general heritage protection.
- In France, Article 311-4-2 explicitly describes the legal context of the protected heritage:
 - Theft is qualified based on the location of the good (museums, archaeological sites) and its nature (classification according to the Heritage Code).
 - The institutions involved (museums, places of worship, etc.) are also considered, indicating a greater concern for preventing thefts from culturally protected spaces.

Flexibility of the Legislative Framework:

- In the Republic of Moldova, the law introduces clear criteria for theft of cultural heritage goods (location, value, context), but leaves less room for flexible interpretation of the law. The sanction system is relatively rigid and standardized.
- In France, the protection of cultural heritage is better integrated into the general legislation by the detailed inclusion of targeted goods, locations, and institutions. The approach is more contextual, allowing for a more nuanced application of sanctions and preventive measures.

Conclusion: While the Republic of Moldova presents a concise approach focusing on certain aspects of cultural heritage theft (e.g., archaeological sites), French legislation proves to be more comprehensive and well-integrated into the cultural heritage protection system. France recognizes a wider range of goods and situations that require protection, offering a more flexible and adaptable legal framework in response to circumstances.

„Article 199¹. Damage or Destruction of Cultural Heritage Goods (1) Damage to cultural heritage goods”	Natural person from the age of 16 / legal entity.	„The fine ranges from 850 to 1350 conventional units or imprisonment for up to 1 year, while a legal entity is punished with a fine ranging from 1350 to 3350 conventional units or with the deprivation of the right to perform certain activities for a period of 1 to 3 years.”	„Article 322-3-1 Destruction, Degradation, or Deterioration 1° Of a classified or registered immovable or movable object among the categories indicated by the provisions of the Heritage Code or a document in private archives classified in accordance with the provisions of the same code; 2° Of archaeological heritage, as defined by Article L. 510-1 of the Heritage Code; 3° Of a cultural good belonging to the movable public domain or which is exhibited, preserved, or stored, even temporarily, either in a museum in France, a library, a media library, or an archive, or in a location belonging to a public or private person entrusted with a mission of general interest, or in a cultural building.”	Natural person / legal person	„It is punishable by 7 years of imprisonment and a fine of 100,000 euros if committed against:”
„(2) Destruction of cultural heritage assets.”	Natural person from 16 years old / legal entity.	„It is punishable by a fine ranging from 3350 to 6350 conventional units or imprisonment from 1 to 3 years, while the legal entity is punished	„4° A cultural building;” .	Natural person / legal person	„The penalties are 10 years of imprisonment and a fine of 150,000 euros if the offense provided for in this article is committed with the circumstance

		with a fine ranging from 6350 to 10350 conventional units, with (or without) the liquidation of the legal entity.”			specified in point 1° of Article 322-3. The fines mentioned in this article can be increased up to half the value of the property destroyed, degraded, or deteriorated.”
„(3) The action referred to in paragraphs (1) or (2): a) committed by arson, explosion, or another dangerous method; b) committed for prejudiced reasons; c) which, through negligence, caused the death of a person.”		„It is punishable by imprisonment for up to 6 years.”			

General Analysis: Both the Republic of Moldova and France regulate offenses related to the destruction and degradation of cultural heritage property, but there are significant differences in the penalties, aggravating circumstances, and the specific approaches to these norms:

Definition of the Offense and Protection of Cultural Heritage Property:

- In the Republic of Moldova, Article 1991 details two types of offenses: the degradation and destruction of cultural heritage property. The definitions are clear, and the penalties vary depending on the severity of the act:

- Degradation of cultural heritage property is punishable by a fine or imprisonment for up to 1 year.
- Destruction is punishable by a higher fine or imprisonment for 1 to 3 years.

There are also specific penalties for aggravating actions such as arson, explosions, or acts committed out of prejudice.

- In France, Article 322-3-1 of the French Penal Code includes a more detailed and comprehensive protection of cultural heritage, extending to a wide range of property, including classified buildings and objects listed in the Heritage Code. The targeted offenses are destruction, degradation, or deterioration of these properties. Penalties are more severe:

- For a movable or immovable cultural property, the penalty is up to 7 years of imprisonment and a significant fine of 100,000 euros.
- If the offense is committed with aggravating circumstances, the penalties can reach 10 years of imprisonment and a fine of 150,000 euros.

Additionally, supplementary fines may be imposed, equivalent to up to half the value of the destroyed or degraded property

Penalties and Sanctions:

- In the Republic of Moldova, penalties for the degradation of cultural heritage property are lighter than in France. Degradation is punished with a fine or imprisonment for up to 1 year, while destruction carries penalties of 1 to 3 years of imprisonment. In the case of aggravating circumstances (arson, explosions, prejudice), the penalty can be increased to up to 6 years of imprisonment. Legal entities are also sanctioned with fines and, in severe cases, a prohibition on activity..
- France applies much more severe penalties, starting with 7 years of imprisonment and significant fines for the destruction of cultural heritage property. These penalties are accompanied by very high fines, which can reach 150,000 euros in cases of aggravating circumstances. Furthermore, sanctions include supplementary fines that can represent up to half the value of the destroyed property.

Aggravating Circumstances and Additional Penalties:

- In the Republic of Moldova, paragraph 3 of Article 1991 provides for higher penalties for offenses committed through arson, explosions, or out of prejudice, as well as in cases where the offense causes the death of a person due to negligence. These aggravating circumstances are taken into account when determining the penalty but are not as detailed or extensive as in France.
- In France, there is a more detailed regulation of aggravating circumstances, especially for cultural heritage property, with a strong focus on sensitive locations such as museums or places of worship. Additionally, fines can be doubled depending on the value of the destroyed property, making the system more flexible and closely related to the economic impact of the crime.

Legal Approach and Protection of Heritage:

- In the Republic of Moldova, the Penal Code provides general protection for cultural heritage property, but the regulations are less detailed compared to France. Not all categories of protected property (e.g., items exhibited in museums or other public locations) are specified, and there are no regulations allowing for precise evaluation of material damage caused by the offense.
- The French Penal Code focuses on protecting a wide range of cultural heritage property, including objects exhibited to the public, movable and immovable goods, and archival documents. This extended protection reflects a strong commitment by the French state to the conservation of cultural heritage.

Conclusions:

1. France provides a much more detailed and comprehensive protection of cultural heritage, covering a broader range of goods and locations. While the Republic of Moldova regulates the degradation and destruction of cultural heritage property, it does not include all categories of property, and the protection is not as detailed.
2. France applies much more severe penalties, including long-term imprisonment and substantial fines. In contrast, the Republic of Moldova applies lighter penalties, and the additional sanctions are more limited.
3. Both countries regulate aggravating circumstances, but France includes more detailed and severe regulation, correlated with the value of the destroyed or degraded property.

„Article 222. Desecration of graves and monuments (1) Desecration by any means.. of a funeral monument or a public memorial...”	Natural person from the age of 16.	„They are punishable with a fine ranging from 750 to 950 conventional units, or with unpaid	„Article 225-17 Offenses Against the Respect Due to the Deceased Violation or desecration, by any means, of graves, tombs, or monuments erected in memory of the deceased.”	Natural person	„It is punishable by 1 year of imprisonment and a fine of 15,000 euros.”

		community service from 180 to 240 hours, or with imprisonment of up to 2 years.”			
”(2) The same actions committed: a) by two or more persons; b) for prejudiced reasons; c) causing significant damage.”		„They are punishable with a fine ranging from 1050 to 1250 conventional units, or with unpaid community service from 200 to 240 hours, or with imprisonment from 1 to 4 years.”			

General Analysis: Comparative analysis between Article 222 of the Republic of Moldova and Article 225-17 of France:

Type of Crime:

- In the Criminal Code of the Republic of Moldova, Article 222 focuses on the desecration of graves and funerary monuments, including acts of vandalism and damage, which can lead to significant harm. The crimes are associated with acts committed by individuals or groups, with aggravating circumstances.

-In the French Criminal Code, Article 225-17 specifically addresses the violation or desecration of graves and monuments erected in memory of the deceased, without focusing on aggravating circumstances, but it is a standalone offense with clear penalties.

Penalties:

- In the Criminal Code of Moldova, penalties range from unpaid work and fines to imprisonment of up to 4 years, depending on the severity of the act and the aggravating circumstances.

- In France, the penalties are clear and specific: 1 year of imprisonment and a significant fine of 15,000 euros for the desecration of graves and monuments.

Monetary Sanctions:

- The Criminal Code of Moldova provides fines ranging from 750 to 1250 conventional units (depending on the severity of the crime) but does not specify fixed amounts. Additional sanctions are also foreseen for organized groups.

- The French Criminal Code imposes a significant fine of 15,000 euros, indicating a more severe financial approach to protect the memory of the deceased.

Cultural and Penal Context:

- In Moldova, the penal legislation regarding cultural heritage and desecration is more flexible and targets a broad range of acts of vandalism and aggression against monuments, reflecting a more preventive approach.
- In France, the protection of heritage is regulated more strictly, being considered a serious crime with clear penalties for violating the respect owed to the deceased, given the cultural and symbolic status of graves and monuments.

Conclusion: While Moldova regulates the desecration of graves with penalties that vary according to the severity of the act and aggravating circumstances, France adopts a stricter approach, setting clear and specified penalties for these acts. French legislation places significant importance on respect for the deceased and cultural heritage, reflecting a more rigid system in terms of its protection.

Legislation of the Republic of Moldova			Legislation of Germany		
Criminal Code	Offender	Punishment	Criminal Code	Offender	Punishment
„Article 186. Theft (2 ¹) Theft of cultural heritage goods from archaeological sites or areas with archaeological potential.”	Natural person from the age of 16.	„It is punishable by a fine ranging from 1350 to 2350 conventional units or by imprisonment from 2 to 5 years.”	„Section 243 Qualified Theft (1) A particularly serious case typically arises when the offender: 1. Gains entry into a building, an official or commercial building, or another enclosed space, or invades by using a false key or another instrument not ordinarily used for access, or hides within the premises with the purpose of committing the offense; 2. Steals goods that are specially protected against theft through a sealed container or another protective device; 3. Steals for commercial purposes; 4. Steals goods dedicated to religious practice or used for religious worship from a church or another building or space used for religious veneration; 5. Steals goods relevant to science, the arts, or history, or for technical development that are part of a publicly accessible collection or displayed to the public;	Natural person	„In cases of particularly serious theft, the penalty is imprisonment from three months to 10 years.”

			6. Steals by exploiting the incapacity of another person, an accident, or a common danger; or 7. Steals a hand weapon for which a license is required under the Weapons Act, a machine gun, a submachine gun, a fully automatic or semi-automatic rifle, or a military weapon containing an explosive according to the Military Weapons Control Act (Kriegswaffenkontrollgesetz) or an explosive. (2) In the cases referred to in paragraph (1), clauses 1 to 6, a particularly serious case is excluded if the property is of minor value.”		
„(3) Theft committed: a) during a disaster; b) by an organized criminal group or a criminal organization.”	an organized criminal group or a criminal organization	„It is punishable by imprisonment from 2 to 6 years, with (or without) a fine ranging from 1350 to 3350 conventional units.”	„Section 244 Armed Theft; Band Theft; Burglary (1) Anyone who: 1. commits theft during which they or another participant in the crime: a) carries a weapon or another dangerous instrument; b) carries another instrument or means to prevent or overcome the resistance of another person through force or the threat of force;	Natural person	„The penalty for this offense is imprisonment from six months to ten years..”

			2. commits theft as a member of a gang whose purpose is the continued commission of robbery or theft with the participation of another gang member; or 3. commits theft by entering private spaces or using a false key or another instrument not typically used for access or concealment in private spaces; (2) Attempt is punishable. (3) In the less serious cases provided in paragraph (1) numbers 1 to 3, the penalty is imprisonment from three months to five years. (4) Burglary of private spaces mentioned in paragraph (1) number 3 refers to homes that are used permanently as private living spaces.”		„The penalty is imprisonment from three months to five years. The penalty is imprisonment from one year to ten years.”
			„Section 244a Aggravated Theft by a Gang (1) Anyone who commits theft under the conditions of Article 243(1), second sentence, or in the cases specified in Article 244(1)(1) or (3), as a member of a gang whose purpose is to commit continuous robbery or theft, and does so with the participation of another gang		„The penalty is imprisonment from one year to 10 years.”

			member, is punishable by imprisonment from one year to 10 years. (2) In less serious cases, the penalty is imprisonment from six months to five years.,,		„The penalty is imprisonment from six months to five years.,,
„(4) The actions provided in paragraphs (1) – (3), if the value of the goods exceeds 40 times the average monthly salary forecasted, established by the Government decision in force at the time of the offense.,,	A natural person from the age of 16 / an organized criminal group or a criminal organization	„It is punishable by imprisonment from 5 to 10 years.			
„(5) The actions provided in paragraphs (1) – (3), if the value of the goods exceeds 100 times the average monthly salary forecasted, established by the Government decision in force at the time of the offense.,,	A natural person from the age of 16 / an organized criminal group or a criminal organization	It is punishable by imprisonment from 7 to 12 years”			
Comparative analysis of the criminal provisions regarding the theft of cultural heritage property in the Penal Code of the Republic of Moldova (Article 186) and the Penal Code of Germany (Sections 243, 244, and 244a) can be made by considering key aspects such as the object of protection, criminalization, the subject of the crime, penalties, and specific regulations. 1. Object of Protection: - The Penal Code of the Republic of Moldova, in Article 186 (2¹), specifically protects cultural heritage goods located in archaeological sites or areas with archaeological potential. These provisions highlight a clear focus on the conservation of cultural heritage, but the text does not detail other categories of protected goods. -The Penal Code of Germany, in Sections 243 (1) (5) and 244, protects goods relevant to science, art, history, or technical development that are kept in public-accessible collections or displayed. This regulation provides a broader approach, including cultural goods in general, without being limited to archaeological sites. 2. Criminalization of the Acts:					

- In Penal Code of the Republic of Moldova the criminalization is stricter regarding theft from archaeological sites or areas with archaeological potential, punishable by a fine or imprisonment from 2 to 5 years. If the crime involves high-value items (exceeding 40 or 100 average salaries), the penalties increase significantly, ranging from 5 to 12 years of imprisonment. This reflects a graduated severity based on the value of the stolen goods.

- In the German Penal Code, the criminalization of theft of cultural heritage goods is more broadly defined. Qualified theft (Section 243) and theft by band (Section 244a) include crimes such as illegal entry, theft of protected valuable goods, or theft from public collections. The German approach emphasizes the methods used and the severity of the case, as well as the organization of criminal groups.

3. Subject of the Crime:

- In Penal Code of the Republic of Moldova, the subject may be a natural person aged 16 or older, as well as organized criminal groups or criminal organizations. The regulation clearly targets both individual and organized criminals.

- In the German Penal Code, the subject is typically a natural person, but there are provisions for criminalizing organized groups, especially in cases of qualified theft or armed theft (Sections 244 and 244a). Organized gangs are treated as an aggravating circumstance.

4. Penalties:

- In Penal Code of the Republic of Moldova, penalties increase proportionally to the value of the stolen goods

- Simple theft of cultural property: fine or imprisonment from 2 to 5 years.
- If the value of the goods exceeds 40 average salaries: imprisonment from 5 to 10 years.
- If the value exceeds 100 average salaries: imprisonment from 7 to 12 years. This graduated scale highlights the seriousness of theft in relation to economic harm.
- In the German Penal Code, the penalties are
 - For qualified theft: imprisonment from 3 months to 10 years.
 - For armed theft or theft in bands: imprisonment from 1 to 10 years.
 - In less severe cases, penalties can range from 3 months to 5 years.

Germany applies more uniform penalties, but they are differentiated based on aggravating circumstances or methods used to commit the crime. Thus, Moldovan provisions are stricter regarding theft from archaeological sites but do not mention other categories of cultural property (e.g., goods displayed in museums or public collections). Additionally, attempt is not specifically criminalized in this article, which could leave room for interpretation. Meanwhile, the German Penal Code explicitly includes attempt (Section 244 (2)) and covers a wider range of aggravating situations, such as the use of weapons, organized gangs, and the general protection of goods of public interest. This approach reflects greater attention to the context in which the crime is committed.

Conclusion: Moldova focuses on the protection of specific cultural heritage (archaeological sites), but the regulation is relatively limited and does not cover other cultural heritage goods or aggravating circumstances. The penalty system is clearly graduated, but the minimum penalty is more lenient compared to Germany. Germany has a more detailed and extended approach, including the protection of scientific, artistic, and historical goods, regardless of their location. Attempt and methods used are specifically penalized, and the limits of sanctions reflect a more rigorous attitude towards the protection of cultural heritage.

„Article 199¹. Damage or Destruction of Cultural Heritage Goods (1) Damage to cultural heritage goods,,	Natural person from the age of 16 / legal entity.	„The fine ranges from 850 to 1350 conventional units or imprisonment for up to 1 year, while a legal entity is punished with a fine ranging from 1350 to 3350 conventional units or with the deprivation of the right to perform certain activities for a period of 1 to 3 years.”	„304. Destruction of public interest property (1) A person who unlawfully destroys or damages objects of worship belonging to a religious community located in the Federal Republic of Germany, or objects used for the celebration of divine services, or gravestones, public monuments, natural monuments, works of art, scientific or craft objects kept in public collections or displayed in public exhibitions, or public utility goods or goods used to beautify public roads, squares, or parks, shall be punished. (2) The same penalty shall apply to a person who, without authorization, significantly alters and not just temporarily changes the appearance of a good mentioned in paragraph 1. (3) Attempted offenses shall be punished.,	Natural person	„It is punishable by imprisonment for up to 3 years or a fine.”

A comparative analysis of the criminal provisions in the Penal Codes of the Republic of Moldova (art. 199¹) and Germany (§ 304) regarding the deterioration or destruction of cultural heritage property can be conducted from several perspectives, such as:

1. Object of Legal Protection:

- In the Penal Code of the Republic of Moldova, art. 199¹ specifically protects cultural heritage property. Although the formulation is not very detailed, it can be assumed that it includes valuable items from a historical, artistic, or cultural perspective, in accordance with national legislation.
- The Penal Code of Germany (§ 304) provides broader protection, including religious artifacts, gravestones, public monuments, art, science, craft items, as well as public utility goods that contribute to the beauty of public spaces. Through this diversity, German law aims to offer broader protection, not only to cultural heritage but also to public interest goods.

2. Subject of the Crime:

- In the Penal Code of the Republic of Moldova, the subject of the crime can be any natural person who has reached the age of 16 or a legal entity. The law specifies distinct sanctions for legal entities.
- In the German Penal Code, the subject is any natural person. Legal entities are not explicitly provided as subjects of the crime, but they could be held liable under other regulations, such as corporate liability laws.

3. Sanctions:

- In the Penal Code of the Republic of Moldova:
 - Natural persons: Fines ranging from 850 to 1350 conventional units or imprisonment for up to 1 year.
 - Legal entities: Fines ranging from 1350 to 3350 conventional units or deprivation of the right to carry out a specific activity for 1-3 years.The Moldovan law is more specific regarding sanctions for legal entities.
 - In the German Penal Code, the offense is punished with imprisonment for up to 3 years or a fine. There are no differentiations between natural and legal persons, and sanctions for legal entities could be regulated by other norms.
- Germany provides more severe penalties, reflecting a more rigorous protection of cultural and public heritage.

4. Procedural Aspects and Aggravating Circumstances:

- The Penal Code of the Republic of Moldova does not explicitly mention the punishment of attempts or other aggravating factors. This could limit the applicability of the article in cases where the damage is not completed.
- The German Penal Code explicitly mentions the punishment of attempts and includes situations where the appearance of the goods is altered significantly, even temporarily. This approach reflects greater attention to preventing and addressing various forms of harm to protected goods.

5. Specificity of the Norms:

- The Penal Code of the Republic of Moldova has a general formulation, which may create difficulties in interpretation and application. For example, it is unclear whether it includes temporary alteration or only permanent destruction.
- The German Penal Code explicitly details the categories of protected goods and forms of deterioration. This precision allows for easier application of the norm and prevents potential legal gaps.

Final Conclusion: The Republic of Moldova adopts a narrower approach, focused strictly on protecting cultural heritage, with milder sanctions. However, the general formulation of the article may lead to varied interpretations. Germany, on the other hand, has a more comprehensive approach, protecting not only cultural heritage but also other public interest goods. The harsher penalties and the explicit regulation of attempts underscore the commitment to safeguarding these values.

„(2) Destruction of cultural heritage assets.,,	Natural person from 16 years old / legal entity.	„It is punishable by a fine ranging from 3350 to 6350 conventional units or imprisonment from 1 to 3 years, while the legal entity is punished with a fine ranging from 6350 to 10350	„Article 305. Destruction of Buildings (1) A person who illegally destroys, in whole or in part, a building, ship, bridge, dam, constructed road, railway, or any other building that belongs to another person. (2) Attempted destruction is punishable.,,	Natural person	„It is punishable by imprisonment of up to 5 years or a fine.”

		conventional units, with (or without) the liquidation of the legal entity.”			
„(3) The action referred to in paragraphs (1) or (2): a) committed by arson, explosion, or another dangerous method; b) committed for prejudiced reasons; c) which, through negligence, caused the death of a person.,,		„It is punishable by imprisonment for up to 6 years.”			

General Analysis. The regulation in the German Penal Code takes a more general approach, and the connection to cultural heritage is not explicitly mentioned. In the analysis below, we focus strictly on aspects related to the protection of cultural heritage in Moldova and Germany, even though the German regulations are indirectly relevant.

1. Object of Legal Protection.

- In Moldova, Article 199¹, para. (2) is explicitly dedicated to the protection of cultural heritage assets, a category clearly defined in national legislation. This may include archaeological sites, historical monuments, culturally valuable artifacts, and other assets important for national identity. The protection granted to cultural heritage is explicit and prioritized.

- In Germany, Article 305 of the German Penal Code refers to the destruction of buildings and other immovable property, without directly mentioning cultural heritage. However, if the destroyed buildings are part of cultural heritage (e.g., protected historical buildings), they could be protected under other legal provisions or by contextual interpretation. However, the text of the law does not specifically separate this category..

Thus, Moldova has specific regulation for protecting cultural heritage, while Germany includes its protection implicitly as part of a more general category.

2. Severity of the Crime and Aggravating Circumstances.

- In Moldova, the destruction of cultural heritage assets is considered a serious crime, punishable by imprisonment or a fine. The severity is highlighted in paragraph (3) of Article 199¹, which provides aggravating circumstances such as:

- The use of dangerous methods (arson, explosion);
- Motivation based on prejudice;
- The result causing the death of a person.

These provisions show concern for the protection of cultural heritage against deliberate actions or incidents with severe consequences.

- In Germany, Article 305 does not differentiate the severity of the crime based on the category of property destroyed (cultural heritage vs. ordinary property). Aggravating circumstances are not mentioned, and the method of destruction does not affect the severity of the punishment. The destruction of cultural heritage would likely be addressed under special laws protecting monuments or heritage, rather than this general article. Thus, Moldova introduces detailed aggravating circumstances for the destruction of cultural heritage, while Germany does not make a specific distinction.

3. Penalties.

- In Moldova:

- Physical persons: Fine ranging from 3,350 to 6,350 conventional units or imprisonment from 1 to 3 years.
- Legal entities: Fine ranging from 6,350 to 10,350 conventional units, with the possibility of liquidation of the legal entity.
- In the case of aggravating circumstances, the maximum penalty increases to 6 years of imprisonment.

The penalty system emphasizes the seriousness of the crime in the context of cultural heritage.

- In Germany:

- A physical person may be punished with imprisonment of up to 5 years or a fine.
- Attempt is punishable, but there is no differentiation in the penalty based on the severity of the object destroyed.

Thus, Moldova sets more severe penalties for the destruction of cultural heritage compared to the destruction of other types of property. Germany does not make such a distinction, and the maximum penalty (5 years) is lower than the one provided in Moldova for aggravating circumstances.

4. Subject of the Crime.

- In Moldova, the subject of the crime may be:

- A physical person aged 16 and above.
- A legal entity, which can be sanctioned, including through liquidation.

- In Germany, the regulation refers exclusively to physical persons. Legal entities are not included as subjects of the crime, but they may be held liable under other laws.

Thus, Moldova explicitly includes the liability of legal entities, while Germany does not.

Conclusions.

Moldova has a specific regulation for cultural heritage, highlighting its importance and establishing clear penalties, which are more severe in cases of aggravating circumstances. This reflects a national priority for the protection of these assets. Germany, through Article 305, provides indirect protection to cultural heritage, without specific regulation in this regard. A separate regulation that includes aggravating circumstances and details the protection of cultural heritage would bring additional clarity and efficiency.

„Article 197. Intentional Destruction or Damage of Property (1) Intentional destruction or damage of property, if it caused significant damage. (2) The same actions: a) committed through arson, explosion, or any other dangerous means; b) committed for reasons of prejudice; c) committed against a person in connection with the fulfillment of their official or public duties; d) which, through recklessness, caused the death of a person.,,	Natural person	„It is punishable by a fine of up to 1350 conventional units or with unpaid community service of 240 hours.” „They are punishable by imprisonment of up to 6 years.”	„Section 306a Aggravated Arson (1) Whoever sets fire to or destroys, in whole or in part: 1. A building, ship, hut, or other location serving to house people; 2. A church or other building serving religious practice; 3. Spaces used for the temporary accommodation of people, at a time when people are usually present in those spaces; (2) Anyone who sets fire to an object specified in Section 306(1) numbers 1 to 6, or destroys it in whole or in part by arson, thereby putting another person at risk of health harm, shall receive the same penalty. (3) In less severe cases as provided in paragraphs (1) and (2), the punishment is imprisonment from six months to five years.,,	Natural person	„risks a punishment of imprisonment for at least one year.” „risks a punishment of imprisonment for at least one year.”

Comparative Analysis of Criminal Provisions Regarding the Destruction of Cultural Heritage in the Republic of Moldova and Germany

- In the Republic of Moldova- Article 197 of the Penal Code of the Republic of Moldova addresses the intentional destruction or damage of goods, including by dangerous means, and in contexts that could result in severe consequences, such as death. While the article does not explicitly mention cultural heritage items, its general wording allows for interpretation that it includes cultural goods if their destruction causes significant damage. The penalties are varied:
 - For simple destruction: a fine or community service.
 - If dangerous means are used or if the destruction leads to death: imprisonment for up to 6 years.
- In Germany- Section 306a of the German Penal Code focuses specifically on arson and destruction by fire, applying to buildings and locations that have social or cultural importance, such as churches or places used for religious services. While this section does not explicitly mention cultural heritage goods, the inclusion of places of worship and temporary housing indicates an interest in protecting objects of symbolic or practical value. The penalties are severe:
 - Destruction by arson of these goods may result in imprisonment for at least one year.
 - In less severe cases, the minimum sentence is six months.

Thus, some common aspects can be established, such as:

Indirect protection of cultural heritage. Both legislations protect cultural heritage goods indirectly by including them within broader categories, such as religious buildings or locations of public interest. Aggravated penalties for dangerous means: Both in Moldova and Germany, the use of fires or other dangerous means is considered an aggravating circumstance.

However, there are also differences:

- In Moldova, the article is more general and does not explicitly specify cultural heritage. The protection of these goods depends on legal interpretation and the qualification of damages as "significant."
- In Germany, there is more clarity regarding the categories of protected goods (e.g., places of worship), but cultural heritage as such is not explicitly mentioned.
- In Moldova, for destruction by dangerous means, the maximum sentence is 6 years.
- In Germany, severe destruction (such as by fire) of culturally or socially significant goods attracts a minimum sentence of one year, with the possibility of higher sentences in more serious cases.
- Moldova provides for the aggravation of punishment if the destruction is carried out due to prejudice or if it involves the death of a person.
- Germany emphasizes the protection of people's health who are present in the buildings at the time of the offense.

Conclusions. The legislation of the Republic of Moldova offers general protection against the destruction of goods, but does not specifically regulate cultural heritage within this article. However, other articles, such as the one dedicated to cultural heritage (Article 199¹), compensate for this gap. In Germany, the protection of cultural heritage is more indirectly addressed within articles related to destruction by fire, but the stricter sanctions and more detailed description of goods indicate a greater concern for their social and cultural importance.

„Article 222. Desecration of graves and monuments (1) Desecration by any means.. of a funeral monument or a public memorial....,	Natural person from the age of 16.	„They are punishable with a fine ranging from 750 to 950 conventional units, or with unpaid community service from 180 to 240 hours, or with imprisonment of up to 2 years.”	„Section 168. Desecration of graves (2) ... a person who destroys or damages an urn, a burial site, or a public place of commemoration of the dead, or a person who engages in insulting behavior in these places.,,	Natural person	„It is punishable by imprisonment for up to 3 years or a fine.”
„(2) The same actions committed: a) by two or more persons; b) for prejudiced reasons; c) causing significant damage.,,		„They are punishable with a fine ranging from 1050 to 1250 conventional units, or with unpaid community service from 200 to 240 hours, or with imprisonment from 1 to 4 years.”			
- Comparative analysis of the provisions regarding the desecration of graves and monuments in the Republic of Moldova and Germany, from the perspective of cultural heritage protection: - In the Republic of Moldova, Article 222 of the Criminal Code regulates the desecration of graves and monuments, including funerary monuments or public monuments. From a cultural perspective, public monuments can include cultural heritage items of significant value. The penalties are structured based on the severity of the actions:					

- ✓ Simple desecration:
 - Fine between 750 and 950 conventional units.
 - Unpaid community service (180-240 hours).
 - Imprisonment for up to 2 years.
 - ✓ Aggravating factors:
 - Actions committed by two or more individuals.
 - Motivated by prejudice.
 - Causing significant damage.
- Penalties: Higher fine (1050-1250 conventional units), extended community service, or imprisonment for 1 to 4 years.
- In Germany, Section 168 of the German Criminal Code protects urns, burial places, and public memorial sites against destruction, damage, or disrespectful behavior. Although it does not explicitly refer to cultural heritage, public memorial sites are often part of cultural heritage due to their symbolic and historical value. The sanctions provided: imprisonment for up to 3 years or a fine, without clear differentiation for aggravating circumstances.

Thus, we can establish some common aspects

Symbolic and cultural protection: Both legislations recognize the importance of graves and monuments as social and cultural symbols, even if the explicit cultural heritage component is not mentioned. Destruction or damage to them is considered a serious offense both ethically and legally. Combined penalties: Both countries apply penalties that may include imprisonment or fines, reflecting the moral and legal seriousness of the act.

However, there are also differences:

- In Moldova, the article includes references to "public memorials," which can include cultural heritage monuments, especially if they have recognized historical, artistic, or symbolic value.
- In Germany, although "public memorial sites" are mentioned, the focus is more on the commemorative significance than on the explicit cultural or historical value.
- Moldova provides more severe penalties for desecration committed by groups, for prejudicial reasons, or if significant damage occurs (up to 4 years in prison).
- Germany does not differentiate penalties based on aggravating factors, limiting the maximum punishment to 3 years of imprisonment.
- Germany explicitly includes disrespectful behavior in memorial sites, showing a cultural sensitivity towards such actions, even if they do not involve physical destruction.
- Moldova does not regulate disrespectful behavior, focusing only on destruction or damage.

Conclusions: In the Criminal Code of the Republic of Moldova, Article 222 is more general, but by including public monuments, it can also cover cultural heritage assets. However, further clarification is needed to explicitly protect this type of heritage. Section 168 of the German Criminal Code takes a broader approach to protecting memorial sites, including penalizing disrespectful behavior. Nevertheless, cultural heritage is not explicitly highlighted, and the penalties are less severe compared to those in Moldova. Overall, both legislations recognize the importance of protecting the symbolic value of graves and monuments, but Moldova has more severe penalties for aggravating acts, which may more effectively deter deliberate destruction of cultural heritage.

LEGAL AND ADMINISTRATIVE ACTS AS BASIS FOR REGISTRATION OF REAL ESTATE

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Abstract. *The article analyzes the legal and administrative acts that constitute the basis for the registration of real estate within the cadastral system. The study explores the types of acts that form the basis for the registration of rights to real estate, such as sales and purchase contracts, donation deeds, court decisions or administrative provisions. The legal and administrative procedures necessary for the validity of these acts are also examined, highlighting their essential role in ensuring legal security and clarity of property rights. The article provides a detailed analysis of how these acts contribute to the process of registering real estate and protecting the holders of real rights. The legal regime of real estate is based on the Civil Code of the Republic of Moldova[1], Law on the Real Estate Cadastre [2], Law on the Administration and Denationalization of Public Property [3], Land Code [4].*

Keywords: *sale and purchase contract, donation deeds, court decisions, administrative provisions.*

1. Introduction

The registration of real estate in the cadastral register is essential for legal and economic security in the Republic of Moldova, being important for the stability of property rights and the protection of citizens and investors. Aligning national legislation with European standards and clearly regulating the registration process become priorities, given the challenges related to restitution and real estate litigation. The topic is particularly relevant, underlining the need for a transparent and fair approach in the application of the rules, in order to prevent conflicts and legal uncertainty.

The main purpose of this paper is to examine the role of legal and administrative acts in the process of registering real estate, highlighting the applicable legal framework and identifying problems and solutions for optimizing procedures. The paper aims to deepen the understanding of the norms governing this area and to formulate recommendations for improving legislation and administrative practice.

2. General aspects regarding real estate rights in the Republic of Moldova

Real property rights are absolute legal rights that allow the holder to exercise direct control over an immovable property, excluding other persons from its use. They concern land, buildings and other immovable property, being opposable to everyone and protected by registration in the real estate publicity registers. The main purpose of these rights is to ensure the full and legal protection of the holder over the immovable property.

According to the Civil Code of the Republic of Moldova[1, art. 454], real estate rights are divided into two main categories:

- 1) **Main real rights:** which gives the holder complete or partial control over an immovable property. They allow the exercise of rights of use, possession and disposal over the immovable property. The main real rights are:
 - A. Property right – the most comprehensive and complete real right, granting the holder the fullness of prerogatives over an immovable asset. It allows the owner to use, reap the fruits and dispose of his asset freely, within the limits of the law. By using the asset, the owner can effectively use the land, building or any other real estate, either for housing, economic activities or for other purposes permitted by law. Also, the right to

reap the fruits gives him the opportunity to benefit from the products or income generated by the asset, such as agricultural crops or payment for rent. This right is considered supreme, because it brings together all the essential attributes of a real right and gives the holder full control over his asset. The right to property is guaranteed and protected both by the Constitution[5], as well as through special legislation, being enforceable against everyone.

B. Limited real rights (property rights dismemberment) – represent a category of real rights that restrict the exercise of the owner's property right. These rights confer certain prerogatives on another person over the real estate, without fully transferring all the attributes of the property. These include:

- Right of use: is the real right by which a person, called the usufructuary, can use another's real estate for personal interest, without having the right to reap the fruits of the property.[1, art.635].
- The right of usufruct: extends the holder's prerogatives compared to the right of use, giving him the right to use the real estate and to reap its fruits, whether natural, civil or industrial.[1, art.604].
- Easement: is a charge imposed on a property for the benefit of another property belonging to another owner. Classic examples include easements of passage, which allow a person to cross another's land to access their own property.[1, art.639].
- Mortgage right: is a real security right through which a creditor can request the forced execution of a debtor's property to recover his debt if it is not paid.[1, art. 671, paragraph (2)].

2) **Accessory real rights:** are those rights that depend on the existence of a main obligation and that have the purpose of guaranteeing its fulfillment. They are accessory in the sense that they cannot exist independently, but are linked to the main obligation, having the purpose of protecting the interests of the creditor in the event of non-performance of the obligation by the debtor[1, art. 467, paragraph (3)]The main types of accessory real rights are:

- Mortgage: is the most common accessory real right and consists of a security interest in an immovable property, established in favor of the creditor to ensure the performance of an obligation. In the event of non-performance of the obligation, the creditor may initiate the forced execution procedure, selling the mortgaged property to recover the debt.
- Antichreza: is a less common real right, through which the debtor cedes possession of an immovable asset to the creditor, the latter having the right to use the asset and harvest its fruits to cover his debt.

Real estate is an essential concept in civil law.[1, art.459], being the subject of complex legal relations that include real rights such as ownership, easements, usufruct or mortgage. In the legislation of the Republic of Moldova, immovable property benefits from a specific legal regime, distinct from that of movable property, being subject to special rules regarding acquisition, alienation and registration. These procedures are regulated and managed through the Real Estate Registry[2, art.22], administered by the Public Services Agency.

According to the Civil Code[1, art.460], the following categories of goods are considered immovable property:

- a. Land: includes all land areas, regardless of their destination (agricultural, forestry, construction, etc.), being classified as immovable property.
- b. Buildings and structures: any building, dwelling, industrial or commercial construction that is permanently fixed to a plot of land and cannot be moved without damage is considered immovable, being inseparable from the land on which it is located.

- c. Plantations and other works permanently attached to the ground: land improvement works, such as agricultural or forestry plantations, fall into the category of immovable property because they are attached to the land and lose this quality if they are detached.
- d. Real rights over real estate: not only material objects, but also the rights deriving from them, such as easements or mortgages, are included in the scope of real estate[6].

Immovable property is characterized by distinct features that differentiate it from movable property:

1. **Fixity**– real estate is permanently attached to the ground, and moving it involves damage or destruction. This characteristic provides stability to the legal relations associated with real estate and requires the application of a special publicity regime, through registration in the Real Estate Register.
2. **Special formalities for alienation**– the transfer or alienation of immovable property requires compliance with specific procedures, such as the drawing up of notarial deeds and registration in public registers. These requirements give immovable property a certain temporary inalienability, unlike movable property, which is more easily transferred.
3. **Real estate advertising**– any rights or encumbrances encumbering an immovable property must be registered in a public register. In the Republic of Moldova, the Real Estate Register, managed by the Public Services Agency, ensures transparency and legal protection of real rights over these properties.
4. **Opposability erga omnes**– rights over immovable property become enforceable against all third parties once they are registered in the public register. This allows any interested person to verify the legal situation of the property, including the existence of encumbrances or mortgages affecting it.

The registration of real estate in the cadastral register of the Republic of Moldova plays an essential role in ensuring legal and economic security. It officially confirms the real rights over real estate, guaranteeing the protection of property and its enforceability against third parties. The cadastral register facilitates the transparency of real estate transactions, the prevention of conflicts and access to clear information about the legal status of assets. At the same time, registration contributes to economic development, providing a secure framework for investments and real estate transactions[7].

3. Legal documents as a basis for registering real estate

Legal documents are a foundation of the real estate registration process, playing an essential role in ensuring legal security. Through legal documents, real rights over real estate are officially recognized, transferred or modified, providing legal certainty to the parties involved.

The sale and purchase contract is the most common legal instrument used for the transfer of ownership of real estate. According to the Civil Code of the Republic of Moldova [1, art. 1108], it represents the agreement by which the seller undertakes to transfer the ownership of an immovable property to the buyer, in exchange for a sum of money established by mutual agreement.

The main features of this type of contract include:

- 1) **Obligation to transfer ownership**: the seller has the responsibility to transfer ownership, and the buyer must pay the agreed price.
- 2) **Subject of the contract**: the asset sold can be any real estate, such as land, buildings or other constructions permanently fixed to the ground.
- 3) **Authentic form**: the contract must be concluded in authentic form, before a notary public, in order to be valid and to be registered in the cadastral register.
- 4) **Registration**: the transfer of ownership becomes effective and enforceable against third parties only after the contract is registered in the Real Estate Registry. Until then, the contract is effective only between the parties involved.

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- 5) **Seller's guarantees:** the seller is liable for eviction (loss of property due to a superior right) and for any hidden defects of the real estate.

Through these characteristics, the sale-purchase contract provides the parties involved with the legal certainty necessary for the transfer of rights to real estate.

In addition to the sale-purchase contract, there are other types of legal acts that can lead to the transfer of ownership of real estate, each with specific characteristics and purposes:

- 1) **Donation contract**[1, art. 1198]: is an act by which the donor transfers the ownership of an immovable property to the donee, without receiving any consideration. This contract, similar to the sale-purchase contract, must be notarized and registered in the Real Estate Registry in order to produce legal effects. The donation may be revoked in special cases, such as ingratitude of the donee, according to legal provisions.
- 2) **The exchange contract**[1, art. 1195]: involves the parties transferring ownership of real estate to each other. As with other real estate contracts, the authentic form and registration in the cadastral register are mandatory. It is frequently used to make transfers between real estate of comparable value or utility, without involving money.
- 3) **Succession contract:** this type of agreement allows the transfer of real estate to another person, usually after the death of the owner, being a complementary contractual option to testamentary inheritance.
- 4) **Life annuity contract**[1, art. 1222]: through this contract, the annuity debtor undertakes to support the annuity creditor for the latter's entire life, in exchange for the transfer of ownership of a real estate asset. It is often used in the case of elderly people who transfer property in exchange for material and personal support during their lifetime.
- 5) **Lifetime maintenance contract**[1, art. 1213]: similar to a life annuity, but with the specific feature that the ownership right is transferred to the maintenance debtor only after the death of the creditor. This contract is frequently used in the context of intergenerational housing transfers.
- 6) **Share capital contribution contract:** it allows the transfer of ownership of real estate to a commercial company, as part of the owner's contribution to the company's share capital. In return, the owner receives shares or shares in the company.

These types of contracts offer a variety of legal options for transferring ownership of real estate, adapted to various situations and practical needs.

The transfer of ownership of real estate can take place not only through sale-purchase contracts, but also through other legal acts, such as donation, inheritance or partition, each of which has specific characteristics and is regulated by the Civil Code of the Republic of Moldova. These modalities involve different procedures, free of charge or within the framework of succession or division of property.

- 1) **The donation**[1, art. 1195]: involves the free transfer of ownership from the donor to the donee. It must be notarized and registered in the Real Estate Register to be enforceable against third parties. It is, in principle, an irrevocable act, but can be revoked in cases such as the donee's ingratitude or failure to meet the imposed conditions. It is often used to transfer real estate, such as land, houses or apartments, to close people.
- 2) **Legacy**[1, art. 2162]: The transfer of property by inheritance takes place after the death of the owner and can be:
 - Legal, when the assets are distributed according to the order established by law among the relatives of the deceased.
 - Testamentary, when the owner disposes through a will on how the assets are divided.

Important aspects of inheritance are:

- The heir certificate, issued by the notary, is necessary to confirm the rights of the heirs.
- The registration of inherited assets in the cadastral register is mandatory for enforceability.

- In the event of a plurality of heirs, the assets may be divided by voluntary agreement or by court decision within the framework of a division of the estate.
- 3) **division** is the process of dividing a real estate asset between several people who have joint rights over it. It frequently occurs in cases of inheritance or in the division of joint assets acquired during marriage. Types of partition are:
 - a. Voluntary partition: achieved by agreement of co-owners or heirs. It can be done by dividing assets in kind or through financial compensation and requires notarial authentication.
 - b. Judicial partition: occurs when the parties do not reach a consensus. The court determines the method of division, either by division or by selling the assets and dividing the proceeds. The characteristics of partition deeds are:
 - It can target any real estate owned in co-ownership or included in the estate.
 - Voluntary partition deeds or court decisions must be registered in the Real Estate Registry for enforceability.

Partition ensures the clarification of rights over real estate and allows for their individual exercise.

Lease and rental agreements are legal documents by which the owner of a real estate asset cedes the right to use it to another person, in return for a periodic payment, without transferring ownership. Although both involve renting, they differ in their object and legal specifics.

- 1) **Lease agreement**[1, art. 1288]: applies especially to agricultural land, pastures or other immovable property intended for economic activities. It is concluded for a fixed period, and payment can be made in cash or in kind (e.g. crops). It must be concluded in writing and registered if the lease is long-term. The lessor is responsible for handing over the property in a suitable condition, and the lessee must use the land according to its intended purpose and maintain it.
- 2) **Lease agreement**[1, art. 1251]: refers to real estate such as housing, commercial premises or non-agricultural land. It is similar to a lease, but the payment is usually made in money (rent), and the duration is established by the parties. The tenant must maintain the property and pay rent according to the agreement, and can sublease the property, but this requires the consent of the landlord.

The main differences between lease and rental are:

- Object: the lease mainly concerns agricultural land, and the lease concerns real estate for housing or commercial activities.
- Duration: the lease has a minimum duration established by law, while the lease is more flexible.
- Payment: rent can be paid in kind, and the lease in cash.
- Purpose: Lease focuses on economic use, while lease focuses on residential or commercial use.

4. Relevant administrative acts for the registration of real estate

Title deeds are official documents issued by public authorities that certify a person's ownership of an immovable asset, such as land, housing or buildings. In the Republic of Moldova, title deeds are essential for the stability and legal certainty of property rights, providing the legal basis for registering the asset in the Real Estate Register and for the enforceability of this right against third parties.[2, chapter IV] Types of property titles issued by public authorities in the Republic of Moldova:

- 1) Titles issued under land reform - results of the post-independence agrarian reform.
- 2) Property certificate for privatized housing - obtained through the privatization of housing from the state.
- 3) Property title issued following inheritance - heir's certificate.
- 4) Partition deed - issued after the division of real estate between heirs or spouses.

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- 5) Property title issued by city halls - for land belonging to the public or private domain of administrative units.

The issuance of property titles involves a series of administrative procedures that ensure the legality and compliance of the issued documents:

- 1) Submitting the application to the competent authority.
- 2) Verification of documents and legal status of the property.
- 3) Issuance of the property title.
- 4) Its registration in the cadastral register.

The role and importance of property titles are:

- Legal security - ensures clarity and stability of property rights.
- Opposability to third parties - only persons with registered title to the property can claim the right to the property.
- Facilitation of real estate transactions - sales, donations, mortgages, etc., are only possible for holders of clearly defined property titles.

In the Republic of Moldova, the restitution and restitution of immovable property are processes by which local or central authorities restore property rights lost or abusively affected in previous historical periods, such as confiscations or nationalizations during the Soviet period. These processes aim to repair and reconstitute the property rights of those who have suffered abuses in the past.

Restitution involves the return of an immovable property to the original owner or his heirs, when the property was taken against the will of the owner, abusively. Restitution, on the other hand, may include not only the return of the immovable property in kind, but also compensation for it with immovable property or sums of money, if physical restitution is no longer possible. Local authorities have a key role in the restitution process, their responsibilities including:

- 1) Receiving and evaluating applications – affected persons submit applications accompanied by documents proving the original ownership.
- 2) Issuing the restitution or restitution decision – the authorities decide whether the property can be restituted or if compensation is granted.
- 3) Publicity of the decision – decisions must be published and communicated to allow them to be challenged in court.
- 4) Property dispute resolution – mediating disputes between those who claim property and those who legally own it.

The process takes place in several stages:

- 1) Submitting the request for restitution/restitution to the local authorities.
- 2) Verification of application and documents.
- 3) Issuance of the restitution or compensation decision.
- 4) Possibility of challenging the decision in court.

In the Republic of Moldova, building permits and urban planning certificates are essential documents in regulating the construction and development of real estate. They are issued by local authorities and guarantee compliance with legal and urban regulations in the construction process. Without obtaining them, construction works are considered illegal.

Urban planning certificate is the first step in any construction or modification project for a property. It provides essential information about the legal and urban planning regime of the land or property in question, including possible restrictions and construction conditions. The urban planning certificate also establishes the documents required to obtain a building permit and specifies whether the land is located in a protected area or with a special regime.

Building permit is the document that formally approves the execution of construction, reconstruction or modification works on a building, in accordance with the legislation and the urban planning certificate. It legalizes the construction works and ensures compliance with urban and technical regulations, thus protecting both public interests and the safety of the buildings. Without authorization, any work is considered illegal and can be sanctioned.

The procedure for obtaining these documents involves submitting an application to the local authorities, followed by verification of documentation and issuance of the appropriate certificates and permits. The urban planning certificate is valid for a limited period and does not grant the right to start construction, but only the right to obtain the permit. The building permit, on the other hand, allows the actual start of work and is valid for a specified period, with the possibility of extension.

The differences between the two documents are clear: the urban planning certificate informs about the construction conditions, while the building permit allows the actual start of works, in accordance with the approved project and established regulations.

These documents play an important role in managing urban development, protecting built heritage, ensuring construction safety and promoting the harmonious development of urban areas. They help avoid conflicts, ensure compliance with technical standards and protect historical or ecological areas, guiding development towards sustainability.

The procedure for registering real estate in the Real Estate Registry involves several essential legal steps:

- 1) **Submitting the application:** the owner or authorized person submits an application to the territorial cadastral office, accompanied by the necessary documents (property deed, identity documents, cadastral plans, etc.). The most important document is the deed that certifies the ownership right over the real estate, and these can be:
 - sales and purchase contract
 - donation contract
 - heir certificate
 - final and irrevocable court decision
 - other acts of transmission of ownership: such as the act of partition or exchange
- 2) **Document verification:** the cadastral authorities verify the authenticity and conformity of the documents submitted.
- 3) **Registration in the Registry:** after verification and validation of the documents, the real estate is registered in the Real Estate Registry, and the owner receives a certificate of ownership.
- 4) **Publication of information:** registered details are made public to ensure transparency and protection of property rights.

The registration of real estate in this register ensures legal protection of the right of ownership and constitutes official proof thereof.

5. Conclusion

In conclusion, real property rights in Moldova are regulated by a specific legal framework, which ensures protection and clarity regarding the ownership and use of real property. Legal acts are essential for the registration of movable and immovable property, as they constitute the legal basis for the transfer of property rights and for other acts of disposal over the respective property. Relevant legal acts for the registration of movable property include contracts of sale and purchase, donation, exchange, as well as other documents establishing real rights over property. As for real property, registration is based on administrative and legal acts such as contracts of sale and purchase, lease, donation, or others involving real property. Relevant administrative acts, such as certificates of ownership, decisions of local authorities, court decisions, and others, are essential for validating and evidencing rights over real property. Thus, the entire legal process of registration is essential for ensuring the protection of property rights and for preventing conflicts related to real property and movable property in the Republic of Moldova.



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THE LEGAL LIABILITY IN CASES OF WORKPLACE ACCIDENTS

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Abstract. *The article addresses a real and current issue with multiple implications both in the field of labor relations and in the social sphere, namely workplace accidents, placed in the context of the field to which the security and health of employees at work belong. The primary role of legal norms regarding occupational health and safety is to prevent workplace accidents, and legal practice has shown that most of the time, a workplace accident occurs due to ignorance, non-compliance, or failure to apply these norms. Thus, it is normal that, in this area as well, legal liability is incurred when these norms are violated.*

The research promotes a series of modern solutions, both legally and organizationally, by presenting solutions and procedures to prevent workplace accidents and reduce the consequences they may cause.

Keywords: *workplace accident, occupational safety and health, employer, employee, legal liability, patrimonial legal liability, etc.*

1. Introduction. Ever since the end of the 17th century, the industrial revolution generated a series of negative effects on the environment and implicitly on the working conditions in which the employees worked. Namely, the fact that the work accident is a complex event determined by the imbalances that appear between the elements that make up the work process - namely the employee, the activity carried out by him, the products and raw materials, the machines, the work environment, etc. - the occurrence of such an event cannot be completely eliminated, but it can be prevented and its effects reduced by adopting some security measures.

Legal liability represents an important aspect of the occupational safety and health institution in terms of the motivation to comply with the occupational safety and health norms. First of all, legal liability in this field primarily has a preventive role [1, p. 343].

Occupational health and safety policy is not only a matter of implementing laws, regulations, it is important that the regulatory act is applied at the workplace level. But, in order to improve working conditions and reduce accidents and occupational diseases, it is necessary to combine legal measures with a variety of tools such as: social dialogue, good practices, awareness raising, economic incentives and corporate social responsibility [2, p. 78-79].

Every day more than 1 million people are victims of work accidents, of which 7,500 resulting in the death of the victims, which means that every year, there are around 402 million work accidents, of which approximately 2,78 million are fatal. In the Republic of Moldova, there is an upward trend in the number of work accidents from 317 in 2016 to 607 in 2023 (Figure.1).

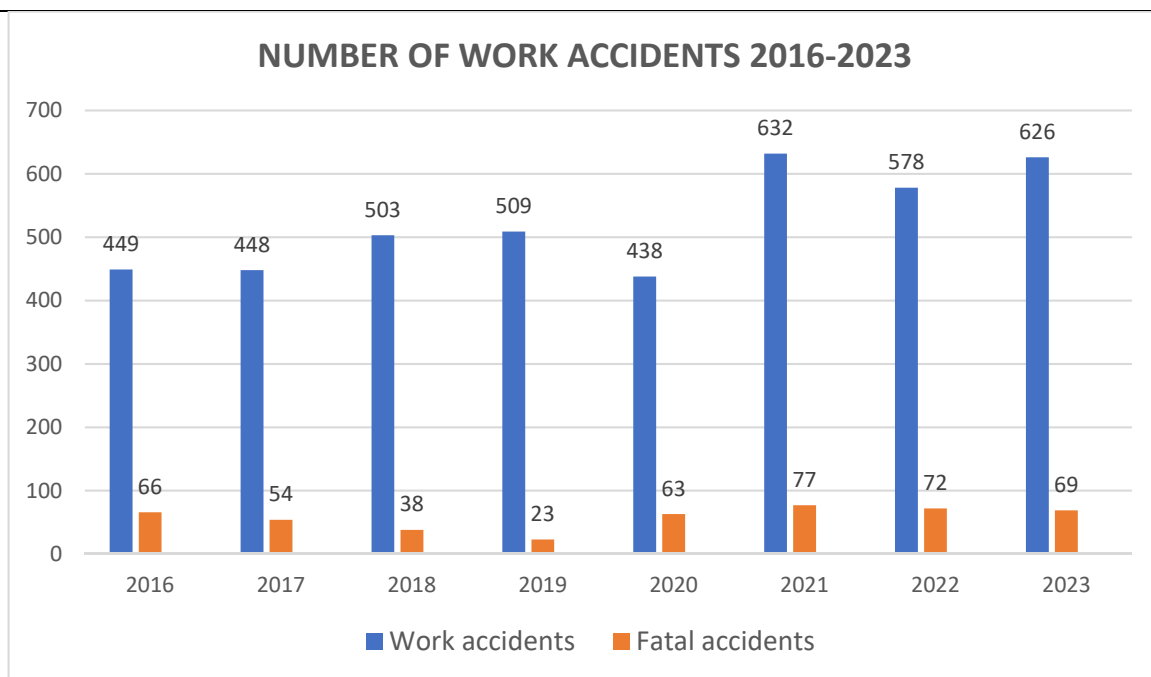


Figure 1. Number of work accidents 2016-2023

Ostensibly, occupational accidents represent an aspect of chance or a decision of fate. In reality, however, they occur due to the failure to prevent risks at work, the failure to take all measures to reduce or remove them, but also due to the violation of legal provisions in the field of safety and health at work. Thus, work accidents occur through the action of two elements: a dangerous material object and human error. Avoiding the incidence of the two elements represents the work accident prevention activity.

Considering that the employer is responsible for the safety and health of his employees, but also the fact that he bears a large part of the cost and the consequences of work accidents, he must identify and evaluate the risks at the workplace and take the necessary measures to prevent work accidents.

Through measures to prevent work accidents, the work environment and the lives of employees are significantly improved. At the same time, the investments made by the employer in this field lead to higher productivity and performance at the enterprise level, and at the society level, to increased competitiveness.

2. The accident at work. The notion of work accident is defined in point 3 of the Regulation on the manner of investigation of work accidents, no. 1361 of 22.12.2005, „an event that caused violent injury to the employee's body (injury, psychological stress, electrocution, burn, frostbite, asphyxiation, acute intoxication, body injuries caused by insects and animals, natural calamities, etc.), following the action of risk factors during work and which led to the temporary or permanent loss of work capacity or the death of the employee”[3].

The current doctrine, including from the Republic of Moldova, states, we also agree with this statement, that in the notion of work accident, there are also some new elements: namely, the possibility of qualifying the employee's injury, caused by the mental accident, as a work accident [4, p. 626; 5, p. 218; 6, p. 378]. We consider the modification of this concept very welcome and necessary, because it has already been established that emotional problems, arising at the workplace, emotional tensions of employees or conflicts between employees, including mobbing, are the most frequent causes of loss of work capacity. We mention the fact that in the recent evolution of jurisprudence, work accidents and cases of employees suffering from depression due

to moral harassment by the employer (moobing) qualify as work accidents. Regarding these psychological risks, at the level of the employer, measures should be adopted prevention that could involve the implementation of a management of these psychosocial risks, an approach to solving health and safety problems and continuous improvement of the activity and working conditions in this sense.

Accidents and occupational diseases have a negative impact on production, social life, productivity, benefits, etc. The European Agency for Health and Safety at Work (EU-OSHA) provides information on health and safety at work and develops recommendations for their prevention. The starting point in the optimization of the activity to prevent milk accidents and occupational diseases is the risk assessment.

After the adoption of the European Framework Directive (1989), risk assessment has become a familiar concept for organizing forest loss prevention and hundreds of thousands of farmers throughout the European Community assess their risk regularly. It emphasizes the essential role played by risk assessment and establishes fundamental provisions that must be followed by the employer.

Standards CEI 812/1985 [7] define the risk as the probability of producing an injury or condition of the human body with a certain severity and frequency of accidents.

The standard EN ISO 12100-1:2003 (formerly EN 292-1) [8], reflects the evaluation actions with risk quantification parameters, the severity and the maximum predictable frequency of the impact of risk factors on the human body.

The assessment of risk factors is a measure imposed by the national legislator, namely according to art. 10, para. (4), letter a) from the Law on Security and Health nr. 186-XVI of 10.07.2008 without affecting the other provisions of this law and taking into account the nature of the activities in the unit, the employer is obliged to evaluate the professional skills, especially when choosing the equipment cleaning, of the substances or chemical preparations used, as well as in the arrangement of the pastures.

As a rule, the work accident is characterized by three elements, namely: - it is a sudden, unexpected, spontaneous event; - results in an injury/bodily injury; - is a work-related event.

Spontaneity represents an essential criterion of the notion of work accident, allowing the differentiation of work accident from occupational disease [9, p. 219].

Injury/bodily injury it considers not only the injuries suffered immediately or in a time interval close to the action of the event, but also the subsequent complications.

The work-related even twitch meets two components, namely the existence of a subordination relationship between the employee and the employer at the time of the accident; and occurrence of the accident during and at work.

3. Legal liability in case of work accidents.

In accordance with art. 9 para. (1) of the Law of the Republic of Moldova no. 186-XVI/2008 [10], the employer bears responsibility for organizing and ensuring the safety and health at work of workers in all aspects related to the activity carried out. At the same time, in the local doctrine it was shown that in this matter other legal prescriptions Standard-EN ISO 12100-1:2003 must be observed. Car security. General design principles. Assessment and reduction of risks [4]: a) the employer is not exempted from his responsibilities in the stated field if he calls on external protection and prevention services (art. 9 para. (2) of the Law of the Republic of Moldova no. 186-XVI/ 2008); b) the consecration and existence of the obligations of workers in the same field, safety and health at work do not affect the principle of the employer's responsibility (art. 9 para. (3) of the Law of the Republic of Moldova no. 186-XVI/2008) [9].

In this field, any violation of OSH rules, regardless of whether or not a work accident occurred, in relation to the violated rules, the type of act committed, the injured person and the nature of the damage caused may occur: *disciplinary liability, patrimonial (material) liability, administrative liability and criminal liability.*

Disciplinary liability. The production of work accidents can be caused by the actions of the victim or by the actions of other employees. At the same time, the risk of these accidents can be generated by the non-fulfillment by employees with responsibilities in the field of OSH, of their obligations, but also by other employees who have specific obligations related to the performance of certain activities and the use of certain equipment [11, p. 486-487].

Art. 9 para. (2) letter e) and g) of the Labor Code of the Republic of Moldova [12] and those contained in art. 19 of the RM Law no. 186-XVI/2008 [10], confirm and concretize the employee's obligation to comply with the safety and health requirements at work.

Violation of these work obligations by the employee may attract his disciplinary liability, and in the event of a labor conflict, the court will verify the fulfillment of the conditions of disciplinary liability.

Disciplinary sanctions are applied taking into account the seriousness of the deed, the circumstances in which it was committed, the degree of guilt of the employee, if he has committed misconduct in the past, the employee's conduct, as well as their consequences. The investigation commission of a work accident can make proposals for disciplinary sanctions, proposals that will be mentioned in the investigation minutes drawn up by it. The sanction of termination of the employment contract can be applied even at the first violation if the violation of OSH rules is a serious one. And in the case of this form of legal liability, the existence of an illegal act is necessary, being an essential condition for the existence of disciplinary liability. The illegal act consists in violating the legal norms, the internal regulation, the individual or collective labor contract, the orders and legal provisions of the superior hierarchical leaders.

At the same time, we mention that according to art. 12 para. (4) letter b) and c), para. (5) and art. 20 of the Law of the Republic of Moldova no. 186-XVI/2008, disciplinary liability is excluded if the worker, in the event of a serious, immediate and unavoidable danger, leaves the workplace or a dangerous area, or if he refuses motivated to resume work in the event that at the workplace the serious and immediate danger still persists. Likewise, the worker's refusal to perform work in the event of a danger to his life or health cannot be recognized as the basis of the worker's disciplinary liability.

Material (patrimonial) liability. An aspect that requires some clarification consists in determining the legal nature of material liability in labor law. Analyzing the opinions from the specialized literature [13, p. 770-77] specifically under the aspect of comparative law, two categories of attitudes can be seen: the first in which the reparative liability between the parties to the individual employment contract is that of common (civil) law. A second attitude, which comes from socialist regimes, which still preserves reparative liability between the parties to the individual employment contract as a special form of legal liability in labor law, namely material liability.

We can firmly state that regarding remedial liability in labor law there is a great diversity of regulations, the solutions adopted being very diverse from one country to another. In such conditions, we cannot speak of the formation of a general trend of action in the matter, not even with regard to the states of the European Union.

This variety of regulations in the field is due, first of all, to the fact that there is no common regulation in the matter even within the norms of the International Labor Organization.

The adoption of a convention within the IOM regarding the reparative liability of the parties to the individual contract is possible and even desirable, namely in order to achieve a harmonization of the legislation of the IOM member states in the material of patrimonial liability. And this will also bring a benefit in terms of patrimonial liability in the field of occupational health and safety violations.

The author A. Țiclea mentions that patrimonial liability in labor law is „a form of legal liability for damages, specific to labor law, which consists in the obligation of the employee or, as the case may be, the employer to cover the damages caused to the other party in the execution of the individual employment contract” [14, p. 28]. This liability is always remedial identical to civil,

contractual or tort liability. The liability is patrimonial because the party guilty of causing damage to the other will be obliged to cover that damage, reintegrating the affected patrimony with the goods belonging to his patrimony. [14, p. 821].

Over time, establishing the legal nature of the obligation of the employer where the victim of a work accident works has been the subject of several theories in the legal literature. Courts have also given different solutions depending on the opinions adopted.

Thus, it was argued that the nature of this liability is delictual, as it refers not only to employed persons, but also to those who do not have this capacity (students in practice, delegated persons, etc.). The legal foundation of the theory of the employer's responsibility in the case of the work accident was first revealed by the classical understanding of the responsibility arising from the texts of the civil codes. According to the principles of common law, there is no responsibility, unless there is proven or presumed subjective fault on the part of the employer, the idea of fault being a moral one that measures responsibility. According to this theory, whenever the worker is the victim of a work accident, he will not be able to obtain an indemnity/compensation from the employer, only by proving his fault. The employer is not, therefore, responsible for the damage suffered by the employee due to the fault of the latter or due to a fortuitous event or force majeure, or from the inherent risks of work [15, p. 131] However, many times the victims of the work accident could only very rarely prove the fault of the employer. This system of employers' responsibility was unfavorable not only for the worker, but also for the employer, especially in the case of serious accidents, which could not be foreseen.

In another opinion, it was considered that the liability of the unit for damages caused to the victims of work accidents is of a contractual nature, since the accident is related to the work process, carried out under an employment contract. According to this theory, the contract between the employer and his employees determines for each of them some obligations that do not consist only in the provision of services and the payment of wages. Thus, the employment contract obliges the employer to ensure the safety of the employee and to take all measures to protect him from accidents.

According to another opinion, the employer's liability towards the injured person as a result of an accident can be, depending on his legal status, either delictual or contractual.

A theory regarding accidental work is the occupational risk, namely, the employee, through the profession he exercises, is exposed to numerous risks at his workplace. The one who must cover these risks is the employer. This idea of professional risk was considered to be the general foundation of the system of responsibility, and implies an obligation on the employer, in exchange for the profit made.

Currently, patrimonial liability in the matter of work accidents operates according to the regulations provided by art. 2028 para.(1) Civil Code of the Republic of Moldova, according to which, *in case of injury to bodily integrity or other injury to health, the author of the injury has the obligation to compensate the injured person for the lost salary or income due to the loss or reduction of work capacity, as well as expenses incurred in relation to health damage – treatment, supplementary nutrition, prosthetics, foreign care, purchase of special vehicle, recycling professional, for sanatorium treatment, including the cost of the sanatorium sheet, the cost of the round-trip ticket, including for an accompanying person if necessary, etc.* At the same time, *when determining the unearned salary (lost income), the invalidity pension, established to the injured person in connection with the injury to the bodily integrity or another health injury, nor any other allowance or amount, paid on the social insurance line, are not taken into account* state art. 2028 paragraph (3) Civil Code of the Republic of Moldova [16].

The legal liability of the employer for the damage caused to the employees' health takes the form of a tortious civil liability for which the existence of the following general conditions is required: 1) the existence of an illegal act, mean an action or inaction that results in the indication of subjective rights or legitimate interests of a person. The illegal nature of the employer's act consists in creating harmful working conditions, in non-compliance with health and safety rules at

work, in not ensuring work hygiene; 2) the existence of a prejudice that resides in the negative consequence suffered by a person through injury to bodily integrity or through other injury to health or through death due to the illegal act committed by another person; 3) the causal link between the illegal act and the damage, that is, the damage caused to health is a consequence of the illegal act. The causal relationship between the wrongful act of the perpetrator of the injury and the health injury results in the loss of the injured person's ability to obtain income; 4) the existence of the guilt of the person who committed the illegal act [1, p. 344-345].

However, we agree with the opinion that liability for damages in the case of work accidents is of a contractual nature, considering the provisions of point 4 of the Decision of the Plenum of the Supreme Court of Justice of the Republic of Moldova no. 6/2005 „Regarding the practice of the application by the courts of the material legislation on the collection of damage caused by injury to bodily integrity or other injury to health or by death” [17] for the occurrence of civil liability of the employer for the damage caused to the health of employees are necessary, apart from the general conditions and some special conditions: a) at the time of causing the damage, there must be employment relations between the employer and the employee; b) the damage was caused to the employee during and in connection with the performance of work obligations. At the same time, it is necessary to specify that the injury to the employee's health is considered to have occurred in connection with the performance of service obligations if this is the result of the employer's production activity and occurred in the place where the employer was obliged to ensure harmless working conditions, especially on the territory of the unit, regardless of whether the damage was caused to the employee at work, during the execution of service obligations, or in other circumstances; outside the territory of the unit, but during the execution of service obligations if the employer was obliged to ensure harmless working conditions; during the journey from home to work and inverse with the employer's means of transport.

We consider, thus, that the source of legal liability in the case of work accidents is the employment contract as defined by art. 45 Labour Code of the Republic of Moldova [12] and that the accident is related to the work process, carried out under this contract. Thus, occupational health and safety is the responsibility of the unit, and it undertakes to cover any damages caused to persons, victims of an occupational accident.

However, the current regulation also provides for tortious civil liability, based on article 2028-2029 of the Civil Code of the Republic of Moldova [16].

In conclusion, the patrimonial (material) liability of the employer in the case of work accidents presents, based on the current legislation, the following features:

- *it is an objective liability*, because the behavior of the employer is related to that of the ideal employer;
- *it is a liability of a mixed nature*, mainly contractual, based on the employment contract, and subsidiarity, it has a delictual nature for the difference between the full damage and the part covered by the insurance;
- *thesis of the security clause* in the content of the individual employment contract [18, p. 165]

The most frequently encountered labor conflicts regarding OSH obligations are those in which the employee seeks to attract the employer's patrimonial liability for the material or moral damage caused by a work accident of which he was a victim as a result of the employer's failure to comply with these obligations as entity, through its management bodies or through the persons responsible for taking and complying with the appropriate measures [11, p. 442]. Litigation regarding work accidents involves extensive evidence, which often involves technical knowledge and the need to carry out specialized expertise. Establishing the concrete manner of the occurrence of the work accident is important for verifying the fulfillment of legal obligations and thus, establishing the employer's liability.

Contraventional liability. Contraventional liability is a form of legal liability, specific to administrative law, and consists of an activity of applying contraventional sanctions to persons

guilty of violating the legal provisions that contraventions provide for and sanction [18, p. 169]. Having a lower degree of danger than the crime, it can also intervene in case of violation of OSH rules. However, specific to the OSH field is the fact that contraventional liability can only be applied to employers.

Violations of OSH rules are provided for in particular by Contravention Code no. 218/2008 [19] in art. 55³, namely para. (1) provides that the violation by the employer of the legislation on safety and health at work is sanctioned with a fine of 100 to 200 conventional units applied to the person with a responsible position, with a fine of 250 to 400 conventional units applied to the legal person.

According to art. 55³ para. (2) the same violations committed against the minor are sanctioned with a fine of 240 to 300 conventional units applied to the person with a responsible position, with a fine of 400 to 500 conventional units applied to the legal person.

In the same way, failure to ensure communication, research, records and reporting in the established manner of work accidents produced in the economic unit or the change in the actual state resulting from the occurrence of a work accident, except in cases where the maintenance of this state may generate other work accidents or may endanger the lives of the injured or other persons, shall be sanctioned with a fine of 300 to 400 conventional units applied to the person responsible.

➤ The contraventional sanction is applied by the labor inspectors following the checks carried out and the finding of the existence of the contravention. The contravention is noted in a report, which also mentions the sanction applied in the form of a fine. The fine is established within the limits provided by art. 55³ Contravention Code of the Republic of Moldova, taking into account the circumstances in which the act was committed, the degree of danger, if the employer has been previously sanctioned, the type of rule violated, etc. Thus, the contraventional facts are provided with their specific elements: object, subject, objective and subjective side and which must be met cumulatively for there to be a contravention [9, p. 318].

➤ *Criminal liability.* We must mention that the relation between the notion of occupational safety and health offense and that of occupational accident is not an identity relation. Any work accident can find its cause in a criminal act, but it can also be generated by a complexity of extra criminal acts [20, p. 112].

Thus, art. 183 Criminal Code of the RM[21] regulates violation of labor protection rules: *(1) Violation by a person with a responsible position or by a person who manages a commercial, public or other non-state organization of safety techniques, industrial hygiene or other labor protection rules , if this violation caused accidents with people, is punishable with a fine in the amount of 550 to 850 conventional units or with unpaid work for the benefit of the community from 100 to 200 hours, or up to 2 years in prison.*

(2) The same action that recklessly caused the death of a person is punishable by imprisonment from 2 to 6 years with the deprivation of the right to hold certain positions or to exercise a certain activity for a period of up to 3 years.

The above-cited article (183 of the Criminal Code of the Republic of Moldova) regulates the criminal penalty for violating labor protection rules, but does not regulate any criminal penalty for the crimes of not taking safety and health measures at work. Due to the fact that in the Republic of Moldova we witness an increase in work accidents, of which an impressive number of accidents result in the death of employees, it is necessary for the legislator to provide for this type of crime.

According to the *ferenda law*, we recommend that the Criminal Code of the Republic of Moldova be supplemented with article **183¹ Failure to take safety and health measures at work.**

So, in order to reduce work accidents, the Criminal Code should provide for two categories of offenses against OSH:

1. Crimes of not taking safety and health measures at work;
2. Offenses of failure to comply with the measures taken

Also the norm of art. 183 of the Criminal Code of the Republic of Moldova is flawed from a terminological point of view, because the law of the Republic of Moldova, no. 625 regarding labor protection from 02.07.1991[22] which provided for the term (syntagma) of *labor protection* was repealed by Law no. 280-XVI of 17.02.2007. Starting with 10.07.2008, Law no. 186 on Occupational Safety and Health, in which the term *Occupational Safety and Health* (OSH) is used, which means - a set of activities, measures, procedures, means, equipment, installations, measuring and control devices to ensure the best working conditions, to protect the life, health and physical and mental integrity of workers (art. 1). This law transposes the Council Directive of 12 June 1989 on the implementation of measures to promote the improvement of the safety and health of workers at work (89/391/EEC) [23].

So, by the *ferenda law*, we propose to replace the phrase „*violation of labor protection rules*” with the phrase „*violation of Occupational Safety and Health*”, following the repeal of the law on labor protection and the adoption of the law on Occupational Safety and Health.

4. Conclusions

In conclusion we can say that work accidents are of great interest, given the serious consequences they generate on anatomical-functional integrity and socio-economic relations. We can appreciate that currently the Republic of Moldova has legislation in the field of OSH in accordance with the European regulations in this matter, through the transposition of the Directives specific to the field, however, the legislative framework must be improved through actions of public institutions, employers and employees, as well as first legislative amendments or additions.

The use of economic incentives (tax incentives, occupational accident insurance incentives, non-financial incentives) is a useful way of getting employers to go beyond the minimum legal requirements and invest in OSH, here we consider ways to reward employers who invest in occupational health and safety. Studies show positive effects of the implementation of economic incentives on the improvement of safety and health at work. The Republic of Moldova has not adopted any system of economic stimulation in the field of OSH.

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JUSTIFIABLE PREVENTION OF NON-EXECUTION OF CONTRACTUAL OBLIGATIONS

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Abstract. *The purpose and relevance of the present article leads us to state that force majeure or, more recently, the justifying impediment for non-execution of contractual obligations, represents one of the main causes of exemption from contractual liability. Being only an example of exemption provided by the legislator for the debtor of a civil obligation, in the absence of such regulation, the debtor would risk being unjustly responsible for facts or acts that exceed his own will or actions.*

Keywords: *debt, obligation, contract, force majeure.*

1. Introduction.

With the modernization of the Civil Code of the Republic of Moldova, starting from March 1, 2019, the notion of “force majeure”, was replaced by the term “impediment beyond contro”, and the legal framework applicable in such circumstances is regulated by articles 903 and 904 of the Code Civil. This change gives the parties more freedom in crisis negotiations. Thus, if the performance of the obligations becomes impossible due to an impediment that cannot be controlled, the parties may choose to suspend or terminate the contract, or to renegotiate certain of its conditions, such as the term or the price. An essential requirement in this context is the mandatory notification of the other party regarding the occurrence of the impediment and its effects on the ability to perform the obligation. Any dispute related to the non-execution of obligations due to an impediment will be settled by the courts, which will assess the unavoidable, exceptional and unforeseeable nature of the invoked impediment, as well as the connection between it and the non-execution of the obligation, at the same time verifying whether the appropriate notification has been made and whether the effects were communicated within a reasonable time.

2. Discussions.

To analyze the notion and meaning of “justifiable impediment”, it is important to note that many countries with a private law system use the term “force majeure”, such as in French law (“force majeure”), in American law (“frustration of contract”) and in German law (“höhere Gewalt” or “Unmöglichkeit”)[5].

As a rule, when we sign a contract, we notice that it includes a clause regarding the events or circumstances of “force majeure” or “impediment justifying the non-performance of the obligation”. Analyzing the concept of force majeure and its effects within contractual relations, we can deduce that it refers to an unforeseeable situation at the time of the conclusion of the contract, which cannot be overcome by the debtor and which makes it impossible to properly fulfill the contractual obligations [5].

The justifying impediment is considered a cause of exoneration from liability, which implies a “unforeseeable, external, absolutely invincible and unavoidable” event, circumstance or circumstance. This may include extraordinary natural phenomena beyond human control, such as earthquakes, catastrophic floods, lightning or other unusual natural phenomena. Even certain human-caused events, such as wars or revolutions, can be considered cases of force majeure. Thus, force majeure presupposes an objective, often absolute, unpredictability [7]. The impossibility of foreseeing such an event is judged according to the prudence and diligence of a person who makes all reasonable efforts to fulfill his obligations. Some theorists argue that a relatively unforeseeable circumstance, where the impossibility of foreseeing the event is only subjective, does not constitute a case of force majeure.

According to Chapter VI, Section 3 “Force majeure confirmation procedure” of the Regulation on the implementation of the Customs Code of the Republic of Moldova, events that can be considered as force majeure include:

- war (declared or not), hostilities, invasions, actions of a foreign enemy, extensive military mobilization,
- embargo,
- epizootics, epidemics, natural disasters or extreme natural events,
- explosion, fire, destruction of goods or means of transport following a road accident.

In order for an event to be qualified as force majeure and exclude the contractual or tortious liability of the debtor, it must cumulatively meet four conditions: to be external, unforeseeable, absolutely invincible and unavoidable. Although the list is detailed, due to these specific conditions, force majeure situations remain relatively rare [5]. For example, “a tire blowout or brake system failure due to a vehicle breakdown” are not considered force majeure events.

The first condition, externality, is essential and emphasizes a fundamental element of force majeure. Any event that qualifies as force majeure must be completely external and independent of the will or actions of the person responsible for the performance of the contractual obligations. Simply put, the event must be one over which the person had no control, and which caused damages either in contract or tort, through no fault of the person. Examples of force majeure mentioned in doctrine and legislation include natural phenomena (floods, lightning, tornadoes) and extraordinary social events (wars, revolutions). In some cases, the courts have not recognized force majeure for events such as landslides, and in others, even in the context of similar circumstances, they have accepted this exculpatory cause.

The legislation does not explicitly define “force majeure”, but the Civil Code of the Republic of Moldova uses notions such as „justifiable impediment beyond the control of the debtor,, (art. 904) and „fortunate impossibility of execution,, (art. 989) [1]. The justifying impediment is a circumstance that can, under certain conditions, justify the non-execution of civil obligations, especially contractual ones. This may make the performance of the obligation impossible or may create obstacles that make it impossible to perform it justifiably.

To be considered force majeure, the impediment must be beyond the debtor's control, and he could not have avoided or overcome that impediment or its effects. Also, the event must be unpredictable. Failure to perform the obligation will not be considered justified if the debtor could reasonably have anticipated the occurrence of the impediment at the time of concluding the contract. Therefore, it is recommended that, if the parties foresee circumstances that may lead to impediments in the future, they should explicitly regulate them in the contract, recognizing them as force majeure even if they were foreseeable [5].

To invoke force majeure, the debtor must notify the creditor of the occurrence of the impediment and its effects on the performance of the obligation. The notification must be made within a reasonable time, as soon as the debtor becomes aware of the impediment. If the creditor is not notified and suffers loss as a result, it will be entitled to compensation.

The court will not recognize force majeure if the debtor does not notify the creditor of the impediment that has occurred. The legislation does not require the authorities to officially confirm the existence of force majeure, although certain official decisions may facilitate proof of impediment. These decisions are not a necessary condition for the recognition of force majeure, but they can help the court in assessing the impact on the execution of contractual obligations.

However, if the authorities exceed the legal powers and create impediments for the execution of obligations, there is no guarantee that the court will protect the debtor from the creditor's claims. For example, the declaration of a state of emergency does not automatically lead to the recognition of force majeure; each measure must be evaluated according to its impact on the possibility of executing the contractual obligations [6].

If the force majeure is only temporary, it justifies the non-execution of the obligation only during the existence of the impediment. If the impediment becomes permanent, the obligation is

extinguished and effects similar to the termination of the contract occur. In terms of freedom of contract, the parties have the opportunity to set the terms of the contract, and the court will review force majeure clauses in case of disputes. If these clauses do not regulate situations that may lead to force majeure, the court will apply the general provisions of the legislation.

However, the content of these terms is considerably different. International consensus was achieved through Article 79 of the 1980 UN Convention on Contracts for the International Sale of Goods, which regulates the impediment to the business of the contracting party [6]. This model has also been taken up by international academic texts such as the UNIDROIT Principles. In turn, this approach was adopted in the Civil Code of the Republic of Moldova (art. 904) [1]. The previous provision, repealed on March 1, 2019, but still applicable to contracts concluded up to this date, was regulated by article 606 of the Civil Code [1]. However, force majeure was not the only cause of exemption from liability in contractual relations. Thus, Article ex-602 of the Civil Code stipulated that contractual liability applied only when the contracting party failed to fulfill its obligations through „fault”. Therefore, if the debtor could prove that he was not at fault in the non-fulfillment of the obligation, he was exempted from liability. This approach reflects the concept of subjective liability.

The new regulation from the Civil Code of the Republic of Moldova [1], in force since March 1, 2019, has moved to the concept of objective liability, in which the law no longer requires verification of whether the contracting party violated the obligation due to fault or not. The causes of exemption from liability, called “justification”, are now limited to Article 903 of the Civil Code [1].

The application of the institution of force majeure cannot be done in the same way as it is understood, for example, in Romanian law, where conditions of unpredictability, invincibility and inevitability are necessary, and where a distinction is made between force majeure (vis major) and fortuitous case (vis minor/casus). This distinction also existed in French law, until jurisprudence equated these two notions in terms of contractual liability, and the new regulation established in France by the Ordinance of February 10, 2016 takes over the similar regulation of the DCFR [7].

In general, each party to a contract has an obligation to strictly comply with its terms. According to article 904, para. (1) of the Civil Code of the Republic of Moldova [1], non-execution of obligations is justified only if an impediment occurs in the debtor's business, and he could not reasonably avoid or overcome the impediment or its consequences. The non-execution cannot be justified if the debtor could have taken this impediment into account at the date of the conclusion of the contract or at the date of the appearance of the obligation, according to another legal act.

According to article 904, para. (5), the debtor has the obligation to notify the creditor about the impediment and its effects on the ability to perform the obligations [1]. This notification must be sent within a reasonable time after the debtor knew or should have known of the said impediment. If the creditor does not receive the notification and suffers damages as a result, he will be entitled to claim damages.

It is important to note that the justification produces effects only during the existence of the impediment. If it is temporary and the delay becomes essential, the creditor can resort to legal means to protect himself from non-performance of the contract. If the impossibility to execute the obligation becomes permanent, the debtor can be released from his contractual obligations, and the effects of restitution will be regulated according to articles 926-932 of the Civil Code of the Republic of Moldova [1], applicable accordingly.

In order to invoke an impediment justifying the non-execution of obligations, the following conditions must be met cumulatively:

- 1) **The persons who can invoke the justifying impediment:** Any debtor in a contract may invoke this impediment if the prescribed legal conditions are met.
- 2) **Invoking conditions:**
 - o The contract must have been validly concluded before the occurrence of the event that is to be considered as a justifying impediment;

- o The invoked event must be external, unforeseeable, invincible and unavoidable, blocking the execution of the obligation in the initial terms of the contract;
- o There must not be a contractual clause by which the said event was excluded from the scope of the justifying impediment or in which the debtor would have assumed the risk of executing the obligations, even in the event of the intervention of this event.

3) **Proof of the existence of the justifying impediment:** The proof is made according to the contractual provisions. The impossibility of performing the obligations is not considered if it is only a matter of additional difficulties, higher costs or extended deadlines, without actual impossibility. If the circumstances only make the execution of the obligations difficult, without making them impossible, they will not be recognized as justifying impediments.

In the case of commercial contracts, where at least one of the parties is an entrepreneur, and the parties have agreed to request certification by the Chamber of Commerce and Industry of the Republic of Moldova (CCI of the Republic of Moldova) [2], an official opinion will be requested to confirm the existence of the impediment justification for non-performance of contractual obligations.

According to article 4 para. 2 lit. g) from the Law on the Chamber of Commerce and Industry [2], with subsequent amendments, the Chamber of Commerce and Industry issues an attestation opinion to certify the circumstances arising due to natural phenomena, normative or administrative acts, actions or inactions (facts), or other events external to the debtor's control, which can be invoked as a justifying impediment for non-execution of contractual obligations. This procedure applies in the context of commercial contracts where at least one of the parties is an entrepreneur and the parties have expressly agreed on the attestation of the relevant circumstances.

Among the events that can constitute a justifying impediment are:

- War (declared or not), hostilities, invasions, actions of a foreign enemy, extensive military mobilization;
- Civil war, insurrection, revolution, military or illegitimate power, acts of terrorism, sabotage or piracy;
- Currency and trade restrictions, embargoes, sanctions;
- Legal or illegal actions by authorities, compliance with laws or government regulations, expropriation, confiscation, requisition, nationalization;
- Epizootics, epidemics, natural disasters or extreme natural events;
- Explosions, fires, destruction of equipment, long-term failure of transport, communication, information or energy systems;
- General disruptions of labor relations, such as boycotts, strikes, lockouts or occupation of factories and other premises [3].

Circumstances that can be considered justifying impediments must meet three essential criteria:

- 1) **Exceptional characters** of the event that determined the impossibility of executing the obligations, within the business of the reasonable control of the affected party;
- 2) **Unpredictable characters** at the time of signing the contract, so that the event could not have been anticipated at the time of the conclusion of the agreement;
- 3) **Objective characters** of the event, which are invincible and impossible to avoid, and the affected party could not have prevented or overcome its consequences in a reasonable way.

During the procedure, the applicant will submit the application and the necessary documents to the headquarters of the Chamber of Commerce and Industry or, if the application is signed electronically, to the email address camera@chamber.md.

Upon receiving the application, the Chamber of Commerce and Industry will check the following aspects:

-
- The existence of commercial contractual relations between the parties;
 - Relevant contractual clause;
 - At least one of the parties must be subject to entrepreneurial activity;
 - The parties must have agreed in writing on the attestation of the impeding circumstances;
 - The correctness of the application and the attached documents;
 - Notification of the creditor regarding the intervention of the impediment;
 - Payment of fees related to submitting the application [2].

The application must include information such as: name, legal form and headquarters of the applicant; details of the contract in question; the detailed description of the event that generated the impediment and the arguments that justify the impossibility of fulfilling the obligations, as well as the documents that support the claims. The application must be signed by the applicant's manager or an authorized person, and it can also be signed electronically.

The documents attached to the application include:

- Proof of the power of attorney of the legal representative, if the application is not signed by the manager;
- Copy of the contract and annexes, authenticated by the applicant's signature;
- Copies of documents confirming the volume of obligations already fulfilled according to the contract;
- The document issued by the competent authorities confirming the existence of the invoked event, its location, as well as the time of the start and end of the event;
- Notifying the creditor about the occurrence of the justifying impediment;
- Confirmation of payment of fees for the requested service [2].

The request will be completed according to the form provided in the annex of the CCI Regulation [3], which includes the detailed description of the impediment and the legal arguments for the impossibility of fulfilling the obligations. The attestation notice will be issued within up to 30 calendar days from the date of submission of the application and the corresponding documents.

3. Conclusions

Analyzing the „force majeure,, clause, now also known as “justifiable impediment”, it can be concluded that the main effect of invoking this clause is to exempt the debtor from paying damages, including interest or late penalties. The justifiable impediment of non-execution of obligations is an exception to the principle of civil liability, providing an exemption of the debtor from the assumed obligations, either totally or partially. Thus, as a rule, the parties are obliged to fulfill their agreed obligations, but the intervention of a justifying impediment allows them to be released from them under certain conditions.

Justifiable impediment is defined as an “external, unforeseeable, absolutely invincible and unavoidable event”. The Civil Code of the Republic of Moldova does not provide specific examples of such events, they can be established by the agreement of the parties, by inserting an extended clause in the contract, or, in its absence, by the courts or arbitration courts that resolve conflicts between the parties. In establishing this impediment, the parties can refer to standard clauses proposed by various international arbitration forums, the most used being the model clause proposed by the International Chamber of Commerce (CCI) in Paris.

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ANALYSIS OF THE IMPACT OF THE EUROPEAN COURT OF HUMAN RIGHTS' JUDGMENTS ON NATIONAL SYSTEMS

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Abstract: *The article explores the impact that decisions of the European Court of Human Rights (ECHR) have on the legislations and institutions of member states of the Council of Europe, suggesting an in-depth examination of how the rulings made by the ECHR influence legislation and legal practices within these member states. The article focuses on the interaction between European human rights norms and the national legal framework, highlighting both the positive aspects and the challenges faced by national systems in implementing ECHR judgments. A key aspect discussed in the article is the influence of the ECHR on national justice, arguing that through its judgments, the ECHR instills a form of legal education among national judges, helping them to better understand and apply international human rights protection norms. The article also addresses the difficulties encountered by national courts in applying these judgments, due to the lack of clear legal instruments and the diversity of legal interpretations.*

The article emphasizes the importance of continuing dialogue between the ECHR and member states to ensure the effective implementation of European human rights standards. Thus, the effect of ECHR judgments on national systems can be both corrective and constructive, contributing to the development of a more robust European human rights space.

Keywords: law, European Court of Human Rights, judgment, system, national, impact, case law, protection.

1. Introduction.

The European Court of Human Rights (ECHR) plays a crucial role in safeguarding and promoting fundamental rights at the European level. The rulings of this supranational court have a significant impact on the member states of the Council of Europe, directly influencing their national legislation and case law.

This study aims to examine how ECHR judgments are implemented and integrated into national legal systems, exploring both the beneficial effects of this influence and the challenges encountered in the adaptation process.

Specifically, the study will highlight mechanisms of compliance, cases of non-fulfillment of obligations, and the implications for national sovereignty. Thus, the analysis will provide a clear perspective on how the ECHR contributes to the development and harmonization of human rights standards across Europe.

2. Methods and Research Materials.

To assess the impact of ECHR rulings on national systems, a range of research methods were employed, combining both quantitative and qualitative approaches. Throughout the study, a legal analysis of ECHR judgments was conducted, selecting a representative sample of relevant decisions. These decisions were analyzed based on the areas of law they affected and the extent to which they led to legislative or jurisprudential changes in member states.

Additionally, the comparative method was applied to evaluate the legislative responses and adaptations of member states to ECHR rulings. This process involved examining national legislation and the jurisprudence of supreme courts from various European countries, with a focus on Romania, France, Germany, and Poland. Furthermore, official reports and monitoring documents from the Council of Europe and non-governmental organizations tracking the implementation of ECHR decisions were analyzed. By combining these methods, the research

provides a comprehensive perspective on the legal and political effects of ECHR rulings on national systems.

3. Results and Discussions.

Judicial acts provide effective protection of human rights and significantly strengthen the right to individual action, a fundamental element of international law in the field of human rights protection. International judicial protection of human rights involves the ability of an international judicial body to rule on a case (concerning a violation of human rights) through a decision that benefits from the authority of *res judicata* [21, pp. 30–31].

The ECHR is such an international judicial body, established in 1959 under the 1950 Convention for the Protection of Human Rights and Fundamental Freedoms. As such, „the legal framework for the protection of the rights and freedoms recognized for individuals within the Council of Europe’s area is constituted by the European Convention on Human Rights (ECHR), which *inter alia* regulates procedural aspects related to the formulation, adoption, and implementation of judicial acts issued by the High Judges in Strasbourg” [22, p. 156].

According to Article 19 of the ECHR, the ECHR was established to ensure compliance with the obligations assumed by the High Contracting Parties [9] under the ECHR and its Protocols. Fulfillment of these obligations is achieved through the ECHR’s oversight of the human rights compliance by signatory states, materialized through its judicial decisions. Thus, understanding and distinguishing the acts issued by the ECHR becomes essential.

Although all acts issued by the ECHR carry significant importance, judgments on the merits, which determine the existence or absence of an ECHR violation, are considered the most valuable judicial acts of this international court. These judgments are the means through which the protection of fundamental rights and freedoms guaranteed by the ECHR is implemented and confirmed. Moreover, „the judgments of the High ECHR, in addition to their primary role of ensuring the guarantee of rights and freedoms conventionally established for specific individuals, also play the role of interpreting and detailing fundamental notions, limits, and concepts. Additionally, the jurisprudential framework forms a particular institutional legal system, generating unique mechanisms for ensuring human rights observance within Europe, binding on all state parties (...)” [22, p. 129]. This ensures a harmonization of domestic legal systems.

The provisions of the ECHR cannot be correctly understood or applied outside the case law established by its judicial body. The ECHR’s jurisprudence interprets and, where necessary, supplements conventional norms [10, p. 152]. Thus, the interpretive function characteristic of international judicial acts is exercised within a specific domain – the ECHR system for the protection of human rights and fundamental freedoms – ensuring its consistent application within national legal systems.

In the case *Loizidou v. Turkey* [4], the ECHR described the European Convention on Human Rights (ECHR) as a „constitutional instrument of European public order.” The decisions issued by the ECHR, based on this fundamental instrument, significantly contribute to the development and consolidation of authentic constitutional jurisprudence in the European context. This jurisprudence, in turn, exerts considerable influence on the legal systems of all member states. As highlighted in the doctrine, the ECHR has „served as a catalyst for legislative change, encouraging the protection of human rights at the national level and thereby indirectly contributing to the harmonization of law across Europe” [12, p.34]. Legislative amendments are often implemented following an ECHR judgment in which the respondent state, after adjusting its national legislation, was involved as a party. These legislative changes occur when a Court judgment establishes that national legislation or practice fails to comply with the Convention’s provisions. Under international law obligations, the respondent state must align its legislation or practices with the requirements established by Article 1 of the Convention, ensuring the protection of the rights and freedoms guaranteed by the ECHR.

It is notable that certain states have adopted legislative or practical modifications to align with ECHR standards following judgments in cases in which they were not parties. For example, the Netherlands amended its legislation concerning children born out of wedlock as a result of the *Marckx v. Belgium* case [6]. In this case, an unmarried mother from Belgium argued that both she and her daughter were deprived of rights enjoyed by married mothers and their children. Specifically, establishing filiation required the unmarried mother to officially recognize the child or initiate court proceedings, whereas married mothers could simply present a birth certificate. This recognition limited the child's inheritance rights and prevented the establishment of legal ties between the child and the mother's family, such as grandparents or aunts. Under Belgian civil law, only „legitimation” or „legitimation through adoption” could fully equalize the status of an „illegitimate” child with that of a „legitimate” one, both procedures requiring the mother's marriage. The ECHR found a violation of Article 8 („Right to respect for private and family life”) of the Convention, as well as Article 14 („Prohibition of discrimination”) in conjunction with Article 8, regarding the two applicants. The Court addressed the establishment of maternity, the absence of legal ties between the child and the maternal family, restrictions on inheritance rights, and limitations on the mother's freedom to dispose of her property. At the time of the judgment, the Belgian Parliament was considering a bill aimed at eliminating disparities in treatment between children born to married and unmarried parents.

Returning to the issue of states modifying their legislation despite not being parties to a case examined by the ECHR, “the doctrine explains this by noting that although states as ‘non-parties’ are not legally bound by the judgments, they are nonetheless obligated to guarantee respect for fundamental rights and freedoms under Article 1 of the ECHR” [10, p.153].

There have been cases where a state adapted its national legislation to align with ECHR provisions and jurisprudence before attaining the status of a contracting state. Moreover, the ECHR and its case law have influenced national legislation in non-European states. The ECHR text has served as inspiration for numerous legislative initiatives in former colonies of ECHR member states, and ECHR jurisprudence has been cited in rulings by national courts of non-European states.

Thus, „the ECHR exerts constant pressure to maintain human rights standards. A single ECHR judgment in a case brought by an individual applicant can have an impact across the 47 national jurisdictions of the Council of Europe” [10, p.154]. As noted above, this impact can extend beyond the jurisdictions of CoE member states. While it is not only the condemned state that considers an ECHR judgment, the obligation to execute the judgment lies specifically with that state, under Article 46 § 1 of the ECHR. According to this provision, “The High Contracting Parties undertake to abide by the final judgment of the Court in any case to which they are parties,” emphasizing the binding nature of ECHR judgments.

Researcher William A. Schabas [23, p.866] highlighted nuances of the concept of "binding force" within the ECHR system. The term "binding force" appears in the title of the provision cited above but is absent from the actual text of Article 46. The notion of "binding force" is closely related to the concept of *res judicata*, although the first paragraph of Article 46 suggests that this is not what is meant by "binding" in this context. The only other use of the term "binding" in ECHR law appears in Article 5 of Protocol No. 16 to the ECHR, where, according to its Explanatory Report, the term's significance seems tied to the principle of *res judicata*. Notably, the concept of "binding" under Article 46 does not extend to the notion of judicial precedent. In principle, there is no *stare decisis* rule at the ECHR.

It is worth noting that the obligation enshrined in Article 46(1) is a specific formulation of the general principle *pacta sunt servanda*, codified in Article 26 of the 1969 Vienna Convention on the Law of Treaties [8], and echoed in its preamble: “Every treaty in force is binding upon the parties to it and must be performed by them in good faith.” In the case of *Verein gegen Tierfabriken Schweiz (VgT) v. Switzerland (no. 2)* [7], the ECHR underscored states' obligation to fulfill treaties in good faith, as specifically noted in the preamble and Article 26 of the Vienna Convention. Thus,

the states parties to the ECHR have undertaken to comply with the final judgments of the ECHR. However, this commitment alone was deemed insufficient to guarantee their enforcement. Consequently, the contracting parties agreed to a political oversight mechanism for enforcing ECHR judgments, exercised by the Committee of Ministers of the Council of Europe. According to scholar T. Corlăţean, “Article 46(2) confirms the specificity of the Strasbourg control mechanism by shifting oversight competence to an international framework involving collective responsibility, capable of providing the necessary weight and reaffirming the binding nature of the Court’s judgments for the condemned states” [10, p.155].

For a proper understanding of the binding nature of ECHR judgments, as well as Article 46 of the Convention, it is necessary to read it alongside Article 1 (“Obligation to respect human rights”) and Article 41 (“Just satisfaction”). Importantly, judgments must be executed in their entirety, not solely within the limits of just satisfaction.

Despite these provisions, states parties to the ECHR sometimes disregard the binding nature of the Court’s judgments. For example, the Russian Federation has not yet enforced the judgment in the case of *Catan and Others v. Moldova and Russia* [2], where the ECHR found violations of the Convention only by Russia. The case concerned complaints from children and parents of the Moldovan community in Transnistria about the effects of language policies adopted in 1992 and 1994 by the separatist regime, which banned the use of the Latin alphabet in schools. Measures to enforce these policies included the forced evacuation of students and teachers from schools using the Romanian language and Latin script, leading to school closures or relocations.

In its judgment, the ECHR reiterated its findings from *Ilascu and Others v. Moldova and Russia*, concluding that the “Moldovan Transnistrian Republic” (“MRT”) continued to exist between 2002 and 2004 only due to Russia’s military, economic, and political support. Consequently, the Court ruled that the alleged violations fell under Russia’s jurisdiction. It thus found a breach of Article 2 of Protocol No. 1 (“Right to education”) only by Russia.

On July 14, 2015, the Russian Constitutional Court ruled that ECHR judgments conflicting with the Russian Constitution could not be enforced in Russia. Later that year, amendments to the Federal Constitutional Law on the Constitutional Court were proposed, granting it the authority to declare international court decisions unenforceable. The Venice Commission addressed these amendments during its 106th plenary session on March 11-12, 2016. According to the European Commission for Democracy through Law [13], any declaration of non-enforcement of an ECHR judgment violates Article 46, as the enforcement of ECHR judgments is a clear legal obligation. The Commission further emphasized that the ECHR’s interpretation by the Court, as reflected in its decisions, is as binding for states parties as the judgments themselves and the Convention. The discretion afforded to states relates only to the manner of implementation, which is not absolute. States are required to execute the judgments, with the method of execution left to their discretion, albeit within limited bounds.

We fully support the Venice Commission’s conclusions, as the binding nature of the Strasbourg Court’s judgments is unequivocal.

To encourage a state to comply with an ECHR judgment or to express concern about non-compliance, the Committee of Ministers may adopt interim resolutions. For example, regarding the case of *Ilascu and Others v. Moldova and Russia*, five *interim* resolutions were adopted: Resolution ResDH(2005)42 on April 22, 2005; Resolution ResDH(2005)84 on July 13, 2005; Resolution ResDH(2006)11 on March 1, 2006; Resolution ResDH(2006)26 on May 10, 2006; and Resolution CM/ResDH(2007)106 on July 12, 2007. In these resolutions, the Committee of Ministers reiterated that the respondent state’s obligation to comply with the Court’s judgments is unconditional and represents a requirement of its membership in the Council of Europe. In Resolution ResDH(2006)26, the Committee declared its decision to use all means available to the organization to ensure Russia’s compliance with its obligations under the judgment. It also called upon the national authorities of member states to take any measures they deemed appropriate to this end. On March 6, 2014, the Committee of Ministers adopted its final resolution on this case,

Resolution CM/ResDH(2014)37. Such final resolutions are adopted when the Committee determines that the state has taken all necessary measures to comply with the ECHR judgment.

Similarly, three interim resolutions were issued concerning the case of *Catan and Others v. Moldova and Russia*: Resolution CM/ResDH(2014)184 on September 25, 2014 [18]; Resolution CM/ResDH(2015)46 on March 12, 2015 [20]; and Resolution CM/ResDH(2015)157 on September 24, 2015 [19].

Protocol No. 14 to the ECHR [16] introduced a new competence for the Committee of Ministers, granting it the right to refer cases to the ECHR if a state refuses to execute a judgment. This mechanism is outlined in Article 46 §§ 4 and 5 of the Convention.

Sanctions for non-execution of ECHR judgments can be derived from Article 8 of the Statute of the Council of Europe [25]:

- a) Suspension of the state's representation rights within the Council of Europe;
- b) Expulsion of the state from the organization, upon request by the Committee of Ministers;
- c) Termination of the state's membership in the Council of Europe, decided by the Committee of Ministers.

These measures are applicable in cases of serious violations of the rule of law and fundamental human rights. A grave violation of human rights can also include a refusal to execute ECHR judgments [15, p.232]. Expulsion is considered a last resort. The question of excluding a member state from the Council of Europe was first raised in the context of the case *Loizidou v. Turkey* [4].

In *Marckx v. Belgium* [16], the Court acknowledged that its judgment would inevitably have effects beyond the specific case, especially since the violations found arose directly from contested legislative provisions rather than individual measures. However, the Court emphasized that its judgments cannot, by themselves, annul or repeal national legislative provisions. ECHR judgments are essentially declaratory in nature, leaving it to the state to determine the means of compliance within its domestic legal system.

Similarly, in *Assanidze v. Georgia* [1], the ECHR reiterated that its judgments are primarily declaratory and that it is, in principle, up to the respondent state to choose the means of compliance within its legal system, provided these are consistent with the Court's conclusions. The Court further explained that this discretion reflects the freedom of choice inherent in the state parties' primary obligation to protect the rights and freedoms guaranteed by the Convention. However, the Court also clarified that its declaratory nature applies only to the specific case at hand. It is not competent to issue judgments that serve as "directives" for the state or that have a general declaratory nature regarding the non-compliance of national legislation with the Convention's provisions [10, p.156].

The exception to the declaratory nature of ECHR judgments arises from Article 41 of the European Convention on Human Rights, which entitles claimants to just satisfaction when the conditions outlined in that article are met. Due to their declaratory nature, ECHR judgments do not have invalidating effects. As such, it is accurate to state that ECHR judgments "do not annul or modify any act of the culpable state, whether it is a law, regulation, administrative act, or judicial decision" [26, p.52].

In the doctrine, it has been argued that "ECHR judgments are reparatory in nature and do not lead to the annulment of decisions issued by national courts" [26, p.230]. We would like to clarify the connection between these two aspects – the reparatory nature of ECHR judgments and the potential annulment of national decisions – emphasizing that they are neither mutually exclusive nor contradictory. First, we note that the reparatory nature of an ECHR judgment does not solely manifest in the payment of just satisfaction. Often, the Court determines that the mere finding of a Convention violation constitutes sufficient just satisfaction. This occurs when the conditions of Article 41 are not met: the Court must establish a Convention violation, domestic law does not fully remedy the consequences of the violation, and just satisfaction is necessary.

The reparatory nature of ECHR judgments is also reflected in the measures undertaken by respondent states to execute the judgment, such as the review or reopening of domestic judicial proceedings. While an ECHR judgment does not automatically annul national court decisions, it often results in their annulment as a natural consequence of state actions taken to comply with the Strasbourg Court's ruling. These actions may include the review or reopening of national procedures. Thus, the reparatory nature of ECHR judgments is not necessarily pecuniary but centers on the principle of *restitutio in integrum*. The annulment of national decisions is a means of restoring the initial position.

A critical question is whether ECHR judgments have an effect *inter partes* or *erga omnes*. This can be clarified by distinguishing between the concepts of "decisional authority" (*res judicata*) and "jurisprudential authority" (*res interpretata*), the two aspects of the binding nature of ECHR judgments. These distinctions have been analyzed in scholarly literature by authors such as Alain Zysset [27, pp.118–119].

The dispositive part of an ECHR judgment enjoys *res judicata* authority and has an *inter partes* effect. This means it is binding only on the parties to the case. Under Article 46(1) of the Convention, the state involved in the litigation has the obligation to execute the judgment rendered by the Strasbourg Court. In simpler terms, the ECHR's determination of a violation – or lack thereof – of the Convention, as well as any order for just satisfaction, constitutes *res judicata* authority. Non-compliance with this authority equates to non-execution of the ECHR judgment.

The interpretive authority of ECHR judgments – *res interpretata* – derives from the Court's interpretation of the Convention. This interpretive aspect has an *erga omnes* effect, becoming part of the Convention's authoritative interpretation and binding on all 47 state parties. Once established, such interpretation is integral to the Convention's authority and imposes obligations on all member states. The Court respects *res interpretata* in subsequent cases by invoking its prior interpretations, as reflected in frequent citations of its own case law.

Despite its binding authority, the Court's jurisprudence evolves in response to societal changes, as the Convention is regarded as a "living instrument." This adaptability is illustrated in the case of *Cossey v. The United Kingdom* [3], where the ECHR stated: "The Court is not bound by its previous judgments. However, it generally follows and applies its own precedents, as this practice serves the interests of legal certainty and the coherent development of Convention jurisprudence. Nonetheless, the Court is not prevented from departing from a prior decision if it is convinced that compelling reasons justify doing so. Such departure may, for example, be warranted to ensure that the interpretation of the Convention reflects societal changes and remains consistent with current conditions." This reasoning underscores the dual nature of ECHR judgments: their respect for prior interpretations for consistency and their openness to evolution to meet contemporary demands.

Specialized literature emphasizes that the provisions of the European Convention on Human Rights (ECHR) and its Additional Protocols can only be correctly interpreted and applied by reference to the jurisprudence of the European Court of Human Rights (ECHR). This is especially relevant as the European Court has consistently highlighted the autonomous character of the terms in the ECHR, whose meaning cannot be derived from the legal systems of the contracting states [22, p.214]. It follows that national legal systems must respect the interpretation of the ECHR provided by the Court through its jurisprudence. To enhance compliance with the *res interpretata* authority of the Court's judgments by national authorities, it is essential to translate, publish, and disseminate ECHR jurisprudence. Without accessibility, there is a risk that such jurisprudence will remain unknown and unimplemented. In this regard, the Committee of Ministers of the Council of Europe adopted Recommendation (2002)13 on December 18, 2002, during its 822nd meeting. The recommendation concerns the publication and dissemination of the ECHR text and the Court's jurisprudence in member states [17]. In accordance with this recommendation and based on Law No. 151 of July 30, 2015, on the Government Agent [14], the Agent is responsible for ensuring the translation of ECHR jurisprudence into Romanian,

particularly those judgments concerning Moldova, and for their publication. The Agent may also translate jurisprudence concerning other states if deemed necessary.

Professor Corneliu Bîrsan notes that, since a judgment does not constitute an enforceable title *per se* within the state concerned, the state's obligation pertains to executing a judgment with *inter partes* legal effects. However, this obligation is assumed under the Convention with respect to the entire community of contracting states. This framework explains the binding nature of ECHR judgments as an "obligation of result" [10, p.157]. As Bîrsan elaborates, "ECHR judgments impose on states an obligation of result: due to their declaratory nature, states are free to choose the legal means for their implementation, whether through administrative measures, legislative reforms, etc. Nonetheless, in such cases, the primary obligations of states that have violated the Convention remain the classic ones: to cease the violation and to provide redress to the claimant" [24, pp.64–65]. Importantly, the object of this obligation is not limited to the claimant's specific situation but extends to the general framework that enabled or caused the Convention violation, as illustrated in *Marckx v. Belgium* [6].

In *Maestri v. Italy* [5], the Court reiterated that, under Article 46 of the Convention, a judgment finding a violation imposes a legal obligation on the respondent state to end the violation and remedy its consequences, restoring the situation as far as possible to what it was prior to the violation. If domestic law does not permit full remediation of the violation's consequences, Article 41 empowers the Court to grant just satisfaction to the injured party, if appropriate.

Thus, a judgment finding a violation of the Convention imposes a dual obligation on the respondent state:

1. To pay the sums awarded as just satisfaction to the claimant.
2. To choose, under the supervision of the Committee of Ministers, the general and/or individual measures to be adopted in its domestic legal system to end the violation and remedy its consequences.

Furthermore, the Court has emphasized that ratification of the Convention obliges states to ensure that their domestic law aligns with the Convention. When the Court finds that domestic law is incompatible with the ECHR, the respondent state must remedy the incompatibility. General measures must be adopted to address not only the claimant's situation but also the broader legal framework that could affect future individuals.

The Court's judicial corpus is essential for maintaining the vitality of the ECHR. However, judgments on the merits, which establish violations of the Convention, carry the greatest impact. Ideally, "acquittal judgments" confirming compliance with the ECHR would be desirable, but these can only reflect reality. Condemnatory judgments are often viewed negatively, as they tarnish the state's image at the European level. Nevertheless, such judgments have profound effects, prompting compliance measures by the condemned state and influencing other states to address deficiencies in their legal systems, regardless of their status under the Convention. This process fosters the harmonization of national legal systems with the human rights standards enshrined in the ECHR and its jurisprudence. While some states fail to execute judgments against them, the Committee of Ministers has tools to encourage compliance, though their effectiveness is often constrained by diplomatic considerations.

Despite challenges, the binding nature of ECHR judgments remains intact. It is crucial that their authority be respected and that the Court's conclusions be effectively implemented in national law through individual and general measures. This ensures both compliance with the Convention and the broader objective of protecting human rights across all contracting states.

4. Conclusions.

The analysis of the effect of ECHR judgments on national systems highlights the crucial role of the Court in strengthening and harmonizing fundamental rights protection standards across Europe. The study demonstrates that while ECHR judgments have a significant impact on national legislation and the jurisprudence of member states, their implementation varies considerably

depending on the political, legal, and cultural context of each state. In many cases, states have shown progressive adaptation to ECHR rulings, amending domestic legislation and judicial interpretations to comply with European standards. However, significant challenges have also been identified, such as political resistance, resource constraints, or difficulties in uniformly interpreting and applying judgments. Notably, some states have faced difficulties in fully implementing ECHR decisions due to tensions between national and European principles, raising concerns about national sovereignty.

In conclusion, while ECHR judgments have the potential to generate significant positive changes in national systems, the success of their implementation largely depends on the political will and institutional capacity of each state. It is essential for member states to continue developing effective compliance mechanisms to ensure the effective protection of human rights throughout Europe.

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CONTROVERSIES OVER LIFE IMPRISONMENT FOR WOMEN

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Abstract: *The relevance of the subject addressed is determined by the amendment of paragraph (3) of Article 71 of the Criminal Code of the Republic of Moldova through Law No. 136 of June 6, 2024, which introduced modifications and additions to several articles of the Criminal Code and the Contraventional Code of the Republic of Moldova.*

The importance of this study lies in understanding the institution of life imprisonment in the context of its applicability to women, from a multifaceted perspective, based on national and international legal norms in the field. It also emphasizes a concrete analysis of the relevant provisions regarding women's rights, as influenced by the mentioned amendments.

The application of life imprisonment to women is a sensitive subject that necessitates a multidimensional approach. This is because the execution stage essentially represents a decisive element in the correction of the convicted individual, particularly when life imprisonment for this category constitutes a novelty in criminal law.

Until now, the provisions of Article 71 of the Criminal Code did not allow the application of life imprisonment for exceptionally serious crimes committed by women, even though such crimes were often heinous. Thus, the new amendments introduced to the Criminal Code by Law No. 136 of June 6, 2024, have brought significant changes, allowing for the application of life imprisonment to women who commit exceptionally serious crimes.

Keywords: *life imprisonment, exceptional severity, discriminatory treatment, biological aspects, coercive sanction, significant harm, multidimensional perspectives, justification of custodial sentence limits, exceptional cruelty, relevant provisions.*

1. Introduction.

Life imprisonment applied to women is a complex and sensitive topic that requires a multidimensional approach. This is because the execution stage constitutes an essential factor in the re-education and reintegration process of the convicted person. The importance of this analysis is heightened by the fact that applying life imprisonment to women is a recent innovation in criminal legislation.

The objective of this study is to examine the institution of life imprisonment from the perspective of its application to women, adopting an integrated approach that includes the analysis of relevant national and international legal norms. The research also focuses on evaluating the provisions protecting women's rights through the lens of specific legislative amendments and developments.

In the analysis, particular attention will be given to representative cases involving life imprisonment applied to women, aiming to provide a thorough and substantiated understanding of the implications of this measure.

2. Results and Discussions.

Life imprisonment is regulated in the Criminal Code of the Republic of Moldova as a principal penalty, applicable exclusively without any complementary punishments. It constitutes the most severe form of coercive sanction provided by the legislation, with the aim of depriving the convict of liberty for their entire life. According to Article 71 of the Criminal Code, life imprisonment is applied only for exceptionally serious crimes, explicitly defined as a punitive measure intended for acts with the highest degree of social danger [1].

According to the provisions of Article 16 of the Criminal Code, crimes are classified based on their nature and degree of harm into five categories: minor, less serious, serious, particularly serious, and exceptionally serious. Paragraph (6) of the same article stipulates that exceptionally

serious crimes are those committed intentionally and for which life imprisonment is prescribed by the criminal law [2].

Life imprisonment involves permanent deprivation of liberty, justified by the gravity of crimes that cause significant harm to individuals and society as a whole. At the national level, there are currently 4,729 incarcerated individuals in Moldovan penitentiaries, 2.7% of whom are sentenced to life imprisonment. The ages of those sentenced to this penalty range from 29 to 71 years, all of whom are men, as this sanction was not previously applicable to women or minors.

Since the declaration of independence of the Republic of Moldova, no individual sentenced to life imprisonment has been released, although the legislation allows for this possibility after serving at least 30 years. The final decision rests with the judiciary, which has shown reluctance in reducing sentences, despite the fact that many convicts have received positive evaluations.

According to data provided by the National Penitentiary Administration (ANP), there are 129 individuals sentenced to life imprisonment detained in the closed-type penitentiary No. 17 in Rezina. The youngest is 26 years old, and the oldest is 71. All those incarcerated under this sentence are men, as Article 71, paragraph (3) of the Criminal Code previously excluded the application of life imprisonment to women and minors [3].

The Criminal Code of the Republic of Moldova, adopted in 2002, has undergone multiple amendments to address social demands. However, the provisions of Article 71 regarding life imprisonment remained unchanged until 2024. This norm clearly establishes the gravity of the crimes justifying the penalty and explicitly mentions the categories of individuals exempted, such as women and minors, until the recent legislative changes.

Although the Criminal Code of the Republic of Moldova, adopted in 2002, has undergone numerous amendments and additions to meet societal demands, Article 71, which regulates life imprisonment, had never been modified until 2024.

The content of this article pertains to the definition of life imprisonment and the severity of crimes for which an individual may be sentenced, particularly those classified as exceptionally serious crimes. Until now, women and minors were exempted from life imprisonment, representing an exception to this penalty: "Life imprisonment cannot be applied to women and minors," as stated in paragraph (3) of Article 71 of the Criminal Code.

The provision previously included in paragraph (3) of Article 71 of the Criminal Code of the Republic of Moldova, which excluded women from life imprisonment, was initially justified as a positive measure. This differentiation was based on factors such as women's vulnerability to long-term custodial sentences, the social impact of incarceration on children and families, and the protection of motherhood. Essentially, this differentiated treatment was justified by the biological and social characteristics of women. However, the exemption of women from life imprisonment can also be interpreted as an expression of legislative leniency, contradicting the principle of equality between women and men, which should have prevailed in the application of criminal norms.

In the context of a normative framework based on equality, arguments against such a differentiated approach should be grounded in comprehensive criminological studies. These studies should analyze the specific nature of female criminality, the impact of custodial sentences on women and their families, and the characteristics of crimes committed by women, thereby providing a scientific basis for potential exceptions or protective measures [1].

With the entry into force of Law No. 136 of June 6, 2024, which amended and supplemented several normative acts, including the Criminal Code, paragraph (3) of Article 71 was revised. The removal of the words "women and" from the legal text now allows for the application of life imprisonment to women for committing exceptionally serious crimes as stipulated in the special part of the Criminal Code and the Contraventional Code of the Republic of Moldova [4]. This legislative change represents a significant innovation and has sparked considerable discussion in legal and societal circles, given its sensitive nature and the complex implications for the rehabilitation process of convicts.

This legislative reform must be analyzed within a broader context, considering the commitments of the Republic of Moldova in the field of human rights. The state is a party to several international instruments, including the European Convention on Human Rights [5] (ratified by the Parliament of the Republic of Moldova on July 24, 1997), the Universal Declaration of Human Rights [6] (signed by the Republic of Moldova on July 28, 1990), and the 1966 International Covenant on Civil and Political Rights (ratified by the Parliament of the Republic of Moldova in 1990) [7], among others. These documents enshrine the principle of equality and the protection of vulnerable groups, such as women, minors, and persons with disabilities. Social and Legal Developments Highlight the Need for International Instruments Balancing the Protection of Vulnerable Persons with the Assurance of Real Equality in Law Enforcement the interpretation and application of life imprisonment must be approached multidimensionally, incorporating criminological, social, and human rights perspectives [8].

In the current context, the protection of women remains a fundamental moral obligation of contemporary society, deeply rooted in the women's rights movements of the 19th century and feminist movements of the 20th and 21st centuries [9]. These movements emerged as justified reactions to inequitable treatments, advocating for sexual freedom, the right to bodily integrity and autonomy, the elimination of sexual violence, the right to vote, to hold public office, to enter into legal contracts, family law equality, access to work and fair wages, reproductive rights, property rights, and education [9].

International legal instruments enshrine these rights and emphasize the importance of equality and protection against discrimination. The European Convention on Human Rights (ECHR) stipulates in Article 5(1) that "everyone has the right to liberty and security," while Article 14 ensures that the enjoyment of the rights recognized by the Convention is free from discrimination based on sex, race, religion, national origin, or other criteria [5].

Similarly, the International Covenant on Civil and Political Rights of 1966 [7] enshrines in Article 2(1) the obligation of State Parties to respect and ensure the rights recognized in the Covenant to all individuals within their jurisdiction without discrimination based on race, color, religion, sex, political opinion, or other circumstances. Article 26 reiterates the prohibition of discrimination and obliges states to ensure equal and effective protection against any form of discrimination, including on the basis of sex. Furthermore, Article 3 of the Covenant mandates State Parties to ensure equal rights for men and women in the enjoyment of all civil and political rights [7].

These provisions reflect the international community's commitment to promoting gender equality and eliminating all forms of discrimination while recognizing the need for specific measures to protect vulnerable groups such as women. These commitments emphasize the importance of applying a fair legal framework that guarantees respect for the fundamental rights of women.

The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), adopted on December 18, 1979 [10], stipulates in Article 2(7) that "State Parties condemn discrimination against women in all its forms and commit to [...] adopting without delay a policy aimed at eliminating such discrimination, including the repeal of all discriminatory criminal provisions against women" [11]. This provision formed the essential basis for introducing changes in criminal legislation, representing a significant step toward equal rights.

Additionally, the Council of Europe Convention on Preventing and Combating Violence Against Women and Domestic Violence, signed on May 11, 2011 [11], and ratified by the Parliament of the Republic of Moldova on October 14, 2021, regulates in Article 4(2) the obligation of states to condemn all forms of discrimination against women and to take appropriate legislative and administrative measures to prevent such discrimination. This includes integrating the principle of equality between women and men into national constitutions or other relevant legislation, ensuring the practical application of this principle.

Although International Legislation Enshrines the Principle of Equality in Rights and Dignity Among All Human Beings Article 4(1) of the UN Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) [10] permits the adoption of temporary special measures to accelerate the achievement of substantive equality between women and men. However, such measures must not perpetuate unequal norms and should be repealed once the objectives of equal opportunities and treatment are attained. In this context, the exclusion of women from life imprisonment cannot be regarded as a positive measure, as it does not contribute to achieving a concrete objective of equality in opportunities or treatment.

According to the jurisprudence of the European Court of Human Rights (ECtHR), women and men are in similar positions when committing the same types of crimes, including exceptionally serious ones. Therefore, the differentiated treatment previously stipulated in Article 71 of the Criminal Code lacked objective and reasonable justification, as it did not pursue a legitimate aim and there was no proportionality between the aim sought and the means employed [1].

In this regard, the ECtHR, in the case of *Konstantin Markin v. Russia*, emphasized that differences based on sex require particularly serious justifications. The Court highlighted that appeals to tradition, general assumptions, or dominant social attitudes within a state cannot constitute sufficient justification for differences in treatment. These principles underscore the necessity for an approach based on genuine equality, eliminating unjustified discrimination based on gender [1].

The case of *Khamtokhu and Aksenchik v. Russia* (January 24, 2017) [12] represents a significant precedent in the matter of life imprisonment applied to women, emphasizing the importance of ensuring equal treatment for men and women as subjects of this penalty. However, the argument invoked by the respondent state in this case, namely that criminal policy excluded women from life imprisonment to uphold principles of justice and humanity, may be considered legitimate. The state cited age and the "psychological characteristics" of different categories of offenders as relevant factors in its criminal policy, even though this exclusion created differentiated treatment based on gender [8].

In support of a fair and humane criminal policy, the UN Rules for the Treatment of Women Prisoners and Non-Custodial Measures for Women Offenders (the Bangkok Rules) [13] and the Nelson Mandela Rules [14] establish that, as far as possible, women and men should be detained in separate institutions. These principles are also reflected in the penal enforcement legislation of the Republic of Moldova. For instance, Article 199(5) of the Execution Code of the Republic of Moldova [15] states that „the transfer of convicts to the place of punishment and their relocation to another penitentiary is carried out under escort, respecting the rules of separate detention for women and men, minors and adults, and life-sentenced prisoners and other categories of detainees.” Additionally, under Government Decision No. 583 of May 26, 2006, individuals sentenced to life imprisonment serve their sentence in closed-type penitentiaries in specialized sectors, according to the initial detention regime [16].

A problematic aspect regarding gender equality in the penitentiary system of the Republic of Moldova is the disproportionate number of penitentiaries for men compared to those for women. According to Annex No. 4 to Government Decision No. 437 of May 15, 2018, women sentenced to imprisonment serve their sentences exclusively in Penitentiary No. 7 Rusca, classified as a closed-type facility. In contrast, penitentiaries for men are far more numerous, reflecting their numerical dominance in the prison population [17]. However, this imbalance can be explained by the relatively low percentage of women detainees in the Republic of Moldova (approximately 10%).

This situation raises questions about compliance with the principle of equality of rights guaranteed by international, regional, and national legal instruments, highlighting the need for a more detailed analysis of how penitentiary infrastructure aligns with standards of equality and humanity in the treatment of detainees.

On Differences in Treatment Between Men and Women in the Context of Maternity Protection, under Article 4(2) of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the UN Committee on the Elimination of Discrimination Against Women emphasizes in its General Recommendation No. 25 that such differentiation applies exclusively to biological aspects. Consequently, according to Article 4(2) of the Convention, differences in treatment based on biological criteria are justified but do not include treatments based on the “social role” of women as perceived mothers [18].

The „biological criterion” is also enshrined in Article 96(1) of the Criminal Code of the Republic of Moldova, which stipulates that: *„Pregnant women and individuals with children under the age of 8, except those sentenced to imprisonment for more than 5 years for serious, particularly serious, and exceptionally serious crimes listed under Chapters I, II, III, VII, VIII, XIII, and XVII, may have the execution of their sentence postponed by the court until the child reaches the age of 8”* [2].

However, the current legislative wording, whereby *„the court may postpone the execution of the sentence until the child reaches the age of 8”*, suggests a lack of clarity in defining a discretionary right granted by the legislature, including in the case of pregnant women.

It is our view that excluding these categories of individuals from imprisonment for minor or less serious offenses does not constitute discriminatory treatment. Under Article 4 (1) of the UN Convention on the Elimination of All Forms of Discrimination Against Women, states may adopt *„temporary special measures”* to accelerate the achievement of de facto equality between men and women. However, these measures must not perpetuate unequal or differentiated norms and must be eliminated once the objectives of equal opportunities and treatment are achieved [8].

In examining global trends, several international organizations have emphasized that life imprisonment is considered an exceptional measure whose elimination should be considered.

According to data provided by Penal Reform International, in 2023, approximately 11 million individuals were in detention worldwide, an 8% increase compared to 14 years ago. Among the 216 states and territories surveyed, 183 have criminal laws that provide for imprisonment. Furthermore, 65 countries impose life imprisonment sentences without the possibility of parole. Prison overcrowding is a major issue in 118 states and territories, where occupancy rates exceed 100%, and in 11 states, this rate reaches or exceeds 250% [1].

According to a report cited by the Vice-Chairperson of the Parliamentary Committee on Human Rights and Interethnic Relations, the number of women sentenced to life imprisonment has increased by 17% over the past decade, exceeding 740,000 globally. Unlike men, women sentenced to life imprisonment often receive less support from their families and communities, frequently facing marginalization. This marginalization is particularly pronounced in cases where life imprisonment excludes any possibility of parole, highlighting more severe stigmatization of women compared to men in the penal context [1].

Probationary sanctions are becoming increasingly common as alternatives to incarceration. According to data from the National Penitentiary Administration (ANP), approximately two million people in Europe and four million in the United States were under probation regimes at the end of 2023 [1].

3. Conclusions.

In summary, the recent amendments to the Criminal Code, particularly the revision of paragraph (3) of Article 71 through Law No. 136 of June 6, 2024, introducing modifications to several normative acts, represent a significant step toward gender equality in the legal system. These changes eliminate disparities in criminal treatment between men and women, contributing to the realization of women's aspirations for non-discrimination and gender equality, placing them on equal footing with men in all areas of social, economic, and political life.

However, the legal framework of the Republic of Moldova still requires improvements to address all challenges effectively. This necessitates referring to the aforementioned arguments and international norms to ensure compliance with human rights standards.

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DESCRIPTIVE FACTORS REGARDING SUCCESSION THROUGH THE LENS OF NATIONAL AND INTERNATIONAL LEGISLATION: A COMPARATIVE STUDY

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Abstract. *Succession, both in national and international contexts, is governed by a complex set of rules that determine the transfer of a deceased person's estate. At the national level, in the Republic of Moldova, succession is regulated by the Civil Code, which provides provisions on intestate and testamentary succession, safeguards the rights of forced heirs, and upholds the testator's freedom to dispose of their property.*

At the international level, succession involves conflict-of-law rules in private international law and legislative instruments such as Regulation (EU) No. 650/2012, which harmonizes the approach to succession across EU member states and offers solutions for managing cross-border inheritances. Comparatively, in Romania and France, succession laws follow the civil law tradition but differ in the degree of freedom granted to the testator and the protection afforded to forced heirs. In the United States and Germany, the emphasis is placed either on individual freedom (USA) or on the protection of heirs (Germany). Globally, international conventions, such as the Hague Convention, contribute to resolving conflicts of law in cross-border succession cases. This study highlights the importance of legal instruments and a clear legal framework in preventing disputes and ensuring equitable succession across various jurisdictions.

Keywords: succession, testamentary, property, the testator's, transnational inheritance.

1. Introduction.

In the Republic of Moldova, the legal framework governing succession is established by the Civil Code, Articles 2162–2575, which regulate the transfer of a deceased person's estate. Succession may occur either by law or through a testament, allowing for flexible management of the deceased's assets. [1.,art.2162-2575.]

The subject of succession, viewed through the lens of national and international legislation, is particularly relevant in the context of globalization and legal diversity. Inheritance-related issues frequently arise in cross-border cases, making the harmonization of legislation essential for ensuring succession rights.

The increasing international mobility and the rise in transnational inheritance cases highlight the need for a deep understanding of the legal framework. Comparative studies help clarify legislative differences and similarities, reducing legal conflicts. Descriptive factors provide a foundation for more efficient legislative proposals and for improving the existing regulatory framework.

Identifying the essential descriptive factors shaping the succession process across various jurisdictions requires an in-depth analysis of the legislative, cultural, and economic elements that influence the applicability of legal norms. A comparative analysis of national and international succession legislation highlights differences in approach and emphasizes the need for legal harmonization to facilitate the efficient resolution of cross-border cases.

Proposing innovative and practical solutions for improving succession legislation aims to address existing gaps and establish a coherent legal framework adapted to contemporary realities. A detailed examination of the influence of cultural and legal diversity on the succession process underscores the necessity of balancing respect for local traditions with the implementation of uniform international principles.

2. Results and Discussions.

Succession represents a fundamental component of civil law, ensuring the transfer of estates from one generation to the next within a well-defined legal framework. The normative diversity in succession law reflects the cultural and legal particularities of each state, while also emphasizing the need for harmonization in the international context.

The fundamental principles of succession are regulated by constitutions, civil codes, and other legislative acts, guaranteeing the protection of heirs' rights. In an increasingly interconnected world, international and European regulations facilitate the resolution of conflicts of law and ensure cross-border recognition of succession acts. This section examines national and international laws governing succession norms.

Article 46 of the Constitution Republic of Moldova guarantees the right to private property and inheritance, establishing the foundational principles for succession regulation and estate protection. [4.,art.46.]

The Civil Code serves as the cornerstone of civil and succession relations, detailing the order of legal and testamentary heirs, as well as general provisions for the distribution of inheritance. The Civil Code of the Republic of Moldova, Book IV, regulates succession, protecting the freedom of the testator and the rights of reserved heirs. [1.,book IV.]

Romanian Civil Code introduces clear and updated succession norms, including measures to protect reserved heirs, harmonized with modern European standards. It also incorporates modern concepts, such as digital inheritance, which are not yet regulated in Moldova. In Romania, the protection of reserved heirs is more strictly defined, while Moldova offers greater flexibility. [2.]

The Russian Civil Code provides a complex structure of succession norms, including a clear order of heirs and mechanisms for protecting their interests. It offers greater autonomy in establishing wills and appointing heirs compared to Romania and Moldova, and it includes detailed mechanisms for protecting minors in succession cases. [6.,art.451]

Hague Convention of 1978 provides uniform rules for recognizing and applying property and succession regimes in the international context, simplifying the management of conflicts of law in cross-border cases. [5.]

Government Decision No. 287 establishes rules for the registration and preservation of notarial acts, including wills, ensuring the integrity of essential documents in the succession process. [8.] The Law on Notaries specifies that notaries are responsible for verifying and authenticating documents related to succession, ensuring their legality and serving as a central element in validating wills and other succession acts. Both acts ensure the authenticity and validity of notarial documents, including wills. [7.]

This analysis demonstrates the complexity of succession laws at both national and international levels and highlights the importance of harmonizing legal systems to facilitate efficient management of inheritance cases across jurisdictions.

International legislation is represented by EU Regulation 2016/1103, which standardizes matrimonial and succession regimes at the European level. This regulation facilitates cross-border recognition and serves as an essential tool for European Union citizens involved in international successions. By harmonizing succession norms, it provides clarity and predictability in managing estates across multiple jurisdictions. [9.]

In conclusion, the legislative framework regulating succession across various jurisdictions reflects a complex and harmonized approach aimed at protecting the rights of heirs and ensuring the equitable management of estates. This approach combines national and international legal norms, creating a robust system that addresses the needs of both local and cross-border succession cases.

From the fundamental principles established by national constitutions to specific regulations in civil and family codes, as well as international standards such as those provided by the Hague Convention and EU Regulations, all contribute to a well-structured system tailored to

both local and cross-border needs. This legislative diversity forms a solid foundation for the protection of inheritance rights, fostering stability and legal transparency.[7.,8.]

International legislation is represented by EU Regulation 2016/1103, which standardizes matrimonial and succession regimes at the European level. This regulation facilitates cross-border recognition and provides an essential tool for European Union citizens involved in international successions. By harmonizing conflicts of law in cross-border cases, the regulation addresses complexities inherent in such situations.

However, Moldova's national legislation has not yet fully implemented similar standards for international successions, leaving a gap in addressing conflicts of law for cross-border inheritance cases. This highlights the importance of adopting comprehensive measures to align national norms with international best practices.

The EU Regulation 2016/1103, the Hague Convention (1978), and the civil codes of Germany, France, and Spain aim to harmonize legal norms in cross-border contexts.[7.,8.,28.,29.,30.] These frameworks work to reduce conflicts of law, facilitate mutual recognition of matrimonial and succession regimes between states, and emphasize the protection of vulnerable parties in patrimonial and succession matters.

In conclusion, the legislative framework regulating succession across various jurisdictions reflects a complex and harmonized approach designed to protect heirs' rights and ensure fair management of estates. This comprehensive system balances national regulations with international standards, offering a robust structure to meet the needs of both local and cross-border succession cases.

The field of succession law is enriched by specialized doctrine, offering valuable insights and analyses. Romanian scholars such as Avram M. and Nicolescu C. provide a comparative analysis of matrimonial regimes and their impact on succession, with their works serving as doctrinal references for understanding the correlation between matrimonial regimes and inheritance.[10.,pag.82.]

In his monograph „Elements of Civil Law,, Cantacuzino M.B. examines the fundamental principles of succession, laying a classical foundation for succession regulations.[13.,pag 699.] Similarly, Munteanu V. explores the implications of the right of disposition in inheritance law, providing clarity on complex legal situations in succession cases.[21.,pag 15.]

Ștefănescu M., in turn, delves deeply into the intersection between family assets and succession, offering practical solutions for resolving conflicts related to inheritance.[23.,pag.15] These contributions underscore the importance of doctrinal work in refining and understanding succession law, both in theory and practice.

Moldovan doctrine has its own prominent contributors who provide valuable insights into inheritance law.

Cebotari V. details the impact of matrimonial regimes on the succession estate, emphasizing their major importance for legislative regulations in the Republic of Moldova.[14.,pag.132.] Chirtoacă L. examines succession in relation to the legal framework of the family, highlighting the importance of integrating patrimonial and succession aspects.[15.,pag.85.]

Mărgineanu L. and Mărgineanu G. explore family law regulations and their implications for succession, providing a useful foundation for analyzing inheritance law in Moldova. [20.,pag.192-198.] Dandara L. and Cecan L. emphasize the gaps and advantages of national succession legislation, stressing the critical need to integrate national laws with international frameworks.[16.,pag 202-249.]

Pisarenko O., in two of his studies, characterizes the implications of matrimonial regimes on inheritance, essential for comparative studies, and elaborates on the succession framework in a matrimonial context relevant for academic analysis.[24.,pag.55;25., pag.87-92.]

Stahi T. identifies legislative gaps in succession law, offering valuable input for reform proposals.[26.,pag.,29-31.]

In his work "The History of Culture and Civilization", Drîmba O. analyzes the general evolution of culture and civilization, including aspects of law and succession practices, but in a broad context.[17.,pag.176.] Meanwhile, Lupaşcu Z., in the textbook "Brief Course of the History of Romanian State and Law," provides a historical-legal perspective, offering a systematic presentation of the development of the Romanian state and law, including succession law.[19.,pag.8.,14.,54.]

Both works examine the evolution of succession law in relation to local traditions and external influences (Roman, Ottoman, Russian, etc.). Emphasis is placed on Roman and Byzantine influences on legal practices in the Romanian space, which introduced written norms regarding succession.

Drîmba O. focuses more on the cultural impact and less on the technical or legal details of succession, analyzing the entry of succession in relation to social structures and how these were influenced by historical context.[17.,pag.132.]

In contrast, Lupaşcu Z.'s approach is more technical, specifically explaining legal institutions such as legal succession and testamentary succession, as well as how they have transformed over time.[19.,pag.26.,33.]

Likewise, Lupaşcu Z., in the scientific article "Inheritance as an Institution of Civil Law on the Territory between the Prut and Nistru", provides a specific regional perspective, analyzing inheritance in the legal context of the area between the Prut and Nistru rivers, with a focus on local and Soviet influences. The entry into succession is analyzed based on historical developments and the impact of regime changes on civil legislation. The article highlights the region's specific differences, such as the influence of Soviet legislation and the adaptation of traditional practices to the new civil codes.[18.,pag .13.]

All sources emphasize the external influences (Roman, Byzantine, Ottoman, Soviet) on inheritance regulations. They recognize the importance of local traditions and their adaptation to historical and political contexts.

Drîmba O. provides a general cultural perspective without delving into specific legal details. Lupaşcu Z. analyzes inheritance from a technical and legal standpoint, highlighting regional and historical particularities.

These differences and similarities offer an overview of how the entry into succession has been influenced by cultural, historical, and legal factors in various contexts.

This specialized literature serves as an essential resource for understanding and developing succession law in the Republic of Moldova and beyond.

The doctrinal contributions of the mentioned authors provide detailed and well-founded analyses of the relationships between matrimonial regimes, inheritance law, and the national and international legal frameworks. Each work highlights critical aspects such as: the gaps and advantages of national legislation; integration of international principles into national law; the influence of matrimonial regimes on inheritance; practical proposals for reforming the legal framework.

These works form a solid foundation for researchers, practitioners, and lawmakers, offering clear directions for harmonizing and modernizing succession law and contribute significantly to the development of Moldova's legal framework, offering both theoretical and practical perspectives for refining and aligning succession legislation with contemporary needs.

Moldovan civil law scientific researchers Băieş S. and Roşca N. present fundamental aspects of property and inheritance in the civil law context, providing a theoretical basis for analyzing succession law.[11., p. 164, 166, 171, 184, 187, 190, 251.] Meanwhile, the French scholar Bonnecase J. addresses concepts of succession law applicable in jurisprudence, offering valuable insights from historical and theoretical perspectives.[12.,pag.633-688]

Both works, however, approach succession within the framework of patrimonial legal regimes, emphasizing the importance of principles of equity and legal clarity.

Romanian scientific researchers, Avram M. and Nicolescu C. offer a comparative analysis of matrimonial regimes and their impact on succession. Their works serve as doctrinal resources for understanding the correlation between matrimonial regimes and inheritance.[10.,art.79.]

Legal succession ensures the fair distribution of assets within the family, preventing tensions or disputes among heirs. In the absence of a will, assets are divided among the closest relatives, according to the principles of equality and degree of kinship. In this way, family wealth is protected. [3.]

With regard to wills and the freedom of disposition they provide, the law allows individuals to designate their heirs through a will, granting them autonomy over the distribution of their assets. However, the Civil Code sets certain limits, particularly to protect reserved heirs, such as children. [1.]

Clear succession regulations provide legal certainty to all parties involved, preventing potential abuses or disputes over inheritance distribution, while ensuring safety and legal transparency.

The legislation in force also provides detailed procedures for managing successions, including the appointment of an executor or the involvement of notaries, especially in more complex cases, thereby regulating the administration of the succession.

Compared to other international systems, it can be said that each state develops its own rules on succession, though there are both similarities and notable differences between various legal systems.

When comparing the succession legislation of the Republic of Moldova with that of other countries, several distinctive features and common elements can be observed.

Being influenced by the same civil law tradition, the system in Romania is comparable to that of the Republic of Moldova. The Romanian Civil Code regulates succession in a similar manner, respecting both the freedom of the testator to dispose of their assets and the protection of reserved heirs.[1.,2.]

French succession law, which has influenced many legal systems, including that of Moldova, protects reserved heirs but is more restrictive regarding the freedom of the testator. The allocation of the reserved portion is very strictly regulated within this system.[1.,27.]

In the United States, succession laws vary between states; however, there is generally a greater emphasis on the autonomy of the testator to distribute their assets. Compared to Europe, the protection of reserved heirs is less extensive, allowing for greater flexibility in asset distribution.[31.,pag.118-130.]

The German Civil Code (BGB) includes strict rules regarding the protection of reserved heirs and allows for a detailed organization of succession. Additionally, the German system offers the option of establishing a trust (fideicommissum) for more efficient management of inherited assets.[28.,30.]

In doctrine, the issue of international succession is addressed within the framework of private international law, which governs conflict-of-law rules to determine the applicable law and the competent jurisdiction.

Thus, there are several key aspects that we will elucidate.

The first aspect refers to the law applicable to succession, which is determined based on the connections between the deceased and one or more jurisdictions. Traditionally, these connections are established either based on the deceased's nationality or the location of the assets.

Regarding the international will, it can be said that it is particularly useful in clarifying the wishes of the deceased in situations involving cross-border elements. Many states allow the drafting of a will in accordance with international norms.

Doctrine addresses the resolution of conflict-of-law issues through mechanisms such as the choice of law option (optio legis), which grants the deceased the freedom to select their national law to govern the entire succession.[31.,pag.120.]

Regulation (EU) No. 650/2012 introduces harmonized rules for the member states of the European Union (with the exception of Denmark, which did not adopt this regulation).

According to Article 21 of the regulation, the law applicable to succession is primarily determined based on the habitual residence of the deceased at the time of death. This criterion ensures a unified and predictable approach, eliminating the complexity of applying multiple national laws.[9.,art.21.]

Under article 22, a deceased person may opt for the application of their national law at the time the will was drawn up, regardless of their habitual residence. This option provides flexibility, allowing individuals with international ties to manage their succession according to their preferences.[9.,art.22.]

Articles 62–73 introduce a European Certificate of Succession, which facilitates the recognition of the status of heirs or executors across all member states, simplifying the administration of cross-border successions. This certificate eases legal procedures in cases where assets are distributed across multiple European Union states.[9.,art.62-73]

Articles 39–58 regulate mechanisms for the recognition and enforcement of succession-related decisions issued in one member state within other member states of the European Union. [9.,art.39-58.]

These provisions eliminate the need for complex procedures and ensure the free circulation of such decisions.

Outside the European Union, cross-border succession issues are managed through both international treaties and national legislation. The 1989 Hague Convention on the law applicable to succession is a key international instrument in this field.

In cases involving non-EU states, national laws become applicable. Some jurisdictions apply the *lex situs* principle (the law of the location of the property) for immovable assets, while others apply the national law of the deceased or the heirs.

In complex international successions, states collaborate through international conventions or bilateral treaties to facilitate the proper and efficient management of assets located in various jurisdictions.

To avoid uncertainties or conflicts between laws, it is recommended that individuals with assets in multiple countries draft an international will specifying the applicable law and the method of asset distribution.

This can be done in accordance with the 1973 Washington Convention on the Form of International Wills, thereby ensuring their international recognition.[32.]

3. Conclusions.

The article provides a comprehensive analysis of the key factors in succession, highlighting the strengths and gaps in both national and international legislation. The proposed recommendations offer practical solutions for modernizing succession regulations and increasing legal clarity, while also protecting heirs and succession estates. These measures can contribute to the development of a robust and equitable legislative framework in the Republic of Moldova.

In conclusion, cross-border successions are governed by a framework of international and European norms that ensure predictability and efficiency in managing inheritances involving multiple jurisdictions. The choice of applicable law and the use of legal instruments, such as the European Certificate of Succession, are essential for avoiding conflicts of law and protecting the rights of heirs.

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HUMAN TRAFFICKING AND EXPLOITATION - A FORM OF ORGANIZED CRIME IN THE EUROPEAN UNION

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Abstract. *Organized crime represents a complex transnational phenomenon, involving structured criminal groups that operate beyond national borders and affect the social, economic, and legal stability of states. Among its most serious manifestations is human trafficking, a phenomenon that violates fundamental human rights and brings immense profits to criminal networks. Human trafficking, as defined in European legislation, is one of the most complex forms of organized crime, disproportionately affecting vulnerable groups, particularly women and minors, who are exploited either sexually or through forced labor.*

It is considered necessary to examine, through statistical data, the scope and characteristics of this form of crime, regulated at both European and international levels. The paper analyzes recent trends, relying on statistics provided by agencies such as Europol and Eurostat, highlighting trafficking routes, victim profiles, and the modus operandi of criminal networks. Additionally, the main forms of human exploitation regulated by criminal law are detailed, including sexual exploitation and forced labor, emphasizing the role of transnational organized crime in facilitating this phenomenon.

In the context of the European regulatory framework, the paper explores the legislative and institutional measures adopted by the European Union, as well as their effectiveness in combating human trafficking, utilizing data on conviction rates and international judicial cooperation. Moreover, it addresses the legal and institutional challenges that hinder effective counteraction, including underreporting and difficulties in the legal protection of victims.

Keywords: *Exploitation, Human trafficking, Legislative measures, Organized crime*

1. Introduction

Human trafficking and exploitation represent serious offenses that violate fundamental rights and human dignity, being classified as complex forms of organized crime. In the European Union, human trafficking is governed by Directive 2011/36/EU, which establishes minimum standards for preventing and combating trafficking while protecting victims. According to this directive, "human trafficking" refers to the recruitment, transportation, transfer, harboring, or receipt of persons through the threat or use of force, coercion, abduction, fraud, deception, abuse of power or vulnerability, or the exchange of payments or benefits to gain control over another person for the purpose of exploitation. Exploitation may include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labor or services, slavery or practices similar to slavery, servitude, or the removal of organs [1].

Human trafficking is not an isolated phenomenon but rather interconnected with other illicit activities such as money laundering, document forgery, and corruption. These activities contribute to an expansive underground economy and destabilize social and economic structures.

The elements of human trafficking

Through this directive, EU member states are mandated to implement legislative and institutional measures to combat these crimes, including harsher penalties for offenders involved in criminal organizations. Moreover, the Council of Europe Convention on Action against Trafficking in Human Beings emphasizes the obligation to protect and rehabilitate victims, acknowledging the complexity and long-term impact of this phenomenon on both victims and society [2].

According to the UN Convention against Transnational Organized Crime and national laws, human trafficking involves the combination of three essential elements: the act, the means, and the purpose [3]. For a case to qualify as human trafficking, all three elements must be present, except in cases involving minors, where the "means" element is not required to establish the offense.

The Act

The act constitutes the physical component (actus reus) of the crime and involves activities such as controlling, transferring, or managing the victim. Legally, the act may include[4]:

- **Recruitment:** Engaging individuals directly or indirectly, often under the pretext of economic or social opportunities, which may involve fraudulent contracts or deceptive promises.
- **Transportation:** Moving victims domestically or internationally, often using fraudulent documents or unconventional methods.
- **Transfer:** The act of delivering the victim to another individual or entity, often to continue their exploitation. This process can even occur within the same criminal network.
- **Harboring:** Providing temporary shelter or accommodation to victims with the intent of facilitating exploitation, frequently in remote or controlled locations to hinder any attempts at escape.

The Means

The means pertain to the techniques employed to pressure, manipulate, or compel the victim into submission, serving as an integral element of the actus reus. The offense of trafficking is established when at least one of the following means is deliberately employed[4]:

- **Use or threat of force:** Physical violence or threats of bodily harm, including threats against the victim's loved ones.
- **Coercion:** Psychological or physical pressure aimed at overriding the victim's will and compelling them to accept exploitation.
- **Abduction:** Illegal deprivation of liberty by taking the victim against their will, often to transport or transfer them to other parties.
- **Deception:** False promises regarding jobs, working conditions, pay, or other economic or social benefits, misleading the victim about the trafficker's true intentions.
- **Abuse of power or vulnerability:** Exploiting the victim's precarious economic situation, lack of education, lower social status, or other vulnerabilities to make them accept the trafficker's terms.
- **Payments or benefits:** Offering or receiving payments to gain the consent of someone in control of the victim, such as a family member or guardian.

This comprehensive understanding underscores the multi-faceted nature of human trafficking, requiring robust and coordinated measures at national and international levels to combat its occurrence effectively.

The Purpose

The purpose reflects the trafficker's deliberate intent (mens rea), directed toward exploiting the victim in a specific manner. This essential component of the crime of human trafficking demonstrates a clear intention to gain material or other benefits through the victim's exploitation.

1) Forms of manifestation of human trafficking

The forms of exploitation, which serve as the tangible manifestations of human trafficking, include the following[4]:

1) Sexual Exploitation:

This encompasses forced prostitution, pornography, and other sexual activities where the victim's consent is undermined through coercion or deceit. Victims are frequently subjected to physical abuse, threats, or various forms of pressure to compel their involvement in prostitution. Often, they are trafficked and exploited to generate significant financial gains for the traffickers.

Sexual exploitation can also include practices such as forced sexual encounters, coerced participation in sexual begging, exploitation in nightclubs, forced erotic performances, or providing sexual services in private environments.

A concrete example of sexual exploitation in the European Union is the "loverboy" network, where young women were trafficked from Romania to Western European countries like Germany, Spain, and the United Kingdom and forced into prostitution. This method, commonly used in trafficking, involves seducing victims, often by men who promise romantic relationships and financial stability. Once the victims develop emotional attachments, they are manipulated or coerced into traveling abroad, where they are subjected to threats, violence, or psychological pressure and forced to provide sexual services.

2) **Forced Labor:**

Forced labor involves using the victim in economic activities against their will, without fair compensation, and often under extremely harsh working conditions. This type of exploitation is prevalent in various sectors such as agriculture, construction, cleaning, home care services, and less-regulated industries. Victims are frequently recruited from economically disadvantaged countries such as Romania, Bulgaria, or other Eastern European states and exploited in Western European countries, including Italy, Germany, France, or the United Kingdom.

A notable example is the trafficking networks in Southern Italy's agricultural sector, where workers from Romania, Bulgaria, and Africa were forced to work under severe conditions and without proper pay in regions like Puglia or Calabria. Victims are lured to Italy with promises of well-paid jobs and legal contracts. Upon arrival, their identity documents are confiscated, and they are housed in unsanitary conditions while being forced to work long hours in extremely difficult circumstances.

These workers are often compensated with wages significantly below the legal minimum or, in some instances, not paid at all. In 2022, victims of sexual exploitation and forced labor accounted for approximately 82% of all identified trafficking cases. Notably, for the first time, the recorded number of victims exploited for forced labor or services (3,990) was nearly equivalent to those exploited for sexual purposes (4,014). Furthermore, victims trafficked for other purposes, such as organ removal, benefit fraud, criminal activities, forced begging, and other forms of exploitation—totaled 1,699, representing 18% of all trafficking cases (*Figure 1*).

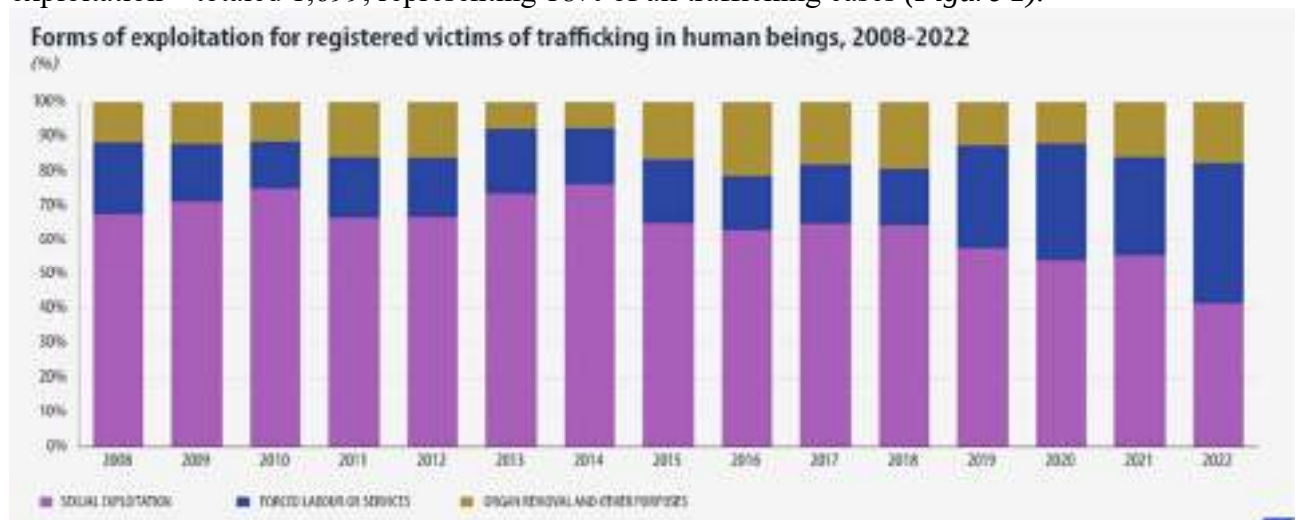


Figure 1. Forms of exploitation for registered victims of trafficking in human beings, 2008-2022 [5]

3) **Slavery or Practices Similar to Slavery**

Traffickers impose complete control over their victims, depriving them of their freedom in ways that resemble historical forms of slavery. In such cases, victims are entirely stripped of their autonomy and treated as mere property, subjected to absolute domination. These scenarios are found in various sectors such as industry, agriculture, domestic labor, or caregiving, where

individuals are forced to work under degrading conditions with no opportunity to exercise their basic rights. For instance, a notorious case of slavery-like exploitation was uncovered in the United Kingdom in 2019, where a human trafficking network originating from Poland was dismantled. Vulnerable individuals were lured with promises of stable, well-paying jobs, only to end up in forced labor. These victims faced restricted movement, lacked basic rights, and were subjected to exploitative conditions mirroring slavery.

4) Forced Begging

This involves coercing individuals to beg, with all the proceeds being seized by the traffickers. Within the European Union, this is classified as human trafficking when elements such as coercion, deception, or exploitation of vulnerability are present. Victims often include children, individuals with disabilities, or those from disadvantaged socio-economic backgrounds. These individuals are typically exploited in major cities or tourist hotspots. A prominent example occurred in France, where a Balkan-based trafficking network forced numerous victims—mostly Roma individuals from Romania and Bulgaria—to beg in large cities such as Paris, Lyon, and Marseille. Victims, including children, were misled with promises of financial aid or better living conditions. Once in France, their documents were confiscated, they were constantly monitored, and they endured miserable living conditions, being forced to beg for 8–12 hours daily.

5) Organ Harvesting

Trafficking for organ harvesting is one of the most severe forms of exploitation, involving illegal medical procedures where victims' organs are extracted without their consent. A notable case was reported in Kosovo, which was highlighted in the 2010 "Dick Marty Report" by the Council of Europe. This report exposed serious allegations regarding organ trafficking and exploitation, drawing international attention to the issue [6]. This case revealed an organized network trafficking individuals from various countries, including EU states, under false pretenses such as job opportunities or financial aid. Victims were deceived with promises of medical treatments or surgeries, only to have their organs, particularly kidneys, illegally removed. These procedures were carried out in unregulated, clandestine clinics, often in remote locations with no oversight. The harvested organs were then sold on the black market for transplants, sometimes to recipients in EU countries willing to pay significant sums for these illicit procedures.

6) Forced Marriages

„Forced marriage is a severe form of exploitation and a violation of fundamental human rights, where an individual is pressured or manipulated into marrying against their will. This can result from physical, psychological, economic, or cultural coercion and is frequently connected to human trafficking. In the European Union, forced marriage is recognized as a form of gender-based violence and is frequently associated with other trafficking-related abuses, including sexual exploitation and forced labor. Women and children are particularly affected by forced marriage, though men can also be involved, especially in cases of sexual or labor exploitation. In some EU countries, forced marriages are a reality for individuals from cultures where family or religious traditions hold significant influence. For example, in the UK, there have been documented cases of young girls, particularly from South Asian and African communities, being coerced into marriage with men from their countries of origin. Such marriages are often orchestrated by families or interest groups aiming to control the personal lives of young women, typically for social or cultural motives. In cases of forced marriage, many EU countries have established support programs for victims, including access to safe housing, psychological support, and legal counseling. Additionally, authorities provide assistance with social reintegration, helping victims achieve financial independence and rebuild their lives.

Human exploitation is the central element of human trafficking, serving as the primary objective of the crime. It is the driving force behind the trafficker's actions, influencing the methods and tactics employed to dominate and compel the victim to accept the imposed

conditions. Exploitation is an inherent aspect of human trafficking, as it constitutes the core purpose of the offense.

The profile of a human trafficking victim is highly diverse, with individuals of any age, gender, or nationality at risk. According to recent data from Eurostat and Europol, the typical victim profile in the European Union shows a predominance of women and girls, who accounted for nearly two-thirds of the identified victims in 2022. However, there has been a slight decrease in this percentage compared to previous years, when women made up an even higher proportion. In 2022, the total number of registered human trafficking victims in the EU reached 10,093, reflecting a 41.1% increase compared to the previous year and the highest number recorded between 2008 and 2022 [7].

Europol's data reveals that in 2022, there were 23 victims per one million residents in the EU, compared to 16 in 2021. The highest rates were observed in Luxembourg (119), Estonia (65), Austria (50), the Netherlands (46), Finland (43), Malta (42), Italy (36), Greece (34), France (30), Romania (26), Portugal (24), and Hungary (23) (**Figure 2**). The lowest rates were in the Czech Republic and Slovenia (2), and Spain and Lithuania (5). These statistics highlight an alarming increase in the number of human trafficking victims in the European Union, from 16 victims per million in 2021 to 23 in 2022. This surge could reflect improvements in reporting and victim identification efforts, but it could also be linked to socio-economic challenges that heighten the vulnerability of certain groups[7].

Luxembourg, Estonia, Austria, and the Netherlands have the highest victim rates per million inhabitants, which may indicate better reporting systems and more effective identification measures, or a higher presence of trafficking networks in these countries. Wealthy nations like Luxembourg and the Netherlands might attract traffickers due to their status as destinations for economic or sexual exploitation or as transit points.

In contrast, countries like the Czech Republic, Slovenia, Spain, and Lithuania reported the lowest rates of trafficking victims, which may be attributed to factors such as underreporting, less effective anti-trafficking efforts, or lower levels of trafficking activities. Romania, with a rate of 26 victims per million residents, is near the EU average, reflecting an ongoing human trafficking issue. This is driven by factors such as poverty, migration, and the social vulnerability of certain groups, positioning Romania both as a country of origin and, in some instances, a transit point for trafficking victims.

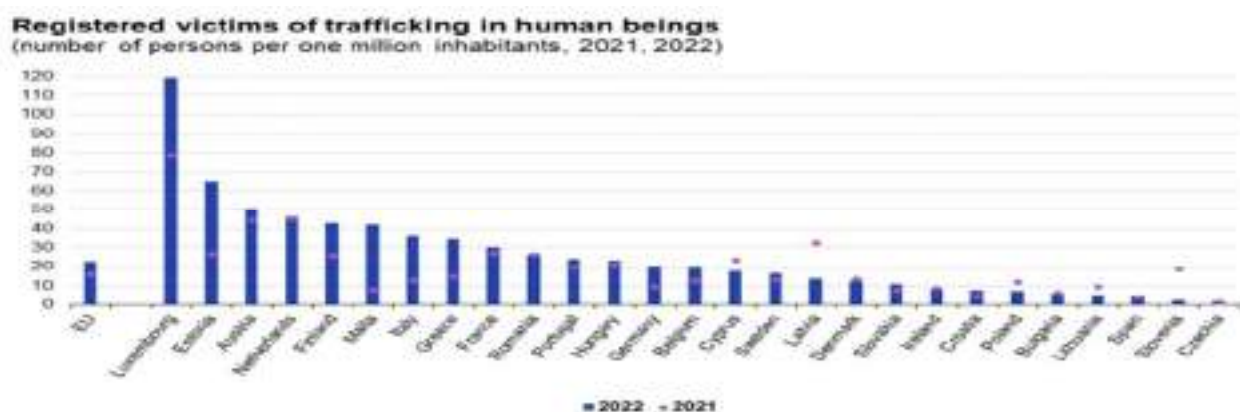


Figure 2. Registered victims of trafficking in human beings (number of persons per one million inhabitants 2021, 2022 [5])

Referring to the percentage distribution of women involved in human trafficking in the EU between 2015 and 2022 (Figure 3), it is evident that women consistently represent the majority of victims during this period, with their share ranging from 60% to almost 80%. This trend highlights the heightened vulnerability of women to exploitation, particularly in cases of sexual exploitation, but also in other forms of trafficking-related abuses. Although there has been a slight decreasing

trend in recent years, women remain predominantly affected by human trafficking. The percentage of women suspected of being involved in human trafficking is notably lower than the percentage of female victims, ranging between 20% and 30%. This indicates that while women are more often victims of trafficking, a substantial number of men are implicated as suspects in trafficking-related cases. The percentage of women convicted for trafficking is also lower than the percentage of female victims, typically ranging between 20% and 30%. This aspect may indicate that men are more often identified and convicted in leadership or organizational roles within trafficking networks. Overall, these statistics highlight a gender imbalance in human trafficking, with women primarily being victims, while the majority of suspected and convicted traffickers are men [7].

Prevalence of females involved in trafficking of human beings
(% by legal status, EU, 2015-2022)

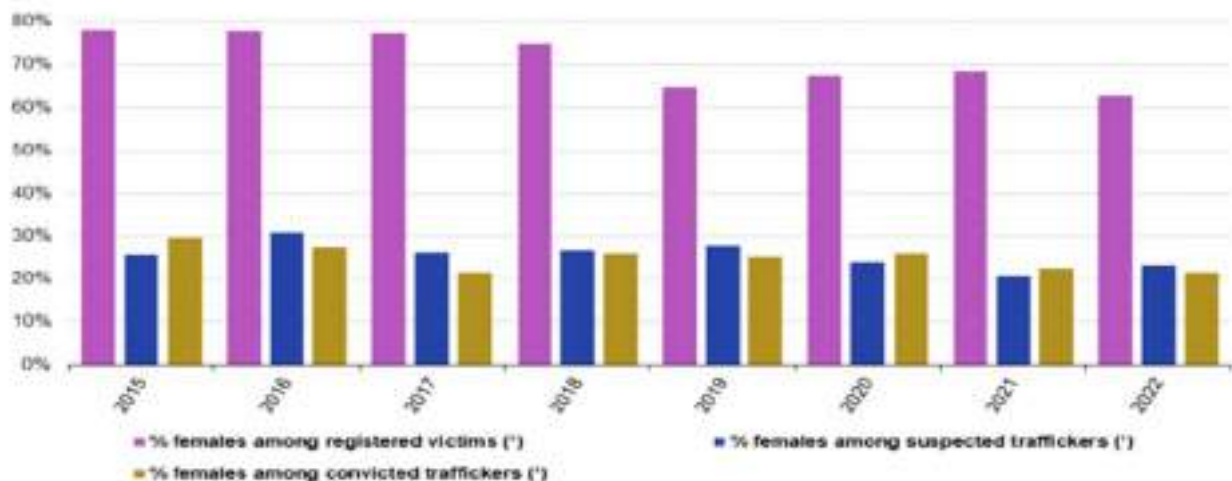


Figure 3. Prevalence of females involved in trafficking of human beings [5]

Traffickers originate both from EU member states and outside of the Union, with many being part of well-organized criminal networks operating transnationally. These networks are often hierarchically structured and use a variety of recruitment methods, including emotional manipulation and false promises of employment to attract victims. The operations of these networks can involve the illegal transport of victims between countries, as well as their exploitation within their own country of origin. International networks, such as those from Nigeria, have developed sophisticated exploitation techniques, especially for sexual exploitation and forced labor. For many victims, exploitation includes the use of stolen identity documents, which are then used in social benefits fraud or for other criminal purposes.

2) Combating Human Trafficking

The fight against the ongoing crime of human trafficking is one of many areas where the Council of Europe is actively working to uphold human rights and dignity. Combatting human trafficking has long been a key priority for the European Union, and significant progress has been made in several areas. Collaboration among vital stakeholders, including political entities, law enforcement, and judicial authorities—both nationally and transnationally—has led to the prosecution and conviction of traffickers, as well as improvements in victim identification, assistance, and support. Awareness campaigns, educational programs, and training initiatives have been carried out to reduce the risks of people becoming trafficking victims. Furthermore, studies and reports have deepened the understanding of the issue, contributing to the development of effective response strategies.

Since the late 1980s, the Council of Europe has introduced a range of measures to combat human trafficking, culminating in the adoption of the **Convention on Action Against Trafficking**

in Human Beings in May 2005, which came into force on February 1, 2008. The Convention goes beyond the mere criminalization of trafficking and prosecution of traffickers; it places positive obligations on states to implement effective measures for preventing human trafficking, protecting victims' rights, and promoting international cooperation, including with civil society, to achieve these objectives. As of February 2024, all 46 member states of the Council of Europe, along with two non-member states, Belarus and Israel, have signed on to the Convention, demonstrating a broad commitment to the shared fight against human trafficking[8].

3) Conclusion:

In conclusion, human trafficking remains a serious and persistent issue that poses significant challenges to societies worldwide, particularly in the European Union. The data indicates a worrying trend, with women being disproportionately affected as victims of trafficking. Despite the concerted efforts of international bodies like the European Union and the Council of Europe, traffickers continue to exploit vulnerable individuals through complex and sophisticated methods. However, the ongoing cooperation between national authorities, law enforcement agencies, and civil society, alongside legislative measures such as the Council of Europe's Convention on Action Against Trafficking in Human Beings, represents a significant step forward in the global fight against human trafficking. While progress has been made, sustained action, enhanced victim support systems, and improved awareness are essential to eliminate this crime and protect future generations from exploitation. The involvement of all sectors of society, as well as the commitment of every state to implement effective preventive and protective measures, is crucial to creating a safer and more just world for all.

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DEFINING JUVENILE DELINQUENCY AND THE IMPORTANCE OF STUDYING THE PHENOMENON IN THE CONTEXT OF MODERN SOCIETY

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Abstract. *Juvenile delinquency is a complex phenomenon that involves antisocial and criminal behaviors committed by minors, often reflecting multiple issues within the family, educational, and social environments. This article aims to define the term "juvenile delinquency" and provide a detailed analysis of the factors influencing this behavior, such as family influence, peer pressure, educational level, and economic conditions. Based on a questionnaire applied to a sample of young people and adults, the level of societal awareness regarding this phenomenon and its determining factors is assessed. The results suggest a significant need for education and public awareness to better understand and combat juvenile delinquency. The study's conclusions emphasize the importance of studying this phenomenon not only for preventing deviant behaviors but also for developing effective policies for the rehabilitation and social reintegration of young offenders. Therefore, analyzing this issue is essential in the context of modern society, where rapid changes and social challenges can amplify the risk of juvenile delinquency.*

Keywords: *Juvenile delinquency, Crime, Minors, Factors, Importance*

1. Introduction

One of the major issues facing modern society is the alarming increase in criminal activity, where juvenile delinquency and certain forms of deviant behavior (pre-delinquency) represent a significant share. Youth delinquency reflects poor adaptation to legal and moral norms, constituting one of the most relevant negative deviations, violating social coexistence norms, personal integrity, and fundamental individual rights

2. Defining Juvenile Delinquency

The term “juvenile delinquency” is not found in the criminal legislation of the Republic of Moldova or in the laws of many other countries, being used more in a doctrinal sense. Therefore, it is necessary to clarify the meaning of each word in the phrase “juvenile delinquency,” as a misinterpretation could lead to confusion, negatively impacting both scientific research and preventive measures. When discussing juvenile delinquency, we cannot overlook the notion of crime, which refers to the totality of crimes committed within a specific territory over a given period by individuals guilty of committing such acts; in this case, the totality of crimes committed by minors. From this context, it follows that crime cannot be studied outside of society, which provides the social dimension of the phenomenon in question. These individuals, through their actions, are linked to crime and form part of it [1]. Nevertheless, the correct definition of the concept of juvenile delinquency places significant emphasis on chronological age, which distinguishes adult crime from juvenile crime. Thus, it is important to note that juvenile crime encompasses all criminal acts committed by individuals who have not yet reached the age of 18.

According to the Romanian Explanatory Dictionary, the term “crime” refers to the totality of offenses committed within a specific territory over a certain period. [2].

In the same context, the dictionary defines the term “minor” with the following meanings: someone who has not yet reached the age of majority; a person who has not attained the legal age to fully enjoy civil and political rights; or, more generally, an individual who has not yet reached the age at which they can exercise all their rights. [2].

The term "delinquency" is defined as a social phenomenon consisting of the commission of offenses or the totality of offenses committed at a specific time, in a particular environment, or by individuals of a certain age [2], the word "juvenile" is interpreted as someone who belongs to youth. For a clearer understanding of the term, it is normal to interpret the word "youth." According to the same dictionary, it refers to the period in a person's life between childhood and adulthood.

The Small Dictionary of Criminological Terms specifies that delinquency in specialized literature is generally defined, taking into account not only offenses but also other instances of immoral behavior [3, pag.13], without concretizing the scope of "immoral behavior," this prevents a clear delineation of the illicit with its "boundaries," starting from the premise of whether immorality is included or excluded within the realm of the illicit (some forms of social deviation). By analyzing all the concepts explained above, we can infer the idea that juvenile crime represents the totality of offenses (criminal acts) committed within a specific territory during a determined period of time, by individuals who have not reached adulthood. Meanwhile, juvenile delinquency refers to the totality of offenses committed at a certain point in time, within a specific environment, by individuals who have not yet reached maturity.

However, the concept of juvenile delinquency is synonymous in certain languages, such as Italian, German, and French, with the notion of juvenile criminality (criminalita giovanile, criminalité juvenile, jugend kriminalität). In its original Latin form, these words had different meanings. The verb "delinquere" meant "to err," while "crime" referred to the "crime" that someone was accused of. In Anglo-Saxon specialized literature, the term "delinquency" has retained its original meaning (delinquency), which is distinct from the scope and content of the notion of "criminality" [4].

It is believed that the term "juvenile delinquency" was introduced to differentiate the more serious offenses committed by minors, such as criminal acts, which are subject to a different status or regime. This term has become common in the language of the Republic of Moldova, where it is used in parallel with the term "criminality," making the distinction between them somewhat vague.

When discussing the relationship between these two terms, it is important to emphasize that juvenile criminality refers exclusively to the totality of offenses committed by minors who have reached the age of criminal responsibility. In this context, the general age for criminal responsibility is 16, although, according to Article 21 of the Criminal Code of the Republic of Moldova, criminal responsibility may begin at the age of 14 for certain specific types of offenses.

On the other hand, the term juvenile delinquency has a broader meaning. It is not limited solely to criminal offenses that are penalized but includes all legal and moral violations committed by individuals until they reach the age of 18. Therefore, juvenile delinquency covers a wider range of acts and subjects, considering any deviation from established norms, regardless of the age at which the acts were committed.

Thus, we can derive a clear definition of the phenomenon of "juvenile delinquency," which means *the totality of legal as well as moral violations committed at a certain point in time, within a specific environment, by minors, that is, individuals who have not reached the age of 18 and have not yet acquired full legal capacity.*

3. The Importance of Studying the Phenomenon

Given that the phenomenon of juvenile delinquency is complex, and to highlight the importance of studying it within the context of modern society, we consider it appropriate to identify its specific characteristics.

In this regard, scholars have expressed views on several general characteristics that reveal its complex etiology and give it a distinct place within the framework of negative social manifestations [1].

Thus, we can infer:

- 1) **The Mass Social Character:** It is a social phenomenon with a certain frequency, occurring in a community large enough to be measured and analyzed through statistical-mathematical

methods. The dynamics, structure, and projections related to the prevention and combatting of this phenomenon are essential for addressing the issue at a societal level.

- 2) **The Historical-Evolutionary Character:** This phenomenon has existed throughout the entire history of human society, manifesting differently depending on the historical era, geographical context, and socio-cultural particularities. Although juvenile delinquency has evolved and transformed over time, there is no indication that it could completely disappear. The phenomenon is marked by constant changes in structure, dynamics, and forms of manifestation, necessitating continuous analysis of the causes and tailored remedies.
- 3) **The Harmful Character:** It brings significant harm to the social and individual values protected by legal and moral norms. Its impact is felt at the level of the entire human value system, negatively influencing culture and civilization.
- 4) **The Bio-Psycho-Social Complexity:** The phenomenon reflects the interaction between the biological, psychological, and social dimensions of the minors involved. Juvenile delinquency cannot be understood outside of the social context and individual behavior, being the result of multiple and variable factors that influence antisocial actions.
- 5) **The Variability of Manifestations:** The diversity of forms of juvenile delinquency stems both from the variety of legal and moral violations committed by minors and from the uniqueness of each individual. Each illicit act is influenced by specific factors, highlighting the distinct nature of each case.
- 6) **Causal Conditioning:** It is not a random phenomenon or without causality. Its manifestations are always influenced by certain favorable factors, whose identification and management can contribute to the prevention and combatting of criminal behavior. Preventive measures and criminal sanctions are essential in this process.

As outlined in the characterization of the phenomenon of juvenile delinquency above, this social issue has multiple implications for the community, due to its negative impact on moral and legal values. A correct understanding of the phenomenon and the identification of the factors that determine it are essential steps in effectively preventing and combating it.

In this context, we deemed it appropriate to analyze the level of societal awareness regarding juvenile delinquency and assess the perception of the importance of studying this phenomenon. To achieve this, we developed a survey consisting of 11 questions, with participation from 208 individuals aged between under 18 and over 55 years. This survey allows us to outline a detailed picture of the public's awareness of the causes, consequences, and potential solutions for combating juvenile delinquency.

Thus, according to the survey results, the majority of respondents fall within the age range of 18-24 years (89.4%), with occasional representation in other age ranges (under 18 years – 3.37%, 25-34 years – 3.37%, 35-44 years – 1.92%, and 45-54 years – 1.92%).

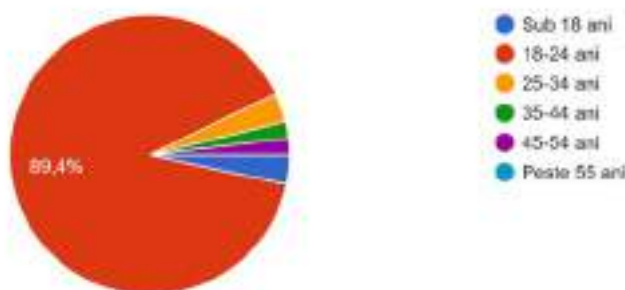


Figure 1. Age distribution.

At the same time, a larger number of respondents believe that juvenile delinquency represents a serious problem in our society (88.46%), while a smaller, yet significant portion (5.77%) believe it does not represent a problem, and 5.77% did not express an opinion on the

question. This explains that, although the majority recognize juvenile delinquency as a major social issue, there is still a need to deepen efforts to raise awareness and further educate society about the consequences of this phenomenon.

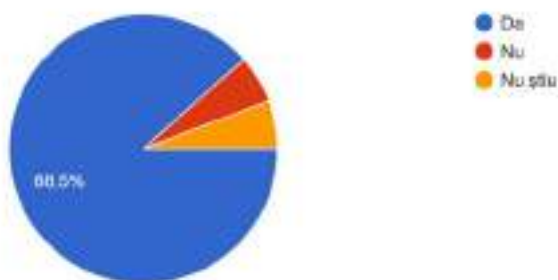


Figure 2. The severity of the issue.

The third question includes the main factors influencing minors to commit illegal acts. 86.1% of respondents considered that the peer group is the most influential factor, followed by the family environment (84.1%). Similarly, a notable number of respondents believe that other factors such as poverty and social exclusion (58.7%), previous traumatic experiences (56.3%), and emotional problems (51.4%) significantly influence minors toward illegal actions. These are followed by personality traits (32.7%) and school difficulties (27.9%).

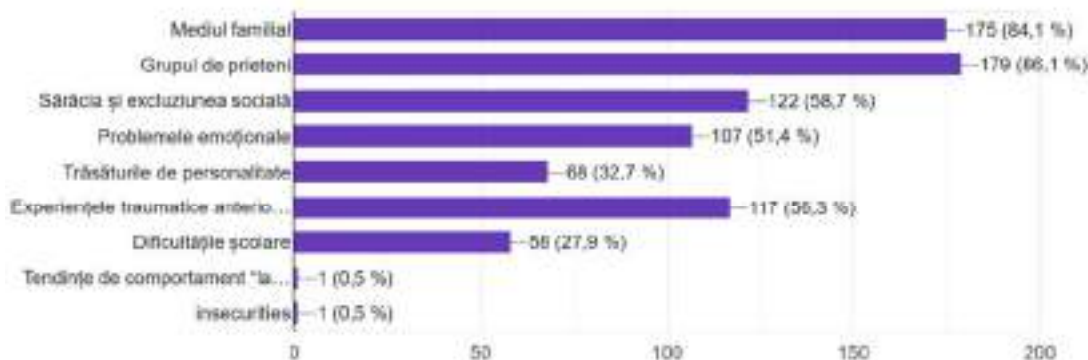


Figure 3. Statistic of Main factors.

If we analyze each of the factors mentioned above in line with the respondents' results, we have the following statistics:

1) Family Environment

The majority of respondents (61.06%) believe that the family environment greatly influences the delinquent behavior of youth. A significant proportion (33.17%) consider that the influence is considerable. A small number (5.29%) believe that the family environment has little influence, while nearly insignificant (0.48%) is the opinion that the family environment has no influence on this behavior.

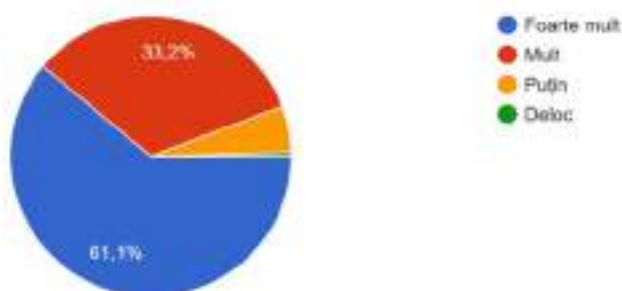


Figure 4. Statistic of Family Environment.

2) Peer Group

The majority of respondents (54.81%) believe that the peer group greatly influences the delinquent behavior of young people. A significant proportion (39.42%) state that the influence is considerable. A small number of respondents (5.29%) believe that the peer group has little influence on the behavior of young people, and a single respondent (0.48%) considers that the peer group has no influence on the delinquent behavior of young people.

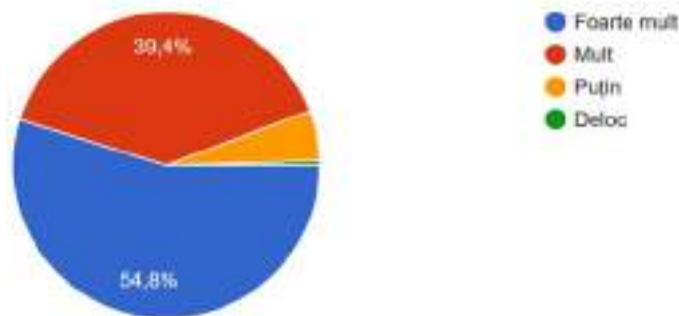


Figure 5. Statistic of Peer Group.

3) Poverty and Social Exclusion

48.56% of respondents believe that poverty and social exclusion have a considerable influence on delinquent behavior. 24.52% think that the influence is very strong. 25.96% consider the influence to be moderate, and 0.96% believe that poverty and social exclusion do not influence delinquent behavior at all.

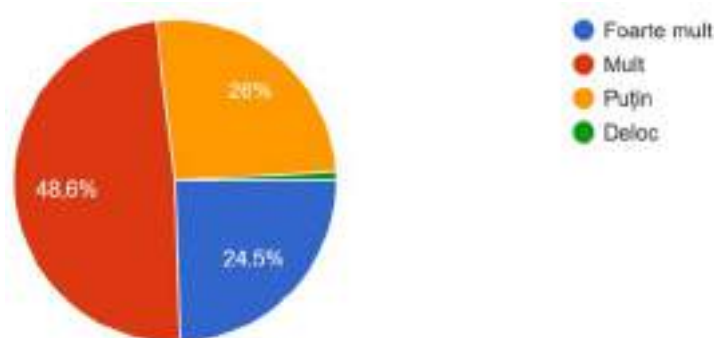


Figure 6. Statistic of Poverty and Social Exclusion.

4) Emotional Problems

44.71% of respondents believe that emotional problems have a considerable influence on delinquent behavior. 33.17% think that the influence is very strong. 20.67% consider the influence to be minor, and 1.44% believe that emotional problems do not influence delinquent behavior at all.

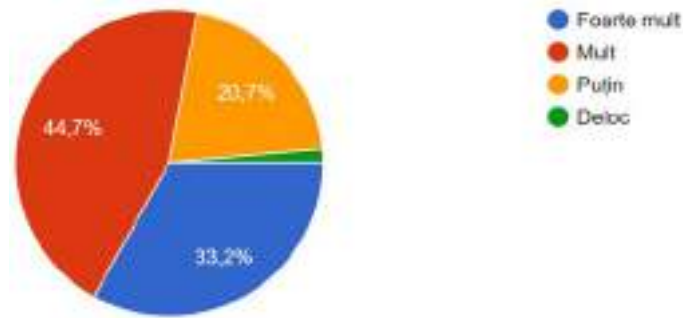


Figure 7. Statistic of Emotional Problems.

5) Personality Traits

42.31% of respondents believe that personality traits have a considerable influence on delinquent behavior. 18.27% think that the influence is very strong. 35.58% consider the influence to be minor, and 3.85% believe that personality traits do not influence delinquent behavior at all.

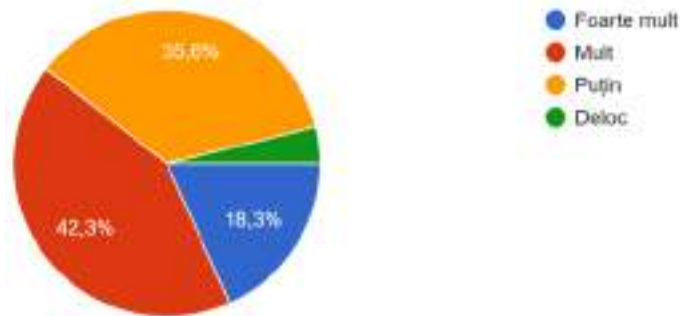


Figure 8. Statistic of Personality Traits

6) Previous Traumatic Experiences

52.4% of respondents believe that previous traumatic experiences have a considerable influence on delinquent behavior. 29.81% think that the influence is very strong. 17.31% consider the influence to be minor, and 0.48% believe that traumatic experiences do not influence delinquent behavior at all.

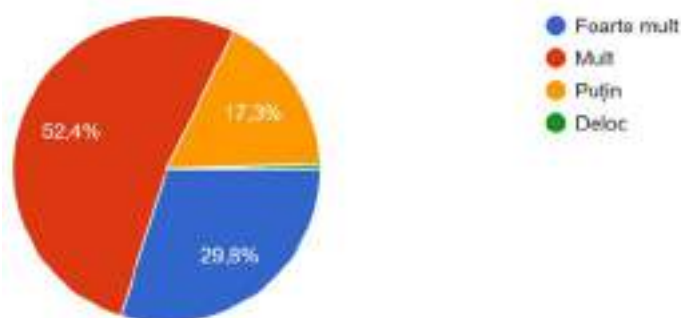


Figure 9. Statistic of Previous Traumatic Experiences.

7) School difficulties

34.62% of respondents believe that school difficulties have a considerable influence on delinquent behavior. 16.35% think that the influence is very strong. 38.94% consider the influence to be minor, and 10.1% believe that school difficulties do not influence delinquent behavior at all.

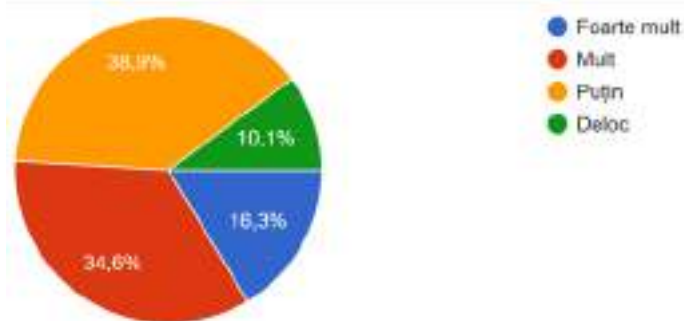


Figure 10. Statistic of School difficulties.

Following the analysis of the statistics presented above, we can deduce that, although society largely understands the factors that influence minors to commit illegal acts, as well as the consequences of this phenomenon, it is still a sad situation, as there are still many young people who consider some factors to be of little or no importance. In this regard, we believe it is crucial for public policies to address not only educational and economic aspects, but also the emotional and psychological support of young people, while encouraging active involvement from families and communities. This holistic approach can contribute to the prevention of delinquent behaviors and the development of a more equitable and safer society.

If we ask ourselves which minors are more likely to be subjects of juvenile delinquency, those from rural or urban areas, the results from the survey indicate that 50.48% of respondents believe minors from urban areas are more likely to commit crimes. Meanwhile, 49.52% of respondents believe minors from rural areas are more likely to do so. Although the results are almost evenly split, this distribution reflects a diverse public perception, suggesting that specific factors related to each environment (urban or rural) are viewed as similarly influencing delinquent behavior. However, the National Bureau of Statistics provides clarification, stating that minors in urban areas are more predisposed, particularly in Chișinău and Bălți [5].

4. Conclusions

Juvenile delinquency is not only an issue for those directly involved but also affects society as a whole. A profound understanding of this phenomenon is crucial for developing sustainable solutions that contribute to reducing crime rates, improving the social climate, and enhancing community safety. Therefore, investing in research, education, and support for young people is the foundation of a modern, equitable, and prosperous society. Factors such as the family environment, peer group, poverty, social exclusion, and traumatic experiences directly influence minors' predisposition to engage in illegal activities. Understanding these elements allows for the creation of prevention programs tailored to the needs of each environment. Statistical studies and etiological analyses provide authorities with a solid foundation for developing integrated public policies that address not only legal aspects but also educational, economic, psychological, and social dimensions. In this way, interventions become more effective, and juvenile crime rates can be significantly reduced.

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THE HISTORY AND THEORIES OF JUVENILE DELINQUENCY

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Abstract: *The article addresses juvenile delinquency, defined as all illegal behaviors committed by young people under 18 years of age. This socio-legal phenomenon is influenced by economic factors (poverty, inequality), family factors (dysfunctional relationships), educational factors (school dropout), and peer influences. The study of juvenile delinquency examines its impact on youth development, social reintegration challenges and social costs. Historically, approaches to juvenile offenders have evolved from harsh punishments to strategies focused on rehabilitation and prevention. Various theories (biological, psychological, sociological) explain delinquency through genetic influences, behavioral disorders or environmental pressures. In conclusion, the document emphasizes the need for prevention policies and support for the reintegration of young people, the promotion of educational interventions and social support to reduce the risk of juvenile crime and contribute to community safety.*

Keywords: *juvenile delinquency, criminality, minors, history, theories.*

1. Introduction

Juvenile delinquency represents a complex social phenomenon that has drawn the attention of researchers, lawmakers, and practitioners from various fields due to its multiple implications for youth development and collective safety. This concept defines the set of illegal behaviors committed by individuals under the age of 18, influenced by a combination of economic factors (such as poverty and inequality), social factors (family disharmony, peer pressure), and educational factors (school dropout). The history of this phenomenon reflects significant evolution: from rigid criminal justice systems, where minors were treated the same as adults, to measures based on prevention, rehabilitation, and social reintegration. In the Republic of Moldova, the post-1990 period marked an increase in juvenile delinquency, highlighting both qualitative and quantitative changes in this phenomenon. From the rise in the number of violent crimes to the involvement of minors in criminal groups, the situation emphasized the need for intervention policies adapted to contemporary realities. At the same time, theories explaining juvenile delinquency—whether from biological, psychological, or sociological perspectives—provide a solid foundation for understanding and addressing this issue. This material offers a detailed analysis of the history of juvenile delinquency, its causal factors, and theoretical approaches, emphasizing the importance of educational measures and social policies in reducing deviant behaviors among young people.

2. The History of Juvenile Delinquency

The concept of juvenile delinquency is closely tied to the evolution of legal codes concerning minors. In past centuries, minors did not benefit from a distinct legal regime compared to adults, being accused, convicted, and punished in the same manner regardless of age. There were no special procedures for trying minors nor any facilities dedicated to their reeducation or socialization.

Aristotle mentioned that minors would only be punished for committing intentional homicide. The Law of the Twelve Tables categorized minors into two major groups:

- Pubescents (boys from 14 years old and girls from 12 years old);
- Prepubescents (boys under 14 and girls under 12).

If a crime was committed by pubescents, they were subjected to beatings but could also face the death penalty at the discretion of the victim. Prepubescents, due to their young age, could only be beaten.

Starting in the Middle Ages, with the influence of the Catholic Church, Western legal regulations regarding minors began to change. The Church supported the idea, shared by contemporary jurists, that minors under the age of 7 had not yet reached the "age of reason" and therefore could not be held accountable for their spiritual "transgressions." [1]

As a result of this new conception, in several countries, including England, the law allowed exemption from criminal liability for children aged 7 to 14, who could be judged as adults only if it was proven that they had a "full understanding" of the criminal nature of their actions. [2]

Parents, especially the father, who was considered the head of the family, were held responsible for the criminal acts committed by minors.

During the Enlightenment, clearer distinctions emerged between childhood and adulthood, along with growing concerns for children's education and the development of new pedagogical concepts. Consequently, the segregation between these two worlds, previously undifferentiated in earlier historical periods, became a premise for juvenile legislation to provide children with a distinct legal regime. [3]

As a direct consequence of these changes, in the 19th century, several European countries established homes or "refuge houses" specifically designed for the social protection of orphaned, abandoned, or neglected children, shielding them from harmful family influences, poverty, and criminality. In the early 19th century, Johann Pestalozzi initiated the first reformatory for delinquents in Argau, Switzerland, focusing on their reeducation. This initiative later spread to several other European countries.

In the Republic of Moldova, the phenomenon of juvenile delinquency was perceived as explosive after 1990, not only due to its increasing scale and intensity but also because of the new qualitative aspects it displayed compared to the previous period. These included the growing severity of crimes committed, especially violent and aggressive ones, as well as the tendency of minors to associate in more or less organized groups to commit offenses.

The crimes committed by minors between 1991 and 1995 showed a constant decrease, with the proportion of crimes committed by minors being 18.9% of the total number of detected crimes in 1991 and 9.4% in 1995. Starting from 1996, the share of crimes committed by minors began to increase slowly. For instance, in 1994, 6,508 minors were registered, while in 1997, the number rose to 7,538. [4]

The statistical evaluation of juvenile crime dynamics between 1995 and 2010 reflects that among the total number of individuals who committed crimes, every seventh person was a minor aged 14–17. Moreover, out of the total number of crimes recorded annually, almost every thirteenth was committed by a minor in this age group.

One characteristic that defines juvenile delinquency during these years is the increasing number of minors involved in crimes, including group crimes. Thus, in 2010, group crimes accounted for 19% of the offenses committed by minors, showing an upward trend over the previous four years. In total, 1,586 minors who committed crimes were identified, representing a 17.2% increase compared to 2009. On average, there were 207 minors per 100,000 children under 18 years old who committed crimes. [5] Two-thirds of minors guilty of committing crimes were aged 16–17. Minors aged 14–15 were mostly involved in theft, while those aged 16–17 committed more robberies.

In 2010, 27 minors committed drug-related crimes, compared to 74 minors in 2005. It is alarming that over the past two years, the number of drug-related crimes remained constant, while the number of minors committing such crimes decreased. Drug-related crimes may acquire new characteristics, such as the commission of multiple offenses by the same person or repeated offenses.

In 2020, 606 crimes were recorded as being committed by minors or with their participation, accounting for 2.3% of the total registered crimes. Compared to the previous year, there was an 8.7% reduction in crimes committed by minors, particularly crimes against property. On average, 106 crimes per 100,000 children aged 0–17 were committed by minors in 2020, compared to 156 crimes in 2016, which marked the highest rate of juvenile crime in the previous five years. Minors were most frequently involved in theft (56.3%), followed by robberies (6.6%) and hooliganism (4.0%).

Penalties Applied to Minors in the Republic of Moldova 1. Community service: Minors aged 16 or older may be sentenced to a maximum of 240 hours of unpaid community service. 2. Fine: Rarely applied due to the limited financial means of minors. 3. Imprisonment: This involves deprivation of liberty for minors found guilty of committing crimes. For minors under 18, the maximum penalty prescribed by the Penal Code for the committed offense is halved. In cases of multiple crimes, imprisonment cannot exceed 12 years and 6 months, while in cases of cumulative sentences, the maximum is 15 years.

Release from Criminal Liability

1. A person under the age of 18 who commits a minor or less serious offense for the first time may be released from criminal liability if it is determined that their rehabilitation is possible without prosecution.
2. Individuals released under these conditions are subject to coercive educational measures as provided in Article 104 of the Penal Code.

Safety Measures Applied to Minors According to Article 104 of the Penal Code of the Republic of Moldova

- a) Warning.
- b) Entrusting the minor to the supervision of parents, guardians, or state institutions.
- c) Obliging the minor to repair damages caused, considering their financial situation.
- d) Requiring the minor to undergo psychological rehabilitation.
- e) Requiring the minor to complete mandatory education.
- f) Requiring the minor to participate in a probation program. [6]

3. Fundamental Theories in Evaluating the Causes of Juvenile Delinquency

The majority of theories about the causes of juvenile delinquency can be grouped into two major categories:

- Theories that claim delinquency is an inherited predisposition, determined by genetic or hereditary factors.
- Theories that consider delinquency to be an acquired behavior, influenced by family, social, and cultural factors.

The first category includes biological theories, while the second focuses on psychological and sociological explanations. Additionally, there are hybrid theories that combine elements from both perspectives.

1) Biological Theories

a. The Theory of Constitutional Predisposition to Delinquency

Biological theories are among the oldest attempts to explain delinquency. As early as the 19th century, the idea emerged that both juvenile and adult delinquents possess genetic defects passed down from their ancestors. The concept of degeneration, popular at that time, suggested that the descendants of individuals with vices (such as alcoholism or immorality) or with criminal backgrounds would themselves be predisposed to similar behaviors.

Representatives of the positivist school of criminology, such as Cesare Lombroso, argued that degeneration could be identified through certain physical "stigmata" characteristic of a specific bodily constitution. According to this theory, the delinquent was not a product of the social environment but the result of genetic regression, being born with criminal tendencies.

William Sheldon, who further developed the idea of body constitution, proposed the theory of somatotypes, suggesting that individuals with a mesomorphic body type (well-defined muscles and an athletic build) are more prone to aggression and delinquent behavior.

b. The Theory of the Criminal Chromosome

With advancements in genetics, a theory emerged suggesting that criminal or violent behavior could be caused by chromosomal abnormalities. It was hypothesized that some male delinquents might have an extra Y chromosome, resulting in an XYY structure instead of the usual XY.

However, these theories have not been supported by solid empirical evidence. To test the hypothesis of hereditary factors, studies on twins were conducted. The results showed a higher concordance rate for delinquent tendencies among monozygotic twins (who share the same genetic material) compared to dizygotic twins. Nevertheless, these findings can also be explained by the influence of shared environments, family conditions, and similar treatment provided by parents to twins of the same sex.

2) Psychological Theories

Psychological and sociological theories currently dominate the field of explaining juvenile delinquency. Many researchers believe that psychological factors are just as important as social ones. These factors include "aggressiveness," "frustration," emotional and behavioral instability, egocentrism, and impulsiveness, which are common characteristics during adolescence. These factors can influence the process of socialization and integration into the community. Among the causes of delinquency are gaps between physical and psychological maturity, hostility toward the older generation, reactions to insecurity, as well as mental health issues or hereditary deficiencies.

a. The Theory of Frustration Resistance (W.C. Reckless)

W.C. Reckless developed a theory that combines psychological and sociological perspectives, emphasizing internal protection mechanisms against frustration and aggressiveness. His theory posits that an individual is influenced by two structures:

- *The external structure*, represented by the social environment, family, neighborhood, and peer groups. These contribute to social integration and provide the minor with a sense of belonging.
- *The internal structure*, consisting of self-control, ego strength, and resistance to social distractions.

According to this theory, a child exposed to a criminogenic environment can avoid delinquency if they possess a strong internal mechanism. Personality tests can help identify these mechanisms and prevent deviant behaviors.

Frustration, considered an obstacle to satisfying needs, generates emotional tension, which may lead to deviant behaviors. However, not all aggressive behaviors result from frustration. Some may have genetic, accidental, or environmental causes.

In the case of minors, aggressiveness should not be perceived as a definite sign of delinquency but as a way of exploring identity and adapting to social realities. Reckless argues that self-control and a well-conceptualized sense of self are essential for preventing deviant behaviors. [7]

3) Sociological Theories

a. The Theory of Anomie.

This theory, developed by the French sociologist Émile Durkheim, defines anomie as a state of legislative disorder caused by social crises such as wars, revolutions, or calamities. These events temporarily suspend existing norms and diminish the authority of social control exercised by institutions, including the enforcement of sanctions for breaking the law.

Over time, the concept of anomie has been expanded to include three major perspectives:

- A situation where old norms conflict with new ones, generating behavioral instability and adaptation difficulties due to individuals' excessive efforts to adhere to contradictory norms;
- An extreme social situation, devoid of norms, where social order becomes impossible, resulting in a "normative anarchy" in which each individual establishes their own rules;
- A state of personality disorganization, fostering the emergence of disoriented individuals due to general normative disorganization, not caused by pathology but influenced by the societal crisis.

Sociologist Robert Merton elaborated on the applicability of the theory of anomie. In contexts of social stagnation, members of society depend on the existing social and cultural structure, which influences their behaviors and mindsets. An individual's position within this structure determines the events they participate in and how they act in accordance with social norms. However, unforeseen and hard-to-accept events can cause a rupture from these norms, leading to social disorganization. Under such conditions, a conflict arises between individual interests and the lack of legitimate resources for certain social groups, which, faced with these restrictions, resort to illicit means, thereby affecting a vulnerable society. [8]

b. The Theory of Social Labeling (of the Criminal Current)

The theory of social labeling (of the criminal current) argues that delinquency is not a specific type of behavior but rather a characteristic attributed by groups or individuals in power who define certain conduct as deviant. Essentially, no behavior is inherently conformist or deviant; these labels are created and imposed by society or certain social groups. Deviance and delinquency exist only to the extent that they are defined, labeled, and sanctioned by those with the authority to establish norms.

An individual to whom such a label is applied comes to be perceived as deviant and, subsequently, adopts behavior consistent with this perception. The individual becomes aware of the imposed stigma and, even if socially accepted as a delinquent, assumes the position of an "outsider" and

Thus, behaviors of young people from disadvantaged backgrounds are labeled as deviant, even if they do not differ from those of youth from privileged categories. Similarly, individuals with criminal records are often stigmatized regardless of their subsequent actions, and certain minority groups (ethnic, cultural, etc.) are abusively generalized and judged through prejudices without analyzing each case individually.

Delinquency becomes a defensive reaction of society or certain social groups, the nature and intensity of which are influenced by factors such as power, privileged status, or wealth. Those in power tend to classify the nonconformist behaviors of individuals from lower or middle social classes as deviant. In turn, those labeled either accept the stigma, adapting their behavior accordingly, or reject it, adopting new oppositional attitudes that can generate further criminal acts.

From the interaction between groups that establish and enforce norms and individuals who endure them, the nature and intensity of deviance and delinquency can be assessed.

c. Critical Criminology [9] Representatives: I. Taylor, P. Walton, J. Young

The authors explain delinquency by associating concepts derived from the criminology of social reaction and the explanation of conflictual states between the individual and the economic-political system.

Of all social acts, they argue, those related to delinquency are limited by the following factors: the distant origins of the act, the mediated origins, the deviant act itself, the immediate origins of the social reaction, and the distant origins of the social reaction.

With these elements, the authors analyze the social structure and the differentiated attribution of social values, formulating concepts for the "political economy of crime." This is followed by the accumulation of data from the "social psychology of crime" to determine each

individual's reaction, depending on temperament, in terms of adopting or rejecting the "criminal option."

The general object of studying the criminal act structures the relationship between individual thought and action, socially differentiated in relation to individual freedom and the actions of social structures within the existing social crisis. The conflict between the criminal act and the social response (disapproval, acceptance, indifference) explains and justifies the state or societal attitude toward deviance.

d. *The Theory of Differential Associations [10]*

The American criminologist E. A. Sutherland developed his theory based on the idea that delinquent behavior has a dual structure. This includes both the circumstances in which the criminal act is committed and the influences from the offender's past (social anamnesis). According to his theory, individuals in society are exposed to both positive (conformist) and negative (nonconformist) behavioral models, which they learn through social interactions. The process of learning delinquency does not follow a linear path. Through contact with other individuals, they adjust their goals, attitudes, and motivations based on their interpretations of legal rules, whether positive or negative. If the social group is nonconformist, the individual will develop a negative perception of social norms, which can constitute the beginning of a delinquent trajectory.

Thus, the theory of "differential association" emphasizes that individuals integrated into deviant groups are influenced to adopt the lifestyle characteristic of these groups in order to adapt and achieve their goals. Moreover, the theory highlights the "differential organization" of social groups, which can generate conflicts between divergent social norms. Individuals tend to adopt the rules of the group they interact with most frequently or those that appear more advantageous for their goals.

Another aspect of differential association relates to the frequency, duration, and prioritization of social interactions, which influence the learning of either conventional or deviant behaviors. This process begins in childhood and continues throughout life, with individuals constantly exposed to factors that can affect their moral conduct.

Regarding juvenile delinquency, the theory explains the phenomenon of "negative induction" in resocialization institutions. There, minors who have committed minor offenses come into contact with dangerous recidivists, from whom they learn delinquent techniques they may apply after release. The first six months of detention are the most challenging, but once habituation sets in, the criminogenic effect of imprisonment becomes evident. Furthermore, the prison environment fosters the formation of hierarchical structures of delinquents, who remain united and prepared for future complicities.

e. *The Strategic Theory [11]*

M. Cusson, the author of this theory, argues that strategic analysis views crime as a result-oriented behavior, with its own rationale, considering the opportunities available to the perpetrator and the conduct of their adversary.

The theory has four postulates: 1. Crime is, above all, a behavior and not merely a manifestation of personality. 2. Behavior is directed toward obtaining results. 3. Behavior has its own rationale. 4. Behavior is marked by the conflict that opposes the delinquent, first to the victim and then to those who punish them (police, courts, etc.).

Cusson seeks to answer the question of why certain adolescents commit criminal acts. The answer he provides is that delinquent activity brings them more advantages than they are accustomed to. This would explain the vast majority of minors who are occasionally tempted to commit crimes.

The author states that this explanation is even more valid for "super-delinquents," minors who engage much more actively and deeply in criminal activities, such an attitude characterizing juvenile recidivism.

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- f. ***The Theory of Cultural Conflict***, with its various interpretations, such as the "delinquent subcultures" or "street corner groups" ("street gangs"), has as its main representatives **A. K. Cohen, M. Gordon, M. Yinger, F. M. Thrasher, R. A. Cloward, L. E. Ohlin, W. F. Whyte, M. E. Wolfgang, F. Ferracuti, T. Sellin, T. and Z. Glueck, among others.**

The theory of cultural conflict explains juvenile delinquency through the influence of social and cultural values in society, as well as the cultures and subcultures within it. It argues that delinquency arises from cultural conflict, generated by the poor economic conditions in impoverished immigrant communities or among certain minority ethnic groups.

According to T. Sellin, delinquent behaviors stem from significant changes in political, economic, and social systems, leading to conflicts either between groups (cultural code conflicts) or within the same group (norm conflicts). This formative duality, based on social processes and conflicts, shapes delinquent behavior influenced by the intensity and frequency of these conflicts.

A branch of this theory focuses on delinquent subcultures. Subcultures are groups that develop as a protest reaction against dominant norms and values, formed by individuals who experience obstacles in accessing social resources. These subcultures adopt distinct values and norms, often opposing societal ones, and are characterized by traits such as negativism, maliciousness, or versatility. When the goals of these groups are achieved through illicit means, they are referred to as delinquent subcultures.

According to Cohen, group socialization is the main mechanism through which these subcultures influence individuals, transmitting delinquent techniques and procedures. Within the family, children assimilate coherent values through their parents; however, school socialization introduces different norms specific to privileged classes. This duality generates frustration among children from disadvantaged classes, who react by forming gangs or delinquent subcultures.

For authors such as Thrasher, Cloward, and Ohlin, delinquency is a collective rather than an individual phenomenon. Delinquent groups and subcultures emerge as survival strategies in a society that marginalizes them and denies them legitimate means to achieve their goals. These authors introduce the concept of "differential opportunity," which refers to the means available (legitimate or illicit) to achieve goals, influencing conformity or deviance depending on individuals' positions in the "opportunity structure."

Another variant of the theory is the "street corner society," described by W.F. Whyte. This highlights that adolescence and youth are periods marked by friendships and solidarity among young people who, through socialization, plan their actions. Marginal groups, formed by young people who drop out of school, run away from home, or are unemployed, become sources of delinquency, expressing frustrations, violence, and rejection of adult social norms. These groups create their own norms and values, resorting to illicit means to achieve their goals, thus becoming sources of deviance through the learning and adoption of criminal techniques.

- g. ***The Theory of Social Disorganization***. [12]

According to this perspective, the emergence and evolution of delinquency are influenced by major recessions or social and economic crises, as well as by urbanization processes and rural migration.

American researchers C. R. Shaw and H. D. McKay demonstrated, based on statistical and cartographic data, that in large American cities, characterized by intense economic and social development, the rate of delinquency is significantly higher than in other areas or cities less affected by major economic, social, and cultural changes. This phenomenon is caused by the formation of heterogeneous communities with a low degree of cohesion and social organization, where traditional social control mechanisms become weak and ineffective. In these environments, immigrant communities, often unprepared for rapid adaptation, contribute to exacerbating social problems. The main causes of delinquency are found in urban environments, which, due to population density, diversification of spaces, and social and commercial services, become a potential source of crime, attracting and negatively influencing the behavior of some young people.

Therefore, the solution to combating juvenile delinquency cannot be found at an individual level but through the implementation of general measures at the community level, such as improving economic, social, and cultural conditions in disadvantaged areas of cities. Some authors emphasize that young people from socio-economically disadvantaged areas have different social conditions and experiences compared to those from privileged residential neighborhoods. Therefore, based on the idea that delinquency is the direct result of social disorganization, the young person's social environment must be changed and improved to prevent criminal behaviors. From this perspective, addressing juvenile delinquency should not focus on social punishment but on the reconstruction and improvement of the socio-cultural environment. Cases of delinquency should be addressed at the community level rather than through an exclusive focus on the deviant young person. [13]

h. *The Theory of Social Control.*

Social control can largely correct the shortcomings and deficiencies of the socialization process and the social integration of individuals or groups. In the absence of effective social control, deviant forms may emerge in situations of individual crisis.

T. Hirschi, the author of the theory, argues that the main goal of the socialization and social integration process is conformity. This can only be achieved through a strong connection between the individual and society, based on four essential variables:

1. Attachment to other people, especially family, which provides socialization models and conveys the norms of primary socialization;
2. The young person's commitment to achieving a high socio-professional status through quality education and training;
3. Involvement in conventional activities that generate social success and achievement of goals related to social status;
4. Belief in the moral validity of fundamental social values. The stronger these elements are, the lower the risk of delinquent behaviors.

The theory was later refined. For example, M. D. Wiatrowski and his collaborators believe that socialization is not limited to the family environment but also occurs within the educational context. In this view, school, relationships with peers, and friends play a crucial role. Deviance and delinquency are not the direct result of defective socialization within the family, but rather the consequences of a causal chain in which attachment to school and family, along with the young person's belief in the moral validity of social norms, play a determining role. [14]

4. Conclusions

Juvenile delinquency remains a pressing issue that requires an interdisciplinary approach and integrated measures to mitigate its impact on society. Historical analysis shows that, over time, the focus has shifted from punishing minors to preventing and rehabilitating them, a change that must be supported by effective public policies. In the context of the Republic of Moldova, it is imperative to implement measures that support vulnerable families, combat school abandonment, and promote social inclusion, thereby reducing the youth's vulnerability to negative influences. At the same time, theories about the causes of delinquency provide valuable perspectives for identifying the most effective intervention strategies. For instance, sociological theories emphasize the need to improve economic and social conditions in disadvantaged communities, while psychological theories highlight the importance of supporting the emotional and behavioral development of young people. In the long run, a society that prioritizes education, family support, and social integration is better equipped to reduce juvenile delinquency and create a safe and equitable environment for all. Through a concerted effort by institutions, families, and communities, it is possible to turn the challenges of juvenile delinquency into opportunities for the growth and harmonious development of young generations.

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PROPORTIONALITY IN THE ADMINISTRATIVE PROCEDURE

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Abstract: *This article contains some considerations regarding the content of the principle of proportionality in the administrative procedure, as well as some reflections on judicial control over such administrative decisions. As we will present in the content of this study, the Administrative Code brings with it new regulations, new legal instruments in the matter of administrative procedure and administrative acts, highlighting the applicability of the principle of proportionality.*

Keywords: *proportionality, legal relationship of administrative law, legitimate purpose, public authority.*

1. Introduction

The principle of proportionality, as a work of German jurisprudence, has been taken up and then promoted by the national legal systems of each state, as well as by international and regional institutions in order to realize its competences. Respectively, this scientific approach aims to emphasize the importance of the principle of proportionality in relation to discretionary power in the sphere of administrative decisions.

Even if this principle comes up against abuses of power or abuses of law, it is created and developed in order to restrict and constrain certain freedoms of participants in relation to the public authority or the state *in sensu lato*.

2. Study aspects

Being enshrined in the rule of law[1], any measure taken by public authorities which infringes rights or freedoms provided for by law must comply with the principle of proportionality.

The European Convention on Human Rights recognizes such interference when we talk about the constraint of rights or freedoms by the exercise of certain rights or freedoms. Article 8 § 2 of the Convention states that *interference by a public authority with the exercise of [the right to respect for private and family life] shall not be permitted except such as is provided by law and is necessary in a democratic society in the interests of national security, public safety, the economic well-being of the country, the protection of public order and the prevention of disorder or crime, the protection of health, morals, rights and freedoms of others.*

Since the principle of proportionality, in substance, is inextricably linked to a margin of discretion recognized to States by virtue of the European Convention on Human Rights, it represents one of the special mechanisms by which to identify the means allowed for establishing at domestic level the appropriate degree of protection of fundamental rights and freedoms.

In another view, the principle of proportionality is a measure of the legitimacy of the measures ordered by the public authority in a given administrative procedure, and it was designed to restrict the authority's power of decision, even if we are in the presence of a discretionary power of the public authority.

Therefore, the public authority, as defined by law [2], has "freedom of movement in the decision-making process", it is recognized "a margin of discretion" in the application of the "triple test" rule. This term derives from the European Court of Human Rights' analysis of (i) whether an interference is provided for by national law, (ii) whether it pursues one or more legitimate aims and (iii) whether it is proportionate to the aims pursued and necessary in a democratic society [3].

As regards the conditions of proportionality, the following should be noted:

- a) it is appropriate for achieving the aim pursued by virtue of the power conferred by law;
- b) it is necessary for the attainment of the aim;
- c) it is reasonable.

Assuming that the principle of proportionality is specific to the rule of law, for the proper functioning of the rule of law public authorities have an obligation to protect fundamental rights and freedoms, so that whenever several possibilities can be identified for fulfilling this duty to protect the fundamental rights of the individual, the solution that is to the advantage of the individual and does not involve a degree of severity of interference should be selected).

In a particular case [4], which was the subject of judicial review in the national courts, the public customs authority disregarded the principle of proportionality and ordered the suspension for a period exceeding the legal term of the AEO holder (authorized economic operator). By definition, the status of holder of an AEO (*authorized economic operator*) - is a partnership between the customs authorities and economic operators who voluntarily comply with customs regulations, ensure the security of goods in international traffic and cooperate with customs.

Thus, any measure taken by the public authority, when it involves an interference with the rights and freedoms of the individual, must not in substance be detrimental to the holder of the limited rights, the activity of the authority being kept within the "limits of action", without being an abuse of discretion.

In the situation where the principle of proportionality is triggered, the control of this principle is determined by:

- *legitimate purpose* - in view of the powers conferred by law on the public authority, in carrying out administrative operations it must pursue the objective set by the legislator when adopting the law. This procedural exercise must not exceed the discretionary power of the authority.

In exercising it, one must act in good faith within the legally established limits and in compliance with the purpose for which the right was conferred, and must treat factual situations that are identical in essence in the same way [5].

- *appropriateness*- the measure adopted by the administration (authority) must be regarded as appropriate and compatible to achieve the purpose.

It is not important at this stage to determine whether the most appropriate means have been used to achieve the objective, as this will be determined at a later stage, through the necessity test [6].

- *necessity of the measure* - implies taking and adopting means that would be less restrictive, that would generate the same effects, but at the same time would not burden the authority as much as possible.

The unit of measure, which concerns the core of "necessity", is to balance between the less restrictive means and the aim pursued.

- *equitable and fair proportion* - presupposes a balance between the constraint on the rights and interests of the recipients and the benefits brought about by the same measure and means. Therefore, the limitation of the rights and freedoms of the individual is unjust if it is outweighed by the benefit of public power, under the pretext of the discretionary right of public authority. This reasoning is also emphasized by the European Court of Human Rights, ruling that the "revocation of the right" produced prejudicial effects of substance, the measure adopted by the public authority was not of a just proportion [7].

In accordance with the above, it follows that the principle of proportionality was created by case law, later developed by doctrine, and applicable in legal life specifically for the purpose of delimiting discretionary power from the excess of power in the activity of public authorities, considered individually or in general as part of the rule of law.

The application of this principle represents an indication highlighting the functioning of legality in the rule of law.

3. Conclusions

The applicability of proportionality in the administrative procedure acquires an important valence of balancing the public interest against the private interest, which could possibly be affected by the measure taken by the public authority in the realization of the public interest. The principle of proportionality must guide the entire activity of the public authority, and the

verification of how it is applied, the margin of appreciation of the "triple test" rule, therefore, falls to the "judicial review" of administrative decisions.

Thus, the principle of proportionality is not just a state of fact, it is not just a theoretical meaning, but a real legal instrument for measuring the extent of legal constraint in administrative matters, especially at the stage of administrative procedure.

Taking into account the proportionality which also has effects in judicial practice, it can be invoked in administrative, administrative litigation proceedings in order to sanction excess of power.

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MODERNIZATION OF THE RULES REGARDING LIMITED LIABILITY COMPANIES - A STEP TOWARDS HARMONIZATION WITH EUROPEAN STANDARDS

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Abstract: *When the Republic of Moldova chose the path of joining the European Union, new horizons were opened for the limited liability companies in the country. This process is not only a political one, it is actually a strategic opportunity for the economic transformation of our state, through its integration into the European market. For limited liability companies, the involvement in this process implies not only the access to a clearer and more predictable legal framework, but also increased opportunities for financing and cross-border collaboration. In this light, the harmonization of national legislation with that of the EU represents not only a step towards the alignment with the European legal standards, but also a bridge towards the expansion and consolidation of domestic companies on the European market. In this regard, the exploration and capitalization of these opportunities are essential for the sustainable development and sustainable competitiveness of the limited liability companies of the Republic of Moldova in the European economic landscape.*

Keywords: *commercial company, limited liability company, European market, associate, share capital.*

1. Introduction

In the era of accelerated globalization and economic integration, the role of commercial companies in the European market has become more complex and crucial than ever. The European Union represents one of the largest and most integrated commercial blocs in the world, offering significant opportunities for commercial companies to prosper and expand. In this dynamic context, commercial companies not only play an essential role in stimulating economic growth and innovation, but also in promoting high standards in quality, safety, and sustainability.

In this context, the accession of the Republic of Moldova to the European Union opens numerous significant opportunities for limited liability companies in our country. Expanded access to the European single market offers possibilities for economic growth through market expansion and diversification of entrepreneurial activities. Benefits also include access to European funds for development and innovation, the promotion of European standards in quality and safety, and deeper integration into European business and collaboration networks. To this end, it is essential for authorities and the private sector to continuously collaborate to maximize these opportunities while ensuring proper adaptation to EU requirements and regulations, thereby fully leveraging the advantages of accession.

Within this framework, facing the prospect of Moldova's accession to the European Union, limited liability companies in the country will encounter significant challenges and, at the same time, major opportunities. Adapting to the new regulations and standards imposed by EU legislation is one of the most critical aspects of this European integration process. How Moldovan LLCs will manage to adjust their practices and improve their standards to meet the ever-changing and evolving European requirements and rigor is a central question in this context. Thus, it is crucial to analyze how these entities will navigate an evolving European legal and economic landscape, adapting and transforming to thrive in a competitive and globalized environment.

Methodological Basis of the Study

The study of limited liability companies is based on a complex and interdisciplinary methodology, combining elements from economics, business law, management, and social sciences. In general, the methodological basis of this study includes the following main aspects: **analysis of national and european legislation**, including laws regarding the establishment, organization, functioning, rights, and obligations of these companies; **analysis of legal doctrine**, used in understanding and correctly interpreting the legislation; **interdisciplinary approaches**, integrating perspectives from economics, sociology, organizational psychology, and other relevant fields to provide a comprehensive understanding of the behavior and performance of these economic entities.

Results Obtained and Discussions

Initially, we wish to emphasize that, as evidenced by the analysis of the applicable business provisions, primarily contained in the Law on Entrepreneurship and Enterprises No. 485 of January 3, 1992 [1] and the Civil Code of the Republic of Moldova No. 1107 of June 6, 2002 [2], in our state, commercial companies can be divided in four forms: general partnerships, limited partnerships, limited liability companies (LLCs), and joint-stock companies. Each of these corporate forms has its own peculiarities, provided by law, as specified even by post-war doctrine, each form has its own „*legal physiognomy*” adapted to the economic role for which it was developed [3, pp.31-32].

Among all these types of companies regulated by law, the limited liability company is the most widespread corporate form, both in our state and in the European Union, which denotes certain characteristics and peculiarities that make it more accessible and preferable to other forms of companies used in the business sector.

In the science of business law, a limited liability company is defined as „*a company established on the basis of full trust by two or more persons who pool certain assets to carry out a commercial activity (production, trade, or service activities) for the purpose of sharing profits and who are liable for social obligations up to the amount of their contributions*” [4, p. 234]. It is justifiably stated in specialized doctrine that the defining feature of a limited liability company is the limited liability of the associates for the obligations assumed by the company, a characteristic that determined the very name "limited liability company" [5, pp.32-33].

Thus, these legal entities, characterized by a flexible organizational structure and the limitation of associates' liability to their contributions to the share capital, play a crucial role in the economic growth of our state, representing, as mentioned earlier, the most practiced organizational form by economic agents today. Out of the total of 132,707 private legal entities registered in the Republic of Moldova in March 2024, 100,339 are limited liability companies [6].

If we refer to the number of limited liability companies registered in the EU, the figures show approximately the same ratio. In this regard, out of the 24 million companies registered in the EU, approximately 80% are limited liability companies [7]. Based on these statistical data, we conclude that both in the Republic of Moldova and in the European Union, LLCs constitute a significant part of the private sector, contributing to economic diversification and the development of local communities by facilitating entrepreneurial activities and investments. LLCs are fundamental to the functioning of the internal market, engaging in a wide range of entrepreneurial activities and having a significant impact on economic integration and social cohesion within the community bloc.

Researching, from a legislative perspective, this form of entrepreneurial organization, we mention that the limited liability company, at the national level, is regulated by the following normative acts:

1. Basic normative acts:

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- Law on Limited Liability Companies No. 135 of June 14, 2007, published in the Official Gazette No. 127-130 of August 17, 2007, article 548 [8]; and Civil Code No. 1107 of June 6, 2002, republished in the Official Gazette No. 66-75 of March 1, 2019, article 132 [2].
 - 2. Complementary normative acts:
 - Law on Entrepreneurship and Enterprises No. 485 of January 3, 1992, published in the Parliament's Official Gazette No. 2 of February 28, 1994, article 33 [1];
 - Law on the State Registration of Legal Persons and Individual Entrepreneurs No. 220 of October 19, 2007, published in the Official Gazette No. 184-187 of November 30, 2007, article 711 [9];
 - Fiscal Code of the Republic of Moldova No. 1163 of April 24, 1997, published in the Official Gazette No. 62 of September 18, 1997, article 522 [10].

If we refer to European legislation regulating the legal regime of limited liability companies, it should be noted that at the European level, this corporate form is not regulated by a special normative act, except for Directive 2009/102/EC of the European Parliament and of the Council of September 16, 2009, on the law of commercial companies concerning single-member limited liability companies [11].

However, rules regulating the method of establishment, protection of the interests of associates or third parties, publicity, nullity of commercial companies, including rules regarding the online establishment of commercial companies and branches, are found in Directive (EU) 2017/1132 of the European Parliament and of the Council of June 14, 2017, on certain aspects of the law of commercial companies, rules that are also applicable to limited liability companies [12].

Additionally, in november 2019, the European Parliament and Council adopted Directive (EU) 2019/2121 [13], which includes rules aimed at cross-border transformations, mergers, and divisions. The purpose of this directive is to eliminate unjustified obstacles that hinder the freedom of establishment of commercial companies, including LLCs, within the EU single market.

To create a legal and administrative environment adapted to the challenges of globalization and digitalization, Directive (EU) 2019/1151 of the European Parliament and of the Council of June 20, 2019, was adopted, amending Directive (EU) 2017/1132 concerning the use of digital tools and processes in the context of the law of commercial companies [14], this directive is also applicable to LLCs. The purpose of these regulations is to increase the volume of information available to the public about commercial companies in trade registers and through BRIS, improve the reliability of this data, and facilitate its use in the process of establishing cross-border branches and subsidiaries, as well as in other activities and situations.

To ensure uniformity and coherence of information provided through the accounting documents of commercial companies in all member states, two directives have been adopted at the European level: Directive 2006/43/EC [15] and Directive 2013/34/EU [16], which stipulate that a company's accounting documents must provide a true and fair view of its assets, liabilities, financial position, and financial results.

Returning to national legislation, it is important to note that in 2023, the Law on Limited Liability Companies No. 135 of June 14, 2007 [8] was radically amended by Law No. 229 for amending certain normative acts of July 31, 2023 [17], in order to transpose Directive (EU) 2017/1132 of the European Parliament and Council of June 14, 2017, on certain aspects of the law of commercial companies [12].

Thus, the new legislative amendments, which reflect efforts to modernize the normative framework regulating the legal regime of limited liability companies and to adapt the legislation regarding limited liability companies to current economic realities, require a reanalysis of this form of organization in light of these changes to determine the extent to which this corporate form is influenced by the new normative restructuring.

Before analyzing the new amendments, it is necessary to make a brief retrospective of the evolution of the legislation that has regulated this form of legal organization. Therefore, one of the

first normative acts that allowed the establishment of private legal persons with a profit motive, including limited liability companies, was the Economic Companies Regulation, adopted by Government Decision No. 500 of September 10, 1991 (repealed act).

Subsequently, in 1994, with the entry into force of the Constitution of the Republic of Moldova [18], our state, through article 126 of the Constitution, proclaims and recognizes the inalienable rights of the national economy, freedom of trade and entrepreneurial activity. In accordance with these constitutional provisions and the requirements of international treaties ratified by our state, the legislative forum began working to create a business environment adapted to the new economic realities. In this regard, Law No. 845/1992 on Entrepreneurship and Enterprises [1] was adopted, a law that played a role similar to that of a small commercial code, facilitating entrepreneurial activities and defining the persons who can participate in them, including limited liability companies.

Evolutively speaking, the Economic Companies Regulation approved by Government Decision No. 500 of September 10, 1991, mentioned above, was partially replaced by the provisions of the Civil Code adopted by Law No. 1107-XV of June 6, 2002 [2], which, through the provisions of Chapter II „*Legal Person*”, regulates the conditions and methods of establishing commercial companies, as well as the methods of terminating the activities of legal persons through dissolution and reorganization, and then entirely by Law No. 135/2007 on Limited Liability Companies [8].

In conclusion, Law No. 135/2007, which regulates the status of the most common form of private legal person and, implicitly, the most used in business activities, introduced essential concepts and mechanisms in the legal regime of this organizational-legal form. However, regulations regarding limited liability companies were largely based on the principle „*it is only possible if the law allows*” [19].

Considering the new political and economic conjuncture faced by the Republic of Moldova, taking into account that in developed economies, any legal restriction aims to protect a public interest, and that the formulations of the norms of Law 135/2007 establish imperative rules without adequate justifications, thus limiting the freedom and initiative of entrepreneurs to develop their businesses in the most advantageous way, significant changes occurred to this law in 2023. In drafting the bill, the authors were mainly inspired by the European Model Companies Act (EMCA), a European model law for commercial companies, considered a tool for improving legislation in the EU by providing a coherent, dynamic, and adaptable legislative framework [19].

Given this new regulatory approach, starting with conceptual clarifications, it is important to determine to what extent the limited liability company has been reconfigured by the new provisions of Law 135/2007. In this regard, we will attempt to structure the main legislative modifications and innovations, highlighting in detail the following:

1) Changes Regarding the Purpose of the Limited Liability Company.

Thus, article 5 reads: „(1) *Unless otherwise provided in the articles of association, the purpose of the company is to increase its value*” [8]. Unlike the provisions before the amendments, where the company's purpose was linked to the possibility of the company engaging in any type of activity not prohibited by law, the new regulation emphasizes, in principle, the purpose for which any profit-oriented legal person is established, namely the maximization of its value. It is essential to ensure by law that both investments and company management are carried out with a long-term and sustainable vision, implying an approach to the company's operations aimed at achieving the interests of those involved.

2) Elimination of the Associate Threshold. Article 11, paragraph (3) reads:

„(3) *The number of associates in a company is not limited*” [8]. Until this amendment, a company with more than 50 associates was required, within six months, to reorganize, liquidate, or reduce the number of associates. Thus, the new regulation will allow exceeding the limit of 50 associates without requiring the LLC to reorganize into a joint-

stock company, providing more space for business development for those who do not wish to participate in the capital market.

3) Realization of Rights and Execution of Obligations in Good Faith and Equal Treatment of Associates. Article 11 has been supplemented with paragraph (4) as follows: „Associates realize their rights and execute their obligations in good faith. Associates in identical conditions are treated equally” [8]. It should be noted that this paragraph, although referring to the realization of rights and execution of obligations in good faith, does not provide any explanation regarding this principle. However, good faith is expressly regulated in articles 1, 10, and 11 of the Civil Code [2], being considered a principle of civil law. Thus, article 1, paragraph (1) titled „Principles of Civil Legislation”, states that „Civil legislation is based on the recognition of the equality of participants in the relationships regulated by it, the protection of intimate, private, and family life, the recognition of the inviolability of property, contractual freedom, **the protection of good faith**, consumer protection, the recognition of the inadmissibility of interference in private business, the need for the free realization of civil rights, the guarantee of restoring the person to the rights in which they were harmed, and their defense by competent jurisdictional bodies” [2]. Article 10, paragraph (1) states, „Natural and legal persons participating in civil legal relationships must **exercise their rights and fulfill their obligations in good faith**, in accordance with the law, with the contract, with public order, and with good morals. Good faith is presumed until proven otherwise” [2], and article 11, paragraphs (1) and (2) state, „Good faith is a standard of conduct of a party, characterized by fairness, honesty, openness, and consideration of the interests of the other party in the legal relationship. In particular, it is contrary to good faith for a party to act in contradiction to the declarations it has made previously or to the behavior it has previously exhibited if the other party has reasonably relied on those declarations or that behavior to its detriment” [2].

Considering these legal provisions, doctrine defines good faith as „that standard of conduct of a party in a civil legal relationship, characterized by fairness, honesty, openness, and consideration of the interests of the other party in the legal relationship, which implies that this party does not act in contradiction to the declarations it has made previously or to the behavior it has previously exhibited if the other party has reasonably relied on those declarations or that behavior to its detriment” [20].

In conclusion, paragraph (4) of article 11 of Law 135/2007 [8], which emphasizes the importance of realizing rights and executing obligations in good faith by associates, aligns with the already established civil principle in civil legislation, and its implementation will contribute to consolidating trust and fairness in relationships among associates.

The norm guaranteeing equal treatment for associates in similar conditions reflects a general rule regulated in article 85 of Directive 2017/1132, which stipulates: „For the purposes of implementing this chapter, member states shall ensure the equal treatment of all shareholders in identical conditions through their legislative acts” [12]. Introducing this provision as a principle aims essentially to protect all associates of the limited liability company, being essentially a prohibition of discriminatory treatment towards associates by the company and its bodies.

4) Simplification of the Formation of LLCs. In this regard, the legislator has amended articles 12, 13, 13¹, and 17 of Law 135, stipulating that the act of establishing an LLC is only the articles of association, which must be approved and signed by all founders [8]. A significant change is that associates co-opted after the company’s registration must sign a declaration of acknowledgment and adherence to the articles of association. Unlike the previous regulation, which provided that an LLC was established based on two founding acts, namely the founding contract and the articles of association, according to the new amendments, the articles of association have the power of a founding contract until the company's registration.

Additionally, according to the new amendments [8, Article 17 paragraph (2)], associates will have the option to decide which modifications related to the company will be included in the articles of association and which of these will be opposable to third parties exclusively based on the decision adopted by the General Assembly of Associates (GAA), with the obligation to be registered in the State Register of Legal Persons. This norm emphasizes the importance of the State Register of Legal Persons, which thus becomes the main source of information regarding relevant data about companies, ensuring the opposability of the rights included in the Register. Since part of the new norms of Law 135/2007 has been adopted from the EMCA, regarding this subject, EMCA, in Section 3.03 Changes to Information Already Registered, provides that „*any amendment to the articles of association must be registered in the register*” [19], thus giving priority to the State Register.

A legislative novelty introduced by Law No. 229 of July 31, 2023, amending certain normative acts, which somehow clarified the application of the arbitration convention, is provided in article 13¹, with its main aspects concerning the following:

- The articles of association of an LLC may include a clause providing for the use of arbitration to resolve disputes, applicable to all or some disputes between associates or between associates and the company;
- Founders or associates can vote against including the arbitration clause in the articles of association. If a founder or associate opposes this inclusion, it must be recorded in the minutes of the associates' meeting;
- For existing associates, the arbitration convention does not apply if the articles of association do not mandate its obligatoriness.

5) Changes Regarding Share Capital and Assets. These primarily concern articles 21, 22, 311, 331, 37, and 38 of Law 135/2007 [8]. These changes refer, in particular, to the following aspects:

- *Exclusion of the prohibition on contributing consumable goods and intellectual property rights to share capital.* In this regard, paragraph (3) of article 21 [8], which prohibited contributions with consumable goods, was repealed, and the content of paragraph (3) of article 22 [8] was amended to introduce the founders' right to contribute to the formation of share capital with goods, including consumable goods, patrimonial rights, rights over intellectual property objects, and money;
- *Acceptance of conversion of a monetary obligation of the company into a creditor's contribution to share capital,* this possibility was introduced by adding article 33 paragraph (2) letter c) [8];
- *Clarification of the specifics of increasing share capital through additional contributions* in a distinct article of the law, namely article 33¹ [8]. According to the provisions of this new article, the company's share capital can be increased through additional contributions from associates and/or third parties, in accordance with the decision of the general assembly of associates. Each associate has the preemptive right to additional contributions, within the approved increase of share capital, proportional to their share. Third parties may make additional contributions after associates have exercised or refused their preemptive rights, within the difference between the increase in share capital and the contributions already made by the associates, provided that this aspect is included in the general assembly's decision. Additional contributions must be paid according to the term established in the general assembly's decision, but no later than one year from its adoption. This is entirely novel and derogatory from the rule of proportional participation in forming share capital. Associates in the articles of association or a unanimously adopted decision may allow additional contributions without respecting the proportion of their shares, may set another payment term, or may restrict contributions only to certain persons, including excluding the contribution phase for associates with preemptive rights [8, Article 33¹ paragraph (7)].

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- *Changes and additions regarding associates additional contributions, contributing to the increase of the company's assets without increasing share capital*, as provided in article 37 of law 135 [18]. Until the amendments, this article created confusion between the concepts of contribution and contribution, especially regarding regulations on increasing share capital. Thus, the name of article 37 was changed, replacing the word "contribution" with "contribution," and paragraph (1) comes with new content: „*The articles of association may provide the right for associates to adopt, with the unanimous vote of all associates, decisions regarding the payment of additional contributions that do not lead to an increase in share capital*” [8].
 - *Additions to the law regarding the stimulus capital*. In this regard, article 31¹ [8] was introduced in Law 135, providing the possibility for the company, with the unanimous agreement of the associates, to form a stimulus capital intended for certain beneficiaries, such as employees, to motivate them to perform more efficiently and contribute to the company's success. According to the new provisions, the stimulus capital is constituted from the company's net profit account and can be used for payments on a specific date or in connection with a planned future event, elements that must be specified in a separate company regulation [8, article 31 paragraph (3)]. The recipients of these payments do not enjoy the same rights and obligations as regular associates but have access to relevant financial information of the company, according to the rules established by its bodies. Payments from the stimulus capital are treated as dividends, meaning they can be distributed to beneficiaries in a similar manner but no more than once a year.

6) Changes Concerning the Distribution of Net Profit and Allocation of Dividends. In this regard, article 39 paragraph (1) was supplemented with the definition of a dividend, establishing that "A share of the net profit distributed to an associate constitutes a dividend" [8]. This article also introduced a provision regarding the payment of interim (quarterly and semi-annual) dividends, which will be made based on interim financial statements indicating sufficient available funds. Additionally, the norm sets a limit for the amount of annual and interim dividends, ensuring they do not exceed the net profit at the end of the management period, increased by undistributed profit from previous years, reduced by losses from previous years, and the amounts allocated to the reserve capital.

Attention is also drawn to the fact that article 39 was supplemented with six new paragraphs, the content of which can be summarized as follows: paragraph (4): The obligation of the company to pay dividends becomes operational upon adopting the decision, ensuring transparency and clarity in fund management, an obligation resulting from article 39 paragraph (4) [8]; paragraph (5): The company does not have the right to guarantee the payment of dividends, protecting its financial integrity and preventing potential financial risks, a prohibition resulting from article 39 paragraph (5) [8]; paragraph (6): The general assembly's decision must include essential information, such as the date of preparing the list of eligible associates, the amount of dividends per each unit of social share or another allocation method, the form and term of dividend payments, contributing to an organized and efficient management of the distribution process [8, article 39 paragraph (6)]; paragraph (7): The administrator is obligated to prepare a list of associates eligible to receive dividends, ensuring that all entitled parties are correctly identified, including new associates, an obligation introduced by article 39 paragraph (7) [8]; paragraph (8): According to the provisions of article 39 paragraph (8) [8], the size of the announced dividends for each unit of social share must be equal, guaranteeing fair treatment for all associates, except in cases where associates have established another allocation method for dividends; paragraph (9): The decision regarding dividend payments must be communicated to associates within 7 working days from the date of adoption, ensuring prompt information dissemination [8]; paragraph (10): introduced certain sanctions for non-receipt of dividends due to the associate's fault.

7) **Modification of the Proportionality Rule.** In this regard, articles 24, 39, and 43 of Law 135/2007 [8] have been amended, providing associates the right to establish different rules in the articles of association regarding voting, dividends, and shares in assets upon liquidation. This facilitates the participation of individuals with innovative ideas by changing the proportionality between the value of the social share and the rights it confers.

8) **Legal Regulation of the Shareholder Contract.** This type of contract is a legislative novelty, a tool at the disposal of associates, regulated by the provisions of article 43¹ [8], granting associates the right to determine how they will exercise their rights in the company, how they will manage the company, how they will make decisions, how they will resolve deadlocks in decision-making, the right and conditions for withdrawing from the business, the method of evaluating social shares, and determining the price, etc., representing at the same time a tool for creditors, constituting an additional guarantee mechanism for them. This contract is concluded in writing and produces effects only for the contracting parties, with its content being confidential unless the normative acts or the contract provide otherwise. As evidenced by the purpose of the new legal provisions, non-compliance with this contract does not influence the decisions adopted by the company but allows the interested associate to defend their rights and interests through contractual liability.

9) **Withdrawal of a Minority Associate Without Alienating Their Social Share** in this regard, Law 135 was supplemented with a new article - article 47¹ [8]. This instrument is known in corporate law as a *squeeze-out* [19]. According to the new regulations, an associate holding less than 33% of the LLC's share capital can withdraw from the company at any time without needing the consent of other associates. They are entitled to a withdrawal value of their social share, calculated proportionally to the value of the company's net asset balance as of the withdrawal notification date. The withdrawal notification must be submitted to the company's administrator, who has 15 days to issue a certificate attesting to the withdrawal value, accompanied by the corresponding calculation. Upon the associate's request, the company is obliged to provide the justificatory documents used for this calculation. The withdrawing associate will submit the request and withdrawal notification to the state registration body, and the withdrawal is considered effective from the date of their removal from the State Register of Legal Persons. The company is obliged to pay the withdrawal value according to the terms agreed upon by the associates, but no later than three years from the date of removal.

10) **Increased Transparency and Trust Following.** Amendments to articles 27, 36, 40¹, 43¹, 47¹ of Law 135/2007 [8] As a result of these amendments, interested parties will have the right to request the state registration body to record a certain situation, and investors will be able, by requesting an extract from the State Register of Legal Persons, to know: the fact of pledging certain social shares (article 27 paragraph (11) [8]); additional guarantees issued by the company in the case of capital reduction announcements (article 36 paragraph (11) [8]); the issuance of bonds by the company (article 40¹ paragraph (3) [8]); the existence of a shareholder contract (article 43¹ paragraph (9) [8]); the initiation of a process for an associate's withdrawal (article 47¹ paragraph (4) [8]).

11) **Enhanced Access to Information.** According to article 10 paragraph (4) [8], associates have the right to access the company's documents, obtain extracts or copies thereof at their own expense. According to article 44 paragraph (4), associates can establish in the company's articles of association or regulations the manner and extent of information disclosure to associates, as well as the methods for covering the costs related to ensuring their access to information, control, and examination. They can also establish restrictive measures against associates who abuse the right to information, considering

the need for transparency towards associates and the protection of confidential information, trade secrets, personal data, and other legitimate interests.

12) Representation of the Associate by the Administrator. According to article 57 paragraph (2) [8], associates can be represented by an administrator, a practice prohibited until these amendments. However, the administrator cannot act as the associate's representative unless they are simultaneously the sole administrator of the legal person associate or if the articles of association expressly provide for this right.

13) Appointment of a Legal Person as Administrator In this regard, article 69 was supplemented with paragraph (2¹) as follows: „*The company's articles of association may provide for the appointment of a legal person as an administrator. For a legal person administrator, the provisions of article 199 of the Civil Code No. 1107/2002 apply accordingly*” [8]. This legal provision results in the fact that only the articles of association will allow the position of administrator to be held by a legal person.

14) Decisions Adopted with 2/3 of Votes In this regard, it is noted that the new regulations regarding the adoption of decisions within the general assembly of associates establish a clear framework for decision-making, depending on the type of decisions and the required votes. Thus, for important decisions, such as obliging to additional contributions or modifying the articles of association, a unanimous vote is required, ensuring consensus among associates. However, in principle, according to the amendments made to the law, the threshold for decisions in associates' meetings has been reduced from three-quarters to two-thirds, facilitating decision-making. These measures are essential for protecting common interests and ensuring efficient administration of the company.

15) Changes Regarding the Use of Electronic Tools in Various Procedures Through amendments to articles 10, 30, 48, 54, and 56¹ of Law 135/2007 [8], which refer to: the preservation of the company's documents; the submission of acts for registration; procedures within associates' meetings, etc.

2. Conclusions.

In conclusion, we can mention that the modernization of the rules regarding limited liability companies has primarily focused on maintaining in legislation only those prohibitions and limitations that protect public interest and prevent abuses. Through these amendments, the legislator has altered the balance between imperative and dispositive norms, introducing more dispositive norms into the law and thereby providing entrepreneurs with the flexibility to create their own corporate regulations. Given the complexity of the amendments made to the legislation regarding limited liability companies, which have affected various aspects of their establishment and functioning, we still formulate a few general conclusions:

- A significant part of these changes has been made with the aim of unifying and harmonizing national legislation with European legislation;
- Recent legislative amendments emphasize a clear commitment of the company's bodies towards its fundamental object, namely maximizing the company's value;
- The elimination of the minimum associate threshold facilitates the expansion and diversification of capital, offering entrepreneurs and investors new opportunities in a dynamic and adaptable business environment;
- Regulations that emphasize the importance of good faith and equal treatment among associates contribute to creating a fair business environment. These measures not only protect associates' rights but also align domestic norms with European standards, thereby strengthening trust in business relationships;
- Regulations aimed at simplifying the process of establishing and administering LLCs, by debureaucratizing this process through the unification of founding acts into a single

act and introducing flexibility regarding contributions to share capital, promote a modern, more straightforward management of businesses;

- Changes regarding the distribution of net profit and allocation of dividends ensure more efficient management of funds and promote transparency in relationships among associates, contributing to responsible business administration;
- The introduction of the shareholder contract and the mechanism for the withdrawal of minority associates allow associates to better regulate internal relationships, facilitating decision-making and protecting the financial interests of minority holders;
- According to the new regulations, associates are ensured better access to information regarding the company's operations, thereby increasing transparency and accountability in the management of limited liability companies;
- The promotion of the use of electronic tools facilitates a more dynamic and efficient administration of limited liability companies. These innovations contribute not only to simplifying procedures and accessing information at the click of a button but also to preparing companies for future economic challenges.

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THE REQUIREMENTS OF VALIDITY AND THE NORMATIVE IMPACT OF THE MATRIMONIAL CONTRAC: A DETALIED LEGAL ANALYSIS

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Abstract. *The article analyzes the validity requirements of the marital contract, highlighting its normative impact on the patrimonial relationships between spouses. It emphasizes the importance of respecting legal principles and the flexibility of clauses, contributing to the protection of rights and the prevention of conflicts.*

Keywords: *the marital contract, patrimonial relationships, rights, family.*

1. Introduction.

The marital contract is an essential legal instrument for the equitable organization of patrimonial relationships, ensuring protection and clarity both during the marriage and upon its dissolution. The validity requirements and normative impact of the marital contract lie in its importance for protecting the spouses' patrimonial rights, preventing conflicts, and adapting relationships to social dynamics. For society, the marital contract clearly regulates the patrimonial regime, promoting equality and the autonomy of the parties, thus contributing to the stability of family relationships and the reduction of disputes.

As recommendations, better public awareness of the benefits of this instrument is necessary, alongside the introduction of flexible clauses tailored to modern needs and the harmonization of legislation to address current challenges.

2. Results and Discussions.

The marital contract clearly regulates patrimonial relationships between spouses, preventing conflicts and promoting equality. Essential for family stability, it requires public awareness and legislative adaptation to modern needs, ensuring legal protection and equity in marital relationships.

The family was the first social nucleus, and its historical transformations reflect the evolution of human society. In archaic times, parent-child ties were uncertain, and family structure gradually evolved from matriarchy to patriarchy, culminating in the modern family based on balance between spouses. Across all cultures, the family has played a central role, with its norms varying according to religion, traditions, and social organization.[17.,pag.2.]

In Mesopotamia, marriage was preceded by engagement and recorded through a written act. The marital contract ensured the stability of relationships, and divorce was strictly regulated. Similarly, ancient Egypt demonstrated an advanced concept of equality between spouses, granting women property rights and social influence.[13.,p. 132]

The Code of Hammurabi (18th century BCE) is the earliest known document addressing matters related to inheritance and marriage. The code stipulated that women had the right to manage their own property and receive legal protection in case of divorce. In cases of adultery, the consequences were severe; however, a woman could be pardoned by her husband if the king approved. If a man declared, "I repudiate you," the marriage was immediately dissolved, and the woman returned to her parents. Consequently, written agreements became essential to prevent abuses.[21.,pag.18.]

In Ancient Egypt, legal equality between spouses was recognized. The Egyptians had a progressive perspective on marriage. Women could own property, hold public office, and manage family wealth. Marriage contracts were written documents specifying the rights and obligations of both spouses. A young man of 15 years old typically married a girl aged 12-13. If one spouse

passed away, the estate was inherited by the heirs without legal disputes due to the clear provisions set forth in the contract.[13.,p. 132]

The Hebrew family was initially based on a matriarchal system, where the mother held a central role. However, the patriarchal system later introduced significant privileges for men, including the right to have multiple wives and to divorce without justification.[27.,pag.11] Marriage contracts regulated inheritance and dowries.In ancient Persia, polygamy was allowed, but only one wife held a privileged status. Aristocratic women, however, led isolated and strictly regulated lives.[9.,pag.18 .]

In Ancient Greece, marriage contracts were not mandatory, but property and dowries were crucial. In the event of a divorce, the dowry was returned to the woman's family, providing her with some economic protection.

In China, procreation was the primary purpose of marriage. Marriage was governed by strict traditions, with women having limited property rights.Contracts were used to protect the woman's dowry. Divorce was permissible under strict conditions, and childless women were required to accept concubines.[27.,pag.22.]

In Japan, marriage contracts were less common. Instead, trial marriages and polygamy prevailed. If a wife was infertile, her husband had the right to take a concubine.

In India, marriage was obligatory and arranged by parents, with divorce being forbidden. The position of women gradually degraded under the influence of Brahmanism. Ancient Japan introduced the concept of "trial marriage," though spousal rights were imbalanced.[9.,pag.19.]

Civilizations such as the Maya, Greek, and Roman societies had varied marriage regulations. In Greece, marriage was mandatory, and divorce required the return of the dowry.In Rome, marital contracts protected property, and women gradually gained more rights.[22.,pag.11,15,16.]

In Byzantium, engagement held legal value, and marital traditions were influenced by religion. Germanic tribes recognized marital contracts, which protected spouses' assets in case of divorce.[21.,pag48.]

In medieval Europe, marriage contracts were common among noble families. For example, the marriage between **Eleanor of Aquitaine and King Louis VII of France** was accompanied by a contract that transferred vast territories in southwestern France to the French crown.[18.,pag.17.]

In the Danubian-Pontic region, the marital contract emerged during the Phanariote era. [14.,pag.89.,15.,p. 13.]

In 19th-century France, the Napoleonic Civil Code introduced clear regulations on marital property regimes, allowing spouses to enter into contracts specifying either the separation or community of assets.[20.,pag.11.]

Contemporary legislation allows future spouses to conclude marriage contracts, enabling them to choose the separation of property regime. This practice has become increasingly common among modern couples seeking to protect their personal assets.

In the legislation of the Republic of Moldova, marriage contracts are regulated by the Family Code, adopted on October 26, 2000. This law allows both future spouses and already married couples to enter into an agreement establishing the matrimonial property regime applicable to their marriage. The contract must be in writing, notarized, and takes effect either on the date of marriage registration or, if signed afterward, on the date of notarization.[10.,pag.12.]

Through this contract, spouses can modify the legal regime of joint property, determine that assets acquired individually during marriage remain personal property, and establish rights and obligations regarding mutual support, income distribution, and shared expenses.

It is important to note that, under Moldovan law, marriage contracts can regulate only financial and patrimonial matters between spouses, but not personal relationships.

The evolution of marital regimes is closely tied to the emergence of private property, which necessitated the protection of family capital. Consequently, the marital contract became a civilized

means of regulating patrimonial relationships between spouses, offering the freedom to personalize the marital regime based on individual needs and preferences. This freedom marks a significant step forward, associated with equality between spouses and independence in managing assets.[19.,pag.15.]

The marital contract is a legal agreement entered into by future spouses or existing spouses, determining the patrimonial regime applicable to the marriage and other aspects related to the administration and management of shared and personal assets. It allows the personalization of patrimonial relationships according to the will of the parties, providing clarity and legal protection during the marriage and in case of divorce.[23.,pag 7.]

To be valid, the contract must be authenticated by a public notary. Its evolution continues to be shaped by social, economic, and legal dynamics.

We will now examine the categories of contractual rights and obligations regulated by law.

According to Article 29, paragraph 4 of the Family Code (FC), spouses may establish, through a matrimonial contract, their rights and obligations concerning mutual maintenance, each spouse's contribution to common income and expenses, the distribution of assets in the event of partition, as well as other patrimonial clauses, including sanctions in the case of divorce. [2.,art. 29, p. 4.]

Article 82, paragraph 1 of the FC stipulates the mutual maintenance obligation, which applies only if the dependent spouse does not have sufficient income and the other spouse has the financial capacity to pay alimony. [2.,art. 82.]

However, in practice, this obligation is frequently circumvented, even in families with children, a phenomenon commonly observed in the Republic of Moldova.

To improve the enforcement of the law, stricter legislative measures and better awareness among spouses, facilitated by notaries, regarding the provisions of the matrimonial contract are necessary.

Beyond the obligations during marriage, legislation [2.,art.83] guarantees the right to maintenance for the former spouse in specific situations:

- a) *The former wife during pregnancy; the former spouse caring for a common child up to three years old;*
- b) *The former spouse caring for a child with disabilities up to the age of 18 or with severe childhood disabilities;*
- c) *The former spouse who became incapacitated for work during the marriage or within one year of divorce;*
- d) *The former spouse who retired within five years of divorce, provided the marriage lasted at least 15 years.* [2.,art. 83.]

These regulations highlight the importance of clarifying maintenance obligations both during marriage and after divorce.[11.,pag.1-4.]

Although the law governs these favorable situations, they are rarely reflected in real-life cases in the Republic of Moldova. Additionally, legislation provides circumstances that can fully or partially exempt a spouse/former spouse from the maintenance obligation.

According to article 85 FC, exemptions apply in the following cases:

- 1.*Incapacity for work resulting from alcohol abuse, drug use, or intentional crimes;*
- 2.*Immoral behavior of the spouse/former spouse within the family;*
- 3.*Marriage lasting no more than five years;*
- 4.*Divorce granted due to the fault of the former spouse seeking financial support.*[2.,art.

85.]While these provisions are useful, they remain insufficient.

In the social reality of the Republic of Moldova, the enforcement of legal maintenance obligations remains challenging despite existing legislation and NGO initiatives aimed at protecting women. Many married women seek institutional assistance to assert their rights, yet compelling spouses to fulfill their family obligations remains problematic.

In this context, the matrimonial contract can facilitate compliance with these obligations, providing clarity on the grounds, amount, and duration of mutual maintenance both during and after marriage. Promoting this type of contract is essential for the Republic of Moldova, contributing to the prevention of abuse and ensuring family well-being, particularly in cases involving children.

According to article 83, letter d) FC, the right to maintenance belongs to a former spouse requiring financial support who became incapacitated for work during marriage or within the year following divorce. [2.,art. 83, letter d..]

However, the law does not explicitly cover situations such as postpartum depression, bipolar disorder, or other temporary mental health conditions that may affect a spouse's ability to provide maintenance and pursue a profession.

For better protection, NGOs specializing in family and women's support should promote the benefits of the matrimonial contract both before and during marriage, thus preventing abuse and non-compliance with legal obligations.

Additionally, it is essential for spouses to understand the distinction between maintenance obligations and contributions to family expenses. Notaries play a crucial role in clarifying these aspects in matrimonial contracts, providing the necessary legal guidance.

3. Practical issues in understanding matrimonial contracts

Another practical issue is the limited access of spouses to advanced knowledge of civil and family law. Through notarial involvement in signing the matrimonial contract, spouses receive essential information, helping them clearly define their rights and obligations, ensuring a balanced and transparent cohabitation.

A frequent point of confusion for future spouses considering a matrimonial contract is the difference between maintenance obligations and marital expenses.

According to article 29, paragraph 4 of the FC, the "maintenance obligation" has a restricted meaning, conditioned by the need of the requesting spouse and applicable even outside marriage. In contrast, "family expenses" have a continuous nature and cease upon marriage dissolution. In families with children, these expenses are assumed by the parent primarily responsible for raising them, a role usually fulfilled by women in the Republic of Moldova. [2.,art. 29, p. 4.]

The matrimonial contract can prevent such inequitable situations, providing protection for the child and the parent assuming the primary caregiving role.

Although maintenance obligations are legally regulated, their practical enforcement in the Republic of Moldova remains deficient compared to other EU states, where divorce does not impose a significant burden on the custodial parent. The difficult experiences of many divorced women could increase interest in matrimonial contracts, seen as a guarantee in case of separation.

Gender equality is a fundamental principle of modern legislation, including in the Republic of Moldova, yet its real application in marriage remains partial. Before marriage, equality appears functional, but later faces a mix of traditionalism and modern norms.

The Constitution guarantees equality in rights, and the Family Code applies it to matrimonial relations, both patrimonial and non-patrimonial.[3.,2.]

In this context, matrimonial regimes are also governed by the principle of freedom of choice, allowing spouses to decide on the appropriate patrimonial regime, thereby strengthening legal protection within marriage.

Another practical aspect of the matrimonial contract concerns clearly defining each spouse's financial contribution to the family income, preventing potential financial imbalances.

Historically, family maintenance by the husband was both a moral obligation and a social norm supported by tradition and the church. Today, these roles are viewed differently, and the matrimonial contract can ensure a fair administration of income and obligations.[26.,pag.30.]

Improving the application of matrimonial contracts in Moldova.To enhance public awareness, informational campaigns on matrimonial contracts, their benefits, and legal

consequences should be conducted through media, legal publications, and seminars for future spouses.

The conclusion of a marriage contract requires compliance with specific legal steps: the parties must express their consent before a public notary, the contract must be drawn up in an authentic form and notarized, it is highly recommended that spouses seek legal consultation before signing to fully understand the implications of the agreement. [24., pag. 55.]

The primary defects of consent include: error, fraud (dolus), violence, and lesion (significant imbalance in obligations).

These defects may lead to the annulment of the marriage contract if they fundamentally affect the decision to enter into the agreement.

A notary must ensure that consent is given knowingly and without external pressure before authenticating the contract. [12., pag. 201.]

The marriage contract determines the matrimonial property regime applicable during the marriage and in case of divorce. Its legal effects include: separation or community of assets, definition of financial responsibilities, and protection of personal property. Thus, the contract provides clarity and legal security for both spouses. [8., pag. 80.]

Spouses can choose from the following property regimes: legal community of property, separation of property, or conventional community of property.

Each regime has different implications regarding the administration, acquisition, and division of assets. [16., pag. 199.]

The choice of a property regime should be made based on the couple's specific situation.

Providing accessible legal counseling services, either free or at reduced costs, would help couples better understand the legal and patrimonial implications.

The marriage contract can be modified or terminated by mutual agreement between the spouses, in compliance with legal procedures. [25., pag. 85.]

Any modifications must be notarized and registered in official records. In exceptional cases, the contract may be terminated by a court ruling if a serious breach of obligations is proven.

A marriage contract is null if it fails to meet validity conditions, such as consent, notarized form, or legal capacity.

Nullity results in the retroactive annulment of the contract's legal effects. In such cases, the legal community property regime applies by default. [12., pag. 201.]

Simplifying legal procedures by introducing more accessible processes for drafting and amending matrimonial contracts, such as standardized guides and contract templates available online, would also be beneficial.

Recommendations for improving the implementation of legislation and practice regarding the conclusion of marital contracts in the Republic of Moldova

To increase public awareness, it would be beneficial to organize **information campaigns** on marital contracts, their advantages, and their legal implications. These campaigns could be conducted through mass media, legal publications, and seminars for future spouses.

Access to legal consultation can be improved by establishing **free or low-cost advisory services** for couples wishing to conclude a marital contract. This would help them better understand the legal and patrimonial implications of the contract.

Simplifying legal procedures is essential to encourage the use of this legal instrument. The introduction of **standardized guides and contract templates** available online would facilitate the drafting and modification of marital contracts.

Professional training for notaries and lawyers can be enhanced through **courses and seminars** on new regulations and international best practices in the field of marital contracts. This initiative would help reduce litigation and ensure uniform application of the law in the Republic of Moldova.

Expanding the regulated domains of marital contracts by introducing special clauses, such as protecting the interests of minors in case of divorce or asset division, would provide additional legal and social security.

Providing tax incentives for couples, such as tax benefits or reduced notarial fees, would encourage the use of marital contracts and increase the patrimonial protection of spouses.

Enhancing transparency and official records by creating a **national electronic register** for marital contracts would facilitate access to relevant information, increasing the protection of both parties and third parties.

Clarifying existing legislation by introducing more detailed regulations in the Family Code would eliminate ambiguous interpretations and potential legislative conflicts.

Promoting legal research in the field of marital contracts by supporting academic studies and analyses on their social and economic impact would help adapt legislation to the current needs of society.

Harmonizing national legislation with international standards on marital contracts, in line with European best practices, would facilitate their recognition in other jurisdictions and provide broader legal protection for Moldovan citizens.[4.,7.]

Implementing these measures would contribute to a more effective application of marital contract legislation and strengthen public trust in this essential legal instrument.

3. Conclusion

The matrimonial contract provides a clear and adaptable framework for managing spouses' assets, preventing conflicts, and ensuring the protection of their rights during and after marriage. Its effective implementation contributes to marital stability and legal security for all parties involved.

By harmonizing legislation with international standards and promoting academic research on the social and economic impact of matrimonial contracts, Moldova can develop a legal framework that meets society's evolving needs. These measures would contribute to the efficient application of matrimonial contract legislation and increase public confidence in this legal instrument.

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STRATEGIES AND PRACTICES FOR COMBATING DOMESTIC VIOLENCE AT THE NATIONAL LEVEL

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Abstract. Domestic violence is a serious social issue with multiple implications for victims, families, and communities. Therefore, we consider it important to address this topic, which discusses various strategies and practices implemented at the national level to combat domestic violence, focusing on legislative, educational, and social interventions. At the legislative level, laws regarding the protection of victims, such as restraining orders and penalties for perpetrators, are discussed. In the educational sphere, the importance of awareness and prevention campaigns, carried out in schools and communities, is emphasized to reduce the normalization of domestic violence and encourage reporting of abuse cases. Additionally, the article highlights the importance of inter-institutional collaboration between the police, non-governmental organizations, and social services to ensure the protection of victims and the rehabilitation of perpetrators.

An important aspect is access to shelters and psychological and legal counseling services for victims, as well as promoting coherent legislation adapted to their needs. The article also underlines the importance of training professionals in fields such as healthcare and justice to provide adequate support to victims. Finally, the remaining challenges are presented, including the lack of resources and traditional mentalities that perpetuate abuse, stressing the need for more effective public policies and constant support for victims. Through writing this article, we aim to promote legal education in domestic violence cases to minimize this type of abuse as much as possible.

Keywords: violence, domestic violence, combating, strategies, prevention.

1. Introduction

Domestic violence represents a series of systematically repeated behaviors, including physical assault, verbal and psychological aggression, as well as sexual and economic abuse, exercised by one partner over the other within the formal framework of family or cohabitation in the same space [1, p. 518].

Domestic violence is at the root of numerous physical and psychological conditions, medical consultations, hospitalizations, temporary work disabilities, as well as high consumption of medication and other healthcare services [1, p. 518].

In recent decades, domestic violence has become a recognized social issue at both national and global levels, being considered a major threat to the physical, mental, and emotional health of victims, particularly women and children. Efforts to combat domestic violence have intensified, involving a variety of strategies and practices developed at the national and international levels. In many countries, the implementation of prevention, intervention, and protection policies has materialized through the development of dedicated legislative and institutional frameworks.

In the Republic of Moldova, as in many other countries, addressing domestic violence involves both legal measures and public awareness and education initiatives. Integrated interventions include support provided by the police, the judicial system, and shelters for victims, as well as rehabilitation programs for perpetrators. This article aims to analyze effective strategies and innovative practices applied to combat domestic violence, highlighting collaboration between the government, non-governmental organizations, and the community. We will focus on the

analysis of legislative measures, the efficiency of interventions, and the importance of social education in reducing this phenomenon and protecting victims.

2. Legislative Contribution to Combating Domestic Violence

Because domestic violence poses a national threat, the state has the responsibility to protect its citizens by implementing effective laws, establishing well-equipped shelters, and training specialists to support victims of domestic violence. In recent years, the state has demonstrated its commitment by enacting new laws and continuously refining existing ones to make them more practical.

Since gaining independence, the Republic of Moldova has introduced numerous legislative acts, decisions, and treaties aimed at minimizing domestic violence cases and protecting victims, these include:

1. Law No. 45 of March 1, 2007, on the Prevention and Combating of Domestic Violence;
2. The Criminal Code of the Republic of Moldova (2002);
3. The Criminal Procedure Code of the Republic of Moldova (2003);
4. Decision No. 270 of April 8, 2014, approving the Intersectoral Cooperation Mechanism for identifying, evaluating, referring, assisting, and monitoring children who are victims or potential victims of violence, neglect, exploitation, and trafficking;
5. Decision No. 281 of April 3, 2018, approving the National Strategy for Preventing and Combating Violence against Women and Domestic Violence for 2018–2023, along with its action plans;
6. The Istanbul Convention (Council of Europe Convention on Preventing and Combating Violence against Women and Domestic Violence), ratified by Moldova in 2021;
7. Decision No. 332 of May 31, 2023, approving the National Program for Preventing and Combating Violence against Women and Domestic Violence for 2023–2027.

These legislative acts and decisions, alongside many others, reflect Moldova's dedication to reducing domestic violence rates and enhancing victim protection.

Preventing and combating domestic violence as part of national family protection policies represents a significant priority for the Moldovan government. The adoption of framework laws on domestic violence prevention and response marks an essential step in creating institutional and operational mechanisms to address such cases, fulfilling Moldova's international commitments to uphold human rights.

The focus on women in domestic violence cases arises from the historical inequality in power relations between men and women. In the context of domestic violence, this imbalance profoundly affects family members' quality of life, particularly women and children, limiting their opportunities to engage in social and economic activities.

Prevention plays a crucial role in mitigating any negative social phenomenon and reducing its post-facto costs. Effective prevention must be comprehensive, addressing both individual risk factors and community- and societal-level actions. It should target the root causes of domestic violence, recognizing that the issue is deeply rooted in gender inequality. Understanding this dynamic highlights how violence undermines not only women but also society as a whole by perpetuating subordination [2, p. 128].

Essential components of domestic violence prevention include:

- Combating stereotypes, patriarchal attitudes, and gender-based prejudices;
- Strengthening the capacities of professionals in the field;
- Conducting public awareness campaigns to promote zero-tolerance for domestic violence;
- Educating specific social groups on the issue [2, p. 128].

The implementation of the 2018–2023 National Strategy for Preventing and Combating Violence against Women and Domestic Violence revealed sectorial and systemic gaps that hinder prevention efforts, such as:

1. insufficient informational campaigns;

2. lack of early intervention actions;
3. limited access for victims to specialized services;
4. economic dependency of victims on their abusers;
5. fragmented and delayed police interventions;
6. inefficient sanctions for perpetrators;
7. inadequate budgetary funding for dedicated services;
8. fragmented and inconsistent statistical data collection.

Despite these challenges, significant progress has been made, including:

1. Continuous improvement of legal and institutional frameworks, along with training specialists and implementing coordinated response mechanisms;
2. Establishing new shelters for domestic violence victims and services for child victims or witnesses of crimes;
3. Creating a Monitoring and Analysis Commission for severe cases of domestic violence;
4. Increasing the issuance of restraining orders and protective measures, as well as the number of victims assisted in shelters.
5. The adoption of Decision No. 332 on May 31, 2023, initiating the 2023–2027 National Program, provides an opportunity to address the shortcomings of the previous strategy and implement further measures to reduce domestic violence cases effectively.

3. Authorities and Professionals Empowered with the Functions of Preventing and Combating Domestic Violence

To ensure the prevention process and provide effective protection, the involvement of multiple responsible institutions and organizations is required to deliver clear and consistent messages of zero tolerance towards domestic violence. The experience of other countries demonstrates that an effective response to domestic violence cases depends on the proper functioning of the system and the ability to provide immediate protection and assistance services to victims.

At the same time, by ensuring the functioning of an efficient support system, placing the rights and needs of the victim at the center of all measures taken, and through the effective cooperation of all relevant agencies, institutions, and organizations, the state sends the message that domestic violence is a serious crime treated with utmost seriousness. This ensures the effective prevention of the phenomenon, the protection of domestic violence victims, and the accountability of family aggressors.

Similarly, for the effective prevention and combating of domestic violence, the provision of adequate professional support to victims, changing attitudes, perceptions, and stereotypes, it is necessary to train all professionals involved and to instill knowledge about violence and its consequences. This goal is also reflected in the National Strategy for the Prevention and Combating of Violence Against Women and Domestic Violence for 2018–2023 and its Action Plan for implementation. Law No. 45/2007 establishes the legal and organizational bases of activities for the prevention and combating of domestic violence, as well as the authorities and institutions empowered with these functions [4]:

1. Central specialized state bodies:
 - Ministry of Health;
 - Ministry of Labor and Social Protection;
 - Ministry of Education and Research;
 - Ministry of Internal Affairs;
 - Ministry of Justice.
2. Specialized local public administration authorities (LPA) and deconcentrated structures:
 - Social assistance and family protection departments/directorates;
 - General directorates for education, youth, and sports;
 - Health protection bodies;

-
- Territorial police subdivisions.
 - 3. Assistance centers and services:
 - Centers/services for the assistance and protection of domestic violence victims and their children;
 - Centers/services for the assistance and counseling of family aggressors;
 - Other organizations with specialized activities in the field.

In the context of Law No. 45/2007, the responsibilities for developing and promoting policies for the prevention and combating of domestic violence and the social assistance of victims and aggressors lie with the Ministry of Health and the Ministry of Labor and Social Protection. Additionally, the Interministerial Coordination Council on preventing and combating domestic violence has been created under the Ministry of Health and the Ministry of Labor and Social Protection. The council includes representatives from central authorities (Ministry of Health and Ministry of Labor and Social Protection, Ministry of Education and Research, Ministry of Internal Affairs, Ministry of Justice), civil society representatives, and other stakeholders. The Interministerial Coordination Council is responsible for ensuring coordination and collaboration among ministries and other central administrative authorities with competencies in preventing and combating domestic violence [4].

Medical institutions play a major role in preventing and combating domestic violence because healthcare providers are often the first to come into contact with victims. In addition to providing health services, healthcare providers play a significant role in effectively identifying cases of violence, facilitating the effective referral of victims within the healthcare system, and directing them to other service providers.

The police are a crucial link in a system of authorities with functions for preventing and combating domestic violence. During intervention processes, police officers are required to assess the risk and take necessary measures to ensure the victim's immediate safety by [2, p. 131]:

- Issuing emergency restraining orders, thus ensuring the safety of the victim and other family members both within and outside the home;
- Placing victims in specialized rehabilitation or placement centers (with the victim's consent);
- Informing and assisting the victim in obtaining a protection order issued by the court.

If the victim is unable to act (physically or mentally), police officers are obliged to file a request with the court to issue a protection order applying restrictions on the aggressor. During actions to prevent and combat domestic violence, the police also intervene by applying coercive measures against the aggressor, which may include:

1. imposing administrative or criminal sanctions;
2. bringing family aggressors who have committed or are predisposed to commit acts of domestic violence to police headquarters for documenting the cases or initiating administrative or criminal procedures, as well as initiating the procedure for applying restrictions through protection orders issued by the court;
3. applying procedural administrative or criminal coercive measures against the aggressor;
4. assisting courts in implementing coercive medical measures for individuals dependent on alcohol or suffering from chronic alcoholism or drug addiction;
5. monitoring compliance with the restrictions established by the protection order issued by the court, both in civil and criminal proceedings.

4. The Role of Civil Society in Combating Domestic Violence

Domestic violence is a latent crime. Violence originating in the family creates a violent society, and conversely, a society that accepts violence in the public sphere exacerbates violent tendencies within the family, transmitting them across generations.

Domestic violence is a serious social issue. Therefore, preventing domestic violence should not exclusively target professionals tasked with this field but should involve

genuine community participation in violence prevention programs. Violence arises from the interaction of various factors in society, the immediate environment, relationships, and individual factors. Domestic violence is not an isolated event existing in a social vacuum. Even if witnesses are not present when it occurs, violence takes place within a specific socio-cultural context where family and friends form a social network. Thus, we expect the social network to respond to violence in a particular way, with society members having a moral obligation to report acts of violence.

We believe that strategies for preventing and combating domestic violence should focus on multiple directions:

1. improving awareness and knowledge about violence;
2. promoting gender equality and reducing social stereotypes;
3. encouraging the population to adopt an active witness mindset, reporting cases to the police and other authorities.

Studies in the field show that very few women report the most severe cases of violence, supported by the fact that half of the women believe domestic violence is "a private matter" that should be resolved within the family. Over half (55%) of women in the Republic of Moldova—four times more than in the EU (14%)—consider domestic violence a private matter to be solved within the family [6, p. 13].

These stereotypes and prejudices, reinforced by friends, relatives, and representatives of various authorities, perpetuated by religious institutions, lead women to suffer in silence.

Myths about domestic violence also cause community members who witness acts of violence to hesitate in reporting cases to authorities. The role of society members as active witnesses and reporters of cases to the police and other authorities is crucial, as it is well known that any crime occurs only when certain elements converge: the perpetrator, the victim, and the absence of supervision.

Thus, traditional attitudes and norms contribute to high prevalence rates, with most witnesses of gender-based violence acts believing that domestic violence is a private matter or holding the opinion that the victims themselves are to blame. This situation is even more pronounced in communities with strong patriarchal values.

To increase reporting of domestic violence cases, including by community members witnessing acts of violence, the following activities are recommended [2, p. 135]:

1. increasing public awareness about the various manifestations of all forms of violence against women and domestic violence, as well as their social, economic, and legal consequences, and ways to address such cases;
2. informing the public about the rights of victims and witnesses, the procedures, and the services available for protection and assistance;
3. including topics on gender equality, human rights, and violence prevention in school curricula and teacher training programs;
4. implementing programs for the early prevention of violent behaviors in interpersonal relationships, especially among young people;
5. developing psychological support programs for couples.

Strategies for preventing and combating domestic violence should focus on several levels:

1. **Universal Level** – Early interventions targeting the general public or specific groups (age, occupation);
2. **Selective Level** – Risk management targeting high-risk groups for domestic and gender-based violence;
3. **Indicated Level** – Managing consequences, targeting perpetrators and victims.

The ecological model is a concept aimed at understanding interpersonal violence as a public health issue and its adjacent risk factors. It proposes intervention models and evaluation methods for prevention programs. From the ecological model's perspective, prevention programs addressing multiple risk factors must operate at multiple levels:

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- Individual level – Support for completing secondary education;
 - Relational level – Efforts to prevent child abuse and partner violence;
 - Community level – Education and intervention programs to reduce alcohol consumption;
 - Social level – Reducing unemployment and socioeconomic inequalities.

Community risk factors for violence include situational factors (unsafe routes to school, poor neighborhoods), high residential mobility, high unemployment rates, lack of protection by community agents in schools, clubs, bars, lack of jobs, and the presence of drugs in various locations.

Given the multitude of violence forms and the diversity of risk factors, preventive activity requires constant "reinvention" to align with current realities. The World Health Organization recommends orienting domestic violence prevention and combat strategies along the following dimensions [2, p. 136]:

1. Developing secure and stable relationships between children and their parents/caregivers;
2. Developing life skills in children and adolescents;
3. Reducing alcohol availability and abusive consumption;
4. Reducing access to weapons, knives, and toxic substances;
5. Promoting gender equality to prevent violence against women;
6. Changing cultural and social norms that support violence;
7. Identifying victims and developing care and support programs.

It is evident that local public authorities play a crucial role in combating domestic violence by developing and implementing effective public policies tailored to community needs.

According to art. 8, para. (2) of the Law on Preventing and Combating Domestic Violence No. 45 of 01-03-2007, local public authority bodies [4]:

1. Include measures related to preventing and combating domestic violence in local development programs, plan training and awareness campaigns on combating domestic violence, support social services, and other measures to assist domestic violence victims, and cooperate in implementing a domestic violence case registration system;
2. Create multidisciplinary teams (MDTs) at the local level—comprising specialists mandated by law to take measures to prevent and combat all forms of violence and facilitate access to assistance and protection for survivors of violence. These teams include police officers, community social workers, family doctors, child protection authorities, mayors, and education institution staff;
3. Develop social partnerships with non-governmental organizations, including funds, trade unions, employer organizations, religious denominations, and international organizations, to strengthen efforts in preventing and combating domestic violence.

Thus, local authorities not only implement national measures but also become primary vectors of change within communities, promoting zero tolerance for domestic violence and supporting a climate of safety and respect for all citizens.

Since Moldova is a predominantly Orthodox country, religious communities play an essential role in combating domestic violence by promoting fundamental values such as respect, love, solidarity, and human dignity. This idea can be reinforced by the participation of over 90 Orthodox Church leaders, experts in women's rights protection, and representatives of philanthropic organizations from Romania and Moldova in a conference organized by the social mission "Diaconia" [5].

It is clear that, for all domestic violence prevention and combat strategies to be effective, they must be applied before violent acts occur, during them, and after they have ceased.

5. Conclusions

Combating domestic violence represents a vital national priority, significantly impacting social cohesion and citizens' well-being. The strategies and practices analyzed in this article demonstrate that success in reducing this phenomenon depends on several key factors, such as

strengthening an effectively enforced legislative framework, ensuring access to specialized services, emphasizing public education and awareness, and fostering inter-institutional collaboration.

In conclusion, only through a multidimensional and sustained approach integrating preventive measures, early interventions, and post-conflict solutions can domestic violence be significantly reduced. The Republic of Moldova demonstrates its commitment in this direction; however, additional investments and improved coordination remain necessary to ensure the effective implementation of adopted strategies.

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ORGANIZED CRIME AND MEASURES TO COMBAT IT IN THE REPUBLIC OF MOLDOVA

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Abstract. *The Republic of Moldova is facing a significant increase in organized crime, a phenomenon that threatens both economic stability and citizens' trust in state institutions. At the core of this issue are illegal activities such as drug trafficking, smuggling, and economic crime. White-collar crime is a key component of this problem, being closely linked to high-level corruption, financial fraud, and embezzlement, which undermine the effective functioning of the rule of law. This article explores the particularities of organized crime in the Republic of Moldova, analyzing the interconnections between local groups and international networks, as well as the methods they use to evade law enforcement. The study presents recent cases of corruption and economic crime, highlighting the role of judicial institutions and the challenges faced in combating these offenses. In conclusion, measures are proposed to improve the national response to organized crime by strengthening institutions and fostering effective collaboration with international partners.*

Keywords: *organized crime, illegal activities, local groups, judicial institutions, financial losses.*

1. Introduction.

Organized crime represents one of the most severe threats to national and international security, with a profound impact on economic, social, and political levels. In the context of globalization and rapid technological development, cross-border criminal activities have become more complex, quickly adapting to prevention and counteraction measures. The Republic of Moldova is not immune to these challenges; on the contrary, its geographical position and socioeconomic context have made it vulnerable to organized crime networks.

In Moldova, forms of organized crime include drug trafficking, human trafficking, smuggling, corruption, and economic fraud. Despite institutional efforts and international collaborations, the phenomenon continues to grow, placing pressure on authorities' ability to implement effective counter-strategies. The Moldovan government, along with international and regional organizations, has adopted a series of legislative and operational measures to deter and reduce the influence of criminal groups.

This article aims to examine the specificities of organized crime in Moldova, analyze the challenges faced by authorities in combating this phenomenon, and highlight the measures and strategies implemented. Additionally, the paper provides an overview of the results achieved and perspectives for improving the legislative and institutional framework for a more effective fight against organized crime.

On March 22, 2012, the Moldovan Parliament adopted the Law on Preventing and Combating Organized Crime. The law regulates specific measures to prevent and combat organized crime, applied by the authorities with responsibilities in this area to protect individuals, society, and the state from the illegal actions of criminal groups and organizations.[2] The law explains terms such as "organized crime," "organized criminal activity," "prevention of organized crime," and "transnational crime" (Article 2), defines the scope of the law—offenses considered committed by a group or criminal organization under the Criminal Code (Article 3), and

establishes the basic principles of preventing and combating organized crime (Article 4), as well as the designated competent structures.[1]

Experts in the field can easily observe that the law does not introduce truly innovative elements. Many activities mentioned are already provided for in other normative acts and carried out by competent bodies prior to the adoption of this law, each acting individually according to their specific responsibilities. The law's goal is to unify these efforts by creating clear forms of organization, institutionalization, coordination, and collaboration, both nationally and internationally. This elevates the level of responsibility of every actor involved, granting activities a coherent and systematic character.

Prevention and combating of crime, within the context of the separation of state powers, is the executive's responsibility. For this reason, the government not only had the right but was obligated to establish such a Council, particularly in response to the challenges posed by organized crime. This phenomenon has escalated, and despite measures taken, it continues to expand uncontrollably at a global level, including in Moldova, which has not been spared from the implications of this social (or rather antisocial) phenomenon.

The law introduces new provisions and legal mechanisms that extend the existing legal framework and, implicitly, the competencies of the Prosecutor's Office regarding control, leadership, and coordination. Although not explicitly stated in the law's text, the Prosecutor's Office's responsibilities intervene especially in the field of special prevention and the fight against offenses committed by identified criminal groups or organizations, aiming to expose all members and bring them to justice. Additionally, Law No. 286 of October 5, 2023, introduced significant changes concerning special investigative activities, equipping authorities with additional tools to effectively combat organized crime and corruption.

2. Republic of Moldova's Legislative and Strategic Measures Against Organized Crime

The Republic of Moldova has adopted several legislative acts and strategies to combat organized crime and corruption. An essential document in this regard is Law No. 50 of March 1, 2012, on special measures for investigating and preventing organized crime. This law establishes specific measures that authorities can apply to prevent and combat organized crime, including special investigative techniques such as undercover agent infiltration and communication monitoring. Additionally, the National Strategy for Preventing and Combating Corruption underscores the importance of strengthening state institutions and international cooperation in the fight against corruption and organized crime. This strategy proposes measures to improve the legal and institutional framework and to enhance transparency and accountability in the public sector.

Corruption, as cited in previous sources, is a complex, multidimensional, and multi-structural phenomenon with economic, social, and political characteristics. Its complexity stems from various causes, which can be grouped as follows:

1. The economic causes include the continuous increase in the cost of living, the deterioration of the economy, and the impoverishment of the population. These factors are compounded by the low and delayed payment of salaries for public officials, a precarious state budget, and the excessive over-regulation of the private sector.

2. Institutional causes refer to flawed personnel selection policies, the appointment of incompetent or corrupt individuals to key positions, and the lack of transparency in central and local public administration, as well as in law enforcement agencies. Additionally, there is excessive freedom given to decision-makers, difficulty in exposing corrupt individuals, insufficient technical resources for law enforcement agencies, and inadequate human and logistical resources.

3. Legal causes stem from legislative gaps and the lack of efficient enforcement mechanisms.

4. Political causes are characterized by a lack of political will and responsibility, the influence of internal and external factors on decision-making, unresolved issues in eastern regions, errors in the economic and social reform process, unfair political competition, and the manipulation of the mass media and law enforcement agencies.

5. Social and moral causes are linked to culture, mentality, and traditions of corruption within power and law enforcement structures. They are evident through societal disintegration, a decline in moral values, the lack of civil society awareness, public apathy, tolerance of corruption, social polarization, and the dependence of mass media on external interests.

The major phenomenon results in a chain of consequences. Official statistical data, as well as those presented by specialized non-governmental organizations, scientific, sociocriminological research results, law enforcement information, judicial statistics, and media publications, indicate that corruption has affected the following domains:

- **Political and Institutional:** Degradation of functional, political, and moral integrity within public authorities, attributed to the expansion of political corruption. This leads to diminished transparent and responsible political competence, impoverishment of the population, and increased social tension.
- **Economic:** Bureaucratic delays in document processing, inability of the state to ensure producer security, lobbying, protectionism, influence trafficking, unfair competition, excessive state regulations and controls undermine market economy mechanisms and free competition, discourage potential investors and entrepreneurial initiatives, increase public project costs, reduce economic efficiency, extend tax evasion, reduce budget revenues, and develop the underground economy.
- **Social-Political Impacts:** The effects of corruption manifest in public administration through reduced public administration quality, unofficial decision-making systems, and strong connections between organized crime, public officials, and corrupt politicians.
- **International Relations:** Corruption manifests through incompetent, irresponsible, provocative, and subjective-conventional behavior of responsible individuals who, in relations with foreign partners, prioritize personal and corporate interests over national ones. This irreparably undermines the country's image and credibility as a partner in international relations.[3]

3. Prevention and Combating Crime Measures

Fighting corruption is a long-term process that cannot entirely eliminate the phenomenon but can significantly reduce it. This goal can be achieved through strict control, applying preventive measures to eliminate criminogenic factors and conditions that favor corruption. It is also essential to directly detect acts of corruption, sanction those guilty according to the law, and create an educational framework promoting intolerance toward such acts. The active involvement of the population in supporting anti-corruption campaigns initiated by authorities is crucial.

To ensure efficiency, measures included in the strategy must be implemented in a coordinated manner and function interdependently. The positive effect of one element should amplify the impact of others.

The key elements of the strategy include:

- Combating corruption through consistent and effective enforcement of criminal norms;
- Preventing corruption by eliminating vulnerabilities in public and judicial institutional systems and procedures;
- Educating the population to develop an attitude of intolerance toward corruption and encouraging active citizen participation in prevention and anti-corruption initiatives.

4. Ensuring Transparency and Accountability in Political Activities

To prevent and combat corruption in politics, several measures are necessary. First, to ensure transparency and accountability in political activities and align national legislation with international standards, studying international legislation and practices is required.

Legislative amendments will address political party and electoral campaign financing, ensuring adherence to principles of transparency and accountability. Additionally, criminal liability for electoral bribery will be introduced, and political accountability to citizens will be strengthened.

5. Reducing Corruption Effects on the Private Sector

Creating a competitive private sector is a priority for Moldova's economic policy. In this regard, updating fiscal and customs legislation to reduce the tax burden and strengthen accountability for tax evasion is necessary. A mechanism to combat the informal economy and reintegrate it into the official economy will be implemented. Measures will also be adopted to simplify administrative procedures for economic agents, including registration, licensing, tax calculation and payment, and financial and fiscal documentation preparation.

6. Institutional Reform Effects on Fighting Corruption

The main goal of institutional reform is to create an efficient system to prevent and combat corruption while reducing corruption risks in public institutions. To achieve this, the public authority structure will be optimized by reducing ministries, departments, and officials. Competencies of anti-corruption institutions will be adjusted, and personnel will be promoted based on professionalism and abilities through clear selection mechanisms such as competitions and tests. Furthermore, the stability of competent personnel will be ensured, the dignity of public officials will be restored, and individuals not meeting efficiency and deontology standards will be removed. Urgent measures will be adopted to ensure adequate salaries for public officials, consistent with their responsibilities and associated risks. State control will be improved by creating a system of social and parliamentary oversight for anti-corruption legislation compliance, and internal administrative control mechanisms will be strengthened.

Updating and amending the Law on Preventing and Combating Organized Crime, the Penal Code, the Code of Criminal Procedure, and other relevant normative acts with new provisions aligned with international practice will enable effective prevention and combating of organized crime in our society.

Institutional reform and the proposed anti-corruption measures for Moldova are essential for creating an efficient system based on transparency, accountability, and professionalism. Optimizing public institutional structures, promoting competent personnel, and strengthening control mechanisms will play a significant role in preventing and combating corruption. Inter-institutional collaboration and active societal involvement are also fundamental to achieving a cleaner and more efficient public administration environment.

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CYBERCRIME COMMITTED BY A CRIMINAL GROUP OR CRIMINAL ORGANIZATION

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Abstract. *The rapid technological evolution and the global expansion of interconnectivity over recent decades have had a major impact on crime, giving rise to a new criminal dimension: cybercrime. This term encompasses a wide range of illegal activities conducted in the digital realm, with various objectives, including generating quick profits, conducting espionage, manipulating sensitive data, or even compromising essential infrastructures critical to national security. Criminal organizations have increasingly extended their operations into the digital environment, exploiting the unique advantages of the internet, such as user anonymity, communication speed, and global access. These organizations employ advanced techniques to conduct criminal activities like financial system fraud, ransomware attacks, and personal data theft, often forming complex networks.*

The typology of cybercrime can be organized into distinct categories, each characterized by specific methods of operation. These categories include offenses such as phishing, DDoS attacks, drug and weapons trafficking on platforms like the dark web, and the use of cryptocurrencies to mask illegal transactions. Moreover, criminal organizations continuously adapt to new technologies, such as artificial intelligence and the Internet of Things (IoT), to increase the efficiency and impact of their illicit activities, positioning themselves strategically against authorities.

This research analyzes the evolution of cybercrime within the context of advanced technologies and global interconnectivity, highlighting the impact on cybersecurity and international preventive measures. The study explores how cybercriminals exploit technological vulnerabilities, threatening individuals, financial institutions, and critical infrastructures. Additionally, it examines the effectiveness of countermeasures implemented by authorities and international organizations and provides relevant statistics to illustrate the scale and trends of cybercrime.

Keywords: *Advanced technologies, Criminal organizations, Cybercrime, Cybersecurity, Digital realm*

1. Introduction

Cybercrime represents a complex category of offenses occurring in the digital environment, encompassing a variety of illicit activities. These include hacking, which involves unauthorized access to computer systems; online fraud, such as phishing, where criminals attempt to obtain sensitive information; and the distribution of illegal content, like child pornography in the virtual space [1]. These acts not only affect individuals but also have severe consequences for organizations and society as a whole.

When defining cybercrime, it is essential to consider the concept of informatics, which refers to "the totality of activities and actions related to the design and management of computer systems." This science encompasses numerous fundamental notions, such as instruction, information, databases, database management systems, information systems, and electronic payment tools.

The impact of informatics on modern society is profound and far-reaching, with implications across all areas of activity. Computers and smart devices, such as mobile phones and tablets, have become essential elements of daily life, facilitating rapid access to information and communication. Furthermore, we are in the midst of a "second industrial revolution," where digital

technology plays a central role in various fields, including banking, healthcare, industry, defense, social security, and law enforcement.

These technologies are not only tools for efficiency but also vital elements for the proper functioning of critical systems. They are involved in essential activities such as medical treatments, emergency services, air and road traffic management, and the storage of sensitive information with political, economic, and personal implications. This transformation brought about by information technology has fundamentally changed how we interact, work, and live, making what seemed impossible in the past an integral part of our daily lives [2].

2. Organized cybercrime

Organized cybercrime is considered transnational and operates using information technologies and resources. It manifests through data theft or various attacks on electronic information, with global spread. Such activities are particularly prevalent in countries with high crime rates and deficient economies. This area of activity, with a high-profit potential but significant risks, poses not only legal risks for offenders but also a constant threat to the cybersecurity of individuals and institutions. Due to the complexity and anonymity offered by the online environment, authorities face difficulties in identifying and prosecuting offenders. The impact of these crimes is not limited to financial losses but also undermines public trust in digital systems, contributing to an atmosphere of insecurity. Therefore, it is crucial for society to be aware of the risks associated with organized digital crime and collaborate to implement effective prevention measures, thereby protecting the integrity of secure informational systems[3].

Thus, only through close cooperation between authorities, the private sector, and the community can we hope to build a safer and more resilient digital environment against threats.

Hence, **informational or cyber offenses committed by an organized criminal group include**[3]:

1) Economic Crimes.

Cybercrimes committed by an organized criminal group for economic purposes typically have a significant impact on the financial stability and economic security of a country, with consequences that are often long-lasting. Here is a detailed analysis of the possible effects and motivations behind such economic crimes:

- **Undermining and Destroying the Economy:** Destroying a country's economy is a form of cyberattack with significant geopolitical implications. The goal may be to generate economic chaos, unemployment, or a decline in trust in the financial system, thereby weakening the country's stability and economic defense capability. This may involve cyberattacks on financial institutions, manipulation of critical economic data, or even causing failures in the country's digitized economic infrastructure.
- **Holding or Usurping Power:** Organized criminal groups may attack economic systems to undermine the authority or credibility of governments, with the intention of extending their own influence or imposing illicit interests on a country's economy. This could include coordinated cyberattacks on banks, critical infrastructure companies, or government financial regulatory agencies to compromise the state's administrative efficiency and security.
- **Blocking Investments:** Cyberattacks targeting the blockage of investments aim to hinder economic development and reduce a country's competitiveness. These actions discourage both foreign and national investors, causing them to withdraw from important economic projects or avoid future investments. DDoS (Distributed Denial of Service) attacks on trading platforms or financial infrastructures, leaks of confidential data, or manipulation of information affecting financial markets and investor sentiment may be used.
- **Depriving Private Property:** Through cyberattacks, organized groups may attempt to gain control over assets held by individuals or legal entities. These crimes can involve stealing data or manipulating registries to fraudulently transfer property. Methods can include

phishing, unauthorized access to property information databases, or even document forgery through advanced deepfake technologies and AI to falsify property titles.

2) **Financial and Fiscal Crimes.**

Cybercrimes of a financial and fiscal nature committed by organized criminal groups have major economic and social effects. They contribute to destabilizing financial markets, causing public resource losses, and decreasing trust in financial institutions and government. Here is a detailed analysis of the methods and motivations behind such crimes:

- **Financial Pyramid Schemes:** The aim of these schemes is to attract funds from investors by promising extremely high and quick returns. In reality, funds from new investors are used to pay returns to existing ones, without any real economic activity behind them. Online platforms are often used to recruit victims through fake websites, apps, and social media networks. Large initial investments followed by the disappearance of organizers result in massive financial losses for victims.
- **Gambling:** Betting and gambling can be used for money laundering or defrauding participants. In many cases, these activities are carried out outside legal regulations, facilitating tax evasion. Organizers use illegal gambling platforms to attract users. Moreover, funds obtained from illicit activities can be disguised as legitimate gambling winnings.
- **Counterfeiting and Selling Fake Money:** The creation of counterfeit money aims to generate illicit financial flows, destabilizing the economy by introducing currency without real value into the market. Criminal groups may use sophisticated equipment to produce counterfeit money and distribute it through smuggling networks. Online distribution facilitates finding buyers and evading authorities.
- **Theft of Virtual Money (Cryptocurrencies, Bitcoin):** Cryptocurrencies are an attractive target due to the anonymity of transactions and their value, often being used to finance illicit activities or launder money. Attackers use hacking, phishing, and malware to access the digital wallets of victims, stealing cryptocurrencies or illegally diverting funds.
- **Theft of Public Funds:** These attacks aim to redirect public funds intended for investments and community services to criminal groups, thus affecting the functioning of public systems and state investments. Hackers affiliated with criminal groups may infiltrate the accounting systems of public institutions, altering financial information and redirecting payments to accounts controlled by them.
- **Money Laundering and Legalizing Illicit Funds:** Money laundering allows criminal groups to make funds obtained through crimes appear legitimate. Legalizing these funds facilitates their reintroduction into the formal economy. Money laundering techniques include using shell companies, real estate acquisitions, offshore accounts, and converting funds into cryptocurrencies to hide their illicit origins.
- **Shadow Investments:** Investments in illegal or semi-legal businesses allow criminal groups to increase their profits and influence in certain economic sectors. Criminal groups can invest funds in unregulated or easily manipulated sectors, such as casinos, betting companies, or high-risk real estate businesses, to obtain higher returns.

3) **Banking Crimes.**

These crimes aim to obtain funds through fraudulent methods targeting banking institutions and their clients, compromising the security of banking systems:

- **Theft of Funds:** Direct theft of funds from individuals' or legal entities' bank accounts. Hackers from organized groups access bank accounts using hacking, phishing, and malicious software techniques, conducting unauthorized transactions without the victims immediately noticing.
- **Card Theft:** Gaining access to banking card information to use it for illegal purposes. "Skimming" techniques (copying data from cards) or credit and debit card cloning are used to create duplicates that allow access to victims' funds.

- **Theft of Bank Data via Fraud (Phishing):** Obtaining sensitive customer data through fraud and identity theft by impersonating the bank or another financial institution. Scammers send emails, SMS messages, or initiate phone calls simulating official communications, asking the victim to provide bank details under the pretext of account verification or updates.
- **Reading Card Data via Skimmer Devices:** Obtaining information from bank cards through unauthorized reading devices installed on ATMs or payment terminals. "Skimmer" devices are installed on ATMs and capture card data, which attackers then use for fraudulent transactions.

4) Scams through Various Forms and Methods

Scams represent a varied set of fraudulent activities aimed at deceiving victims to obtain material gain. They can take many forms and involve different techniques, adapting to the evolution of technology and consumer behavioral changes. Below is a detailed analysis of different types of scams:

- **Phone Fraud (Vishing)** - obtaining personal or financial information through phone calls. Criminals present themselves as representatives of banks, authorities, or other trusted organizations and request confidential information, such as account numbers or access codes. These calls are often made using social engineering techniques to convince victims of the legitimacy of the request.
- **Email Fraud (Phishing)** - stealing sensitive information by sending fraudulent messages. Scammers send emails that appear to come from well-known financial or commercial institutions, asking users to confirm account details or click on a fake link. The emails may also contain malware attachments that infect the victims' computers.
- **Online Sales Fraud** - obtaining money by selling nonexistent products. Scammers create ads for goods or services on online sales sites, asking for upfront payment but never delivering the product. Victims can be tricked into paying significant amounts for products that don't exist or services that will never be provided.
- **Lottery Scams** - deceiving victims with promises of quick winnings. Scammers notify victims that they have won a large sum of money in a lottery or contest, asking them to pay a fee to claim the prize. These are often carried out through emails or text messages, and victims end up paying small amounts hoping for a large gain.
- **Identity Theft** - using someone else's identity to obtain goods or services. Criminals may obtain personal information, such as name, address, and personal identification number, to open bank accounts, take out loans, or make purchases in the victim's name. This can involve stealing information through hacking or the "shoulder surfing" method.

5) Intellectual Property Rights Violations

Violations of intellectual property rights, particularly concerning copyright and trademarks, represent a significant issue in the digital age. These offenses not only affect creators and rights holders but also have a negative impact on the economy and innovation. Below is a detailed analysis of this type of crime:

- **Copyright Infringement** - copyright protects original works of art, literature, music, and other intellectual creations, granting creators exclusive rights over the use and distribution of their works:
- ✓ Piracy = illegal distribution or reproduction of protected works without the copyright holder's permission. This includes downloading music, movies, or software through illegal websites.
- ✓ Counterfeiting = creating unauthorized copies of original works, such as books, CDs, or software products, sold as originals, causing financial losses for legitimate creators.
- ✓ Unauthorized Reproduction = improper use of protected content in various media (e.g., presentations, websites) without obtaining necessary licenses.

- **Trademark Infringement** - trademarks are symbols, names, or terms that identify and differentiate a business's products or services from others. Protecting trademarks is essential to maintaining consumer trust and brand integrity:

- ✓ Counterfeiting = producing and selling goods that bear identical or similar trademarks to those of other companies, without permission. This is common in the fashion, electronics, and cosmetics industries.
- ✓ Falsification = selling products that claim to be original but are of inferior quality or completely different. This can confuse consumers and damage the brand's reputation.
- ✓ Domain Name Buying = registering domain names containing famous trademarks to resell them to the rights holders or mislead consumers.

6) **Sale of Drugs, Psychotropic Substances, Anabolics, and Other Illegal Substances**

The sale of drugs and illegal substances has evolved significantly with the development of digital technology. The internet and e-commerce platforms have provided new ways for illegal dealers to conduct their activities, facilitating access to banned substances and expanding distribution networks. Below is an analysis of this phenomenon:

- **Platforms Used for Sale:**

- ✓ Dark Web - a significant portion of illegal drug trade takes place on the dark web, where dealers use platforms such as Silk Road (formerly) or other anonymized drug markets to sell illegal substances. These platforms allow users to remain anonymous by using cryptocurrencies and anonymizing networks (e.g., Tor).
- ✓ Social Networks and Messaging Apps - dealers use social networks (e.g., Facebook, Instagram) and encrypted messaging apps (e.g., Telegram, Signal) to communicate with clients and organize deliveries, allowing them to avoid detection by authorities.
- ✓ E-Commerce Websites - some legitimate websites are used as fronts for drug sales, where dealers hide illegal products behind vague descriptions and attractive marketing.

- **Delivery Methods:**

- ✓ Courier Delivery - dealers use courier services to deliver illegal substances directly to consumers' doors, reducing the risks of being caught in the act.
- ✓ Discreet Packaging - drugs are often packaged in ways that hide their contents, such as using anonymous parcels or fake labels to avoid suspicion.

- **Payment Methods:**

- ✓ Cryptocurrencies and Online Payments - payments for drugs are often made using cryptocurrencies like Bitcoin or Monero due to their anonymity and difficulty to trace, complicating authorities' efforts to investigate and halt illegal transactions.
- ✓ Alternative Payment Systems - dealers may also use other payment methods, such as prepaid cards or money transfers through services that are not easily tracked.

7) **Assassination and Hitmen**

Digital organized crime has significantly evolved in recent decades, expanding beyond traditional economic and cybercrime offenses to now encompass the extreme severity of assassinations and contract killings. This branch of crime represents a serious threat to public security and requires careful analysis of how it operates, its impact, and measures for combatting it.

- **Operating Methods:**

- ✓ Online Platforms - criminals use various online platforms, including the dark web, discussion forums, and social networks, to recruit and coordinate assassinations. These platforms allow for anonymous communication and are often encrypted, making them difficult to monitor.
- ✓ Payment in Cryptocurrencies - ordering killings is often done through cryptocurrency transactions, ensuring the anonymity of the payers. This reduces the risks of financial transfers being detected by authorities.

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- ✓ Criminal Networks - organized groups develop assassination networks that include executors, intermediaries, and individuals who facilitate logistics (e.g., providing victim information or organizing transportation).

8) **Cyber Attacks (Hacking)**

Cyberattacks, especially hacking, represent one of the most common forms of digital organized crime. These attacks can have various purposes, from obtaining sensitive and financial information to causing damage to organizations' IT systems. Rapid technological advancements have facilitated the rise of these crimes, and their impact on society and the economy is becoming increasingly significant.

- **Types of Cyberattacks:**

- ✓ Ethical Hacking - while ethical hacking is a legal practice, illegal hacking involves unauthorized entry into computer systems to obtain confidential information or cause harm.
- ✓ Phishing - this method involves creating fake websites or email messages to deceive users into revealing their personal information, such as passwords or credit card details.
- ✓ Ransomware - attackers encrypt the victim's data and demand a ransom to unlock it. This type of attack can affect both individuals and large organizations.
- ✓ DDoS (Distributed Denial of Service) - these attacks flood a server with traffic, making it inaccessible to legitimate users. They are often used to disrupt the operations of organizations and harm their reputation.

9) **Sale of Firearms, Ammunition, Explosives, and Piracy**

The sale of firearms, ammunition, and explosives through digital platforms has become a major concern in the context of organized crime. These illegal activities are facilitated by the internet, which provides an anonymous environment for dealers and buyers of banned products. These actions not only endanger public safety but also destabilize societies by fueling violence and conflicts.

- **Selling Methods:**

- ✓ Dark Web - many illegal weapon transactions take place on the dark web, where dealers offer their products through encrypted websites. These platforms enable the use of cryptocurrencies, ensuring a high level of anonymity.
- ✓ Social Networks and Forums - social media groups and online forums are also used to facilitate illegal transactions, allowing sellers to connect with potential buyers.
- ✓ Messaging Apps - encrypted messaging apps, such as Telegram, are often used to discuss transaction details and send delivery information.

10) **Pornography Industry in All Its Diversity, with Sales**

The pornography industry has evolved significantly in recent decades, transitioning from physical products to digital ones, which has facilitated its accessibility and distribution. This transformation has not only created opportunities but also posed challenges, particularly in the context of digital organized crime. The illegal sale of pornographic content, including abusive or exploitative materials, is a serious issue that affects society in multiple ways.

Sales Methods:

- **Streaming platforms and file-sharing sites** – Organized crime groups often use streaming platforms or file-sharing websites to distribute pornographic content without the consent of the individuals involved. These sites can be used to upload illegal materials and generate revenue from advertisements.
- **Social media and messaging apps** – Social networks can be used to promote and distribute illegal pornographic content, including through private groups and direct messages.
- **Dark web** – The sale of illegal pornographic materials is a common activity on the dark web, where dealers offer exploitative content, such as child pornography or films involving individuals without consent.

11) **Human Trafficking, with Labor and Sexual Exploitation**

Human trafficking represents a severe violation of human rights, involving the recruitment, transport, transfer, housing, or reception of a person through threats, force, or other forms of coercion. In the digital age, this phenomenon has evolved, with illicit activities being facilitated through technology, making its approach and combat more complex.

Digital Organized Crime Operating Methods:

- **Online recruitment** – Criminals use social media platforms, dating sites, and online forums to recruit victims, often under the guise of job offers or romantic relationships. Victims are often targeted due to their vulnerability, being promised work opportunities or a better life.
- **Online sexual exploitation** – Victims of trafficking are often sexually exploited through pornography websites, webcam platforms, and messaging apps. Criminals use technology to control and monitor the victims' activities, keeping them dependent and under threat.
- **Forced labor and exploitation through work** – Victims may be forced to work under inhuman conditions, without remuneration or with extremely low pay, in industries such as construction, agriculture, domestic services, and others. Criminals organize the recruitment and transportation of victims, often using false identities and forged documents.

12) Corruption

Corruption is a complex and pervasive phenomenon that affects societies worldwide, including both public and private sectors. In the digital age, corruption has evolved, utilizing technology to facilitate and mask illicit activities. Digital organized crime plays a significant role in this process, impacting the integrity of economic and social systems.

Digital Corruption Operating Methods:

- **Digital bribes** – Organized crime groups can use online platforms to facilitate illegal payments. This may include bank transfers, cryptocurrencies, or the use of anonymous payment systems to avoid detection.
- **Document falsification** – In the digital environment, document falsification is simplified using advanced software. This allows criminals to create fake documents to secure contracts or deceive authorities.
- **Manipulating auctions and contracts** – Criminal groups can influence public tenders through manipulation techniques, including bribing officials or sabotaging competition.

13) Terrorism and Extremism (Present in Recent Years)

Terrorism and extremism represent significant threats to international security, and the proliferation of the internet and digital technologies has provided extremist groups with new opportunities to carry out their activities. Digital organized crime often intersects with these forms of violence, facilitating recruitment, radicalization, and financing of terrorist activities.

Digital Terrorism and Extremism Operating Methods:

- **Online recruitment** – Extremist groups use social media platforms, forums, and messaging apps to attract new members. These platforms allow them to promote their ideologies and interact with potential supporters from around the world.
- **Digital propaganda** – The use of videos, social media posts, and online articles to spread extremist messages. This may include glorifying acts of violence or promoting radical ideologies.
- **Terrorism financing** – Terrorist groups use cryptocurrencies and other online payment methods to raise funds. These methods allow them to avoid detection and manage financial resources effectively.

3. Criminal Legislation of the Republic of Moldova

According to the Criminal Code of the Republic of Moldova, cybercrimes are found in a separate chapter called: **Cybercrimes and Crimes in the Field of Electronic Communications**[4]. It includes the following articles and crimes[4]:

Article 259: Illegal Access to an Information System

Accessing an information system illegally by a person who is not authorized by law or by a contract, who exceeds the limits of authorization, or does not have the permission of the competent person to use, manage, or control an information system, or to conduct scientific research or perform any other operation within an information system.

Article 260: Production, Import, Marketing, or Illegal Provision of Technical Means or Software Products

The illegal production, import, marketing, or provision of technical means, software products, passwords, access codes, or similar data that allow access, partially or fully, to an information system designed or adapted for the commission of any of the crimes provided in Articles 237, 259, 260¹–260³, and 260⁵–260⁷.

Article 260¹: Illegal Interception of Data Transmission

The illegal interception of data transmissions (including electronic or electromagnetic emissions) that are not public and are intended for an information system, originate from such a system, or are conducted within an information system.

Article 260²: Alteration of the Integrity of Data Stored in an Information System

The intentional and illegal modification, deletion, or deterioration of data stored in an information system, or the illegal restriction of access to this data, unauthorized transfer of data from an information system, or the acquisition, marketing, or provision of restricted data.

Article 260³: Disruption of Information System Operation

The disruption of the operation of an information system by introducing, transmitting, modifying, deleting, or intentionally and illegally deteriorating data or restricting access to this data.

Article 260⁴: Production, Import, Marketing, or Illegal Provision of Passwords, Access Codes, or Similar Data

The illegal production, import, marketing, or provision of a password, access code, or similar data that allows full or partial access to an information system in order to commit one of the crimes mentioned in Articles 237, 259, 260¹–260³, 260⁵, and 260⁶.

Article 260⁵: Computer Fraud

The illegal introduction, modification, or deletion of data, or the illegal restriction of access to this data, resulting in data that is false and used to produce legal consequences.

Article 260⁶: Computer Fraud

The introduction, modification, or deletion of data, the restriction of access to this data, or any other interference with the functioning of an information system, with the intent of obtaining material benefits for oneself or others, if these actions have caused significant damage.

Referring to the activity of combating cybercrime, it has been carried out through collaboration between the Prosecutor's Office and the General Police Inspectorate, taking into account the Prosecutor's responsibilities in the prevention and repression of crimes, including cybercrimes. In this context, the Prosecutor's Office published detailed statistics on cybercrime, highlighting trends, frequently used methods, and encountered vulnerabilities, to support preventive and operational measures.

Thus, throughout 2023, criminal investigations were initiated in 76 cases (125 fewer than in 2022), including: Article 177 of the Criminal Code – 41 cases, Article 178 of the Criminal Code – 1 case, Article 260¹ of the Criminal Code – 1 case, Article 260² of the Criminal Code – 4 cases, Article 260³ of the Criminal Code – 3 cases, Article 260⁵ of the Criminal Code – 15 cases, Article 260⁶ of the Criminal Code – 8 cases, Article 261 of the Criminal Code – 1 case, Article 261¹ of the Criminal Code – 1 case.

4. Conclusion

Information-related crime represents a significant threat to both the public and private sectors. The increasing use of technology by criminal organizations and the lack of effective cooperation between states are issues that must be urgently addressed through appropriate

regulations and legal measures. Here are some conclusions regarding the typology of information-related crime:

- Cybercrimes, especially financial ones, can destabilize economies and undermine trust in financial institutions, necessitating strict policies and severe sanctions.
- Cyber fraud not only generates financial losses but also has a significant psychological impact on victims, highlighting the importance of education and awareness in prevention.
- Violations of intellectual property rights affect innovation and economic development, requiring collaboration between authorities and public education to deter crimes.
- The online sale of drugs and banned substances poses considerable risks to public health, requiring a comprehensive approach that involves authorities and communities.
- Contract killings and other forms of violent digital crime require the development of proactive strategies and advanced investigative techniques for prevention.
- Hacking attacks affect societal stability, emphasizing the need for investments in user education and robust cybersecurity policies.
- The illegal sale of weapons online represents a serious threat to public safety, demanding prompt and effective measures from authorities.
- The issue of human trafficking and exploitation, exacerbated by digital organized crime, requires a complex approach focusing on international cooperation and public education.
- The connection between digital organized crime and corruption undermines social and economic development, requiring coordinated actions to restore trust in state institutions.
- Challenges related to terrorism and extremism in the digital environment demand a multidimensional approach to reduce the impact of these threats on society.

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THE ISSUE OF PATRIMONIAL RIGHTS IN THE CONTEXT OF STATE REGISTRATION: REALITY VS. CLAIM DIFFERENCES AND SIMILARITIES BETWEEN REAL RIGHTS AND CLAIMS IN THE REGISTRATION PROCESS

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Abstract. *This article talks about property rights and how they are registered by the government. It explains the difference between two types of rights: real rights and claims. Property rights are very important because they help keep the economy stable by clearly showing who owns what and who owes what. Registering these rights helps protect people and makes sure the market works well. The article explains that real rights usually mean owning or controlling things, like land or ideas, while claims are promises or responsibilities someone owes to another person. Knowing the difference is important because it helps avoid confusion and problems. The article also says that clear and simple rules for registering these rights can stop fights and build trust in the legal system. It also talks about some problems with the registration process. Things like slow procedures, differences in rules between places, and system errors can make it hard to rely on the system. The article suggests making changes to fix these problems. By making the process faster, easier, and more predictable, the system can better meet the needs of today's economy and keep being an important part of managing property.*

Keywords: *Property rights, registration, real rights, claims, economy, ownership, responsibilities, legal system, trust, procedures, problems, efficiency, reforms, stability, market.*

Abbreviations

ASP - Public Services Agency;

IPCBI - Real Estate Cadastre Public Institution.

1. Introduction

The relevance of state registration of patrimonial rights cannot be overstated. It facilitates the circulation of goods and services, prevents disputes, and fosters trust in the legal system. Despite its importance, the registration process faces challenges, including operational dysfunctions and inconsistent application of legal norms. These issues underline the need for thorough analysis and actionable solutions to enhance the current legal framework.

Patrimonial rights are legal prerogatives that enable holders to act upon a good or value to protect their economic interests. These rights are categorized into:

- **Real Rights:** Grant direct and immediate control over a good, permitting actions such as possession, use, and disposition.
- **Credit Rights:** Establish a legal relationship between parties, entitling one to claim specific performance from another.

According to Article 453 of the Civil Code, patrimony is defined as:

"The totality of patrimonial rights and obligations (evaluated monetarily), viewed as a sum of interconnected active and passive values belonging to specific natural and legal persons." [2]

This definition emphasizes the "legal universality" of patrimony, encompassing all patrimonial rights and obligations as a unified whole. It clarifies that patrimony is not merely a collection of goods but also includes corresponding obligations, illustrating the interdependence between active (rights) and passive (obligations) components. This dynamic nature allows patrimony to adapt through the addition or removal of rights and obligations, ensuring coherence

in cases of transfers, insolvency, and succession. Doctrinal analysis plays a pivotal role in refining the concept of patrimony. Inspired by French legal thought, Marcel Planiol described patrimony as an abstract entity distinct from the goods and obligations it comprises. Classical doctrine defines patrimony as: "The ensemble of a person's rights and obligations, evaluable in monetary terms." [11]

Other interpretations expand this definition to include goods associated with these rights, emphasizing their role in meeting the holder's needs or obligations. This comprehensive approach highlights patrimony as a foundational legal concept, vital for theoretical discussions and practical applications. [12]

Patrimony, as a distinct legal entity, integrates the totality of a person's rights and obligations. Its dynamic nature and clear definition enable its effective application in diverse legal contexts, from asset transfers to insolvency proceedings. Doctrinal efforts to clarify and refine this concept continue to ensure its relevance and utility in modern legal systems. [13]

Real and Credit Rights

Real and credit rights are two fundamental categories of patrimonial rights, each with distinct characteristics and legal implications. Real rights concern goods, are limited in number, and are comprehensively regulated at constitutional levels, in the Civil Code, and other normative acts. Real rights express power relations among members of society, granting them significant importance. Ownership, the most prominent real right, holds a central role in Moldovan law and is recognized as a principle of civil law. All real rights have absolute patrimonial nature. Conversely, credit rights pertain to contractual obligations. The holder of a credit right, known as the "creditor," can require the determined passive subject, the "debtor," to perform a specific action, such as providing, doing, or refraining from something. Credit rights are unlimited in number, arising from the relationships established by the parties involved and the diversity of legal acts. [14]

Real rights grant their holders direct and immediate control over a good, enabling them to exercise attributes of possession, use, and disposition. For example, property rights over real estate allow the owner to use it, derive benefits, sell, or lease it. Real rights are enforceable *erga omnes*, meaning they can be invoked against any third party, offering robust protection. According to Article 454 of the Civil Code, real rights are categorized as property rights and limited real rights, including: a) usufruct; b) use rights; c) habitation rights; d) superficies; e) servitude; f) real guarantee rights, including pledge and mortgage; g) other legally defined rights. Limited real rights impose restrictions on disposition and use attributes to protect other persons' or entities' interests. They ensure partial use of the good, often benefiting third parties, balancing the holder's rights and others' needs.

In contrast, credit rights involve legal relationships between two or more parties, where the creditor is entitled to demand performance from the debtor, such as monetary payment, good delivery, or service provision.

Credit rights are relative, exercisable only against specific individuals or groups (debtors). Common in commercial or civil contracts, these rights ensure one party delivers goods or services, while the other fulfills payment obligations.

Understanding the differences between these two types of rights is essential for protecting patrimonial interests. Real rights provide higher security due to third-party enforceability, whereas credit rights are riskier, being subject to the debtor's inability to fulfill obligations. State registration plays a crucial role in strengthening these rights, ensuring visibility and legal recognition that facilitate their exercise and defense.

2. The Role and Importance of Registration Procedures

Registration of patrimonial rights in public institutions is a cornerstone for ensuring legal security and promoting transparency in economic transactions. Registration enhances the

visibility of these rights, enabling effective recognition and defense by all involved parties, including third parties. It directly impacts the quality and efficiency of civil transactions, preventing conflicts and ensuring the stability of legal relations.

For instance, **property rights over real estate must be registered** in the land registry to become enforceable against third parties. Without such registration, the right may be contested or unrecognized, leading to disputes and litigation.

Similarly, guarantee rights like mortgages and pledges must be registered to establish creditor priority over debtor's goods. Registration clarifies the legal status of goods and determines the preference order during foreclosure or insolvency. Registered creditors enjoy priority over unsecured creditors, enhancing security and encouraging lending.

Registration procedures also ensure **transparency and accessibility of information**. Public registries enable interested parties to verify a good's legal status, such as encumbrances or servitudes. This accessibility reduces fraud risks and offers additional guarantees for those involved in commercial or civil transactions. For instance, a potential land buyer can check the land registry to verify if servitudes or mortgages are recorded on the property.

Effective and transparent procedures are essential for a stable business environment and for protecting the legitimate interests of all involved parties. Competent public institutions, such as land and real estate registries, are responsible for verifying document validity and accurately registering patrimonial rights. These institutions must also update registries when changes occur, such as property transfers, usufruct modifications, or discharged mortgages.

Cooperation between public institutions managing patrimonial rights registration is vital. For example, registering a superficies right requires close collaboration between cadastral offices and local municipalities to align cadastral and urban planning documentation. This collaboration prevents overlaps and conflicts in public records, ensuring accurate representation of facts.

Patrimonial rights registration procedures are crucial for securing civil transactions and preventing disputes. By ensuring transparency and legal protection, registration enhances trust in the legal system and promotes a functional and fair market. Public institutions play an essential role in managing this process efficiently, safeguarding rights, and protecting the interests of all parties.

3. Dysfunctions and Lack of Uniformity in the Application of Rules Concerning the Registration of Property Rights in the Republic of Moldova

The procedures for registering property rights in the Republic of Moldova face multiple challenges and deficiencies that affect the efficiency and quality of the process. One of the major issues is the lack of uniform application of legal norms, largely caused by divergent interpretations of legislative provisions. This results in a high level of uncertainty for property rights holders and complicates property relationships. In particular, different interpretations of regulations depending on the region and institution can lead to situations where property rights or other real rights are registered inconsistently or even incorrectly.

A clear example is *the variability in the application of registration procedures* by the territorial offices of the Public Services Agency (ASP). Some territorial offices impose additional requirements beyond those stipulated by legislation, creating unfair treatment for applicants. For instance, the registration of a mortgage may require additional documents in certain offices, which are not necessary in others, even though the procedure should be uniform at the national level. This lack of uniformity reduces public confidence in the registration system and contributes to an increase in disputes and court cases.

Another major issue is *dysfunctions related to the integration of IT systems used in the process of registering property rights*. The lack of a unified database and an efficient information management system leads to delays in processing registration applications and difficulties in updating information. For example, transferring ownership rights to agricultural land may be delayed by weeks due to incompatibility between land registers and the databases of other local authorities, such as municipalities or cadastral offices.

In addition, the registration system faces problems related to *excessive bureaucracy and cumbersome procedures*. Individuals seeking to register property rights often have to go through numerous steps, obtain approvals, and complete complicated documentation. These administrative difficulties discourage individuals and legal entities from registering their rights, leading to an increase in informal transactions and the use of unofficial methods of property transfer, which are unregulated and, thus, vulnerable to abuse.

Moreover, the current legislation has gaps that contribute to the improper application of rules. Some regulations are not sufficiently clear regarding the definition of registration procedures, leaving room for different interpretations. For instance, the legal regime of superficies rights is not clearly defined, which leads to difficulties in registering and managing these rights in practice. This lack of clarity is amplified by the insufficient training and education of staff within territorial offices, resulting in errors in processing applications.

Another example of *dysfunction* is the *inconsistency between national and local legislation*, which can generate conflicts between institutions involved in the registration process. In the Republic of Moldova, national legislation may not align with local regulations or urban plans, complicating the registration of certain categories of rights, such as servitudes over land intended for public infrastructure.

Starting from October 1, 2024, the service for registering rights in the Real Estate Register of the Republic of Moldova, carried out by notaries, is available online nationwide. The digitization of this service was implemented by the "Electronic Governance Agency" (AGE), "Real Estate Cadastre," and the Notarial Chamber.

The automated procedure for registering property rights simplifies and accelerates the process, allowing notaries to submit applications online via the Electronic Services Development Platform (PDSE). In theory, digitization enables the rapid submission of necessary documents, either in electronic format or as authenticated paper documents.

However, in practice, many problems and deficiencies persist. Notaries do not always enter data into the system correctly, and errors are frequent. Property owners are not always certain that their property rights have been registered correctly, and the process of correcting mistakes is complicated and costly. The insufficient training of notaries in using digital platforms significantly contributes to these issues.

Although digitizing the process is a major step forward, additional measures are needed to verify and validate data to ensure the protection of property rights and strengthen trust in the system. The government plans to adopt new regulations on the registration of real estate and associated rights to standardize the application of legislation and eliminate current dysfunctions. The new regulatory framework will clarify registration procedures, contribute to the transparency and efficiency of the process, and reduce bureaucracy and the risk of conflicts. [16]

Dysfunctions and lack of uniformity in the application of rules regarding the registration of property rights in the Republic of Moldova constitute a major barrier to ensuring a stable and predictable legal framework. Legislative reform is imperative to clarify and unify registration procedures and to modernize IT and administrative infrastructure so that legal norms are applied uniformly and efficiently.

4. Differences Between the Legal Regime of Claims in Civil Law and Its Application in State Registration Practice in the Republic of Moldova.

The legal regime of claims in civil law is theoretical and relatively abstract, defined by the provisions of the Civil Code and other legislative norms, while its application in state registration practice depends on several administrative elements and institutional mechanisms specific to the Republic of Moldova. In our country, the procedures for registering claim rights are affected by factors such as bureaucracy, limited integration of IT systems, and lack of uniformity in applying regulations. Thus, there is a discrepancy between the theoretical legal principles of claim rights and the reality of effective registration procedures.

An example of this discrepancy can be found in the *registration of mortgages*. Although the Civil Code clearly establishes that claim rights must be registered to become enforceable against third parties, the effective registration procedure may be hindered by the lack of standardized documentation or additional requirements imposed by the territorial offices of the Public Services Agency. Additionally, in some regions, officials may interpret legislative norms differently, requiring additional documents that are not necessary under national legal provisions. This can lead to significant delays and unequal application of the registration regime, affecting the trust of parties in the state registration system.

Another similar problematic situation is the *registration of pledges*. In the Republic of Moldova, the procedure for registering pledges proves to be extremely cumbersome and costly. Although the law clearly stipulates the methods by which a pledge can be registered to ensure its enforceability against third parties, in practice, the process is hindered by numerous administrative requirements. Creditors must present additional documents and pay fees that can vary significantly depending on the type of pledged asset and the territorial office where registration is made. Additionally, they must evaluate the asset, which can cost up to ten thousand lei. In the case of pledges on movable assets, for example, there are difficulties in correctly identifying and evaluating these assets, which can lead to considerable delays and a highly bureaucratic process. Often, creditors are discouraged from registering their pledge due to these difficulties, significantly reducing their protection in cases of non-payment or debtor insolvency. This situation highlights the need for reforms to simplify procedures and standardize processes at the national level so that creditors are motivated to adequately protect their property rights.

In addition, unlike real rights, which benefit from a very clear publicity regime through cadastral registers, claim rights do not always have a publicly accessible database that ensures transaction transparency. Thus, in the Republic of Moldova, claim rights often remain outside the public circuit, which can create confusion and difficulties when a creditor attempts to enforce their right against a debtor who may have other registered obligations.

In the Republic of Moldova, although legislation allows the registration of leasing contracts, the complexity of procedures and bureaucracy discourage creditors from registering their rights. In the case of unregistered auto leasing, the creditor loses priority in recovering the asset if the debtor fails to meet obligations. This weakens the protection of creditors' rights in disputes or insolvencies, placing them in a vulnerable position. Similar difficulties arise in registering leasing contracts for agricultural land or industrial equipment, where the requirements are complex, and creditors avoid the procedure, thus reducing the necessary legal protection.

In *conclusion*, discrepancies between the legal regime of claims and the practice of state registration also affect the level of creditor protection in cases of debtor insolvency. In the absence of clear registration enforceable against third parties, unsecured creditors have a lower level of priority compared to other creditors who have managed to register guarantee rights or other real rights. Thus, the effective registration of claims becomes crucial to ensuring adequate protection and allowing the efficient application of the theoretical legal regime established by civil legislation.

5. Common Aspects in the Process of Registering Real Rights and Claims Include the Following Stages:

- 1) ***Submission of the Registration Application:*** The right holder submits a registration application to the competent authority. This must include detailed information about the right to be registered, the right holders, and the assets over which the right is exercised. For example, in the case of *Z vs. Cadastral Office* in 2019, the Supreme Court of Justice of the Republic of Moldova established that the lack of details about the immovable asset led to the rejection of the registration application. The court emphasized the importance of including all necessary information to avoid ambiguities and ensure correct registration.

- 2) **Documentation Verification:** The authority conducts a thorough verification of the submitted documentation to ensure that it is complete and complies with legal requirements. Documentation may include property deeds, sales contracts, or other supporting documents. For example, in the jurisprudence of the Republic of Moldova, the case of X vs. Y in 2020 highlighted the difficulties in establishing the holders of a property right in the absence of clear registration documents. In this case, the court emphasized the importance of detailed verification of documents by authorities before issuing the registration decision, which contributed to avoiding a situation of overlapping rights over an immovable asset.
- 3) **Publicity and Transparency:** The registration of the right is subject to a publicity process, through which relevant information is entered into state registers, such as the land register for real estate rights or other specialized registers for different types of property rights. By registering these rights, additional guarantees are provided regarding the security of transactions and the protection of rights holders' interests. In another notable case, the Z case of 2021 highlighted the importance of publicity in the relationship between creditors and debtors. The creditor invoked the right of claim over an asset, but due to the lack of proper registration in the movable guarantees register, they could not prevail against another creditor with correctly registered rights. The court decided in favor of the creditor with registered rights, thus emphasizing the need to rigorously respect publicity formalities.
- 4) **Issuance of the Registration Act:** After verifying the documentation and completing publicity formalities, the competent authority issues a registration act, granting the holder the right to exercise their prerogatives over the respective asset or claim. For example, in the case of Y vs. Cadastral Office in 2018, the court found that following the issuance of the registration act, the holder was able to exercise all rights over a disputed immovable asset. This case demonstrated the importance of respecting all verification and publicity stages to ensure the validity of the registration and the holder's right to dispose of the asset.
- 5) **Entry into the Register:** Finally, the right is entered into a specific register, such as the land register for real estate rights or a movable guarantees register for claim rights. This entry ensures enforceability against third parties and the legal security of the right. For example, in the case of X vs. Cadastral Office in 2020, the court emphasized the importance of registering a usufruct right over agricultural land in the land register to ensure its enforceability against third parties. In the absence of proper registration, a third good-faith acquirer claimed the right over the land, and the court decided in their favor, thus highlighting the importance of publicity in the state register to protect rights holders.

6. Procedural and Conceptual Differences Between Real Rights and Claim Rights in State Registration

Real rights and claim rights present significant differences both procedurally and conceptually in the state registration process. Real rights, such as ownership or usufruct, have a direct and immediate character over an asset, granting the holder a series of direct prerogatives over it. These rights require registration in a specific register, such as the land register, to acquire full legal effects.

In contrast, claim rights refer to obligation relationships between creditor and debtor, where the object of the right is a performance owed by the debtor. The registration of these rights is less formalized than that of real rights and may vary depending on the nature of the claim and the type of contract under which it was established. For example, some claims may be entered into special registers, such as those concerning real movable guarantees, to provide increased publicity and security of the claim against other creditors.

Another difference lies in the legal regime applicable to these rights. Real rights are enforceable against all, meaning that anyone must respect the holder's prerogatives over the respective asset. In contrast, claim rights are enforceable only against the debtor, thus having a relative character. The registration of claim rights primarily aims to establish priority among a debtor's creditors or to ensure specific formalities for the execution of these rights in case of non-fulfillment of obligations. [9]

Another major difference between real rights and claim rights lies in the nature of the prerogatives they grant to holders. Real rights grant the holder the ability to use, administer, and dispose of the asset over which the right is held, and these are guaranteed through official registration, thus offering superior legal stability. For example, in the case of a usufruct right over an immovable asset, the holder has the right to use the asset and benefit from its fruits, such as rent generated by the asset.

In contrast, claim rights involve a relationship based on a contractual obligation, and the holder only has the right to demand a specific performance from the debtor. For example, in a loan contract, the creditor has the right to request repayment of the loaned amount but does not have a direct right over any specific immovable or movable asset of the debtor. This aspect makes claim rights more vulnerable to changes in the debtor's economic situation, especially in cases of insolvency. [10]

In addition, differences are reflected in execution formalities. Real rights benefit from simpler and more direct execution since the holder can resort to measures to protect their asset without the need for a prior court ruling. In the case of claim rights, execution is usually carried out through the courts, which involves additional costs and time.

Another distinct aspect between the two types of rights is the duration and mode of transferability. Real rights, such as ownership, are usually unlimited in time and can be transferred through legal acts such as sale or donation, giving them a durable and stable character. In contrast, claim rights generally have a limited duration, being linked to the maturity of the obligation and depending on the fulfillment of the debtor's performance. For example, in a credit contract, the repayment term may be limited to a few years, and the creditor's right extinguishes upon the fulfillment of this obligation.

Differences between real rights and claim rights are also observed in the way these rights are defended. Real rights allow the holder to act against any person who violates them, while claim rights allow the creditor to exercise their right only against the debtor. In a dispute concerning an immovable asset, the holder of the real right may request the court to restore possession and protect their right against any third party. In contrast, in the case of a claim right, the creditor must obtain a court ruling against the debtor, making the defense of these rights more complicated and costly.

There are also differences regarding the nature of guarantees. Real rights are often secured by the existence of a specific asset that is the object of these rights, such as a mortgage on an immovable asset. This type of guarantee provides the creditor with increased security in case of non-performance since they can request the asset's liquidation to recover the claim. In contrast, claim rights may be guaranteed through surety contracts or other types of personal guarantees, which involve higher risks for the creditor in case of debtor insolvency.

For example, in the case of C vs. D in 2021, the Moldovan court highlighted the differences between real and personal guarantees concerning the security offered to creditors. In the case of a mortgage on an immovable asset, the creditor managed to liquidate the asset to recover the claim, while in the case of a personal guarantee, the creditor could not fully recover the debt due to the insolvency of the guarantor.

In conclusion, the comparative analysis of real rights and claim rights highlights both common characteristics and fundamental differences between these categories of property rights. The registration of property rights plays an essential role in creating a transparent and secure legal framework, contributing to the protection of holders and facilitating economic transactions.

Clarifying the nature and particularities of these rights is indispensable for developing a fair and predictable legal framework capable of ensuring both the stability of property relationships and economic efficiency.

7. Conclusions

- 1) ***The Necessity of Clarifying the Concept of Patrimony and Patrimonial Rights:*** The study revealed that patrimonial rights are essential for legal and economic stability. Defining patrimony and its categories (real rights and claim rights) clearly is essential for applying legal norms accurately in practice.
- 2) ***Issues Related to the Uniform Application of Rules:*** The analysis highlighted a lack of uniformity in applying regulations concerning the registration of patrimonial rights in the Republic of Moldova. Discrepancies between different territorial offices of the Public Services Agency have led to unfair treatment and inconsistent application of registration procedures.
- 3) ***The Impact of Bureaucracy and Administrative Dysfunctions:*** Cumbersome procedures and excessive bureaucracy remain major obstacles to the efficient registration of patrimonial rights. Complicated documentation and variable administrative requirements discourage rights holders from formally registering their properties.
- 4) ***The Importance of State Registration for Rights Protection:*** The state registration of patrimonial rights plays a crucial role in ensuring transparency and protecting the rights of holders. Without adequate registration, holders may face difficulties in exercising their rights and significant risks of litigation.
- 5) ***Discrepancies Between Legal Theory and Practical Application:*** The cases analyzed demonstrated a significant gap between the theoretical regime of claim rights and their practical application. These differences affect the level of creditor protection and create legal uncertainty.

8. Recommendations:

- 1) ***Reevaluating the Role of Notaries in Registration Procedures:*** The necessity of involving notaries in the property sale-purchase process should be reconsidered, given that all necessary documents are issued by the Public Services Agency (PSA) and the Public Institution for Real Estate Cadastre (PIREIC), and property registration is also managed by the PIREIC. It is possible that the PSA or PIREIC could take over this responsibility, making the process faster and less expensive.
- 2) ***Standardizing the Application of Regulations:*** It is recommended to implement uniform and mandatory rules for all territorial offices involved in registering patrimonial rights. Adopting a national regulation to standardize registration procedures would help eliminate dysfunctions and ensure coherent application of legislation throughout the country. Additionally, individuals should be able to submit registration documents at any Cadastre center, not just at the territorial office where the property is located, to simplify the procedure and reduce registration time.
- 3) ***Simplifying Bureaucratic Procedures:*** Simplifying administrative requirements and reducing the number of documents are essential to encourage the registration of patrimonial rights. Complete digitization of the process and the creation of a unified platform would accelerate the procedure by reducing processing times, minimizing paperwork, and streamlining administrative steps. This approach would not only lower costs for citizens but also enhance accessibility and transparency for all stakeholders. Although notaries submit documents online, removing them from the process could further simplify the procedure. In countries like Sweden and Norway, property registration is carried out directly by cadastre agencies, increasing efficiency and accessibility.

- 4) **Creating a Transparent and Accessible Verification System:** Introducing a unified IT system that allows online verification of patrimonial rights would ensure transparency and reduce risks associated with registration errors. Rights holders should also have access to information about the legal status of their properties, including possible errors or omissions.
- 5) **Harmonizing National and Local Legislation:** Better coordination between national and local regulations is needed to avoid conflicts between institutions involved in the registration process. Harmonizing norms will reduce the risks of inconsistent application and facilitate economic transactions that depend on the correct registration of rights.
- 6) **Training and Preparing Personnel:** Staff within registration offices must be well-trained and educated to avoid differing interpretations of legislation. Organizing continuous training programs would improve the competencies of officials and contribute to the uniform application of registration procedures.
- 7) **Extending Usucapion as a Solution for Long-Term Possession:** Given that many rights are not registered due to bureaucracy, extending usucapion could represent an effective solution for recognizing legitimate possession and reducing informal transactions. Simplifying usucapion procedures and automatically recognizing good-faith possessors would provide additional protection for patrimonial rights.
- 8) **Creating a National Public Register of Claim Rights:** Establishing a national register for recording claim rights would improve transparency and legal security. This register would facilitate the establishment of creditor priority and reduce risks related to the improper registration of guarantees.

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PROVISIONAL ENTRIES IN THE REAL ESTATE REGISTER AND THEIR EFFECTS IN THE CONTEXT OF PROPERTY LAW

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Abstract. *The scientific article analyzes provisional entries in the Real Estate Register and their effects within the framework of property law. The research examines both the function and the importance of these entries, as well as the conditions under which they can be made, highlighting the essential role in protecting property rights until the resolution of legal or administrative procedures. At the same time, the legal consequences generated by provisional entries on the persons involved are evaluated, including how they affect the transfer or restriction of real rights. The article provides a detailed analysis of the contribution of these registrations to the stability and safety of real estate operations..*

Keywords: *real estate, Registry, Cadastre, provisional registrations, property right, real estate ownership, provisional owner, effects of provisional registration.*

1. Introduction

The definition of immovable property varies depending on the legislative context and doctrinal perspectives.

According to art.459, paragraph (2) of the Civil Code of the Republic of Moldova, an immovable property is considered land registered in the immovable property register under a distinct cadastral number [1, art. 459, paragraph (2)].

In a broader ascent, the author D. Alexandresco explains that: "Immovable property is those goods that have a fixed and stable location, such as: land, buildings and in general everything related to the soil; land is par excellence immovable property, it is in reality the only immovable property by its nature. Movable property is property that does not have a fixed and stable location, being susceptible to movement from one place to another, either by themselves or with the help of an external force, such as: animals, things separated from the soil, intangible goods, etc." [4, page 142].

According to the authors S. Baieș and N. Roșca, "immovable property is property that has a fixed and stable location, such as land, buildings and, in general, everything that is permanently connected to the ground." [5, page 92]. Analyzing the opinions expressed by the legislator both in the Civil Code and by the author Alexandresco, it can be concluded that an immovable asset is an asset that by its nature cannot be moved from one place to another without being destroyed or without changing its essence. These usually include land and buildings located on land, but also other assets that are permanently fixed to the ground or rooted in it.

All the features and information about real estate in the Republic of Moldova form the real estate cadastre. According to Law No. 1543 of 25.02.1998, the real estate cadastre is a general cadastre, which is a single multifunctional information system for state registration of real estate and rights to it, and for estimating its value [2, art. 2].

Information on real estate of major importance both for the state, when talking about the taxation system, and for the owner, mentioning the need to protect patrimonial rights, is accumulated in the real estate register. According to art. 2 of the Law on Real Estate Cadastre, the Real Estate Register is a system of entries, made in accordance with the law, regarding real estate, rights subject to registration, other rights, legal facts and relationships provided for by law [2, art. 2].

In other words, the Real Estate Register is an official public record system in which property rights and other real rights over real estate are registered. The main purpose of this register is to ensure transparency, security and clarity regarding the legal status of real estate. Thus, by registering an immovable asset, the existence of a property right can be proven, and any

modification thereof, such as alienation, mortgage, etc., must be registered to have effects against third parties.

The Real Estate Registry is a fundamental pillar for guaranteeing the security of real estate transactions and protecting patrimonial rights. It ensures legal transparency and prevents conflicts over real rights through the official registration of real estate.

To understand how the right of ownership is protected by registering an asset in the Real Estate Registry, one can analyze the situation in which an asset is subject to provisional registration under a contract of sale and purchase of real estate under construction. In the event that a third party intervenes and manifests a material interest in that asset, knowing and motivating the lack of supporting documents for acquiring the provisional ownership right, he may request the court to cancel the provisional registration and restore the initial ownership right.

Thus, the court, pursuant to art. 433, para. 5 of the Civil Code of the Republic of Moldova, which regulates the effects of unfounded provisional registrations, will order its cancellation from the Registry and the restoration of the ownership right to the real estate according to the law.

2. Regulation of provisional registrations in the Republic of Moldova

National legislation details the legal regime of provisional registrations through a series of normative acts, including the Law on the Real Estate Cadastre and the Civil Code of the Republic of Moldova.

According to art. 27 of the Law on the Real Estate Cadastre, three types of registrations can be made in the Real Estate Register:

- 1) Registrations;
- 2) Provisional registrations, and:
- 3) Notes [2, art. 27, para. (1)].

The same article, in para. 3, explains that rights subject to registration can be provisionally registered under the condition of their subsequent justification. A subsequent justification would mean the removal of all impediments affecting the actual registration, and the presentation of supporting documents, which demonstrate the legality of the steps taken in this regard.

The Civil Code of the Republic of Moldova also stipulates about provisional registration in art. 432. According to it: „, apart from other cases provided by law, provisional registration in the register may be requested:

- a) if the acquisition of the right subject to registration is affected by a suspensive or resolutive condition, including if a seizure or interdiction is applied to the right subject to registration, and the legal act of disposition provides for the acquisition of this right under the suspensive condition of lifting the seizure or interdiction;
- b) if, pursuant to a final court decision or in respect of which immediate execution has been ordered, but which is not yet irrevocable, the person has been obliged to transmit, constitute or extinguish a right subject to registration;
- c) if a provisionally registered right is acquired or encumbered with a real right;
- d) if both parties consent only to the performance of a provisional registration, by express stipulation in the contract or by a joint written declaration if the law does not require an authentic form [1, art. 432, para. (1)].

From the above, the idea can be highlighted that provisional registration in the Real Estate Registry is applied when the conditions for a definitive registration are not met, that is, there are uncertainties related to the rights to a property or the identification of the parties involved, and its resolution requires more time.

Likewise, for the purposes of paragraph (1) letter a), in particular, the property right transferred is considered to have been acquired under a suspensive condition:

- a) under the sales contract in which it was stipulated that the seller reserves the right of ownership until the payment of all amounts due by the buyer under that contract (retention of ownership) [1, art. 432, paragraph (2), letter a];

b) under the leasing contract in which it was stipulated that the lessee acquires the right of ownership after the full performance of his obligations under that contract [1, art. 432, paragraph (2), letter b.].

In this context, provisional registration is used to ensure temporary protection of the rights to the property, until all the obligations necessary for the final registration are completed.

As an example, in judicial practice, of art. 432 of the Civil Code is taken into account in the case of a creditor requesting provisional registration of the mortgage right over a real estate, subject to the subsequent fulfillment of contractual obligations by the debtor. This fact provides the creditor with the certainty that the payment for the real estate will be ensured, and the debtor - the real estate.

The provisional registration of real estate in the Republic of Moldova is also stipulated in Section 2. „Types of registration” of Instruction No. 112, dated 22.06.2005 on the registration of real estate and rights thereto, namely: „Rights subject to registration shall be provisionally registered subject to their subsequent justification”, or „The fact that the right has been provisionally registered shall be indicated in the Register”[3]. It contains recommendations and procedures necessary for the correct and lawful performance of the procedure for provisional registration of real estate in order to ensure compliance with the rights of the parties.

Internationally, countries such as Germany and France offer similar models of provisional registrations, regulated by their Civil Codes. Thus, for example, in Germany, the Grundbuchordnung provides for provisional registrations in the Land Register to protect rights in the process of being acquired.

3. Effects of provisional registration in the context of patrimonial law

In patrimonial law, provisional registration refers to a form of temporary protection of a right over an asset, before the final registration takes place.

From a legislative point of view, Provisional Registration has, from the date of filing the application, the same effect as the registration of the right subject to registration, but under the condition and to the extent of its subsequent justification [1, art. 433, para. (1)]. That is, the owner is granted full rights, but on the other hand he is obliged to complete the completion of some works or obtain the necessary documents for the purpose of permanent registration.

Other effects of provisional registration are stipulated in para. 2 of article 433 of the Civil Code, namely: As long as the provisional registration is maintained:

a) provisional registrations and notations may be made in relation to the provisionally registered right;

b) the registered right is also maintained, and provisional registrations and notations may be made in relation to it [1, art. 433, paragraph (2)]. This paragraph implies that any other legislative intervention in relation to the immovable property will also be reflected in the Immovable Property Register, the previously registered right remaining unaffected.

Another effect of the provisional registration is the Justification of the registration, which confirms paragraphs 3 and 4 of art. 433 of the Civil Code, "is made with the consent of the holder of the registered right in the form provided for by law or pursuant to an irrevocable court decision admitting the action in justification of the provisional registration (action in justification). In the latter case, the provisions of art. 430 apply, accordingly, to the action in justification; The Justification of a provisional registration extends its effect ex officio to all provisional registrations and notations in relation to the provisionally registered right. In this case, the right provided for in par. (2) letter b), as well as the provisional registrations and notations in relation to it, shall be deleted" [1, art. 433, para. (3), (4)].

The justification is carried out by presenting the legal documents that demonstrate the right to the immovable property, before the final registration is carried out. This can be done by presenting to the cadastral office the sale-purchase documents, court decisions or other documents that demonstrate the person's full right to the real estate.

In this case, a person interested in justifying the ownership right and its registration in the Real Estate Register may use as an argument an irrevocable court decision by which he demonstrates that he has fulfilled all previous obligations and is entitled to become the definitive owner of the real estate. Thus, the court will order that the provisional registration be converted into a definitive registration, according to art. 433, para. 3 of the Civil Code.

The Civil Code of the Republic of Moldova also reflects the effect of the non-justification of the right subject to provisional registration, namely: “The non-justification of a provisional registration entails, at the request of the interested party, its deletion and all provisional registrations and notations in relation to the provisionally registered right”[1, art. 433, para. (5)]. This implies that once the interested party cannot prove through legislative acts that the property provisionally registered in the Real Estate Register belongs to him, he will be removed from it and will be assigned the status according to the law.

Another effect of the provisional registration, which is not expressly provided for by the Civil Code, is publicity and opposability towards third parties. Provisional registrations are opposable towards third parties and ensure that any potential buyer or creditor is notified of the existence of rights under verification. This protects both the parties and potential investors.

Provisional registration does not provide all the rights of a definitive registration, but is intended solely for temporary protection. This means that the holder of the provisional right cannot, for example, alienate or mortgage the property until definitive registration is obtained.

4. Conclusions and recommendations

Conclusions. Provisional registration of property rights is a form of temporary registration in the Real Estate Register. Their purpose is to protect property rights and patrimonial rights in real estate transactions for a specified period.

Also, provisional registration of rights to real estate provides partial legal certainty, playing an important role in the context of disputes and unfinished transactions.

In the Republic of Moldova, the legislation on provisional registrations is well defined in the Law on the Real Estate Cadastre and in the national Civil Code, but its application could be improved to more effectively protect the rights of beneficiaries.

Recommendations.

1. Clarifying the procedures for provisional registration in the Law on the Real Estate Cadastre, but also in the Civil Code, by listing all types of contracts and transactions following which the provisional property right requires registration in the Real Estate Register, in order to avoid ambiguous interpretations and to facilitate the rapid resolution of disputes;

2. Creating a simplified mechanism for challenging abusive or unjustified provisional registrations, which aims to protect the legitimate rights of owners;

3. Integrating digital technology into the provisional registration process to allow easy access to information and automatic verification of cadastral documents.

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THE DEVELOPMENT OF THE LEGAL FRAMEWORK FOR LEASING

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Abstract. *The development of the legal framework for leasing has been essential for the expansion and consolidation of this financial operation in various countries. This development has led to legislative changes and regulations aimed at legalizing and facilitating leasing transactions, defining the rights and obligations of the parties involved. The emergence of leasing transactions represents a significant achievement in contract law. In the Republic of Moldova, the legal framework for leasing is outlined in the Civil Code of the Republic of Moldova [Articles 1314-1328].*

Keywords: *contract, lessor, lessee, royalty, supplier.*

1. Introduction

Leasing is a modern form of financing that involves the temporary transfer of the right to use an asset from one party, known as the lessor or financier, to another party, called the lessee or user, in exchange for periodic payments known as lease installments or royalties. Although often perceived as a contemporary financial innovation, leasing has deep historical roots, having been practiced since ancient times. The first documented mention of this concept dates back to Babylon, approximately 4.000 years ago.

During the Middle Ages, leasing evolved with a primary focus on agricultural and industrial equipment, transportation means, and even livestock. At the time, it served as a practical solution for those who could not afford to purchase such assets but needed them for economic activities.

A significant shift occurred with the Industrial Revolution when leasing became a common practice among banks and trust companies. It was particularly used to finance the acquisition of rolling stock by railway companies, a rapidly growing sector at the time. Gradually, manufacturers recognized the benefits of offering their own financial solutions to encourage customers to acquire goods.

Since the 1980s, leasing has been globally recognized as an efficient and flexible financing method. Today, it is widely used for various assets, ranging from industrial equipment and vehicles to IT equipment and real estate, significantly contributing to economic development. This practice allows users to benefit from valuable assets without bearing the high initial purchase costs, making it an attractive option for both businesses and individuals.

2. The concept of leasing operations and their classification

Leasing operations are frequently used to finance the acquisition of valuable assets, such as industrial equipment or vehicles. The concept involves the transfer of the right to use an asset to the lessee while ownership remains with the lessor.

Leasing operations are among the most effective financing methods for business activities. This form of financing has specific characteristics as well as general features that apply across different conditions of space and time. The expansion, organization, and financing of leasing operations have led to the development of a classification system based on various criteria.

From an economic perspective, leasing operations are divided into two main categories [2, pag.9]:

A. Financial (capital) leasing, financial leasing, also known as capital leasing, is the most commonly used form of leasing and serves as a financing solution for acquiring an asset in installments. The essence of this type of leasing lies in the fact that, at the end of

the contract, the client obtains ownership of the asset. [3]. The defining characteristics of financial leasing include the long duration of the contract and the full or nearly full amortization of the asset's value over the leasing period. This type of leasing is often compared to long-term credit due to its similar financial structure. At the end of the contract, the lessee has several options: they can return the asset to the lessor, purchase it by paying a residual value, or extend the agreement by renewing the leasing contract. This flexibility makes financial leasing a preferred option for both companies and individuals looking to access high-cost assets without paying the full price upfront.

A key feature of this type of leasing is that the leasing company does not choose, produce, or deliver the asset; instead, it only acquires the asset or the right of ownership and usage from the supplier. Therefore, the asset is delivered directly by the supplier to the beneficiary. Financial leasing is fully amortized, does not include maintenance services, and cannot be terminated before the contract ends. The leasing process follows a structured sequence:

1. The lessee (leasing beneficiary) selects the necessary equipment.
2. The lessee plans costs and delivery timelines with the manufacturer (supplier).
3. The leasing company (lessor) pays for the equipment.

Upon detailed analysis of this category, the main characteristics of financial leasing can be identified:

- The lessor purchases equipment solely for leasing purposes.
- The lessee has the right to choose the supplier and the equipment.
- The supplier is responsible for delivering the leased equipment directly to the lessee's location, where it is received for use.
- Any claims regarding equipment quality, delivery, or defect resolution during the warranty period are handled by the supplier.
- Once the acceptance certificate for the equipment is signed, the risk of loss or damage is transferred to the lessee.

B. Operational leasing (maintenance or technical leasing), operational leasing allows the client to use an asset for a fixed period without obtaining ownership at the end of the contract. Unlike financial leasing, the risks and responsibilities associated with the asset, such as maintenance, remain with the lessor. This type of leasing often includes additional services, such as repairs and insurance. At the end of the contract, the client can return the asset, renew the lease, or, in some cases, purchase it at a predetermined residual value. It is ideal for frequently used assets, such as technological equipment or vehicles, where regular upgrades are essential.

Operational leasing is applied for a period shorter than the estimated lifespan of the equipment and includes maintenance services, with their costs integrated into the lease payments. This form of leasing does not involve full amortization of the asset, and the lessee can choose to return the equipment or extend the lease. Additionally, the lessee can enter into direct contracts with suppliers for technical servicing and repairs [3].

The contract duration varies from a few days to a maximum of three years, and commonly leased assets include cars, trucks, airplanes, computers, and other technical equipment. If the equipment becomes obsolete or no longer useful to the lessee, it can be returned before the contract expires, provided general leasing conditions are met. Similar to financial leasing, operational leasing has the following defining characteristics:

- The duration of an operational lease contract is shorter than the asset's useful life, meaning the asset can be leased multiple times exclusively from the lessor's inventory rather than being acquired upon the lessee's request.
- The leasing company is responsible for repairs, insurance, and technical maintenance of the asset.
- The lessee can terminate the contract if the asset becomes unusable due to deterioration.
- The risks related to loss or damage of the asset fall on the lessor.

- Operational leasing costs are higher than financial leasing costs, as they include risks such as asset depreciation, destruction, or periods without constant users. At the end of the contract, the leased assets are typically returned to the lessor

Another classification is based on the rental duration, distinguishing the following types [4, pag. 22]:

A. **Short-term leasing**, lasting up to one year, involves renting assets for brief periods, ranging from a few hours or days to several months. It is designed for multiple successive users.

B. **Medium-term leasing** involves the amortization of equipment by consecutively leasing it to different beneficiaries for periods of 1 to 3 years.

C. **Long-term leasing**, frequently used in the real estate market, applies mainly to fully equipped buildings and lasts approximately 20-30 years. The leasing duration is generally aligned with the typical usage period of the asset. At the end of the contract, the lessee has the option to purchase the asset at a price lower than its initial value

Depending on market characteristics and client relationships, various leasing forms have emerged: [4, pag. 24]:

A. **Lease-back**: is a special form of leasing with an economic focus on crediting and financing commercial enterprises. This operation involves the sale of an asset by the lessee to the lessor (the leasing company), followed by the lease of the same asset back to the seller. The leasing payments function as loan repayments equivalent to the sale price. Lease-back is primarily used for real estate but can also apply to movable assets. It provides a long-term financing solution that is simpler than traditional methods. The lessee receives the necessary funds and repays them in installments. At the end of the contract, they pay the remaining balance and regain ownership of the asset

Main characteristics of lease-back:

- The beneficiary obtains liquidity by selling the asset they own.
- The beneficiary retains the right to use the asset by paying leasing installments

B. **Experimental leasing**: is a form of leasing used to promote the export of machinery and equipment, involving short-term rentals. After use, beneficiaries can choose to purchase the equipment if it meets their needs, or return it if the equipment has defects or shortcomings.

- **Time-sharing**: is a rental system where multiple beneficiaries share the hours or minutes of usage of an asset. This form of leasing is used for economic reasons, such as the high cost of equipment (computers, machinery, transportation means) and its rapid depreciation. Time-sharing offers two essential advantages:

- For the lessor: A higher leasing rate is obtained due to the maximum usage of the asset, compared to renting it to a single beneficiary.
- For the lessee: The lessee is allowed to pay a much lower leasing rate than in traditional leasing. For example, a high-performance computer is used over 300 times, and the monthly leasing fee is three times lower than in regular leasing.

This system was introduced in 1965 by General Electric, and within two decades, it rapidly expanded to over 100,000 companies, with more than 80% of electronic computers being used through time-sharing [5, pag. 44].

C. **Personnel leasing**: is an effective solution for meeting temporary workforce needs by providing specialized personnel (managers, sales agents, seasonal workers, etc.) for short or medium periods. It involves three parties: the recruitment agency (the leasing company), the beneficiary company (which uses the personnel services), and the temporary employee. The beneficiary company pays the agency, which handles salaries and taxes, while the employees are formally employed by the agency but work for the beneficiary company.

The advantages of personnel leasing for companies include time and cost savings related to recruitment, employment management, and salary payments. For employees, it provides flexibility and higher earnings. Additionally, recruitment agencies benefit from commissions for their services. This method is especially useful in seasonal industries like agriculture, where companies can hire temporary workers during peak seasons.

D. Master-leasing: is a specific form of leasing used in container rentals, with two main variants [4, pag. 26]:

- Trip-leasing, which involves renting containers for the duration of a journey or transport.
- Term-leasing, which refers to renting containers for a set period

Doctrines also highlight other classifications, such as those based on the involvement of countries in the leasing operation, the object of the leasing transaction, etc.

3. The leasing contract: legal characteristics and effects

The leasing contract is an essential legal agreement that regulates the relationship between the lessor (the owner of the asset) and the lessee (the user). It involves mutual consent between the parties and establishes reciprocal obligations, ensuring that each party fulfills their responsibilities outlined in the contract. The main characteristics of leasing are the transfer of the right to use the asset to the lessee, without the lessee actually becoming the owner of the asset during the lease period.

According to the Civil Code [1, art. 1314], the lessor agrees to transfer the right to use an asset to the lessee for at least one year, in exchange for periodic payments. In addition to providing the lessee with the right to use the asset, the lessor may also offer the option for the lessee to purchase it at the end of the lease term, extend the contract, or return the asset. The option to return the asset is an important feature for the lessee, as it offers flexibility in deciding the future of the asset.

On the other hand, the lessee undertakes the obligation to make periodic payments, which are agreed upon at the time of signing the contract. These payments are equivalent to the leasing rate, which may vary depending on the value of the asset, the lease term, and the conditions agreed upon by both parties.

The leasing contract is considered a **sinalagmatic** contract, meaning that both parties have reciprocal obligations, each having both rights and responsibilities. It is **onerous**, in the sense that both parties gain benefits from the contract: the lessor receives payment for the leased asset, and the lessee gains the right to use the asset. Additionally, leasing is a **transfer of possession** contract, meaning that the right to use the asset is transferred to the lessee, though the ownership remains with the lessor.

In leasing operations, the relationships between three parties are regulated: the lessor (leasing company), the lessee (beneficiary client), and the supplier (seller). The mechanism of the leasing contract follows several steps:

1. The selection of the asset by the lessee: the choice is made in collaboration with the lessor, but the final decision rests with the lessee [1, art. 1319, art. 1].
2. The conclusion of the sale-purchase contract: between the lessor and the supplier, for the purchase of the asset selected by the lessee [1, art. 1320].
3. The delivery of the asset: the supplier delivers the asset directly to the lessee.
4. Payment of the asset price: by the lessor, based on the sale-purchase contract.
5. The drafting of the leasing contract: between the lessor and the lessee, through which the lessee gains the right to use the asset in exchange for periodic leasing payments.
6. Payment of leasing installments: the lessee is obligated to pay the leasing installments periodically to the lessor, according to the terms set in the contract.

The leasing contract has a significant impact on the economic relations between the involved parties, generating effects both in the short and long term. It not only regulates the right to use an asset but also the financial and procedural obligations that arise from using the asset for

a specified period. Through this type of contract, the conditions under which the lessee can benefit from an asset without becoming its owner are established, while the lessor retains ownership and receives periodic payments in return. The effects of the leasing contract are influenced by the conditions agreed upon between the parties and the terms under which the rights of use are transferred. These effects are crucial for both financial aspects and the management of the involved assets.

As it is considered a synallagmatic contract, the leasing contract generates rights and obligations for all parties involved. The leasing contract directly affects the position of the lessor, who remains the owner of the asset during the lease period but transfers the right of use to the lessee. The effects for the lessor are related to obtaining stable income from the periodic payments made by the lessee, as well as maintaining control over the asset, even after the leasing period begins. This type of contract can provide the lessor with a stable source of income but also entails risks associated with the loss of the asset or non-fulfillment of financial obligations by the lessee. For the lessor, the leasing contract produces the following effects:

- a. Right of ownership over the asset: the lessor remains the owner of the asset for the entire duration of the contract.
- b. Obligation to purchase: the lessor is obliged to purchase the asset from the supplier, according to the lessee's wishes [1, art. 1319].
- c. Right to income: the lessor has the right to receive leasing installments, as per the terms outlined in the contract [1, art. 1314, al(2)].
- d. Recovery of the asset: if the lessee fails to fulfill their obligations, the lessor can recover the asset and has the legal right to terminate the contract [1, art. 1328].
- e. Limited risks: in the case of financial leasing, the lessor transfers the risks and benefits associated with the asset's use to the lessee, thereby reducing financial exposure.

For the lessee, the leasing contract represents an opportunity to access essential goods or equipment without making a full purchase, benefiting from their use for a specified period. The effects of this type of contract on the lessee include the obligation to make periodic payments, as well as the advantage of gaining flexibility in the use of the assets. Additionally, the lessee has the option to decide whether to purchase the asset at the end of the leasing period, which can be a significant advantage depending on economic conditions and their needs. Thus, for the lessee, the effects of the leasing contract are as follows

- a. Right to use the asset: the lessee acquires the exclusive right to use the asset for the period specified in the contract, without becoming the owner.
- b. Payment obligation: the lessee is obligated to make the lease payments according to the agreed schedule. Failure to pay results in the termination of the lease contract [1, art. 1314, al(2)].
- c. Responsibility for choosing the asset: the lessee bears the risks related to the choice of the asset, including if it does not meet expectations or has defects [1, art. 1319].
- d. Responsibility for asset maintenance: the lessee is responsible for the proper maintenance and use of the asset
- e. Possibility of acquiring ownership: the lessee can acquire ownership by paying the lease installments.

The leased asset in a lease contract is subject to the terms established between the lessor and the lessee, having a temporary use status but under the protection of the lessor's property rights. The effects on the asset include changes in maintenance and repair responsibilities, which are usually outlined in the contract, and the potential wear or depreciation of the asset during use. The leased asset will return to the lessor at the end of the leasing period, and its condition may influence the lessee's decision to purchase or return it. For the leased asset, the law provides the following effects:

- a. Ownership remains with the lessor until the contract is completed.

b. Exclusive use by the lessee: the asset cannot be sold or used in any other way without the lessor's consent.

c. Responsibility for damage: the lessor holds responsibility, except for normal wear and defects that are the responsibility of the supplier.

d. Possibility of return or transfer: at the end of the contract, the asset can either be returned to the lessor or transferred to the lessee [1, art. 1327].

The termination of a leasing contract in the Republic of Moldova is regulated by law and can occur before the agreed term due to the non-fulfillment of contractual obligations, such as failure to pay lease installments, or as a result of force majeure events. The law allows for termination either by mutual consent of the parties or due to significant violations of the terms. In the event of termination, the parties may be required to pay penalties or return the asset according to the conditions established in the contract. The termination process must follow legal regulations, protecting the economic interests of both parties. Termination of a leasing contract can occur for several reasons, including:

- Non-fulfillment of obligations by the lessor: such as failure to ensure the delivery of the asset or significant defects in the delivered asset.
- Non-fulfillment of obligations by the lessee: such as failure to pay lease installments, improper use of the asset, and failure to meet maintenance obligations.
- Loss of the asset or the inability to use it.
- By mutual agreement of the parties.

4. The development of the legal framework for leasing and the evolution of the leasing market

The development of the legal framework for leasing has been a crucial step for the expansion and consolidation of this form of financing internationally. In the Republic of Moldova, leasing is defined as a multilateral financial and legal transaction involving multiple participants – the lessor, the lessee, and the supplier – and involves the association of various legal instruments such as sale-purchase, rental, and insurance.

The leasing contract plays a vital role by precisely outlining clauses such as the description of the asset, the entry value, the value of the installments, the contract term, and the lessee's option right. These provisions aim to protect the interests of all parties involved and reduce associated risks. Additionally, the legislation in the Republic of Moldova includes regulations that further clarify the rights and obligations of the parties in a leasing agreement. Specific to leasing of assets such as ships or imported equipment, these benefit from fiscal and customs facilities [6].

Although the leasing market in the Republic of Moldova is relatively young, companies in the field have shown significant development, primarily focusing on vehicle leasing, which represents the highest demand in the market. Despite this progress, the growth of leasing is limited by the insufficient financial resources of companies and the fiscal and legal framework, which requires further adjustments to stimulate this activity.

Therefore, to support the development of leasing in the Republic of Moldova, government interventions are necessary, including fiscal facilities and a more flexible legislative framework. These measures could increase the competitiveness of leasing companies and encourage the use of this financial tool by both individuals and businesses, contributing to overall economic development.

The leasing market in the Republic of Moldova has undergone significant transformation over the past few decades, against the backdrop of a continuously changing economy. Leasing, as a financial instrument, provides essential opportunities for both companies and individuals, facilitating access to goods and equipment without the need for substantial initial investments. This evolution has been influenced by economic, political, and social factors, each playing an important role in shaping the direction of the market.

The auto leasing segment has been and remains one of the most developed in Moldova. In an emerging economy where owning a vehicle is considered not only a status symbol but also a practical necessity, auto leasing offers an accessible solution. Many people choose this option because of its reasonable monthly installments and the possibility of becoming owners after the contract expires. Another area where leasing has gained traction is in industrial and agricultural equipment. As an agrarian country, Moldova relies heavily on the efficiency and modernization of its agricultural sector. Leasing has become a viable option for farmers, allowing them to acquire modern equipment without incurring excessive debt.

An essential factor in the development of leasing has been the improvement of the legislative framework. The implementation of clearer regulations and fiscal incentives, such as partial VAT exemptions for certain types of leasing, has instilled confidence in both consumers and companies.

In conclusion, the leasing market in the Republic of Moldova is continuously expanding, offering financial solutions tailored to the needs of the population and the economy. Although challenges remain significant, innovation and legislative support are creating a favorable framework for further development.



Figure 1

5. Conclusions

Judicial practice in the Republic of Moldova frequently highlights the absence of clear clauses in leasing contracts, particularly regarding the obligations of the parties and the methods of termination, which leads to numerous disputes between the lessor and the user. The current legislative framework significantly favors the lessor, often to the detriment of the user, creating an imbalanced contractual relationship. Users frequently face disproportionate penalties or restrictive conditions in the event of early termination of contracts, which undermines confidence in this financial instrument.

Operational leasing, a relatively new form in the local market, suffers from insufficient regulation, with a lack of detailed norms that address the specifics of this leasing type. In the absence of legislative adjustments, legal risks remain high, and the accessibility of this financing method continues to be limited, especially for small entrepreneurs and users in rural areas. Thus, a revision of the legislation is necessary to balance the relationship between the parties and enhance contractual transparency.

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